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ANALYTICAL REPORT

PREPARED FOR

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Generated 5/23/2024 4:40 AM

JOB DESCRIPTION

RVAAP FWGW

JOB NUMBER

280-191098-1

Eurofins Denver
4955 Yarrow Street
Arvada CO 80002

See page two for job notes and contact information.

my EOL

Eurofins Denver

Job Notes

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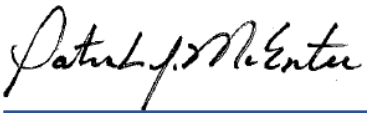

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

GC Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

HPLC/IC

Qualifier	Qualifier Description
B	Blank contamination: The analyte was detected above one-half the reporting limit in an associated blank.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
280-191098-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Receipt
The samples were received on 5/7/2024 9:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.0°C, 0.1°C and 0.3°C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

Method 8260D - Volatile Organic Compounds (GC/MS)
Samples DET-003-240401-GW (280-191098-1), DET-003-240401-GW (280-191098-1MS), DET-003-240401-GW (280-191098-1MSD), DET-003-240402-GW (280-191098-2), FWGTB-240401-TB001 (280-191098-3) and DET-004-240401-GW (280-191098-5) were analyzed for Volatile Organic Compounds (GC/MS). The samples were prepared on 5/8/2024, 5/9/2024, 5/10/2024 and 5/13/2024 and analyzed on 5/10/2024, 5/13/2024, 5/14/2024 and 5/18/2024.

Method 8270E - Semivolatile Organic Compounds (GC/MS)
Samples DET-003-240401-GW (280-191098-1), DET-003-240401-GW (280-191098-1MS), DET-003-240401-GW (280-191098-1MSD), DET-003-240402-GW (280-191098-2) and DET-004-240401-GW (280-191098-5) were analyzed for Semivolatile Organic Compounds (GC/MS). The samples were prepared on 5/13/2024 and analyzed on 5/14/2024.

The following samples DET-003-240401-GW (280-191098-1), DET-003-240401-GW (280-191098-1[MS]), DET-003-240401-GW (280-191098-1[MSD]), DET-003-240402-GW (280-191098-2) and DET-004-240401-GW (280-191098-5) in preparation batch 280-653130 including the MB LCS/LCSD over concentrated leaving about 50-100 uL.

The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 280-653130 and analytical batch 280-653283 recovered outside control limits for the following analytes: 4-Nitrophenol and Di-n-butyl phthalate. The LCS and the LCSD recovered within recovery limits for all analytes.

Method 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)
Samples DET-003-240401-GW (280-191098-1), DET-003-240401-GW (280-191098-1MS), DET-003-240401-GW (280-191098-1MSD), DET-003-240402-GW (280-191098-2) and DET-004-240401-GW (280-191098-5) were analyzed for Semivolatile Organic Compounds (GC/MS SIM). The samples were prepared on 5/8/2024, 5/9/2024, 5/13/2024 and 5/21/2024 and analyzed on 5/9/2024, 5/10/2024, 5/14/2024 and 5/22/2024.

The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 280-652726 and analytical batch 280-652894 recovered outside control limits for the following analytes: Dibenz(a,h)anthracene.

Method 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography
Samples DET-003-240401-GW (280-191098-1), DET-003-240401-GW (280-191098-1MS), DET-003-240401-GW (280-191098-1MSD), DET-003-240402-GW (280-191098-2) and DET-004-240401-GW (280-191098-5) were analyzed for Polychlorinated Biphenyls (PCBs) by Gas Chromatography. The samples were prepared on 5/9/2024, 5/10/2024 and 5/21/2024 and analyzed on 5/10/2024, 5/13/2024 and 5/22/2024.

Method 8081B - Organochlorine Pesticides (GC)
Samples DET-003-240401-GW (280-191098-1), DET-003-240401-GW (280-191098-1MS), DET-003-240401-GW (280-191098-1MSD), DET-003-240402-GW (280-191098-2) and DET-004-240401-GW (280-191098-5) were analyzed for Organochlorine Pesticides (GC). The samples were prepared on 5/10/2024, 5/15/2024 and 5/21/2024 and analyzed on 5/10/2024, 5/13/2024, 5/16/2024 and 5/22/2024.

Surrogate DCB Decachlorobiphenyl recovery for samples DET-003-240401-GW (280-191098-1), DET-003-240401-GW (280-191098-1[MS]) and DET-003-240401-GW (280-191098-1[MSD]) in preparation batch 280-652915 and analytical batch 280-653121 was outside control limits. Samples sent back for re-extraction.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for samples DET-003-240401-GW (280-191098-1), DET-003-240401-GW (280-191098-1[MS]) and DET-003-240401-GW (280-191098-1[MSD]) in preparation batch 280-652915 and analytical batch 280-653121 were outside control limits for Aldrin. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / duplicate (LCS/D) recoveries are within acceptance limits.DET-003-240401-GW (280-191098-1), DET-003-240401-GW (280-191098-1[MS]) and DET-003-240401-GW (280-191098-1[MSD])

DCB Decachlorobiphenyl surrogate recovery for the following samples was outside acceptance limits (low biased) on the primary column: DET-003-240401-GW (280-191098-1[MSD]) and DET-004-240401-GW (280-191098-5). The recovery is within acceptance criteria on the secondary column, therefore data is being reported from the secondary column.

The following samples DET-003-240401-GW (280-191098-1), DET-003-240401-GW (280-191098-1[MS]) and DET-003-240401-GW (280-191098-1[MSD]) in preparation batch 280-653452 was re-prepared outside of preparation holding time due to Surrogate low. Method 8081

DCB Decachlorobiphenyl surrogate recovery for the following samples was outside acceptance limits (low biased) on the primary column: DET-003-240401-GW (280-191098-1). The recovery is within acceptance criteria on the secondary column, therefore data is being reported from the secondary column.

Surrogate recovery for the following samples were outside control limits: DET-003-240401-GW (280-191098-1[MS]) and DET-003-240401-GW (280-191098-1[MSD]). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8330B - Nitroaromatics and Nitramines (HPLC)
Samples DET-003-240401-GW (280-191098-1), LL1mw-081-240401-GW (280-191098-4), DET-004-240401-GW (280-191098-5), LL3mw-247-240401-GW (280-191098-7) and LL3mw-248-240401-GW (280-191098-8) were analyzed for Nitroaromatics and Nitramines (HPLC). The samples were prepared on 5/8/2024, 5/10/2024 and 5/17/2024 and analyzed on 5/11/2024, 5/13/2024, 5/14/2024, 5/15/2024, 5/17/2024 and 5/18/2024.

In preparation batch 280-652898, the following samples required filtration to reduce matrix interferences: DET-003-240401-GW (280-191098-1), LL1mw-081-240401-GW (280-191098-4), LL3mw-247-240401-GW (280-191098-7) and LL3mw-248-240401-GW (280-191098-8).

In preparation batch 280-652898, the following samples: DET-003-240401-GW (280-191098-1) and LL3mw-248-240401-GW (280-191098-8) were decanted prior to preparation due to insufficient headspace for the addition of sodium chloride.

The laboratory control sample and laboratory control sample duplicate (LCS/LCSD) for preparation batch 280-652898 and analytical batch 280-653063 recovered outside control limits for the multiple analytes. See QC report for detail. The associated samples are impacted: DET-003-240401-GW (280-191098-1), LL1mw-081-240401-GW (280-191098-4), DET-004-240401-GW (280-191098-5), LL3mw-247-240401-GW (280-191098-7) and LL3mw-248-240401-GW (280-191098-8). The samples were sent back for re- extraction.

In preparation batch 280-653565, the following samples required filtration to reduce matrix interferences: LL1mw-081-240401-GW (280-191098-4), LL3mw-247-240401-GW (280-191098-7) and LL3mw-248-240401-GW (280-191098-8).

In preparation batch 280-653565, the following samples: LL1mw-081-240401-GW (280-191098-4), LL3mw-247-240401-GW (280-191098-7) and LL3mw-248-240401-GW (280-191098-8) were decanted prior to preparation as sample bottles contained insufficient headspace for the addition of sodium chloride.

In preparation batch 280-653565, the following samples were re-prepared outside of preparation holding time due to low LCS: DET-003-240401-GW (280-191098-1), LL1mw-081-240401-GW (280-191098-4), DET-004-240401-GW (280-191098-5), LL3mw-247-240401-GW (280-191098-7) and LL3mw-248-240401-GW (280-191098-8).

In preparation batch 280-653565, insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD), so an LCS/LCSD was prepared instead.

The %RPD between the primary and confirmation column exceeded 40% for RDX for the following sample: LL3mw-248-240401-GW (280-191098-8) in preparation batch 280-652898 and analytical batch 280-653063. The results from both columns has been qualified and reported in accordance with the laboratory's QAS.

The method blank(MB) in the confirmation instrument associated with preparation batch 280-652898 and analytical batch 280-653069 contained analyte RDX greater than one-half the LOQ. The analyte was ND in the MB in the primary instrument. The analyte is reported from both instrument due to dual column RPD is >40%. The associated sample is impacted: LL3mw-248-240401-GW (280-191098-8).

The following samples in preparation batch 280-652898 and 280-653565 and analytical batch 280-653063 were re-extracted due to low LCS/LCSD recovery and low surrogate recovery in samples: DET-003-240401-GW (280-191098-1), LL1mw-081-240401-GW (280-191098-4), DET-004-240401-GW (280-191098-5), LL3mw-247-240401-GW (280-191098-7) and LL3mw-248-240401-GW (280-191098-8). See QC report for detail. LCS/LCSD recovery and surrogate recovery are within control limit in the re-extraction. Both original and re-extraction are reported.

Method 6010D - Metals (ICP)
Samples DET-003-240401-GW (280-191098-1), DET-003-240401-GW (280-191098-1MS), DET-003-240401-GW (280-191098-1MSD), DET-003-240402-GW (280-191098-2) and DET-004-240401-GW (280-191098-5) were analyzed for Metals (ICP). The samples were prepared on 5/8/2024 and analyzed on 5/13/2024 and 5/14/2024.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 280-652548 and analytical batch 280-653318 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 6020B - Metals (ICP/MS)
Samples DET-003-240401-GW (280-191098-1), DET-003-240401-GW (280-191098-1MS), DET-003-240401-GW (280-191098-1MSD), DET-003-240402-GW (280-191098-2) and DET-004-240401-GW (280-191098-5) were analyzed for Metals (ICP/MS). The samples were prepared on 5/8/2024 and analyzed on 5/9/2024 and 5/10/2024.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 280-652548 and analytical batch 280-652887 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.DET-003-240401-GW (280-191098-1[MSD])

Method 7470A - Mercury (CVAA)
Samples DET-003-240401-GW (280-191098-1), DET-003-240401-GW (280-191098-1MS), DET-003-240401-GW (280-191098-1MSD), DET-003-240402-GW (280-191098-2) and DET-004-240401-GW (280-191098-5) were analyzed for Mercury (CVAA). The samples were prepared on 5/21/2024 and analyzed on 5/22/2024.

Method 350.1 - Nitrogen, Ammonia
Sample LL12mw-246-240401-GW (280-191098-6) was analyzed for Nitrogen, Ammonia. The sample was analyzed on 5/14/2024.

Method 9012B - Cyanide, Total and/or Amenable
Samples DET-003-240401-GW (280-191098-1), DET-003-240401-GW (280-191098-1MS), DET-003-240401-GW (280-191098-1MSD), DET-003-240402-GW (280-191098-2) and DET-004-240401-GW (280-191098-5) were analyzed for Cyanide, Total and/or Amenable. The samples were prepared on 5/8/2024 and analyzed on 5/8/2024, 5/9/2024 and 5/10/2024.

Method 9056 - Anions, Ion Chromatography
Sample LL12mw-246-240401-GW (280-191098-6) was analyzed for Anions, Ion Chromatography. The sample was analyzed on 5/8/2024.

Detection Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-191098-1

Client Sample ID: DET-003-240401-GW — Lab Sample ID: 280-191098-1

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.019	J	0.093	0.075	0.0039	ug/L	1		8270E SIM	Total/NA
Phenanthrene	0.063	J	0.093	0.075	0.046	ug/L	1		8270E SIM	Total/NA
Calcium	85000	J1	200	64	24	ug/L	1		6010D	Total/NA
Iron	1800		100	34	9.1	ug/L	1		6010D	Total/NA
Magnesium	32000		200	15	4.2	ug/L	1		6010D	Total/NA
Potassium	2100	J	3000	940	240	ug/L	1		6010D	Total/NA
Sodium	12000		1000	320	97	ug/L	1		6010D	Total/NA
Arsenic	10		5.0	2.0	0.50	ug/L	1		6020B	Total/NA
Barium	47	J1	3.0	0.95	0.38	ug/L	1		6020B	Total/NA
Cobalt	0.36	J	1.0	0.90	0.33	ug/L	1		6020B	Total/NA
Copper	0.76	J	2.0	1.8	0.71	ug/L	1		6020B	Total/NA
Manganese	240	J1	3.0	1.8	0.51	ug/L	1		6020B	Total/NA
Vanadium	1.1	J	5.0	3.0	1.1	ug/L	1		6020B	Total/NA

Client Sample ID: DET-003-240402-GW — Lab Sample ID: 280-191098-2

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.031	J	0.10	0.081	0.022	ug/L	1		8270E SIM	Total/NA
Acenaphthene	0.029	J	0.10	0.081	0.0043	ug/L	1		8270E SIM	Total/NA
Naphthalene	0.030	J	0.10	0.081	0.023	ug/L	1		8270E SIM	Total/NA
Calcium	90000		200	64	24	ug/L	1		6010D	Total/NA
Iron	1900		100	34	9.1	ug/L	1		6010D	Total/NA
Magnesium	34000		200	15	4.2	ug/L	1		6010D	Total/NA
Potassium	2200	J	3000	940	240	ug/L	1		6010D	Total/NA
Sodium	12000		1000	320	97	ug/L	1		6010D	Total/NA
Arsenic	10		5.0	2.0	0.50	ug/L	1		6020B	Total/NA
Barium	47		3.0	0.95	0.38	ug/L	1		6020B	Total/NA
Cobalt	0.36	J	1.0	0.90	0.33	ug/L	1		6020B	Total/NA
Manganese	240		3.0	1.8	0.51	ug/L	1		6020B	Total/NA
Vanadium	1.1	J	5.0	3.0	1.1	ug/L	1		6020B	Total/NA

Client Sample ID: FWGTB-240401-TB001 — Lab Sample ID: 280-191098-3

No Detections.

Client Sample ID: LL1mw-081-240401-GW — Lab Sample ID: 280-191098-4

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
2-Amino-4,6-dinitrotoluene - RE	0.22	H	0.12	0.11	0.056	ug/L	1		8330B	Total/NA
4-Amino-2,6-dinitrotoluene - RE	0.28	H	0.17	0.13	0.064	ug/L	1		8330B	Total/NA

Client Sample ID: DET-004-240401-GW — Lab Sample ID: 280-191098-5

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.012	J	0.11	0.085	0.0045	ug/L	1		8270E SIM	Total/NA
Acenaphthylene	0.0072	J M	0.11	0.085	0.0054	ug/L	1		8270E SIM	Total/NA
HMX	1.3	M Q	0.23	0.22	0.096	ug/L	1		8330B	Total/NA
RDX	1.7	M Q	0.23	0.22	0.057	ug/L	1		8330B	Total/NA
HMX - RE	1.4	M H	0.22	0.21	0.090	ug/L	1		8330B	Total/NA
RDX - RE	2.0	M H	0.22	0.21	0.053	ug/L	1		8330B	Total/NA
Calcium	120000		200	64	24	ug/L	1		6010D	Total/NA
Iron	35	J	100	34	9.1	ug/L	1		6010D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DET-004-240401-GW (Continued)
Lab Sample ID: 280-191098-5

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	23000		200	15	4.2	ug/L	1		6010D	Total/NA
Potassium	1100	J	3000	940	240	ug/L	1		6010D	Total/NA
Sodium	2000		1000	320	97	ug/L	1		6010D	Total/NA
Barium	58		3.0	0.95	0.38	ug/L	1		6020B	Total/NA
Copper	1.1	J	2.0	1.8	0.71	ug/L	1		6020B	Total/NA
Manganese	20		3.0	1.8	0.51	ug/L	1		6020B	Total/NA
Zinc	15		10	8.0	2.0	ug/L	1		6020B	Total/NA

Client Sample ID: LL12mw-246-240401-GW
Lab Sample ID: 280-191098-6

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Ammonia as N	0.099	J	0.10	0.050	0.029	mg/L	1		350.1	Total/NA

Client Sample ID: LL3mw-247-240401-GW
Lab Sample ID: 280-191098-7

No Detections.

Client Sample ID: LL3mw-248-240401-GW
Lab Sample ID: 280-191098-8

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
RDX	1.6	Q J1	0.23	0.21	0.055	ug/L	1		8330B	Total/NA
RDX	0.24	Q B M J1	0.23	0.21	0.055	ug/L	1		8330B	Total/NA

This Detection Summary does not include radiochemical test results.

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Client Sample ID: DET-003-240401-GW
Date Collected: 05/06/24 10:16
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-1
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.50	U	1.0	0.50	0.39	ug/L		05/18/24 09:57	1
1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.21	ug/L		05/18/24 09:57	1
1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.27	ug/L		05/18/24 09:57	1
1,1-Dichloroethane	0.80	U	1.0	0.80	0.22	ug/L		05/18/24 09:57	1
1,1-Dichloroethene	0.80	U	1.0	0.80	0.23	ug/L		05/18/24 09:57	1
1,2-Dibromoethane	0.80	U	1.0	0.80	0.18	ug/L		05/18/24 09:57	1
1,2-Dichloroethane	0.50	U M	1.0	0.50	0.28	ug/L		05/18/24 09:57	1
1,2-Dichloroethene, Total	0.40	U	1.0	0.40	0.32	ug/L		05/18/24 09:57	1
1,2-Dichloropropane	0.80	U	1.0	0.80	0.24	ug/L		05/18/24 09:57	1
2-Butanone (MEK)	8.0	U	10	8.0	4.6	ug/L		05/18/24 09:57	1
2-Hexanone	4.0	U	5.0	4.0	0.81	ug/L		05/18/24 09:57	1
4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	0.98	ug/L		05/18/24 09:57	1
Acetone	8.0	U	15	8.0	6.6	ug/L		05/18/24 09:57	1
Benzene	0.80	U	1.0	0.80	0.14	ug/L		05/18/24 09:57	1
Bromochloromethane	0.80	U	1.0	0.80	0.40	ug/L		05/18/24 09:57	1
Bromodichloromethane	0.50	U	1.0	0.50	0.19	ug/L		05/18/24 09:57	1
Bromoform	1.8	U	2.0	1.8	0.25	ug/L		05/18/24 09:57	1
Bromomethane	4.0	U M	5.0	4.0	2.4	ug/L		05/18/24 09:57	1
Carbon disulfide	0.80	U M	2.0	0.80	0.26	ug/L		05/18/24 09:57	1
Carbon tetrachloride	0.50	U	1.0	0.50	0.23	ug/L		05/18/24 09:57	1
Chlorobenzene	0.80	U	1.0	0.80	0.092	ug/L		05/18/24 09:57	1
Chloroethane	1.0	U	2.0	1.0	0.64	ug/L		05/18/24 09:57	1
Chloroform	0.80	U	1.0	0.80	0.36	ug/L		05/18/24 09:57	1
Chloromethane	1.0	U	2.0	1.0	0.23	ug/L		05/18/24 09:57	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16	ug/L		05/18/24 09:57	1
Dibromochloromethane	0.50	U	1.0	0.50	0.28	ug/L		05/18/24 09:57	1
Ethylbenzene	0.40	U	1.0	0.40	0.14	ug/L		05/18/24 09:57	1
Methylene Chloride	1.8	U	2.0	1.8	0.94	ug/L		05/18/24 09:57	1
Styrene	0.80	U	1.0	0.80	0.13	ug/L		05/18/24 09:57	1
Tetrachloroethene	0.80	U	1.0	0.80	0.40	ug/L		05/18/24 09:57	1
Toluene	0.40	U	1.0	0.40	0.32	ug/L		05/18/24 09:57	1
trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.14	ug/L		05/18/24 09:57	1
Trichloroethene	0.40	U	1.0	0.40	0.30	ug/L		05/18/24 09:57	1
Vinyl chloride	0.40	U	1.0	0.40	0.23	ug/L		05/18/24 09:57	1
Xylenes, Total	0.80	U	1.0	0.80	0.11	ug/L		05/18/24 09:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*81 - 118*		*05/18/24 09:57*	*1*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*		*05/18/24 09:57*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 119*		*05/18/24 09:57*	*1*
Toluene-d8 (Surr)	*100*		*89 - 112*		*05/18/24 09:57*	*1*

Client Sample ID: DET-003-240402-GW
Date Collected: 05/06/24 10:16
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-2
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.50	U	1.0	0.50	0.39	ug/L		05/18/24 10:18	1
1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.21	ug/L		05/18/24 10:18	1
1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.27	ug/L		05/18/24 10:18	1
1,1-Dichloroethane	0.80	U	1.0	0.80	0.22	ug/L		05/18/24 10:18	1

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: DET-003-240402-GW
Date Collected: 05/06/24 10:16
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-2
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1-Dichloroethene	0.80	U	1.0	0.80	0.23	ug/L		05/18/24 10:18	1
1,2-Dibromoethane	0.80	U	1.0	0.80	0.18	ug/L		05/18/24 10:18	1
1,2-Dichloroethane	0.50	U	1.0	0.50	0.28	ug/L		05/18/24 10:18	1
1,2-Dichloroethene, Total	0.40	U	1.0	0.40	0.32	ug/L		05/18/24 10:18	1
1,2-Dichloropropane	0.80	U	1.0	0.80	0.24	ug/L		05/18/24 10:18	1
2-Butanone (MEK)	8.0	U	10	8.0	4.6	ug/L		05/18/24 10:18	1
2-Hexanone	4.0	U	5.0	4.0	0.81	ug/L		05/18/24 10:18	1
4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	0.98	ug/L		05/18/24 10:18	1
Acetone	8.0	U	15	8.0	6.6	ug/L		05/18/24 10:18	1
Benzene	0.80	U	1.0	0.80	0.14	ug/L		05/18/24 10:18	1
Bromochloromethane	0.80	U	1.0	0.80	0.40	ug/L		05/18/24 10:18	1
Bromodichloromethane	0.50	U	1.0	0.50	0.19	ug/L		05/18/24 10:18	1
Bromoform	1.8	U	2.0	1.8	0.25	ug/L		05/18/24 10:18	1
Bromomethane	4.0	U M	5.0	4.0	2.4	ug/L		05/18/24 10:18	1
Carbon disulfide	0.80	U M	2.0	0.80	0.26	ug/L		05/18/24 10:18	1
Carbon tetrachloride	0.50	U	1.0	0.50	0.23	ug/L		05/18/24 10:18	1
Chlorobenzene	0.80	U	1.0	0.80	0.092	ug/L		05/18/24 10:18	1
Chloroethane	1.0	U	2.0	1.0	0.64	ug/L		05/18/24 10:18	1
Chloroform	0.80	U	1.0	0.80	0.36	ug/L		05/18/24 10:18	1
Chloromethane	1.0	U	2.0	1.0	0.23	ug/L		05/18/24 10:18	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16	ug/L		05/18/24 10:18	1
Dibromochloromethane	0.50	U	1.0	0.50	0.28	ug/L		05/18/24 10:18	1
Ethylbenzene	0.40	U	1.0	0.40	0.14	ug/L		05/18/24 10:18	1
Methylene Chloride	1.8	U	2.0	1.8	0.94	ug/L		05/18/24 10:18	1
Styrene	0.80	U	1.0	0.80	0.13	ug/L		05/18/24 10:18	1
Tetrachloroethene	0.80	U	1.0	0.80	0.40	ug/L		05/18/24 10:18	1
Toluene	0.40	U	1.0	0.40	0.32	ug/L		05/18/24 10:18	1
trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.14	ug/L		05/18/24 10:18	1
Trichloroethene	0.40	U	1.0	0.40	0.30	ug/L		05/18/24 10:18	1
Vinyl chloride	0.40	U	1.0	0.40	0.23	ug/L		05/18/24 10:18	1
Xylenes, Total	0.80	U	1.0	0.80	0.11	ug/L		05/18/24 10:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*81 - 118*		*05/18/24 10:18*	*1*
4-Bromofluorobenzene (Surr)	*100*		*85 - 114*		*05/18/24 10:18*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*05/18/24 10:18*	*1*
Toluene-d8 (Surr)	*102*		*89 - 112*		*05/18/24 10:18*	*1*

Client Sample ID: FWGTB-240401-TB001
Date Collected: 05/06/24 10:15
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-3
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.50	U	1.0	0.50	0.39	ug/L		05/18/24 07:49	1
1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.21	ug/L		05/18/24 07:49	1
1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.27	ug/L		05/18/24 07:49	1
1,1-Dichloroethane	0.80	U	1.0	0.80	0.22	ug/L		05/18/24 07:49	1
1,1-Dichloroethene	0.80	U	1.0	0.80	0.23	ug/L		05/18/24 07:49	1
1,2-Dibromoethane	0.80	U	1.0	0.80	0.18	ug/L		05/18/24 07:49	1
1,2-Dichloroethane	0.50	U	1.0	0.50	0.28	ug/L		05/18/24 07:49	1
1,2-Dichloroethene, Total	0.40	U	1.0	0.40	0.32	ug/L		05/18/24 07:49	1

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: FWGTB-240401-TB001
Lab Sample ID: 280-191098-3
Date Collected: 05/06/24 10:15
Matrix: Water
Date Received: 05/07/24 09:15

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,2-Dichloropropane	0.80	U	1.0	0.80	0.24	ug/L		05/18/24 07:49	1
2-Butanone (MEK)	8.0	U	10	8.0	4.6	ug/L		05/18/24 07:49	1
2-Hexanone	4.0	U	5.0	4.0	0.81	ug/L		05/18/24 07:49	1
4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	0.98	ug/L		05/18/24 07:49	1
Acetone	8.0	U	15	8.0	6.6	ug/L		05/18/24 07:49	1
Benzene	0.80	U	1.0	0.80	0.14	ug/L		05/18/24 07:49	1
Bromochloromethane	0.80	U	1.0	0.80	0.40	ug/L		05/18/24 07:49	1
Bromodichloromethane	0.50	U	1.0	0.50	0.19	ug/L		05/18/24 07:49	1
Bromoform	1.8	U	2.0	1.8	0.25	ug/L		05/18/24 07:49	1
Bromomethane	4.0	U M	5.0	4.0	2.4	ug/L		05/18/24 07:49	1
Carbon disulfide	0.80	U M	2.0	0.80	0.26	ug/L		05/18/24 07:49	1
Carbon tetrachloride	0.50	U	1.0	0.50	0.23	ug/L		05/18/24 07:49	1
Chlorobenzene	0.80	U	1.0	0.80	0.092	ug/L		05/18/24 07:49	1
Chloroethane	1.0	U	2.0	1.0	0.64	ug/L		05/18/24 07:49	1
Chloroform	0.80	U	1.0	0.80	0.36	ug/L		05/18/24 07:49	1
Chloromethane	1.0	U	2.0	1.0	0.23	ug/L		05/18/24 07:49	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16	ug/L		05/18/24 07:49	1
Dibromochloromethane	0.50	U	1.0	0.50	0.28	ug/L		05/18/24 07:49	1
Ethylbenzene	0.40	U	1.0	0.40	0.14	ug/L		05/18/24 07:49	1
Methylene Chloride	1.8	U	2.0	1.8	0.94	ug/L		05/18/24 07:49	1
Styrene	0.80	U	1.0	0.80	0.13	ug/L		05/18/24 07:49	1
Tetrachloroethene	0.80	U	1.0	0.80	0.40	ug/L		05/18/24 07:49	1
Toluene	0.40	U	1.0	0.40	0.32	ug/L		05/18/24 07:49	1
trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.14	ug/L		05/18/24 07:49	1
Trichloroethene	0.40	U	1.0	0.40	0.30	ug/L		05/18/24 07:49	1
Vinyl chloride	0.40	U	1.0	0.40	0.23	ug/L		05/18/24 07:49	1
Xylenes, Total	0.80	U	1.0	0.80	0.11	ug/L		05/18/24 07:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*		*05/18/24 07:49*	*1*
4-Bromofluorobenzene (Surr)	*100*		*85 - 114*		*05/18/24 07:49*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 119*		*05/18/24 07:49*	*1*
Toluene-d8 (Surr)	*99*		*89 - 112*		*05/18/24 07:49*	*1*

Client Sample ID: DET-004-240401-GW
Lab Sample ID: 280-191098-5
Date Collected: 05/06/24 10:35
Matrix: Water
Date Received: 05/07/24 09:15

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.50	U	1.0	0.50	0.39	ug/L		05/18/24 10:39	1
1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.21	ug/L		05/18/24 10:39	1
1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.27	ug/L		05/18/24 10:39	1
1,1-Dichloroethane	0.80	U	1.0	0.80	0.22	ug/L		05/18/24 10:39	1
1,1-Dichloroethene	0.80	U	1.0	0.80	0.23	ug/L		05/18/24 10:39	1
1,2-Dibromoethane	0.80	U	1.0	0.80	0.18	ug/L		05/18/24 10:39	1
1,2-Dichloroethane	0.50	U M	1.0	0.50	0.28	ug/L		05/18/24 10:39	1
1,2-Dichloroethene, Total	0.40	U	1.0	0.40	0.32	ug/L		05/18/24 10:39	1
1,2-Dichloropropane	0.80	U	1.0	0.80	0.24	ug/L		05/18/24 10:39	1
2-Butanone (MEK)	8.0	U	10	8.0	4.6	ug/L		05/18/24 10:39	1
2-Hexanone	4.0	U	5.0	4.0	0.81	ug/L		05/18/24 10:39	1
4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	0.98	ug/L		05/18/24 10:39	1

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: DET-004-240401-GW
Date Collected: 05/06/24 10:35
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-5
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acetone	8.0	U	15	8.0	6.6	ug/L		05/18/24 10:39	1
Benzene	0.80	U	1.0	0.80	0.14	ug/L		05/18/24 10:39	1
Bromochloromethane	0.80	U	1.0	0.80	0.40	ug/L		05/18/24 10:39	1
Bromodichloromethane	0.50	U	1.0	0.50	0.19	ug/L		05/18/24 10:39	1
Bromoform	1.8	U	2.0	1.8	0.25	ug/L		05/18/24 10:39	1
Bromomethane	4.0	U	5.0	4.0	2.4	ug/L		05/18/24 10:39	1
Carbon disulfide	0.80	U M	2.0	0.80	0.26	ug/L		05/18/24 10:39	1
Carbon tetrachloride	0.50	U	1.0	0.50	0.23	ug/L		05/18/24 10:39	1
Chlorobenzene	0.80	U	1.0	0.80	0.092	ug/L		05/18/24 10:39	1
Chloroethane	1.0	U	2.0	1.0	0.64	ug/L		05/18/24 10:39	1
Chloroform	0.80	U	1.0	0.80	0.36	ug/L		05/18/24 10:39	1
Chloromethane	1.0	U	2.0	1.0	0.23	ug/L		05/18/24 10:39	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16	ug/L		05/18/24 10:39	1
Dibromochloromethane	0.50	U	1.0	0.50	0.28	ug/L		05/18/24 10:39	1
Ethylbenzene	0.40	U	1.0	0.40	0.14	ug/L		05/18/24 10:39	1
Methylene Chloride	1.8	U	2.0	1.8	0.94	ug/L		05/18/24 10:39	1
Styrene	0.80	U	1.0	0.80	0.13	ug/L		05/18/24 10:39	1
Tetrachloroethene	0.80	U	1.0	0.80	0.40	ug/L		05/18/24 10:39	1
Toluene	0.40	U	1.0	0.40	0.32	ug/L		05/18/24 10:39	1
trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.14	ug/L		05/18/24 10:39	1
Trichloroethene	0.40	U	1.0	0.40	0.30	ug/L		05/18/24 10:39	1
Vinyl chloride	0.40	U	1.0	0.40	0.23	ug/L		05/18/24 10:39	1
Xylenes, Total	0.80	U	1.0	0.80	0.11	ug/L		05/18/24 10:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*81 - 118*		*05/18/24 10:39*	*1*
4-Bromofluorobenzene (Surr)	*101*		*85 - 114*		*05/18/24 10:39*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*05/18/24 10:39*	*1*
Toluene-d8 (Surr)	*98*		*89 - 112*		*05/18/24 10:39*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: DET-003-240401-GW
Date Collected: 05/06/24 10:16
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-1
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Methylnaphthalene	0.075	U M	0.093	0.075	0.020	ug/L		05/10/24 11:16	1
Acenaphthene	**0.019**	**J**	0.093	0.075	0.0039	ug/L		05/10/24 11:16	1
Acenaphthylene	0.075	U M	0.093	0.075	0.0048	ug/L		05/10/24 11:16	1
Anthracene	0.075	U M	0.093	0.075	0.029	ug/L		05/10/24 11:16	1
Benzo[a]anthracene	0.075	U M	0.093	0.075	0.026	ug/L		05/10/24 11:16	1
Benzo[a]pyrene	0.075	U M	0.093	0.075	0.023	ug/L		05/10/24 11:16	1
Benzo[b]fluoranthene	0.075	U M	0.093	0.075	0.037	ug/L		05/10/24 11:16	1
Benzo[g,h,i]perylene	0.075	U M	0.093	0.075	0.035	ug/L		05/10/24 11:16	1
Benzo[k]fluoranthene	0.075	U	0.093	0.075	0.021	ug/L		05/10/24 11:16	1
Chrysene	0.075	U M	0.093	0.075	0.031	ug/L		05/10/24 11:16	1
Dibenz(a,h)anthracene	0.075	U Q	0.093	0.075	0.026	ug/L		05/10/24 11:16	1
Fluoranthene	0.075	U M	0.093	0.075	0.045	ug/L		05/10/24 11:16	1
Fluorene	0.075	U M	0.093	0.075	0.018	ug/L		05/10/24 11:16	1
Indeno[1,2,3-cd]pyrene	0.075	U M	0.093	0.075	0.037	ug/L		05/10/24 11:16	1

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: DET-003-240401-GW
Date Collected: 05/06/24 10:16
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-1
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Naphthalene	0.075	U M	0.093	0.075	0.021	ug/L		05/10/24 11:16	1
Phenanthrene	**0.063**	**J**	0.093	0.075	0.046	ug/L		05/10/24 11:16	1
Pyrene	0.075	U M	0.093	0.075	0.042	ug/L		05/10/24 11:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*53 - 106*	*05/09/24 10:54*	*05/10/24 11:16*	*1*
Nitrobenzene-d5 (Surr)	*85*		*55 - 111*	*05/09/24 10:54*	*05/10/24 11:16*	*1*
Terphenyl-d14 (Surr)	*90*		*58 - 132*	*05/09/24 10:54*	*05/10/24 11:16*	*1*
2-methylnaphthalene-d10	*74*		*15 - 113*	*05/09/24 10:54*	*05/10/24 11:16*	*1*
Fluoranthene-d10	*89*		*42 - 131*	*05/09/24 10:54*	*05/10/24 11:16*	*1*

Client Sample ID: DET-003-240402-GW
Date Collected: 05/06/24 10:16
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-2
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Methylnaphthalene	**0.031**	**J**	0.10	0.081	0.022	ug/L		05/10/24 12:13	1
Acenaphthene	**0.029**	**J**	0.10	0.081	0.0043	ug/L		05/10/24 12:13	1
Acenaphthylene	0.081	U M	0.10	0.081	0.0052	ug/L		05/10/24 12:13	1
Anthracene	0.081	U M	0.10	0.081	0.031	ug/L		05/10/24 12:13	1
Benzo[a]anthracene	0.081	U M	0.10	0.081	0.029	ug/L		05/10/24 12:13	1
Benzo[a]pyrene	0.081	U	0.10	0.081	0.025	ug/L		05/10/24 12:13	1
Benzo[b]fluoranthene	0.081	U M	0.10	0.081	0.040	ug/L		05/10/24 12:13	1
Benzo[g,h,i]perylene	0.081	U	0.10	0.081	0.038	ug/L		05/10/24 12:13	1
Benzo[k]fluoranthene	0.081	U	0.10	0.081	0.023	ug/L		05/10/24 12:13	1
Chrysene	0.081	U M	0.10	0.081	0.034	ug/L		05/10/24 12:13	1
Dibenz(a,h)anthracene	0.081	U Q	0.10	0.081	0.028	ug/L		05/10/24 12:13	1
Fluoranthene	0.081	U M	0.10	0.081	0.050	ug/L		05/10/24 12:13	1
Fluorene	0.081	U M	0.10	0.081	0.020	ug/L		05/10/24 12:13	1
Indeno[1,2,3-cd]pyrene	0.081	U	0.10	0.081	0.040	ug/L		05/10/24 12:13	1
Naphthalene	**0.030**	**J**	0.10	0.081	0.023	ug/L		05/10/24 12:13	1
Phenanthrene	0.081	U	0.10	0.081	0.050	ug/L		05/10/24 12:13	1
Pyrene	0.081	U	0.10	0.081	0.046	ug/L		05/10/24 12:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*53 - 106*	*05/09/24 10:54*	*05/10/24 12:13*	*1*
Nitrobenzene-d5 (Surr)	*84*		*55 - 111*	*05/09/24 10:54*	*05/10/24 12:13*	*1*
Terphenyl-d14 (Surr)	*90*		*58 - 132*	*05/09/24 10:54*	*05/10/24 12:13*	*1*
2-methylnaphthalene-d10	*73*		*15 - 113*	*05/09/24 10:54*	*05/10/24 12:13*	*1*
Fluoranthene-d10	*88*		*42 - 131*	*05/09/24 10:54*	*05/10/24 12:13*	*1*

Client Sample ID: DET-004-240401-GW
Date Collected: 05/06/24 10:35
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-5
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Methylnaphthalene	0.085	U M	0.11	0.085	0.023	ug/L		05/10/24 12:33	1
Acenaphthene	**0.012**	**J**	0.11	0.085	0.0045	ug/L		05/10/24 12:33	1
Acenaphthylene	**0.0072**	**J M**	0.11	0.085	0.0054	ug/L		05/10/24 12:33	1
Anthracene	0.085	U	0.11	0.085	0.033	ug/L		05/10/24 12:33	1
Benzo[a]anthracene	0.085	U M	0.11	0.085	0.030	ug/L		05/10/24 12:33	1
Benzo[a]pyrene	0.085	U	0.11	0.085	0.026	ug/L		05/10/24 12:33	1

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: DET-004-240401-GW
Lab Sample ID: 280-191098-5
Date Collected: 05/06/24 10:35
Matrix: Water
Date Received: 05/07/24 09:15

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.085	U	0.11	0.085	0.042	ug/L		05/10/24 12:33	1
Benzo[g,h,i]perylene	0.085	U	0.11	0.085	0.040	ug/L		05/10/24 12:33	1
Benzo[k]fluoranthene	0.085	U	0.11	0.085	0.024	ug/L		05/10/24 12:33	1
Chrysene	0.085	U M	0.11	0.085	0.035	ug/L		05/10/24 12:33	1
Dibenz(a,h)anthracene	0.085	U Q	0.11	0.085	0.029	ug/L		05/10/24 12:33	1
Fluoranthene	0.085	U	0.11	0.085	0.052	ug/L		05/10/24 12:33	1
Fluorene	0.085	U M	0.11	0.085	0.020	ug/L		05/10/24 12:33	1
Indeno[1,2,3-cd]pyrene	0.085	U	0.11	0.085	0.042	ug/L		05/10/24 12:33	1
Naphthalene	0.085	U M	0.11	0.085	0.024	ug/L		05/10/24 12:33	1
Phenanthrene	0.085	U	0.11	0.085	0.052	ug/L		05/10/24 12:33	1
Pyrene	0.085	U	0.11	0.085	0.048	ug/L		05/10/24 12:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*89*		*53 - 106*	*05/09/24 10:54*	*05/10/24 12:33*	*1*
Nitrobenzene-d5 (Surr)	*93*		*55 - 111*	*05/09/24 10:54*	*05/10/24 12:33*	*1*
Terphenyl-d14 (Surr)	*90*		*58 - 132*	*05/09/24 10:54*	*05/10/24 12:33*	*1*
2-methylnaphthalene-d10	*81*		*15 - 113*	*05/09/24 10:54*	*05/10/24 12:33*	*1*
Fluoranthene-d10	*86*		*42 - 131*	*05/09/24 10:54*	*05/10/24 12:33*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: DET-003-240401-GW
Lab Sample ID: 280-191098-1
Date Collected: 05/06/24 10:16
Matrix: Water
Date Received: 05/07/24 09:15

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2,4,5-Trichlorophenol	8.1	U	10	8.1	2.6	ug/L		05/14/24 15:49	1
2,4,6-Trichlorophenol	8.1	U	10	8.1	2.3	ug/L		05/14/24 15:49	1
2,4-Dichlorophenol	8.1	U	10	8.1	3.0	ug/L		05/14/24 15:49	1
2,4-Dimethylphenol	8.1	U	10	8.1	1.4	ug/L		05/14/24 15:49	1
2,4-Dinitrophenol	20	U	30	20	13	ug/L		05/14/24 15:49	1
2,4-Dinitrotoluene	8.1	U	10	8.1	1.4	ug/L		05/14/24 15:49	1
2,6-Dinitrotoluene	8.1	U M	10	8.1	1.4	ug/L		05/14/24 15:49	1
2-Chlorophenol	8.1	U	10	8.1	2.6	ug/L		05/14/24 15:49	1
2-Methylphenol	8.1	U	10	8.1	0.78	ug/L		05/14/24 15:49	1
2-Nitrophenol	8.1	U	10	8.1	3.5	ug/L		05/14/24 15:49	1
3 & 4 Methylphenol	8.1	U	10	8.1	2.2	ug/L		05/14/24 15:49	1
4,6-Dinitro-2-methylphenol	30	U M	50	30	4.1	ug/L		05/14/24 15:49	1
4-Chloro-3-methylphenol	8.1	U	10	8.1	1.7	ug/L		05/14/24 15:49	1
4-Nitrophenol	13	U Q	25	13	9.1	ug/L		05/14/24 15:49	1
Bis(2-ethylhexyl) phthalate	8.1	U M	10	8.1	3.3	ug/L		05/14/24 15:49	1
Butyl benzyl phthalate	3.2	U	4.0	3.2	1.5	ug/L		05/14/24 15:49	1
Diethyl phthalate	3.2	U	4.0	3.2	1.4	ug/L		05/14/24 15:49	1
Dimethyl phthalate	3.2	U	4.0	3.2	0.76	ug/L		05/14/24 15:49	1
Di-n-butyl phthalate	3.2	U Q	4.0	3.2	2.1	ug/L		05/14/24 15:49	1
Di-n-octyl phthalate	8.1	U	10	8.1	3.6	ug/L		05/14/24 15:49	1
Nitrobenzene	8.1	U	10	8.1	1.3	ug/L		05/14/24 15:49	1
Pentachlorophenol	48	U	50	48	20	ug/L		05/14/24 15:49	1
Phenol	8.1	U	10	8.1	0.93	ug/L		05/14/24 15:49	1

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	*76*		*43 - 140*	*05/13/24 11:32*	*05/14/24 15:49*	*1*
2-Fluorobiphenyl	*65*		*44 - 119*	*05/13/24 11:32*	*05/14/24 15:49*	*1*
2-Fluorophenol (Surr)	*44*		*19 - 119*	*05/13/24 11:32*	*05/14/24 15:49*	*1*
Nitrobenzene-d5 (Surr)	*65*		*44 - 120*	*05/13/24 11:32*	*05/14/24 15:49*	*1*
Phenol-d5 (Surr)	*31*		*10 - 115*	*05/13/24 11:32*	*05/14/24 15:49*	*1*
Terphenyl-d14 (Surr)	*85*		*50 - 134*	*05/13/24 11:32*	*05/14/24 15:49*	*1*

Client Sample ID: DET-003-240402-GW
Date Collected: 05/06/24 10:16
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-2
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2,4,5-Trichlorophenol	8.1	U	10	8.1	2.6	ug/L		05/14/24 16:57	1
2,4,6-Trichlorophenol	8.1	U	10	8.1	2.4	ug/L		05/14/24 16:57	1
2,4-Dichlorophenol	8.1	U	10	8.1	3.1	ug/L		05/14/24 16:57	1
2,4-Dimethylphenol	8.1	U	10	8.1	1.4	ug/L		05/14/24 16:57	1
2,4-Dinitrophenol	20	U	30	20	13	ug/L		05/14/24 16:57	1
2,4-Dinitrotoluene	8.1	U	10	8.1	1.5	ug/L		05/14/24 16:57	1
2,6-Dinitrotoluene	8.1	U M	10	8.1	1.4	ug/L		05/14/24 16:57	1
2-Chlorophenol	8.1	U	10	8.1	2.6	ug/L		05/14/24 16:57	1
2-Methylphenol	8.1	U	10	8.1	0.78	ug/L		05/14/24 16:57	1
2-Nitrophenol	8.1	U	10	8.1	3.5	ug/L		05/14/24 16:57	1
3 & 4 Methylphenol	8.1	U	10	8.1	2.2	ug/L		05/14/24 16:57	1
4,6-Dinitro-2-methylphenol	30	U M	51	30	4.1	ug/L		05/14/24 16:57	1
4-Chloro-3-methylphenol	8.1	U	10	8.1	1.7	ug/L		05/14/24 16:57	1
4-Nitrophenol	13	U Q	25	13	9.2	ug/L		05/14/24 16:57	1
Bis(2-ethylhexyl) phthalate	8.1	U M	10	8.1	3.4	ug/L		05/14/24 16:57	1
Butyl benzyl phthalate	3.3	U	4.1	3.3	1.6	ug/L		05/14/24 16:57	1
Diethyl phthalate	3.3	U	4.1	3.3	1.4	ug/L		05/14/24 16:57	1
Dimethyl phthalate	3.3	U	4.1	3.3	0.76	ug/L		05/14/24 16:57	1
Di-n-butyl phthalate	3.3	U Q	4.1	3.3	2.1	ug/L		05/14/24 16:57	1
Di-n-octyl phthalate	8.1	U M	10	8.1	3.7	ug/L		05/14/24 16:57	1
Nitrobenzene	8.1	U	10	8.1	1.3	ug/L		05/14/24 16:57	1
Pentachlorophenol	49	U	51	49	20	ug/L		05/14/24 16:57	1
Phenol	8.1	U	10	8.1	0.93	ug/L		05/14/24 16:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	*70*		*43 - 140*	*05/13/24 11:32*	*05/14/24 16:57*	*1*
2-Fluorobiphenyl	*56*		*44 - 119*	*05/13/24 11:32*	*05/14/24 16:57*	*1*
2-Fluorophenol (Surr)	*37*		*19 - 119*	*05/13/24 11:32*	*05/14/24 16:57*	*1*
Nitrobenzene-d5 (Surr)	*56*		*44 - 120*	*05/13/24 11:32*	*05/14/24 16:57*	*1*
Phenol-d5 (Surr)	*26*		*10 - 115*	*05/13/24 11:32*	*05/14/24 16:57*	*1*
Terphenyl-d14 (Surr)	*86*		*50 - 134*	*05/13/24 11:32*	*05/14/24 16:57*	*1*

Client Sample ID: DET-004-240401-GW
Date Collected: 05/06/24 10:35
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-5
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2,4,5-Trichlorophenol	8.6	U	11	8.6	2.7	ug/L		05/14/24 17:19	1
2,4,6-Trichlorophenol	8.6	U	11	8.6	2.5	ug/L		05/14/24 17:19	1
2,4-Dichlorophenol	8.6	U	11	8.6	3.2	ug/L		05/14/24 17:19	1
2,4-Dimethylphenol	8.6	U	11	8.6	1.5	ug/L		05/14/24 17:19	1
2,4-Dinitrophenol	21	U	32	21	14	ug/L		05/14/24 17:19	1
2,4-Dinitrotoluene	8.6	U	11	8.6	1.5	ug/L		05/14/24 17:19	1

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: DET-004-240401-GW
Date Collected: 05/06/24 10:35
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-5
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2,6-Dinitrotoluene	8.6	U M	11	8.6	1.5	ug/L		05/14/24 17:19	1
2-Chlorophenol	8.6	U	11	8.6	2.7	ug/L		05/14/24 17:19	1
2-Methylphenol	8.6	U	11	8.6	0.82	ug/L		05/14/24 17:19	1
2-Nitrophenol	8.6	U	11	8.6	3.7	ug/L		05/14/24 17:19	1
3 & 4 Methylphenol	8.6	U	11	8.6	2.3	ug/L		05/14/24 17:19	1
4,6-Dinitro-2-methylphenol	32	U M	53	32	4.3	ug/L		05/14/24 17:19	1
4-Chloro-3-methylphenol	8.6	U	11	8.6	1.8	ug/L		05/14/24 17:19	1
4-Nitrophenol	14	U M Q	27	14	9.7	ug/L		05/14/24 17:19	1
Bis(2-ethylhexyl) phthalate	8.6	U	11	8.6	3.6	ug/L		05/14/24 17:19	1
Butyl benzyl phthalate	3.4	U	4.3	3.4	1.6	ug/L		05/14/24 17:19	1
Diethyl phthalate	3.4	U	4.3	3.4	1.5	ug/L		05/14/24 17:19	1
Dimethyl phthalate	3.4	U	4.3	3.4	0.80	ug/L		05/14/24 17:19	1
Di-n-butyl phthalate	3.4	U Q	4.3	3.4	2.2	ug/L		05/14/24 17:19	1
Di-n-octyl phthalate	8.6	U M	11	8.6	3.9	ug/L		05/14/24 17:19	1
Nitrobenzene	8.6	U	11	8.6	1.3	ug/L		05/14/24 17:19	1
Pentachlorophenol	51	U	53	51	21	ug/L		05/14/24 17:19	1
Phenol	8.6	U	11	8.6	0.98	ug/L		05/14/24 17:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*91*		*43 - 140*	*05/13/24 11:32*	*05/14/24 17:19*	*1*
2-Fluorobiphenyl	*74*		*44 - 119*	*05/13/24 11:32*	*05/14/24 17:19*	*1*
2-Fluorophenol (Surr)	*50*		*19 - 119*	*05/13/24 11:32*	*05/14/24 17:19*	*1*
Nitrobenzene-d5 (Surr)	*72*		*44 - 120*	*05/13/24 11:32*	*05/14/24 17:19*	*1*
Phenol-d5 (Surr)	*36*		*10 - 115*	*05/13/24 11:32*	*05/14/24 17:19*	*1*
Terphenyl-d14 (Surr)	*113*		*50 - 134*	*05/13/24 11:32*	*05/14/24 17:19*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Client Sample ID: DET-003-240401-GW
Date Collected: 05/06/24 10:16
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-1
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.052	U Q	0.052	0.052	0.0044	ug/L		05/13/24 15:59	1
4,4'-DDE	0.023	U Q	0.052	0.023	0.0044	ug/L		05/13/24 15:59	1
4,4'-DDT	0.052	U Q	0.052	0.052	0.025	ug/L		05/13/24 15:59	1
Aldrin	0.022	U Q J1	0.052	0.022	0.0064	ug/L		05/13/24 15:59	1
alpha-BHC	0.030	U Q	0.052	0.030	0.010	ug/L		05/13/24 15:59	1
alpha-Chlordane	0.030	U Q	0.052	0.030	0.0091	ug/L		05/13/24 15:59	1
beta-BHC	0.041	U Q	0.052	0.041	0.0094	ug/L		05/13/24 15:59	1
delta-BHC	0.025	U Q	0.052	0.025	0.0081	ug/L		05/13/24 15:59	1
Dieldrin	0.017	U Q	0.052	0.017	0.0048	ug/L		05/13/24 15:59	1
Endosulfan I	0.023	U Q	0.052	0.023	0.0061	ug/L		05/13/24 15:59	1
Endosulfan II	0.041	U Q	0.052	0.041	0.0068	ug/L		05/13/24 15:59	1
Endosulfan sulfate	0.019	U Q	0.052	0.019	0.0051	ug/L		05/13/24 15:59	1
Endrin	0.025	U Q	0.052	0.025	0.0089	ug/L		05/13/24 15:59	1
Endrin aldehyde	0.025	U Q	0.052	0.025	0.0090	ug/L		05/13/24 15:59	1
Endrin ketone	0.036	U Q	0.052	0.036	0.013	ug/L		05/13/24 15:59	1
gamma-BHC (Lindane)	0.032	U Q	0.052	0.032	0.011	ug/L		05/13/24 15:59	1
gamma-Chlordane	0.031	U Q	0.052	0.031	0.0074	ug/L		05/13/24 15:59	1
Heptachlor	0.052	U Q	0.052	0.052	0.010	ug/L		05/13/24 15:59	1

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: DET-003-240401-GW
Date Collected: 05/06/24 10:16
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-1
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Heptachlor epoxide	0.037	U Q	0.052	0.037	0.0033	ug/L		05/13/24 15:59	1
Methoxychlor	0.037	U Q	0.10	0.037	0.015	ug/L		05/13/24 15:59	1
Toxaphene	3.1	U Q	3.1	3.1	1.6	ug/L		05/13/24 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*26*	*Q*	*34 - 122*	*05/10/24 11:46*	*05/13/24 15:59*	*1*
Tetrachloro-m-xylene	*51*		*33 - 134*	*05/10/24 11:46*	*05/13/24 15:59*	*1*

Client Sample ID: DET-003-240402-GW
Date Collected: 05/06/24 10:16
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-2
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.051	U	0.051	0.051	0.0043	ug/L		05/13/24 17:28	1
4,4'-DDE	0.022	U	0.051	0.022	0.0043	ug/L		05/13/24 17:28	1
4,4'-DDT	0.051	U	0.051	0.051	0.025	ug/L		05/13/24 17:28	1
Aldrin	0.021	U	0.051	0.021	0.0063	ug/L		05/13/24 17:28	1
alpha-BHC	0.030	U	0.051	0.030	0.0099	ug/L		05/13/24 17:28	1
alpha-Chlordane	0.030	U	0.051	0.030	0.0090	ug/L		05/13/24 17:28	1
beta-BHC	0.041	U	0.051	0.041	0.0093	ug/L		05/13/24 17:28	1
delta-BHC	0.025	U	0.051	0.025	0.0080	ug/L		05/13/24 17:28	1
Dieldrin	0.016	U	0.051	0.016	0.0047	ug/L		05/13/24 17:28	1
Endosulfan I	0.022	U	0.051	0.022	0.0060	ug/L		05/13/24 17:28	1
Endosulfan II	0.041	U	0.051	0.041	0.0067	ug/L		05/13/24 17:28	1
Endosulfan sulfate	0.018	U	0.051	0.018	0.0050	ug/L		05/13/24 17:28	1
Endrin	0.025	U	0.051	0.025	0.0088	ug/L		05/13/24 17:28	1
Endrin aldehyde	0.025	U	0.051	0.025	0.0088	ug/L		05/13/24 17:28	1
Endrin ketone	0.036	U	0.051	0.036	0.013	ug/L		05/13/24 17:28	1
gamma-BHC (Lindane)	0.032	U	0.051	0.032	0.011	ug/L		05/13/24 17:28	1
gamma-Chlordane	0.031	U	0.051	0.031	0.0073	ug/L		05/13/24 17:28	1
Heptachlor	0.051	U	0.051	0.051	0.010	ug/L		05/13/24 17:28	1
Heptachlor epoxide	0.037	U	0.051	0.037	0.0033	ug/L		05/13/24 17:28	1
Methoxychlor	0.037	U	0.10	0.037	0.014	ug/L		05/13/24 17:28	1
Toxaphene	3.1	U	3.1	3.1	1.5	ug/L		05/13/24 17:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*42*		*34 - 122*	*05/10/24 11:46*	*05/13/24 17:28*	*1*
Tetrachloro-m-xylene	*56*		*33 - 134*	*05/10/24 11:46*	*05/13/24 17:28*	*1*

Client Sample ID: DET-004-240401-GW
Date Collected: 05/06/24 10:35
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-5
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.053	U Q	0.053	0.053	0.0044	ug/L		05/13/24 17:46	1
4,4'-DDE	0.023	U Q	0.053	0.023	0.0044	ug/L		05/13/24 17:46	1
4,4'-DDT	0.053	U Q	0.053	0.053	0.025	ug/L		05/13/24 17:46	1
Aldrin	0.022	U Q	0.053	0.022	0.0065	ug/L		05/13/24 17:46	1
alpha-BHC	0.030	U Q	0.053	0.030	0.010	ug/L		05/13/24 17:46	1
alpha-Chlordane	0.030	U Q	0.053	0.030	0.0093	ug/L		05/13/24 17:46	1
beta-BHC	0.042	U Q	0.053	0.042	0.0096	ug/L		05/13/24 17:46	1
delta-BHC	0.025	U Q	0.053	0.025	0.0082	ug/L		05/13/24 17:46	1

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: DET-004-240401-GW
Date Collected: 05/06/24 10:35
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-5
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dieldrin	0.017	U Q	0.053	0.017	0.0048	ug/L		05/13/24 17:46	1
Endosulfan I	0.023	U Q	0.053	0.023	0.0061	ug/L		05/13/24 17:46	1
Endosulfan II	0.042	U Q	0.053	0.042	0.0069	ug/L		05/13/24 17:46	1
Endosulfan sulfate	0.019	U Q	0.053	0.019	0.0052	ug/L		05/13/24 17:46	1
Endrin	0.025	U Q	0.053	0.025	0.0090	ug/L		05/13/24 17:46	1
Endrin aldehyde	0.025	U Q	0.053	0.025	0.0091	ug/L		05/13/24 17:46	1
Endrin ketone	0.037	U Q	0.053	0.037	0.014	ug/L		05/13/24 17:46	1
gamma-BHC (Lindane)	0.033	U Q	0.053	0.033	0.011	ug/L		05/13/24 17:46	1
gamma-Chlordane	0.032	U Q	0.053	0.032	0.0075	ug/L		05/13/24 17:46	1
Heptachlor	0.053	U Q	0.053	0.053	0.011	ug/L		05/13/24 17:46	1
Heptachlor epoxide	0.038	U Q	0.053	0.038	0.0034	ug/L		05/13/24 17:46	1
Methoxychlor	0.038	U Q	0.11	0.038	0.015	ug/L		05/13/24 17:46	1
Toxaphene	3.2	U Q	3.2	3.2	1.6	ug/L		05/13/24 17:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*36*		*34 - 122*	*05/10/24 11:46*	*05/13/24 17:46*	*1*
Tetrachloro-m-xylene	*48*		*33 - 134*	*05/10/24 11:46*	*05/13/24 17:46*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC) - RE

Client Sample ID: DET-003-240401-GW
Date Collected: 05/06/24 10:16
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-1
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.047	U H Q	0.047	0.047	0.0039	ug/L		05/16/24 13:31	1
4,4'-DDE	0.021	U H Q	0.047	0.021	0.0039	ug/L		05/16/24 13:31	1
4,4'-DDT	0.047	U H Q	0.047	0.047	0.022	ug/L		05/16/24 13:31	1
Aldrin	0.020	U H Q	0.047	0.020	0.0058	ug/L		05/16/24 13:31	1
alpha-BHC	0.027	U H Q	0.047	0.027	0.0090	ug/L		05/16/24 13:31	1
alpha-Chlordane	0.027	U H Q	0.047	0.027	0.0082	ug/L		05/16/24 13:31	1
beta-BHC	0.037	U H Q	0.047	0.037	0.0085	ug/L		05/16/24 13:31	1
delta-BHC	0.022	U H Q	0.047	0.022	0.0073	ug/L		05/16/24 13:31	1
Dieldrin	0.015	U H Q	0.047	0.015	0.0043	ug/L		05/16/24 13:31	1
Endosulfan I	0.021	U H Q	0.047	0.021	0.0054	ug/L		05/16/24 13:31	1
Endosulfan II	0.037	U H Q	0.047	0.037	0.0062	ug/L		05/16/24 13:31	1
Endosulfan sulfate	0.017	U H Q	0.047	0.017	0.0046	ug/L		05/16/24 13:31	1
Endrin	0.022	U H Q	0.047	0.022	0.0080	ug/L		05/16/24 13:31	1
Endrin aldehyde	0.022	U H Q	0.047	0.022	0.0081	ug/L		05/16/24 13:31	1
Endrin ketone	0.033	U H Q	0.047	0.033	0.012	ug/L		05/16/24 13:31	1
gamma-BHC (Lindane)	0.029	U H Q	0.047	0.029	0.0096	ug/L		05/16/24 13:31	1
gamma-Chlordane	0.028	U H Q	0.047	0.028	0.0067	ug/L		05/16/24 13:31	1
Heptachlor	0.047	U H Q	0.047	0.047	0.0093	ug/L		05/16/24 13:31	1
Heptachlor epoxide	0.034	U H Q	0.047	0.034	0.0030	ug/L		05/16/24 13:31	1
Methoxychlor	0.034	U H Q	0.093	0.034	0.013	ug/L		05/16/24 13:31	1
Toxaphene	2.8	U H Q	2.8	2.8	1.4	ug/L		05/16/24 13:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*38*		*34 - 122*	*05/15/24 10:49*	*05/16/24 13:31*	*1*
Tetrachloro-m-xylene	*69*		*33 - 134*	*05/15/24 10:49*	*05/16/24 13:31*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: DET-003-240401-GW
Date Collected: 05/06/24 10:16
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-1
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
PCB-1016	0.62	U M	1.0	0.62	0.18	ug/L		05/13/24 19:16	1
PCB-1221	0.27	U	1.0	0.27	0.19	ug/L		05/13/24 19:16	1
PCB-1232	0.31	U	1.0	0.31	0.13	ug/L		05/13/24 19:16	1
PCB-1242	0.31	U	1.0	0.31	0.11	ug/L		05/13/24 19:16	1
PCB-1248	0.62	U	1.0	0.62	0.18	ug/L		05/13/24 19:16	1
PCB-1254	0.27	U	1.0	0.27	0.15	ug/L		05/13/24 19:16	1
PCB-1260	0.31	U	1.0	0.31	0.092	ug/L		05/13/24 19:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*37*		*30 - 136*	*05/10/24 11:46*	*05/13/24 19:16*	*1*
Tetrachloro-m-xylene	*97*		*25 - 120*	*05/10/24 11:46*	*05/13/24 19:16*	*1*

Client Sample ID: DET-003-240402-GW
Date Collected: 05/06/24 10:16
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-2
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
PCB-1016	0.61	U	1.0	0.61	0.17	ug/L		05/13/24 20:07	1
PCB-1221	0.26	U	1.0	0.26	0.18	ug/L		05/13/24 20:07	1
PCB-1232	0.31	U	1.0	0.31	0.13	ug/L		05/13/24 20:07	1
PCB-1242	0.31	U	1.0	0.31	0.11	ug/L		05/13/24 20:07	1
PCB-1248	0.61	U	1.0	0.61	0.17	ug/L		05/13/24 20:07	1
PCB-1254	0.26	U	1.0	0.26	0.14	ug/L		05/13/24 20:07	1
PCB-1260	0.31	U	1.0	0.31	0.091	ug/L		05/13/24 20:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*53*	*M*	*30 - 136*	*05/10/24 11:46*	*05/13/24 20:07*	*1*
Tetrachloro-m-xylene	*88*		*25 - 120*	*05/10/24 11:46*	*05/13/24 20:07*	*1*

Client Sample ID: DET-004-240401-GW
Date Collected: 05/06/24 10:35
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-5
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
PCB-1016	0.63	U	1.1	0.63	0.18	ug/L		05/13/24 20:23	1
PCB-1221	0.27	U	1.1	0.27	0.19	ug/L		05/13/24 20:23	1
PCB-1232	0.32	U	1.1	0.32	0.14	ug/L		05/13/24 20:23	1
PCB-1242	0.32	U	1.1	0.32	0.11	ug/L		05/13/24 20:23	1
PCB-1248	0.63	U	1.1	0.63	0.18	ug/L		05/13/24 20:23	1
PCB-1254	0.27	U	1.1	0.27	0.15	ug/L		05/13/24 20:23	1
PCB-1260	0.32	U	1.1	0.32	0.094	ug/L		05/13/24 20:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*48*	*M*	*30 - 136*	*05/10/24 11:46*	*05/13/24 20:23*	*1*
Tetrachloro-m-xylene	*79*		*25 - 120*	*05/10/24 11:46*	*05/13/24 20:23*	*1*

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Client Sample ID: DET-003-240401-GW
Date Collected: 05/06/24 10:16
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-1
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.22	U Q	0.23	0.22	0.091	ug/L		05/11/24 16:25	1

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Client Sample ID: DET-003-240401-GW
Date Collected: 05/06/24 10:16
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-1
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3-Dinitrobenzene	0.11	U M Q	0.12	0.11	0.040	ug/L		05/11/24 16:25	1
2,4,6-Trinitrotoluene	0.11	U Q	0.12	0.11	0.049	ug/L		05/11/24 16:25	1
2,4-Dinitrotoluene	0.086	U Q	0.11	0.086	0.030	ug/L		05/11/24 16:25	1
2,6-Dinitrotoluene	0.086	U Q	0.11	0.086	0.043	ug/L		05/11/24 16:25	1
2-Amino-4,6-dinitrotoluene	0.11	U Q	0.12	0.11	0.055	ug/L		05/11/24 16:25	1
2-Nitrotoluene	0.22	U Q	0.23	0.22	0.092	ug/L		05/11/24 16:25	1
3-Nitrotoluene	0.38	U Q	0.43	0.38	0.21	ug/L		05/11/24 16:25	1
4-Amino-2,6-dinitrotoluene	0.13	U Q	0.16	0.13	0.062	ug/L		05/11/24 16:25	1
4-Nitrotoluene	0.43	U Q	0.44	0.43	0.11	ug/L		05/11/24 16:25	1
HMX	0.22	U M Q	0.23	0.22	0.095	ug/L		05/11/24 16:25	1
Nitrobenzene	0.22	U Q	0.23	0.22	0.098	ug/L		05/11/24 16:25	1
Nitroglycerin	2.2	U Q	2.3	2.2	0.99	ug/L		05/11/24 16:25	1
PETN	1.1	U Q	1.2	1.1	0.48	ug/L		05/11/24 16:25	1
RDX	0.22	U Q	0.23	0.22	0.056	ug/L		05/11/24 16:25	1
Tetryl	0.11	U Q	0.12	0.11	0.034	ug/L		05/11/24 16:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*71*	*M Q*	*83 - 119*	*05/10/24 10:58*	*05/11/24 16:25*	*1*

Client Sample ID: LL1mw-081-240401-GW
Date Collected: 05/06/24 10:21
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-4
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U Q	0.22	0.21	0.089	ug/L		05/15/24 01:14	1
1,3-Dinitrobenzene	0.11	U Q M	0.12	0.11	0.039	ug/L		05/11/24 16:48	1
2,4,6-Trinitrotoluene	0.11	U Q	0.12	0.11	0.048	ug/L		05/15/24 01:14	1
2,4-Dinitrotoluene	0.085	U Q	0.11	0.085	0.029	ug/L		05/15/24 01:14	1
2,6-Dinitrotoluene	0.085	U Q	0.11	0.085	0.043	ug/L		05/11/24 16:48	1
2-Amino-4,6-dinitrotoluene	0.11	U Q	0.12	0.11	0.054	ug/L		05/11/24 16:48	1
2-Nitrotoluene	0.21	U Q	0.22	0.21	0.091	ug/L		05/11/24 16:48	1
3-Nitrotoluene	0.37	U Q	0.43	0.37	0.21	ug/L		05/11/24 16:48	1
4-Amino-2,6-dinitrotoluene	0.13	U Q	0.16	0.13	0.061	ug/L		05/15/24 01:14	1
4-Nitrotoluene	0.43	U Q	0.44	0.43	0.11	ug/L		05/11/24 16:48	1
HMX	0.21	U Q M	0.22	0.21	0.093	ug/L		05/11/24 16:48	1
Nitrobenzene	0.21	U Q	0.22	0.21	0.097	ug/L		05/11/24 16:48	1
Nitroglycerin	2.1	U Q	2.2	2.1	0.98	ug/L		05/11/24 16:48	1
PETN	1.1	U Q	1.2	1.1	0.48	ug/L		05/11/24 16:48	1
RDX	0.21	U M Q	0.22	0.21	0.055	ug/L		05/15/24 01:14	1
Tetryl	0.11	U Q M	0.12	0.11	0.034	ug/L		05/11/24 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*76*	*Q*	*83 - 119*	*05/10/24 10:58*	*05/11/24 16:48*	*1*
1,2-Dinitrobenzene	*75*	*Q*	*83 - 119*	*05/10/24 10:58*	*05/15/24 01:14*	*1*

Client Sample ID: DET-004-240401-GW
Date Collected: 05/06/24 10:35
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-5
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.22	U Q	0.23	0.22	0.092	ug/L		05/11/24 17:11	1
1,3-Dinitrobenzene	0.11	U Q	0.12	0.11	0.041	ug/L		05/11/24 17:11	1

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Client Sample ID: DET-004-240401-GW
Date Collected: 05/06/24 10:35
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-5
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2,4,6-Trinitrotoluene	0.11	U Q	0.12	0.11	0.049	ug/L		05/11/24 17:11	1
2,4-Dinitrotoluene	0.088	U Q	0.11	0.088	0.030	ug/L		05/11/24 17:11	1
2,6-Dinitrotoluene	0.088	U Q	0.11	0.088	0.044	ug/L		05/11/24 17:11	1
2-Amino-4,6-dinitrotoluene	0.11	U Q	0.12	0.11	0.056	ug/L		05/11/24 17:11	1
2-Nitrotoluene	0.22	U M Q	0.23	0.22	0.094	ug/L		05/11/24 17:11	1
3-Nitrotoluene	0.38	U Q	0.44	0.38	0.21	ug/L		05/11/24 17:11	1
4-Amino-2,6-dinitrotoluene	0.13	U Q	0.16	0.13	0.063	ug/L		05/11/24 17:11	1
4-Nitrotoluene	0.44	U Q	0.45	0.44	0.11	ug/L		05/11/24 17:11	1
HMX	**1.3**	**M Q**	0.23	0.22	0.096	ug/L		05/11/24 17:11	1
Nitrobenzene	0.22	U Q	0.23	0.22	0.10	ug/L		05/11/24 17:11	1
Nitroglycerin	2.2	U Q	2.3	2.2	1.0	ug/L		05/11/24 17:11	1
PETN	1.1	U Q	1.2	1.1	0.49	ug/L		05/11/24 17:11	1
RDX	**1.7**	**M Q**	0.23	0.22	0.057	ug/L		05/11/24 17:11	1
Tetryl	0.11	U Q	0.12	0.11	0.035	ug/L		05/11/24 17:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*66*	*M Q*	*83 - 119*	*05/10/24 10:58*	*05/11/24 17:11*	*1*
1,2-Dinitrobenzene	*69*	*Q*	*83 - 119*	*05/10/24 10:58*	*05/11/24 20:57*	*1*

Client Sample ID: LL3mw-247-240401-GW
Date Collected: 05/06/24 15:27
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-7
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.22	U M Q	0.23	0.22	0.093	ug/L		05/11/24 17:34	1
1,3-Dinitrobenzene	0.11	U Q	0.12	0.11	0.041	ug/L		05/11/24 17:34	1
2,4,6-Trinitrotoluene	0.11	U Q	0.12	0.11	0.050	ug/L		05/11/24 21:32	1
2,4-Dinitrotoluene	0.089	U Q	0.11	0.089	0.030	ug/L		05/11/24 21:32	1
2,6-Dinitrotoluene	0.089	U Q	0.11	0.089	0.044	ug/L		05/11/24 17:34	1
2-Amino-4,6-dinitrotoluene	0.11	U Q	0.12	0.11	0.056	ug/L		05/11/24 17:34	1
2-Nitrotoluene	0.22	U Q	0.23	0.22	0.095	ug/L		05/11/24 17:34	1
3-Nitrotoluene	0.39	U Q	0.44	0.39	0.22	ug/L		05/11/24 17:34	1
4-Amino-2,6-dinitrotoluene	0.13	U Q	0.17	0.13	0.064	ug/L		05/11/24 17:34	1
4-Nitrotoluene	0.44	U Q	0.45	0.44	0.11	ug/L		05/11/24 17:34	1
HMX	0.22	U M Q	0.23	0.22	0.097	ug/L		05/11/24 17:34	1
Nitrobenzene	0.22	U Q	0.23	0.22	0.10	ug/L		05/11/24 17:34	1
Nitroglycerin	2.2	U Q	2.3	2.2	1.0	ug/L		05/11/24 17:34	1
PETN	1.1	U Q	1.2	1.1	0.50	ug/L		05/11/24 17:34	1
RDX	0.22	U M Q	0.23	0.22	0.057	ug/L		05/11/24 21:32	1
Tetryl	0.11	U Q	0.12	0.11	0.035	ug/L		05/11/24 17:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*43*	*Q*	*83 - 119*	*05/10/24 10:58*	*05/11/24 17:34*	*1*
1,2-Dinitrobenzene	*46*	*Q*	*83 - 119*	*05/10/24 10:58*	*05/11/24 21:32*	*1*

Client Sample ID: LL3mw-248-240401-GW
Date Collected: 05/06/24 16:07
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-8
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U Q	0.23	0.21	0.090	ug/L		05/11/24 22:07	1
1,3-Dinitrobenzene	0.11	U Q	0.12	0.11	0.040	ug/L		05/11/24 17:57	1

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Client Sample ID: LL3mw-248-240401-GW
Date Collected: 05/06/24 16:07
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-8
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2,4,6-Trinitrotoluene	0.11	U Q	0.12	0.11	0.048	ug/L		05/11/24 22:07	1
2,4-Dinitrotoluene	0.086	U Q	0.11	0.086	0.029	ug/L		05/11/24 22:07	1
2,6-Dinitrotoluene	0.086	U Q	0.11	0.086	0.043	ug/L		05/11/24 17:57	1
2-Amino-4,6-dinitrotoluene	0.11	U Q	0.12	0.11	0.054	ug/L		05/11/24 17:57	1
2-Nitrotoluene	0.21	U Q	0.23	0.21	0.092	ug/L		05/11/24 17:57	1
3-Nitrotoluene	0.38	U Q	0.43	0.38	0.21	ug/L		05/11/24 17:57	1
4-Amino-2,6-dinitrotoluene	0.13	U Q	0.16	0.13	0.062	ug/L		05/11/24 17:57	1
4-Nitrotoluene	0.43	U M Q	0.44	0.43	0.11	ug/L		05/11/24 17:57	1
HMX	0.21	U M Q	0.23	0.21	0.094	ug/L		05/11/24 17:57	1
Nitrobenzene	0.21	U Q	0.23	0.21	0.098	ug/L		05/11/24 17:57	1
Nitroglycerin	2.1	U Q	2.3	2.1	0.99	ug/L		05/11/24 17:57	1
PETN	1.1	U Q	1.2	1.1	0.48	ug/L		05/11/24 17:57	1
RDX	**1.6**	**Q J1**	0.23	0.21	0.055	ug/L		05/11/24 17:57	1
RDX	**0.24**	**Q B M J1**	0.23	0.21	0.055	ug/L		05/11/24 22:07	1
Tetryl	0.11	U Q	0.12	0.11	0.034	ug/L		05/11/24 17:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*71*	*M Q*	*83 - 119*	*05/10/24 10:58*	*05/11/24 17:57*	*1*
1,2-Dinitrobenzene	*74*	*Q*	*83 - 119*	*05/10/24 10:58*	*05/11/24 22:07*	*1*

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC) - RE

Client Sample ID: DET-003-240401-GW
Date Collected: 05/06/24 10:16
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-1
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U H	0.21	0.20	0.086	ug/L		05/18/24 03:15	1
1,3-Dinitrobenzene	0.10	U H	0.11	0.10	0.038	ug/L		05/18/24 03:15	1
2,4,6-Trinitrotoluene	0.10	U H	0.11	0.10	0.046	ug/L		05/18/24 03:15	1
2,4-Dinitrotoluene	0.081	U H	0.10	0.081	0.028	ug/L		05/18/24 03:15	1
2,6-Dinitrotoluene	0.081	U H	0.10	0.081	0.041	ug/L		05/18/24 03:15	1
2-Amino-4,6-dinitrotoluene	0.10	U H	0.11	0.10	0.052	ug/L		05/18/24 03:15	1
2-Nitrotoluene	0.20	U H	0.21	0.20	0.087	ug/L		05/18/24 03:15	1
3-Nitrotoluene	0.36	U H	0.41	0.36	0.20	ug/L		05/18/24 03:15	1
4-Amino-2,6-dinitrotoluene	0.12	U H	0.15	0.12	0.059	ug/L		05/18/24 03:15	1
4-Nitrotoluene	0.41	U H	0.42	0.41	0.10	ug/L		05/18/24 03:15	1
HMX	0.20	U M H	0.21	0.20	0.089	ug/L		05/18/24 03:15	1
Nitrobenzene	0.20	U H	0.21	0.20	0.093	ug/L		05/18/24 03:15	1
Nitroglycerin	2.0	U H	2.1	2.0	0.94	ug/L		05/18/24 03:15	1
PETN	1.0	U H	1.1	1.0	0.46	ug/L		05/18/24 03:15	1
RDX	0.20	U H	0.21	0.20	0.052	ug/L		05/18/24 03:15	1
Tetryl	0.10	U H	0.11	0.10	0.032	ug/L		05/18/24 03:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*98*	*M*	*83 - 119*	*05/17/24 13:10*	*05/18/24 03:15*	*1*

Client Sample ID: LL1mw-081-240401-GW
Date Collected: 05/06/24 10:21
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-4
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.22	U H	0.23	0.22	0.093	ug/L		05/18/24 03:38	1

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC) - RE (Continued)

Client Sample ID: LL1mw-081-240401-GW
Date Collected: 05/06/24 10:21
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-4
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3-Dinitrobenzene	0.11	U M H	0.12	0.11	0.041	ug/L		05/18/24 03:38	1
2,4,6-Trinitrotoluene	0.11	U H	0.12	0.11	0.050	ug/L		05/18/24 03:38	1
2,4-Dinitrotoluene	0.089	U H	0.11	0.089	0.030	ug/L		05/18/24 03:38	1
2,6-Dinitrotoluene	0.089	U H	0.11	0.089	0.045	ug/L		05/18/24 03:38	1
2-Amino-4,6-dinitrotoluene	**0.22**	**H**	0.12	0.11	0.056	ug/L		05/18/24 03:38	1
2-Nitrotoluene	0.22	U H	0.23	0.22	0.095	ug/L		05/18/24 03:38	1
3-Nitrotoluene	0.39	U H	0.44	0.39	0.22	ug/L		05/18/24 03:38	1
4-Amino-2,6-dinitrotoluene	**0.28**	**H**	0.17	0.13	0.064	ug/L		05/18/24 03:38	1
4-Nitrotoluene	0.44	U H	0.46	0.44	0.11	ug/L		05/18/24 03:38	1
HMX	0.22	U M H	0.23	0.22	0.097	ug/L		05/18/24 03:38	1
Nitrobenzene	0.22	U H	0.23	0.22	0.10	ug/L		05/18/24 03:38	1
Nitroglycerin	2.2	U H	2.3	2.2	1.0	ug/L		05/18/24 03:38	1
PETN	1.1	U H	1.2	1.1	0.50	ug/L		05/18/24 03:38	1
RDX	0.22	U M H	0.23	0.22	0.057	ug/L		05/17/24 20:44	1
Tetryl	0.11	U M H	0.12	0.11	0.035	ug/L		05/18/24 03:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*101*		*83 - 119*	*05/17/24 13:10*	*05/17/24 20:44*	*1*
1,2-Dinitrobenzene	*108*	*M*	*83 - 119*	*05/17/24 13:10*	*05/18/24 03:38*	*1*

Client Sample ID: DET-004-240401-GW
Date Collected: 05/06/24 10:35
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-5
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U H	0.22	0.21	0.087	ug/L		05/18/24 04:01	1
1,3-Dinitrobenzene	0.10	U H	0.11	0.10	0.038	ug/L		05/18/24 04:01	1
2,4,6-Trinitrotoluene	0.10	U H	0.11	0.10	0.046	ug/L		05/18/24 04:01	1
2,4-Dinitrotoluene	0.083	U H	0.10	0.083	0.028	ug/L		05/18/24 04:01	1
2,6-Dinitrotoluene	0.083	U H	0.10	0.083	0.041	ug/L		05/18/24 04:01	1
2-Amino-4,6-dinitrotoluene	0.10	U H	0.11	0.10	0.052	ug/L		05/18/24 04:01	1
2-Nitrotoluene	0.21	U H	0.22	0.21	0.088	ug/L		05/18/24 04:01	1
3-Nitrotoluene	0.36	U H	0.41	0.36	0.20	ug/L		05/18/24 04:01	1
4-Amino-2,6-dinitrotoluene	0.12	U H	0.15	0.12	0.060	ug/L		05/18/24 04:01	1
4-Nitrotoluene	0.41	U H	0.42	0.41	0.10	ug/L		05/18/24 04:01	1
HMX	**1.4**	**M H**	0.22	0.21	0.090	ug/L		05/18/24 04:01	1
Nitrobenzene	0.21	U H	0.22	0.21	0.094	ug/L		05/18/24 04:01	1
Nitroglycerin	2.1	U H	2.2	2.1	0.95	ug/L		05/18/24 04:01	1
PETN	1.0	U H	1.1	1.0	0.46	ug/L		05/18/24 04:01	1
RDX	**2.0**	**M H**	0.22	0.21	0.053	ug/L		05/18/24 04:01	1
Tetryl	0.10	U H	0.11	0.10	0.033	ug/L		05/18/24 04:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*99*		*83 - 119*	*05/17/24 13:10*	*05/17/24 21:19*	*1*
1,2-Dinitrobenzene	*98*	*M*	*83 - 119*	*05/17/24 13:10*	*05/18/24 04:01*	*1*

Client Sample ID: LL3mw-247-240401-GW
Date Collected: 05/06/24 15:27
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-7
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.23	U H	0.24	0.23	0.096	ug/L		05/17/24 21:54	1

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC) - RE (Continued)

Client Sample ID: LL3mw-247-240401-GW
Date Collected: 05/06/24 15:27
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-7
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3-Dinitrobenzene	0.11	U M H	0.13	0.11	0.042	ug/L		05/18/24 04:24	1
2,4,6-Trinitrotoluene	0.11	U H	0.13	0.11	0.051	ug/L		05/18/24 04:24	1
2,4-Dinitrotoluene	0.091	U M H	0.11	0.091	0.031	ug/L		05/18/24 04:24	1
2,6-Dinitrotoluene	0.091	U H	0.11	0.091	0.046	ug/L		05/18/24 04:24	1
2-Amino-4,6-dinitrotoluene	0.11	U H	0.13	0.11	0.058	ug/L		05/18/24 04:24	1
2-Nitrotoluene	0.23	U M H	0.24	0.23	0.097	ug/L		05/18/24 04:24	1
3-Nitrotoluene	0.40	U H	0.46	0.40	0.22	ug/L		05/18/24 04:24	1
4-Amino-2,6-dinitrotoluene	0.14	U H	0.17	0.14	0.066	ug/L		05/18/24 04:24	1
4-Nitrotoluene	0.46	U H	0.47	0.46	0.11	ug/L		05/18/24 04:24	1
HMX	0.23	U M H	0.24	0.23	0.10	ug/L		05/18/24 04:24	1
Nitrobenzene	0.23	U H	0.24	0.23	0.10	ug/L		05/18/24 04:24	1
Nitroglycerin	2.3	U H	2.4	2.3	1.0	ug/L		05/18/24 04:24	1
PETN	1.1	U H	1.3	1.1	0.51	ug/L		05/18/24 04:24	1
RDX	0.23	U M H	0.24	0.23	0.059	ug/L		05/17/24 21:54	1
Tetryl	0.11	U H	0.13	0.11	0.036	ug/L		05/18/24 04:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*96*		*83 - 119*	*05/17/24 13:10*	*05/17/24 21:54*	*1*
1,2-Dinitrobenzene	*94*		*83 - 119*	*05/17/24 13:10*	*05/18/24 04:24*	*1*

Client Sample ID: LL3mw-248-240401-GW
Date Collected: 05/06/24 16:07
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-8
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.22	U M H	0.23	0.22	0.093	ug/L		05/18/24 04:46	1
1,3-Dinitrobenzene	0.11	U M H	0.12	0.11	0.041	ug/L		05/18/24 04:46	1
2,4,6-Trinitrotoluene	0.11	U H	0.12	0.11	0.050	ug/L		05/18/24 04:46	1
2,4-Dinitrotoluene	0.089	U M H	0.11	0.089	0.030	ug/L		05/18/24 04:46	1
2,6-Dinitrotoluene	0.089	U H	0.11	0.089	0.044	ug/L		05/18/24 04:46	1
2-Amino-4,6-dinitrotoluene	0.11	U H	0.12	0.11	0.056	ug/L		05/18/24 04:46	1
2-Nitrotoluene	0.22	U M H	0.23	0.22	0.095	ug/L		05/18/24 04:46	1
3-Nitrotoluene	0.39	U H	0.44	0.39	0.22	ug/L		05/18/24 04:46	1
4-Amino-2,6-dinitrotoluene	0.13	U H	0.17	0.13	0.064	ug/L		05/18/24 04:46	1
4-Nitrotoluene	0.44	U H	0.45	0.44	0.11	ug/L		05/18/24 04:46	1
HMX	0.22	U H	0.23	0.22	0.097	ug/L		05/17/24 22:29	1
Nitrobenzene	0.22	U H	0.23	0.22	0.10	ug/L		05/18/24 04:46	1
Nitroglycerin	2.2	U H	2.3	2.2	1.0	ug/L		05/18/24 04:46	1
PETN	1.1	U H	1.2	1.1	0.50	ug/L		05/18/24 04:46	1
RDX	0.22	U M H	0.23	0.22	0.057	ug/L		05/17/24 22:29	1
Tetryl	0.11	U H	0.12	0.11	0.035	ug/L		05/18/24 04:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*94*		*83 - 119*	*05/17/24 13:10*	*05/17/24 22:29*	*1*
1,2-Dinitrobenzene	*92*		*83 - 119*	*05/17/24 13:10*	*05/18/24 04:46*	*1*

Method: SW846 6010D - Metals (ICP)

Client Sample ID: DET-003-240401-GW
Date Collected: 05/06/24 10:16
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-1
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	70	U	100	70	18	ug/L		05/13/24 23:49	1
Calcium	**85000**	**J1**	200	64	24	ug/L		05/13/24 23:49	1
Iron	**1800**		100	34	9.1	ug/L		05/13/24 23:49	1
Magnesium	**32000**		200	15	4.2	ug/L		05/13/24 23:49	1
Potassium	**2100**	**J**	3000	940	240	ug/L		05/13/24 23:49	1
Sodium	**12000**		1000	320	97	ug/L		05/13/24 23:49	1

Client Sample ID: DET-003-240402-GW
Date Collected: 05/06/24 10:16
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-2
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	70	U	100	70	18	ug/L		05/14/24 00:20	1
Calcium	**90000**		200	64	24	ug/L		05/14/24 00:20	1
Iron	**1900**		100	34	9.1	ug/L		05/14/24 00:20	1
Magnesium	**34000**		200	15	4.2	ug/L		05/14/24 00:20	1
Potassium	**2200**	**J**	3000	940	240	ug/L		05/14/24 00:20	1
Sodium	**12000**		1000	320	97	ug/L		05/14/24 00:20	1

Client Sample ID: DET-004-240401-GW
Date Collected: 05/06/24 10:35
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-5
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	70	U	100	70	18	ug/L		05/14/24 00:24	1
Calcium	**120000**		200	64	24	ug/L		05/14/24 00:24	1
Iron	**35**	**J**	100	34	9.1	ug/L		05/14/24 00:24	1
Magnesium	**23000**		200	15	4.2	ug/L		05/14/24 00:24	1
Potassium	**1100**	**J**	3000	940	240	ug/L		05/14/24 00:24	1
Sodium	**2000**		1000	320	97	ug/L		05/14/24 16:59	1

Method: SW846 6020B - Metals (ICP/MS)

Client Sample ID: DET-003-240401-GW
Date Collected: 05/06/24 10:16
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-1
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Antimony	1.0	U	2.0	1.0	0.40	ug/L		05/09/24 15:55	1
Arsenic	**10**		5.0	2.0	0.50	ug/L		05/09/24 15:55	1
Barium	**47**	**J1**	3.0	0.95	0.38	ug/L		05/09/24 15:55	1
Beryllium	0.60	U	1.0	0.60	0.30	ug/L		05/09/24 15:55	1
Cadmium	0.75	U	1.0	0.75	0.19	ug/L		05/09/24 15:55	1
Chromium	1.8	U	3.0	1.8	0.50	ug/L		05/09/24 15:55	1
Cobalt	**0.36**	**J**	1.0	0.90	0.33	ug/L		05/09/24 15:55	1
Copper	**0.76**	**J**	2.0	1.8	0.71	ug/L		05/09/24 15:55	1
Lead	0.70	U	1.0	0.70	0.23	ug/L		05/09/24 15:55	1
Manganese	**240**	**J1**	3.0	1.8	0.51	ug/L		05/09/24 15:55	1
Nickel	1.9	U	3.0	1.9	0.83	ug/L		05/09/24 15:55	1
Selenium	4.0	U	5.0	4.0	1.0	ug/L		05/09/24 15:55	1
Silver	0.15	U	1.0	0.15	0.045	ug/L		05/09/24 15:55	1
Thallium	0.75	U	1.0	0.75	0.21	ug/L		05/09/24 15:55	1
Vanadium	**1.1**	**J**	5.0	3.0	1.1	ug/L		05/09/24 15:55	1

Method: SW846 6020B - Metals (ICP/MS) (Continued)

Client Sample ID: DET-003-240401-GW
Date Collected: 05/06/24 10:16
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-1
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Zinc	8.0	U	10	8.0	2.0	ug/L		05/09/24 15:55	1

Client Sample ID: DET-003-240402-GW
Date Collected: 05/06/24 10:16
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-2
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Antimony	1.0	U	2.0	1.0	0.40	ug/L		05/09/24 16:20	1
Arsenic	**10**		5.0	2.0	0.50	ug/L		05/09/24 16:20	1
Barium	**47**		3.0	0.95	0.38	ug/L		05/09/24 16:20	1
Beryllium	0.60	U	1.0	0.60	0.30	ug/L		05/09/24 16:20	1
Cadmium	0.75	U	1.0	0.75	0.19	ug/L		05/09/24 16:20	1
Chromium	1.8	U	3.0	1.8	0.50	ug/L		05/09/24 16:20	1
Cobalt	**0.36**	**J**	1.0	0.90	0.33	ug/L		05/09/24 16:20	1
Copper	1.8	U	2.0	1.8	0.71	ug/L		05/09/24 16:20	1
Lead	0.70	U	1.0	0.70	0.23	ug/L		05/09/24 16:20	1
Manganese	**240**		3.0	1.8	0.51	ug/L		05/09/24 16:20	1
Nickel	1.9	U	3.0	1.9	0.83	ug/L		05/09/24 16:20	1
Selenium	4.0	U	5.0	4.0	1.0	ug/L		05/09/24 16:20	1
Silver	0.15	U	1.0	0.15	0.045	ug/L		05/09/24 16:20	1
Thallium	0.75	U	1.0	0.75	0.21	ug/L		05/09/24 16:20	1
Vanadium	**1.1**	**J**	5.0	3.0	1.1	ug/L		05/09/24 16:20	1
Zinc	8.0	U	10	8.0	2.0	ug/L		05/09/24 16:20	1

Client Sample ID: DET-004-240401-GW
Date Collected: 05/06/24 10:35
Date Received: 05/07/24 09:15

Lab Sample ID: 280-191098-5
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Antimony	1.0	U	2.0	1.0	0.40	ug/L		05/09/24 16:24	1
Arsenic	2.0	U	5.0	2.0	0.50	ug/L		05/09/24 16:24	1
Barium	**58**		3.0	0.95	0.38	ug/L		05/09/24 16:24	1
Beryllium	0.60	U	1.0	0.60	0.30	ug/L		05/09/24 16:24	1
Cadmium	0.75	U	1.0	0.75	0.19	ug/L		05/09/24 16:24	1
Chromium	1.8	U	3.0	1.8	0.50	ug/L		05/09/24 16:24	1
Cobalt	0.90	U	1.0	0.90	0.33	ug/L		05/09/24 16:24	1
Copper	**1.1**	**J**	2.0	1.8	0.71	ug/L		05/09/24 16:24	1
Lead	0.70	U	1.0	0.70	0.23	ug/L		05/09/24 16:24	1
Manganese	**20**		3.0	1.8	0.51	ug/L		05/09/24 16:24	1
Nickel	1.9	U	3.0	1.9	0.83	ug/L		05/09/24 16:24	1
Selenium	4.0	U	5.0	4.0	1.0	ug/L		05/09/24 16:24	1
Silver	0.15	U	1.0	0.15	0.045	ug/L		05/09/24 16:24	1
Thallium	0.75	U	1.0	0.75	0.21	ug/L		05/09/24 16:24	1
Vanadium	3.0	U	5.0	3.0	1.1	ug/L		05/09/24 16:24	1
Zinc	**15**		10	8.0	2.0	ug/L		05/09/24 16:24	1

Method: SW846 7470A - Mercury (CVAA)

Client Sample ID: DET-003-240401-GW — **Lab Sample ID: 280-191098-1**
Date Collected: 05/06/24 10:16 — **Matrix: Water**
Date Received: 05/07/24 09:15

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Mercury	0.080	U	0.20	0.080	0.061	ug/L		05/22/24 03:48	1

Client Sample ID: DET-003-240402-GW — **Lab Sample ID: 280-191098-2**
Date Collected: 05/06/24 10:16 — **Matrix: Water**
Date Received: 05/07/24 09:15

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Mercury	0.080	U	0.20	0.080	0.061	ug/L		05/22/24 03:56	1

Client Sample ID: DET-004-240401-GW — **Lab Sample ID: 280-191098-5**
Date Collected: 05/06/24 10:35 — **Matrix: Water**
Date Received: 05/07/24 09:15

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Mercury	0.080	U	0.20	0.080	0.061	ug/L		05/22/24 03:58	1

General Chemistry

Client Sample ID: DET-003-240401-GW — **Lab Sample ID: 280-191098-1**
Date Collected: 05/06/24 10:16 — **Matrix: Water**
Date Received: 05/07/24 09:15

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	0.0090	U J1	0.010	0.0090	0.0050	mg/L		05/10/24 11:45	1

Client Sample ID: DET-003-240402-GW — **Lab Sample ID: 280-191098-2**
Date Collected: 05/06/24 10:16 — **Matrix: Water**
Date Received: 05/07/24 09:15

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	0.0090	U	0.010	0.0090	0.0050	mg/L		05/08/24 13:42	1

Client Sample ID: DET-004-240401-GW — **Lab Sample ID: 280-191098-5**
Date Collected: 05/06/24 10:35 — **Matrix: Water**
Date Received: 05/07/24 09:15

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	0.0090	U	0.010	0.0090	0.0050	mg/L		05/08/24 13:15	1

Client Sample ID: LL12mw-246-240401-GW — **Lab Sample ID: 280-191098-6**
Date Collected: 05/06/24 14:33 — **Matrix: Water**
Date Received: 05/07/24 09:15

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	**0.099**	**J**	0.10	0.050	0.029	mg/L		05/14/24 15:08	1
Nitrate as N (SW846 9056)	0.20	U	0.50	0.20	0.090	mg/L		05/08/24 03:18	1

Method: 8260D - Volatile Organic Compounds (GC/MS)

Analyte	LOQ	DL	Units
1,1,1-Trichloroethane	1.0	0.39	ug/L
1,1,2,2-Tetrachloroethane	1.0	0.21	ug/L
1,1,2-Trichloroethane	1.0	0.27	ug/L
1,1-Dichloroethane	1.0	0.22	ug/L
1,1-Dichloroethene	1.0	0.23	ug/L
1,2-Dibromoethane	1.0	0.18	ug/L
1,2-Dichloroethane	1.0	0.28	ug/L
1,2-Dichloroethene, Total	1.0	0.32	ug/L
1,2-Dichloropropane	1.0	0.24	ug/L
2-Butanone (MEK)	10	4.6	ug/L
2-Hexanone	5.0	0.81	ug/L
4-Methyl-2-pentanone (MIBK)	5.0	0.98	ug/L
Acetone	15	6.6	ug/L
Benzene	1.0	0.14	ug/L
Bromochloromethane	1.0	0.40	ug/L
Bromodichloromethane	1.0	0.19	ug/L
Bromoform	2.0	0.25	ug/L
Bromomethane	5.0	2.4	ug/L
Carbon disulfide	2.0	0.26	ug/L
Carbon tetrachloride	1.0	0.23	ug/L
Chlorobenzene	1.0	0.092	ug/L
Chloroethane	2.0	0.64	ug/L
Chloroform	1.0	0.36	ug/L
Chloromethane	2.0	0.23	ug/L
cis-1,3-Dichloropropene	1.0	0.16	ug/L
Dibromochloromethane	1.0	0.28	ug/L
Ethylbenzene	1.0	0.14	ug/L
Methylene Chloride	2.0	0.94	ug/L
Styrene	1.0	0.13	ug/L
Tetrachloroethene	1.0	0.40	ug/L
Toluene	1.0	0.32	ug/L
trans-1,3-Dichloropropene	1.0	0.14	ug/L
Trichloroethene	1.0	0.30	ug/L
Vinyl chloride	1.0	0.23	ug/L
Xylenes, Total	1.0	0.11	ug/L

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Prep: 3510C

Analyte	LOQ	DL	Units
2-Methylnaphthalene	0.10	0.021	ug/L
Acenaphthene	0.10	0.0042	ug/L
Acenaphthylene	0.10	0.0051	ug/L
Anthracene	0.10	0.031	ug/L
Benzo[a]anthracene	0.10	0.028	ug/L
Benzo[a]pyrene	0.10	0.025	ug/L
Benzo[b]fluoranthene	0.10	0.040	ug/L
Benzo[g,h,i]perylene	0.10	0.037	ug/L
Benzo[k]fluoranthene	0.10	0.023	ug/L
Chrysene	0.10	0.033	ug/L
Dibenz(a,h)anthracene	0.10	0.028	ug/L
Fluoranthene	0.10	0.049	ug/L
Fluorene	0.10	0.019	ug/L

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Prep: 3510C

Analyte	LOQ	DL	Units
Indeno[1,2,3-cd]pyrene	0.10	0.039	ug/L
Naphthalene	0.10	0.023	ug/L
Phenanthrene	0.10	0.049	ug/L
Pyrene	0.10	0.045	ug/L

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Prep: 3510C

Analyte	LOQ	DL	Units
2,4,5-Trichlorophenol	10	2.6	ug/L
2,4,6-Trichlorophenol	10	2.3	ug/L
2,4-Dichlorophenol	10	3.0	ug/L
2,4-Dimethylphenol	10	1.4	ug/L
2,4-Dinitrophenol	30	13	ug/L
2,4-Dinitrotoluene	10	1.4	ug/L
2,6-Dinitrotoluene	10	1.4	ug/L
2-Chlorophenol	10	2.6	ug/L
2-Methylphenol	10	0.77	ug/L
2-Nitrophenol	10	3.5	ug/L
3 & 4 Methylphenol	10	2.2	ug/L
4,6-Dinitro-2-methylphenol	50	4.0	ug/L
4-Chloro-3-methylphenol	10	1.7	ug/L
4-Nitrophenol	25	9.1	ug/L
Bis(2-ethylhexyl) phthalate	10	3.3	ug/L
Butyl benzyl phthalate	4.0	1.5	ug/L
Diethyl phthalate	4.0	1.4	ug/L
Dimethyl phthalate	4.0	0.75	ug/L
Di-n-butyl phthalate	4.0	2.1	ug/L
Di-n-octyl phthalate	10	3.6	ug/L
Nitrobenzene	10	1.3	ug/L
Pentachlorophenol	50	20	ug/L
Phenol	10	0.92	ug/L

Method: 8081B - Organochlorine Pesticides (GC)

Prep: 3510C

Analyte	LOQ	DL	Units
4,4'-DDD	0.050	0.0042	ug/L
4,4'-DDE	0.050	0.0042	ug/L
4,4'-DDT	0.050	0.024	ug/L
Aldrin	0.050	0.0062	ug/L
alpha-BHC	0.050	0.0097	ug/L
alpha-Chlordane	0.050	0.0088	ug/L
beta-BHC	0.050	0.0091	ug/L
delta-BHC	0.050	0.0078	ug/L
Dieldrin	0.050	0.0046	ug/L
Endosulfan I	0.050	0.0058	ug/L
Endosulfan II	0.050	0.0066	ug/L
Endosulfan sulfate	0.050	0.0049	ug/L
Endrin	0.050	0.0086	ug/L
Endrin aldehyde	0.050	0.0087	ug/L
Endrin ketone	0.050	0.013	ug/L
gamma-BHC (Lindane)	0.050	0.010	ug/L

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Prep: 3510C

Analyte	LOQ	DL	Units
gamma-Chlordane	0.050	0.0072	ug/L
Heptachlor	0.050	0.010	ug/L
Heptachlor epoxide	0.050	0.0032	ug/L
Methoxychlor	0.10	0.014	ug/L
Toxaphene	3.0	1.5	ug/L

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Prep: 3510C

Analyte	LOQ	DL	Units
PCB-1016	1.0	0.17	ug/L
PCB-1221	1.0	0.18	ug/L
PCB-1232	1.0	0.13	ug/L
PCB-1242	1.0	0.10	ug/L
PCB-1248	1.0	0.17	ug/L
PCB-1254	1.0	0.14	ug/L
PCB-1260	1.0	0.089	ug/L

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Prep: 3535

Analyte	LOQ	DL	Units
1,3,5-Trinitrobenzene	0.21	0.084	ug/L
1,3-Dinitrobenzene	0.11	0.037	ug/L
2,4,6-Trinitrotoluene	0.11	0.045	ug/L
2,4-Dinitrotoluene	0.10	0.027	ug/L
2,6-Dinitrotoluene	0.10	0.040	ug/L
2-Amino-4,6-dinitrotoluene	0.11	0.051	ug/L
2-Nitrotoluene	0.21	0.086	ug/L
3-Nitrotoluene	0.40	0.20	ug/L
4-Amino-2,6-dinitrotoluene	0.15	0.058	ug/L
4-Nitrotoluene	0.41	0.10	ug/L
HMX	0.21	0.088	ug/L
Nitrobenzene	0.21	0.091	ug/L
Nitroglycerin	2.1	0.92	ug/L
PETN	1.1	0.45	ug/L
RDX	0.21	0.052	ug/L
Tetryl	0.11	0.032	ug/L

Method: 6010D - Metals (ICP)

Prep: 3010A

Analyte	LOQ	DL	Units
Aluminum	100	18	ug/L
Calcium	200	24	ug/L
Iron	100	9.1	ug/L
Magnesium	200	4.2	ug/L
Potassium	3000	240	ug/L
Sodium	1000	97	ug/L

Method: 6020B - Metals (ICP/MS)

Prep: 3010A

Analyte	LOQ	DL	Units
Antimony	2.0	0.40	ug/L

Default Detection Limits

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-191098-1

Method: 6020B - Metals (ICP/MS) (Continued)

Prep: 3010A

Analyte	LOQ	DL	Units
Arsenic	5.0	0.50	ug/L
Barium	3.0	0.38	ug/L
Beryllium	1.0	0.30	ug/L
Cadmium	1.0	0.19	ug/L
Chromium	3.0	0.50	ug/L
Cobalt	1.0	0.33	ug/L
Copper	2.0	0.71	ug/L
Lead	1.0	0.23	ug/L
Manganese	3.0	0.51	ug/L
Nickel	3.0	0.83	ug/L
Selenium	5.0	1.0	ug/L
Silver	1.0	0.045	ug/L
Thallium	1.0	0.21	ug/L
Vanadium	5.0	1.1	ug/L
Zinc	10	2.0	ug/L

Method: 6020B - Metals (ICP/MS)

Prep: 3020A

Analyte	LOQ	DL	Units
Antimony	2.0	0.40	ug/L
Arsenic	5.0	0.50	ug/L
Barium	3.0	0.38	ug/L
Beryllium	1.0	0.30	ug/L
Cadmium	1.0	0.19	ug/L
Chromium	3.0	0.50	ug/L
Cobalt	1.0	0.33	ug/L
Copper	2.0	0.71	ug/L
Lead	1.0	0.23	ug/L
Manganese	3.0	0.51	ug/L
Nickel	3.0	0.83	ug/L
Selenium	5.0	1.0	ug/L
Silver	1.0	0.045	ug/L
Thallium	1.0	0.21	ug/L
Vanadium	5.0	1.1	ug/L
Zinc	10	2.0	ug/L

Method: 7470A - Mercury (CVAA)

Prep: 7470A

Analyte	LOQ	DL	Units
Mercury	0.20	0.061	ug/L

General Chemistry

Analyte	LOQ	DL	Units
Ammonia as N	0.10	0.029	mg/L
Cyanide, Total	0.010	0.0050	mg/L
Nitrate as N	0.50	0.090	mg/L

Surrogate Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-191098-1

Method: 8260D - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(81-118)	(85-114)	(80-119)	(89-112)
280-191098-1	DET-003-240401-GW	101	103	103	100
280-191098-1 MS	DET-003-240401-GW	101	98	101	97
280-191098-1 MSD	DET-003-240401-GW	102	97	101	100
280-191098-2	DET-003-240402-GW	102	100	106	102
280-191098-3	FWGTB-240401-TB001	99	100	102	99
280-191098-5	DET-004-240401-GW	104	101	108	98
LCS 280-653926/4	Lab Control Sample	100	97	101	101
LCSD 280-653926/5	Lab Control Sample Dup	98	99	103	98
MB 280-653926/9	Method Blank	100	102	101	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHL
Lab Sample ID	Client Sample ID	(43-140)	(44-119)	(19-119)	(44-120)	(10-115)	(50-134)
280-191098-1	DET-003-240401-GW	76	65	44	65	31	85
280-191098-1 MS	DET-003-240401-GW	97	88	56	82	41	99
280-191098-1 MSD	DET-003-240401-GW	112	100	59	89	44	113
280-191098-2	DET-003-240402-GW	70	56	37	56	26	86
280-191098-5	DET-004-240401-GW	91	74	50	72	36	113
LCS 280-653130/2-A	Lab Control Sample	92	84	47	77	34	106
LCSD 280-653130/3-A	Lab Control Sample Dup	86	75	45	70	31	90
MB 280-653130/1-A	Method Blank	88	72	45	78	31	120

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)				
		FBP	NBZ	TPHL	2MN	FLN
Lab Sample ID	Client Sample ID	(53-106)	(55-111)	(58-132)	(15-113)	(42-131)
280-191098-1	DET-003-240401-GW	77	85	90	74	89
280-191098-1 MS	DET-003-240401-GW	64	69	84	65	83
280-191098-1 MSD	DET-003-240401-GW	77	89	87	77	89
280-191098-2	DET-003-240402-GW	78	84	90	73	88
280-191098-5	DET-004-240401-GW	89	93	90	81	86
LCS 280-652726/2-A	Lab Control Sample	77	86	92	76	90

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)				
		FBP	NBZ	TPHL	2MN	FLN
Lab Sample ID	Client Sample ID	(53-106)	(55-111)	(58-132)	(15-113)	(42-131)
LCSD 280-652726/3-A	Lab Control Sample Dup	87	95	97	86	96
MB 280-652726/1-A	Method Blank	87	93	101	85	97

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)
2MN = 2-methylnaphthalene-d10
FLN = Fluoranthene-d10

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCBP2	TCX1
Lab Sample ID	Client Sample ID	(34-122)	(33-134)
280-191098-1	DET-003-240401-GW	26 Q	51
280-191098-1 - RE	DET-003-240401-GW	38	69
280-191098-1 MS	DET-003-240401-GW	28 Q	54
280-191098-1 MS	DET-003-240401-GW	52	
280-191098-1 MS - RE	DET-003-240401-GW	69	73
280-191098-1 MSD	DET-003-240401-GW	31 Q	51
280-191098-1 MSD	DET-003-240401-GW	38	
280-191098-1 MSD - RE	DET-003-240401-GW	52	68
280-191098-2	DET-003-240402-GW	42	56
280-191098-5	DET-004-240401-GW	36	48
LCS 280-653452/2-A - RE	Lab Control Sample	60	66
LCSD 280-653452/3-A - RE	Lab Control Sample Dup	59	67
MB 280-653452/1-A - RE	Method Blank	69	72

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCBP1	TCX1
Lab Sample ID	Client Sample ID	(34-122)	(33-134)
LCS 280-652915/2-A	Lab Control Sample	52	54
LCS 280-652915/6-A	Lab Control Sample	42	46
LCSD 280-652915/3-A	Lab Control Sample Dup	43	51
LCSD 280-652915/7-A	Lab Control Sample Dup	43	49
MB 280-652915/1-A	Method Blank	61	79

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: Leidos, Inc. Job ID: 280-191098-1
Project/Site: RVAAP FWGW

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCBP1 (30-136)	TCX1 (25-120)
280-191098-1	DET-003-240401-GW	37	97
280-191098-1 MS	DET-003-240401-GW	68	82
280-191098-1 MSD	DET-003-240401-GW	57 M	83
280-191098-2	DET-003-240402-GW	53 M	88
280-191098-5	DET-004-240401-GW	48 M	79
LCS 280-652915/4-A	Lab Control Sample	81 M	81
LCSD 280-652915/5-A	Lab Control Sample Dup	72 M	90
MB 280-652915/1-A	Method Blank	68 M	93

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	12DNB1 (83-119)
280-191098-1	DET-003-240401-GW	71 M Q
280-191098-1 - RE	DET-003-240401-GW	98 M
280-191098-4	LL1mw-081-240401-GW	76 Q
280-191098-4 - RE	LL1mw-081-240401-GW	108 M
280-191098-5	DET-004-240401-GW	66 M Q
280-191098-5 - RE	DET-004-240401-GW	98 M
280-191098-7	LL3mw-247-240401-GW	43 Q
280-191098-7 - RE	LL3mw-247-240401-GW	94
280-191098-8	LL3mw-248-240401-GW	71 M Q
280-191098-8 - RE	LL3mw-248-240401-GW	92
LCS 280-652898/2-A	Lab Control Sample	90
LCS 280-653565/2-A	Lab Control Sample	104
LCSD 280-652898/3-A	Lab Control Sample Dup	93
LCSD 280-653565/3-A	Lab Control Sample Dup	95
MB 280-652898/1-A	Method Blank	97 M
MB 280-653565/1-A	Method Blank	98

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	12DNB2 (83-119)
280-191098-4	LL1mw-081-240401-GW	75 Q
280-191098-4 - RE	LL1mw-081-240401-GW	101
280-191098-5	DET-004-240401-GW	69 Q
280-191098-5 - RE	DET-004-240401-GW	99
280-191098-7	LL3mw-247-240401-GW	46 Q
280-191098-7 - RE	LL3mw-247-240401-GW	96
280-191098-8	LL3mw-248-240401-GW	74 Q

Surrogate Summary

Client: Leidos, Inc. Job ID: 280-191098-1
Project/Site: RVAAP FWGW

Method: 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	12DNB2 (83-119)								
280-191098-8 - RE	LL3mw-248-240401-GW	94								

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: 8260D - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-653926/9
Matrix: Water
Analysis Batch: 653926

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.50	U	1.0	0.50	0.39	ug/L		05/18/24 07:06	1
1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.21	ug/L		05/18/24 07:06	1
1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.27	ug/L		05/18/24 07:06	1
1,1-Dichloroethane	0.80	U	1.0	0.80	0.22	ug/L		05/18/24 07:06	1
1,1-Dichloroethene	0.80	U	1.0	0.80	0.23	ug/L		05/18/24 07:06	1
1,2-Dibromoethane	0.80	U	1.0	0.80	0.18	ug/L		05/18/24 07:06	1
1,2-Dichloroethane	0.50	U M	1.0	0.50	0.28	ug/L		05/18/24 07:06	1
1,2-Dichloroethene, Total	0.40	U	1.0	0.40	0.32	ug/L		05/18/24 07:06	1
1,2-Dichloropropane	0.80	U	1.0	0.80	0.24	ug/L		05/18/24 07:06	1
2-Butanone (MEK)	8.0	U	10	8.0	4.6	ug/L		05/18/24 07:06	1
2-Hexanone	4.0	U	5.0	4.0	0.81	ug/L		05/18/24 07:06	1
4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	0.98	ug/L		05/18/24 07:06	1
Acetone	8.0	U	15	8.0	6.6	ug/L		05/18/24 07:06	1
Benzene	0.80	U	1.0	0.80	0.14	ug/L		05/18/24 07:06	1
Bromochloromethane	0.80	U	1.0	0.80	0.40	ug/L		05/18/24 07:06	1
Bromodichloromethane	0.50	U	1.0	0.50	0.19	ug/L		05/18/24 07:06	1
Bromoform	1.8	U	2.0	1.8	0.25	ug/L		05/18/24 07:06	1
Bromomethane	4.0	U M	5.0	4.0	2.4	ug/L		05/18/24 07:06	1
Carbon disulfide	0.80	U M	2.0	0.80	0.26	ug/L		05/18/24 07:06	1
Carbon tetrachloride	0.50	U	1.0	0.50	0.23	ug/L		05/18/24 07:06	1
Chlorobenzene	0.80	U	1.0	0.80	0.092	ug/L		05/18/24 07:06	1
Chloroethane	1.0	U	2.0	1.0	0.64	ug/L		05/18/24 07:06	1
Chloroform	0.80	U	1.0	0.80	0.36	ug/L		05/18/24 07:06	1
Chloromethane	1.0	U	2.0	1.0	0.23	ug/L		05/18/24 07:06	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16	ug/L		05/18/24 07:06	1
Dibromochloromethane	0.50	U	1.0	0.50	0.28	ug/L		05/18/24 07:06	1
Ethylbenzene	0.40	U	1.0	0.40	0.14	ug/L		05/18/24 07:06	1
Methylene Chloride	1.8	U	2.0	1.8	0.94	ug/L		05/18/24 07:06	1
Styrene	0.80	U	1.0	0.80	0.13	ug/L		05/18/24 07:06	1
Tetrachloroethene	0.80	U	1.0	0.80	0.40	ug/L		05/18/24 07:06	1
Toluene	0.40	U	1.0	0.40	0.32	ug/L		05/18/24 07:06	1
trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.14	ug/L		05/18/24 07:06	1
Trichloroethene	0.40	U	1.0	0.40	0.30	ug/L		05/18/24 07:06	1
Vinyl chloride	0.40	U	1.0	0.40	0.23	ug/L		05/18/24 07:06	1
Xylenes, Total	0.80	U	1.0	0.80	0.11	ug/L		05/18/24 07:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*81 - 118*		*05/18/24 07:06*	*1*
4-Bromofluorobenzene (Surr)	*102*		*85 - 114*		*05/18/24 07:06*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 119*		*05/18/24 07:06*	*1*
Toluene-d8 (Surr)	*99*		*89 - 112*		*05/18/24 07:06*	*1*

Lab Sample ID: LCS 280-653926/4
Matrix: Water
Analysis Batch: 653926

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,1-Trichloroethane			50.0	49.4		ug/L		99	74 - 131		

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-653926/4
Matrix: Water
Analysis Batch: 653926

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,2,2-Tetrachloroethane			50.0	45.7		ug/L		91	71 - 121		
1,1,2-Trichloroethane			50.0	48.0		ug/L		96	80 - 119		
1,1-Dichloroethane			50.0	50.4		ug/L		101	77 - 125		
1,1-Dichloroethene			50.0	51.4		ug/L		103	71 - 131		
1,2-Dibromoethane			50.0	47.8		ug/L		96	77 - 121		
1,2-Dichloroethane			50.0	48.2		ug/L		96	73 - 128		
1,2-Dichloroethene, Total			100	101		ug/L		101	79 - 121		
1,2-Dichloropropane			50.0	50.1		ug/L		100	78 - 122		
2-Butanone (MEK)			200	194		ug/L		97	56 - 143		
2-Hexanone			200	195		ug/L		97	57 - 139		
4-Methyl-2-pentanone (MIBK)			200	191		ug/L		96	67 - 130		
Acetone			200	200		ug/L		100	39 - 160		
Benzene			50.0	50.8		ug/L		102	79 - 120		
Bromochloromethane			50.0	50.8		ug/L		102	78 - 123		
Bromodichloromethane			50.0	50.1		ug/L		100	79 - 125		
Bromoform			50.0	48.4		ug/L		97	66 - 130		
Bromomethane			50.0	52.2		ug/L		104	53 - 141		
Carbon disulfide			50.0	52.0		ug/L		104	64 - 133		
Carbon tetrachloride			50.0	49.8		ug/L		100	72 - 136		
Chlorobenzene			50.0	50.0		ug/L		100	82 - 118		
Chloroethane			50.0	51.4		ug/L		103	60 - 138		
Chloroform			50.0	50.1		ug/L		100	79 - 124		
Chloromethane			50.0	54.6		ug/L		109	50 - 139		
cis-1,3-Dichloropropene			50.0	51.2		ug/L		102	75 - 124		
Dibromochloromethane			50.0	47.3		ug/L		95	74 - 126		
Ethylbenzene			50.0	49.8		ug/L		100	79 - 121		
Methylene Chloride			50.0	50.3		ug/L		101	74 - 124		
Styrene			50.0	53.6		ug/L		107	78 - 123		
Tetrachloroethene			50.0	49.3		ug/L		99	74 - 129		
Toluene			50.0	50.3		ug/L		101	80 - 121		
trans-1,3-Dichloropropene			50.0	52.3		ug/L		105	73 - 127		
Trichloroethene			50.0	48.9		ug/L		98	79 - 123		
Vinyl chloride			50.0	49.1		ug/L		98	58 - 137		
Xylenes, Total			100	103		ug/L		103	79 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*81 - 118*
4-Bromofluorobenzene (Surr)	*97*		*85 - 114*
Dibromofluoromethane (Surr)	*101*		*80 - 119*
Toluene-d8 (Surr)	*101*		*89 - 112*

Lab Sample ID: LCSD 280-653926/5
Matrix: Water
Analysis Batch: 653926

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane			50.0	49.8		ug/L		100	74 - 131	1	20
1,1,2,2-Tetrachloroethane			50.0	45.1		ug/L		90	71 - 121	1	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-653926/5
Matrix: Water
Analysis Batch: 653926

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloroethane			50.0	47.2		ug/L		94	80 - 119	2	20
1,1-Dichloroethane			50.0	50.9		ug/L		102	77 - 125	1	20
1,1-Dichloroethene			50.0	50.9		ug/L		102	71 - 131	1	20
1,2-Dibromoethane			50.0	47.6		ug/L		95	77 - 121	0	20
1,2-Dichloroethane			50.0	48.9		ug/L		98	73 - 128	1	20
1,2-Dichloroethene, Total			100	102		ug/L		102	79 - 121	0	20
1,2-Dichloropropane			50.0	51.2		ug/L		102	78 - 122	2	20
2-Butanone (MEK)			200	182		ug/L		91	56 - 143	6	20
2-Hexanone			200	188		ug/L		94	57 - 139	3	20
4-Methyl-2-pentanone (MIBK)			200	187		ug/L		94	67 - 130	2	20
Acetone			200	196		ug/L		98	39 - 160	2	20
Benzene			50.0	50.4		ug/L		101	79 - 120	1	20
Bromochloromethane			50.0	51.3		ug/L		103	78 - 123	1	20
Bromodichloromethane			50.0	49.0		ug/L		98	79 - 125	2	20
Bromoform			50.0	47.0		ug/L		94	66 - 130	3	20
Bromomethane			50.0	56.1		ug/L		112	53 - 141	7	20
Carbon disulfide			50.0	51.5		ug/L		103	64 - 133	1	20
Carbon tetrachloride			50.0	49.6		ug/L		99	72 - 136	0	20
Chlorobenzene			50.0	48.4		ug/L		97	82 - 118	3	20
Chloroethane			50.0	53.9		ug/L		108	60 - 138	5	20
Chloroform			50.0	50.6		ug/L		101	79 - 124	1	20
Chloromethane			50.0	57.5		ug/L		115	50 - 139	5	20
cis-1,3-Dichloropropene			50.0	50.4		ug/L		101	75 - 124	2	20
Dibromochloromethane			50.0	48.3		ug/L		97	74 - 126	2	20
Ethylbenzene			50.0	48.1		ug/L		96	79 - 121	3	20
Methylene Chloride			50.0	51.3		ug/L		103	74 - 124	2	20
Styrene			50.0	53.4		ug/L		107	78 - 123	0	20
Tetrachloroethene			50.0	50.1		ug/L		100	74 - 129	2	20
Toluene			50.0	49.3		ug/L		99	80 - 121	2	20
trans-1,3-Dichloropropene			50.0	51.2		ug/L		102	73 - 127	2	20
Trichloroethene			50.0	50.3		ug/L		101	79 - 123	3	20
Vinyl chloride			50.0	51.2		ug/L		102	58 - 137	4	20
Xylenes, Total			100	102		ug/L		102	79 - 121	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*81 - 118*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*
Dibromofluoromethane (Surr)	*103*		*80 - 119*
Toluene-d8 (Surr)	*98*		*89 - 112*

Lab Sample ID: 280-191098-1 MS
Matrix: Water
Analysis Batch: 653926

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	0.50	U	25.0	22.7		ug/L		91	74 - 131
1,1,2,2-Tetrachloroethane	0.80	U	25.0	22.0		ug/L		88	71 - 121
1,1,2-Trichloroethane	0.80	U	25.0	22.6		ug/L		91	80 - 119

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-191098-1 MS
Matrix: Water
Analysis Batch: 653926

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethane	0.80	U	25.0	24.2		ug/L		97	77 - 125
1,1-Dichloroethene	0.80	U	25.0	20.9		ug/L		83	71 - 131
1,2-Dibromoethane	0.80	U	25.0	22.8		ug/L		91	77 - 121
1,2-Dichloroethane	0.50	U M	25.0	24.5		ug/L		98	73 - 128
1,2-Dichloroethene, Total	0.40	U	50.0	47.9		ug/L		96	79 - 121
1,2-Dichloropropane	0.80	U	25.0	22.8		ug/L		91	78 - 122
2-Butanone (MEK)	8.0	U	100	102		ug/L		102	56 - 143
2-Hexanone	4.0	U	100	93.4		ug/L		93	57 - 139
4-Methyl-2-pentanone (MIBK)	3.2	U	100	96.8		ug/L		97	67 - 130
Acetone	8.0	U	100	101		ug/L		101	39 - 160
Benzene	0.80	U	25.0	23.4		ug/L		94	79 - 120
Bromochloromethane	0.80	U	25.0	26.1		ug/L		104	78 - 123
Bromodichloromethane	0.50	U	25.0	22.5		ug/L		90	79 - 125
Bromoform	1.8	U	25.0	21.4		ug/L		85	66 - 130
Carbon disulfide	0.80	U M	25.0	22.1		ug/L		88	64 - 133
Carbon tetrachloride	0.50	U	25.0	21.7		ug/L		87	72 - 136
Chlorobenzene	0.80	U	25.0	22.8		ug/L		91	82 - 118
Chloroform	0.80	U	25.0	23.9		ug/L		96	79 - 124
cis-1,3-Dichloropropene	0.40	U	25.0	22.2		ug/L		89	75 - 124
Dibromochloromethane	0.50	U	25.0	21.4		ug/L		86	74 - 126
Ethylbenzene	0.40	U	25.0	22.2		ug/L		89	79 - 121
Methylene Chloride	1.8	U	25.0	24.5		ug/L		98	74 - 124
Styrene	0.80	U	25.0	24.5		ug/L		98	78 - 123
Tetrachloroethene	0.80	U	25.0	21.9		ug/L		88	74 - 129
Toluene	0.40	U	25.0	23.0		ug/L		92	80 - 121
trans-1,3-Dichloropropene	0.40	U	25.0	23.1		ug/L		93	73 - 127
Trichloroethene	0.40	U	25.0	22.4		ug/L		90	79 - 123
Xylenes, Total	0.80	U	50.0	46.1		ug/L		92	79 - 121

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*81 - 118*
4-Bromofluorobenzene (Surr)	*98*		*85 - 114*
Dibromofluoromethane (Surr)	*101*		*80 - 119*
Toluene-d8 (Surr)	*97*		*89 - 112*

Lab Sample ID: 280-191098-1 MSD
Matrix: Water
Analysis Batch: 653926

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.50	U	25.0	23.7		ug/L		95	74 - 131	4	20
1,1,2,2-Tetrachloroethane	0.80	U	25.0	23.4		ug/L		94	71 - 121	6	20
1,1,2-Trichloroethane	0.80	U	25.0	23.4		ug/L		94	80 - 119	4	20
1,1-Dichloroethane	0.80	U	25.0	24.4		ug/L		98	77 - 125	1	20
1,1-Dichloroethene	0.80	U	25.0	23.3		ug/L		93	71 - 131	11	20
1,2-Dibromoethane	0.80	U	25.0	23.5		ug/L		94	77 - 121	3	20
1,2-Dichloroethane	0.50	U M	25.0	23.4		ug/L		94	73 - 128	5	20
1,2-Dichloroethene, Total	0.40	U	50.0	51.9		ug/L		104	79 - 121	8	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-191098-1 MSD
Matrix: Water
Analysis Batch: 653926

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dichloropropane	0.80	U	25.0	23.5		ug/L		94	78 - 122	3	20
2-Butanone (MEK)	8.0	U	100	101		ug/L		101	56 - 143	2	20
2-Hexanone	4.0	U	100	96.0		ug/L		96	57 - 139	3	20
4-Methyl-2-pentanone (MIBK)	3.2	U	100	92.4		ug/L		92	67 - 130	5	20
Acetone	8.0	U	100	96.3		ug/L		96	39 - 160	5	20
Benzene	0.80	U	25.0	24.1		ug/L		97	79 - 120	3	20
Bromochloromethane	0.80	U	25.0	25.7		ug/L		103	78 - 123	2	20
Bromodichloromethane	0.50	U	25.0	23.3		ug/L		93	79 - 125	3	20
Bromoform	1.8	U	25.0	22.1		ug/L		89	66 - 130	3	20
Carbon disulfide	0.80	U M	25.0	23.1		ug/L		92	64 - 133	4	20
Carbon tetrachloride	0.50	U	25.0	21.6		ug/L		86	72 - 136	1	20
Chlorobenzene	0.80	U	25.0	24.4		ug/L		98	82 - 118	7	20
Chloroform	0.80	U	25.0	25.1		ug/L		100	79 - 124	5	20
cis-1,3-Dichloropropene	0.40	U	25.0	23.2		ug/L		93	75 - 124	5	20
Dibromochloromethane	0.50	U	25.0	21.9		ug/L		88	74 - 126	2	20
Ethylbenzene	0.40	U	25.0	24.5		ug/L		98	79 - 121	10	20
Methylene Chloride	1.8	U	25.0	24.1		ug/L		96	74 - 124	2	20
Styrene	0.80	U	25.0	25.3		ug/L		101	78 - 123	3	20
Tetrachloroethene	0.80	U	25.0	23.1		ug/L		92	74 - 129	5	20
Toluene	0.40	U	25.0	24.4		ug/L		97	80 - 121	6	20
trans-1,3-Dichloropropene	0.40	U	25.0	22.8		ug/L		91	73 - 127	2	20
Trichloroethene	0.40	U	25.0	23.7		ug/L		95	79 - 123	6	20
Xylenes, Total	0.80	U	50.0	48.6		ug/L		97	79 - 121	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*81 - 118*
4-Bromofluorobenzene (Surr)	*97*		*85 - 114*
Dibromofluoromethane (Surr)	*101*		*80 - 119*
Toluene-d8 (Surr)	*100*		*89 - 112*

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-653130/1-A
Matrix: Water
Analysis Batch: 653283

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 653130

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2,4,5-Trichlorophenol	8.0	U	10	8.0	2.6	ug/L		05/14/24 13:11	1
2,4,6-Trichlorophenol	8.0	U	10	8.0	2.3	ug/L		05/14/24 13:11	1
2,4-Dichlorophenol	8.0	U	10	8.0	3.0	ug/L		05/14/24 13:11	1
2,4-Dimethylphenol	8.0	U	10	8.0	1.4	ug/L		05/14/24 13:11	1
2,4-Dinitrophenol	20	U	30	20	13	ug/L		05/14/24 13:11	1
2,4-Dinitrotoluene	8.0	U	10	8.0	1.4	ug/L		05/14/24 13:11	1
2,6-Dinitrotoluene	8.0	U	10	8.0	1.4	ug/L		05/14/24 13:11	1
2-Chlorophenol	8.0	U	10	8.0	2.6	ug/L		05/14/24 13:11	1
2-Methylphenol	8.0	U	10	8.0	0.77	ug/L		05/14/24 13:11	1
2-Nitrophenol	8.0	U	10	8.0	3.5	ug/L		05/14/24 13:11	1
3 & 4 Methylphenol	8.0	U	10	8.0	2.2	ug/L		05/14/24 13:11	1
4,6-Dinitro-2-methylphenol	30	U	50	30	4.0	ug/L		05/14/24 13:11	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-653130/1-A
Matrix: Water
Analysis Batch: 653283

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 653130

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4-Chloro-3-methylphenol	8.0	U	10	8.0	1.7	ug/L		05/14/24 13:11	1
4-Nitrophenol	13	U	25	13	9.1	ug/L		05/14/24 13:11	1
Bis(2-ethylhexyl) phthalate	8.0	U	10	8.0	3.3	ug/L		05/14/24 13:11	1
Butyl benzyl phthalate	3.2	U	4.0	3.2	1.5	ug/L		05/14/24 13:11	1
Diethyl phthalate	3.2	U	4.0	3.2	1.4	ug/L		05/14/24 13:11	1
Dimethyl phthalate	3.2	U	4.0	3.2	0.75	ug/L		05/14/24 13:11	1
Di-n-butyl phthalate	3.2	U	4.0	3.2	2.1	ug/L		05/14/24 13:11	1
Di-n-octyl phthalate	8.0	U	10	8.0	3.6	ug/L		05/14/24 13:11	1
Nitrobenzene	8.0	U	10	8.0	1.3	ug/L		05/14/24 13:11	1
Pentachlorophenol	48	U	50	48	20	ug/L		05/14/24 13:11	1
Phenol	8.0	U	10	8.0	0.92	ug/L		05/14/24 13:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*88*		*43 - 140*	*05/13/24 11:32*	*05/14/24 13:11*	*1*
2-Fluorobiphenyl	*72*		*44 - 119*	*05/13/24 11:32*	*05/14/24 13:11*	*1*
2-Fluorophenol (Surr)	*45*		*19 - 119*	*05/13/24 11:32*	*05/14/24 13:11*	*1*
Nitrobenzene-d5 (Surr)	*78*		*44 - 120*	*05/13/24 11:32*	*05/14/24 13:11*	*1*
Phenol-d5 (Surr)	*31*		*10 - 115*	*05/13/24 11:32*	*05/14/24 13:11*	*1*
Terphenyl-d14 (Surr)	*120*		*50 - 134*	*05/13/24 11:32*	*05/14/24 13:11*	*1*

Lab Sample ID: LCS 280-653130/2-A
Matrix: Water
Analysis Batch: 653283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 653130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-Trichlorophenol	80.0	68.0		ug/L		85	53 - 123
2,4,6-Trichlorophenol	80.0	68.3		ug/L		85	50 - 125
2,4-Dichlorophenol	80.0	59.2		ug/L		74	47 - 121
2,4-Dimethylphenol	80.0	52.6		ug/L		66	31 - 124
2,4-Dinitrophenol	160	123		ug/L		77	23 - 143
2,4-Dinitrotoluene	80.0	67.1		ug/L		84	57 - 128
2,6-Dinitrotoluene	80.0	71.1		ug/L		89	57 - 124
2-Chlorophenol	80.0	52.8		ug/L		66	38 - 117
2-Methylphenol	80.0	51.6		ug/L		65	30 - 117
2-Nitrophenol	80.0	58.5		ug/L		73	47 - 123
3 & 4 Methylphenol	80.0	53.9	M	ug/L		67	29 - 110
4,6-Dinitro-2-methylphenol	160	137		ug/L		86	44 - 137
4-Chloro-3-methylphenol	80.0	59.3		ug/L		74	52 - 119
4-Nitrophenol	160	75.5		ug/L		47	31 - 120
Bis(2-ethylhexyl) phthalate	80.0	73.1		ug/L		91	55 - 135
Butyl benzyl phthalate	80.0	71.5		ug/L		89	53 - 134
Diethyl phthalate	80.0	66.7		ug/L		83	56 - 125
Dimethyl phthalate	80.0	64.0		ug/L		80	45 - 127
Di-n-butyl phthalate	80.0	78.8		ug/L		99	59 - 127
Di-n-octyl phthalate	80.0	68.2		ug/L		85	51 - 140
Nitrobenzene	80.0	57.9		ug/L		72	45 - 121
Pentachlorophenol	160	133		ug/L		83	35 - 138
Phenol	80.0	27.5		ug/L		34	28 - 120

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-653130/2-A
Matrix: Water
Analysis Batch: 653283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 653130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	*92*		*43 - 140*
2-Fluorobiphenyl	*84*		*44 - 119*
2-Fluorophenol (Surr)	*47*		*19 - 119*
Nitrobenzene-d5 (Surr)	*77*		*44 - 120*
Phenol-d5 (Surr)	*34*		*10 - 115*
Terphenyl-d14 (Surr)	*106*		*50 - 134*

Lab Sample ID: LCSD 280-653130/3-A
Matrix: Water
Analysis Batch: 653283

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 653130

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4,5-Trichlorophenol			80.0	63.3		ug/L		79	53 - 123	7	20
2,4,6-Trichlorophenol			80.0	63.5		ug/L		79	50 - 125	7	20
2,4-Dichlorophenol			80.0	57.0		ug/L		71	47 - 121	4	20
2,4-Dimethylphenol			80.0	46.9		ug/L		59	31 - 124	12	20
2,4-Dinitrophenol			160	113		ug/L		71	23 - 143	9	20
2,4-Dinitrotoluene			80.0	57.4		ug/L		72	57 - 128	16	20
2,6-Dinitrotoluene			80.0	60.7		ug/L		76	57 - 124	16	20
2-Chlorophenol			80.0	52.5		ug/L		66	38 - 117	1	20
2-Methylphenol			80.0	49.0		ug/L		61	30 - 117	5	20
2-Nitrophenol			80.0	56.7		ug/L		71	47 - 123	3	20
3 & 4 Methylphenol			80.0	50.7	M	ug/L		63	29 - 110	6	20
4,6-Dinitro-2-methylphenol			160	124		ug/L		77	44 - 137	10	20
4-Chloro-3-methylphenol			80.0	53.2		ug/L		66	52 - 119	11	20
4-Nitrophenol			160	57.4	Q	ug/L		36	31 - 120	27	20
Bis(2-ethylhexyl) phthalate			80.0	64.9		ug/L		81	55 - 135	12	20
Butyl benzyl phthalate			80.0	62.7		ug/L		78	53 - 134	13	20
Diethyl phthalate			80.0	57.1		ug/L		71	56 - 125	16	20
Dimethyl phthalate			80.0	56.2		ug/L		70	45 - 127	13	20
Di-n-butyl phthalate			80.0	62.0	Q	ug/L		77	59 - 127	24	20
Di-n-octyl phthalate			80.0	65.3		ug/L		82	51 - 140	4	20
Nitrobenzene			80.0	52.8		ug/L		66	45 - 121	9	20
Pentachlorophenol			160	123		ug/L		77	35 - 138	8	20
Phenol			80.0	25.5		ug/L		32	28 - 120	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	*86*		*43 - 140*
2-Fluorobiphenyl	*75*		*44 - 119*
2-Fluorophenol (Surr)	*45*		*19 - 119*
Nitrobenzene-d5 (Surr)	*70*		*44 - 120*
Phenol-d5 (Surr)	*31*		*10 - 115*
Terphenyl-d14 (Surr)	*90*		*50 - 134*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-191098-1 MS
Matrix: Water
Analysis Batch: 653283

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA
Prep Batch: 653130

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-Trichlorophenol	8.1	U	81.2	73.9		ug/L		91	53 - 123
2,4,6-Trichlorophenol	8.1	U	81.2	75.0		ug/L		92	50 - 125
2,4-Dichlorophenol	8.1	U	81.2	67.8		ug/L		83	47 - 121
2,4-Dimethylphenol	8.1	U	81.2	53.5		ug/L		66	31 - 124
2,4-Dinitrophenol	20	U	162	138		ug/L		85	23 - 143
2,4-Dinitrotoluene	8.1	U	81.2	71.6		ug/L		88	57 - 128
2,6-Dinitrotoluene	8.1	U M	81.2	74.1		ug/L		91	57 - 124
2-Chlorophenol	8.1	U	81.2	62.4		ug/L		77	38 - 117
2-Methylphenol	8.1	U	81.2	60.0		ug/L		74	30 - 117
2-Nitrophenol	8.1	U	81.2	68.0		ug/L		84	47 - 123
3 & 4 Methylphenol	8.1	U	81.2	62.4	M	ug/L		77	29 - 110
4,6-Dinitro-2-methylphenol	30	U M	162	154		ug/L		95	44 - 137
4-Chloro-3-methylphenol	8.1	U	81.2	62.8		ug/L		77	52 - 119
4-Nitrophenol	13	U Q	162	74.3		ug/L		46	31 - 120
Bis(2-ethylhexyl) phthalate	8.1	U M	81.2	78.3		ug/L		96	55 - 135
Butyl benzyl phthalate	3.2	U	81.2	76.4		ug/L		94	53 - 134
Diethyl phthalate	3.2	U	81.2	69.4		ug/L		85	56 - 125
Dimethyl phthalate	3.2	U	81.2	66.6		ug/L		82	45 - 127
Di-n-butyl phthalate	3.2	U Q	81.2	74.5		ug/L		92	59 - 127
Di-n-octyl phthalate	8.1	U	81.2	79.3		ug/L		98	51 - 140
Nitrobenzene	8.1	U	81.2	61.8		ug/L		76	45 - 121
Pentachlorophenol	48	U	162	141		ug/L		87	35 - 138
Phenol	8.1	U	81.2	33.0		ug/L		41	28 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*97*		*43 - 140*
2-Fluorobiphenyl	*88*		*44 - 119*
2-Fluorophenol (Surr)	*56*		*19 - 119*
Nitrobenzene-d5 (Surr)	*82*		*44 - 120*
Phenol-d5 (Surr)	*41*		*10 - 115*
Terphenyl-d14 (Surr)	*99*		*50 - 134*

Lab Sample ID: 280-191098-1 MSD
Matrix: Water
Analysis Batch: 653283

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA
Prep Batch: 653130

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4,5-Trichlorophenol	8.1	U	83.0	83.8		ug/L		101	53 - 123	13	20
2,4,6-Trichlorophenol	8.1	U	83.0	82.9		ug/L		100	50 - 125	10	20
2,4-Dichlorophenol	8.1	U	83.0	76.3		ug/L		92	47 - 121	12	20
2,4-Dimethylphenol	8.1	U	83.0	64.6		ug/L		78	31 - 124	19	20
2,4-Dinitrophenol	20	U	166	167		ug/L		101	23 - 143	19	20
2,4-Dinitrotoluene	8.1	U	83.0	75.7		ug/L		91	57 - 128	6	20
2,6-Dinitrotoluene	8.1	U M	83.0	81.8		ug/L		99	57 - 124	10	20
2-Chlorophenol	8.1	U	83.0	68.1		ug/L		82	38 - 117	9	20
2-Methylphenol	8.1	U	83.0	64.7		ug/L		78	30 - 117	8	20
2-Nitrophenol	8.1	U	83.0	77.2		ug/L		93	47 - 123	13	20
3 & 4 Methylphenol	8.1	U	83.0	68.7	M	ug/L		83	29 - 110	10	20

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-191098-1 MSD
Matrix: Water
Analysis Batch: 653283

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA
Prep Batch: 653130

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,6-Dinitro-2-methylphenol	30	U M	166	161		ug/L		97	44 - 137	4	20
4-Chloro-3-methylphenol	8.1	U	83.0	70.9		ug/L		86	52 - 119	12	20
4-Nitrophenol	13	U Q	166	76.3		ug/L		46	31 - 120	3	20
Bis(2-ethylhexyl) phthalate	8.1	U M	83.0	89.7		ug/L		108	55 - 135	14	20
Butyl benzyl phthalate	3.2	U	83.0	86.2		ug/L		104	53 - 134	12	20
Diethyl phthalate	3.2	U	83.0	75.2		ug/L		91	56 - 125	8	20
Dimethyl phthalate	3.2	U	83.0	74.8		ug/L		90	45 - 127	12	20
Di-n-butyl phthalate	3.2	U Q	83.0	79.5		ug/L		96	59 - 127	6	20
Di-n-octyl phthalate	8.1	U	83.0	86.7		ug/L		104	51 - 140	9	20
Nitrobenzene	8.1	U	83.0	68.0		ug/L		82	45 - 121	9	20
Pentachlorophenol	48	U	166	160		ug/L		97	35 - 138	13	20
Phenol	8.1	U	83.0	34.9		ug/L		42	28 - 120	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*112*		*43 - 140*
2-Fluorobiphenyl	*100*		*44 - 119*
2-Fluorophenol (Surr)	*59*		*19 - 119*
Nitrobenzene-d5 (Surr)	*89*		*44 - 120*
Phenol-d5 (Surr)	*44*		*10 - 115*
Terphenyl-d14 (Surr)	*113*		*50 - 134*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 280-652726/1-A
Matrix: Water
Analysis Batch: 652894

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652726

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Methylnaphthalene	0.0302	J	0.10	0.080	0.021	ug/L		05/10/24 08:41	1
Acenaphthene	0.0156	J	0.10	0.080	0.0042	ug/L		05/10/24 08:41	1
Acenaphthylene	0.00994	J M	0.10	0.080	0.0051	ug/L		05/10/24 08:41	1
Anthracene	0.080	U M	0.10	0.080	0.031	ug/L		05/10/24 08:41	1
Benzo[a]anthracene	0.080	U M	0.10	0.080	0.028	ug/L		05/10/24 08:41	1
Benzo[a]pyrene	0.080	U	0.10	0.080	0.025	ug/L		05/10/24 08:41	1
Benzo[b]fluoranthene	0.080	U	0.10	0.080	0.040	ug/L		05/10/24 08:41	1
Benzo[g,h,i]perylene	0.080	U	0.10	0.080	0.037	ug/L		05/10/24 08:41	1
Benzo[k]fluoranthene	0.080	U	0.10	0.080	0.023	ug/L		05/10/24 08:41	1
Chrysene	0.080	U M	0.10	0.080	0.033	ug/L		05/10/24 08:41	1
Dibenz(a,h)anthracene	0.080	U	0.10	0.080	0.028	ug/L		05/10/24 08:41	1
Fluoranthene	0.080	U	0.10	0.080	0.049	ug/L		05/10/24 08:41	1
Fluorene	0.080	U M	0.10	0.080	0.019	ug/L		05/10/24 08:41	1
Indeno[1,2,3-cd]pyrene	0.080	U	0.10	0.080	0.039	ug/L		05/10/24 08:41	1
Naphthalene	0.080	U M	0.10	0.080	0.023	ug/L		05/10/24 08:41	1
Phenanthrene	0.080	U M	0.10	0.080	0.049	ug/L		05/10/24 08:41	1
Pyrene	0.080	U	0.10	0.080	0.045	ug/L		05/10/24 08:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*53 - 106*	*05/09/24 10:54*	*05/10/24 08:41*	*1*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 280-652726/1-A
Matrix: Water
Analysis Batch: 652894

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652726

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	93		55 - 111	05/09/24 10:54	05/10/24 08:41	1
Terphenyl-d14 (Surr)	101		58 - 132	05/09/24 10:54	05/10/24 08:41	1
2-methylnaphthalene-d10	85		15 - 113	05/09/24 10:54	05/10/24 08:41	1
Fluoranthene-d10	97		42 - 131	05/09/24 10:54	05/10/24 08:41	1

Lab Sample ID: LCS 280-652726/2-A
Matrix: Water
Analysis Batch: 652894

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652726

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Methylnaphthalene	0.900	0.608		ug/L		68	39 - 114
Acenaphthene	0.900	0.678		ug/L		75	48 - 114
Acenaphthylene	0.900	0.682		ug/L		76	35 - 121
Anthracene	0.900	0.734		ug/L		82	53 - 119
Benzo[a]anthracene	0.900	0.734		ug/L		82	59 - 120
Benzo[a]pyrene	0.900	0.696		ug/L		77	53 - 120
Benzo[b]fluoranthene	0.900	0.722		ug/L		80	53 - 126
Benzo[g,h,i]perylene	0.900	0.690		ug/L		77	44 - 128
Benzo[k]fluoranthene	0.900	0.758		ug/L		84	54 - 125
Chrysene	0.900	0.748		ug/L		83	57 - 120
Dibenz(a,h)anthracene	0.900	0.569		ug/L		63	44 - 131
Fluoranthene	0.900	0.777		ug/L		86	58 - 120
Fluorene	0.900	0.683		ug/L		76	50 - 118
Indeno[1,2,3-cd]pyrene	0.900	0.687		ug/L		76	48 - 130
Naphthalene	0.900	0.612		ug/L		68	43 - 114
Phenanthrene	0.900	0.775		ug/L		86	53 - 115
Pyrene	0.900	0.777		ug/L		86	53 - 121

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	77		53 - 106
Nitrobenzene-d5 (Surr)	86		55 - 111
Terphenyl-d14 (Surr)	92		58 - 132
2-methylnaphthalene-d10	76		15 - 113
Fluoranthene-d10	90		42 - 131

Lab Sample ID: LCSD 280-652726/3-A
Matrix: Water
Analysis Batch: 652894

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 652726

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Methylnaphthalene	0.900	0.732		ug/L		81	39 - 114	18	20
Acenaphthene	0.900	0.799		ug/L		89	48 - 114	17	20
Acenaphthylene	0.900	0.799		ug/L		89	35 - 121	16	20
Anthracene	0.900	0.847		ug/L		94	53 - 119	14	20
Benzo[a]anthracene	0.900	0.802		ug/L		89	59 - 120	9	20
Benzo[a]pyrene	0.900	0.799		ug/L		89	53 - 120	14	20
Benzo[b]fluoranthene	0.900	0.844		ug/L		94	53 - 126	16	20
Benzo[g,h,i]perylene	0.900	0.836		ug/L		93	44 - 128	19	20

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 280-652726/3-A
Matrix: Water
Analysis Batch: 652894

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 652726

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzo[k]fluoranthene			0.900	0.834		ug/L		93	54 - 125	10	20
Chrysene			0.900	0.884		ug/L		98	57 - 120	17	20
Dibenz(a,h)anthracene			0.900	0.766	Q	ug/L		85	44 - 131	29	20
Fluoranthene			0.900	0.852		ug/L		95	58 - 120	9	20
Fluorene			0.900	0.831		ug/L		92	50 - 118	20	20
Indeno[1,2,3-cd]pyrene			0.900	0.836		ug/L		93	48 - 130	19	20
Naphthalene			0.900	0.705		ug/L		78	43 - 114	14	20
Phenanthrene			0.900	0.849		ug/L		94	53 - 115	9	20
Pyrene			0.900	0.855		ug/L		95	53 - 121	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*87*		*53 - 106*
Nitrobenzene-d5 (Surr)	*95*		*55 - 111*
Terphenyl-d14 (Surr)	*97*		*58 - 132*
2-methylnaphthalene-d10	*86*		*15 - 113*
Fluoranthene-d10	*96*		*42 - 131*

Lab Sample ID: 280-191098-1 MS
Matrix: Water
Analysis Batch: 652894

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA
Prep Batch: 652726

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2-Methylnaphthalene	0.075	U M	0.906	0.523		ug/L		58	39 - 114
Acenaphthene	0.019	J	0.906	0.576		ug/L		62	48 - 114
Acenaphthylene	0.075	U M	0.906	0.582		ug/L		64	35 - 121
Anthracene	0.075	U M	0.906	0.673		ug/L		74	53 - 119
Benzo[a]anthracene	0.075	U M	0.906	0.643		ug/L		71	59 - 120
Benzo[a]pyrene	0.075	U M	0.906	0.580		ug/L		64	53 - 120
Benzo[b]fluoranthene	0.075	U M	0.906	0.629		ug/L		69	53 - 126
Benzo[g,h,i]perylene	0.075	U M	0.906	0.620		ug/L		68	44 - 128
Benzo[k]fluoranthene	0.075	U	0.906	0.637		ug/L		70	54 - 125
Chrysene	0.075	U M	0.906	0.739		ug/L		82	57 - 120
Dibenz(a,h)anthracene	0.075	U Q	0.906	0.433		ug/L		48	44 - 131
Fluoranthene	0.075	U M	0.906	0.717		ug/L		79	58 - 120
Fluorene	0.075	U M	0.906	0.633		ug/L		70	50 - 118
Indeno[1,2,3-cd]pyrene	0.075	U M	0.906	0.577		ug/L		64	48 - 130
Naphthalene	0.075	U M	0.906	0.526		ug/L		58	43 - 114
Phenanthrene	0.063	J	0.906	0.692		ug/L		69	53 - 115
Pyrene	0.075	U M	0.906	0.710		ug/L		78	53 - 121

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*64*		*53 - 106*
Nitrobenzene-d5 (Surr)	*69*		*55 - 111*
Terphenyl-d14 (Surr)	*84*		*58 - 132*
2-methylnaphthalene-d10	*65*		*15 - 113*
Fluoranthene-d10	*83*		*42 - 131*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 280-191098-1 MSD
Matrix: Water
Analysis Batch: 652894

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA
Prep Batch: 652726

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Methylnaphthalene	0.075	U M	0.909	0.606		ug/L		67	39 - 114	15	20
Acenaphthene	0.019	J	0.909	0.688		ug/L		74	48 - 114	18	20
Acenaphthylene	0.075	U M	0.909	0.684		ug/L		75	35 - 121	16	20
Anthracene	0.075	U M	0.909	0.726		ug/L		80	53 - 119	8	20
Benzo[a]anthracene	0.075	U M	0.909	0.700		ug/L		77	59 - 120	8	20
Benzo[a]pyrene	0.075	U M	0.909	0.640		ug/L		70	53 - 120	10	20
Benzo[b]fluoranthene	0.075	U M	0.909	0.691		ug/L		76	53 - 126	9	20
Benzo[g,h,i]perylene	0.075	U M	0.909	0.663		ug/L		73	44 - 128	7	20
Benzo[k]fluoranthene	0.075	U	0.909	0.709		ug/L		78	54 - 125	11	20
Chrysene	0.075	U M	0.909	0.831		ug/L		91	57 - 120	12	20
Dibenz(a,h)anthracene	0.075	U Q	0.909	0.493		ug/L		54	44 - 131	13	20
Fluoranthene	0.075	U M	0.909	0.771		ug/L		85	58 - 120	7	20
Fluorene	0.075	U M	0.909	0.711		ug/L		78	50 - 118	12	20
Indeno[1,2,3-cd]pyrene	0.075	U M	0.909	0.621		ug/L		68	48 - 130	7	20
Naphthalene	0.075	U M	0.909	0.625		ug/L		69	43 - 114	17	20
Phenanthrene	0.063	J	0.909	0.755		ug/L		76	53 - 115	9	20
Pyrene	0.075	U M	0.909	0.764		ug/L		84	53 - 121	7	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*53 - 106*
Nitrobenzene-d5 (Surr)	*89*		*55 - 111*
Terphenyl-d14 (Surr)	*87*		*58 - 132*
2-methylnaphthalene-d10	*77*		*15 - 113*
Fluoranthene-d10	*89*		*42 - 131*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 280-652915/1-A
Matrix: Water
Analysis Batch: 653121

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652915

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.050	U	0.050	0.050	0.0042	ug/L		05/13/24 12:43	1
4,4'-DDE	0.022	U	0.050	0.022	0.0042	ug/L		05/13/24 12:43	1
4,4'-DDT	0.050	U	0.050	0.050	0.024	ug/L		05/13/24 12:43	1
Aldrin	0.021	U	0.050	0.021	0.0062	ug/L		05/13/24 12:43	1
alpha-BHC	0.029	U	0.050	0.029	0.0097	ug/L		05/13/24 12:43	1
alpha-Chlordane	0.029	U	0.050	0.029	0.0088	ug/L		05/13/24 12:43	1
beta-BHC	0.040	U	0.050	0.040	0.0091	ug/L		05/13/24 12:43	1
delta-BHC	0.024	U	0.050	0.024	0.0078	ug/L		05/13/24 12:43	1
Dieldrin	0.016	U	0.050	0.016	0.0046	ug/L		05/13/24 12:43	1
Endosulfan I	0.022	U	0.050	0.022	0.0058	ug/L		05/13/24 12:43	1
Endosulfan II	0.040	U	0.050	0.040	0.0066	ug/L		05/13/24 12:43	1
Endosulfan sulfate	0.018	U	0.050	0.018	0.0049	ug/L		05/13/24 12:43	1
Endrin	0.024	U	0.050	0.024	0.0086	ug/L		05/13/24 12:43	1
Endrin aldehyde	0.024	U	0.050	0.024	0.0087	ug/L		05/13/24 12:43	1
Endrin ketone	0.035	U	0.050	0.035	0.013	ug/L		05/13/24 12:43	1
gamma-BHC (Lindane)	0.031	U	0.050	0.031	0.010	ug/L		05/13/24 12:43	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 280-652915/1-A
Matrix: Water
Analysis Batch: 653121

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652915

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
gamma-Chlordane	0.030	U	0.050	0.030	0.0072	ug/L		05/13/24 12:43	1
Heptachlor	0.050	U	0.050	0.050	0.010	ug/L		05/13/24 12:43	1
Heptachlor epoxide	0.036	U	0.050	0.036	0.0032	ug/L		05/13/24 12:43	1
Methoxychlor	0.036	U	0.10	0.036	0.014	ug/L		05/13/24 12:43	1
Toxaphene	3.0	U	3.0	3.0	1.5	ug/L		05/13/24 12:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*61*		*34 - 122*	*05/10/24 11:46*	*05/13/24 12:43*	*1*
Tetrachloro-m-xylene	*79*		*33 - 134*	*05/10/24 11:46*	*05/13/24 12:43*	*1*

Lab Sample ID: LCS 280-652915/2-A
Matrix: Water
Analysis Batch: 653121

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652915

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	1.00	0.944		ug/L		94	56 - 143
4,4'-DDE	1.00	0.923		ug/L		92	57 - 135
4,4'-DDT	1.00	0.861		ug/L		86	51 - 143
Aldrin	1.00	0.572		ug/L		57	45 - 134
alpha-BHC	1.00	0.922		ug/L		92	54 - 138
alpha-Chlordane	1.00	0.853		ug/L		85	60 - 129
beta-BHC	1.00	0.878		ug/L		88	56 - 136
delta-BHC	1.00	0.982		ug/L		98	52 - 142
Dieldrin	1.00	0.860		ug/L		86	60 - 136
Endosulfan I	1.00	0.883		ug/L		88	62 - 126
Endosulfan II	1.00	0.862		ug/L		86	52 - 135
Endosulfan sulfate	1.00	0.838		ug/L		84	62 - 133
Endrin	1.00	0.865		ug/L		86	60 - 138
Endrin aldehyde	1.00	0.870		ug/L		87	51 - 132
Endrin ketone	1.00	0.846		ug/L		85	58 - 134
gamma-BHC (Lindane)	1.00	0.873		ug/L		87	59 - 134
gamma-Chlordane	1.00	0.833		ug/L		83	56 - 136
Heptachlor	1.00	0.703		ug/L		70	54 - 130
Heptachlor epoxide	1.00	0.887		ug/L		89	61 - 133
Methoxychlor	1.00	0.780		ug/L		78	54 - 145

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*52*		*34 - 122*
Tetrachloro-m-xylene	*54*		*33 - 134*

Lab Sample ID: LCS 280-652915/6-A
Matrix: Water
Analysis Batch: 653121

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652915

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Toxaphene	20.0	21.9		ug/L		109	33 - 134

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 280-652915/6-A
Matrix: Water
Analysis Batch: 653121

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652915

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	42		34 - 122
Tetrachloro-m-xylene	46		33 - 134

Lab Sample ID: LCSD 280-652915/3-A
Matrix: Water
Analysis Batch: 653121

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 652915

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD			1.00	1.02		ug/L		102	56 - 143	8	30
4,4'-DDE			1.00	1.01		ug/L		101	57 - 135	9	30
4,4'-DDT			1.00	0.923		ug/L		92	51 - 143	7	30
Aldrin			1.00	0.578		ug/L		58	45 - 134	1	30
alpha-BHC			1.00	1.02		ug/L		102	54 - 138	10	30
alpha-Chlordane			1.00	0.922		ug/L		92	60 - 129	8	30
beta-BHC			1.00	0.970		ug/L		97	56 - 136	10	30
delta-BHC			1.00	1.07		ug/L		107	52 - 142	9	30
Dieldrin			1.00	0.925		ug/L		93	60 - 136	7	30
Endosulfan I			1.00	0.952		ug/L		95	62 - 126	8	30
Endosulfan II			1.00	0.930		ug/L		93	52 - 135	8	30
Endosulfan sulfate			1.00	0.902		ug/L		90	62 - 133	7	30
Endrin			1.00	0.930		ug/L		93	60 - 138	7	30
Endrin aldehyde			1.00	0.948		ug/L		95	51 - 132	9	30
Endrin ketone			1.00	0.911		ug/L		91	58 - 134	7	30
gamma-BHC (Lindane)			1.00	1.00		ug/L		100	59 - 134	14	30
gamma-Chlordane			1.00	0.900		ug/L		90	56 - 136	8	30
Heptachlor			1.00	0.735		ug/L		73	54 - 130	4	30
Heptachlor epoxide			1.00	0.966		ug/L		97	61 - 133	8	30
Methoxychlor			1.00	0.826		ug/L		83	54 - 145	6	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	43		34 - 122
Tetrachloro-m-xylene	51		33 - 134

Lab Sample ID: LCSD 280-652915/7-A
Matrix: Water
Analysis Batch: 653121

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 652915

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toxaphene			20.0	24.5	M	ug/L		122	33 - 134	11	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	43		34 - 122
Tetrachloro-m-xylene	49		33 - 134

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 280-191098-1 MS
Matrix: Water
Analysis Batch: 653121

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA
Prep Batch: 652915

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.052	U Q	1.01	1.05	Q	ug/L		104	56 - 143
4,4'-DDE	0.023	U Q	1.01	0.983	Q	ug/L		97	57 - 135
4,4'-DDT	0.052	U Q	1.01	0.975	M Q	ug/L		96	51 - 143
Aldrin	0.022	U Q J1	1.01	0.449	Q J1	ug/L		44	45 - 134
alpha-BHC	0.030	U Q	1.01	0.993	Q	ug/L		98	54 - 138
alpha-Chlordane	0.030	U Q	1.01	0.915	Q	ug/L		90	60 - 129
beta-BHC	0.041	U Q	1.01	0.956	Q	ug/L		94	56 - 136
delta-BHC	0.025	U Q	1.01	1.04	Q	ug/L		103	52 - 142
Dieldrin	0.017	U Q	1.01	0.896	Q	ug/L		88	60 - 136
Endosulfan I	0.023	U Q	1.01	0.914	Q	ug/L		90	62 - 126
Endosulfan II	0.041	U Q	1.01	0.914	Q	ug/L		90	52 - 135
Endosulfan sulfate	0.019	U Q	1.01	0.902	Q	ug/L		89	62 - 133
Endrin	0.025	U Q	1.01	0.937	Q	ug/L		92	60 - 138
Endrin aldehyde	0.025	U Q	1.01	0.945	Q	ug/L		93	51 - 132
Endrin ketone	0.036	U Q	1.01	0.925	Q	ug/L		91	58 - 134
gamma-BHC (Lindane)	0.032	U Q	1.01	1.00	Q	ug/L		99	59 - 134
gamma-Chlordane	0.031	U Q	1.01	0.873	Q	ug/L		86	56 - 136
Heptachlor	0.052	U Q	1.01	0.698	Q	ug/L		69	54 - 130
Heptachlor epoxide	0.037	U Q	1.01	0.925	Q	ug/L		91	61 - 133
Methoxychlor	0.037	U Q	1.01	0.843	Q	ug/L		83	54 - 145

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*28*	*Q*	*34 - 122*
Tetrachloro-m-xylene	*54*		*33 - 134*

Lab Sample ID: 280-191098-1 MS
Matrix: Water
Analysis Batch: 653121

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA
Prep Batch: 652915

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Toxaphene	3.1	U Q	20.4	22.4	M	ug/L		110	33 - 134

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*52*		*34 - 122*

Lab Sample ID: 280-191098-1 MSD
Matrix: Water
Analysis Batch: 653121

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA
Prep Batch: 652915

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	0.052	U Q	1.00	0.906	Q	ug/L		90	56 - 143	15	30
4,4'-DDE	0.023	U Q	1.00	0.886	Q	ug/L		88	57 - 135	10	30
4,4'-DDT	0.052	U Q	1.00	0.836	M Q	ug/L		83	51 - 143	15	30
Aldrin	0.022	U Q J1	1.00	0.423	Q J1	ug/L		42	45 - 134	6	30
alpha-BHC	0.030	U Q	1.00	0.887	Q	ug/L		88	54 - 138	11	30
alpha-Chlordane	0.030	U Q	1.00	0.812	Q	ug/L		81	60 - 129	12	30
beta-BHC	0.041	U Q	1.00	0.844	Q	ug/L		84	56 - 136	13	30
delta-BHC	0.025	U Q	1.00	0.928	Q	ug/L		93	52 - 142	12	30

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 280-191098-1 MSD
Matrix: Water
Analysis Batch: 653121

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA
Prep Batch: 652915

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dieldrin	0.017	U Q	1.00	0.820	Q	ug/L		82	60 - 136	9	30
Endosulfan I	0.023	U Q	1.00	0.827	Q	ug/L		82	62 - 126	10	30
Endosulfan II	0.041	U Q	1.00	0.819	Q	ug/L		82	52 - 135	11	30
Endosulfan sulfate	0.019	U Q	1.00	0.799	Q	ug/L		80	62 - 133	12	30
Endrin	0.025	U Q	1.00	0.824	Q	ug/L		82	60 - 138	13	30
Endrin aldehyde	0.025	U Q	1.00	0.827	Q	ug/L		82	51 - 132	13	30
Endrin ketone	0.036	U Q	1.00	0.806	Q	ug/L		80	58 - 134	14	30
gamma-BHC (Lindane)	0.032	U Q	1.00	0.879	Q	ug/L		88	59 - 134	13	30
gamma-Chlordane	0.031	U Q	1.00	0.794	Q	ug/L		79	56 - 136	9	30
Heptachlor	0.052	U Q	1.00	0.608	Q	ug/L		61	54 - 130	14	30
Heptachlor epoxide	0.037	U Q	1.00	0.842	Q	ug/L		84	61 - 133	9	30
Methoxychlor	0.037	U Q	1.00	0.741	Q	ug/L		74	54 - 145	13	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*31*	*Q*	*34 - 122*
Tetrachloro-m-xylene	*51*		*33 - 134*

Lab Sample ID: 280-191098-1 MSD
Matrix: Water
Analysis Batch: 653121

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA
Prep Batch: 652915

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toxaphene	3.1	U Q	20.3	21.7	M Q	ug/L		107	33 - 134	3	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*38*		*34 - 122*

Method: 8081B - Organochlorine Pesticides (GC) - RE

Lab Sample ID: MB 280-653452/1-A
Matrix: Water
Analysis Batch: 653635

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 653452

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD - RE	0.050	U	0.050	0.050	0.0042	ug/L		05/16/24 12:38	1
4,4'-DDE - RE	0.022	U	0.050	0.022	0.0042	ug/L		05/16/24 12:38	1
4,4'-DDT - RE	0.050	U	0.050	0.050	0.024	ug/L		05/16/24 12:38	1
Aldrin - RE	0.021	U	0.050	0.021	0.0062	ug/L		05/16/24 12:38	1
alpha-BHC - RE	0.029	U	0.050	0.029	0.0097	ug/L		05/16/24 12:38	1
alpha-Chlordane - RE	0.029	U	0.050	0.029	0.0088	ug/L		05/16/24 12:38	1
beta-BHC - RE	0.040	U	0.050	0.040	0.0091	ug/L		05/16/24 12:38	1
delta-BHC - RE	0.024	U	0.050	0.024	0.0078	ug/L		05/16/24 12:38	1
Dieldrin - RE	0.016	U	0.050	0.016	0.0046	ug/L		05/16/24 12:38	1
Endosulfan I - RE	0.022	U	0.050	0.022	0.0058	ug/L		05/16/24 12:38	1
Endosulfan II - RE	0.040	U	0.050	0.040	0.0066	ug/L		05/16/24 12:38	1
Endosulfan sulfate - RE	0.018	U	0.050	0.018	0.0049	ug/L		05/16/24 12:38	1
Endrin - RE	0.024	U	0.050	0.024	0.0086	ug/L		05/16/24 12:38	1
Endrin aldehyde - RE	0.024	U	0.050	0.024	0.0087	ug/L		05/16/24 12:38	1

Method: 8081B - Organochlorine Pesticides (GC) - RE (Continued)

Lab Sample ID: MB 280-653452/1-A
Matrix: Water
Analysis Batch: 653635

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 653452

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Endrin ketone - RE	0.035	U	0.050	0.035	0.013	ug/L		05/16/24 12:38	1
gamma-BHC (Lindane) - RE	0.031	U	0.050	0.031	0.010	ug/L		05/16/24 12:38	1
gamma-Chlordane - RE	0.030	U	0.050	0.030	0.0072	ug/L		05/16/24 12:38	1
Heptachlor - RE	0.050	U	0.050	0.050	0.010	ug/L		05/16/24 12:38	1
Heptachlor epoxide - RE	0.036	U	0.050	0.036	0.0032	ug/L		05/16/24 12:38	1
Methoxychlor - RE	0.036	U	0.10	0.036	0.014	ug/L		05/16/24 12:38	1
Toxaphene - RE	3.0	U	3.0	3.0	1.5	ug/L		05/16/24 12:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl - RE	*69*		*34 - 122*	*05/15/24 10:49*	*05/16/24 12:38*	*1*
Tetrachloro-m-xylene - RE	*72*		*33 - 134*	*05/15/24 10:49*	*05/16/24 12:38*	*1*

Lab Sample ID: LCS 280-653452/2-A
Matrix: Water
Analysis Batch: 653635

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 653452

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD - RE	1.00	1.02		ug/L		102	56 - 143
4,4'-DDE - RE	1.00	0.972		ug/L		97	57 - 135
4,4'-DDT - RE	1.00	0.989		ug/L		99	51 - 143
Aldrin - RE	1.00	0.639		ug/L		64	45 - 134
alpha-BHC - RE	1.00	0.965		ug/L		96	54 - 138
alpha-Chlordane - RE	1.00	0.923		ug/L		92	60 - 129
beta-BHC - RE	1.00	0.922		ug/L		92	56 - 136
delta-BHC - RE	1.00	1.01		ug/L		101	52 - 142
Dieldrin - RE	1.00	0.913		ug/L		91	60 - 136
Endosulfan I - RE	1.00	0.891		ug/L		89	62 - 126
Endosulfan II - RE	1.00	0.921		ug/L		92	52 - 135
Endosulfan sulfate - RE	1.00	0.898		ug/L		90	62 - 133
Endrin - RE	1.00	0.979		ug/L		98	60 - 138
Endrin aldehyde - RE	1.00	0.940		ug/L		94	51 - 132
Endrin ketone - RE	1.00	0.906		ug/L		91	58 - 134
gamma-BHC (Lindane) - RE	1.00	0.974		ug/L		97	59 - 134
gamma-Chlordane - RE	1.00	0.900		ug/L		90	56 - 136
Heptachlor - RE	1.00	0.813		ug/L		81	54 - 130
Heptachlor epoxide - RE	1.00	0.915		ug/L		92	61 - 133
Methoxychlor - RE	1.00	0.844		ug/L		84	54 - 145

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl - RE	*60*		*34 - 122*
Tetrachloro-m-xylene - RE	*66*		*33 - 134*

Lab Sample ID: LCSD 280-653452/3-A
Matrix: Water
Analysis Batch: 653635

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 653452

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD - RE	1.00	1.08		ug/L		108	56 - 143	6	30

Method: 8081B - Organochlorine Pesticides (GC) - RE (Continued)

Lab Sample ID: LCSD 280-653452/3-A
Matrix: Water
Analysis Batch: 653635

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 653452

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDE - RE			1.00	1.01		ug/L		101	57 - 135	4	30
4,4'-DDT - RE			1.00	1.10		ug/L		110	51 - 143	10	30
Aldrin - RE			1.00	0.659		ug/L		66	45 - 134	3	30
alpha-BHC - RE			1.00	0.995		ug/L		99	54 - 138	3	30
alpha-Chlordane - RE			1.00	0.945		ug/L		95	60 - 129	2	30
beta-BHC - RE			1.00	0.964		ug/L		96	56 - 136	4	30
delta-BHC - RE			1.00	1.06		ug/L		106	52 - 142	4	30
Dieldrin - RE			1.00	0.943		ug/L		94	60 - 136	3	30
Endosulfan I - RE			1.00	0.922		ug/L		92	62 - 126	3	30
Endosulfan II - RE			1.00	0.935		ug/L		94	52 - 135	2	30
Endosulfan sulfate - RE			1.00	0.953		ug/L		95	62 - 133	6	30
Endrin - RE			1.00	0.985		ug/L		98	60 - 138	1	30
Endrin aldehyde - RE			1.00	0.987		ug/L		99	51 - 132	5	30
Endrin ketone - RE			1.00	0.986		ug/L		99	58 - 134	9	30
gamma-BHC (Lindane) - RE			1.00	1.01		ug/L		101	59 - 134	4	30
gamma-Chlordane - RE			1.00	0.927		ug/L		93	56 - 136	3	30
Heptachlor - RE			1.00	0.856		ug/L		86	54 - 130	5	30
Heptachlor epoxide - RE			1.00	0.945		ug/L		94	61 - 133	3	30
Methoxychlor - RE			1.00	0.986		ug/L		99	54 - 145	16	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl - RE	*59*		*34 - 122*
Tetrachloro-m-xylene - RE	*67*		*33 - 134*

Lab Sample ID: 280-191098-1 MS
Matrix: Water
Analysis Batch: 653635

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA
Prep Batch: 653452

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
4,4'-DDD - RE	0.047	U H Q	1.01	1.14	H	ug/L		112	56 - 143		
4,4'-DDE - RE	0.021	U H Q	1.01	1.08	H	ug/L		106	57 - 135		
4,4'-DDT - RE	0.047	U H Q	1.01	1.12	H	ug/L		111	51 - 143		
Aldrin - RE	0.020	U H Q	1.01	0.768	H	ug/L		76	45 - 134		
alpha-BHC - RE	0.027	U H Q	1.01	1.04	H	ug/L		103	54 - 138		
alpha-Chlordane - RE	0.027	U H Q	1.01	1.02	H	ug/L		101	60 - 129		
beta-BHC - RE	0.037	U H Q	1.01	1.01	H	ug/L		100	56 - 136		
delta-BHC - RE	0.022	U H Q	1.01	1.11	H	ug/L		110	52 - 142		
Dieldrin - RE	0.015	U H Q	1.01	1.01	H	ug/L		100	60 - 136		
Endosulfan I - RE	0.021	U H Q	1.01	0.984	H	ug/L		97	62 - 126		
Endosulfan II - RE	0.037	U H Q	1.01	1.02	H	ug/L		100	52 - 135		
Endosulfan sulfate - RE	0.017	U H Q	1.01	1.02	H	ug/L		101	62 - 133		
Endrin - RE	0.022	U H Q	1.01	1.08	H	ug/L		106	60 - 138		
Endrin aldehyde - RE	0.022	U H Q	1.01	1.05	H	ug/L		103	51 - 132		
Endrin ketone - RE	0.033	U H Q	1.01	1.03	H	ug/L		102	58 - 134		
gamma-BHC (Lindane) - RE	0.029	U H Q	1.01	1.06	H	ug/L		105	59 - 134		
gamma-Chlordane - RE	0.028	U H Q	1.01	1.00	H	ug/L		99	56 - 136		
Heptachlor - RE	0.047	U H Q	1.01	0.956	H	ug/L		95	54 - 130		
Heptachlor epoxide - RE	0.034	U H Q	1.01	1.01	H	ug/L		100	61 - 133		

Method: 8081B - Organochlorine Pesticides (GC) - RE (Continued)

Lab Sample ID: 280-191098-1 MS
Matrix: Water
Analysis Batch: 653635

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA
Prep Batch: 653452

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Methoxychlor - RE	0.034	U H Q	1.01	0.997	H	ug/L		99	54 - 145

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl - RE	*69*		*34 - 122*
Tetrachloro-m-xylene - RE	*73*		*33 - 134*

Lab Sample ID: 280-191098-1 MSD
Matrix: Water
Analysis Batch: 653635

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA
Prep Batch: 653452

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD - RE	0.047	U H Q	1.01	1.08	H	ug/L		107	56 - 143	5	30
4,4'-DDE - RE	0.021	U H Q	1.01	1.02	H	ug/L		101	57 - 135	5	30
4,4'-DDT - RE	0.047	U H Q	1.01	1.06	H	ug/L		105	51 - 143	5	30
Aldrin - RE	0.020	U H Q	1.01	0.737	H	ug/L		73	45 - 134	4	30
alpha-BHC - RE	0.027	U H Q	1.01	0.994	H	ug/L		98	54 - 138	5	30
alpha-Chlordane - RE	0.027	U H Q	1.01	0.958	H	ug/L		95	60 - 129	6	30
beta-BHC - RE	0.037	U H Q	1.01	0.958	H	ug/L		95	56 - 136	5	30
delta-BHC - RE	0.022	U H Q	1.01	1.05	H	ug/L		104	52 - 142	6	30
Dieldrin - RE	0.015	U H Q	1.01	0.953	H	ug/L		94	60 - 136	6	30
Endosulfan I - RE	0.021	U H Q	1.01	0.925	H	ug/L		91	62 - 126	6	30
Endosulfan II - RE	0.037	U H Q	1.01	0.953	H	ug/L		94	52 - 135	6	30
Endosulfan sulfate - RE	0.017	U H Q	1.01	0.961	H	ug/L		95	62 - 133	6	30
Endrin - RE	0.022	U H Q	1.01	0.997	H	ug/L		98	60 - 138	8	30
Endrin aldehyde - RE	0.022	U H Q	1.01	1.00	H	ug/L		99	51 - 132	4	30
Endrin ketone - RE	0.033	U H Q	1.01	0.971	H	ug/L		96	58 - 134	6	30
gamma-BHC (Lindane) - RE	0.029	U H Q	1.01	1.01	H	ug/L		100	59 - 134	5	30
gamma-Chlordane - RE	0.028	U H Q	1.01	0.948	H	ug/L		94	56 - 136	6	30
Heptachlor - RE	0.047	U H Q	1.01	0.905	H	ug/L		89	54 - 130	5	30
Heptachlor epoxide - RE	0.034	U H Q	1.01	0.952	H	ug/L		94	61 - 133	6	30
Methoxychlor - RE	0.034	U H Q	1.01	0.943	H	ug/L		93	54 - 145	6	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl - RE	*52*		*34 - 122*
Tetrachloro-m-xylene - RE	*68*		*33 - 134*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 280-652915/1-A
Matrix: Water
Analysis Batch: 653123

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652915

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
PCB-1016	0.60	U	1.0	0.60	0.17	ug/L		05/13/24 18:26	1
PCB-1221	0.26	U	1.0	0.26	0.18	ug/L		05/13/24 18:26	1
PCB-1232	0.30	U	1.0	0.30	0.13	ug/L		05/13/24 18:26	1
PCB-1242	0.30	U	1.0	0.30	0.10	ug/L		05/13/24 18:26	1
PCB-1248	0.60	U	1.0	0.60	0.17	ug/L		05/13/24 18:26	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 280-652915/1-A
Matrix: Water
Analysis Batch: 653123

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652915

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
PCB-1254	0.26	U	1.0	0.26	0.14	ug/L		05/13/24 18:26	1
PCB-1260	0.30	U	1.0	0.30	0.089	ug/L		05/13/24 18:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*68*	*M*	*30 - 136*	*05/10/24 11:46*	*05/13/24 18:26*	*1*
Tetrachloro-m-xylene	*93*		*25 - 120*	*05/10/24 11:46*	*05/13/24 18:26*	*1*

Lab Sample ID: LCS 280-652915/4-A
Matrix: Water
Analysis Batch: 653123

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652915

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			2.00	2.15		ug/L		107	46 - 129		
PCB-1260			2.00	2.23		ug/L		111	45 - 134		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*81*	*M*	*30 - 136*
Tetrachloro-m-xylene	*81*		*25 - 120*

Lab Sample ID: LCSD 280-652915/5-A
Matrix: Water
Analysis Batch: 653123

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 652915

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016			2.00	2.29		ug/L		115	46 - 129	6	30
PCB-1260			2.00	2.39		ug/L		119	45 - 134	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*72*	*M*	*30 - 136*
Tetrachloro-m-xylene	*90*		*25 - 120*

Lab Sample ID: 280-191098-1 MS
Matrix: Water
Analysis Batch: 653123

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA
Prep Batch: 652915

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016	0.62	U M	2.02	2.36		ug/L		117	46 - 129		
PCB-1260	0.31	U	2.02	2.31		ug/L		114	45 - 134		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*68*		*30 - 136*
Tetrachloro-m-xylene	*82*		*25 - 120*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 280-191098-1 MSD
Matrix: Water
Analysis Batch: 653123

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA
Prep Batch: 652915

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	0.62	U M	2.02	2.56		ug/L		127	46 - 129	8	30
PCB-1260	0.31	U	2.02	2.43		ug/L		121	45 - 134	5	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*57*	*M*	*30 - 136*
Tetrachloro-m-xylene	*83*		*25 - 120*

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Lab Sample ID: MB 280-652898/1-A
Matrix: Water
Analysis Batch: 653063

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652898

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U M	0.21	0.20	0.084	ug/L		05/11/24 15:16	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037	ug/L		05/11/24 15:16	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045	ug/L		05/11/24 15:16	1
2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027	ug/L		05/11/24 15:16	1
2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040	ug/L		05/11/24 15:16	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051	ug/L		05/11/24 15:16	1
2-Nitrotoluene	0.20	U	0.21	0.20	0.086	ug/L		05/11/24 15:16	1
3-Nitrotoluene	0.35	U	0.40	0.35	0.20	ug/L		05/11/24 15:16	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058	ug/L		05/11/24 15:16	1
4-Nitrotoluene	0.40	U	0.41	0.40	0.10	ug/L		05/11/24 15:16	1
HMX	0.20	U	0.21	0.20	0.088	ug/L		05/11/24 15:16	1
Nitrobenzene	0.20	U	0.21	0.20	0.091	ug/L		05/11/24 15:16	1
Nitroglycerin	2.0	U	2.1	2.0	0.92	ug/L		05/11/24 15:16	1
PETN	1.0	U	1.1	1.0	0.45	ug/L		05/11/24 15:16	1
RDX	0.20	U	0.21	0.20	0.052	ug/L		05/11/24 15:16	1
Tetryl	0.10	U	0.11	0.10	0.032	ug/L		05/11/24 15:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*97*	*M*	*83 - 119*	*05/10/24 10:58*	*05/11/24 15:16*	*1*

Lab Sample ID: LCS 280-652898/2-A
Matrix: Water
Analysis Batch: 653063

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652898

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trinitrobenzene	2.00	2.02		ug/L		101	73 - 125
1,3-Dinitrobenzene	2.00	1.79		ug/L		90	78 - 120
2,4,6-Trinitrotoluene	2.00	1.76		ug/L		88	71 - 123
2,4-Dinitrotoluene	2.00	1.67		ug/L		84	78 - 120
2,6-Dinitrotoluene	2.00	1.70		ug/L		85	77 - 127
2-Amino-4,6-dinitrotoluene	2.00	1.72		ug/L		86	79 - 120
2-Nitrotoluene	2.00	1.28	Q	ug/L		64	70 - 127
3-Nitrotoluene	2.00	1.24	Q	ug/L		62	73 - 125
4-Amino-2,6-dinitrotoluene	2.00	1.76		ug/L		88	76 - 125

Method: 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Lab Sample ID: LCS 280-652898/2-A
Matrix: Water
Analysis Batch: 653063

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652898

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
4-Nitrotoluene			2.00	1.24	Q	ug/L		62	71 - 127		
HMX			2.00	1.77	M	ug/L		89	65 - 135		
Nitrobenzene			2.00	1.51		ug/L		75	65 - 134		
Nitroglycerin			20.0	19.4		ug/L		97	74 - 127		
PETN			20.0	20.1		ug/L		101	73 - 127		
RDX			2.00	1.78		ug/L		89	68 - 130		
Tetryl			2.00	1.74		ug/L		87	64 - 128		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dinitrobenzene	*90*		*83 - 119*

Lab Sample ID: LCSD 280-652898/3-A
Matrix: Water
Analysis Batch: 653063

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 652898

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trinitrobenzene			2.00	2.05		ug/L		102	73 - 125	2	20
1,3-Dinitrobenzene			2.00	1.85		ug/L		92	78 - 120	3	20
2,4,6-Trinitrotoluene			2.00	1.81		ug/L		91	71 - 123	3	20
2,4-Dinitrotoluene			2.00	1.77		ug/L		88	78 - 120	5	20
2,6-Dinitrotoluene			2.00	1.78		ug/L		89	77 - 127	5	20
2-Amino-4,6-dinitrotoluene			2.00	1.81		ug/L		91	79 - 120	5	20
2-Nitrotoluene			2.00	1.40		ug/L		70	70 - 127	8	20
3-Nitrotoluene			2.00	1.31	Q	ug/L		65	73 - 125	5	20
4-Amino-2,6-dinitrotoluene			2.00	1.86		ug/L		93	76 - 125	5	20
4-Nitrotoluene			2.00	1.33	Q	ug/L		67	71 - 127	7	20
HMX			2.00	1.74	M	ug/L		87	65 - 135	2	20
Nitrobenzene			2.00	1.63		ug/L		81	65 - 134	8	20
Nitroglycerin			20.0	19.6		ug/L		98	74 - 127	1	20
PETN			20.0	20.4		ug/L		102	73 - 127	1	20
RDX			2.00	1.78		ug/L		89	68 - 130	0	20
Tetryl			2.00	1.83		ug/L		92	64 - 128	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dinitrobenzene	*93*		*83 - 119*

Lab Sample ID: MB 280-653565/1-A
Matrix: Water
Analysis Batch: 653871

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 653565

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.084	ug/L		05/18/24 02:06	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037	ug/L		05/18/24 02:06	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045	ug/L		05/18/24 02:06	1
2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027	ug/L		05/18/24 02:06	1
2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040	ug/L		05/18/24 02:06	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051	ug/L		05/18/24 02:06	1
2-Nitrotoluene	0.20	U	0.21	0.20	0.086	ug/L		05/18/24 02:06	1

Method: 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Lab Sample ID: MB 280-653565/1-A
Matrix: Water
Analysis Batch: 653871

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 653565

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
3-Nitrotoluene	0.35	U	0.40	0.35	0.20	ug/L		05/18/24 02:06	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058	ug/L		05/18/24 02:06	1
4-Nitrotoluene	0.40	U	0.41	0.40	0.10	ug/L		05/18/24 02:06	1
HMX	0.20	U	0.21	0.20	0.088	ug/L		05/18/24 02:06	1
Nitrobenzene	0.20	U	0.21	0.20	0.091	ug/L		05/18/24 02:06	1
Nitroglycerin	2.0	U	2.1	2.0	0.92	ug/L		05/18/24 02:06	1
PETN	1.0	U	1.1	1.0	0.45	ug/L		05/18/24 02:06	1
RDX	0.20	U	0.21	0.20	0.052	ug/L		05/18/24 02:06	1
Tetryl	0.10	U	0.11	0.10	0.032	ug/L		05/18/24 02:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*98*		*83 - 119*	*05/17/24 13:10*	*05/18/24 02:06*	*1*

Lab Sample ID: LCS 280-653565/2-A
Matrix: Water
Analysis Batch: 653871

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 653565

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trinitrobenzene	2.00	2.12		ug/L		106	73 - 125
1,3-Dinitrobenzene	2.00	2.00		ug/L		100	78 - 120
2,4,6-Trinitrotoluene	2.00	1.95		ug/L		98	71 - 123
2,4-Dinitrotoluene	2.00	1.95		ug/L		97	78 - 120
2,6-Dinitrotoluene	2.00	1.93		ug/L		97	77 - 127
2-Amino-4,6-dinitrotoluene	2.00	2.00		ug/L		100	79 - 120
2-Nitrotoluene	2.00	1.63		ug/L		81	70 - 127
3-Nitrotoluene	2.00	1.62		ug/L		81	73 - 125
4-Amino-2,6-dinitrotoluene	2.00	2.02		ug/L		101	76 - 125
4-Nitrotoluene	2.00	1.60		ug/L		80	71 - 127
HMX	2.00	1.76	M	ug/L		88	65 - 135
Nitrobenzene	2.00	1.81		ug/L		91	65 - 134
Nitroglycerin	20.0	20.4		ug/L		102	74 - 127
PETN	20.0	21.6		ug/L		108	73 - 127
RDX	2.00	1.91		ug/L		96	68 - 130
Tetryl	2.00	1.89		ug/L		95	64 - 128

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dinitrobenzene	*104*		*83 - 119*

Lab Sample ID: LCSD 280-653565/3-A
Matrix: Water
Analysis Batch: 653871

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 653565

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trinitrobenzene	2.00	2.12		ug/L		106	73 - 125	0	20
1,3-Dinitrobenzene	2.00	1.95		ug/L		97	78 - 120	3	20
2,4,6-Trinitrotoluene	2.00	1.91		ug/L		95	71 - 123	2	20
2,4-Dinitrotoluene	2.00	1.86		ug/L		93	78 - 120	4	20
2,6-Dinitrotoluene	2.00	1.89		ug/L		94	77 - 127	2	20

Method: 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Lab Sample ID: LCSD 280-653565/3-A
Matrix: Water
Analysis Batch: 653871

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 653565

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Amino-4,6-dinitrotoluene			2.00	1.88		ug/L		94	79 - 120	6	20
2-Nitrotoluene			2.00	1.49		ug/L		75	70 - 127	9	20
3-Nitrotoluene			2.00	1.47		ug/L		73	73 - 125	10	20
4-Amino-2,6-dinitrotoluene			2.00	1.94		ug/L		97	76 - 125	4	20
4-Nitrotoluene			2.00	1.46		ug/L		73	71 - 127	9	20
HMX			2.00	1.75	M	ug/L		87	65 - 135	1	20
Nitrobenzene			2.00	1.73		ug/L		87	65 - 134	5	20
Nitroglycerin			20.0	20.4		ug/L		102	74 - 127	0	20
PETN			20.0	21.4		ug/L		107	73 - 127	1	20
RDX			2.00	1.90		ug/L		95	68 - 130	1	20
Tetryl			2.00	2.01		ug/L		100	64 - 128	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dinitrobenzene	*95*		*83 - 119*

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 280-652548/1-A
Matrix: Water
Analysis Batch: 653318

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652548

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	70	U	100	70	18	ug/L		05/13/24 23:31	1
Calcium	30.0	J	200	64	24	ug/L		05/13/24 23:31	1
Iron	9.32	J	100	34	9.1	ug/L		05/13/24 23:31	1
Magnesium	5.86	J	200	15	4.2	ug/L		05/13/24 23:31	1
Potassium	940	U	3000	940	240	ug/L		05/13/24 23:31	1

Lab Sample ID: MB 280-652548/1-A
Matrix: Water
Analysis Batch: 653481

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652548

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Sodium	320	U	1000	320	97	ug/L		05/14/24 16:24	1

Lab Sample ID: LCS 280-652548/2-A
Matrix: Water
Analysis Batch: 653318

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652548

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Aluminum			10000	9080		ug/L		91	86 - 115		
Calcium			50000	45600		ug/L		91	87 - 113		
Iron			10000	9070		ug/L		91	87 - 115		
Magnesium			50000	46100		ug/L		92	85 - 113		
Potassium			50000	50200		ug/L		100	86 - 114		

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 280-652548/2-A
Matrix: Water
Analysis Batch: 653481

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652548

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sodium			50000	51100		ug/L		102	87 - 115		

Lab Sample ID: LCSD 280-652548/3-A
Matrix: Water
Analysis Batch: 653318

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 652548

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum			10000	9000		ug/L		90	86 - 115	1	20
Calcium			50000	44900		ug/L		90	87 - 113	1	20
Iron			10000	9000		ug/L		90	87 - 115	1	20
Magnesium			50000	45400		ug/L		91	85 - 113	2	20
Potassium			50000	49400		ug/L		99	86 - 114	2	20

Lab Sample ID: LCSD 280-652548/3-A
Matrix: Water
Analysis Batch: 653481

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 652548

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium			50000	51600		ug/L		103	87 - 115	1	20

Lab Sample ID: 280-191098-1 MS
Matrix: Water
Analysis Batch: 653318

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA
Prep Batch: 652548

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Aluminum	70	U	10000	9110		ug/L		91	86 - 115		
Calcium	85000	J1	50000	126000	J1	ug/L		83	87 - 113		
Iron	1800		10000	10600		ug/L		88	87 - 115		
Magnesium	32000		50000	76900		ug/L		89	85 - 113		
Potassium	2100	J	50000	52400		ug/L		101	86 - 114		
Sodium	12000		50000	60000		ug/L		97	87 - 115		

Lab Sample ID: 280-191098-1 MSD
Matrix: Water
Analysis Batch: 653318

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA
Prep Batch: 652548

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	70	U	10000	9390		ug/L		94	86 - 115	3	20
Calcium	85000	J1	50000	129000		ug/L		89	87 - 113	2	20
Iron	1800		10000	10900		ug/L		91	87 - 115	3	20
Magnesium	32000		50000	78900		ug/L		93	85 - 113	3	20
Potassium	2100	J	50000	53600		ug/L		103	86 - 114	2	20
Sodium	12000		50000	61400		ug/L		99	87 - 115	2	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 280-652548/1-A
Matrix: Water
Analysis Batch: 652887

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652548

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Antimony	1.0	U	2.0	1.0	0.40	ug/L		05/09/24 15:41	1
Arsenic	2.0	U	5.0	2.0	0.50	ug/L		05/09/24 15:41	1
Barium	0.95	U	3.0	0.95	0.38	ug/L		05/09/24 15:41	1
Beryllium	0.60	U	1.0	0.60	0.30	ug/L		05/09/24 15:41	1
Cadmium	0.75	U	1.0	0.75	0.19	ug/L		05/09/24 15:41	1
Chromium	1.8	U	3.0	1.8	0.50	ug/L		05/09/24 15:41	1
Cobalt	0.90	U	1.0	0.90	0.33	ug/L		05/09/24 15:41	1
Copper	1.8	U	2.0	1.8	0.71	ug/L		05/09/24 15:41	1
Lead	0.70	U	1.0	0.70	0.23	ug/L		05/09/24 15:41	1
Manganese	1.8	U	3.0	1.8	0.51	ug/L		05/09/24 15:41	1
Nickel	1.9	U	3.0	1.9	0.83	ug/L		05/09/24 15:41	1
Selenium	4.0	U	5.0	4.0	1.0	ug/L		05/09/24 15:41	1
Silver	0.15	U	1.0	0.15	0.045	ug/L		05/09/24 15:41	1
Thallium	0.75	U	1.0	0.75	0.21	ug/L		05/09/24 15:41	1
Vanadium	3.0	U	5.0	3.0	1.1	ug/L		05/09/24 15:41	1
Zinc	8.0	U	10	8.0	2.0	ug/L		05/09/24 15:41	1

Lab Sample ID: LCS 280-652548/17-A
Matrix: Water
Analysis Batch: 652887

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652548

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	40.0	37.4		ug/L		94	85 - 117
Arsenic	40.0	38.7		ug/L		97	84 - 116
Barium	40.0	37.5		ug/L		94	86 - 114
Beryllium	40.0	36.9		ug/L		92	83 - 121
Cadmium	40.0	37.6		ug/L		94	87 - 115
Chromium	40.0	38.4		ug/L		96	85 - 116
Cobalt	40.0	38.0		ug/L		95	86 - 115
Copper	40.0	38.1		ug/L		95	85 - 118
Lead	40.0	38.6		ug/L		96	88 - 115
Manganese	40.0	38.0		ug/L		95	87 - 115
Nickel	40.0	36.2		ug/L		91	85 - 117
Selenium	40.0	38.2		ug/L		95	80 - 120
Silver	40.0	39.8		ug/L		100	85 - 116
Thallium	40.0	38.1		ug/L		95	82 - 116
Vanadium	40.0	38.0		ug/L		95	86 - 115
Zinc	40.0	36.5		ug/L		91	83 - 119

Lab Sample ID: LCSD 280-652548/18-A
Matrix: Water
Analysis Batch: 652887

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 652548

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	40.0	38.9		ug/L		97	85 - 117	4	20
Arsenic	40.0	38.0		ug/L		95	84 - 116	2	20
Barium	40.0	36.4		ug/L		91	86 - 114	3	20
Beryllium	40.0	36.3		ug/L		91	83 - 121	2	20
Cadmium	40.0	37.7		ug/L		94	87 - 115	0	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 280-652548/18-A
Matrix: Water
Analysis Batch: 652887

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 652548

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium			40.0	37.9		ug/L		95	85 - 116	2	20
Cobalt			40.0	36.4		ug/L		91	86 - 115	4	20
Copper			40.0	38.9		ug/L		97	85 - 118	2	20
Lead			40.0	38.0		ug/L		95	88 - 115	2	20
Manganese			40.0	37.1		ug/L		93	87 - 115	2	20
Nickel			40.0	37.0		ug/L		93	85 - 117	2	20
Selenium			40.0	36.8		ug/L		92	80 - 120	4	20
Silver			40.0	39.7		ug/L		99	85 - 116	0	20
Thallium			40.0	38.3		ug/L		96	82 - 116	1	20
Vanadium			40.0	37.6		ug/L		94	86 - 115	1	20
Zinc			40.0	35.6		ug/L		89	83 - 119	3	20

Lab Sample ID: 280-191098-1 MS
Matrix: Water
Analysis Batch: 652887

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA
Prep Batch: 652548

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	1.0	U	40.0	42.6		ug/L		107	85 - 117
Arsenic	10		40.0	48.5		ug/L		96	84 - 116
Barium	47	J1	40.0	87.1		ug/L		102	86 - 114
Beryllium	0.60	U	40.0	37.2		ug/L		93	83 - 121
Cadmium	0.75	U	40.0	41.1		ug/L		103	87 - 115
Chromium	1.8	U	40.0	37.2		ug/L		93	85 - 116
Cobalt	0.36	J	40.0	36.3		ug/L		90	86 - 115
Copper	0.76	J	40.0	37.4		ug/L		92	85 - 118
Lead	0.70	U	40.0	38.7		ug/L		97	88 - 115
Manganese	240	J1	40.0	266	4	ug/L		66	87 - 115
Nickel	1.9	U	40.0	35.9		ug/L		90	85 - 117
Selenium	4.0	U	40.0	39.7		ug/L		99	80 - 120
Silver	0.15	U	40.0	42.5		ug/L		106	85 - 116
Thallium	0.75	U	40.0	38.8		ug/L		97	82 - 116
Vanadium	1.1	J	40.0	38.1		ug/L		95	86 - 115
Zinc	8.0	U	40.0	36.6		ug/L		92	83 - 119

Lab Sample ID: 280-191098-1 MSD
Matrix: Water
Analysis Batch: 652887

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA
Prep Batch: 652548

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	1.0	U	40.0	43.7		ug/L		109	85 - 117	2	20
Arsenic	10		40.0	50.9		ug/L		102	84 - 116	5	20
Barium	47	J1	40.0	93.6	J1	ug/L		118	86 - 114	7	20
Beryllium	0.60	U	40.0	38.8		ug/L		97	83 - 121	4	20
Cadmium	0.75	U	40.0	41.4		ug/L		104	87 - 115	1	20
Chromium	1.8	U	40.0	40.8		ug/L		102	85 - 116	9	20
Cobalt	0.36	J	40.0	38.1		ug/L		94	86 - 115	5	20
Copper	0.76	J	40.0	38.9		ug/L		95	85 - 118	4	20
Lead	0.70	U	40.0	40.7		ug/L		102	88 - 115	5	20
Manganese	240	J1	40.0	270	4	ug/L		75	87 - 115	1	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-191098-1 MSD — **Client Sample ID: DET-003-240401-GW**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 652887 — **Prep Batch: 652548**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nickel	1.9	U	40.0	37.0		ug/L		92	85 - 117	3	20
Selenium	4.0	U	40.0	39.4		ug/L		98	80 - 120	1	20
Silver	0.15	U	40.0	43.6		ug/L		109	85 - 116	3	20
Thallium	0.75	U	40.0	40.3		ug/L		101	82 - 116	4	20
Vanadium	1.1	J	40.0	40.4		ug/L		101	86 - 115	6	20
Zinc	8.0	U	40.0	42.3		ug/L		106	83 - 119	14	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 280-654117/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 654441 — **Prep Batch: 654117**

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Mercury	0.080	U	0.20	0.080	0.061	ug/L		05/22/24 03:05	1

Lab Sample ID: LCS 280-654117/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 654441 — **Prep Batch: 654117**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.12		ug/L		102	82 - 119

Lab Sample ID: 280-191098-1 MS — **Client Sample ID: DET-003-240401-GW**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 654441 — **Prep Batch: 654117**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.080	U	5.00	5.14		ug/L		103	82 - 119

Lab Sample ID: 280-191098-1 MSD — **Client Sample ID: DET-003-240401-GW**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 654441 — **Prep Batch: 654117**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.080	U	5.00	5.07		ug/L		101	82 - 119	1	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-653394/98 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 653394

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia as N	0.050	U	0.10	0.050	0.029	mg/L		05/14/24 14:13	1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 280-653394/99
Matrix: Water
Analysis Batch: 653394

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia as N	2.50	2.50		mg/L		100	90 - 110

Lab Sample ID: LCSD 280-653394/100
Matrix: Water
Analysis Batch: 653394

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia as N	2.50	2.52		mg/L		101	90 - 110	1	10

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 280-652637/68
Matrix: Water
Analysis Batch: 652637

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.0090	U	0.010	0.0090	0.0050	mg/L		05/08/24 13:18	1

Lab Sample ID: LCS 280-652637/69
Matrix: Water
Analysis Batch: 652637

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.0999	0.0976		mg/L		98	83 - 116

Lab Sample ID: MB 280-653035/29
Matrix: Water
Analysis Batch: 653035

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.0090	U	0.010	0.0090	0.0050	mg/L		05/10/24 11:31	1

Lab Sample ID: LCS 280-653035/30
Matrix: Water
Analysis Batch: 653035

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.0999	0.106		mg/L		106	83 - 116

Lab Sample ID: LCSD 280-653035/31
Matrix: Water
Analysis Batch: 653035

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	0.0999	0.110		mg/L		110	83 - 116	4	20

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: 280-191098-1 MS
Matrix: Water
Analysis Batch: 653035

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total	0.0090	U J1	0.0999	0.128	J1	mg/L		128	83 - 116		

Lab Sample ID: 280-191098-1 MSD
Matrix: Water
Analysis Batch: 653035

Client Sample ID: DET-003-240401-GW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	0.0090	U J1	0.0999	0.130	J1	mg/L		130	83 - 116	1	20

Method: 9056 - Anions, Ion Chromatography

Lab Sample ID: MB 280-652350/6
Matrix: Water
Analysis Batch: 652350

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrate as N	0.20	U	0.50	0.20	0.090	mg/L		05/07/24 11:27	1

Lab Sample ID: LCS 280-652350/4
Matrix: Water
Analysis Batch: 652350

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N			5.00	4.96		mg/L		99	88 - 111		

Lab Sample ID: LCSD 280-652350/5
Matrix: Water
Analysis Batch: 652350

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N			5.00	4.97		mg/L		99	88 - 111	0	10

Lab Sample ID: MRL 280-652350/3
Matrix: Water
Analysis Batch: 652350

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N			0.500	0.472	J	mg/L		94	50 - 150		

GC/MS VOA

Analysis Batch: 653926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-1	DET-003-240401-GW	Total/NA	Water	8260D	
280-191098-2	DET-003-240402-GW	Total/NA	Water	8260D	
280-191098-3	FWGTB-240401-TB001	Total/NA	Water	8260D	
280-191098-5	DET-004-240401-GW	Total/NA	Water	8260D	
MB 280-653926/9	Method Blank	Total/NA	Water	8260D	
LCS 280-653926/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 280-653926/5	Lab Control Sample Dup	Total/NA	Water	8260D	
280-191098-1 MS	DET-003-240401-GW	Total/NA	Water	8260D	
280-191098-1 MSD	DET-003-240401-GW	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 652726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-1	DET-003-240401-GW	Total/NA	Water	3510C	
280-191098-2	DET-003-240402-GW	Total/NA	Water	3510C	
280-191098-5	DET-004-240401-GW	Total/NA	Water	3510C	
MB 280-652726/1-A	Method Blank	Total/NA	Water	3510C	
LCS 280-652726/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 280-652726/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
280-191098-1 MS	DET-003-240401-GW	Total/NA	Water	3510C	
280-191098-1 MSD	DET-003-240401-GW	Total/NA	Water	3510C	

Analysis Batch: 652894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-1	DET-003-240401-GW	Total/NA	Water	8270E SIM	652726
280-191098-2	DET-003-240402-GW	Total/NA	Water	8270E SIM	652726
280-191098-5	DET-004-240401-GW	Total/NA	Water	8270E SIM	652726
MB 280-652726/1-A	Method Blank	Total/NA	Water	8270E SIM	652726
LCS 280-652726/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	652726
LCSD 280-652726/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	652726
280-191098-1 MS	DET-003-240401-GW	Total/NA	Water	8270E SIM	652726
280-191098-1 MSD	DET-003-240401-GW	Total/NA	Water	8270E SIM	652726

Prep Batch: 653130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-1	DET-003-240401-GW	Total/NA	Water	3510C	
280-191098-2	DET-003-240402-GW	Total/NA	Water	3510C	
280-191098-5	DET-004-240401-GW	Total/NA	Water	3510C	
MB 280-653130/1-A	Method Blank	Total/NA	Water	3510C	
LCS 280-653130/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 280-653130/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
280-191098-1 MS	DET-003-240401-GW	Total/NA	Water	3510C	
280-191098-1 MSD	DET-003-240401-GW	Total/NA	Water	3510C	

Analysis Batch: 653283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-1	DET-003-240401-GW	Total/NA	Water	8270E	653130
280-191098-2	DET-003-240402-GW	Total/NA	Water	8270E	653130
280-191098-5	DET-004-240401-GW	Total/NA	Water	8270E	653130
MB 280-653130/1-A	Method Blank	Total/NA	Water	8270E	653130

GC/MS Semi VOA (Continued)

Analysis Batch: 653283 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-653130/2-A	Lab Control Sample	Total/NA	Water	8270E	653130
LCSD 280-653130/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	653130
280-191098-1 MS	DET-003-240401-GW	Total/NA	Water	8270E	653130
280-191098-1 MSD	DET-003-240401-GW	Total/NA	Water	8270E	653130

GC Semi VOA

Prep Batch: 652915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-1	DET-003-240401-GW	Total/NA	Water	3510C	
280-191098-2	DET-003-240402-GW	Total/NA	Water	3510C	
280-191098-5	DET-004-240401-GW	Total/NA	Water	3510C	
MB 280-652915/1-A	Method Blank	Total/NA	Water	3510C	
LCS 280-652915/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 280-652915/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 280-652915/6-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 280-652915/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 280-652915/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 280-652915/7-A	Lab Control Sample Dup	Total/NA	Water	3510C	
280-191098-1 MS	DET-003-240401-GW	Total/NA	Water	3510C	
280-191098-1 MS	DET-003-240401-GW	Total/NA	Water	3510C	
280-191098-1 MS	DET-003-240401-GW	Total/NA	Water	3510C	
280-191098-1 MSD	DET-003-240401-GW	Total/NA	Water	3510C	
280-191098-1 MSD	DET-003-240401-GW	Total/NA	Water	3510C	
280-191098-1 MSD	DET-003-240401-GW	Total/NA	Water	3510C	

Analysis Batch: 653121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-1	DET-003-240401-GW	Total/NA	Water	8081B	652915
280-191098-2	DET-003-240402-GW	Total/NA	Water	8081B	652915
280-191098-5	DET-004-240401-GW	Total/NA	Water	8081B	652915
MB 280-652915/1-A	Method Blank	Total/NA	Water	8081B	652915
LCS 280-652915/2-A	Lab Control Sample	Total/NA	Water	8081B	652915
LCS 280-652915/6-A	Lab Control Sample	Total/NA	Water	8081B	652915
LCSD 280-652915/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	652915
LCSD 280-652915/7-A	Lab Control Sample Dup	Total/NA	Water	8081B	652915
280-191098-1 MS	DET-003-240401-GW	Total/NA	Water	8081B	652915
280-191098-1 MS	DET-003-240401-GW	Total/NA	Water	8081B	652915
280-191098-1 MSD	DET-003-240401-GW	Total/NA	Water	8081B	652915
280-191098-1 MSD	DET-003-240401-GW	Total/NA	Water	8081B	652915

Analysis Batch: 653123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-1	DET-003-240401-GW	Total/NA	Water	8082A	652915
280-191098-2	DET-003-240402-GW	Total/NA	Water	8082A	652915
280-191098-5	DET-004-240401-GW	Total/NA	Water	8082A	652915
MB 280-652915/1-A	Method Blank	Total/NA	Water	8082A	652915
LCS 280-652915/4-A	Lab Control Sample	Total/NA	Water	8082A	652915
LCSD 280-652915/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	652915
280-191098-1 MS	DET-003-240401-GW	Total/NA	Water	8082A	652915
280-191098-1 MSD	DET-003-240401-GW	Total/NA	Water	8082A	652915

GC Semi VOA

Prep Batch: 653452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-1 - RE	DET-003-240401-GW	Total/NA	Water	3510C	
MB 280-653452/1-A - RE	Method Blank	Total/NA	Water	3510C	
LCS 280-653452/2-A - RE	Lab Control Sample	Total/NA	Water	3510C	
LCSD 280-653452/3-A - RE	Lab Control Sample Dup	Total/NA	Water	3510C	
280-191098-1 MS - RE	DET-003-240401-GW	Total/NA	Water	3510C	
280-191098-1 MSD - RE	DET-003-240401-GW	Total/NA	Water	3510C	

Analysis Batch: 653635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-1 - RE	DET-003-240401-GW	Total/NA	Water	8081B	653452
MB 280-653452/1-A - RE	Method Blank	Total/NA	Water	8081B	653452
LCS 280-653452/2-A - RE	Lab Control Sample	Total/NA	Water	8081B	653452
LCSD 280-653452/3-A - RE	Lab Control Sample Dup	Total/NA	Water	8081B	653452
280-191098-1 MS - RE	DET-003-240401-GW	Total/NA	Water	8081B	653452
280-191098-1 MSD - RE	DET-003-240401-GW	Total/NA	Water	8081B	653452

HPLC/IC

Prep Batch: 652898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-1	DET-003-240401-GW	Total/NA	Water	3535	
280-191098-4	LL1mw-081-240401-GW	Total/NA	Water	3535	
280-191098-5	DET-004-240401-GW	Total/NA	Water	3535	
280-191098-7	LL3mw-247-240401-GW	Total/NA	Water	3535	
280-191098-8	LL3mw-248-240401-GW	Total/NA	Water	3535	
MB 280-652898/1-A	Method Blank	Total/NA	Water	3535	
LCS 280-652898/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 280-652898/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 653063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-1	DET-003-240401-GW	Total/NA	Water	8330B	652898
280-191098-4	LL1mw-081-240401-GW	Total/NA	Water	8330B	652898
280-191098-5	DET-004-240401-GW	Total/NA	Water	8330B	652898
280-191098-7	LL3mw-247-240401-GW	Total/NA	Water	8330B	652898
280-191098-8	LL3mw-248-240401-GW	Total/NA	Water	8330B	652898
MB 280-652898/1-A	Method Blank	Total/NA	Water	8330B	652898
LCS 280-652898/2-A	Lab Control Sample	Total/NA	Water	8330B	652898
LCSD 280-652898/3-A	Lab Control Sample Dup	Total/NA	Water	8330B	652898

Analysis Batch: 653069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-5	DET-004-240401-GW	Total/NA	Water	8330B	652898
280-191098-7	LL3mw-247-240401-GW	Total/NA	Water	8330B	652898
280-191098-8	LL3mw-248-240401-GW	Total/NA	Water	8330B	652898

Analysis Batch: 653380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-4	LL1mw-081-240401-GW	Total/NA	Water	8330B	652898

HPLC/IC

Prep Batch: 653565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-1 - RE	DET-003-240401-GW	Total/NA	Water	3535	
280-191098-4 - RE	LL1mw-081-240401-GW	Total/NA	Water	3535	
280-191098-5 - RE	DET-004-240401-GW	Total/NA	Water	3535	
280-191098-7 - RE	LL3mw-247-240401-GW	Total/NA	Water	3535	
280-191098-8 - RE	LL3mw-248-240401-GW	Total/NA	Water	3535	
MB 280-653565/1-A	Method Blank	Total/NA	Water	3535	
LCS 280-653565/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 280-653565/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 653871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-1 - RE	DET-003-240401-GW	Total/NA	Water	8330B	653565
280-191098-4 - RE	LL1mw-081-240401-GW	Total/NA	Water	8330B	653565
280-191098-5 - RE	DET-004-240401-GW	Total/NA	Water	8330B	653565
280-191098-7 - RE	LL3mw-247-240401-GW	Total/NA	Water	8330B	653565
280-191098-8 - RE	LL3mw-248-240401-GW	Total/NA	Water	8330B	653565
MB 280-653565/1-A	Method Blank	Total/NA	Water	8330B	653565
LCS 280-653565/2-A	Lab Control Sample	Total/NA	Water	8330B	653565
LCSD 280-653565/3-A	Lab Control Sample Dup	Total/NA	Water	8330B	653565

Analysis Batch: 653873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-4 - RE	LL1mw-081-240401-GW	Total/NA	Water	8330B	653565
280-191098-5 - RE	DET-004-240401-GW	Total/NA	Water	8330B	653565
280-191098-7 - RE	LL3mw-247-240401-GW	Total/NA	Water	8330B	653565
280-191098-8 - RE	LL3mw-248-240401-GW	Total/NA	Water	8330B	653565

Metals

Prep Batch: 652548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-1	DET-003-240401-GW	Total/NA	Water	3010A	
280-191098-1	DET-003-240401-GW	Total/NA	Water	3020A	
280-191098-2	DET-003-240402-GW	Total/NA	Water	3010A	
280-191098-5	DET-004-240401-GW	Total/NA	Water	3010A	
MB 280-652548/1-A	Method Blank	Total/NA	Water	3010A	
LCS 280-652548/17-A	Lab Control Sample	Total/NA	Water	3010A	
LCS 280-652548/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 280-652548/18-A	Lab Control Sample Dup	Total/NA	Water	3010A	
LCSD 280-652548/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
280-191098-1 MS	DET-003-240401-GW	Total/NA	Water	3010A	
280-191098-1 MS	DET-003-240401-GW	Total/NA	Water	3020A	
280-191098-1 MSD	DET-003-240401-GW	Total/NA	Water	3010A	
280-191098-1 MSD	DET-003-240401-GW	Total/NA	Water	3020A	

Analysis Batch: 652887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-1	DET-003-240401-GW	Total/NA	Water	6020B	652548
280-191098-2	DET-003-240402-GW	Total/NA	Water	6020B	652548
280-191098-5	DET-004-240401-GW	Total/NA	Water	6020B	652548
MB 280-652548/1-A	Method Blank	Total/NA	Water	6020B	652548

Metals (Continued)

Analysis Batch: 652887 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-652548/17-A	Lab Control Sample	Total/NA	Water	6020B	652548
LCSD 280-652548/18-A	Lab Control Sample Dup	Total/NA	Water	6020B	652548
280-191098-1 MS	DET-003-240401-GW	Total/NA	Water	6020B	652548
280-191098-1 MSD	DET-003-240401-GW	Total/NA	Water	6020B	652548

Analysis Batch: 653318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-1	DET-003-240401-GW	Total/NA	Water	6010D	652548
280-191098-2	DET-003-240402-GW	Total/NA	Water	6010D	652548
280-191098-5	DET-004-240401-GW	Total/NA	Water	6010D	652548
MB 280-652548/1-A	Method Blank	Total/NA	Water	6010D	652548
LCS 280-652548/2-A	Lab Control Sample	Total/NA	Water	6010D	652548
LCSD 280-652548/3-A	Lab Control Sample Dup	Total/NA	Water	6010D	652548
280-191098-1 MS	DET-003-240401-GW	Total/NA	Water	6010D	652548
280-191098-1 MSD	DET-003-240401-GW	Total/NA	Water	6010D	652548

Analysis Batch: 653481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-5	DET-004-240401-GW	Total/NA	Water	6010D	652548
MB 280-652548/1-A	Method Blank	Total/NA	Water	6010D	652548
LCS 280-652548/2-A	Lab Control Sample	Total/NA	Water	6010D	652548
LCSD 280-652548/3-A	Lab Control Sample Dup	Total/NA	Water	6010D	652548

Prep Batch: 654117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-1	DET-003-240401-GW	Total/NA	Water	7470A	
280-191098-2	DET-003-240402-GW	Total/NA	Water	7470A	
280-191098-5	DET-004-240401-GW	Total/NA	Water	7470A	
MB 280-654117/1-A	Method Blank	Total/NA	Water	7470A	
LCS 280-654117/2-A	Lab Control Sample	Total/NA	Water	7470A	
280-191098-1 MS	DET-003-240401-GW	Total/NA	Water	7470A	
280-191098-1 MSD	DET-003-240401-GW	Total/NA	Water	7470A	

Analysis Batch: 654441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-1	DET-003-240401-GW	Total/NA	Water	7470A	654117
280-191098-2	DET-003-240402-GW	Total/NA	Water	7470A	654117
280-191098-5	DET-004-240401-GW	Total/NA	Water	7470A	654117
MB 280-654117/1-A	Method Blank	Total/NA	Water	7470A	654117
LCS 280-654117/2-A	Lab Control Sample	Total/NA	Water	7470A	654117
280-191098-1 MS	DET-003-240401-GW	Total/NA	Water	7470A	654117
280-191098-1 MSD	DET-003-240401-GW	Total/NA	Water	7470A	654117

General Chemistry

Analysis Batch: 652350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-6	LL12mw-246-240401-GW	Total/NA	Water	9056	
MB 280-652350/6	Method Blank	Total/NA	Water	9056	
LCS 280-652350/4	Lab Control Sample	Total/NA	Water	9056	
LCSD 280-652350/5	Lab Control Sample Dup	Total/NA	Water	9056	

General Chemistry (Continued)

Analysis Batch: 652350 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 280-652350/3	Lab Control Sample	Total/NA	Water	9056	

Analysis Batch: 652637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-2	DET-003-240402-GW	Total/NA	Water	9012B	
280-191098-5	DET-004-240401-GW	Total/NA	Water	9012B	
MB 280-652637/68	Method Blank	Total/NA	Water	9012B	
LCS 280-652637/69	Lab Control Sample	Total/NA	Water	9012B	

Analysis Batch: 653035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-1	DET-003-240401-GW	Total/NA	Water	9012B	
MB 280-653035/29	Method Blank	Total/NA	Water	9012B	
LCS 280-653035/30	Lab Control Sample	Total/NA	Water	9012B	
LCSD 280-653035/31	Lab Control Sample Dup	Total/NA	Water	9012B	
280-191098-1 MS	DET-003-240401-GW	Total/NA	Water	9012B	
280-191098-1 MSD	DET-003-240401-GW	Total/NA	Water	9012B	

Analysis Batch: 653394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191098-6	LL12mw-246-240401-GW	Total/NA	Water	350.1	
MB 280-653394/98	Method Blank	Total/NA	Water	350.1	
LCS 280-653394/99	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-653394/100	Lab Control Sample Dup	Total/NA	Water	350.1	

Client Sample ID: DET-003-240401-GW

Lab Sample ID: 280-191098-1

Date Collected: 05/06/24 10:16

Matrix: Water

Date Received: 05/07/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	653926	05/18/24 09:57	MD	EET DEN
Total/NA	Prep	3510C			248.3 mL	1 mL	653130	05/13/24 11:32	DN	EET DEN
Total/NA	Analysis	8270E		1			653283	05/14/24 15:49	DCM	EET DEN
Total/NA	Prep	3510C			268.2 mL	1 mL	652726	05/09/24 10:54	DN	EET DEN
Total/NA	Analysis	8270E SIM		1	200 uL	200 uL	652894	05/10/24 11:16	MAB	EET DEN
Total/NA	Prep	3510C			241.3 mL	5 mL	652915	05/10/24 11:46	DN	EET DEN
Total/NA	Analysis	8081B		1	1 mL	1 mL	653121	05/13/24 15:59	SMQ	EET DEN
Total/NA	Prep	3510C	RE		268 mL	5 mL	653452	05/15/24 10:49	DN	EET DEN
Total/NA	Analysis	8081B	RE	1	1 mL	1 mL	653635	05/16/24 13:31	SMQ	EET DEN
Total/NA	Prep	3510C			241.3 mL	5 mL	652915	05/10/24 11:46	DN	EET DEN
Total/NA	Analysis	8082A		1	1 mL	1 mL	653123	05/13/24 19:16	SP	EET DEN
Total/NA	Prep	3535			463.1 mL	5 mL	652898	05/10/24 10:58	AAA	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	653063	05/11/24 16:25	JZ	EET DEN
Total/NA	Prep	3535	RE		490.9 mL	5 mL	653565	05/17/24 13:10	AAA	EET DEN
Total/NA	Analysis	8330B	RE	1	1 mL	1 mL	653871	05/18/24 03:15	JZ	EET DEN
Total/NA	Prep	3010A			50 mL	50 mL	652548	05/08/24 15:03	KLG	EET DEN
Total/NA	Analysis	6010D		1			653318	05/13/24 23:49	NKC	EET DEN
Total/NA	Prep	3020A			50 mL	50 mL	652548	05/08/24 15:03	KLG	EET DEN
Total/NA	Analysis	6020B		1			652887	05/09/24 15:55	LMT	EET DEN
Total/NA	Prep	7470A			30 mL	50 mL	654117	05/21/24 19:15	CAF	EET DEN
Total/NA	Analysis	7470A		1			654441	05/22/24 03:48	CAF	EET DEN
Total/NA	Analysis	9012B		1	10 mL	10 mL	653035	05/10/24 11:45	LBR	EET DEN

Client Sample ID: DET-003-240402-GW

Lab Sample ID: 280-191098-2

Date Collected: 05/06/24 10:16

Matrix: Water

Date Received: 05/07/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	653926	05/18/24 10:18	MD	EET DEN
Total/NA	Prep	3510C			246 mL	1 mL	653130	05/13/24 11:32	DN	EET DEN
Total/NA	Analysis	8270E		1			653283	05/14/24 16:57	DCM	EET DEN
Total/NA	Prep	3510C			245.4 mL	1 mL	652726	05/09/24 10:54	DN	EET DEN
Total/NA	Analysis	8270E SIM		1	200 uL	200 uL	652894	05/10/24 12:13	MAB	EET DEN
Total/NA	Prep	3510C			244.5 mL	5 mL	652915	05/10/24 11:46	DN	EET DEN
Total/NA	Analysis	8081B		1	1 mL	1 mL	653121	05/13/24 17:28	SMQ	EET DEN
Total/NA	Prep	3510C			244.5 mL	5 mL	652915	05/10/24 11:46	DN	EET DEN
Total/NA	Analysis	8082A		1	1 mL	1 mL	653123	05/13/24 20:07	SP	EET DEN
Total/NA	Prep	3010A			50 mL	50 mL	652548	05/08/24 15:03	KLG	EET DEN
Total/NA	Analysis	6010D		1			653318	05/14/24 00:20	NKC	EET DEN
Total/NA	Prep	3010A			50 mL	50 mL	652548	05/08/24 15:03	KLG	EET DEN
Total/NA	Analysis	6020B		1			652887	05/09/24 16:20	LMT	EET DEN
Total/NA	Prep	7470A			30 mL	50 mL	654117	05/21/24 19:15	CAF	EET DEN
Total/NA	Analysis	7470A		1			654441	05/22/24 03:56	CAF	EET DEN
Total/NA	Analysis	9012B		1	10 mL	10 mL	652637	05/08/24 13:42	LBR	EET DEN

Client Sample ID: FWGTB-240401-TB001

Lab Sample ID: 280-191098-3

Date Collected: 05/06/24 10:15
Date Received: 05/07/24 09:15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	653926	05/18/24 07:49	MD	EET DEN

Client Sample ID: LL1mw-081-240401-GW

Lab Sample ID: 280-191098-4

Date Collected: 05/06/24 10:21
Date Received: 05/07/24 09:15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			470.4 mL	5 mL	652898	05/10/24 10:58	AAA	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	653063	05/11/24 16:48	JZ	EET DEN
Total/NA	Prep	3535	RE		450.3 mL	5 mL	653565	05/17/24 13:10	AAA	EET DEN
Total/NA	Analysis	8330B	RE	1	1 mL	1 mL	653871	05/18/24 03:38	JZ	EET DEN
Total/NA	Prep	3535			470.4 mL	5 mL	652898	05/10/24 10:58	AAA	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	653380	05/15/24 01:14	JZ	EET DEN
Total/NA	Prep	3535	RE		450.3 mL	5 mL	653565	05/17/24 13:10	AAA	EET DEN
Total/NA	Analysis	8330B	RE	1	1 mL	1 mL	653873	05/17/24 20:44	JZ	EET DEN

Client Sample ID: DET-004-240401-GW

Lab Sample ID: 280-191098-5

Date Collected: 05/06/24 10:35
Date Received: 05/07/24 09:15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	653926	05/18/24 10:39	MD	EET DEN
Total/NA	Prep	3510C			233.7 mL	1 mL	653130	05/13/24 11:32	DN	EET DEN
Total/NA	Analysis	8270E		1			653283	05/14/24 17:19	DCM	EET DEN
Total/NA	Prep	3510C			235.3 mL	1 mL	652726	05/09/24 10:54	DN	EET DEN
Total/NA	Analysis	8270E SIM		1	200 uL	200 uL	652894	05/10/24 12:33	MAB	EET DEN
Total/NA	Prep	3510C			237.8 mL	5 mL	652915	05/10/24 11:46	DN	EET DEN
Total/NA	Analysis	8081B		1	1 mL	1 mL	653121	05/13/24 17:46	SMQ	EET DEN
Total/NA	Prep	3510C			237.8 mL	5 mL	652915	05/10/24 11:46	DN	EET DEN
Total/NA	Analysis	8082A		1	1 mL	1 mL	653123	05/13/24 20:23	SP	EET DEN
Total/NA	Prep	3535			455 mL	5 mL	652898	05/10/24 10:58	AAA	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	653063	05/11/24 17:11	JZ	EET DEN
Total/NA	Prep	3535	RE		484.6 mL	5 mL	653565	05/17/24 13:10	AAA	EET DEN
Total/NA	Analysis	8330B	RE	1	1 mL	1 mL	653871	05/18/24 04:01	JZ	EET DEN
Total/NA	Prep	3535			455 mL	5 mL	652898	05/10/24 10:58	AAA	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	653069	05/11/24 20:57	JZ	EET DEN
Total/NA	Prep	3535	RE		484.6 mL	5 mL	653565	05/17/24 13:10	AAA	EET DEN
Total/NA	Analysis	8330B	RE	1	1 mL	1 mL	653873	05/17/24 21:19	JZ	EET DEN
Total/NA	Prep	3010A			50 mL	50 mL	652548	05/08/24 15:03	KLG	EET DEN
Total/NA	Analysis	6010D		1			653318	05/14/24 00:24	NKC	EET DEN
Total/NA	Prep	3010A			50 mL	50 mL	652548	05/08/24 15:03	KLG	EET DEN
Total/NA	Analysis	6010D		1			653481	05/14/24 16:59	NKC	EET DEN
Total/NA	Prep	3010A			50 mL	50 mL	652548	05/08/24 15:03	KLG	EET DEN
Total/NA	Analysis	6020B		1			652887	05/09/24 16:24	LMT	EET DEN

Lab Chronicle

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-191098-1

Client Sample ID: DET-004-240401-GW
Lab Sample ID: 280-191098-5
Date Collected: 05/06/24 10:35
Matrix: Water
Date Received: 05/07/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			30 mL	50 mL	654117	05/21/24 19:15	CAF	EET DEN
Total/NA	Analysis	7470A		1			654441	05/22/24 03:58	CAF	EET DEN
Total/NA	Analysis	9012B		1	10 mL	10 mL	652637	05/08/24 13:15	LBR	EET DEN

Client Sample ID: LL12mw-246-240401-GW
Lab Sample ID: 280-191098-6
Date Collected: 05/06/24 14:33
Matrix: Water
Date Received: 05/07/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	10 mL	10 mL	653394	05/14/24 15:08	LBR	EET DEN
Total/NA	Analysis	9056		1	10 mL	10 mL	652350	05/08/24 03:18	IRC	EET DEN

Client Sample ID: LL3mw-247-240401-GW
Lab Sample ID: 280-191098-7
Date Collected: 05/06/24 15:27
Matrix: Water
Date Received: 05/07/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			451.3 mL	5 mL	652898	05/10/24 10:58	AAA	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	653063	05/11/24 17:34	JZ	EET DEN
Total/NA	Prep	3535	RE		439.4 mL	5 mL	653565	05/17/24 13:10	AAA	EET DEN
Total/NA	Analysis	8330B	RE	1	1 mL	1 mL	653871	05/18/24 04:24	JZ	EET DEN
Total/NA	Prep	3535			451.3 mL	5 mL	652898	05/10/24 10:58	AAA	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	653069	05/11/24 21:32	JZ	EET DEN
Total/NA	Prep	3535	RE		439.4 mL	5 mL	653565	05/17/24 13:10	AAA	EET DEN
Total/NA	Analysis	8330B	RE	1	1 mL	1 mL	653873	05/17/24 21:54	JZ	EET DEN

Client Sample ID: LL3mw-248-240401-GW
Lab Sample ID: 280-191098-8
Date Collected: 05/06/24 16:07
Matrix: Water
Date Received: 05/07/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			465.7 mL	5 mL	652898	05/10/24 10:58	AAA	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	653063	05/11/24 17:57	JZ	EET DEN
Total/NA	Prep	3535	RE		451.4 mL	5 mL	653565	05/17/24 13:10	AAA	EET DEN
Total/NA	Analysis	8330B	RE	1	1 mL	1 mL	653871	05/18/24 04:46	JZ	EET DEN
Total/NA	Prep	3535			465.7 mL	5 mL	652898	05/10/24 10:58	AAA	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	653069	05/11/24 22:07	JZ	EET DEN
Total/NA	Prep	3535	RE		451.4 mL	5 mL	653565	05/17/24 13:10	AAA	EET DEN
Total/NA	Analysis	8330B	RE	1	1 mL	1 mL	653873	05/17/24 22:29	JZ	EET DEN

Laboratory References:
EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-191098-1

Laboratory: Eurofins Denver

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-24

Method Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-191098-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds (GC/MS)	SW846	EET DEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET DEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET DEN
8081B	Organochlorine Pesticides (GC)	SW846	EET DEN
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET DEN
8330B	Nitroaromatics and Nitramines (HPLC)	EPA	EET DEN
6010D	Metals (ICP)	SW846	EET DEN
6020B	Metals (ICP/MS)	SW846	EET DEN
7470A	Mercury (CVAA)	SW846	EET DEN
350.1	Nitrogen, Ammonia	EPA	EET DEN
9012B	Cyanide, Total and/or Amenable	SW846	EET DEN
9056	Anions, Ion Chromatography	SW846	EET DEN
3010A	Preparation, Total Metals	SW846	EET DEN
3020A	Preparation, Total Metals	SW846	EET DEN
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET DEN
3535	Solid-Phase Extraction (SPE)	SW846	EET DEN
5030B	Purge and Trap	SW846	EET DEN
7470A	Preparation, Mercury	SW846	EET DEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-191098-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-191098-1	DET-003-240401-GW	Water	05/06/24 10:16	05/07/24 09:15
280-191098-2	DET-003-240402-GW	Water	05/06/24 10:16	05/07/24 09:15
280-191098-3	FWGTB-240401-TB001	Water	05/06/24 10:15	05/07/24 09:15
280-191098-4	LL1mw-081-240401-GW	Water	05/06/24 10:21	05/07/24 09:15
280-191098-5	DET-004-240401-GW	Water	05/06/24 10:35	05/07/24 09:15
280-191098-6	LL12mw-246-240401-GW	Water	05/06/24 14:33	05/07/24 09:15
280-191098-7	LL3mw-247-240401-GW	Water	05/06/24 15:27	05/07/24 09:15
280-191098-8	LL3mw-248-240401-GW	Water	05/06/24 16:07	05/07/24 09:15

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: VMS_MS11 Analysis Batch Number: 653788

Lab Sample ID: IC 280-653788/13 Client Sample ID:

Date Analyzed: 05/17/24 09:24 Lab File ID: ms11_00011040.D GC Column: RXI-624SilMS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromoform	8.43	Split Peak	LP8K	05/17/24 17:19
2-Chlorotoluene	9.06	Wrong peak	BX8N	05/17/24 10:52
4-Chlorotoluene	9.19	Wrong peak	BX8N	05/17/24 10:52
Tetrahydrofuran		Invalid Compound ID	LP8K	05/17/24 17:19

Lab Sample ID: IC 280-653788/14 Client Sample ID:

Date Analyzed: 05/17/24 09:45 Lab File ID: ms11_00011041.D GC Column: RXI-624SilMS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	2.88	Assign Peak	BX8N	05/17/24 10:55
Acetone	2.97	Assign Peak	BX8N	05/17/24 10:55
Iodomethane	3.08	Assign Peak	BX8N	05/17/24 11:09
Methyl acetate	3.21	Wrong peak	BX8N	05/17/24 10:53
2-Butanone (MEK)	4.23	Wrong peak	BX8N	05/17/24 10:52
Isobutyl alcohol	4.76	Wrong peak	BX8N	05/17/24 10:56

Lab Sample ID: IC 280-653788/15 Client Sample ID:

Date Analyzed: 05/17/24 10:07 Lab File ID: ms11_00011042.D GC Column: RXI-624SilMS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	2.97	Assign Peak	BX8N	05/17/24 10:57

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: VMS_MS11 Analysis Batch Number: 653926

Lab Sample ID: MB 280-653926/9 Client Sample ID:

Date Analyzed: 05/18/24 07:06 Lab File ID: ms11_00011098.D GC Column: RXI-624SilMS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloroethane		Invalid Compound ID	BX8N	05/18/24 08:37
Bromomethane		Invalid Compound ID	BX8N	05/18/24 08:37
Carbon disulfide		Invalid Compound ID	BX8N	05/18/24 08:37

Lab Sample ID: 280-191098-3 Client Sample ID: FWGTB-240401-TB001

Date Analyzed: 05/18/24 07:49 Lab File ID: ms11_00011100.D GC Column: RXI-624SilMS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane		Invalid Compound ID	BX8N	05/18/24 08:43
Carbon disulfide		Invalid Compound ID	BX8N	05/18/24 08:43

Lab Sample ID: 280-191098-1 Client Sample ID: DET-003-240401-GW

Date Analyzed: 05/18/24 09:57 Lab File ID: ms11_00011106.D GC Column: RXI-624SilMS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloroethane		Invalid Compound ID	BX8N	05/19/24 14:50
Bromomethane		Invalid Compound ID	BX8N	05/19/24 14:50
Carbon disulfide		Invalid Compound ID	BX8N	05/19/24 14:50

Lab Sample ID: 280-191098-2 Client Sample ID: DET-003-240402-GW

Date Analyzed: 05/18/24 10:18 Lab File ID: ms11_00011107.D GC Column: RXI-624SilMS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane		Invalid Compound ID	BX8N	05/20/24 09:34
Carbon disulfide		Invalid Compound ID	BX8N	05/20/24 09:34

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: VMS_MS11 Analysis Batch Number: 653926

Lab Sample ID: 280-191098-5 Client Sample ID: DET-004-240401-GW

Date Analyzed: 05/18/24 10:39 Lab File ID: ms11_00011108.D GC Column: RXI-624SilMS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloroethane		Invalid Compound ID	BX8N	05/20/24 09:35
Carbon disulfide		Invalid Compound ID	BX8N	05/20/24 09:35

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SMS_3 Analysis Batch Number: 648459

Lab Sample ID: ICIS 280-648459/2 Client Sample ID:

Date Analyzed: 04/05/24 11:38 Lab File ID: SMS_3-040524006.D GC Column: DB-5MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,2'-oxybis[1-chloropropane]	4.28	Poor chromatography	G3YK	04/05/24 14:37
Benzoic acid	5.06	Poor chromatography	G3YK	04/05/24 14:38
1,2-Diphenylhydrazine	7.61	Poor chromatography	G3YK	04/05/24 14:39
Benzo[a]pyrene	13.30	Poor chromatography	G3YK	04/05/24 14:39
Dibenz(a,h)anthracene	15.39	Poor chromatography	G3YK	04/05/24 14:39

Lab Sample ID: STD500 280-648459/3 IC Client Sample ID:

Date Analyzed: 04/05/24 12:00 Lab File ID: SMS_3-040524007.D GC Column: DB-5MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,2'-oxybis[1-chloropropane]	4.29	Poor chromatography	G3YK	04/05/24 14:41
Benzoic acid	5.12	Poor chromatography	G3YK	04/05/24 14:41
1,3-Dinitrobenzene	6.68	Poor chromatography	G3YK	04/05/24 14:42
1,2-Diphenylhydrazine	7.61	Poor chromatography	G3YK	04/05/24 14:42
Benzo[b]fluoranthene	12.76	Poor chromatography	G3YK	04/05/24 14:43
Perylene-d12 (IS)	13.39	Poor chromatography	G3YK	04/05/24 14:40
Indeno[1,2,3-cd]pyrene	15.33	Poor chromatography	G3YK	04/05/24 14:43
Dibenz(a,h)anthracene	15.41	Poor chromatography	G3YK	04/05/24 14:43

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SMS_3 Analysis Batch Number: 648459

Lab Sample ID: STD400 280-648459/4 IC Client Sample ID:

Date Analyzed: 04/05/24 12:23 Lab File ID: SMS_3-040524008.D GC Column: DB-5MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,2'-oxybis[1-chloropropane]	4.28	Poor chromatography	G3YK	04/05/24 14:44
Benzoic acid	5.10	Poor chromatography	G3YK	04/05/24 14:45
1,3-Dinitrobenzene	6.68	Poor chromatography	G3YK	04/05/24 14:46
1,2-Diphenylhydrazine	7.60	Poor chromatography	G3YK	04/05/24 14:46
Benzo[b]fluoranthene	12.75	Poor chromatography	G3YK	04/05/24 14:47
Benzo[k]fluoranthene	12.81	Poor chromatography	G3YK	04/05/24 14:47
Benzo[a]pyrene	13.30	Poor chromatography	G3YK	04/05/24 14:47
Perylene-d12 (IS)	13.38	Poor chromatography	G3YK	04/05/24 14:44
Indeno[1,2,3-cd]pyrene	15.32	Poor chromatography	G3YK	04/05/24 14:47
Dibenz(a,h)anthracene	15.40	Poor chromatography	G3YK	04/05/24 14:47
Benzo[g,h,i]perylene	15.78	Poor chromatography	G3YK	04/05/24 14:47

Lab Sample ID: STD300 280-648459/5 IC Client Sample ID:

Date Analyzed: 04/05/24 12:45 Lab File ID: SMS_3-040524009.D GC Column: DB-5MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Pyridine	1.88	Poor chromatography	G3YK	04/05/24 16:28
2,2'-oxybis[1-chloropropane]	4.28	Poor chromatography	G3YK	04/05/24 15:55
Benzoic acid	5.08	Poor chromatography	G3YK	04/05/24 15:56
1,2-Diphenylhydrazine	7.60	Poor chromatography	G3YK	04/05/24 15:59
Benzo[a]pyrene	13.29	Poor chromatography	G3YK	04/05/24 16:00
Dibenz(a,h)anthracene	15.39	Poor chromatography	G3YK	04/05/24 16:00

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SMS_3 Analysis Batch Number: 648459

Lab Sample ID: STD125 280-648459/6 IC Client Sample ID:

Date Analyzed: 04/05/24 13:08 Lab File ID: SMS_3-040524010.D GC Column: DB-5MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,2'-oxybis[1-chloropropane]	4.28	Poor chromatography	G3YK	04/05/24 16:01
Benzoic acid	5.03	Poor chromatography	G3YK	04/05/24 16:01
1,2-Diphenylhydrazine	7.60	Poor chromatography	G3YK	04/05/24 16:02
Benzo[b]fluoranthene	12.74	Poor chromatography	G3YK	04/05/24 16:03
Dibenz(a,h)anthracene	15.38	Poor chromatography	G3YK	04/05/24 16:03

Lab Sample ID: STD050 280-648459/7 IC Client Sample ID:

Date Analyzed: 04/05/24 13:30 Lab File ID: SMS_3-040524011.D GC Column: DB-5MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	5.00	Poor chromatography	G3YK	04/05/24 16:04
1,2-Diphenylhydrazine	7.60	Poor chromatography	G3YK	04/05/24 16:04
Benzo[a]pyrene	13.28	Poor chromatography	G3YK	04/05/24 16:05
Indeno[1,2,3-cd]pyrene	15.29	Poor chromatography	G3YK	04/05/24 16:05
Dibenz(a,h)anthracene	15.36	Poor chromatography	G3YK	04/05/24 16:05

Lab Sample ID: STD025 280-648459/8 IC Client Sample ID:

Date Analyzed: 04/05/24 13:53 Lab File ID: SMS_3-040524012.D GC Column: DB-5MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,2'-oxybis[1-chloropropane]	4.28	Poor chromatography	G3YK	04/05/24 16:06
Benzoic acid	4.98	Poor chromatography	G3YK	04/05/24 16:06
1,2-Diphenylhydrazine	7.59	Poor chromatography	G3YK	04/05/24 16:07
4-Bromophenyl phenyl ether	7.92	Poor chromatography	G3YK	04/05/24 16:07
Hexachlorobenzene	7.95	Poor chromatography	G3YK	04/05/24 16:08
Indeno[1,2,3-cd]pyrene	15.29	Poor chromatography	G3YK	04/05/24 16:08
Dibenz(a,h)anthracene	15.36	Poor chromatography	G3YK	04/05/24 16:08
Benzo[g,h,i]perylene	15.75	Poor chromatography	G3YK	04/05/24 16:09

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SMS_3 Analysis Batch Number: 648459

Lab Sample ID: STD010 280-648459/9 IC Client Sample ID:

Date Analyzed: 04/05/24 14:15 Lab File ID: SMS_3-040524013.D GC Column: DB-5MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-Dinitrotoluene	6.71	Poor chromatography	G3YK	04/05/24 16:14
2,4-Dinitrophenol	6.97	Poor chromatography	G3YK	04/05/24 16:14
2,4,6-Tribromophenol (Surr)	7.66	Poor chromatography	G3YK	04/05/24 16:13
Benzo[a]anthracene	11.10	Poor chromatography	G3YK	04/05/24 16:15
Chrysene	11.15	Poor chromatography	G3YK	04/05/24 16:15
Benzo[b]fluoranthene	12.73	Poor chromatography	G3YK	04/05/24 16:15
Benzo[k]fluoranthene	12.78	Poor chromatography	G3YK	04/05/24 16:16
Perylene-d12 (IS)	13.38	Poor chromatography	G3YK	04/05/24 16:13
Indeno[1,2,3-cd]pyrene	15.29	Poor chromatography	G3YK	04/05/24 16:16
Dibenz(a,h)anthracene	15.37	Poor chromatography	G3YK	04/05/24 16:16
Benzo[g,h,i]perylene	15.74	Poor chromatography	G3YK	04/05/24 16:16

Lab Sample ID: ICV 280-648459/10 Client Sample ID:

Date Analyzed: 04/05/24 14:38 Lab File ID: SMS_3-040524014.D GC Column: DB-5MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	5.07	Poor chromatography	G3YK	04/05/24 16:20
Benzo[b]fluoranthene	12.75	Poor chromatography	G3YK	04/05/24 16:21
Dibenz(a,h)anthracene	15.39	Poor chromatography	G3YK	04/05/24 16:21

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SMS_3 Analysis Batch Number: 653283

Lab Sample ID: CCVIS 280-653283/3 Client Sample ID:

Date Analyzed: 05/14/24 12:04 Lab File ID: SMS_3-051424004a.D GC Column: DB-5MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	5.06	Poor chromatography	G3YK	05/14/24 12:27
2,4,6-Trichlorophenol	6.13	Poor chromatography	G3YK	05/14/24 12:27
2,4,5-Trichlorophenol	6.17	Poor chromatography	G3YK	05/14/24 12:27
1,1'-Biphenyl	6.30	Poor chromatography	G3YK	05/14/24 12:27
2-Chloronaphthalene	6.31	Poor chromatography	G3YK	05/14/24 12:27
2,6-Dinitrotoluene	6.68	Poor chromatography	G3YK	05/14/24 12:27
Acenaphthylene	6.71	Poor chromatography	G3YK	05/14/24 12:28
Acenaphthene	6.88	Poor chromatography	G3YK	05/14/24 12:28
2,4-Dinitrophenol	6.94	Poor chromatography	G3YK	05/14/24 12:28
2,4-Dinitrotoluene	7.07	Poor chromatography	G3YK	05/14/24 12:28
Hexadecane	7.36	Poor chromatography	G3YK	05/14/24 12:28
Diphenylamine	7.53	Poor chromatography	G3YK	05/14/24 12:28
1,2-Diphenylhydrazine	7.56	Poor chromatography	G3YK	05/14/24 12:28
Di-n-octyl phthalate	12.24	Poor chromatography	G3YK	05/14/24 12:29
Benzo[b]fluoranthene	12.66	Poor chromatography	G3YK	05/14/24 12:29
Benzo[k]fluoranthene	12.71	Poor chromatography	G3YK	05/14/24 12:29
Benzo[a]pyrene	13.20	Poor chromatography	G3YK	05/14/24 12:29
Indeno[1,2,3-cd]pyrene	15.20	Poor chromatography	G3YK	05/14/24 12:29
Benzo[g,h,i]perylene	15.66	Poor chromatography	G3YK	05/14/24 12:29

Lab Sample ID: LCS 280-653130/2-A Client Sample ID:

Date Analyzed: 05/14/24 13:34 Lab File ID: SMS_3-051424008a.D GC Column: DB-5MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3 & 4 Methylphenol	4.40	Poor chromatography	G3YK	05/14/24 15:19

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SMS_3 Analysis Batch Number: 653283

Lab Sample ID: LCSD 280-653130/3-A Client Sample ID:

Date Analyzed: 05/14/24 13:57 Lab File ID: SMS_3-051424009a.D GC Column: DB-5MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3 & 4 Methylphenol	4.40	Poor chromatography	G3YK	05/14/24 15:25

Lab Sample ID: 280-191098-1 Client Sample ID: DET-003-240401-GW

Date Analyzed: 05/14/24 15:49 Lab File ID: SMS_3-051424014a.D GC Column: DB-5MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-Dinitrotoluene		Invalid Compound ID	G3YK	05/14/24 16:22
4,6-Dinitro-2-methylphenol		Invalid Compound ID	G3YK	05/14/24 16:23
Bis(2-ethylhexyl) phthalate	11.22	Poor chromatography	G3YK	05/14/24 16:23
Perylene-d12	13.29	Poor chromatography	G3YK	05/14/24 16:22

Lab Sample ID: 280-191098-1 MS Client Sample ID: DET-003-240401-GW MS

Date Analyzed: 05/14/24 16:12 Lab File ID: SMS_3-051424015a.D GC Column: DB-5MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3 & 4 Methylphenol	4.41	Poor chromatography	G3YK	05/14/24 16:46

Lab Sample ID: 280-191098-1 MSD Client Sample ID: DET-003-240401-GW MSD

Date Analyzed: 05/14/24 16:34 Lab File ID: SMS_3-051424016a.D GC Column: DB-5MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3 & 4 Methylphenol	4.41	Poor chromatography	G3YK	05/14/24 17:00
Perylene-d12	13.29	Poor chromatography	G3YK	05/14/24 16:59

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SMS_3 Analysis Batch Number: 653283

Lab Sample ID: 280-191098-2 Client Sample ID: DET-003-240402-GW

Date Analyzed: 05/14/24 16:57 Lab File ID: SMS_3-051424017a.D GC Column: DB-5MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-Dinitrotoluene		Invalid Compound ID	G3YK	05/14/24 17:22
4,6-Dinitro-2-methylphenol		Invalid Compound ID	G3YK	05/14/24 17:23
Di-n-octyl phthalate		Invalid Compound ID	G3YK	05/14/24 17:23
Bis(2-ethylhexyl) phthalate	11.22	Poor chromatography	G3YK	05/14/24 17:23
Perylene-d12	13.29	Poor chromatography	G3YK	05/14/24 17:21

Lab Sample ID: 280-191098-5 Client Sample ID: DET-004-240401-GW

Date Analyzed: 05/14/24 17:19 Lab File ID: SMS_3-051424018a.D GC Column: DB-5MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-Dinitrotoluene		Invalid Compound ID	G3YK	05/15/24 09:43
4,6-Dinitro-2-methylphenol		Invalid Compound ID	G3YK	05/15/24 09:43
4-Nitrophenol		Invalid Compound ID	G3YK	05/15/24 09:43
Di-n-octyl phthalate		Invalid Compound ID	G3YK	05/15/24 09:44

Lab Sample ID: CCVC 280-653283/31 Client Sample ID:

Date Analyzed: 05/14/24 21:49 Lab File ID: SMS_3-051424030a.D GC Column: DB-5MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	5.07	Poor chromatography	G3YK	05/15/24 08:50
2,4,6-Trichlorophenol	6.13	Poor chromatography	G3YK	05/15/24 08:50
2,4,5-Trichlorophenol	6.18	Poor chromatography	G3YK	05/15/24 08:50
2,6-Dinitrotoluene	6.68	Poor chromatography	G3YK	05/15/24 08:50
2,4-Dinitrophenol	6.94	Poor chromatography	G3YK	05/15/24 08:50
1,2-Diphenylhydrazine	7.56	Poor chromatography	G3YK	05/15/24 08:51
Azobenzene	7.56	Poor chromatography	G3YK	05/15/24 08:51
Indeno[1,2,3-cd]pyrene	15.20	Poor chromatography	G3YK	05/15/24 08:51
Dibenz(a,h)anthracene	15.28	Poor chromatography	G3YK	05/15/24 08:51

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SMS_2 Analysis Batch Number: 652518

Lab Sample ID: STD20 280-652518/3 IC Client Sample ID:

Date Analyzed: 05/08/24 12:49 Lab File ID: SMS_2-050824003.D GC Column: Rxi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluorene	7.33	Baseline	FP7E	05/08/24 13:07
Benzo[b]fluoranthene	12.61	Baseline	FP7E	05/08/24 13:08
Benzo[k]fluoranthene	12.66	Baseline	FP7E	05/08/24 13:08
Benzo[a]pyrene	13.11	Baseline	FP7E	05/08/24 13:08
Indeno[1,2,3-cd]pyrene	14.39	Baseline	FP7E	05/08/24 13:08
Dibenz(a,h)anthracene	14.44	Baseline	FP7E	05/08/24 13:08
Benzo[g,h,i]perylene	14.64	Baseline	FP7E	05/08/24 13:08

Lab Sample ID: STD50 280-652518/4 IC Client Sample ID:

Date Analyzed: 05/08/24 13:08 Lab File ID: SMS_2-050824004.D GC Column: Rxi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	12.61	Assign Peak	FP7E	05/08/24 13:33
Benzo[k]fluoranthene	12.65	Assign Peak	FP7E	05/08/24 13:33
Benzo[a]pyrene	13.11	Assign Peak	FP7E	05/08/24 13:33
Indeno[1,2,3-cd]pyrene	14.40	Assign Peak	FP7E	05/08/24 13:33
Dibenz(a,h)anthracene	14.43	Assign Peak	FP7E	05/08/24 13:33
Benzo[g,h,i]perylene	14.64	Assign Peak	FP7E	05/08/24 13:33

Lab Sample ID: STD100 280-652518/5 IC Client Sample ID:

Date Analyzed: 05/08/24 13:28 Lab File ID: SMS_2-050824005.D GC Column: Rxi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	12.61	Assign Peak	FP7E	05/08/24 13:46
Benzo[k]fluoranthene	12.65	Assign Peak	FP7E	05/08/24 13:46
Benzo[a]pyrene	13.11	Assign Peak	FP7E	05/08/24 13:46
Dibenz(a,h)anthracene	14.43	Assign Peak	FP7E	05/08/24 13:46

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SMS_2 Analysis Batch Number: 652894

Lab Sample ID: MB 280-652726/1-A Client Sample ID:

Date Analyzed: 05/10/24 08:41 Lab File ID: SMS_2-051024003.D GC Column: Rxi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	5.11	Baseline	FP7E	05/10/24 09:16
Acenaphthylene	6.64	Baseline	FP7E	05/10/24 09:16
Fluorene	7.32	Baseline	FP7E	05/10/24 09:16
Phenanthrene	8.26	Baseline	FP7E	05/10/24 09:16
Anthracene	8.31	Baseline	FP7E	05/10/24 09:16
Benzo[a]anthracene	10.99	Baseline	FP7E	05/10/24 09:16
Chrysene	11.04	Baseline	FP7E	05/10/24 09:16

Lab Sample ID: 280-191098-1 Client Sample ID: DET-003-240401-GW

Date Analyzed: 05/10/24 11:16 Lab File ID: SMS_2-051024011.D GC Column: Rxi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	5.11	Baseline	FP7E	05/11/24 11:57
2-Methylnaphthalene	5.78	Baseline	FP7E	05/11/24 11:57
Acenaphthylene	6.64	Baseline	FP7E	05/11/24 11:57
Fluorene	7.32	Baseline	FP7E	05/11/24 11:57
Anthracene	8.31	Baseline	FP7E	05/11/24 11:57
Fluoranthene	9.43	Baseline	FP7E	05/11/24 11:57
Pyrene	9.65	Baseline	FP7E	05/11/24 11:57
Benzo[a]anthracene	10.99	Baseline	FP7E	05/11/24 11:57
Chrysene	11.04	Baseline	FP7E	05/11/24 11:57
Benzo[b]fluoranthene	12.60	Baseline	FP7E	05/11/24 11:57
Benzo[a]pyrene	13.10	Baseline	FP7E	05/11/24 11:57
Indeno[1,2,3-cd]pyrene	14.38	Baseline	FP7E	05/11/24 11:57
Benzo[g,h,i]perylene	14.63	Baseline	FP7E	05/11/24 11:57

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SMS_2 Analysis Batch Number: 652894

Lab Sample ID: 280-191098-2 Client Sample ID: DET-003-240402-GW

Date Analyzed: 05/10/24 12:13 Lab File ID: SMS_2-051024014.D GC Column: Rxi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acenaphthylene	6.64	Assign Peak	FP7E	05/11/24 11:58
Fluorene	7.32	Assign Peak	FP7E	05/11/24 11:58
Anthracene	8.31	Assign Peak	FP7E	05/11/24 11:58
Fluoranthene	9.43	Assign Peak	FP7E	05/11/24 11:58
Benzo[a]anthracene	11.00	Assign Peak	FP7E	05/11/24 11:58
Chrysene	11.04	Assign Peak	FP7E	05/11/24 11:58
Benzo[b]fluoranthene	12.60	Assign Peak	FP7E	05/11/24 11:58

Lab Sample ID: 280-191098-5 Client Sample ID: DET-004-240401-GW

Date Analyzed: 05/10/24 12:33 Lab File ID: SMS_2-051024015.D GC Column: Rxi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	5.11	Assign Peak	FP7E	05/11/24 11:59
2-Methylnaphthalene	5.78	Assign Peak	FP7E	05/11/24 11:59
Acenaphthylene	6.64	Assign Peak	FP7E	05/11/24 11:59
Fluorene	7.32	Baseline	FP7E	05/11/24 11:59
Benzo[a]anthracene	11.00	Baseline	FP7E	05/11/24 11:59
Chrysene	11.04	Baseline	FP7E	05/11/24 11:59

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_C Analysis Batch Number: 653121

Lab Sample ID: CCVIS 280-653121/4 Client Sample ID:

Date Analyzed: 05/13/24 11:32 Lab File ID: 0513004.D GC Column: RTI-XLB ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
DCB Decachlorobiphenyl	11.06	Baseline Smoothing	AP6K	05/14/24 08:18

Lab Sample ID: CCVIS 280-653121/4 Client Sample ID:

Date Analyzed: 05/13/24 11:32 Lab File ID: 0513004.D GC Column: RTI-35silms ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
DCB Decachlorobiphenyl	9.26	Baseline Smoothing	AP6K	05/14/24 08:18

Lab Sample ID: STD3 280-653121/7 IC Client Sample ID:

Date Analyzed: 05/13/24 12:25 Lab File ID: 0513007.D GC Column: RTI-35silms ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chlordane (technical)		Unspecified		
Technical Chlordane		Unspecified		
Chlordane (technical) Peak 1	4.71	Baseline Smoothing	AP6K	05/13/24 14:56
Technical Chlordane Peak 1	4.71	Baseline Smoothing	AP6K	05/13/24 14:56
Chlordane (technical) Peak 2	5.19	Baseline Smoothing	AP6K	05/13/24 14:56
Technical Chlordane Peak 2	5.19	Baseline Smoothing	AP6K	05/13/24 14:56
Chlordane (technical) Peak 3	5.74	Baseline Smoothing	AP6K	05/13/24 14:56
Technical Chlordane Peak 3	5.74	Baseline Smoothing	AP6K	05/13/24 14:56
Chlordane (technical) Peak 4	5.77	Baseline Smoothing	AP6K	05/13/24 14:56
Technical Chlordane Peak 4	5.77	Baseline Smoothing	AP6K	05/13/24 14:56
Chlordane (technical) Peak 5	6.93	Baseline Smoothing	AP6K	05/13/24 14:56
Technical Chlordane Peak 5	6.93	Baseline Smoothing	AP6K	05/13/24 14:56

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_C Analysis Batch Number: 653121

Lab Sample ID: LCSD 280-652915/7-A Client Sample ID:

Date Analyzed: 05/13/24 13:54 Lab File ID: 0513012.D GC Column: RTI-XLB ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Toxaphene		Unspecified		
Toxaphene Peak 1	6.90	Baseline Smoothing	AP6K	05/14/24 08:07
Toxaphene Peak 2	7.59	Baseline Smoothing	AP6K	05/14/24 08:07
Toxaphene Peak 3	8.01	Baseline Smoothing	AP6K	05/14/24 08:07
Toxaphene Peak 4	8.27	Baseline Smoothing	AP6K	05/14/24 08:07
Toxaphene Peak 5	9.31	Baseline Smoothing	AP6K	05/14/24 08:07

Lab Sample ID: LCSD 280-652915/7-A Client Sample ID:

Date Analyzed: 05/13/24 13:54 Lab File ID: 0513012.D GC Column: RTI-35silms ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Toxaphene		Unspecified		
Toxaphene Peak 1	6.22	Baseline Smoothing	AP6K	05/14/24 08:07
Toxaphene Peak 2	6.64	Baseline Smoothing	AP6K	05/14/24 08:07
Toxaphene Peak 3	6.92	Baseline Smoothing	AP6K	05/14/24 08:07
Toxaphene Peak 4	7.80	Baseline Smoothing	AP6K	05/14/24 08:07
Toxaphene Peak 5	8.16	Baseline Smoothing	AP6K	05/14/24 08:07

Lab Sample ID: 280-191098-1 MS Client Sample ID: DET-003-240401-GW MS

Date Analyzed: 05/13/24 16:17 Lab File ID: 0513020.D GC Column: RTI-XLB ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDT	8.14	Baseline Smoothing	AP6K	05/14/24 08:09

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_C Analysis Batch Number: 653121

Lab Sample ID: 280-191098-1 MS Client Sample ID: DET-003-240401-GW MS

Date Analyzed: 05/13/24 16:17 Lab File ID: 0513020.D GC Column: RTI-35silms ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDT	7.07	Baseline Smoothing	AP6K	05/14/24 08:09

Lab Sample ID: 280-191098-1 MSD Client Sample ID: DET-003-240401-GW MSD

Date Analyzed: 05/13/24 16:34 Lab File ID: 0513021.D GC Column: RTI-XLB ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDT	8.14	Baseline Smoothing	AP6K	05/14/24 08:10

Lab Sample ID: 280-191098-1 MSD Client Sample ID: DET-003-240401-GW MSD

Date Analyzed: 05/13/24 16:34 Lab File ID: 0513021.D GC Column: RTI-35silms ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDT	7.07	Baseline Smoothing	AP6K	05/14/24 08:10

Lab Sample ID: 280-191098-1 MS Client Sample ID: DET-003-240401-GW MS

Date Analyzed: 05/13/24 16:52 Lab File ID: 0513022.D GC Column: RTI-XLB ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Toxaphene		Unspecified		
Toxaphene Peak 1	6.90	Baseline Smoothing	AP6K	05/14/24 08:10
Toxaphene Peak 2	7.59	Baseline Smoothing	AP6K	05/14/24 08:10
Endosulfan II	7.93	Baseline Smoothing	AP6K	05/14/24 08:10
Toxaphene Peak 3	8.01	Baseline Smoothing	AP6K	05/14/24 08:10
Endrin aldehyde	8.04	Baseline Smoothing	AP6K	05/14/24 08:10
Toxaphene Peak 4	8.27	Baseline Smoothing	AP6K	05/14/24 08:10
Endosulfan sulfate	8.36	Baseline Smoothing	AP6K	05/14/24 08:10
Toxaphene Peak 5	9.31	Baseline Smoothing	AP6K	05/14/24 08:10

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_C Analysis Batch Number: 653121

Lab Sample ID: 280-191098-1 MSD Client Sample ID: DET-003-240401-GW MSD

Date Analyzed: 05/13/24 17:10 Lab File ID: 0513023.D GC Column: RTI-XLB ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Toxaphene		Unspecified		
Toxaphene Peak 1	6.90	Baseline Smoothing	AP6K	05/14/24 08:10
Toxaphene Peak 2	7.59	Baseline Smoothing	AP6K	05/14/24 08:10
Endosulfan II	7.93	Baseline Smoothing	AP6K	05/14/24 08:10
Toxaphene Peak 3	8.01	Baseline Smoothing	AP6K	05/14/24 08:10
Toxaphene Peak 4	8.27	Baseline Smoothing	AP6K	05/14/24 08:10
Endosulfan sulfate	8.34	Baseline Smoothing	AP6K	05/14/24 08:10
Toxaphene Peak 5	9.31	Baseline Smoothing	AP6K	05/14/24 08:10

Lab Sample ID: 280-191098-1 MSD Client Sample ID: DET-003-240401-GW MSD

Date Analyzed: 05/13/24 17:10 Lab File ID: 0513023.D GC Column: RTI-35silms ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Toxaphene		Unspecified		
Toxaphene Peak 1	6.22	Baseline Smoothing	AP6K	05/14/24 08:10
Toxaphene Peak 2	6.64	Baseline Smoothing	AP6K	05/14/24 08:10
Endosulfan II	6.90	Baseline Smoothing	AP6K	05/14/24 08:10
Toxaphene Peak 3	6.92	Baseline Smoothing	AP6K	05/14/24 08:10
Endosulfan sulfate	7.38	Baseline Smoothing	AP6K	05/14/24 08:10
Toxaphene Peak 4	7.80	Baseline Smoothing	AP6K	05/14/24 08:10
Toxaphene Peak 5	8.16	Baseline Smoothing	AP6K	05/14/24 08:10

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_C Analysis Batch Number: 653635

Lab Sample ID: STD3 280-653635/6 IC Client Sample ID:

Date Analyzed: 05/16/24 11:45 Lab File ID: 0516006.D GC Column: RTI-35silms ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chlordane (technical)		Unspecified		
Technical Chlordane		Unspecified		
Chlordane (technical) Peak 1	4.71	Baseline Smoothing	AP6K	05/16/24 12:10
Technical Chlordane Peak 1	4.71	Baseline Smoothing	AP6K	05/16/24 12:10
Chlordane (technical) Peak 2	5.19	Baseline Smoothing	AP6K	05/16/24 12:10
Technical Chlordane Peak 2	5.19	Baseline Smoothing	AP6K	05/16/24 12:10
Chlordane (technical) Peak 3	5.73	Baseline Smoothing	AP6K	05/16/24 12:10
Technical Chlordane Peak 3	5.73	Baseline Smoothing	AP6K	05/16/24 12:10
Chlordane (technical) Peak 4	5.76	Baseline Smoothing	AP6K	05/16/24 12:10
Technical Chlordane Peak 4	5.76	Baseline Smoothing	AP6K	05/16/24 12:10
Chlordane (technical) Peak 5	6.93	Baseline Smoothing	AP6K	05/16/24 12:10
Technical Chlordane Peak 5	6.93	Baseline Smoothing	AP6K	05/16/24 12:10

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_J Analysis Batch Number: 646944

Lab Sample ID: STD6 280-646944/5 IC Client Sample ID:

Date Analyzed: 03/25/24 10:37 Lab File ID: 0325005.D GC Column: CLP1 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 5	5.24	Split Peak	USP3	03/25/24 12:45

Lab Sample ID: STD6 280-646944/5 IC Client Sample ID:

Date Analyzed: 03/25/24 10:37 Lab File ID: 0325005.D GC Column: CLP2 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1260		Unspecified		
PCB-1260 Peak 1	6.88	Split Peak	USP3	03/25/24 12:55

Lab Sample ID: ICIS 280-646944/6 Client Sample ID:

Date Analyzed: 03/25/24 10:54 Lab File ID: 0325006.D GC Column: CLP1 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 5	5.24	Split Peak	USP3	03/25/24 12:45

Lab Sample ID: ICIS 280-646944/6 Client Sample ID:

Date Analyzed: 03/25/24 10:54 Lab File ID: 0325006.D GC Column: CLP2 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1260		Unspecified		
PCB-1260 Peak 1	6.88	Split Peak	USP3	03/25/24 12:55

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_J Analysis Batch Number: 646944

Lab Sample ID: STD4 280-646944/7 IC Client Sample ID:

Date Analyzed: 03/25/24 11:11 Lab File ID: 0325007.D GC Column: CLP1 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 3	4.71	Split Peak	USP3	03/25/24 12:43

Lab Sample ID: STD4 280-646944/7 IC Client Sample ID:

Date Analyzed: 03/25/24 11:11 Lab File ID: 0325007.D GC Column: CLP2 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1260		Unspecified		
PCB-1260 Peak 1	6.88	Split Peak	USP3	03/25/24 12:55

Lab Sample ID: STD3 280-646944/8 IC Client Sample ID:

Date Analyzed: 03/25/24 11:27 Lab File ID: 0325008.D GC Column: CLP2 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1260		Unspecified		
PCB-1260 Peak 1	6.88	Split Peak	USP3	03/25/24 12:54

Lab Sample ID: STD2 280-646944/9 IC Client Sample ID:

Date Analyzed: 03/25/24 11:44 Lab File ID: 0325009.D GC Column: CLP1 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 5	5.24	Split Peak	USP3	03/25/24 12:44

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_J Analysis Batch Number: 646944

Lab Sample ID: STD2 280-646944/9 IC Client Sample ID:

Date Analyzed: 03/25/24 11:44 Lab File ID: 0325009.D GC Column: CLP2 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1260		Unspecified		
PCB-1260 Peak 1	6.88	Split Peak	USP3	03/25/24 12:54

Lab Sample ID: STD1 280-646944/10 IC Client Sample ID:

Date Analyzed: 03/25/24 12:01 Lab File ID: 0325010.D GC Column: CLP1 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 5	5.24	Split Peak	USP3	03/25/24 12:44

Lab Sample ID: ICV 280-646944/11 Client Sample ID:

Date Analyzed: 03/25/24 12:17 Lab File ID: 0325011.D GC Column: CLP1 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 5	5.24	Split Peak	USP3	03/25/24 12:48

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_J Analysis Batch Number: 653123

Lab Sample ID: STD1248 280-653123/8 IC Client Sample ID:

Date Analyzed: 05/13/24 11:46 Lab File ID: 0513008.D GC Column: CLP1 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1248 Peak 4	5.67	Peak assignment corrected	USP3	05/14/24 09:03

Lab Sample ID: MB 280-652915/1-A Client Sample ID:

Date Analyzed: 05/13/24 18:26 Lab File ID: 0513032.D GC Column: CLP1 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
DCB Decachlorobiphenyl	9.87	Baseline Smoothing	USP3	05/14/24 09:21

Lab Sample ID: LCS 280-652915/4-A Client Sample ID:

Date Analyzed: 05/13/24 18:43 Lab File ID: 0513033.D GC Column: CLP1 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
DCB Decachlorobiphenyl	9.87	Baseline Smoothing	USP3	05/14/24 09:22

Lab Sample ID: LCSD 280-652915/5-A Client Sample ID:

Date Analyzed: 05/13/24 19:00 Lab File ID: 0513034.D GC Column: CLP1 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 5	5.23	Split Peak	USP3	05/14/24 09:23
DCB Decachlorobiphenyl	9.87	Baseline Smoothing	USP3	05/14/24 09:23

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_J Analysis Batch Number: 653123

Lab Sample ID: 280-191098-1 Client Sample ID: DET-003-240401-GW

Date Analyzed: 05/13/24 19:16 Lab File ID: 0513035.D GC Column: CLP1 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1016 Peak 1		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1016 Peak 2		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1016 Peak 3		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1016 Peak 4		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1016 Peak 5		Invalid Compound ID	USP3	05/14/24 09:24

Lab Sample ID: 280-191098-1 Client Sample ID: DET-003-240401-GW

Date Analyzed: 05/13/24 19:16 Lab File ID: 0513035.D GC Column: CLP2 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1016 Peak 1		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1016 Peak 2		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1016 Peak 3		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1016 Peak 4		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1016 Peak 5		Invalid Compound ID	USP3	05/14/24 09:24

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_J Analysis Batch Number: 653123

Lab Sample ID: 280-191098-1 MS Client Sample ID: DET-003-240401-GW MS

Date Analyzed: 05/13/24 19:33 Lab File ID: 0513036.D GC Column: CLP1 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1016 Peak 5	5.24	Split Peak	USP3	05/14/24 09:24
PCB-1221 Peak 1		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1221 Peak 2		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1221 Peak 3		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1232 Peak 1		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1232 Peak 2		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1232 Peak 3		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1232 Peak 4		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1232 Peak 5		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1242 Peak 1		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1242 Peak 2		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1242 Peak 3		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1242 Peak 4		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1242 Peak 5		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1248 Peak 1		Split Peak	USP3	05/14/24 09:24
PCB-1248 Peak 2		Split Peak	USP3	05/14/24 09:24
PCB-1248 Peak 3		Split Peak	USP3	05/14/24 09:24
PCB-1248 Peak 4		Split Peak	USP3	05/14/24 09:24
PCB-1248 Peak 5		Split Peak	USP3	05/14/24 09:24
PCB-1254 Peak 1		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1254 Peak 2		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1254 Peak 3		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1254 Peak 4		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1254 Peak 5		Invalid Compound ID	USP3	05/14/24 09:25

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_J Analysis Batch Number: 653123

Lab Sample ID: 280-191098-1 MS Client Sample ID: DET-003-240401-GW MS

Date Analyzed: 05/13/24 19:33 Lab File ID: 0513036.D GC Column: CLP2 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1221 Peak 1		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1221 Peak 2		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1221 Peak 3		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1232 Peak 1		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1232 Peak 2		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1232 Peak 3		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1232 Peak 4		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1232 Peak 5		Invalid Compound ID	USP3	05/14/24 09:24
PCB-1242 Peak 1		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1242 Peak 2		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1242 Peak 3		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1242 Peak 4		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1242 Peak 5		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1248 Peak 1		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1248 Peak 2		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1248 Peak 3		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1248 Peak 4		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1248 Peak 5		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1254 Peak 1		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1254 Peak 2		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1254 Peak 3		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1254 Peak 4		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1254 Peak 5		Invalid Compound ID	USP3	05/14/24 09:25

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_J Analysis Batch Number: 653123

Lab Sample ID: 280-191098-1 MSD Client Sample ID: DET-003-240401-GW MSD

Date Analyzed: 05/13/24 19:50 Lab File ID: 0513037.D GC Column: CLP1 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
DCB Decachlorobiphenyl	9.87	Baseline Smoothing	USP3	05/14/24 09:26
PCB-1221 Peak 1		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1221 Peak 2		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1221 Peak 3		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1232 Peak 1		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1232 Peak 2		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1232 Peak 3		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1232 Peak 4		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1232 Peak 5		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1242 Peak 1		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1242 Peak 2		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1242 Peak 3		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1242 Peak 4		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1242 Peak 5		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1248 Peak 1		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1248 Peak 2		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1248 Peak 3		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1248 Peak 4		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1248 Peak 5		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1254 Peak 1		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1254 Peak 2		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1254 Peak 3		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1254 Peak 4		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1254 Peak 5		Invalid Compound ID	USP3	05/14/24 09:26

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_J Analysis Batch Number: 653123

Lab Sample ID: 280-191098-1 MSD Client Sample ID: DET-003-240401-GW MSD

Date Analyzed: 05/13/24 19:50 Lab File ID: 0513037.D GC Column: CLP2 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1221 Peak 1		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1221 Peak 2		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1221 Peak 3		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1232 Peak 1		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1232 Peak 2		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1232 Peak 3		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1232 Peak 4		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1232 Peak 5		Invalid Compound ID	USP3	05/14/24 09:25
PCB-1242 Peak 1		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1242 Peak 2		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1242 Peak 3		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1242 Peak 4		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1242 Peak 5		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1248 Peak 1		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1248 Peak 2		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1248 Peak 3		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1248 Peak 4		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1248 Peak 5		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1254 Peak 1		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1254 Peak 2		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1254 Peak 3		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1254 Peak 4		Invalid Compound ID	USP3	05/14/24 09:26
PCB-1254 Peak 5		Invalid Compound ID	USP3	05/14/24 09:26

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_J Analysis Batch Number: 653123

Lab Sample ID: 280-191098-2 Client Sample ID: DET-003-240402-GW

Date Analyzed: 05/13/24 20:07 Lab File ID: 0513038.D GC Column: CLP1 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
DCB Decachlorobiphenyl	9.87	Baseline Smoothing	USP3	05/14/24 09:27

Lab Sample ID: 280-191098-5 Client Sample ID: DET-004-240401-GW

Date Analyzed: 05/13/24 20:23 Lab File ID: 0513039.D GC Column: CLP1 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
DCB Decachlorobiphenyl	9.87	Baseline Smoothing	USP3	05/14/24 09:28

Lab Sample ID: CCV 280-653123/40 Client Sample ID:

Date Analyzed: 05/13/24 20:40 Lab File ID: 0513040.D GC Column: CLP2 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 2	4.45	Baseline Smoothing	USP3	05/14/24 09:28
PCB-1016 Peak 5	5.47	Baseline Smoothing	USP3	05/14/24 09:28
PCB-1260 Peak 4	8.39	Baseline Smoothing	USP3	05/14/24 09:29
PCB-1260 Peak 5	8.86	Baseline Smoothing	USP3	05/14/24 09:29

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 649950

Lab Sample ID: IC 280-649950/11 Client Sample ID:

Date Analyzed: 04/17/24 20:37 Lab File ID: 04170011.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	04/18/24 11:13
HMX	6.58	Baseline	LV5D	04/18/24 11:13
DNX	6.78	Baseline	LV5D	04/18/24 11:13

Lab Sample ID: IC 280-649950/12 Client Sample ID:

Date Analyzed: 04/17/24 21:00 Lab File ID: 04170012.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	04/18/24 11:13
HMX	6.58	Baseline	LV5D	04/18/24 11:13
DNX	6.79	Baseline	LV5D	04/18/24 11:13

Lab Sample ID: IC 280-649950/13 Client Sample ID:

Date Analyzed: 04/17/24 21:23 Lab File ID: 04170013.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	04/18/24 11:13
HMX	6.58	Baseline	LV5D	04/18/24 11:13
DNX	6.79	Baseline	LV5D	04/18/24 11:13

Lab Sample ID: IC 280-649950/14 Client Sample ID:

Date Analyzed: 04/17/24 21:46 Lab File ID: 04170014.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	04/18/24 11:14
HMX	6.59	Baseline	LV5D	04/18/24 11:14
DNX	6.79	Baseline	LV5D	04/18/24 11:14

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 649950

Lab Sample ID: IC 280-649950/15 Client Sample ID:

Date Analyzed: 04/17/24 22:09 Lab File ID: 04170015.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	04/18/24 11:15
HMX	6.58	Baseline	LV5D	04/18/24 11:15
DNX	6.79	Baseline	LV5D	04/18/24 11:15
3-Nitrotoluene	13.40	Baseline	LV5D	04/18/24 11:15

Lab Sample ID: IC 280-649950/16 Client Sample ID:

Date Analyzed: 04/17/24 22:32 Lab File ID: 04170016.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	04/18/24 11:16
HMX	6.58	Baseline	LV5D	04/18/24 11:16
DNX	6.79	Baseline	LV5D	04/18/24 11:16
PETN	14.48	Baseline	LV5D	04/18/24 11:15

Lab Sample ID: IC 280-649950/17 Client Sample ID:

Date Analyzed: 04/17/24 22:55 Lab File ID: 04170017.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	04/18/24 11:16
HMX	6.58	Baseline	LV5D	04/18/24 11:16
DNX	6.78	Baseline	LV5D	04/18/24 11:16
PETN	14.49	Baseline	LV5D	04/18/24 11:16

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 649950

Lab Sample ID: IC 280-649950/18 Client Sample ID:

Date Analyzed: 04/17/24 23:18 Lab File ID: 04170018.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
DNX	6.79	Baseline	LV5D	04/18/24 11:17
1,2-Dinitrobenzene	8.52	Baseline	LV5D	04/18/24 11:19
1,3,5-Trinitrobenzene	8.66	Baseline	LV5D	04/18/24 11:19
3,5-Dinitroaniline	9.87	Baseline	LV5D	04/18/24 11:17
Tetryl	9.96	Baseline	LV5D	04/18/24 11:17
Nitroglycerin	10.42	Baseline	LV5D	04/18/24 11:17
PETN	14.48	Baseline	LV5D	04/18/24 11:17

Lab Sample ID: IC 280-649950/19 Client Sample ID:

Date Analyzed: 04/17/24 23:41 Lab File ID: 04170019.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	04/18/24 11:18
HMX	6.58	Baseline	LV5D	04/18/24 11:18
DNX	6.79	Baseline	LV5D	04/18/24 11:18
RDX	7.58	Baseline	LV5D	04/18/24 11:18
1,2-Dinitrobenzene	8.52	Baseline	LV5D	04/18/24 11:19
1,3,5-Trinitrobenzene	8.66	Baseline	LV5D	04/18/24 11:19
3,5-Dinitroaniline	9.87	Baseline	LV5D	04/18/24 11:18
Tetryl	9.95	Baseline	LV5D	04/18/24 11:18
Nitroglycerin	10.43	Baseline	LV5D	04/18/24 11:17
PETN	14.49	Baseline	LV5D	04/18/24 11:17

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 649950

Lab Sample ID: ICV 280-649950/20 Client Sample ID:

Date Analyzed: 04/18/24 00:04 Lab File ID: 04170020.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	04/18/24 11:20
HMX	6.58	Baseline	LV5D	04/18/24 11:20
DNX	6.79	Baseline	LV5D	04/18/24 11:20

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 653063

Lab Sample ID: MB 280-652898/1-A Client Sample ID:

Date Analyzed: 05/11/24 15:16 Lab File ID: 05010028.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.56	Baseline	LV5D	05/14/24 12:38
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	05/14/24 12:38

Lab Sample ID: LCS 280-652898/2-A Client Sample ID:

Date Analyzed: 05/11/24 15:39 Lab File ID: 05010029.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.62	Baseline	LV5D	05/14/24 12:41

Lab Sample ID: LCSD 280-652898/3-A Client Sample ID:

Date Analyzed: 05/11/24 16:02 Lab File ID: 05010030.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.61	Baseline	LV5D	05/14/24 12:41

Lab Sample ID: 280-191098-1 Client Sample ID: DET-003-240401-GW

Date Analyzed: 05/11/24 16:25 Lab File ID: 05010031.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.55	Baseline	LV5D	05/14/24 12:42
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	05/14/24 12:41
HMX		Invalid Compound ID	LV5D	05/14/24 12:41

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 653063

Lab Sample ID: 280-191098-4 Client Sample ID: LL1mw-081-240401-GW

Date Analyzed: 05/11/24 16:48 Lab File ID: 05010032.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene	8.71	Baseline	LV5D	05/14/24 12:43
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	05/14/24 12:43
HMX		Invalid Compound ID	LV5D	05/14/24 12:43
Tetryl		Invalid Compound ID	LV5D	05/14/24 12:43
2,4,6-Trinitrotoluene	10.87	Baseline	LV5D	05/14/24 12:43
4-Amino-2,6-dinitrotoluene	11.03	Baseline	LV5D	05/14/24 12:43

Lab Sample ID: 280-191098-5 Client Sample ID: DET-004-240401-GW

Date Analyzed: 05/11/24 17:11 Lab File ID: 05010033.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.61	Baseline	LV5D	05/14/24 12:43
RDX	7.63	Baseline	LV5D	05/14/24 12:43
1,2-Dinitrobenzene	8.55	Baseline	LV5D	05/14/24 12:43
2-Nitrotoluene	12.43	Baseline	LV5D	05/14/24 12:43

Lab Sample ID: 280-191098-7 Client Sample ID: LL3mw-247-240401-GW

Date Analyzed: 05/11/24 17:34 Lab File ID: 05010034.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene	8.71	Baseline	LV5D	05/14/24 12:47
HMX		Invalid Compound ID	LV5D	05/14/24 12:46
2,4,6-Trinitrotoluene	10.87	Baseline	LV5D	05/14/24 12:47

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 653063

Lab Sample ID: 280-191098-8 Client Sample ID: LL3mw-248-240401-GW

Date Analyzed: 05/11/24 17:57 Lab File ID: 05010035.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.55	Baseline	LV5D	05/14/24 12:47
1,3,5-Trinitrobenzene	8.71	Baseline	LV5D	05/14/24 12:47
4-Nitrotoluene		Invalid Compound ID	LV5D	05/14/24 12:47
HMX		Invalid Compound ID	LV5D	05/14/24 12:47

Lab Sample ID: CCV 280-653063/38 Client Sample ID:

Date Analyzed: 05/11/24 19:06 Lab File ID: 05010038.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.61	Baseline	LV5D	05/14/24 12:53

Lab Sample ID: CCV 280-653063/48 Client Sample ID:

Date Analyzed: 05/11/24 22:56 Lab File ID: 05010048.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.61	Baseline	LV5D	05/14/24 14:09

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 653871

Lab Sample ID: CCV 280-653871/39 Client Sample ID:

Date Analyzed: 05/18/24 01:43 Lab File ID: 05170039.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.62	Baseline	LV5D	05/18/24 10:33

Lab Sample ID: LCS 280-653565/2-A Client Sample ID:

Date Analyzed: 05/18/24 02:29 Lab File ID: 05170041.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.62	Baseline	LV5D	05/18/24 10:34

Lab Sample ID: LCSD 280-653565/3-A Client Sample ID:

Date Analyzed: 05/18/24 02:52 Lab File ID: 05170042.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.62	Baseline	LV5D	05/18/24 10:34

Lab Sample ID: 280-191098-1 RE Client Sample ID: DET-003-240401-GW RE

Date Analyzed: 05/18/24 03:15 Lab File ID: 05170043.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.55	Baseline	LV5D	05/18/24 10:34
HMX		Invalid Compound ID	LV5D	05/18/24 10:34

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 653871

Lab Sample ID: 280-191098-4 RE Client Sample ID: LL1mw-081-240401-GW RE

Date Analyzed: 05/18/24 03:38 Lab File ID: 05170044.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.62	Baseline	LV5D	05/18/24 10:35
RDX	7.63	Baseline	LV5D	05/18/24 10:35
1,2-Dinitrobenzene	8.55	Baseline	LV5D	05/18/24 10:35
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	05/18/24 10:35
Tetryl		Invalid Compound ID	LV5D	05/18/24 10:35

Lab Sample ID: 280-191098-5 RE Client Sample ID: DET-004-240401-GW RE

Date Analyzed: 05/18/24 04:01 Lab File ID: 05170045.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.61	Baseline	LV5D	05/18/24 10:36
RDX	7.62	Baseline	LV5D	05/18/24 10:36
1,2-Dinitrobenzene	8.54	Baseline	LV5D	05/18/24 10:36

Lab Sample ID: 280-191098-7 RE Client Sample ID: LL3mw-247-240401-GW RE

Date Analyzed: 05/18/24 04:24 Lab File ID: 05170046.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.61	Baseline	LV5D	05/18/24 10:46
1,3,5-Trinitrobenzene	8.72	Baseline	LV5D	05/18/24 10:46
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	05/18/24 10:46
2,4-Dinitrotoluene		Invalid Compound ID	LV5D	05/18/24 10:46
2-Nitrotoluene		Invalid Compound ID	LV5D	05/18/24 10:46

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 653871

Lab Sample ID: 280-191098-8 RE Client Sample ID: LL3mw-248-240401-GW RE

Date Analyzed: 05/18/24 04:46 Lab File ID: 05170047.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.62	Baseline	LV5D	05/18/24 10:47
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	05/18/24 10:46
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	05/18/24 10:46
2,4-Dinitrotoluene		Invalid Compound ID	LV5D	05/18/24 10:46
2-Nitrotoluene		Invalid Compound ID	LV5D	05/18/24 10:46

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 647408

Lab Sample ID: IC 280-647408/10 Client Sample ID:

Date Analyzed: 03/27/24 19:58 Lab File ID: 03270010.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	7.72	Peak assignment corrected	LV5D	03/28/24 11:16
Nitroglycerin	15.03	Baseline Smoothing	LV5D	03/28/24 11:35

Lab Sample ID: IC 280-647408/11 Client Sample ID:

Date Analyzed: 03/27/24 20:33 Lab File ID: 03270011.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	15.05	Baseline Smoothing	LV5D	03/28/24 11:35

Lab Sample ID: IC 280-647408/12 Client Sample ID:

Date Analyzed: 03/27/24 21:08 Lab File ID: 03270012.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	15.06	Baseline Smoothing	LV5D	03/28/24 11:35

Lab Sample ID: IC 280-647408/13 Client Sample ID:

Date Analyzed: 03/27/24 21:43 Lab File ID: 03270013.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	15.07	Baseline Smoothing	LV5D	03/28/24 11:35
PETN	24.68	Baseline Smoothing	LV5D	03/28/24 11:39

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 647408

Lab Sample ID: IC 280-647408/14 Client Sample ID:

Date Analyzed: 03/27/24 22:18 Lab File ID: 03270014.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	14.39	Baseline Smoothing	LV5D	03/28/24 12:08
1,3-Dinitrobenzene	14.82	Baseline Smoothing	LV5D	03/28/24 12:08
Nitroglycerin	15.07	Baseline Smoothing	LV5D	03/28/24 11:36
2-Nitrotoluene	15.75	Baseline Smoothing	LV5D	03/28/24 12:08
4-Nitrotoluene	16.02	Baseline Smoothing	LV5D	03/28/24 12:08
4-Amino-2,6-dinitrotoluene	16.51	Baseline Smoothing	LV5D	03/28/24 12:08
3-Nitrotoluene	16.88	Baseline Smoothing	LV5D	03/28/24 12:08
2-Amino-4,6-dinitrotoluene	17.39	Baseline Smoothing	LV5D	03/28/24 12:08
1,3,5-Trinitrobenzene	17.81	Baseline Smoothing	LV5D	03/28/24 12:08
PETN	24.69	Baseline Smoothing	LV5D	03/28/24 11:39

Lab Sample ID: IC 280-647408/15 Client Sample ID:

Date Analyzed: 03/27/24 22:53 Lab File ID: 03270015.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	15.08	Baseline Smoothing	LV5D	03/28/24 11:36
2,4-Dinitrotoluene	19.32	Baseline Smoothing	LV5D	03/28/24 11:37
PETN	24.69	Baseline Smoothing	LV5D	03/28/24 11:39

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 647408

Lab Sample ID: IC 280-647408/16 Client Sample ID:

Date Analyzed: 03/27/24 23:28 Lab File ID: 03270016.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	14.40	Baseline Smoothing	LV5D	03/28/24 11:36
1,3-Dinitrobenzene	14.83	Baseline Smoothing	LV5D	03/28/24 11:36
Nitroglycerin	15.08	Baseline Smoothing	LV5D	03/28/24 11:36
2-Nitrotoluene	15.76	Baseline Smoothing	LV5D	03/28/24 11:36
2,4-Dinitrotoluene	19.31	Baseline Smoothing	LV5D	03/28/24 11:36
PETN	24.69	Baseline Smoothing	LV5D	03/28/24 11:40

Lab Sample ID: IC 280-647408/17 Client Sample ID:

Date Analyzed: 03/28/24 00:03 Lab File ID: 03270017.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	14.39	Baseline Smoothing	LV5D	03/28/24 11:37
1,3-Dinitrobenzene	14.81	Baseline Smoothing	LV5D	03/28/24 11:37
Nitroglycerin	15.07	Baseline Smoothing	LV5D	03/28/24 11:37
PETN	24.69	Baseline Smoothing	LV5D	03/28/24 11:40

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 647408

Lab Sample ID: IC 280-647408/18 Client Sample ID:

Date Analyzed: 03/28/24 00:38 Lab File ID: 03270018.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	14.39	Baseline Smoothing	LV5D	03/28/24 11:38
1,3-Dinitrobenzene	14.81	Baseline Smoothing	LV5D	03/28/24 11:38
Nitroglycerin	15.07	Baseline Smoothing	LV5D	03/28/24 11:37
2-Nitrotoluene	15.76	Baseline Smoothing	LV5D	03/28/24 11:39
4-Nitrotoluene	16.01	Baseline Smoothing	LV5D	03/28/24 11:38
4-Amino-2,6-dinitrotoluene	16.50	Baseline Smoothing	LV5D	03/28/24 11:38
3-Nitrotoluene	16.88	Baseline Smoothing	LV5D	03/28/24 11:38
2-Amino-4,6-dinitrotoluene	17.37	Baseline Smoothing	LV5D	03/28/24 11:38
1,3,5-Trinitrobenzene	17.81	Baseline Smoothing	LV5D	03/28/24 11:38
PETN	24.83	Baseline Smoothing	LV5D	03/28/24 11:39

Lab Sample ID: ICV 280-647408/19 Client Sample ID:

Date Analyzed: 03/28/24 01:13 Lab File ID: 03270019.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	15.07	Baseline Smoothing	LV5D	03/28/24 11:41
PETN	24.67	Baseline Smoothing	LV5D	03/28/24 11:43

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 653069

Lab Sample ID: CCV 280-653069/7 Client Sample ID:

Date Analyzed: 05/11/24 17:27 Lab File ID: 05110007.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	14.75	Baseline Smoothing	LV5D	05/14/24 18:06
Tetryl	22.21	Baseline Smoothing	LV5D	05/14/24 18:06
2,4,6-Trinitrotoluene	23.19	Baseline Smoothing	LV5D	05/14/24 18:06

Lab Sample ID: 280-191098-5 Client Sample ID: DET-004-240401-GW

Date Analyzed: 05/11/24 20:57 Lab File ID: 05110015.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.61	Baseline Smoothing	LV5D	05/14/24 18:07
RDX	8.65	Baseline Smoothing	LV5D	05/14/24 18:07

Lab Sample ID: 280-191098-7 Client Sample ID: LL3mw-247-240401-GW

Date Analyzed: 05/11/24 21:32 Lab File ID: 05110016.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrobenzene		Invalid Compound ID	LV5D	05/14/24 18:08
RDX		Invalid Compound ID	LV5D	05/14/24 18:08

Lab Sample ID: 280-191098-8 Client Sample ID: LL3mw-248-240401-GW

Date Analyzed: 05/11/24 22:07 Lab File ID: 05110017.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	8.73	Baseline Smoothing	LV5D	05/14/24 18:08
Nitrobenzene		Invalid Compound ID	LV5D	05/14/24 18:08

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 653069

Lab Sample ID: CCV 280-653069/20 Client Sample ID:

Date Analyzed: 05/11/24 23:51 Lab File ID: 05110020.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	14.75	Baseline Smoothing	LV5D	05/14/24 18:10
Tetryl	22.21	Baseline Smoothing	LV5D	05/14/24 18:10
2,4,6-Trinitrotoluene	23.19	Baseline Smoothing	LV5D	05/14/24 18:10

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 653380

Lab Sample ID: CCV 280-653380/7 Client Sample ID:

Date Analyzed: 05/15/24 00:39 Lab File ID: 05140007.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	14.68	Baseline Smoothing	LV5D	05/15/24 13:26

Lab Sample ID: 280-191098-4 Client Sample ID: LL1mw-081-240401-GW

Date Analyzed: 05/15/24 01:14 Lab File ID: 05140010.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.56	Baseline Smoothing	LV5D	05/15/24 13:28
Nitrobenzene		Invalid Compound ID	LV5D	05/15/24 13:28
PETN		Invalid Compound ID	LV5D	05/15/24 13:28
RDX		Invalid Compound ID	LV5D	05/15/24 13:28

Lab Sample ID: CCV 280-653380/11 Client Sample ID:

Date Analyzed: 05/15/24 01:49 Lab File ID: 05140011.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	14.69	Baseline Smoothing	LV5D	05/15/24 13:31

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 653873

Lab Sample ID: CCV 280-653873/7 Client Sample ID:

Date Analyzed: 05/17/24 17:49 Lab File ID: 05170007.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	14.78	Baseline Smoothing	LV5D	05/17/24 18:26
Tetryl	22.28	Baseline Smoothing	LV5D	05/17/24 18:26

Lab Sample ID: 280-191098-4 RE Client Sample ID: LL1mw-081-240401-GW RE

Date Analyzed: 05/17/24 20:44 Lab File ID: 05170014.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.65	Baseline Smoothing	LV5D	05/18/24 16:38
Nitroglycerin		Invalid Compound ID	LV5D	05/18/24 16:39
RDX		Invalid Compound ID	LV5D	05/18/24 16:38

Lab Sample ID: 280-191098-5 RE Client Sample ID: DET-004-240401-GW RE

Date Analyzed: 05/17/24 21:19 Lab File ID: 05170015.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.66	Baseline Smoothing	LV5D	05/18/24 16:39
Nitroglycerin		Invalid Compound ID	LV5D	05/18/24 16:39

Lab Sample ID: 280-191098-7 RE Client Sample ID: LL3mw-247-240401-GW RE

Date Analyzed: 05/17/24 21:54 Lab File ID: 05170016.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrobenzene		Invalid Compound ID	LV5D	05/18/24 16:39
Nitroglycerin		Invalid Compound ID	LV5D	05/18/24 16:39
RDX		Invalid Compound ID	LV5D	05/18/24 16:39

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 653873

Lab Sample ID: 280-191098-8 RE Client Sample ID: LL3mw-248-240401-GW RE

Date Analyzed: 05/17/24 22:29 Lab File ID: 05170017.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	05/18/24 16:39
Nitrobenzene		Invalid Compound ID	LV5D	05/18/24 16:39
Nitroglycerin		Invalid Compound ID	LV5D	05/18/24 16:39
RDX		Invalid Compound ID	LV5D	05/18/24 16:39

Lab Sample ID: CCV 280-653873/20 Client Sample ID:

Date Analyzed: 05/18/24 00:14 Lab File ID: 05170020.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	14.78	Baseline Smoothing	LV5D	05/18/24 16:39
Tetryl	22.30	Baseline Smoothing	LV5D	05/18/24 16:40

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
350.1 cal_00630	05/21/24	05/14/24	Di Water, Lot na	100 mL	NH3 CAL STD_00036	10 mL	Ammonia as N	100 mg/L
.NH3 CAL STD_00036	06/30/25		Ricca, Lot 2312g14		(Purchased Reagent)		Ammonia as N	1000 mg/L
350.1 ICV_00609	05/21/24	05/14/24	na, Lot na	100 mL	NH3 ICV STD_00034	10 mL	Ammonia as N	100.2 mg/L
.NH3 ICV STD_00034	01/25/25		Inorganic Ventures, Lot S2-NH700817		(Purchased Reagent)		Ammonia as N	1002 mg/L
8081 LCS_00724	05/17/24	05/10/24	P&T Methanol, Lot MethanolP&T_00358	50 mL	8081HCBPrim_00016	0.5 mL	Hexachlorobenzene	0.5 ug/mL
					8081LCSPrim_00076	0.5 mL	4,4'-DDD	0.5 ug/mL
							4,4'-DDE	0.5 ug/mL
							4,4'-DDT	0.5 ug/mL
							Aldrin	0.5 ug/mL
							alpha-BHC	0.5 ug/mL
							alpha-Chlordane	0.5 ug/mL
							beta-BHC	0.5 ug/mL
							delta-BHC	0.5 ug/mL
							Dieldrin	0.5 ug/mL
							Endosulfan I	0.5 ug/mL
							Endosulfan II	0.5 ug/mL
							Endosulfan sulfate	0.5 ug/mL
							Endrin	0.5 ug/mL
							Endrin aldehyde	0.5 ug/mL
							Endrin ketone	0.5 ug/mL
							gamma-BHC (Lindane)	0.5 ug/mL
							gamma-Chlordane	0.5 ug/mL
							Heptachlor	0.5 ug/mL
							Heptachlor epoxide	0.5 ug/mL
							Methoxychlor	0.5 ug/mL
					8081MirexPrim_00014	0.5 mL	Mirex	0.5 ug/mL
.8081HCBPrim_00016	09/15/24	03/15/24	Hexane, Lot Hexane_Cycl_00085	10 mL	8081HCBStkSS_00058	0.5 mL	Hexachlorobenzene	50 ug/mL
..8081HCBStkSS_00058	10/31/25		Agillent, Lot 0006635838		(Purchased Reagent)		Hexachlorobenzene	1000 ug/mL
.8081LCSPrim_00076	10/16/24	04/16/24	Hexane, Lot Hexane_Cycl_00087	10 mL	8081ABResPS_00052	0.25 mL	4,4'-DDD	50 ug/mL
							4,4'-DDE	50 ug/mL
							4,4'-DDT	50 ug/mL
							Aldrin	50 ug/mL
							alpha-BHC	50 ug/mL
							alpha-Chlordane	50 ug/mL
							beta-BHC	50 ug/mL
							delta-BHC	50 ug/mL
							Dieldrin	50 ug/mL
							Endosulfan I	50 ug/mL
							Endosulfan II	50 ug/mL
							Endosulfan sulfate	50 ug/mL
							Endrin	50 ug/mL
							Endrin aldehyde	50 ug/mL
							Endrin ketone	50 ug/mL
							gamma-BHC (Lindane)	50 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							gamma-Chlordane	50 ug/mL
							Heptachlor	50 ug/mL
							Heptachlor epoxide	50 ug/mL
							Methoxychlor	50 ug/mL
..8081ABResPS_00052	04/30/27		Restek, Lot A0192368		(Purchased Reagent)		4,4'-DDD	2000 ug/mL
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL
							Aldrin	2000 ug/mL
							alpha-BHC	2000 ug/mL
							alpha-Chlordane	2000 ug/mL
							beta-BHC	2000 ug/mL
							delta-BHC	2000 ug/mL
							Dieldrin	2000 ug/mL
							Endosulfan I	2000 ug/mL
							Endosulfan II	2000 ug/mL
							Endosulfan sulfate	2000 ug/mL
							Endrin	2000 ug/mL
							Endrin aldehyde	2000 ug/mL
							Endrin ketone	2000 ug/mL
							gamma-BHC (Lindane)	2000 ug/mL
							gamma-Chlordane	2000 ug/mL
							Heptachlor	2000 ug/mL
							Heptachlor epoxide	2000 ug/mL
							Methoxychlor	2000 ug/mL
.8081MirexPrim_00014	09/15/24	03/15/24	Hexane, Lot Heaxne_ Cycl_00083	10 mL	8081MirxStkPS_00059	0.5 mL	Mirex	50 ug/mL
..8081MirxStkPS_00059	05/11/25		Accustandard, Inc., Lot 222031255		(Purchased Reagent)		Mirex	1000 ug/mL
8081/82 Surr_00162	10/30/24	04/30/24	ACETONE, Lot Acetone_00986	1000 mL	Pest/PCBstock_00048	1 mL	DCB Decachlorobiphenyl	0.2 ug/mL
							Tetrachloro-m-xylene	0.2 ug/mL
.Pest/PCBstock_00048	03/31/29		Restek, Lot A0192797		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
8081_EvalBPEM_00037	08/01/24	02/01/24	Hexane, Lot 2228873	10 mL	8081EvalBStk3_00012	80 uL	4,4'-DDT	0.08 ug/mL
							Endrin	0.04 ug/mL
.8081EvalBStk3_00012	12/31/24		Restek, Lot A0179337		(Purchased Reagent)		4,4'-DDT	10 ug/mL
							Endrin	5 ug/mL
8081_IS_00023	07/16/24	01/16/24	Hexane, Lot Hexane Cycl_00065	200 mL	BNB stock_00031	150 uL	1-Bromo-2-nitrobenzene	0.75 ug/mL
.BNB stock_00031	08/31/24		Restek, Lot A0172090		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
8081ABICVL3_00059	09/28/24	03/28/24	Hexane, Lot Hexane_Cycl_00078	10 mL	8081ABICVStk_00057	250 uL	4,4'-DDD	25 ng/mL
							4,4'-DDE	25 ng/mL
							4,4'-DDT	25 ng/mL
							Aldrin	25 ng/mL
							alpha-BHC	25 ng/mL
							alpha-Chlordane	25 ng/mL
							beta-BHC	25 ng/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							delta-BHC	25 ng/mL
							Dieldrin	25 ng/mL
							Endosulfan I	25 ng/mL
							Endosulfan II	25 ng/mL
							Endosulfan sulfate	25 ng/mL
							Endrin	25 ng/mL
							Endrin aldehyde	25 ng/mL
							Endrin ketone	25 ng/mL
							gamma-BHC (Lindane)	25 ng/mL
							gamma-Chlordane	25 ng/mL
							Heptachlor	25 ng/mL
							Heptachlor epoxide	25 ng/mL
							Methoxychlor	25 ng/mL
							DCB Decachlorobiphenyl	25 ng/mL
							Tetrachloro-m-xylene	25 ng/mL
.8081ABICVStk_00057	09/28/24	03/28/24	Hexane, Lot hexane_cycl_00072	10 mL	8081ABResSS_00027	5 uL	4,4'-DDD	1 ug/mL
							4,4'-DDE	1 ug/mL
							4,4'-DDT	1 ug/mL
							Aldrin	1 ug/mL
							alpha-BHC	1 ug/mL
							alpha-Chlordane	1 ug/mL
							beta-BHC	1 ug/mL
							delta-BHC	1 ug/mL
							Dieldrin	1 ug/mL
							Endosulfan I	1 ug/mL
							Endosulfan II	1 ug/mL
							Endosulfan sulfate	1 ug/mL
							Endrin	1 ug/mL
							Endrin aldehyde	1 ug/mL
							Endrin ketone	1 ug/mL
							gamma-BHC (Lindane)	1 ug/mL
							gamma-Chlordane	1 ug/mL
							Heptachlor	1 ug/mL
							Heptachlor epoxide	1 ug/mL
							Methoxychlor	1 ug/mL
					Pest/PCBstock_00051	50 uL	DCB Decachlorobiphenyl	1 ug/mL
							Tetrachloro-m-xylene	1 ug/mL
..8081ABResSS_00027	08/31/27		Restek, Lot A0197059		(Purchased Reagent)		4,4'-DDD	2000 ug/mL
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL
							Aldrin	2000 ug/mL
							alpha-BHC	2000 ug/mL
							alpha-Chlordane	2000 ug/mL
							beta-BHC	2000 ug/mL
							delta-BHC	2000 ug/mL
							Dieldrin	2000 ug/mL
							Endosulfan I	2000 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Endosulfan II	2000 ug/mL
							Endosulfan sulfate	2000 ug/mL
							Endrin	2000 ug/mL
							Endrin aldehyde	2000 ug/mL
							Endrin ketone	2000 ug/mL
							gamma-BHC (Lindane)	2000 ug/mL
							gamma-Chlordane	2000 ug/mL
							Heptachlor	2000 ug/mL
							Heptachlor epoxide	2000 ug/mL
							Methoxychlor	2000 ug/mL
..Pest/PCBstock_00051	03/31/29	Restek, Lot A0192797			(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
8081ChlorL3_00039	05/16/24	11/16/23	Hexane, Lot Hexane_Cycl_00078	10 mL	8081ChlrWSPS_00028	50 uL	Chlordane (technical) Peak 1	0.5 ug/mL
							Chlordane (technical) Peak 2	0.5 ug/mL
							Chlordane (technical) Peak 3	0.5 ug/mL
							Chlordane (technical) Peak 4	0.5 ug/mL
							Chlordane (technical) Peak 5	0.5 ug/mL
							Technical Chlordane Peak 1	0.5 ug/mL
							Technical Chlordane Peak 2	0.5 ug/mL
							Technical Chlordane Peak 3	0.5 ug/mL
							Technical Chlordane Peak 4	0.5 ug/mL
							Technical Chlordane Peak 5	0.5 ug/mL
.8081ChlrWSPS_00028	05/16/24	11/16/23	hexane, Lot Hexane_Cycl_00073	10 mL	8081ChlrStkPS_00035	200 uL	Chlordane (technical) Peak 1	100 ug/mL
							Chlordane (technical) Peak 2	100 ug/mL
							Chlordane (technical) Peak 3	100 ug/mL
							Chlordane (technical) Peak 4	100 ug/mL
							Chlordane (technical) Peak 5	100 ug/mL
							Technical Chlordane Peak 1	100 ug/mL
							Technical Chlordane Peak 2	100 ug/mL
							Technical Chlordane Peak 3	100 ug/mL
							Technical Chlordane Peak 4	100 ug/mL
							Technical Chlordane Peak 5	100 ug/mL
..8081ChlrStkPS_00035	05/31/26	Restek, Lot A0185496			(Purchased Reagent)		Chlordane (technical) Peak 1	5000 ug/mL
							Chlordane (technical) Peak 2	5000 ug/mL
							Chlordane (technical) Peak 3	5000 ug/mL
							Chlordane (technical) Peak 4	5000 ug/mL
							Chlordane (technical) Peak 5	5000 ug/mL
							Technical Chlordane Peak 1	5000 ug/mL
							Technical Chlordane Peak 2	5000 ug/mL
							Technical Chlordane Peak 3	5000 ug/mL
							Technical Chlordane Peak 4	5000 ug/mL
							Technical Chlordane Peak 5	5000 ug/mL
8081icalL0.5_00002	09/27/24	03/27/24	Hexane, Lot Hexane_Cycl_00086	10 mL	8081ABCalStk_00061	20 uL	4,4'-DDD	2 ng/mL
							4,4'-DDE	2 ng/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,4'-DDT	2 ng/mL
							Aldrin	2 ng/mL
							alpha-BHC	2 ng/mL
							alpha-Chlordane	2 ng/mL
							beta-BHC	2 ng/mL
							delta-BHC	2 ng/mL
							Dieldrin	2 ng/mL
							Endosulfan I	2 ng/mL
							Endosulfan II	2 ng/mL
							Endosulfan sulfate	2 ng/mL
							Endrin	2 ng/mL
							Endrin aldehyde	2 ng/mL
							Endrin ketone	2 ng/mL
							gamma-BHC (Lindane)	2 ng/mL
							gamma-Chlordane	2 ng/mL
							Heptachlor	2 ng/mL
							Heptachlor epoxide	2 ng/mL
							Methoxychlor	2 ng/mL
							Hexachlorobenzene	2 ng/mL
							DCB Decachlorobiphenyl	2 ng/mL
							Tetrachloro-m-xylene	2 ng/mL
.8081ABCalStk_00061	09/27/24	03/27/24	Hexane, Lot Hexane_Cycl_00078	25 mL	8081ABResPS_00049	12.5 uL	4,4'-DDD	1000 ng/mL
							4,4'-DDE	1000 ng/mL
							4,4'-DDT	1000 ng/mL
							Aldrin	1000 ng/mL
							alpha-BHC	1000 ng/mL
							alpha-Chlordane	1000 ng/mL
							beta-BHC	1000 ng/mL
							delta-BHC	1000 ng/mL
							Dieldrin	1000 ng/mL
							Endosulfan I	1000 ng/mL
							Endosulfan II	1000 ng/mL
							Endosulfan sulfate	1000 ng/mL
							Endrin	1000 ng/mL
							Endrin aldehyde	1000 ng/mL
							Endrin ketone	1000 ng/mL
							gamma-BHC (Lindane)	1000 ng/mL
							gamma-Chlordane	1000 ng/mL
							Heptachlor	1000 ng/mL
							Heptachlor epoxide	1000 ng/mL
							Methoxychlor	1000 ng/mL
					8081HCBStkPS_00036	250 uL	Hexachlorobenzene	1000 ng/mL
					Pest/PCBstock_00055	125 uL	DCB Decachlorobiphenyl	1000 ng/mL
							Tetrachloro-m-xylene	1000 ng/mL
..8081ABResPS_00049	08/31/26		Restek, Lot A0184236		(Purchased Reagent)		4,4'-DDD	2000 ug/mL
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Aldrin	2000 ug/mL
							alpha-BHC	2000 ug/mL
							alpha-Chlordane	2000 ug/mL
							beta-BHC	2000 ug/mL
							delta-BHC	2000 ug/mL
							Dieldrin	2000 ug/mL
							Endosulfan I	2000 ug/mL
							Endosulfan II	2000 ug/mL
							Endosulfan sulfate	2000 ug/mL
							Endrin	2000 ug/mL
							Endrin aldehyde	2000 ug/mL
							Endrin ketone	2000 ug/mL
							gamma-BHC (Lindane)	2000 ug/mL
							gamma-Chlordane	2000 ug/mL
							Heptachlor	2000 ug/mL
							Heptachlor epoxide	2000 ug/mL
							Methoxychlor	2000 ug/mL
..8081HCBStkPS_00036	03/15/32		Accustandard, Inc., Lot 222031229		(Purchased Reagent)		Hexachlorobenzene	100 ug/mL
..Pest/PCBstock_00055	07/31/29		Restek, Lot A0197094		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
8081IcalL1_00047	09/27/24	03/27/24	Hexane, Lot Hexane_Cycl_00078	10 mL	8081ABCalStk_00061	40 uL	4,4'-DDD	4 ng/mL
							4,4'-DDE	4 ng/mL
							4,4'-DDT	4 ng/mL
							Aldrin	4 ng/mL
							alpha-BHC	4 ng/mL
							alpha-Chlordane	4 ng/mL
							beta-BHC	4 ng/mL
							delta-BHC	4 ng/mL
							Dieldrin	4 ng/mL
							Endosulfan I	4 ng/mL
							Endosulfan II	4 ng/mL
							Endosulfan sulfate	4 ng/mL
							Endrin	4 ng/mL
							Endrin aldehyde	4 ng/mL
							Endrin ketone	4 ng/mL
							gamma-BHC (Lindane)	4 ng/mL
							gamma-Chlordane	4 ng/mL
							Heptachlor	4 ng/mL
							Heptachlor epoxide	4 ng/mL
							Methoxychlor	4 ng/mL
							Hexachlorobenzene	4 ng/mL
							DCB Decachlorobiphenyl	4 ng/mL
							Tetrachloro-m-xylene	4 ng/mL
.8081ABCalStk_00061	09/27/24	03/27/24	Hexane, Lot Hexane_Cycl_00078	25 mL	8081ABResPS_00049	12.5 uL	4,4'-DDD	1000 ng/mL
							4,4'-DDE	1000 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,4'-DDT	1000 ng/mL
							Aldrin	1000 ng/mL
							alpha-BHC	1000 ng/mL
							alpha-Chlordane	1000 ng/mL
							beta-BHC	1000 ng/mL
							delta-BHC	1000 ng/mL
							Dieldrin	1000 ng/mL
							Endosulfan I	1000 ng/mL
							Endosulfan II	1000 ng/mL
							Endosulfan sulfate	1000 ng/mL
							Endrin	1000 ng/mL
							Endrin aldehyde	1000 ng/mL
							Endrin ketone	1000 ng/mL
							gamma-BHC (Lindane)	1000 ng/mL
							gamma-Chlordane	1000 ng/mL
							Heptachlor	1000 ng/mL
							Heptachlor epoxide	1000 ng/mL
							Methoxychlor	1000 ng/mL
					8081HCBStkPS_00036	250 uL	Hexachlorobenzene	1000 ng/mL
					Pest/PCBstock_00055	125 uL	DCB Decachlorobiphenyl	1000 ng/mL
							Tetrachloro-m-xylene	1000 ng/mL
..8081ABResPS_00049	08/31/26		Restek, Lot A0184236		(Purchased Reagent)		4,4'-DDD	2000 ug/mL
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL
							Aldrin	2000 ug/mL
							alpha-BHC	2000 ug/mL
							alpha-Chlordane	2000 ug/mL
							beta-BHC	2000 ug/mL
							delta-BHC	2000 ug/mL
							Dieldrin	2000 ug/mL
							Endosulfan I	2000 ug/mL
							Endosulfan II	2000 ug/mL
							Endosulfan sulfate	2000 ug/mL
							Endrin	2000 ug/mL
							Endrin aldehyde	2000 ug/mL
							Endrin ketone	2000 ug/mL
							gamma-BHC (Lindane)	2000 ug/mL
							gamma-Chlordane	2000 ug/mL
							Heptachlor	2000 ug/mL
							Heptachlor epoxide	2000 ug/mL
							Methoxychlor	2000 ug/mL
..8081HCBStkPS_00036	03/15/32		Accustandard, Inc., Lot 222031229		(Purchased Reagent)		Hexachlorobenzene	100 ug/mL
..Pest/PCBstock_00055	07/31/29		Restek, Lot A0197094		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
8081IcalL2_00047	09/27/24	03/27/24	Hexane, Lot Hexane_Cycl_00078	10 mL	8081ABCalStk_00061	100 uL	4,4'-DDD	10 ng/mL
							4,4'-DDE	10 ng/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,4'-DDT	10 ng/mL
							Aldrin	10 ng/mL
							alpha-BHC	10 ng/mL
							alpha-Chlordane	10 ng/mL
							beta-BHC	10 ng/mL
							delta-BHC	10 ng/mL
							Dieldrin	10 ng/mL
							Endosulfan I	10 ng/mL
							Endosulfan II	10 ng/mL
							Endosulfan sulfate	10 ng/mL
							Endrin	10 ng/mL
							Endrin aldehyde	10 ng/mL
							Endrin ketone	10 ng/mL
							gamma-BHC (Lindane)	10 ng/mL
							gamma-Chlordane	10 ng/mL
							Heptachlor	10 ng/mL
							Heptachlor epoxide	10 ng/mL
							Methoxychlor	10 ng/mL
							Hexachlorobenzene	10 ng/mL
							DCB Decachlorobiphenyl	10 ng/mL
							Tetrachloro-m-xylene	10 ng/mL
.8081ABCalStk_00061	09/27/24	03/27/24	Hexane, Lot Hexane_Cycl_00078	25 mL	8081ABResPS_00049	12.5 uL	4,4'-DDD	1000 ng/mL
							4,4'-DDE	1000 ng/mL
							4,4'-DDT	1000 ng/mL
							Aldrin	1000 ng/mL
							alpha-BHC	1000 ng/mL
							alpha-Chlordane	1000 ng/mL
							beta-BHC	1000 ng/mL
							delta-BHC	1000 ng/mL
							Dieldrin	1000 ng/mL
							Endosulfan I	1000 ng/mL
							Endosulfan II	1000 ng/mL
							Endosulfan sulfate	1000 ng/mL
							Endrin	1000 ng/mL
							Endrin aldehyde	1000 ng/mL
							Endrin ketone	1000 ng/mL
							gamma-BHC (Lindane)	1000 ng/mL
							gamma-Chlordane	1000 ng/mL
							Heptachlor	1000 ng/mL
							Heptachlor epoxide	1000 ng/mL
							Methoxychlor	1000 ng/mL
					8081HCBStkPS_00036	250 uL	Hexachlorobenzene	1000 ng/mL
					Pest/PCBstock_00055	125 uL	DCB Decachlorobiphenyl	1000 ng/mL
							Tetrachloro-m-xylene	1000 ng/mL
..8081ABResPS_00049	08/31/26		Restek, Lot A0184236		(Purchased Reagent)		4,4'-DDD	2000 ug/mL
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Aldrin	2000 ug/mL
							alpha-BHC	2000 ug/mL
							alpha-Chlordane	2000 ug/mL
							beta-BHC	2000 ug/mL
							delta-BHC	2000 ug/mL
							Dieldrin	2000 ug/mL
							Endosulfan I	2000 ug/mL
							Endosulfan II	2000 ug/mL
							Endosulfan sulfate	2000 ug/mL
							Endrin	2000 ug/mL
							Endrin aldehyde	2000 ug/mL
							Endrin ketone	2000 ug/mL
							gamma-BHC (Lindane)	2000 ug/mL
							gamma-Chlordane	2000 ug/mL
							Heptachlor	2000 ug/mL
							Heptachlor epoxide	2000 ug/mL
							Methoxychlor	2000 ug/mL
..8081HCBStkPS_00036	03/15/32		Accustandard, Inc., Lot 222031229		(Purchased Reagent)		Hexachlorobenzene	100 ug/mL
..Pest/PCBstock_00055	07/31/29		Restek, Lot A0197094		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
8081IcalL3_00051	09/27/24	03/27/24	Hexane, Lot Hexane_Cycl_00078	10 mL	8081ABCalStk_00061	250 uL	4,4'-DDD	25 ng/mL
							4,4'-DDE	25 ng/mL
							4,4'-DDT	25 ng/mL
							Aldrin	25 ng/mL
							alpha-BHC	25 ng/mL
							alpha-Chlordane	25 ng/mL
							beta-BHC	25 ng/mL
							delta-BHC	25 ng/mL
							Dieldrin	25 ng/mL
							Endosulfan I	25 ng/mL
							Endosulfan II	25 ng/mL
							Endosulfan sulfate	25 ng/mL
							Endrin	25 ng/mL
							Endrin aldehyde	25 ng/mL
							Endrin ketone	25 ng/mL
							gamma-BHC (Lindane)	25 ng/mL
							gamma-Chlordane	25 ng/mL
							Heptachlor	25 ng/mL
							Heptachlor epoxide	25 ng/mL
							Methoxychlor	25 ng/mL
							Hexachlorobenzene	25 ng/mL
							DCB Decachlorobiphenyl	25 ng/mL
							Tetrachloro-m-xylene	25 ng/mL
.8081ABCalStk_00061	09/27/24	03/27/24	Hexane, Lot Hexane_Cycl_00078	25 mL	8081ABResPS_00049	12.5 uL	4,4'-DDD	1000 ng/mL
							4,4'-DDE	1000 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,4'-DDT	1000 ng/mL
							Aldrin	1000 ng/mL
							alpha-BHC	1000 ng/mL
							alpha-Chlordane	1000 ng/mL
							beta-BHC	1000 ng/mL
							delta-BHC	1000 ng/mL
							Dieldrin	1000 ng/mL
							Endosulfan I	1000 ng/mL
							Endosulfan II	1000 ng/mL
							Endosulfan sulfate	1000 ng/mL
							Endrin	1000 ng/mL
							Endrin aldehyde	1000 ng/mL
							Endrin ketone	1000 ng/mL
							gamma-BHC (Lindane)	1000 ng/mL
							gamma-Chlordane	1000 ng/mL
							Heptachlor	1000 ng/mL
							Heptachlor epoxide	1000 ng/mL
							Methoxychlor	1000 ng/mL
					8081HCBStkPS_00036	250 uL	Hexachlorobenzene	1000 ng/mL
					Pest/PCBstock_00055	125 uL	DCB Decachlorobiphenyl	1000 ng/mL
							Tetrachloro-m-xylene	1000 ng/mL
..8081ABResPS_00049	08/31/26		Restek, Lot A0184236		(Purchased Reagent)		4,4'-DDD	2000 ug/mL
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL
							Aldrin	2000 ug/mL
							alpha-BHC	2000 ug/mL
							alpha-Chlordane	2000 ug/mL
							beta-BHC	2000 ug/mL
							delta-BHC	2000 ug/mL
							Dieldrin	2000 ug/mL
							Endosulfan I	2000 ug/mL
							Endosulfan II	2000 ug/mL
							Endosulfan sulfate	2000 ug/mL
							Endrin	2000 ug/mL
							Endrin aldehyde	2000 ug/mL
							Endrin ketone	2000 ug/mL
							gamma-BHC (Lindane)	2000 ug/mL
							gamma-Chlordane	2000 ug/mL
							Heptachlor	2000 ug/mL
							Heptachlor epoxide	2000 ug/mL
							Methoxychlor	2000 ug/mL
..8081HCBStkPS_00036	03/15/32		Accustandard, Inc., Lot 222031229		(Purchased Reagent)		Hexachlorobenzene	100 ug/mL
..Pest/PCBstock_00055	07/31/29		Restek, Lot A0197094		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
8081IcalL4_00073	09/27/24	03/27/24	Hexane, Lot Hexane_Cycl_00078	100 mL	8081ABCalStk_00061	5 mL	4,4'-DDD	50 ng/mL
							4,4'-DDE	50 ng/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,4'-DDT	50 ng/mL
							Aldrin	50 ng/mL
							alpha-BHC	50 ng/mL
							alpha-Chlordane	50 ng/mL
							beta-BHC	50 ng/mL
							delta-BHC	50 ng/mL
							Dieldrin	50 ng/mL
							Endosulfan I	50 ng/mL
							Endosulfan II	50 ng/mL
							Endosulfan sulfate	50 ng/mL
							Endrin	50 ng/mL
							Endrin aldehyde	50 ng/mL
							Endrin ketone	50 ng/mL
							gamma-BHC (Lindane)	50 ng/mL
							gamma-Chlordane	50 ng/mL
							Heptachlor	50 ng/mL
							Heptachlor epoxide	50 ng/mL
							Methoxychlor	50 ng/mL
							Hexachlorobenzene	50 ng/mL
							DCB Decachlorobiphenyl	50 ng/mL
							Tetrachloro-m-xylene	50 ng/mL
.8081ABCalStk_00061	09/27/24	03/27/24	Hexane, Lot Hexane_Cycl_00078	25 mL	8081ABResPS_00049	12.5 uL	4,4'-DDD	1000 ng/mL
							4,4'-DDE	1000 ng/mL
							4,4'-DDT	1000 ng/mL
							Aldrin	1000 ng/mL
							alpha-BHC	1000 ng/mL
							alpha-Chlordane	1000 ng/mL
							beta-BHC	1000 ng/mL
							delta-BHC	1000 ng/mL
							Dieldrin	1000 ng/mL
							Endosulfan I	1000 ng/mL
							Endosulfan II	1000 ng/mL
							Endosulfan sulfate	1000 ng/mL
							Endrin	1000 ng/mL
							Endrin aldehyde	1000 ng/mL
							Endrin ketone	1000 ng/mL
							gamma-BHC (Lindane)	1000 ng/mL
							gamma-Chlordane	1000 ng/mL
							Heptachlor	1000 ng/mL
							Heptachlor epoxide	1000 ng/mL
							Methoxychlor	1000 ng/mL
					8081HCBStkPS_00036	250 uL	Hexachlorobenzene	1000 ng/mL
					Pest/PCBstock_00055	125 uL	DCB Decachlorobiphenyl	1000 ng/mL
							Tetrachloro-m-xylene	1000 ng/mL
..8081ABResPS_00049	08/31/26		Restek, Lot A0184236		(Purchased Reagent)		4,4'-DDD	2000 ug/mL
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Aldrin	2000 ug/mL
							alpha-BHC	2000 ug/mL
							alpha-Chlordane	2000 ug/mL
							beta-BHC	2000 ug/mL
							delta-BHC	2000 ug/mL
							Dieldrin	2000 ug/mL
							Endosulfan I	2000 ug/mL
							Endosulfan II	2000 ug/mL
							Endosulfan sulfate	2000 ug/mL
							Endrin	2000 ug/mL
							Endrin aldehyde	2000 ug/mL
							Endrin ketone	2000 ug/mL
							gamma-BHC (Lindane)	2000 ug/mL
							gamma-Chlordane	2000 ug/mL
							Heptachlor	2000 ug/mL
							Heptachlor epoxide	2000 ug/mL
							Methoxychlor	2000 ug/mL
..8081HCBStkPS_00036	03/15/32	Accustandard, Inc., Lot 222031229			(Purchased Reagent)		Hexachlorobenzene	100 ug/mL
..Pest/PCBstock_00055	07/31/29	Restek, Lot A0197094			(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
8081IcalL5_00048	09/27/24	03/27/24	Hexane, Lot Hexane_Cycl_00072	10 mL	8081ABCalStk_00061	750 uL	4,4'-DDD	75 ng/mL
							4,4'-DDE	75 ng/mL
							4,4'-DDT	75 ng/mL
							Aldrin	75 ng/mL
							alpha-BHC	75 ng/mL
							alpha-Chlordane	75 ng/mL
							beta-BHC	75 ng/mL
							delta-BHC	75 ng/mL
							Dieldrin	75 ng/mL
							Endosulfan I	75 ng/mL
							Endosulfan II	75 ng/mL
							Endosulfan sulfate	75 ng/mL
							Endrin	75 ng/mL
							Endrin aldehyde	75 ng/mL
							Endrin ketone	75 ng/mL
							gamma-BHC (Lindane)	75 ng/mL
							gamma-Chlordane	75 ng/mL
							Heptachlor	75 ng/mL
							Heptachlor epoxide	75 ng/mL
							Methoxychlor	75 ng/mL
							Hexachlorobenzene	75 ng/mL
							DCB Decachlorobiphenyl	75 ng/mL
							Tetrachloro-m-xylene	75 ng/mL
.8081ABCalStk_00061	09/27/24	03/27/24	Hexane, Lot Hexane_Cycl_00078	25 mL	8081ABResPS_00049	12.5 uL	4,4'-DDD	1000 ng/mL
							4,4'-DDE	1000 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,4'-DDT	1000 ng/mL
							Aldrin	1000 ng/mL
							alpha-BHC	1000 ng/mL
							alpha-Chlordane	1000 ng/mL
							beta-BHC	1000 ng/mL
							delta-BHC	1000 ng/mL
							Dieldrin	1000 ng/mL
							Endosulfan I	1000 ng/mL
							Endosulfan II	1000 ng/mL
							Endosulfan sulfate	1000 ng/mL
							Endrin	1000 ng/mL
							Endrin aldehyde	1000 ng/mL
							Endrin ketone	1000 ng/mL
							gamma-BHC (Lindane)	1000 ng/mL
							gamma-Chlordane	1000 ng/mL
							Heptachlor	1000 ng/mL
							Heptachlor epoxide	1000 ng/mL
							Methoxychlor	1000 ng/mL
					8081HCBStkPS_00036	250 uL	Hexachlorobenzene	1000 ng/mL
					Pest/PCBstock_00055	125 uL	DCB Decachlorobiphenyl	1000 ng/mL
							Tetrachloro-m-xylene	1000 ng/mL
..8081ABResPS_00049	08/31/26		Restek, Lot A0184236		(Purchased Reagent)		4,4'-DDD	2000 ug/mL
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL
							Aldrin	2000 ug/mL
							alpha-BHC	2000 ug/mL
							alpha-Chlordane	2000 ug/mL
							beta-BHC	2000 ug/mL
							delta-BHC	2000 ug/mL
							Dieldrin	2000 ug/mL
							Endosulfan I	2000 ug/mL
							Endosulfan II	2000 ug/mL
							Endosulfan sulfate	2000 ug/mL
							Endrin	2000 ug/mL
							Endrin aldehyde	2000 ug/mL
							Endrin ketone	2000 ug/mL
							gamma-BHC (Lindane)	2000 ug/mL
							gamma-Chlordane	2000 ug/mL
							Heptachlor	2000 ug/mL
							Heptachlor epoxide	2000 ug/mL
							Methoxychlor	2000 ug/mL
..8081HCBStkPS_00036	03/15/32		Accustandard, Inc., Lot 222031229		(Purchased Reagent)		Hexachlorobenzene	100 ug/mL
..Pest/PCBstock_00055	07/31/29		Restek, Lot A0197094		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
8081IcalL6_00049	09/27/24	03/27/24	Hexane, Lot Hexane_Cycl_00078	10 mL	8081ABCalStk_00061	1 mL	4,4'-DDD	100 ng/mL
							4,4'-DDE	100 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,4'-DDT	100 ng/mL
							Aldrin	100 ng/mL
							alpha-BHC	100 ng/mL
							alpha-Chlordane	100 ng/mL
							beta-BHC	100 ng/mL
							delta-BHC	100 ng/mL
							Dieldrin	100 ng/mL
							Endosulfan I	100 ng/mL
							Endosulfan II	100 ng/mL
							Endosulfan sulfate	100 ng/mL
							Endrin	100 ng/mL
							Endrin aldehyde	100 ng/mL
							Endrin ketone	100 ng/mL
							gamma-BHC (Lindane)	100 ng/mL
							gamma-Chlordane	100 ng/mL
							Heptachlor	100 ng/mL
							Heptachlor epoxide	100 ng/mL
							Methoxychlor	100 ng/mL
							Hexachlorobenzene	100 ng/mL
							DCB Decachlorobiphenyl	100 ng/mL
							Tetrachloro-m-xylene	100 ng/mL
.8081ABCalStk_00061	09/27/24	03/27/24	Hexane, Lot Hexane_Cycl_00078	25 mL	8081ABResPS_00049	12.5 uL	4,4'-DDD	1000 ng/mL
							4,4'-DDE	1000 ng/mL
							4,4'-DDT	1000 ng/mL
							Aldrin	1000 ng/mL
							alpha-BHC	1000 ng/mL
							alpha-Chlordane	1000 ng/mL
							beta-BHC	1000 ng/mL
							delta-BHC	1000 ng/mL
							Dieldrin	1000 ng/mL
							Endosulfan I	1000 ng/mL
							Endosulfan II	1000 ng/mL
							Endosulfan sulfate	1000 ng/mL
							Endrin	1000 ng/mL
							Endrin aldehyde	1000 ng/mL
							Endrin ketone	1000 ng/mL
							gamma-BHC (Lindane)	1000 ng/mL
							gamma-Chlordane	1000 ng/mL
							Heptachlor	1000 ng/mL
							Heptachlor epoxide	1000 ng/mL
							Methoxychlor	1000 ng/mL
					8081HCBStkPS_00036	250 uL	Hexachlorobenzene	1000 ng/mL
					Pest/PCBstock_00055	125 uL	DCB Decachlorobiphenyl	1000 ng/mL
							Tetrachloro-m-xylene	1000 ng/mL
..8081ABResPS_00049	08/31/26		Restek, Lot A0184236		(Purchased Reagent)		4,4'-DDD	2000 ug/mL
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Aldrin	2000 ug/mL
							alpha-BHC	2000 ug/mL
							alpha-Chlordane	2000 ug/mL
							beta-BHC	2000 ug/mL
							delta-BHC	2000 ug/mL
							Dieldrin	2000 ug/mL
							Endosulfan I	2000 ug/mL
							Endosulfan II	2000 ug/mL
							Endosulfan sulfate	2000 ug/mL
							Endrin	2000 ug/mL
							Endrin aldehyde	2000 ug/mL
							Endrin ketone	2000 ug/mL
							gamma-BHC (Lindane)	2000 ug/mL
							gamma-Chlordane	2000 ug/mL
							Heptachlor	2000 ug/mL
							Heptachlor epoxide	2000 ug/mL
							Methoxychlor	2000 ug/mL
..8081HCBStkPS_00036	03/15/32	Accustandard, Inc., Lot 222031229			(Purchased Reagent)		Hexachlorobenzene	100 ug/mL
..Pest/PCBstock_00055	07/31/29	Restek, Lot A0197094			(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
8081Toxaphene_00068	07/26/24	01/26/24	ACETONE, Lot Acetone_000951	100 mL	8081ToxSS_00075	1 mL	Toxaphene	20 ug/mL
							Toxaphene Peak 1	20 ug/mL
							Toxaphene Peak 2	20 ug/mL
							Toxaphene Peak 3	20 ug/mL
							Toxaphene Peak 4	20 ug/mL
							Toxaphene Peak 5	20 ug/mL
					8081ToxSS_00076	1 mL	Toxaphene	20 ug/mL
							Toxaphene Peak 1	20 ug/mL
							Toxaphene Peak 2	20 ug/mL
							Toxaphene Peak 3	20 ug/mL
							Toxaphene Peak 4	20 ug/mL
							Toxaphene Peak 5	20 ug/mL
.8081ToxSS_00075	03/09/33	Accustandard, Inc., Lot 223031071			(Purchased Reagent)		Toxaphene	1000 ug/mL
							Toxaphene Peak 1	1000 ug/mL
							Toxaphene Peak 2	1000 ug/mL
							Toxaphene Peak 3	1000 ug/mL
							Toxaphene Peak 4	1000 ug/mL
							Toxaphene Peak 5	1000 ug/mL
.8081ToxSS_00076	03/09/33	Accustandard, Inc., Lot 223031071			(Purchased Reagent)		Toxaphene	1000 ug/mL
							Toxaphene Peak 1	1000 ug/mL
							Toxaphene Peak 2	1000 ug/mL
							Toxaphene Peak 3	1000 ug/mL
							Toxaphene Peak 4	1000 ug/mL
							Toxaphene Peak 5	1000 ug/mL
8081TOXCCVL4_00036	06/22/24	01/10/24	Hexane, Lot Hexane_Cycl_00078	10 mL	8081ToxL6_00043	2 mL	Toxaphene Peak 1	2000 ng/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Toxaphene Peak 2	2000 ng/mL
							Toxaphene Peak 3	2000 ng/mL
							Toxaphene Peak 4	2000 ng/mL
							Toxaphene Peak 5	2000 ng/mL
.8081ToxL6_00043	06/22/24	01/10/24	Hexane, Lot Hexane_Cycl_00078	10 mL	8081ToxSS_00056	100 uL	Toxaphene Peak 1	10000 ng/mL
							Toxaphene Peak 2	10000 ng/mL
							Toxaphene Peak 3	10000 ng/mL
							Toxaphene Peak 4	10000 ng/mL
							Toxaphene Peak 5	10000 ng/mL
..8081ToxSS_00056	07/29/31	Accustandard, Inc., Lot 221071537			(Purchased Reagent)		Toxaphene Peak 1	1000 ug/mL
							Toxaphene Peak 2	1000 ug/mL
							Toxaphene Peak 3	1000 ug/mL
							Toxaphene Peak 4	1000 ug/mL
							Toxaphene Peak 5	1000 ug/mL
8082 LCS_00071	09/09/24	04/10/24	ACETONE, Lot Acetone_00979	500 mL	AR_1660_RES_00013	1 mL	1260 Res 1	2 ug/mL
							1260 Res 2	2 ug/mL
							1260 Res 3	2 ug/mL
							PCB-1016	2 ug/mL
							PCB-1016 Peak 1	2 ug/mL
							PCB-1016 Peak 2	2 ug/mL
							PCB-1016 Peak 3	2 ug/mL
							PCB-1016 Peak 4	2 ug/mL
							PCB-1016 Peak 5	2 ug/mL
							PCB-1260	2 ug/mL
							PCB-1260 Peak 1	2 ug/mL
							PCB-1260 Peak 2	2 ug/mL
							PCB-1260 Peak 3	2 ug/mL
							PCB-1260 Peak 4	2 ug/mL
							PCB-1260 Peak 5	2 ug/mL
.AR_1660_RES_00013	09/30/28	RESTEK, Lot A0186455			(Purchased Reagent)		1260 Res 1	1000 ug/mL
							1260 Res 2	1000 ug/mL
							1260 Res 3	1000 ug/mL
							PCB-1016	1000 ug/mL
							PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
8270 SIM Surr_00128	04/30/25	04/30/24	ACETONE, Lot Acetone_00986	500 mL	8270SIMSurStk_00051	0.25 mL	2,4,6 - Tribromophenol	0.502 ug/mL
							2,4,6-Tribromophenol (Surr)	0.502 ug/mL
							2-Fluorobiphenyl	0.49985 ug/mL
							2-Fluorophenol (Surr)	0.5005 ug/mL
							2-methylnaphthalene-d10	0.4939 ug/mL
							Fluoranthene-d10	0.49995 ug/mL
							Fluoranthene-d10 (Surr)	0.49995 ug/mL
							Nitrobenzene-d5 (Surr)	0.5005 ug/mL
							Phenol-d5 (Surr)	0.5005 ug/mL
							Phenol-d6	0.5 ug/mL
							Terphenyl-d14 (Surr)	0.5 ug/mL
.8270SIMSurStk_00051	05/03/25		o2si, Lot 501810		(Purchased Reagent)		2,4,6 - Tribromophenol	1004 mg/L
							2,4,6-Tribromophenol (Surr)	1004 mg/L
							2-Fluorobiphenyl	999.7 mg/L
							2-Fluorophenol (Surr)	1001 mg/L
							2-methylnaphthalene-d10	987.8 mg/L
							Fluoranthene-d10	999.9 mg/L
							Fluoranthene-d10 (Surr)	999.9 mg/L
							Nitrobenzene-d5 (Surr)	1001 mg/L
							Phenol-d5 (Surr)	1001 mg/L
							Phenol-d6	1000 mg/L
							Terphenyl-d14 (Surr)	1000 mg/L
8270_AP9_LCS_00118	05/09/25	05/09/24	Methylene Chloride, Lot MeCl2_Cycl_00637	100 mL	MS-567680_00129	1 mL	3-Methylcholanthrene	80 ug/mL
							6-Methylchrysene	80 ug/mL
					MS-567680_00130	1 mL	3-Methylcholanthrene	80 ug/mL
							6-Methylchrysene	80 ug/mL
					MS-567680_00136	1 mL	3-Methylcholanthrene	80 ug/mL
							6-Methylchrysene	80 ug/mL
					MS-567680_00137	1 mL	3-Methylcholanthrene	80 ug/mL
							6-Methylchrysene	80 ug/mL
					OP-567681_00285	1 mL	Aramite Peak 1	40.8 ug/mL
							Aramite Peak 2	39.2 ug/mL
							Aramite, Total	80 ug/mL
							Diallate	80 ug/mL
							Diallate Peak 1	68 ug/mL
							Diallate Peak 2	12 ug/mL
							Dimethoate	80 ug/mL
							Disulfoton	80 ug/mL
							Ethyl Parathion	80 ug/mL
							Famphur	80 ug/mL
							Methyl parathion	80 ug/mL
							o,o',o''-Triethylphosphorothioate	80 ug/mL
							Phorate	80 ug/mL
							Safrole, Total	80 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Sulfotepp	80 ug/mL
							Thionazin	80 ug/mL
					OP-567681_00286	1 mL	Aramite Peak 1	40.8 ug/mL
							Aramite Peak 2	39.2 ug/mL
							Aramite, Total	80 ug/mL
							Diallate	80 ug/mL
							Diallate Peak 1	68 ug/mL
							Diallate Peak 2	12 ug/mL
							Dimethoate	80 ug/mL
							Disulfoton	80 ug/mL
							Ethyl Parathion	80 ug/mL
							Famphur	80 ug/mL
							Methyl parathion	80 ug/mL
							o,o',o''-Triethylphosphorothioate	80 ug/mL
							Phorate	80 ug/mL
							Safrole, Total	80 ug/mL
							Sulfotepp	80 ug/mL
							Thionazin	80 ug/mL
					OP-567681_00287	1 mL	Aramite Peak 1	40.8 ug/mL
							Aramite Peak 2	39.2 ug/mL
							Aramite, Total	80 ug/mL
							Diallate	80 ug/mL
							Diallate Peak 1	68 ug/mL
							Diallate Peak 2	12 ug/mL
							Dimethoate	80 ug/mL
							Disulfoton	80 ug/mL
							Ethyl Parathion	80 ug/mL
							Famphur	80 ug/mL
							Methyl parathion	80 ug/mL
							o,o',o''-Triethylphosphorothioate	80 ug/mL
							Phorate	80 ug/mL
							Safrole, Total	80 ug/mL
							Sulfotepp	80 ug/mL
							Thionazin	80 ug/mL
					OP-567681_00288	1 mL	Aramite Peak 1	40.8 ug/mL
							Aramite Peak 2	39.2 ug/mL
							Aramite, Total	80 ug/mL
							Diallate	80 ug/mL
							Diallate Peak 1	68 ug/mL
							Diallate Peak 2	12 ug/mL
							Dimethoate	80 ug/mL
							Disulfoton	80 ug/mL
							Ethyl Parathion	80 ug/mL
							Famphur	80 ug/mL
							Methyl parathion	80 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							o,o',o''-Triethylphosphorothioate	80 ug/mL
							Phorate	80 ug/mL
							Safrole, Total	80 ug/mL
							Sulfotepp	80 ug/mL
							Thionazin	80 ug/mL
					OP-567681_00289	1 mL	Aramite Peak 1	40.8 ug/mL
							Aramite Peak 2	39.2 ug/mL
							Aramite, Total	80 ug/mL
							Diallate	80 ug/mL
							Diallate Peak 1	68 ug/mL
							Diallate Peak 2	12 ug/mL
							Dimethoate	80 ug/mL
							Disulfoton	80 ug/mL
							Ethyl Parathion	80 ug/mL
							Famphur	80 ug/mL
							Methyl parathion	80 ug/mL
							o,o',o''-Triethylphosphorothioate	80 ug/mL
							Phorate	80 ug/mL
							Safrole, Total	80 ug/mL
							Sulfotepp	80 ug/mL
							Thionazin	80 ug/mL
					OP-567681_00290	1 mL	Aramite Peak 1	40.8 ug/mL
							Aramite Peak 2	39.2 ug/mL
							Aramite, Total	80 ug/mL
							Diallate	80 ug/mL
							Diallate Peak 1	68 ug/mL
							Diallate Peak 2	12 ug/mL
							Dimethoate	80 ug/mL
							Disulfoton	80 ug/mL
							Ethyl Parathion	80 ug/mL
							Famphur	80 ug/mL
							Methyl parathion	80 ug/mL
							o,o',o''-Triethylphosphorothioate	80 ug/mL
							Phorate	80 ug/mL
							Safrole, Total	80 ug/mL
							Sulfotepp	80 ug/mL
							Thionazin	80 ug/mL
					OP-567681_00291	1 mL	Aramite Peak 1	40.8 ug/mL
							Aramite Peak 2	39.2 ug/mL
							Aramite, Total	80 ug/mL
							Diallate	80 ug/mL
							Diallate Peak 1	68 ug/mL
							Diallate Peak 2	12 ug/mL
							Dimethoate	80 ug/mL
							Disulfoton	80 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethyl Parathion	80 ug/mL
							Famphur	80 ug/mL
							Methyl parathion	80 ug/mL
							o,o',o''-Triethylphosphorothioate	80 ug/mL
							Phorate	80 ug/mL
							Safrole, Total	80 ug/mL
							Sulfotepp	80 ug/mL
							Thionazin	80 ug/mL
					OP-567681_00292	1 mL	Aramite Peak 1	40.8 ug/mL
							Aramite Peak 2	39.2 ug/mL
							Aramite, Total	80 ug/mL
							Diallate	80 ug/mL
							Diallate Peak 1	68 ug/mL
							Diallate Peak 2	12 ug/mL
							Dimethoate	80 ug/mL
							Disulfoton	80 ug/mL
							Ethyl Parathion	80 ug/mL
							Famphur	80 ug/mL
							Methyl parathion	80 ug/mL
							o,o',o''-Triethylphosphorothioate	80 ug/mL
							Phorate	80 ug/mL
							Safrole, Total	80 ug/mL
							Sulfotepp	80 ug/mL
							Thionazin	80 ug/mL
					OP-567682_00116	1 mL	Methapyrilene	80 ug/mL
					OP-567682_00128	1 mL	Methapyrilene	80 ug/mL
					OP-567682_00129	1 mL	Methapyrilene	80 ug/mL
					OP-567682_00130	1 mL	Methapyrilene	80 ug/mL
					OP-568727_00147	1 mL	Dibenz[a,j]acridine	80.72 ug/mL
					OP-568727_00148	1 mL	Dibenz[a,j]acridine	80.72 ug/mL
					OP-568727_00149	1 mL	Dibenz[a,j]acridine	80.72 ug/mL
					OP-568727_00150	1 mL	Dibenz[a,j]acridine	80.72 ug/mL
					OP-569733_00282	1 mL	1,4-Naphthoquinone	80 ug/mL
							1-Chloronaphthalene	80 ug/mL
							2,3,5,6-Tetrachlorophenol	80 ug/mL
							7,12-Dimethylbenz(a)anthracene	80 ug/mL
							Chlorobenzilate	80 ug/mL
							Dinoseb	80 ug/mL
							Ethyl methanesulfonate	80 ug/mL
							Hexachloropropene	80 ug/mL
							Isodrin	80 ug/mL
							Isosafrole	80 ug/mL
							Isosafrole Peak 1	12.8 ug/mL
							Isosafrole Peak 2	67.2 ug/mL
							Methyl methanesulfonate	80 ug/mL
							Pentachlorobenzene	80 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pentachloroethane	80 ug/mL
					OP-569733_00300	1 mL	1,4-Naphthoquinone	80 ug/mL
							1-Chloronaphthalene	80 ug/mL
							2,3,5,6-Tetrachlorophenol	80 ug/mL
							7,12-Dimethylbenz(a)anthracene	80 ug/mL
							Chlorobenzilate	80 ug/mL
							Dinoseb	80 ug/mL
							Ethyl methanesulfonate	80 ug/mL
							Hexachloropropene	80 ug/mL
							Isodrin	80 ug/mL
							Isosafrole	80 ug/mL
							Isosafrole Peak 1	12.8 ug/mL
							Isosafrole Peak 2	67.2 ug/mL
							Methyl methanesulfonate	80 ug/mL
							Pentachlorobenzene	80 ug/mL
							Pentachloroethane	80 ug/mL
					OP-569733_00301	1 mL	1,4-Naphthoquinone	80 ug/mL
							1-Chloronaphthalene	80 ug/mL
							2,3,5,6-Tetrachlorophenol	80 ug/mL
							7,12-Dimethylbenz(a)anthracene	80 ug/mL
							Chlorobenzilate	80 ug/mL
							Dinoseb	80 ug/mL
							Ethyl methanesulfonate	80 ug/mL
							Hexachloropropene	80 ug/mL
							Isodrin	80 ug/mL
							Isosafrole	80 ug/mL
							Isosafrole Peak 1	12.8 ug/mL
							Isosafrole Peak 2	67.2 ug/mL
							Methyl methanesulfonate	80 ug/mL
							Pentachlorobenzene	80 ug/mL
							Pentachloroethane	80 ug/mL
					OP-569733_00302	1 mL	1,4-Naphthoquinone	80 ug/mL
							1-Chloronaphthalene	80 ug/mL
							2,3,5,6-Tetrachlorophenol	80 ug/mL
							7,12-Dimethylbenz(a)anthracene	80 ug/mL
							Chlorobenzilate	80 ug/mL
							Dinoseb	80 ug/mL
							Ethyl methanesulfonate	80 ug/mL
							Hexachloropropene	80 ug/mL
							Isodrin	80 ug/mL
							Isosafrole	80 ug/mL
							Isosafrole Peak 1	12.8 ug/mL
							Isosafrole Peak 2	67.2 ug/mL
							Methyl methanesulfonate	80 ug/mL
							Pentachlorobenzene	80 ug/mL
							Pentachloroethane	80 ug/mL
					OP-569733_00303	1 mL	1,4-Naphthoquinone	80 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1-Chloronaphthalene	80 ug/mL
							2,3,5,6-Tetrachlorophenol	80 ug/mL
							7,12-Dimethylbenz(a)anthracene	80 ug/mL
							Chlorobenzilate	80 ug/mL
							Dinoseb	80 ug/mL
							Ethyl methanesulfonate	80 ug/mL
							Hexachloropropene	80 ug/mL
							Isodrin	80 ug/mL
							Isosafrole	80 ug/mL
							Isosafrole Peak 1	12.8 ug/mL
							Isosafrole Peak 2	67.2 ug/mL
							Methyl methanesulfonate	80 ug/mL
							Pentachlorobenzene	80 ug/mL
							Pentachloroethane	80 ug/mL
					OP-569733_00304	1 mL	1,4-Naphthoquinone	80 ug/mL
							1-Chloronaphthalene	80 ug/mL
							2,3,5,6-Tetrachlorophenol	80 ug/mL
							7,12-Dimethylbenz(a)anthracene	80 ug/mL
							Chlorobenzilate	80 ug/mL
							Dinoseb	80 ug/mL
							Ethyl methanesulfonate	80 ug/mL
							Hexachloropropene	80 ug/mL
							Isodrin	80 ug/mL
							Isosafrole	80 ug/mL
							Isosafrole Peak 1	12.8 ug/mL
							Isosafrole Peak 2	67.2 ug/mL
							Methyl methanesulfonate	80 ug/mL
							Pentachlorobenzene	80 ug/mL
							Pentachloroethane	80 ug/mL
					OP-569733_00305	1 mL	1,4-Naphthoquinone	80 ug/mL
							1-Chloronaphthalene	80 ug/mL
							2,3,5,6-Tetrachlorophenol	80 ug/mL
							7,12-Dimethylbenz(a)anthracene	80 ug/mL
							Chlorobenzilate	80 ug/mL
							Dinoseb	80 ug/mL
							Ethyl methanesulfonate	80 ug/mL
							Hexachloropropene	80 ug/mL
							Isodrin	80 ug/mL
							Isosafrole	80 ug/mL
							Isosafrole Peak 1	12.8 ug/mL
							Isosafrole Peak 2	67.2 ug/mL
							Methyl methanesulfonate	80 ug/mL
							Pentachlorobenzene	80 ug/mL
							Pentachloroethane	80 ug/mL
					OP-569733_00306	1 mL	1,4-Naphthoquinone	80 ug/mL
							1-Chloronaphthalene	80 ug/mL
							2,3,5,6-Tetrachlorophenol	80 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							7,12-Dimethylbenz(a)anthracene	80 ug/mL
							Chlorobenzilate	80 ug/mL
							Dinoseb	80 ug/mL
							Ethyl methanesulfonate	80 ug/mL
							Hexachloropropene	80 ug/mL
							Isodrin	80 ug/mL
							Isosafrole	80 ug/mL
							Isosafrole Peak 1	12.8 ug/mL
							Isosafrole Peak 2	67.2 ug/mL
							Methyl methanesulfonate	80 ug/mL
							Pentachlorobenzene	80 ug/mL
							Pentachloroethane	80 ug/mL
					OP-570667_00275	1 mL	1,3,5-Trinitrobenzene	80 ug/mL
							1,4-Dinitrobenzene	80 ug/mL
							1-Naphthylamine	80 ug/mL
							2-Acetylaminofluorene	80 ug/mL
							2-Naphthylamine	80 ug/mL
							2-Picoline	80 ug/mL
							2-Toluidine	80 ug/mL
							3,3'-Dimethylbenzidine	80 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	80 ug/mL
							4-Aminobiphenyl	80 ug/mL
							4-Nitroquinoline-1-oxide	80 ug/mL
							Acrylamide	80 ug/mL
							alpha,alpha-Dimethyl phenethylamine	80 ug/mL
							Dibenz[a,h]acridine	80 ug/mL
							N-Nitro-o-toluidine	80 ug/mL
							N-Nitrosodi-n-butylamine	80 ug/mL
							N-Nitrosodiethylamine	80 ug/mL
							N-Nitrosomethylethylamine	80 ug/mL
							N-Nitrosomorpholine	80 ug/mL
							N-Nitrosopiperidine	80 ug/mL
							N-Nitrosopyrrolidine	80 ug/mL
							p-Dimethylamino azobenzene	80 ug/mL
							p-Phenylene diamine	80 ug/mL
							Pentachloronitrobenzene	80 ug/mL
							Phenacetin	80 ug/mL
							Pronamide	80 ug/mL
							Quinoline	80 ug/mL
					OP-570667_00276	1 mL	1,3,5-Trinitrobenzene	80 ug/mL
							1,4-Dinitrobenzene	80 ug/mL
							1-Naphthylamine	80 ug/mL
							2-Acetylaminofluorene	80 ug/mL
							2-Naphthylamine	80 ug/mL
							2-Picoline	80 ug/mL
							2-Toluidine	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3,3'-Dimethylbenzidine	80 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	80 ug/mL
							4-Aminobiphenyl	80 ug/mL
							4-Nitroquinoline-1-oxide	80 ug/mL
							Acrylamide	80 ug/mL
							alpha,alpha-Dimethyl phenethylamine	80 ug/mL
							Dibenz[a,h]acridine	80 ug/mL
							N-Nitro-o-toluidine	80 ug/mL
							N-Nitrosodi-n-butylamine	80 ug/mL
							N-Nitrosodiethylamine	80 ug/mL
							N-Nitrosomethylethylamine	80 ug/mL
							N-Nitrosomorpholine	80 ug/mL
							N-Nitrosopiperidine	80 ug/mL
							N-Nitrosopyrrolidine	80 ug/mL
							p-Dimethylamino azobenzene	80 ug/mL
							p-Phenylene diamine	80 ug/mL
							Pentachloronitrobenzene	80 ug/mL
							Phenacetin	80 ug/mL
							Pronamide	80 ug/mL
							Quinoline	80 ug/mL
					OP-570667_00277	1 mL	1,3,5-Trinitrobenzene	80 ug/mL
							1,4-Dinitrobenzene	80 ug/mL
							1-Naphthylamine	80 ug/mL
							2-Acetylaminofluorene	80 ug/mL
							2-Naphthylamine	80 ug/mL
							2-Picoline	80 ug/mL
							2-Toluidine	80 ug/mL
							3,3'-Dimethylbenzidine	80 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	80 ug/mL
							4-Aminobiphenyl	80 ug/mL
							4-Nitroquinoline-1-oxide	80 ug/mL
							Acrylamide	80 ug/mL
							alpha,alpha-Dimethyl phenethylamine	80 ug/mL
							Dibenz[a,h]acridine	80 ug/mL
							N-Nitro-o-toluidine	80 ug/mL
							N-Nitrosodi-n-butylamine	80 ug/mL
							N-Nitrosodiethylamine	80 ug/mL
							N-Nitrosomethylethylamine	80 ug/mL
							N-Nitrosomorpholine	80 ug/mL
							N-Nitrosopiperidine	80 ug/mL
							N-Nitrosopyrrolidine	80 ug/mL
							p-Dimethylamino azobenzene	80 ug/mL
							p-Phenylene diamine	80 ug/mL
							Pentachloronitrobenzene	80 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenacetin	80 ug/mL
							Pronamide	80 ug/mL
							Quinoline	80 ug/mL
					OP-570667_00278	1 mL	1,3,5-Trinitrobenzene	80 ug/mL
							1,4-Dinitrobenzene	80 ug/mL
							1-Naphthylamine	80 ug/mL
							2-Acetylaminofluorene	80 ug/mL
							2-Naphthylamine	80 ug/mL
							2-Picoline	80 ug/mL
							2-Toluidine	80 ug/mL
							3,3'-Dimethylbenzidine	80 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	80 ug/mL
							4-Aminobiphenyl	80 ug/mL
							4-Nitroquinoline-1-oxide	80 ug/mL
							Acrylamide	80 ug/mL
							alpha,alpha-Dimethyl phenethylamine	80 ug/mL
							Dibenz[a,h]acridine	80 ug/mL
							N-Nitro-o-toluidine	80 ug/mL
							N-Nitrosodi-n-butylamine	80 ug/mL
							N-Nitrosodiethylamine	80 ug/mL
							N-Nitrosomethylethylamine	80 ug/mL
							N-Nitrosomorpholine	80 ug/mL
							N-Nitrosopiperidine	80 ug/mL
							N-Nitrosopyrrolidine	80 ug/mL
							p-Dimethylamino azobenzene	80 ug/mL
							p-Phenylene diamine	80 ug/mL
							Pentachloronitrobenzene	80 ug/mL
							Phenacetin	80 ug/mL
							Pronamide	80 ug/mL
							Quinoline	80 ug/mL
					OP-570667_00279	1 mL	1,3,5-Trinitrobenzene	80 ug/mL
							1,4-Dinitrobenzene	80 ug/mL
							1-Naphthylamine	80 ug/mL
							2-Acetylaminofluorene	80 ug/mL
							2-Naphthylamine	80 ug/mL
							2-Picoline	80 ug/mL
							2-Toluidine	80 ug/mL
							3,3'-Dimethylbenzidine	80 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	80 ug/mL
							4-Aminobiphenyl	80 ug/mL
							4-Nitroquinoline-1-oxide	80 ug/mL
							Acrylamide	80 ug/mL
							alpha,alpha-Dimethyl phenethylamine	80 ug/mL
							Dibenz[a,h]acridine	80 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitro-o-toluidine	80 ug/mL
							N-Nitrosodi-n-butylamine	80 ug/mL
							N-Nitrosodiethylamine	80 ug/mL
							N-Nitrosomethylethylamine	80 ug/mL
							N-Nitrosomorpholine	80 ug/mL
							N-Nitrosopiperidine	80 ug/mL
							N-Nitrosopyrrolidine	80 ug/mL
							p-Dimethylamino azobenzene	80 ug/mL
							p-Phenylene diamine	80 ug/mL
							Pentachloronitrobenzene	80 ug/mL
							Phenacetin	80 ug/mL
							Pronamide	80 ug/mL
							Quinoline	80 ug/mL
					OP-570667_00280	1 mL	1,3,5-Trinitrobenzene	80 ug/mL
							1,4-Dinitrobenzene	80 ug/mL
							1-Naphthylamine	80 ug/mL
							2-Acetylaminofluorene	80 ug/mL
							2-Naphthylamine	80 ug/mL
							2-Picoline	80 ug/mL
							2-Toluidine	80 ug/mL
							3,3'-Dimethylbenzidine	80 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	80 ug/mL
							4-Aminobiphenyl	80 ug/mL
							4-Nitroquinoline-1-oxide	80 ug/mL
							Acrylamide	80 ug/mL
							alpha,alpha-Dimethyl phenethylamine	80 ug/mL
							Dibenz[a,h]acridine	80 ug/mL
							N-Nitro-o-toluidine	80 ug/mL
							N-Nitrosodi-n-butylamine	80 ug/mL
							N-Nitrosodiethylamine	80 ug/mL
							N-Nitrosomethylethylamine	80 ug/mL
							N-Nitrosomorpholine	80 ug/mL
							N-Nitrosopiperidine	80 ug/mL
							N-Nitrosopyrrolidine	80 ug/mL
							p-Dimethylamino azobenzene	80 ug/mL
							p-Phenylene diamine	80 ug/mL
							Pentachloronitrobenzene	80 ug/mL
							Phenacetin	80 ug/mL
							Pronamide	80 ug/mL
							Quinoline	80 ug/mL
					OP-570667_00281	1 mL	1,3,5-Trinitrobenzene	80 ug/mL
							1,4-Dinitrobenzene	80 ug/mL
							1-Naphthylamine	80 ug/mL
							2-Acetylaminofluorene	80 ug/mL
							2-Naphthylamine	80 ug/mL
							2-Picoline	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Toluidine	80 ug/mL
							3,3'-Dimethylbenzidine	80 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	80 ug/mL
							4-Aminobiphenyl	80 ug/mL
							4-Nitroquinoline-1-oxide	80 ug/mL
							Acrylamide	80 ug/mL
							alpha,alpha-Dimethyl phenethylamine	80 ug/mL
							Dibenz[a,h]acridine	80 ug/mL
							N-Nitro-o-toluidine	80 ug/mL
							N-Nitrosodi-n-butylamine	80 ug/mL
							N-Nitrosodiethylamine	80 ug/mL
							N-Nitrosomethylethylamine	80 ug/mL
							N-Nitrosomorpholine	80 ug/mL
							N-Nitrosopiperidine	80 ug/mL
							N-Nitrosopyrrolidine	80 ug/mL
							p-Dimethylamino azobenzene	80 ug/mL
							p-Phenylene diamine	80 ug/mL
							Pentachloronitrobenzene	80 ug/mL
							Phenacetin	80 ug/mL
							Pronamide	80 ug/mL
							Quinoline	80 ug/mL
					OP-570667_00282	1 mL	1,3,5-Trinitrobenzene	80 ug/mL
							1,4-Dinitrobenzene	80 ug/mL
							1-Naphthylamine	80 ug/mL
							2-Acetylaminofluorene	80 ug/mL
							2-Naphthylamine	80 ug/mL
							2-Picoline	80 ug/mL
							2-Toluidine	80 ug/mL
							3,3'-Dimethylbenzidine	80 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	80 ug/mL
							4-Aminobiphenyl	80 ug/mL
							4-Nitroquinoline-1-oxide	80 ug/mL
							Acrylamide	80 ug/mL
							alpha,alpha-Dimethyl phenethylamine	80 ug/mL
							Dibenz[a,h]acridine	80 ug/mL
							N-Nitro-o-toluidine	80 ug/mL
							N-Nitrosodi-n-butylamine	80 ug/mL
							N-Nitrosodiethylamine	80 ug/mL
							N-Nitrosomethylethylamine	80 ug/mL
							N-Nitrosomorpholine	80 ug/mL
							N-Nitrosopiperidine	80 ug/mL
							N-Nitrosopyrrolidine	80 ug/mL
							p-Dimethylamino azobenzene	80 ug/mL
							p-Phenylene diamine	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pentachloronitrobenzene	80 ug/mL
							Phenacetin	80 ug/mL
							Pronamide	80 ug/mL
							Quinoline	80 ug/mL
.MS-567680_00129	10/31/24		Restek, Lot A0202688		(Purchased Reagent)		3-Methylcholanthrene	2000 ug/mL
							6-Methylchrysene	2000 ug/mL
.MS-567680_00130	10/31/24		Restek, Lot A0202688		(Purchased Reagent)		3-Methylcholanthrene	2000 ug/mL
							6-Methylchrysene	2000 ug/mL
.MS-567680_00136	10/31/24		Restek, Lot A0202688		(Purchased Reagent)		3-Methylcholanthrene	2000 ug/mL
							6-Methylchrysene	2000 ug/mL
.MS-567680_00137	10/31/24		Restek, Lot A0202688		(Purchased Reagent)		3-Methylcholanthrene	2000 ug/mL
							6-Methylchrysene	2000 ug/mL
.OP-567681_00285	04/30/26		Restek, Lot A0210137		(Purchased Reagent)		Aramite Peak 1	510 ug/mL
							Aramite Peak 2	490 ug/mL
							Aramite, Total	1000 ug/mL
							Diallate	1000 ug/mL
							Diallate Peak 1	850 ug/mL
							Diallate Peak 2	150 ug/mL
							Dimethoate	1000 ug/mL
							Disulfoton	1000 ug/mL
							Ethyl Parathion	1000 ug/mL
							Famphur	1000 ug/mL
							Methyl parathion	1000 ug/mL
							o,o',o''-Triethylphosphorothioate	1000 ug/mL
							Phorate	1000 ug/mL
							Safrole, Total	1000 ug/mL
							Sulfotepp	1000 ug/mL
							Thionazin	1000 ug/mL
.OP-567681_00286	04/30/26		Restek, Lot A0210137		(Purchased Reagent)		Aramite Peak 1	510 ug/mL
							Aramite Peak 2	490 ug/mL
							Aramite, Total	1000 ug/mL
							Diallate	1000 ug/mL
							Diallate Peak 1	850 ug/mL
							Diallate Peak 2	150 ug/mL
							Dimethoate	1000 ug/mL
							Disulfoton	1000 ug/mL
							Ethyl Parathion	1000 ug/mL
							Famphur	1000 ug/mL
							Methyl parathion	1000 ug/mL
							o,o',o''-Triethylphosphorothioate	1000 ug/mL
							Phorate	1000 ug/mL
							Safrole, Total	1000 ug/mL
							Sulfotepp	1000 ug/mL
							Thionazin	1000 ug/mL
.OP-567681_00287	04/30/26		Restek, Lot A0210137		(Purchased Reagent)		Aramite Peak 1	510 ug/mL
							Aramite Peak 2	490 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Aramite, Total	1000 ug/mL
							Diallate	1000 ug/mL
							Diallate Peak 1	850 ug/mL
							Diallate Peak 2	150 ug/mL
							Dimethoate	1000 ug/mL
							Disulfoton	1000 ug/mL
							Ethyl Parathion	1000 ug/mL
							Famphur	1000 ug/mL
							Methyl parathion	1000 ug/mL
							o,o',o''-Triethylphosphorothioate	1000 ug/mL
							Phorate	1000 ug/mL
							Safrole, Total	1000 ug/mL
							Sulfotepp	1000 ug/mL
							Thionazin	1000 ug/mL
.OP-567681_00288	04/30/26		Restek, Lot A0210137		(Purchased Reagent)		Aramite Peak 1	510 ug/mL
							Aramite Peak 2	490 ug/mL
							Aramite, Total	1000 ug/mL
							Diallate	1000 ug/mL
							Diallate Peak 1	850 ug/mL
							Diallate Peak 2	150 ug/mL
							Dimethoate	1000 ug/mL
							Disulfoton	1000 ug/mL
							Ethyl Parathion	1000 ug/mL
							Famphur	1000 ug/mL
							Methyl parathion	1000 ug/mL
							o,o',o''-Triethylphosphorothioate	1000 ug/mL
							Phorate	1000 ug/mL
							Safrole, Total	1000 ug/mL
							Sulfotepp	1000 ug/mL
							Thionazin	1000 ug/mL
.OP-567681_00289	04/30/26		Restek, Lot A0210137		(Purchased Reagent)		Aramite Peak 1	510 ug/mL
							Aramite Peak 2	490 ug/mL
							Aramite, Total	1000 ug/mL
							Diallate	1000 ug/mL
							Diallate Peak 1	850 ug/mL
							Diallate Peak 2	150 ug/mL
							Dimethoate	1000 ug/mL
							Disulfoton	1000 ug/mL
							Ethyl Parathion	1000 ug/mL
							Famphur	1000 ug/mL
							Methyl parathion	1000 ug/mL
							o,o',o''-Triethylphosphorothioate	1000 ug/mL
							Phorate	1000 ug/mL
							Safrole, Total	1000 ug/mL
							Sulfotepp	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Thionazin	1000 ug/mL
.OP-567681_00290	04/30/26		Restek, Lot A0210137		(Purchased Reagent)		Aramite Peak 1	510 ug/mL
							Aramite Peak 2	490 ug/mL
							Aramite, Total	1000 ug/mL
							Diallate	1000 ug/mL
							Diallate Peak 1	850 ug/mL
							Diallate Peak 2	150 ug/mL
							Dimethoate	1000 ug/mL
							Disulfoton	1000 ug/mL
							Ethyl Parathion	1000 ug/mL
							Famphur	1000 ug/mL
							Methyl parathion	1000 ug/mL
							o,o',o''-Triethylphosphorothioate	1000 ug/mL
							Phorate	1000 ug/mL
							Safrole, Total	1000 ug/mL
							Sulfotepp	1000 ug/mL
							Thionazin	1000 ug/mL
.OP-567681_00291	04/30/26		Restek, Lot A0210137		(Purchased Reagent)		Aramite Peak 1	510 ug/mL
							Aramite Peak 2	490 ug/mL
							Aramite, Total	1000 ug/mL
							Diallate	1000 ug/mL
							Diallate Peak 1	850 ug/mL
							Diallate Peak 2	150 ug/mL
							Dimethoate	1000 ug/mL
							Disulfoton	1000 ug/mL
							Ethyl Parathion	1000 ug/mL
							Famphur	1000 ug/mL
							Methyl parathion	1000 ug/mL
							o,o',o''-Triethylphosphorothioate	1000 ug/mL
							Phorate	1000 ug/mL
							Safrole, Total	1000 ug/mL
							Sulfotepp	1000 ug/mL
							Thionazin	1000 ug/mL
.OP-567681_00292	04/30/26		Restek, Lot A0210137		(Purchased Reagent)		Aramite Peak 1	510 ug/mL
							Aramite Peak 2	490 ug/mL
							Aramite, Total	1000 ug/mL
							Diallate	1000 ug/mL
							Diallate Peak 1	850 ug/mL
							Diallate Peak 2	150 ug/mL
							Dimethoate	1000 ug/mL
							Disulfoton	1000 ug/mL
							Ethyl Parathion	1000 ug/mL
							Famphur	1000 ug/mL
							Methyl parathion	1000 ug/mL
							o,o',o''-Triethylphosphorothioate	1000 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phorate	1000 ug/mL
							Safrole, Total	1000 ug/mL
							Sulfotepp	1000 ug/mL
							Thionazin	1000 ug/mL
.OP-567682_00116	07/31/25		Restek, Lot A0199703		(Purchased Reagent)		Methapyrilene	2000 ug/mL
.OP-567682_00128	12/31/25		Restek, Lot A0205900		(Purchased Reagent)		Methapyrilene	2000 ug/mL
.OP-567682_00129	12/31/25		Restek, Lot A0205900		(Purchased Reagent)		Methapyrilene	2000 ug/mL
.OP-567682_00130	12/31/25		Restek, Lot A0205900		(Purchased Reagent)		Methapyrilene	2000 ug/mL
.OP-568727_00147	10/31/26		Restek, Lot A0203894		(Purchased Reagent)		Dibenz[a,j]acridine	2018 ug/mL
.OP-568727_00148	10/31/26		Restek, Lot A0203894		(Purchased Reagent)		Dibenz[a,j]acridine	2018 ug/mL
.OP-568727_00149	10/31/26		Restek, Lot A0203894		(Purchased Reagent)		Dibenz[a,j]acridine	2018 ug/mL
.OP-568727_00150	10/31/26		Restek, Lot A0203894		(Purchased Reagent)		Dibenz[a,j]acridine	2018 ug/mL
.OP-569733_00282	11/01/24		Restek, Lot A0204102		(Purchased Reagent)		1,4-Naphthoquinone	1000 ug/mL
							1-Chloronaphthalene	1000 ug/mL
							2,3,5,6-Tetrachlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Chlorobenzilate	1000 ug/mL
							Dinoseb	1000 ug/mL
							Ethyl methanesulfonate	1000 ug/mL
							Hexachloropropene	1000 ug/mL
							Isodrin	1000 ug/mL
							Isosafrole	1000 ug/mL
							Isosafrole Peak 1	160 ug/mL
							Isosafrole Peak 2	840 ug/mL
							Methyl methanesulfonate	1000 ug/mL
							Pentachlorobenzene	1000 ug/mL
							Pentachloroethane	1000 ug/mL
.OP-569733_00300	04/30/25		Restek, Lot A0210015		(Purchased Reagent)		1,4-Naphthoquinone	1000 ug/mL
							1-Chloronaphthalene	1000 ug/mL
							2,3,5,6-Tetrachlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Chlorobenzilate	1000 ug/mL
							Dinoseb	1000 ug/mL
							Ethyl methanesulfonate	1000 ug/mL
							Hexachloropropene	1000 ug/mL
							Isodrin	1000 ug/mL
							Isosafrole	1000 ug/mL
							Isosafrole Peak 1	160 ug/mL
							Isosafrole Peak 2	840 ug/mL
							Methyl methanesulfonate	1000 ug/mL
							Pentachlorobenzene	1000 ug/mL
							Pentachloroethane	1000 ug/mL
.OP-569733_00301	04/30/25		Restek, Lot A0210015		(Purchased Reagent)		1,4-Naphthoquinone	1000 ug/mL
							1-Chloronaphthalene	1000 ug/mL
							2,3,5,6-Tetrachlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Chlorobenzilate	1000 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dinoseb	1000 ug/mL
							Ethyl methanesulfonate	1000 ug/mL
							Hexachloropropene	1000 ug/mL
							Isodrin	1000 ug/mL
							Isosafrole	1000 ug/mL
							Isosafrole Peak 1	160 ug/mL
							Isosafrole Peak 2	840 ug/mL
							Methyl methanesulfonate	1000 ug/mL
							Pentachlorobenzene	1000 ug/mL
							Pentachloroethane	1000 ug/mL
.OP-569733_00302	04/30/25		Restek, Lot A0210015		(Purchased Reagent)		1,4-Naphthoquinone	1000 ug/mL
							1-Chloronaphthalene	1000 ug/mL
							2,3,5,6-Tetrachlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Chlorobenzilate	1000 ug/mL
							Dinoseb	1000 ug/mL
							Ethyl methanesulfonate	1000 ug/mL
							Hexachloropropene	1000 ug/mL
							Isodrin	1000 ug/mL
							Isosafrole	1000 ug/mL
							Isosafrole Peak 1	160 ug/mL
							Isosafrole Peak 2	840 ug/mL
							Methyl methanesulfonate	1000 ug/mL
							Pentachlorobenzene	1000 ug/mL
							Pentachloroethane	1000 ug/mL
.OP-569733_00303	04/30/25		Restek, Lot A0210015		(Purchased Reagent)		1,4-Naphthoquinone	1000 ug/mL
							1-Chloronaphthalene	1000 ug/mL
							2,3,5,6-Tetrachlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Chlorobenzilate	1000 ug/mL
							Dinoseb	1000 ug/mL
							Ethyl methanesulfonate	1000 ug/mL
							Hexachloropropene	1000 ug/mL
							Isodrin	1000 ug/mL
							Isosafrole	1000 ug/mL
							Isosafrole Peak 1	160 ug/mL
							Isosafrole Peak 2	840 ug/mL
							Methyl methanesulfonate	1000 ug/mL
							Pentachlorobenzene	1000 ug/mL
							Pentachloroethane	1000 ug/mL
.OP-569733_00304	04/30/25		Restek, Lot A0210015		(Purchased Reagent)		1,4-Naphthoquinone	1000 ug/mL
							1-Chloronaphthalene	1000 ug/mL
							2,3,5,6-Tetrachlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Chlorobenzilate	1000 ug/mL
							Dinoseb	1000 ug/mL
							Ethyl methanesulfonate	1000 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachloropropene	1000 ug/mL
							Isodrin	1000 ug/mL
							Isosafrole	1000 ug/mL
							Isosafrole Peak 1	160 ug/mL
							Isosafrole Peak 2	840 ug/mL
							Methyl methanesulfonate	1000 ug/mL
							Pentachlorobenzene	1000 ug/mL
							Pentachloroethane	1000 ug/mL
.OP-569733_00305	04/30/25		Restek, Lot A0210015		(Purchased Reagent)		1,4-Naphthoquinone	1000 ug/mL
							1-Chloronaphthalene	1000 ug/mL
							2,3,5,6-Tetrachlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Chlorobenzilate	1000 ug/mL
							Dinoseb	1000 ug/mL
							Ethyl methanesulfonate	1000 ug/mL
							Hexachloropropene	1000 ug/mL
							Isodrin	1000 ug/mL
							Isosafrole	1000 ug/mL
							Isosafrole Peak 1	160 ug/mL
							Isosafrole Peak 2	840 ug/mL
							Methyl methanesulfonate	1000 ug/mL
							Pentachlorobenzene	1000 ug/mL
							Pentachloroethane	1000 ug/mL
.OP-569733_00306	04/30/25		Restek, Lot A0210015		(Purchased Reagent)		1,4-Naphthoquinone	1000 ug/mL
							1-Chloronaphthalene	1000 ug/mL
							2,3,5,6-Tetrachlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Chlorobenzilate	1000 ug/mL
							Dinoseb	1000 ug/mL
							Ethyl methanesulfonate	1000 ug/mL
							Hexachloropropene	1000 ug/mL
							Isodrin	1000 ug/mL
							Isosafrole	1000 ug/mL
							Isosafrole Peak 1	160 ug/mL
							Isosafrole Peak 2	840 ug/mL
							Methyl methanesulfonate	1000 ug/mL
							Pentachlorobenzene	1000 ug/mL
							Pentachloroethane	1000 ug/mL
.OP-570667_00275	07/31/24		Restek, Lot A0200379		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,4-Dinitrobenzene	1000 ug/mL
							1-Naphthylamine	1000 ug/mL
							2-Acetylaminofluorene	1000 ug/mL
							2-Naphthylamine	1000 ug/mL
							2-Picoline	1000 ug/mL
							2-Toluidine	1000 ug/mL
							3,3'-Dimethylbenzidine	1000 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Aminobiphenyl	1000 ug/mL
							4-Nitroquinoline-1-oxide	1000 ug/mL
							Acrylamide	1000 ug/mL
							alpha,alpha-Dimethyl phenethylamine	1000 ug/mL
							Dibenz[a,h]acridine	1000 ug/mL
							N-Nitro-o-toluidine	1000 ug/mL
							N-Nitrosodi-n-butylamine	1000 ug/mL
							N-Nitrosodiethylamine	1000 ug/mL
							N-Nitrosomethylethylamine	1000 ug/mL
							N-Nitrosomorpholine	1000 ug/mL
							N-Nitrosopiperidine	1000 ug/mL
							N-Nitrosopyrrolidine	1000 ug/mL
							p-Dimethylamino azobenzene	1000 ug/mL
							p-Phenylene diamine	1000 ug/mL
							Pentachloronitrobenzene	1000 ug/mL
							Phenacetin	1000 ug/mL
							Pronamide	1000 ug/mL
							Quinoline	1000 ug/mL
.OP-570667_00276	07/31/24		Restek, Lot A0200379		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,4-Dinitrobenzene	1000 ug/mL
							1-Naphthylamine	1000 ug/mL
							2-Acetylaminofluorene	1000 ug/mL
							2-Naphthylamine	1000 ug/mL
							2-Picoline	1000 ug/mL
							2-Toluidine	1000 ug/mL
							3,3'-Dimethylbenzidine	1000 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	1000 ug/mL
							4-Aminobiphenyl	1000 ug/mL
							4-Nitroquinoline-1-oxide	1000 ug/mL
							Acrylamide	1000 ug/mL
							alpha,alpha-Dimethyl phenethylamine	1000 ug/mL
							Dibenz[a,h]acridine	1000 ug/mL
							N-Nitro-o-toluidine	1000 ug/mL
							N-Nitrosodi-n-butylamine	1000 ug/mL
							N-Nitrosodiethylamine	1000 ug/mL
							N-Nitrosomethylethylamine	1000 ug/mL
							N-Nitrosomorpholine	1000 ug/mL
							N-Nitrosopiperidine	1000 ug/mL
							N-Nitrosopyrrolidine	1000 ug/mL
							p-Dimethylamino azobenzene	1000 ug/mL
							p-Phenylene diamine	1000 ug/mL
							Pentachloronitrobenzene	1000 ug/mL
							Phenacetin	1000 ug/mL
							Pronamide	1000 ug/mL
							Quinoline	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.OP-570667_00277	07/31/24		Restek, Lot A0200379		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,4-Dinitrobenzene	1000 ug/mL
							1-Naphthylamine	1000 ug/mL
							2-Acetylaminofluorene	1000 ug/mL
							2-Naphthylamine	1000 ug/mL
							2-Picoline	1000 ug/mL
							2-Toluidine	1000 ug/mL
							3,3'-Dimethylbenzidine	1000 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	1000 ug/mL
							4-Aminobiphenyl	1000 ug/mL
							4-Nitroquinoline-1-oxide	1000 ug/mL
							Acrylamide	1000 ug/mL
							alpha,alpha-Dimethyl phenethylamine	1000 ug/mL
							Dibenz[a,h]acridine	1000 ug/mL
							N-Nitro-o-toluidine	1000 ug/mL
							N-Nitrosodi-n-butylamine	1000 ug/mL
							N-Nitrosodiethylamine	1000 ug/mL
							N-Nitrosomethylethylamine	1000 ug/mL
							N-Nitrosomorpholine	1000 ug/mL
							N-Nitrosopiperidine	1000 ug/mL
							N-Nitrosopyrrolidine	1000 ug/mL
							p-Dimethylamino azobenzene	1000 ug/mL
							p-Phenylene diamine	1000 ug/mL
							Pentachloronitrobenzene	1000 ug/mL
							Phenacetin	1000 ug/mL
							Pronamide	1000 ug/mL
							Quinoline	1000 ug/mL
.OP-570667_00278	07/31/24		Restek, Lot A0200379		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,4-Dinitrobenzene	1000 ug/mL
							1-Naphthylamine	1000 ug/mL
							2-Acetylaminofluorene	1000 ug/mL
							2-Naphthylamine	1000 ug/mL
							2-Picoline	1000 ug/mL
							2-Toluidine	1000 ug/mL
							3,3'-Dimethylbenzidine	1000 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	1000 ug/mL
							4-Aminobiphenyl	1000 ug/mL
							4-Nitroquinoline-1-oxide	1000 ug/mL
							Acrylamide	1000 ug/mL
							alpha,alpha-Dimethyl phenethylamine	1000 ug/mL
							Dibenz[a,h]acridine	1000 ug/mL
							N-Nitro-o-toluidine	1000 ug/mL
							N-Nitrosodi-n-butylamine	1000 ug/mL
							N-Nitrosodiethylamine	1000 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosomethylethylamine	1000 ug/mL
							N-Nitrosomorpholine	1000 ug/mL
							N-Nitrosopiperidine	1000 ug/mL
							N-Nitrosopyrrolidine	1000 ug/mL
							p-Dimethylamino azobenzene	1000 ug/mL
							p-Phenylene diamine	1000 ug/mL
							Pentachloronitrobenzene	1000 ug/mL
							Phenacetin	1000 ug/mL
							Pronamide	1000 ug/mL
							Quinoline	1000 ug/mL
.OP-570667_00279	07/31/24		Restek, Lot A0200379		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,4-Dinitrobenzene	1000 ug/mL
							1-Naphthylamine	1000 ug/mL
							2-Acetylaminofluorene	1000 ug/mL
							2-Naphthylamine	1000 ug/mL
							2-Picoline	1000 ug/mL
							2-Toluidine	1000 ug/mL
							3,3'-Dimethylbenzidine	1000 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	1000 ug/mL
							4-Aminobiphenyl	1000 ug/mL
							4-Nitroquinoline-1-oxide	1000 ug/mL
							Acrylamide	1000 ug/mL
							alpha,alpha-Dimethyl phenethylamine	1000 ug/mL
							Dibenz[a,h]acridine	1000 ug/mL
							N-Nitro-o-toluidine	1000 ug/mL
							N-Nitrosodi-n-butylamine	1000 ug/mL
							N-Nitrosodiethylamine	1000 ug/mL
							N-Nitrosomethylethylamine	1000 ug/mL
							N-Nitrosomorpholine	1000 ug/mL
							N-Nitrosopiperidine	1000 ug/mL
							N-Nitrosopyrrolidine	1000 ug/mL
							p-Dimethylamino azobenzene	1000 ug/mL
							p-Phenylene diamine	1000 ug/mL
							Pentachloronitrobenzene	1000 ug/mL
							Phenacetin	1000 ug/mL
							Pronamide	1000 ug/mL
							Quinoline	1000 ug/mL
.OP-570667_00280	07/31/24		Restek, Lot A0200379		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,4-Dinitrobenzene	1000 ug/mL
							1-Naphthylamine	1000 ug/mL
							2-Acetylaminofluorene	1000 ug/mL
							2-Naphthylamine	1000 ug/mL
							2-Picoline	1000 ug/mL
							2-Toluidine	1000 ug/mL
							3,3'-Dimethylbenzidine	1000 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,4'-Methylene bis(2-chloroaniline)	1000 ug/mL
							4-Aminobiphenyl	1000 ug/mL
							4-Nitroquinoline-1-oxide	1000 ug/mL
							Acrylamide	1000 ug/mL
							alpha,alpha-Dimethyl phenethylamine	1000 ug/mL
							Dibenz[a,h]acridine	1000 ug/mL
							N-Nitro-o-toluidine	1000 ug/mL
							N-Nitrosodi-n-butylamine	1000 ug/mL
							N-Nitrosodiethylamine	1000 ug/mL
							N-Nitrosomethylethylamine	1000 ug/mL
							N-Nitrosomorpholine	1000 ug/mL
							N-Nitrosopiperidine	1000 ug/mL
							N-Nitrosopyrrolidine	1000 ug/mL
							p-Dimethylamino azobenzene	1000 ug/mL
							p-Phenylene diamine	1000 ug/mL
							Pentachloronitrobenzene	1000 ug/mL
							Phenacetin	1000 ug/mL
							Pronamide	1000 ug/mL
							Quinoline	1000 ug/mL
.OP-570667_00281	07/31/24		Restek, Lot A0200379		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,4-Dinitrobenzene	1000 ug/mL
							1-Naphthylamine	1000 ug/mL
							2-Acetylaminofluorene	1000 ug/mL
							2-Naphthylamine	1000 ug/mL
							2-Picoline	1000 ug/mL
							2-Toluidine	1000 ug/mL
							3,3'-Dimethylbenzidine	1000 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	1000 ug/mL
							4-Aminobiphenyl	1000 ug/mL
							4-Nitroquinoline-1-oxide	1000 ug/mL
							Acrylamide	1000 ug/mL
							alpha,alpha-Dimethyl phenethylamine	1000 ug/mL
							Dibenz[a,h]acridine	1000 ug/mL
							N-Nitro-o-toluidine	1000 ug/mL
							N-Nitrosodi-n-butylamine	1000 ug/mL
							N-Nitrosodiethylamine	1000 ug/mL
							N-Nitrosomethylethylamine	1000 ug/mL
							N-Nitrosomorpholine	1000 ug/mL
							N-Nitrosopiperidine	1000 ug/mL
							N-Nitrosopyrrolidine	1000 ug/mL
							p-Dimethylamino azobenzene	1000 ug/mL
							p-Phenylene diamine	1000 ug/mL
							Pentachloronitrobenzene	1000 ug/mL
							Phenacetin	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pronamide	1000 ug/mL
							Quinoline	1000 ug/mL
.OP-570667_00282	07/31/24		Restek, Lot A0200379		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,4-Dinitrobenzene	1000 ug/mL
							1-Naphthylamine	1000 ug/mL
							2-Acetylaminofluorene	1000 ug/mL
							2-Naphthylamine	1000 ug/mL
							2-Picoline	1000 ug/mL
							2-Toluidine	1000 ug/mL
							3,3'-Dimethylbenzidine	1000 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	1000 ug/mL
							4-Aminobiphenyl	1000 ug/mL
							4-Nitroquinoline-1-oxide	1000 ug/mL
							Acrylamide	1000 ug/mL
							alpha,alpha-Dimethyl phenethylamine	1000 ug/mL
							Dibenz[a,h]acridine	1000 ug/mL
							N-Nitro-o-toluidine	1000 ug/mL
							N-Nitrosodi-n-butylamine	1000 ug/mL
							N-Nitrosodiethylamine	1000 ug/mL
							N-Nitrosomethylethylamine	1000 ug/mL
							N-Nitrosomorpholine	1000 ug/mL
							N-Nitrosopiperidine	1000 ug/mL
							N-Nitrosopyrrolidine	1000 ug/mL
							p-Dimethylamino azobenzene	1000 ug/mL
							p-Phenylene diamine	1000 ug/mL
							Pentachloronitrobenzene	1000 ug/mL
							Phenacetin	1000 ug/mL
							Pronamide	1000 ug/mL
							Quinoline	1000 ug/mL
8270_LCS_Main_00095	07/31/24	05/07/24	P&T Methanol, Lot MethanolP&T_00357	250 mL	571995_00212	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Diphenylamine	68 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	160 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	80 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	160 ug/mL
					571995_00213	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Diphenylamine	68 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	160 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	80 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	160 ug/mL
					571995_00214	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Diphenylamine	68 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	160 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	80 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	160 ug/mL
					571995_00215	5 mL	1,1'-Biphenyl	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Diphenylamine	68 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	160 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	80 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	160 ug/mL
					OP-32232_00103	1 mL	Hexachlorocyclopentadiene	160 ug/mL
					OP-32232_00104	1 mL	Hexachlorocyclopentadiene	160 ug/mL
					OP-32232_00105	2 mL	Hexachlorocyclopentadiene	160 ug/mL
					OP-32232_00106	2 mL	Hexachlorocyclopentadiene	160 ug/mL
					OP-32232_00107	2 mL	Hexachlorocyclopentadiene	160 ug/mL
					OP-32232_00108	2 mL	Hexachlorocyclopentadiene	160 ug/mL
					OP-32232_00109	2 mL	Hexachlorocyclopentadiene	160 ug/mL
					OP-32232_00110	2 mL	Hexachlorocyclopentadiene	160 ug/mL
					OP-32232_00111	2 mL	Hexachlorocyclopentadiene	160 ug/mL
					OP-32232_00112	2 mL	Hexachlorocyclopentadiene	160 ug/mL
					OP-32232_00113	2 mL	Hexachlorocyclopentadiene	160 ug/mL
					OP-569731_00081	5 mL	Benzoic acid	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Indene	80 ug/mL
					OP-569731_00082	5 mL	Benzoic acid	80 ug/mL
							Indene	80 ug/mL
.571995_00212	02/28/25		Restek, Lot A0210070		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Diphenylamine	850 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	2000 ug/mL
.571995_00213	02/28/25		Restek, Lot A0210070		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Diphenylamine	850 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	2000 ug/mL
.571995_00214	02/28/25		Restek, Lot A0210070		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Diphenylamine	850 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	2000 ug/mL
.571995_00215	02/28/25		Restek, Lot A0210070		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Diphenylamine	850 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	2000 ug/mL
.OP-32232_00103	04/30/29		Restek, Lot A0209707		(Purchased Reagent)		Hexachlorocyclopentadiene	1000 ug/mL
.OP-32232_00104	04/30/29		Restek, Lot A0209707		(Purchased Reagent)		Hexachlorocyclopentadiene	1000 ug/mL
.OP-32232_00105	04/30/29		Restek, Lot A0209707		(Purchased Reagent)		Hexachlorocyclopentadiene	1000 ug/mL
.OP-32232_00106	04/30/29		Restek, Lot A0209707		(Purchased Reagent)		Hexachlorocyclopentadiene	1000 ug/mL
.OP-32232_00107	04/30/29		Restek, Lot A0209707		(Purchased Reagent)		Hexachlorocyclopentadiene	1000 ug/mL
.OP-32232_00108	04/30/29		Restek, Lot A0209707		(Purchased Reagent)		Hexachlorocyclopentadiene	1000 ug/mL
.OP-32232_00109	04/30/29		Restek, Lot A0209707		(Purchased Reagent)		Hexachlorocyclopentadiene	1000 ug/mL
.OP-32232_00110	04/30/29		Restek, Lot A0209707		(Purchased Reagent)		Hexachlorocyclopentadiene	1000 ug/mL
.OP-32232_00111	04/30/29		Restek, Lot A0209707		(Purchased Reagent)		Hexachlorocyclopentadiene	1000 ug/mL
.OP-32232_00112	04/30/29		Restek, Lot A0209707		(Purchased Reagent)		Hexachlorocyclopentadiene	1000 ug/mL
.OP-32232_00113	04/30/29		Restek, Lot A0209707		(Purchased Reagent)		Hexachlorocyclopentadiene	1000 ug/mL
.OP-569731_00081	07/31/24		Restek, Lot A0193718		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.OP-569731_00082	07/31/24		Restek, Lot A0193718		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
8270_LCS_Supp_00606	05/20/24	05/13/24	P&T Methanol, Lot MethanolP&T_00356	50 mL	OP-569730_00246	4 mL	3,3'-Dichlorobenzidine	160 ug/mL
							Benzidine	160 ug/mL
					OP-569732_00149	2 mL	Atrazine	80 ug/mL
							Benzaldehyde	80 ug/mL
							Caprolactam	80 ug/mL
.OP-569730_00246	05/13/25		Restek, Lot A0201346		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
.OP-569732_00149	05/13/25		Restek, Lot A0200906		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
8270BO-SIMLCS_00060	09/20/24	04/25/24	P&T Methanol, Lot MethanolP&T_00346	250 mL	571995_00187	225 uL	1,1'-Biphenyl	0.9 ug/mL
							1,2,4,5-Tetrachlorobenzene	0.9 ug/mL
							1,2,4-Trichlorobenzene	0.9 ug/mL
							1,2-Dichlorobenzene	0.9 ug/mL
							1,2-Diphenylhydrazine	0.909877 ug/mL
							1,3-Dichlorobenzene	0.9 ug/mL
							1,3-Dinitrobenzene	0.9 ug/mL
							1,4-Dichlorobenzene	0.9 ug/mL
							1,4-Dioxane	0.9 ug/mL
							1-Methylnaphthalene	0.9 ug/mL
							2,2'-oxybis[1-chloropropane]	0.9 ug/mL
							2,3,4,6-Tetrachlorophenol	0.9 ug/mL
							2,4,5-Trichlorophenol	0.9 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Trichlorophenol	0.9 ug/mL
							2,4-Dichlorophenol	0.9 ug/mL
							2,4-Dimethylphenol	0.9 ug/mL
							2,4-Dinitrophenol	1.8 ug/mL
							2,4-Dinitrotoluene	0.9 ug/mL
							2,6-Dichlorophenol	0.9 ug/mL
							2,6-Dinitrotoluene	0.9 ug/mL
							2-Chloronaphthalene	0.9 ug/mL
							2-Chlorophenol	0.9 ug/mL
							2-Methylnaphthalene	0.9 ug/mL
							2-Methylphenol	0.9 ug/mL
							2-Nitroaniline	0.9 ug/mL
							2-Nitrophenol	0.9 ug/mL
							3 & 4 Methylphenol	0.9 ug/mL
							3-Methylphenol	0.9 ug/mL
							3-Nitroaniline	0.9 ug/mL
							4,6-Dinitro-2-methylphenol	1.8 ug/mL
							4-Bromophenyl phenyl ether	0.9 ug/mL
							4-Chloro-3-methylphenol	0.9 ug/mL
							4-Chloroaniline	0.9 ug/mL
							4-Chlorophenyl phenyl ether	0.9 ug/mL
							4-Methylphenol	0.9 ug/mL
							4-Nitroaniline	0.9 ug/mL
							4-Nitrophenol	1.8 ug/mL
							Acenaphthene	0.9 ug/mL
							Acenaphthylene	0.9 ug/mL
							Acetophenone	0.9 ug/mL
							Aniline	0.9 ug/mL
							Anthracene	0.9 ug/mL
							Azobenzene	0.9 ug/mL
							Benzo[a]anthracene	0.9 ug/mL
							Benzo[a]pyrene	0.9 ug/mL
							Benzo[b]fluoranthene	0.9 ug/mL
							Benzo[g,h,i]perylene	0.9 ug/mL
							Benzo[k]fluoranthene	0.9 ug/mL
							Benzyl alcohol	0.9 ug/mL
							Bis(2-chloroethoxy)methane	0.9 ug/mL
							Bis(2-chloroethyl)ether	0.9 ug/mL
							Bis(2-ethylhexyl) phthalate	0.9 ug/mL
							Butyl benzyl phthalate	0.9 ug/mL
							Carbazole	0.9 ug/mL
							Chrysene	0.9 ug/mL
							Di-n-butyl phthalate	0.9 ug/mL
							Di-n-octyl phthalate	0.9 ug/mL
							Dibenz(a,h)anthracene	0.9 ug/mL
							Dibenzofuran	0.9 ug/mL
							Diethyl phthalate	0.9 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dimethyl phthalate	0.9 ug/mL
							Diphenylamine	0.765 ug/mL
							Fluoranthene	0.9 ug/mL
							Fluorene	0.9 ug/mL
							Hexachlorobenzene	0.9 ug/mL
							Hexachlorobutadiene	0.9 ug/mL
							Hexachlorocyclopentadiene	0.9 ug/mL
							Hexachloroethane	0.9 ug/mL
							Hexadecane	0.9 ug/mL
							Indeno[1,2,3-cd]pyrene	0.9 ug/mL
							Isophorone	0.9 ug/mL
							n-Decane	0.9 ug/mL
							N-Nitrosodi-n-propylamine	0.9 ug/mL
							N-Nitrosodimethylamine	0.9 ug/mL
							N-Nitrosodiphenylamine	0.9 ug/mL
							n-Octadecane	0.9 ug/mL
							Naphthalene	0.9 ug/mL
							Nitrobenzene	0.9 ug/mL
							Pentachlorophenol	1.8 ug/mL
							Phenanthrene	0.9 ug/mL
							Phenol	0.9 ug/mL
							Pyrene	0.9 ug/mL
							Pyridine	1.8 ug/mL
.571995_00187	09/30/24		Restek, Lot A0195772		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Diphenylamine	850 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	2000 ug/mL
8270Surrogate_00175	03/07/25	04/12/24	ACETONE, Lot Acetone_00981	1000 mL	8270SurStkHL_00450	5 mL	2,4,6 - Tribromophenol	100 ug/mL
							2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Phenol-d6	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
					8270SurStkHL_00456	5 mL	2,4,6 - Tribromophenol	100 ug/mL
							2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Phenol-d6	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
					8270SurStkHL_00457	5 mL	2,4,6 - Tribromophenol	100 ug/mL
							2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Phenol-d6	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
					8270SurStkHL_00458	5 mL	2,4,6 - Tribromophenol	100 ug/mL
							2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Phenol-d6	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
.8270SurStkHL_00450	06/30/28		Restek, Lot A0198748		(Purchased Reagent)		2,4,6 - Tribromophenol	5000 ug/mL
							2,4,6-Tribromophenol (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Phenol-d6	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
.8270SurStkHL_00456	12/31/28		Restek, Lot A0205946		(Purchased Reagent)		2,4,6 - Tribromophenol	5000 ug/mL
							2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Phenol-d6	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
.8270SurStkHL_00457	12/31/28		Restek, Lot A0205946		(Purchased Reagent)		2,4,6 - Tribromophenol	5000 ug/mL
							2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Phenol-d6	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
.8270SurStkHL_00458	12/31/28		Restek, Lot A0205946		(Purchased Reagent)		2,4,6 - Tribromophenol	5000 ug/mL
							2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Phenol-d6	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
8330 DMT_00016	06/30/24	01/24/24	Acetonitrile, Lot 233799	5 mL	MNX,TNX,DNX_00092	1 mL	DNX	20.04 ug/mL
							MNX	23.38 ug/mL
							TNX	20.08 ug/mL
.MNX,TNX,DNX_00092	06/30/24		Agilent, Lot 0006744504		(Purchased Reagent)		DNX	100.2 ug/mL
							MNX	116.9 ug/mL
							TNX	100.4 ug/mL
8330 LCS_00134	08/29/24	02/29/24	Acetonitrile, Lot Acetonitrile_00086	100 mL	8330 LCSMix2_00113	1 mL	2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							Tetryl	10 ug/mL
					8330_NG_Stk_00145	1 mL	Nitroglycerin	100 ug/mL
					8330_NG_Stk_00147	1 mL	Nitroglycerin	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					8330_PETN_Stk_00152	1 mL	PETN	100 ug/mL
					8330_PETN_Stk_00153	1 mL	PETN	100 ug/mL
					8330LCSMix1_00151	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
.8330 LCSMix2_00113	02/28/25		Restek, Lot A199657		(Purchased Reagent)		2,6-Dinitrotoluene	1000 ug/mL
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							Tetryl	1000 ug/mL
.8330_NG_Stk_00145	02/28/25		Restek, Lot A0201048		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_NG_Stk_00147	02/28/25		Restek, Lot A0201048		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00152	02/28/25		Restek, Lot A0198972		(Purchased Reagent)		PETN	5000 ug/mL
.8330_PETN_Stk_00153	02/28/25		Restek, Lot A0198972		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00151	02/28/25		Restek, Lot A196548		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
8330 LCS_00135	10/26/24	04/26/24	Acetonitrile, Lot Acetonitrile_00086	100 mL	3,5-DNA Stock_00052	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330 LCSMix2_00114	1 mL	2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							Tetryl	10 ug/mL
					8330_NG_Stk_00148	1 mL	Nitroglycerin	100 ug/mL
					8330_NG_Stk_00150	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00154	1 mL	PETN	100 ug/mL
					8330_PETN_Stk_00156	1 mL	PETN	100 ug/mL
					8330LCSMix1_00152	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					PicricARestek_00124	1 mL	2,4,6-Trinitrophenol	10 ug/mL
							Ammonium Picrate	10.74 ug/mL
.3,5-DNA Stock_00052	04/26/25		Restek, Lot A0193965		(Purchased Reagent)		3,5-Dinitroaniline	1000 ug/mL
.8330 LCSMix2_00114	04/26/25		Restek, Lot A199657		(Purchased Reagent)		2,6-Dinitrotoluene	1000 ug/mL
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							Tetryl	1000 ug/mL
.8330_NG_Stk_00148	04/26/25		Restek, Lot A0203257		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_NG_Stk_00150	04/26/25		Restek, Lot A0203257		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00154	04/26/25		Restek, Lot A0198972		(Purchased Reagent)		PETN	5000 ug/mL
.8330_PETN_Stk_00156	04/26/25		Restek, Lot A0205209		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00152	04/26/25		Restek, Lot A196548		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
.PicricARestek_00124	04/26/25		Restek, Lot A0195778		(Purchased Reagent)		2,4,6-Trinitrophenol	1000 ug/mL
							Ammonium Picrate	1074 ug/mL
8330IntermStk_00079	05/14/24	01/23/24	Acetonitrile, Lot ACN_239	10 mL	8330_NG1000_00011	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN1000_00015	1 mL	PETN	100 ug/mL
					833035DNAStk_00057	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330ICALStock_00035	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
							Tetryl	10 ug/mL
							1,2-Dinitrobenzene	10 ug/mL
					8330PAStkPS_00074	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330_NG1000_00011	01/23/25		Restek, Lot A0197032		(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_PETN1000_00015	01/23/25		Restek, Lot A0198747		(Purchased Reagent)		PETN	1000 ug/mL
.833035DNAStk_00057	05/14/24		Accustandard, Lot 223041214		(Purchased Reagent)		3,5-Dinitroaniline	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.8330ICALStock_00035	01/23/25	01/23/24	Acetonitrile, Lot 233799	10 mL	8330 Stock_TS_00024	1 mL	1,3,5-Trinitrobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							2,4,6-Trinitrotoluene	100 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Amino-4,6-dinitrotoluene	100 ug/mL
							2-Nitrotoluene	100 ug/mL
							3-Nitrotoluene	100 ug/mL
							4-Amino-2,6-dinitrotoluene	100 ug/mL
							4-Nitrotoluene	100 ug/mL
							HMX	100 ug/mL
							Nitrobenzene	100 ug/mL
							RDX	100 ug/mL
							Tetryl	100 ug/mL
					8330SurrStock_00173	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00024	01/23/25		Agilent, Lot 0006684308		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
							Tetryl	1000 ug/mL
..8330SurrStock_00173	01/23/25		AccuStandard, Lot 219051500		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330PAStkPS_00074	01/23/25		AccuStandard, Lot 223031306		(Purchased Reagent)		2,4,6-Trinitrophenol	100 ug/mL
8330IntermStk_00080	05/14/24	04/17/24	Acetonitrile, Lot 223272	10 mL	8330_NG1000_00012	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN1000_00016	1 mL	PETN	100 ug/mL
					833035DNAStk_00059	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330ICALStock_00035	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							HMX	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
							Tetryl	10 ug/mL
							1,2-Dinitrobenzene	10 ug/mL
					8330PAStkPS_00075	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330_NG1000_00012	04/17/25	Restek, Lot A0197032			(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_PETN1000_00016	04/17/25	Restek, Lot A0198747			(Purchased Reagent)		PETN	1000 ug/mL
.833035DNAStk_00059	05/14/24	Accustandard, Lot 223041214			(Purchased Reagent)		3,5-Dinitroaniline	100 ug/mL
.8330ICALStock_00035	01/23/25	01/23/24	Acetonitrile, Lot 233799	10 mL	8330 Stock_TS_00024	1 mL	1,3,5-Trinitrobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							2,4,6-Trinitrotoluene	100 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Amino-4,6-dinitrotoluene	100 ug/mL
							2-Nitrotoluene	100 ug/mL
							3-Nitrotoluene	100 ug/mL
							4-Amino-2,6-dinitrotoluene	100 ug/mL
							4-Nitrotoluene	100 ug/mL
							HMX	100 ug/mL
							Nitrobenzene	100 ug/mL
							RDX	100 ug/mL
							Tetryl	100 ug/mL
					8330SurrStock_00173	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00024	01/23/25	Agilent, Lot 0006684308			(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
							Tetryl	1000 ug/mL
..8330SurrStock_00173	01/23/25	AccuStandard, Lot 219051500			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330PAStkPS_00075	04/12/25	AccuStandard, Lot 223041157			(Purchased Reagent)		2,4,6-Trinitrophenol	100 ug/mL
8330IntermStk_00081	11/14/24	05/14/24	Acetonitrile, Lot 233276	10 mL	8330_NG1000_00014	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN1000_00017	1 mL	PETN	100 ug/mL
					8330ICALStock_00035	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
							Tetryl	10 ug/mL
							1,2-Dinitrobenzene	10 ug/mL
.8330_NG1000_00014	05/14/25		Restek, Lot A0208632		(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_PETN1000_00017	05/14/25		Restek, Lot A0207895		(Purchased Reagent)		PETN	1000 ug/mL
.8330ICALStock_00035	01/23/25	01/23/24	Acetonitrile, Lot 233799	10 mL	8330 Stock_TS_00024	1 mL	1,3,5-Trinitrobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							2,4,6-Trinitrotoluene	100 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Amino-4,6-dinitrotoluene	100 ug/mL
							2-Nitrotoluene	100 ug/mL
							3-Nitrotoluene	100 ug/mL
							4-Amino-2,6-dinitrotoluene	100 ug/mL
							4-Nitrotoluene	100 ug/mL
							HMX	100 ug/mL
							Nitrobenzene	100 ug/mL
							RDX	100 ug/mL
							Tetryl	100 ug/mL
					8330SurrStock_00173	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00024	01/23/25		Agilent, Lot 0006684308		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
							Tetryl	1000 ug/mL
..8330SurrStock_00173	01/23/25		AccuStandard, Lot 219051500		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
8330Surrogate_00154	09/01/24	03/01/24	Acetonitrile, Lot Acetonitrile_00086	500 mL	8330SurrStkSS_00310	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00311	1 mL	1,2-Dinitrobenzene	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					8330SurrStkSS_00312	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00314	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00315	1 mL	1,2-Dinitrobenzene	10 ug/mL
.8330SurrStkSS_00310	03/01/25		Restek, Lot A0200577		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00311	03/01/25		Restek, Lot A0200577		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00312	03/01/25		Restek, Lot A0200577		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00314	03/01/25		Restek, Lot A0200577		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00315	03/01/25		Restek, Lot A0200577		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
8330Surrogate_00155	10/26/24	04/26/24	Acetonitrile, Lot Acetonitrile_00086	500 mL	8330SurrStkSS_00313	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00316	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00317	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00318	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00319	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
.8330SurrStkSS_00313	04/26/25		Restek, Lot A0200577		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00316	04/26/25		Restek, Lot A0200577		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00317	04/26/25		Restek, Lot A0200577		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00318	04/26/25		Restek, Lot A0205460		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00319	04/26/25		Restek, Lot A0205460		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
AR_1248_L7_00034	09/11/24	03/11/24	Hexane, Lot cycl_00085	100 mL	AR_1248_RES_00017	100 uL	PCB-1248 Peak 1	1 ug/mL
							PCB-1248 Peak 2	1 ug/mL
							PCB-1248 Peak 3	1 ug/mL
							PCB-1248 Peak 4	1 ug/mL
							PCB-1248 Peak 5	1 ug/mL
.AR_1248_RES_00017	10/31/26		RESTEK, Lot A0162497		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
AR_1660_ICV_00029	09/18/24	03/18/24	Hexane, Lot cycl_00084	100 mL	AR_1660_RESss_00026	100 uL	PCB-1016	1000 ng/mL
							PCB-1260	1000 ng/mL
					Pest/PCBstock_00044	25 uL	DCB Decachlorobiphenyl	50 ng/mL
							Tetrachloro-m-xylene	50 ng/mL
.AR_1660_RESss_00026	04/30/27		RESTEK, Lot A0167874		(Purchased Reagent)		PCB-1016	1000 ug/mL
							PCB-1260	1000 ug/mL
.Pest/PCBstock_00044	03/31/29		Restek, Lot A0192797		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
AR_1660_L7_00046	09/18/24	03/18/24	Hexane, Lot Hexane_Cylc_00084	100 mL	AR_1660_RES_00023	100 uL	PCB-1016 Peak 1	1 ug/mL
							PCB-1016 Peak 2	1 ug/mL
							PCB-1016 Peak 3	1 ug/mL
							PCB-1016 Peak 4	1 ug/mL
							PCB-1016 Peak 5	1 ug/mL
							PCB-1260 Peak 1	1 ug/mL
							PCB-1260 Peak 2	1 ug/mL
							PCB-1260 Peak 3	1 ug/mL
							PCB-1260 Peak 4	1 ug/mL
							PCB-1260 Peak 5	1 ug/mL
					Pest/PCBstock_00044	25 uL	DCB Decachlorobiphenyl	0.05 ug/mL
							Tetrachloro-m-xylene	0.05 ug/mL
.AR_1660_RES_00023	02/28/29		RESTEK, Lot A0191718		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.Pest/PCBstock_00044	03/31/29		Restek, Lot A0192797		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
AR_1660_L7_00046	09/18/24	03/18/24	Hexane, Lot Hexane_Cylc_00084	100 mL	AR_1660_RES_00023	100 uL	PCB-1016	1 ug/mL
							PCB-1260	1 ug/mL
.AR_1660_RES_00023	02/28/29		RESTEK, Lot A0191718		(Purchased Reagent)		PCB-1016	1000 ug/mL
							PCB-1260	1000 ug/mL
AR_2154_L7_00035	08/05/24	02/05/24	Hexane, Lot cycl_00083	100 mL	AR_2154_RES_00012	100 uL	PCB-1221 Peak 1	1 ug/mL
							PCB-1221 Peak 2	1 ug/mL
							PCB-1221 Peak 3	1 ug/mL
							PCB-1254 Peak 1	1 ug/mL
							PCB-1254 Peak 2	1 ug/mL
							PCB-1254 Peak 3	1 ug/mL
							PCB-1254 Peak 4	1 ug/mL
							PCB-1254 Peak 5	1 ug/mL
.AR_2154_RES_00012	05/31/27		RESTEK, Lot A0168876		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
AR_3262_L7_00031	08/05/24	02/05/24	Hexane, Lot cycl_00083	100 mL	AR_3262_RES_00009	100 uL	PCB-1232 Peak 1	1 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1232 Peak 2	1 ug/mL
							PCB-1232 Peak 3	1 ug/mL
							PCB-1232 Peak 4	1 ug/mL
							PCB-1232 Peak 5	1 ug/mL
							PCB-1262 Peak 1	1 ug/mL
							PCB-1262 Peak 2	1 ug/mL
							PCB-1262 Peak 3	1 ug/mL
							PCB-1262 Peak 4	1 ug/mL
							PCB-1262 Peak 5	1 ug/mL
.AR_3262_RES_00009	06/30/27		RESTEK, Lot A0147742		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
							PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
AR_4268_L7_00031	05/29/24	02/28/24	Hexane, Lot cycl_0083	100 mL	AR_4268_RES_00007	100 uL	PCB-1242 Peak 1	1 ug/mL
							PCB-1242 Peak 2	1 ug/mL
							PCB-1242 Peak 3	1 ug/mL
							PCB-1242 Peak 4	1 ug/mL
							PCB-1242 Peak 5	1 ug/mL
							PCB-1268 Peak 1	1 ug/mL
							PCB-1268 Peak 2	1 ug/mL
							PCB-1268 Peak 3	1 ug/mL
							PCB-1268 Peak 4	1 ug/mL
							PCB-1268 Peak 5	1 ug/mL
.AR_4268_RES_00007	02/28/25		RESTEK, Lot A0143137		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
							PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
BNB IS_00027	05/29/24	02/28/24	Hexane, Lot Cycl_0083	250 mL	BNB stock_00030	0.25 mL	1-Bromo-2-nitrobenzene	1000 ng/mL
.BNB stock_00030	06/30/25		Restek, Lot A0182850		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
Cal Dil Std_00352	05/24/24	05/17/24	P&T Methanol, Lot ED137-US	100 uL	MV-Gas A_00187	2 uL	Bromomethane	5 ug/mL
							Chloroethane	5 ug/mL
							Chloromethane	5 ug/mL
							Dichlorodifluoromethane	5 ug/mL
							Dichlorofluoromethane	5 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichlorofluoromethane	5 ug/mL
							Vinyl chloride	5 ug/mL
							2-Chloroethyl vinyl ether	5 ug/mL
					MV-MegaMainA_00108	5 uL	Acrolein	49.375 ug/mL
							2-Butanone (MEK)	20 ug/mL
							2-Hexanone	20 ug/mL
							4-Methyl-2-pentanone (MIBK)	20 ug/mL
							Acetone	20 ug/mL
							Vinyl acetate	10 ug/mL
							Cyclohexanone	150 ug/mL
							1,1,1,2-Tetrachloroethane	5 ug/mL
							1,1,1-Trichloroethane	5 ug/mL
							1,1,2,2-Tetrachloroethane	5 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	5 ug/mL
							1,1,2-Trichloroethane	5 ug/mL
							1,1-Dichloroethane	5 ug/mL
							1,1-Dichloroethene	5 ug/mL
							1,1-Dichloropropene	5 ug/mL
							1,2,3-Trichlorobenzene	5 ug/mL
							1,2,3-Trichloropropane	5 ug/mL
							1,2,4-Trichlorobenzene	5 ug/mL
							1,2,4-Trimethylbenzene	5 ug/mL
							1,2-Dibromo-3-Chloropropane	5 ug/mL
							1,2-Dibromoethane	5 ug/mL
							1,2-Dichlorobenzene	5 ug/mL
							1,2-Dichloroethane	5 ug/mL
							1,2-Dichloropropane	5 ug/mL
							1,3,5-Trimethylbenzene	5 ug/mL
							1,3-Dichlorobenzene	5 ug/mL
							1,3-Dichloropropane	5 ug/mL
							1,4-Dichlorobenzene	5 ug/mL
							1,4-Dioxane	100 ug/mL
							2,2-Dichloropropane	5 ug/mL
							2-Chlorotoluene	5 ug/mL
							2-Methyl-2-propanol	50 ug/mL
							3-Chloro-1-propene	5 ug/mL
							4-Chlorotoluene	5 ug/mL
							4-Isopropyltoluene	5 ug/mL
							Acrylonitrile	50 ug/mL
							Benzene	5 ug/mL
							Bromobenzene	5 ug/mL
							Bromochloromethane	5 ug/mL
							Bromodichloromethane	5 ug/mL
							Bromoform	5 ug/mL
							Carbon disulfide	5 ug/mL
							Carbon tetrachloride	5 ug/mL
							Chlorobenzene	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloroform	5 ug/mL
							cis-1,2-Dichloroethene	5 ug/mL
							cis-1,3-Dichloropropene	5 ug/mL
							Cyclohexane	5 ug/mL
							Dibromochloromethane	5 ug/mL
							Dibromomethane	5 ug/mL
							Ethyl ether	5 ug/mL
							Ethyl methacrylate	5 ug/mL
							Ethylbenzene	5 ug/mL
							Hexachlorobutadiene	5 ug/mL
							Hexane	5 ug/mL
							Iodomethane	5 ug/mL
							Isobutyl alcohol	125 ug/mL
							Isopropylbenzene	5 ug/mL
							m-Xylene & p-Xylene	5 ug/mL
							Methyl acetate	10 ug/mL
							Methyl tert-butyl ether	5 ug/mL
							Methylcyclohexane	5 ug/mL
							Methylene Chloride	5 ug/mL
							n-Butylbenzene	5 ug/mL
							n-Heptane	5 ug/mL
							N-Propylbenzene	5 ug/mL
							Naphthalene	5 ug/mL
							o-Xylene	5 ug/mL
							sec-Butylbenzene	5 ug/mL
							Styrene	5 ug/mL
							tert-Butylbenzene	5 ug/mL
							Tetrachloroethene	5 ug/mL
							Tetrahydrofuran	10 ug/mL
							Toluene	5 ug/mL
							trans-1,2-Dichloroethene	5 ug/mL
							trans-1,3-Dichloropropene	5 ug/mL
							trans-1,4-Dichloro-2-butene	5 ug/mL
							Trichloroethene	5 ug/mL
							1-Chlorohexane	4 ug/mL
							2-Pentanone	16 ug/mL
							sec-Butyl Alcohol	120 ug/mL
.MV-Gas A_00187	06/10/24	05/09/24	P&T Methanol, Lot 198123	12.5 mL	MV-569722_00023	1250 uL	Bromomethane	250 ug/mL
							Chloroethane	250 ug/mL
							Chloromethane	250 ug/mL
							Dichlorodifluoromethane	250 ug/mL
							Dichlorofluoromethane	250 ug/mL
							Trichlorofluoromethane	250 ug/mL
							Vinyl chloride	250 ug/mL
					MV-569723_00018	1250 uL	2-Chloroethyl vinyl ether	250 ug/mL
..MV-569722_00023	05/31/26		RESTEK, Lot A0198219		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
..MV-569723_00018	01/31/26	RESTEK, Lot A0193735			(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
.MV-MegaMainA_00108	06/10/24	05/08/24	P&T Methanol, Lot EG636-US	25 mL	MV-568720_00048	1250 uL	Acrolein	987.5 ug/mL
					MV-569721_00015	800 uL	2-Butanone (MEK)	400 ug/mL
							2-Hexanone	400 ug/mL
							4-Methyl-2-pentanone (MIBK)	400 ug/mL
							Acetone	400 ug/mL
					MV-569724_00037	1000 uL	Vinyl acetate	200 ug/mL
					MV-569727_00024	3000 uL	Cyclohexanone	3000 ug/mL
					MV-571992_00015	1000 uL	1,1,1,2-Tetrachloroethane	100 ug/mL
							1,1,1-Trichloroethane	100 ug/mL
							1,1,2,2-Tetrachloroethane	100 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	100 ug/mL
							1,1,2-Trichloroethane	100 ug/mL
							1,1-Dichloroethane	100 ug/mL
							1,1-Dichloroethene	100 ug/mL
							1,1-Dichloropropene	100 ug/mL
							1,2,3-Trichlorobenzene	100 ug/mL
							1,2,3-Trichloropropane	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2,4-Trimethylbenzene	100 ug/mL
							1,2-Dibromo-3-Chloropropane	100 ug/mL
							1,2-Dibromoethane	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Dichloroethane	100 ug/mL
							1,2-Dichloropropane	100 ug/mL
							1,3,5-Trimethylbenzene	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dichloropropane	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	2000 ug/mL
							2,2-Dichloropropane	100 ug/mL
							2-Chlorotoluene	100 ug/mL
							2-Methyl-2-propanol	1000 ug/mL
							3-Chloro-1-propene	100 ug/mL
							4-Chlorotoluene	100 ug/mL
							4-Isopropyltoluene	100 ug/mL
							Acrylonitrile	1000 ug/mL
							Benzene	100 ug/mL
							Bromobenzene	100 ug/mL
							Bromochloromethane	100 ug/mL
							Bromodichloromethane	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromoform	100 ug/mL
							Carbon disulfide	100 ug/mL
							Carbon tetrachloride	100 ug/mL
							Chlorobenzene	100 ug/mL
							Chloroform	100 ug/mL
							cis-1,2-Dichloroethene	100 ug/mL
							cis-1,3-Dichloropropene	100 ug/mL
							Cyclohexane	100 ug/mL
							Dibromochloromethane	100 ug/mL
							Dibromomethane	100 ug/mL
							Ethyl ether	100 ug/mL
							Ethyl methacrylate	100 ug/mL
							Ethylbenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexane	100 ug/mL
							Iodomethane	100 ug/mL
							Isobutyl alcohol	2500 ug/mL
							Isopropylbenzene	100 ug/mL
							m-Xylene & p-Xylene	100 ug/mL
							Methyl acetate	200 ug/mL
							Methyl tert-butyl ether	100 ug/mL
							Methylcyclohexane	100 ug/mL
							Methylene Chloride	100 ug/mL
							n-Butylbenzene	100 ug/mL
							n-Heptane	100 ug/mL
							N-Propylbenzene	100 ug/mL
							Naphthalene	100 ug/mL
							o-Xylene	100 ug/mL
							sec-Butylbenzene	100 ug/mL
							Styrene	100 ug/mL
							tert-Butylbenzene	100 ug/mL
							Tetrachloroethene	100 ug/mL
							Tetrahydrofuran	200 ug/mL
							Toluene	100 ug/mL
							trans-1,2-Dichloroethene	100 ug/mL
							trans-1,3-Dichloropropene	100 ug/mL
							trans-1,4-Dichloro-2-butene	100 ug/mL
							Trichloroethene	100 ug/mL
					MV-CUS17739.s_00012	2000 uL	1-Chlorohexane	80 ug/mL
							2-Pentanone	320 ug/mL
							sec-Butyl Alcohol	2400 ug/mL
..MV-568720_00048	04/30/25		RESTEK, Lot A0203711		(Purchased Reagent)		Acrolein	19750 ug/mL
..MV-569721_00015	01/31/26		RESTEK, Lot A0193494		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..MV-569724_00037	01/31/25		RESTEK, Lot A0200199		(Purchased Reagent)		Vinyl acetate	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..MV-569727_00024	04/30/26		RESTEK, Lot A0197009		(Purchased Reagent)		Cyclohexanone	25000 ug/mL
..MV-571992_00015	09/30/24		RESTEK, Lot A0183568		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
..MV-CUS17739.s_00012	11/30/25		Agilent, Lot 0006765276.s		(Purchased Reagent)		1-Chlorohexane	1000 ug/mL
							2-Pentanone	4000 ug/mL
							sec-Butyl Alcohol	30000 ug/mL
CN CAL 1 ppm_02315	05/09/24	05/08/24	1% NaOH, Lot N/A	100 mL	CN 10ppm_00715	10 mL	Cyanide, Total	1 mg/L
.CN 10ppm_00715	05/15/24	05/08/24	2% NaOH, Lot 11% NaOH	100 mg/Kg LAS MW340	CN CAL Std_00083	1 mL	Cyanide, Total	10 mg/L
..CN CAL Std_00083	06/08/24		ERA, Lot 250623m		(Purchased Reagent)		Cyanide, Total	1000 mg/L
CN CAL 1 ppm_02316	05/11/24	05/10/24	1% NaOH, Lot N/A	100 mL	CN 10ppm_00715	10 mL	Cyanide, Total	1 mg/L
.CN 10ppm_00715	05/15/24	05/08/24	2% NaOH, Lot 11% NaOH	100 mg/Kg LAS MW340	CN CAL Std_00083	1 mL	Cyanide, Total	10 mg/L
..CN CAL Std_00083	06/08/24		ERA, Lot 250623m		(Purchased Reagent)		Cyanide, Total	1000 mg/L
CN ICV Int_00894	05/15/24	05/08/24	1% NaOH, Lot NaOH	100 mL	CN ICV Std_00084	1 mL	Cyanide, Total	9.99 mg/L
.CN ICV Std_00084	04/30/24		RICCA, Lot 1310P81		(Purchased Reagent)		Cyanide, Total	999 mg/L
Hg Biwk ICV_00420	06/04/24	05/21/24	1% HNO3, Lot 231516	100 mL	Hg CPI Stock_00004	0.04 mL	Mercury	400 ppb
.Hg CPI Stock_00004	03/08/25		CPI International, Lot 1293435-1		(Purchased Reagent)		Mercury	1000 ug/mL
Hg Daily Spk_03597	05/22/24	05/21/24	1% HNO3, Lot 231516	100 mL	Hg Mnth Spike_00214	1 mL	Mercury	100 ppb
.Hg Mnth Spike_00214	06/10/24	05/13/24	1% HNO3, Lot K23022	100 mL	Hg EE 1000ppm_00007	1 mL	Mercury	10 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..Hg EE 1000ppm_00007	02/28/25	Environmental Express, Lot 2314224			(Purchased Reagent)		Mercury	1000 ug/mL
IC Cal low_00758	02/28/24	02/21/24	Di Water, Lot NA	100 mL	IC N03 cal_00030	5 mL	Nitrate as N	50 mg/L
					NO2 Cal std_00040	5 mL	Nitrite as N	50 mg/L
.IC N03 cal_00030	10/31/24	Ricca, Lot 1304R00			(Purchased Reagent)		Nitrate as N	1000 mg/L
.NO2 Cal std_00040	04/30/24	ERA, Lot 4310M18			(Purchased Reagent)		Nitrite as N	1000 mg/L
IC Cal low_00772	05/07/24	04/30/24	Di Water, Lot NA	100 mL	IC N03 cal_00030	5 mL	Nitrate as N	50 mg/L
.IC N03 cal_00030	10/31/24	Ricca, Lot 1304R00			(Purchased Reagent)		Nitrate as N	1000 mg/L
IC ICV 5_00428	02/27/24	02/20/24	Di Water, Lot na	100 mL	IC NO3 ICV_00020	5 mL	Nitrate as N	50 mg/L
.IC NO3 ICV_00020	10/13/24	ERA, Lot 341022m			(Purchased Reagent)		Nitrate as N	1000 mg/L
IC LCS_02035	05/08/24	05/06/24	Di Water, Lot 27	200 mL	IC Cal low_00774	20 mL	Nitrate as N	5 mg/L
.IC Cal low_00774	05/08/24	05/01/24	Di Water, Lot NA	100 mL	IC N03 cal_00030	5 mL	Nitrate as N	50 mg/L
..IC N03 cal_00030	10/31/24	Ricca, Lot 1304R00			(Purchased Reagent)		Nitrate as N	1000 mg/L
ICP CCV_00715	10/04/24	05/02/24	5%/5% HCL/HNO3, Lot SEE LOGBOOK	500 mL	ICP ICAL1A_01023	250 mL	Aluminum	0.5 mg/L
							Calcium	5 mg/L
							Iron	2.5 mg/L
							Magnesium	20 mg/L
							Potassium	50 mg/L
							Sodium	25 mg/L
.ICP ICAL1A_01023	10/04/24	05/02/24	5%/5% HCL/HNO3, Lot SEE LOGBOOK	1000 mL	ICP CAL STD 4_00013	10 mL	Aluminum	1 mg/L
							Calcium	10 mg/L
							Iron	5 mg/L
							Magnesium	40 mg/L
							Potassium	100 mg/L
							Sodium	50 mg/L
..ICP CAL STD 4_00013	01/31/25	CPI, Lot 220843			(Purchased Reagent)		Aluminum	100 mg/L
							Calcium	1000 mg/L
							Iron	500 mg/L
							Magnesium	4000 mg/L
							Potassium	10000 mg/L
							Sodium	5000 mg/L
ICP CCVH_00970	07/13/24	05/02/24	5%HNO3/5% HCl, Lot SEE LOGBOOK	500 mL	ICP ICAL2A_00712	250 mL	Aluminum	50 mg/L
							Iron	50 mg/L
							Sodium	250 mg/L
.ICP ICAL2A_00712	07/13/24	05/02/24	5%HCl/5% HNO3, Lot see reagent log	1000 mL	10000 Al_00028	10 mL	Aluminum	100 ppm
					10000 Fe_00029	10 mL	Iron	100 ppm
					10000 Na_00093	50 mL	Sodium	500 ppm
..10000 Al_00028	01/22/25	cpi, Lot 1427343			(Purchased Reagent)		Aluminum	10000 mg/L
..10000 Fe_00029	08/28/24	CPI, Lot 1240670-21			(Purchased Reagent)		Iron	10000 mg/L
..10000 Na_00093	03/06/26	CPI, Lot 1390063			(Purchased Reagent)		Sodium	10000 mg/L
ICP ICSA_00264	06/30/24	03/13/24	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	Icp stk ICSA_00040	25 mL	Aluminum	500 mg/L
							Calcium	500 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Iron	200 mg/L
							Magnesium	500 mg/L
.Icp stk ICSA_00040	06/30/24	IV, Lot t2-meb726136			(Purchased Reagent)		Aluminum	5000 mg/L
							Calcium	5000 mg/L
							Iron	2000 mg/L
							Magnesium	5000 mg/L
ICP ICSAB_00292	06/23/24	03/22/24	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	1000 Li_00044	0.25 mL	Li	1 mg/L
					1000 Zr_00025	0.25 mL	Zr	1 mg/L
					10000 S_00017	0.25 mL	Sulfur	10 mg/L
					ICP ICSAB 1_00007	2.5 mL	Antimony	1 mg/L
							Mo	1 mg/L
							Si	10 mg/L
							Sn	1 mg/L
							Ti	1 mg/L
					ICP ICSAB 2_00007	2.5 mL	Arsenic	1 mg/L
							B	10 mg/L
							Barium	1 mg/L
							Beryllium	0.5 mg/L
							Cadmium	1 mg/L
							Chromium	1 mg/L
							Cobalt	1 mg/L
							Copper	1 mg/L
							Lead	1 mg/L
							Manganese	1 mg/L
							Nickel	1 mg/L
							P	10 mg/L
							Potassium	10 mg/L
							Selenium	1 mg/L
							Silver	1 mg/L
							Sodium	10 mg/L
							Sr	1 mg/L
							Thallium	1 mg/L
							Vanadium	1 mg/L
							Zinc	1 mg/L
					Icp stk ICSA_00043	25 mL	Aluminum	500 mg/L
							Calcium	500 mg/L
							Iron	200 mg/L
							Magnesium	500 mg/L
.1000 Li_00044	06/23/24	CPI, Lot 1186016-37			(Purchased Reagent)		Li	1000 mg/L
.1000 Zr_00025	07/01/24	CPI, Lot 1241783-14			(Purchased Reagent)		Zr	1000 mg/L
.10000 S_00017	11/02/24	CPI, Lot 1205121-26			(Purchased Reagent)		Sulfur	10000 mg/L
.ICP ICSAB 1_00007	03/11/25	CPI, Lot 1399525			(Purchased Reagent)		Antimony	100 mg/L
							Mo	100 mg/L
							Si	1000 mg/L
							Sn	100 mg/L
							Ti	100 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.ICP ICSAB 2_00007	03/14/25		CPI, Lot 1333445-1		(Purchased Reagent)		Arsenic	100 mg/L
							B	1000 mg/L
							Barium	100 mg/L
							Beryllium	50 mg/L
							Cadmium	100 mg/L
							Chromium	100 mg/L
							Cobalt	100 mg/L
							Copper	100 mg/L
							Lead	100 mg/L
							Manganese	100 mg/L
							Nickel	100 mg/L
							P	1000 mg/L
							Potassium	1000 mg/L
							Selenium	100 mg/L
							Silver	100 mg/L
							Sodium	1000 mg/L
							Sr	100 mg/L
							Thallium	100 mg/L
							Vanadium	100 mg/L
							Zinc	100 mg/L
.Icp stk ICSA_00043	12/19/24		IV, Lot t2-meb726136		(Purchased Reagent)		Aluminum	5000 mg/L
							Calcium	5000 mg/L
							Iron	2000 mg/L
							Magnesium	5000 mg/L
ICP ICV_01930	07/31/24	05/13/24	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	ICP ICV STD 4_00003	0.25 mL	Aluminum	0.25 ppm
							Calcium	2.5 ppm
							Iron	1.25 ppm
							Magnesium	10 ppm
							Potassium	25 ppm
							Sodium	12.5 ppm
.ICP ICV STD 4_00003	11/30/24		CPI, Lot 230336		(Purchased Reagent)		Aluminum	100 mg/L
							Calcium	1000 mg/L
							Iron	500 mg/L
							Magnesium	4000 mg/L
							Potassium	10000 mg/L
							Sodium	5000 mg/L
ICP ICV_01931	07/31/24	05/14/24	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	ICP ICV STD 4_00003	0.25 mL	Aluminum	0.25 ppm
							Calcium	2.5 ppm
							Iron	1.25 ppm
							Magnesium	10 ppm
							Potassium	25 ppm
							Sodium	12.5 ppm
.ICP ICV STD 4_00003	11/30/24		CPI, Lot 230336		(Purchased Reagent)		Aluminum	100 mg/L
							Calcium	1000 mg/L
							Iron	500 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Magnesium	4000 mg/L
							Potassium	10000 mg/L
							Sodium	5000 mg/L
ICP ICVH_02029	06/30/24	05/13/24	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	10000 Al SS_00005	0.4 mL	Aluminum	40 ppm
					10000 Fe SS_00007	0.8 mL	Iron	80 ppm
					10000 Na SS_00008	0.8 mL	Sodium	80 ppm
.10000 Al SS_00005	06/30/24	Elemental Scientific, Lot 2229332S			(Purchased Reagent)		Aluminum	10000 mg/L
.10000 Fe SS_00007	06/30/25	Elemental Scientific, Lot 2324416x100			(Purchased Reagent)		Iron	10000 mg/L
.10000 Na SS_00008	11/30/24	Elemental Scientific, Lot 2306846-100			(Purchased Reagent)		Sodium	10000 mg/L
ICP ICVH_02030	06/30/24	05/14/24	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	10000 Al SS_00005	0.4 mL	Aluminum	40 ppm
					10000 Fe SS_00007	0.8 mL	Iron	80 ppm
					10000 Na SS_00008	0.8 mL	Sodium	80 ppm
.10000 Al SS_00005	06/30/24	Elemental Scientific, Lot 2229332S			(Purchased Reagent)		Aluminum	10000 mg/L
.10000 Fe SS_00007	06/30/25	Elemental Scientific, Lot 2324416x100			(Purchased Reagent)		Iron	10000 mg/L
.10000 Na SS_00008	11/30/24	Elemental Scientific, Lot 2306846-100			(Purchased Reagent)		Sodium	10000 mg/L
ICP LLCCV_03915	05/14/24	05/13/24	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	ICP LLCCV_03783	1 mL	Aluminum	100 ppb
							Calcium	200 ppb
							Iron	100 ppb
							Magnesium	200 ppb
							Potassium	3000 ppb
							Sodium	1000 ppb
.ICP LLCCV_03783	11/13/24	IV, Lot U2-MEB734692			(Purchased Reagent)		Aluminum	10 mg/L
							Calcium	20 mg/L
							Iron	10 mg/L
							Magnesium	20 mg/L
							Potassium	300 mg/L
							Sodium	100 mg/L
ICP LLCCV_03916	05/15/24	05/14/24	5%HNO3/5% HCl, Lot SEE LOGBOOK	100 mL	ICP LLCCV_03783	1 mL	Aluminum	100 ppb
							Calcium	200 ppb
							Iron	100 ppb
							Magnesium	200 ppb
							Potassium	3000 ppb
							Sodium	1000 ppb
.ICP LLCCV_03783	11/13/24	IV, Lot U2-MEB734692			(Purchased Reagent)		Aluminum	10 mg/L
							Calcium	20 mg/L
							Iron	10 mg/L
							Magnesium	20 mg/L
							Potassium	300 mg/L
							Sodium	100 mg/L
ICP PDS 1_00038	08/31/25	CPI International, Lot 2403856			(Purchased Reagent)		Aluminum	100 mg/L
							Calcium	2000 mg/L
							Iron	100 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Magnesium	2000 mg/L
							Potassium	2000 mg/L
							Sodium	2000 mg/L
ms 77 cal std_03226	05/10/24	05/09/24	5%HNO3/5% HCl, Lot 235279/231497	250 mL	CALSTD-1_00004	0.25 mL	Antimony	100 ug/L
							Arsenic	100 ug/L
							Barium	100 ug/L
							Beryllium	100 ug/L
							Cadmium	100 ug/L
							Chromium	100 ug/L
							Cobalt	100 ug/L
							Copper	100 ug/L
							Lead	100 ug/L
							Manganese	100 ug/L
							Nickel	100 ug/L
							Selenium	100 ug/L
							Thallium	100 ug/L
							Vanadium	100 ug/L
					MS CALSTD-5a_00003	0.25 mL	Silver	100 ug/L
							Zinc	100 ug/L
.CALSTD-1_00004	11/02/24		CPI, Lot 1321095		(Purchased Reagent)		Antimony	100 mg/L
							Arsenic	100 mg/L
							Barium	100 mg/L
							Beryllium	100 mg/L
							Cadmium	100 mg/L
							Chromium	100 mg/L
							Cobalt	100 mg/L
							Copper	100 mg/L
							Lead	100 mg/L
							Manganese	100 mg/L
							Nickel	100 mg/L
							Selenium	100 mg/L
							Thallium	100 mg/L
							Vanadium	100 mg/L
.MS CALSTD-5a_00003	09/25/24		CPI, Lot 220527		(Purchased Reagent)		Silver	100 mg/L
							Zinc	100 mg/L
ms 77 ccv_03232	05/10/24	05/09/24	5%HNO3/5% HCl, Lot 235279/231497	200 mL	ms 77 cal std_03226	100 mL	Antimony	50 ug/L
							Arsenic	50 ug/L
							Barium	50 ug/L
							Beryllium	50 ug/L
							Cadmium	50 ug/L
							Chromium	50 ug/L
							Cobalt	50 ug/L
							Copper	50 ug/L
							Lead	50 ug/L
							Manganese	50 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nickel	50 ug/L
							Selenium	50 ug/L
							Thallium	50 ug/L
							Vanadium	50 ug/L
							Silver	50 ug/L
							Zinc	50 ug/L
.ms 77 cal std_03226	05/10/24	05/09/24	5%HNO3/5% HCl, Lot 235279/231497	250 mL	CALSTD-1_00004	0.25 mL	Antimony	100 ug/L
							Arsenic	100 ug/L
							Barium	100 ug/L
							Beryllium	100 ug/L
							Cadmium	100 ug/L
							Chromium	100 ug/L
							Cobalt	100 ug/L
							Copper	100 ug/L
							Lead	100 ug/L
							Manganese	100 ug/L
							Nickel	100 ug/L
							Selenium	100 ug/L
							Thallium	100 ug/L
							Vanadium	100 ug/L
					MS CALSTD-5a_00003	0.25 mL	Silver	100 ug/L
							Zinc	100 ug/L
..CALSTD-1_00004	11/02/24	CPI, Lot 1321095			(Purchased Reagent)		Antimony	100 mg/L
							Arsenic	100 mg/L
							Barium	100 mg/L
							Beryllium	100 mg/L
							Cadmium	100 mg/L
							Chromium	100 mg/L
							Cobalt	100 mg/L
							Copper	100 mg/L
							Lead	100 mg/L
							Manganese	100 mg/L
							Nickel	100 mg/L
							Selenium	100 mg/L
							Thallium	100 mg/L
							Vanadium	100 mg/L
..MS CALSTD-5a_00003	09/25/24	CPI, Lot 220527			(Purchased Reagent)		Silver	100 mg/L
							Zinc	100 mg/L
ms 77 icsa_00731	05/14/24	05/07/24	5%HNO3/5% HCl, Lot 234171/231497	100 mL	MS ICSA STOCK_00053	5 mL	Aluminum	100 mg/L
							Calcium	100 mg/L
							Iron	100 mg/L
							Magnesium	100 mg/L
							Mo	2 mg/L
							Potassium	100 mg/L
							Sodium	100 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MS ICSA STOCK_00055	5 mL	Aluminum	100 mg/L
							Calcium	100 mg/L
							Iron	100 mg/L
							Magnesium	100 mg/L
							Mo	2 mg/L
							Potassium	100 mg/L
							Sodium	100 mg/L
.MS ICSA STOCK_00053	11/21/24	IV, Lot u2-meb735840			(Purchased Reagent)		Aluminum	1000 mg/L
							Calcium	1000 mg/L
							Iron	1000 mg/L
							Magnesium	1000 mg/L
							Mo	20 mg/L
							Potassium	1000 mg/L
							Sodium	1000 mg/L
.MS ICSA STOCK_00055	01/18/25	CPI, Lot 1401663			(Purchased Reagent)		Aluminum	1000 mg/L
							Calcium	1000 mg/L
							Iron	1000 mg/L
							Magnesium	1000 mg/L
							Mo	20 mg/L
							Potassium	1000 mg/L
							Sodium	1000 mg/L
ms 77 icsab_00730	05/14/24	05/07/24	5%HNO3/5% HCl, Lot 234171/231497	100 mL	ICV MIX-1a_00003	0.1 mL	Arsenic	0.1 mg/L
							Barium	0.1 mg/L
							Beryllium	0.1 mg/L
							Cadmium	0.1 mg/L
							Chromium	0.1 mg/L
							Cobalt	0.1 mg/L
							Copper	0.1 mg/L
							Lead	0.1 mg/L
							Manganese	0.1 mg/L
							Nickel	0.1 mg/L
							Selenium	0.1 mg/L
							Sr	0.2 mg/L
							Thallium	0.1 mg/L
							Vanadium	0.1 mg/L
					ICV MIX-1B_00003	0.1 mL	Antimony	0.1 mg/L
							Mo	2.1 mg/L
							Sn	0.1 mg/L
					MS ICSA STOCK_00053	10 mL	Aluminum	102 mg/L
							Calcium	107 mg/L
							Iron	102 mg/L
							Magnesium	107 mg/L
							Mo	2.1 mg/L
							Potassium	107 mg/L
							Sodium	107 mg/L
					MS ICVMIX--3_00006	0.1 mL	U	0.1 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MS ICVMIX--5_00004	0.1 mL	Calcium	107 mg/L
							Magnesium	107 mg/L
							Potassium	107 mg/L
							Silver	0.1 mg/L
							Sodium	107 mg/L
							Sr	0.2 mg/L
							Th	0.1 mg/L
							Zinc	0.1 mg/L
					MS ICVMIX-2_00007	0.1 mL	Aluminum	102 mg/L
							Calcium	107 mg/L
							Iron	102 mg/L
							Magnesium	107 mg/L
							Potassium	107 mg/L
							Sodium	107 mg/L
.ICV MIX-1a_00003	07/31/24		IV, Lot u2-meb734729		(Purchased Reagent)		Arsenic	100 mg/L
							Barium	100 mg/L
							Beryllium	100 mg/L
							Cadmium	100 mg/L
							Chromium	100 mg/L
							Cobalt	100 mg/L
							Copper	100 mg/L
							Lead	100 mg/L
							Manganese	100 mg/L
							Nickel	100 mg/L
							Selenium	100 mg/L
							Sr	100 mg/L
							Thallium	100 mg/L
							Vanadium	100 mg/L
.ICV MIX-1B_00003	07/31/24		IV, Lot u2-meb734068		(Purchased Reagent)		Antimony	100 mg/L
							Mo	100 mg/L
							Sn	100 mg/L
.MS ICSA STOCK_00053	11/21/24		IV, Lot u2-meb735840		(Purchased Reagent)		Aluminum	1000 mg/L
							Calcium	1000 mg/L
							Iron	1000 mg/L
							Magnesium	1000 mg/L
							Mo	20 mg/L
							Potassium	1000 mg/L
							Sodium	1000 mg/L
.MS ICVMIX--3_00006	04/24/25		CPI, Lot 1294928		(Purchased Reagent)		U	100 mg/L
.MS ICVMIX--5_00004	01/24/25		IV, Lot u2-meb734067		(Purchased Reagent)		Calcium	5000 mg/L
							Magnesium	5000 mg/L
							Potassium	5000 mg/L
							Silver	100 mg/L
							Sodium	5000 mg/L
							Sr	100 mg/L
							Th	100 mg/L
							Zinc	100 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MS ICVMIX-2_00007	11/02/24		CPI, Lot 1294936-1		(Purchased Reagent)		Aluminum	2000 mg/L
							Calcium	2000 mg/L
							Iron	2000 mg/L
							Magnesium	2000 mg/L
							Potassium	2000 mg/L
							Sodium	2000 mg/L
ms 77 icv_03236	05/10/24	05/09/24	5%HNO3/5% HCl, Lot 234171/231497	250 mL	ICV MIX-1a_00003	0.1 mL	Arsenic	40 ug/L
							Barium	40 ug/L
							Beryllium	40 ug/L
							Cadmium	40 ug/L
							Chromium	40 ug/L
							Cobalt	40 ug/L
							Copper	40 ug/L
							Lead	40 ug/L
							Manganese	40 ug/L
							Nickel	40 ug/L
							Selenium	40 ug/L
							Thallium	40 ug/L
							Vanadium	40 ug/L
					ICV MIX-1B_00003	0.1 mL	Antimony	40 ug/L
					MS ICVMIX--5_00004	0.2 mL	Silver	80 ug/L
							Zinc	80 ug/L
.ICV MIX-1a_00003	07/31/24		IV, Lot u2-meb734729		(Purchased Reagent)		Arsenic	100 mg/L
							Barium	100 mg/L
							Beryllium	100 mg/L
							Cadmium	100 mg/L
							Chromium	100 mg/L
							Cobalt	100 mg/L
							Copper	100 mg/L
							Lead	100 mg/L
							Manganese	100 mg/L
							Nickel	100 mg/L
							Selenium	100 mg/L
							Thallium	100 mg/L
							Vanadium	100 mg/L
.ICV MIX-1B_00003	07/31/24		IV, Lot u2-meb734068		(Purchased Reagent)		Antimony	100 mg/L
.MS ICVMIX--5_00004	01/24/25		IV, Lot u2-meb734067		(Purchased Reagent)		Silver	100 mg/L
							Zinc	100 mg/L
MS 77 LLCCV_03065	05/10/24	05/09/24	5%HNO3/5% HCl, Lot 234171/231497	100 mL	MS LLCCV_00010	1 mL	Antimony	0.002 mg/L
							Arsenic	0.005 mg/L
							Barium	0.001 mg/L
							Beryllium	0.001 mg/L
							Cadmium	0.001 mg/L
							Chromium	0.002 mg/L
							Cobalt	0.001 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Copper	0.002 mg/L
							Lead	0.001 mg/L
							Manganese	0.001 mg/L
							Nickel	0.002 mg/L
							Selenium	0.005 mg/L
							Silver	0.001 mg/L
							Thallium	0.001 mg/L
							Vanadium	0.005 mg/L
							Zinc	0.01 mg/L
.MS LLCCV_00010	11/19/24		IV, Lot t2-meb722097		(Purchased Reagent)		Antimony	0.2 mg/L
							Arsenic	0.5 mg/L
							Barium	0.1 mg/L
							Beryllium	0.1 mg/L
							Cadmium	0.1 mg/L
							Chromium	0.2 mg/L
							Cobalt	0.1 mg/L
							Copper	0.2 mg/L
							Lead	0.1 mg/L
							Manganese	0.1 mg/L
							Nickel	0.2 mg/L
							Selenium	0.5 mg/L
							Silver	0.1 mg/L
							Thallium	0.1 mg/L
							Vanadium	0.5 mg/L
							Zinc	1 mg/L
ms pds1 cpi_00018	09/28/24	03/28/24	1% HNO3, Lot 215109	50 mL	1000 Ag_00019	0.25 mL	Silver	5 mg/L
					CALSTD-1_00005	10 mL	Antimony	20 mg/L
							Arsenic	20 mg/L
							Barium	20 mg/L
							Beryllium	20 mg/L
							Cadmium	20 mg/L
							Chromium	20 mg/L
							Cobalt	20 mg/L
							Copper	20 mg/L
							Lead	20 mg/L
							Manganese	20 mg/L
							Nickel	20 mg/L
							Selenium	20 mg/L
							Thallium	20 mg/L
							Vanadium	20 mg/L
.1000 Ag_00019	01/31/25		CPI, Lot 1436101		(Purchased Reagent)		Silver	1000 mg/L
.CALSTD-1_00005	03/28/25		CPI, Lot 1437070		(Purchased Reagent)		Antimony	100 mg/L
							Arsenic	100 mg/L
							Barium	100 mg/L
							Beryllium	100 mg/L
							Cadmium	100 mg/L
							Chromium	100 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Cobalt	100 mg/L
							Copper	100 mg/L
							Lead	100 mg/L
							Manganese	100 mg/L
							Nickel	100 mg/L
							Selenium	100 mg/L
							Thallium	100 mg/L
							Vanadium	100 mg/L
ms pds2 cpi_00017	07/09/24	01/22/24	1% HNO3, Lot 225038	100 mL	1000 Zn_00031	2 mL	Zinc	20 mg/L
.1000 Zn_00031	03/05/26		CPI, Lot 1390097		(Purchased Reagent)		Zinc	1000 mg/L
ms spike 1_00022	07/31/24	02/26/24	1% HNO3, Lot 231496	1000 mL	10000 Ca_00027	10 mL	Calcium	500000 ug/L
					10000 K_00018	10 mL	Potassium	500000 ug/L
					10000 Mg_00025	10 mL	Magnesium	500000 ug/L
					10000 Na_00095	10 mL	Sodium	500000 ug/L
					CALSTD-1_00004	50 mL	Antimony	20000 ug/L
							Arsenic	20000 ug/L
							Barium	20000 ug/L
							Beryllium	20000 ug/L
							Cadmium	20000 ug/L
							Chromium	20000 ug/L
							Cobalt	20000 ug/L
							Copper	20000 ug/L
							Lead	20000 ug/L
							Li	20000 ug/L
							Manganese	20000 ug/L
							Mo	20000 ug/L
							Nickel	20000 ug/L
							Selenium	20000 ug/L
							Si	200000 ug/L
							SiO2	428000 ug/L
							Sn	20000 ug/L
							Sr	20000 ug/L
							Thallium	20000 ug/L
							Vanadium	20000 ug/L
					ICV MIX-1a_00003	150 mL	Arsenic	20000 ug/L
							Barium	20000 ug/L
							Beryllium	20000 ug/L
							Cadmium	20000 ug/L
							Chromium	20000 ug/L
							Cobalt	20000 ug/L
							Copper	20000 ug/L
							Lead	20000 ug/L
							Li	20000 ug/L
							Manganese	20000 ug/L
							Nickel	20000 ug/L
							Selenium	20000 ug/L
							Sr	20000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Thallium	20000 ug/L
							Vanadium	20000 ug/L
					ICV MIX-1B_00003	150 mL	Antimony	20000 ug/L
							Mo	20000 ug/L
							Si	200000 ug/L
							SiO2	428000 ug/L
							Sn	20000 ug/L
							Ti	15000 ug/L
					MS CALSTD-2_00105	200 mL	Aluminum	400000 ug/L
							Calcium	500000 ug/L
							Iron	400000 ug/L
							Magnesium	500000 ug/L
							Potassium	500000 ug/L
							Sodium	500000 ug/L
.10000 Ca_00027	08/28/24		CPI, Lot 1268108-19		(Purchased Reagent)		Calcium	10000 mg/L
.10000 K_00018	08/28/24		CPI, Lot 1137797-60		(Purchased Reagent)		Potassium	10000 mg/L
.10000 Mg_00025	08/28/24		CPI, Lot 1303817-6		(Purchased Reagent)		Magnesium	10000 mg/L
.10000 Na_00095	02/21/25		CPI, Lot 1399373		(Purchased Reagent)		Sodium	10000 mg/L
.CALSTD-1_00004	11/02/24		CPI, Lot 1321095		(Purchased Reagent)		Antimony	100 mg/L
							Arsenic	100 mg/L
							Barium	100 mg/L
							Beryllium	100 mg/L
							Cadmium	100 mg/L
							Chromium	100 mg/L
							Cobalt	100 mg/L
							Copper	100 mg/L
							Lead	100 mg/L
							Li	100 mg/L
							Manganese	100 mg/L
							Mo	100 mg/L
							Nickel	100 mg/L
							Selenium	100 mg/L
							Si	1000 mg/L
							SiO2	2140 mg/L
							Sn	100 mg/L
							Sr	100 mg/L
							Thallium	100 mg/L
							Vanadium	100 mg/L
.ICV MIX-1a_00003	07/31/24		IV, Lot u2-meb734729		(Purchased Reagent)		Arsenic	100 mg/L
							Barium	100 mg/L
							Beryllium	100 mg/L
							Cadmium	100 mg/L
							Chromium	100 mg/L
							Cobalt	100 mg/L
							Copper	100 mg/L
							Lead	100 mg/L
							Li	100 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Manganese	100 mg/L
							Nickel	100 mg/L
							Selenium	100 mg/L
							Sr	100 mg/L
							Thallium	100 mg/L
							Vanadium	100 mg/L
.ICV MIX-1B_00003	07/31/24		IV, Lot u2-meb734068		(Purchased Reagent)		Antimony	100 mg/L
							Mo	100 mg/L
							Si	1000 mg/L
							SiO2	2140 mg/L
							Sn	100 mg/L
							Ti	100 mg/L
.MS CALSTD-2_00105	01/26/25		CPI, Lot 1375876		(Purchased Reagent)		Aluminum	2000 mg/L
							Calcium	2000 mg/L
							Iron	2000 mg/L
							Magnesium	2000 mg/L
							Potassium	2000 mg/L
							Sodium	2000 mg/L
MS spike 2_00111	07/13/24	02/23/24	1% HNO3, Lot 231496	500 mL	1000 Ag_00019	10 mL	Silver	20 mg/L
					1000 Sr_00017	10 mL	Sr	20 mg/L
					1000 U_00048	10 mL	U	20 mg/L
					1000 Zn_00031	10 mL	Zinc	20 mg/L
					10000 Th_00030	1 mL	Th	20 mg/L
.1000 Ag_00019	01/31/25		CPI, Lot 1436101		(Purchased Reagent)		Silver	1000 mg/L
.1000 Sr_00017	07/13/24		CPI, Lot 1194650-27		(Purchased Reagent)		Sr	1000 mg/L
.1000 U_00048	02/23/25		CPI, Lot 1421328		(Purchased Reagent)		U	1000 mg/L
.1000 Zn_00031	03/05/26		CPI, Lot 1390097		(Purchased Reagent)		Zinc	1000 mg/L
.10000 Th_00030	04/03/26		CPI, Lot 1396827		(Purchased Reagent)		Th	10000 mg/L
MS-DFTPP_00073	07/31/25	07/07/23	Methylene Chloride, Lot 247667	50 mL	MS-31615_00010	1 mL	4,4'-DDD	0.05 ug/mL
							4,4'-DDE	0.05 ug/mL
							4,4'-DDT	50 ug/mL
							Benzidine_T	50 ug/mL
							DFTPP	50 ug/mL
							Pentachlorophenol_T	50 ug/mL
					MS-31615_00017	1 mL	4,4'-DDD	0.05 ug/mL
							4,4'-DDE	0.05 ug/mL
							4,4'-DDT	50 ug/mL
							Benzidine_T	50 ug/mL
							DFTPP	50 ug/mL
							Pentachlorophenol_T	50 ug/mL
					MS-31615_00018	0.5 mL	4,4'-DDD	0.05 ug/mL
							4,4'-DDE	0.05 ug/mL
							4,4'-DDT	50 ug/mL
							Benzidine_T	50 ug/mL
							DFTPP	50 ug/mL
							Pentachlorophenol_T	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MS-31615_00010	07/31/25		Restek, Lot A0187536		(Purchased Reagent)		4,4'-DDD	1 ug/mL
							4,4'-DDE	1 ug/mL
							4,4'-DDT	1000 ug/mL
							Benzidine_T	1000 ug/mL
							DFTPP	1000 ug/mL
							Pentachlorophenol_T	1000 ug/mL
.MS-31615_00017	09/30/25		Restek, Lot A0189454		(Purchased Reagent)		4,4'-DDD	1 ug/mL
							4,4'-DDE	1 ug/mL
							4,4'-DDT	1000 ug/mL
							Benzidine_T	1000 ug/mL
							DFTPP	1000 ug/mL
							Pentachlorophenol_T	1000 ug/mL
.MS-31615_00018	09/30/25		Restek, Lot A0189454		(Purchased Reagent)		4,4'-DDD	1 ug/mL
							4,4'-DDE	1 ug/mL
							4,4'-DDT	1000 ug/mL
							Benzidine_T	1000 ug/mL
							DFTPP	1000 ug/mL
							Pentachlorophenol_T	1000 ug/mL
MS-DFTPP_RVE_00003							1,4-Dichlorobenzene-d4	
							Acenaphthene-d10	
							Aramite, Total	
							Chrysene-d12	
							Diallate	
							Isosafrole	
							Methyl Phenols,Total	
							Naphthalene-d8	
							Perylene-d12	
							Phenanthrene-d10	
							Tentatively Identified Compound	
							Total Cresols	
							TPAH	
					MS-DFTPP_00073	5 mL	4,4'-DDD	0.025 ug/mL
							4,4'-DDE	0.025 ug/mL
							4,4'-DDT	25 ug/mL
							Benzidine_T	25 ug/mL
							DFTPP	25 ug/mL
							Pentachlorophenol_T	25 ug/mL
.MS-DFTPP_00073	07/31/25	07/07/23	Methylene Chloride, Lot 247667	50 mL	MS-31615_00010	1 mL	4,4'-DDD	0.05 ug/mL
							4,4'-DDE	0.05 ug/mL
							4,4'-DDT	50 ug/mL
							Benzidine_T	50 ug/mL
							DFTPP	50 ug/mL
							Pentachlorophenol_T	50 ug/mL
					MS-31615_00017	1 mL	4,4'-DDD	0.05 ug/mL
							4,4'-DDE	0.05 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,4'-DDT	50 ug/mL
							Benzidine_T	50 ug/mL
							DFTPP	50 ug/mL
							Pentachlorophenol_T	50 ug/mL
					MS-31615_00018	0.5 mL	4,4'-DDD	0.05 ug/mL
							4,4'-DDE	0.05 ug/mL
							4,4'-DDT	50 ug/mL
							Benzidine_T	50 ug/mL
							DFTPP	50 ug/mL
							Pentachlorophenol_T	50 ug/mL
..MS-31615_00010	07/31/25		Restek, Lot A0187536		(Purchased Reagent)		4,4'-DDD	1 ug/mL
							4,4'-DDE	1 ug/mL
							4,4'-DDT	1000 ug/mL
							Benzidine_T	1000 ug/mL
							DFTPP	1000 ug/mL
							Pentachlorophenol_T	1000 ug/mL
..MS-31615_00017	09/30/25		Restek, Lot A0189454		(Purchased Reagent)		4,4'-DDD	1 ug/mL
							4,4'-DDE	1 ug/mL
							4,4'-DDT	1000 ug/mL
							Benzidine_T	1000 ug/mL
							DFTPP	1000 ug/mL
							Pentachlorophenol_T	1000 ug/mL
..MS-31615_00018	09/30/25		Restek, Lot A0189454		(Purchased Reagent)		4,4'-DDD	1 ug/mL
							4,4'-DDE	1 ug/mL
							4,4'-DDT	1000 ug/mL
							Benzidine_T	1000 ug/mL
							DFTPP	1000 ug/mL
							Pentachlorophenol_T	1000 ug/mL
MS-HSL-ICV1_00010	04/29/24	02/29/24	Methylene Chloride, Lot 00599	5 mL	MS-571995.SEC_00023	1 mL	2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenol	200 ug/mL
.MS-571995.SEC_00023	07/31/24		Restek, Lot A0194078		(Purchased Reagent)		2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenol	1000 ug/mL
MS-IS-RVE_00005	08/14/24	10/26/23	Methylene Chloride, Lot MeCl2_Cycl_00602	50 mL	MS-IS_00037	10 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
.MS-IS_00037	10/09/24	10/09/23	Methylene Chloride, Lot MeCl2_Cycl_00563	50 mL	MS-567684_00045	10 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00045	01/31/28		Restek, Lot A0193798		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenanthrene-d10	2000 ug/mL
MS-RVHSL-WS_00006	01/31/25	03/25/24	Methylene Chloride, Lot 00614	10 mL	MS-HSL-WS_00011	2.5 mL	1,1'-Biphenyl	50 ug/mL
							1,2,4,5-Tetrachlorobenzene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Diphenylhydrazine	50.5487 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dinitrobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1-Methylnaphthalene	50 ug/mL
							2,2'-oxybis[1-chloropropane]	50 ug/mL
							2,3,4,6-Tetrachlorophenol	50 ug/mL
							2,4,5-Trichlorophenol	50 ug/mL
							2,4,6-Trichlorophenol	50 ug/mL
							2,4-Dichlorophenol	50 ug/mL
							2,4-Dimethylphenol	50 ug/mL
							2,4-Dinitrophenol	100 ug/mL
							2,4-Dinitrotoluene	50 ug/mL
							2,6-Dichlorophenol	50 ug/mL
							2,6-Dinitrotoluene	50 ug/mL
							2-Chloronaphthalene	50 ug/mL
							2-Chlorophenol	50 ug/mL
							2-Methylnaphthalene	50 ug/mL
							2-Methylphenol	50 ug/mL
							2-Nitroaniline	50 ug/mL
							2-Nitrophenol	50 ug/mL
							3 & 4 Methylphenol	50 ug/mL
							3-Nitroaniline	50 ug/mL
							4,6-Dinitro-2-methylphenol	100 ug/mL
							4-Bromophenyl phenyl ether	50 ug/mL
							4-Chloro-3-methylphenol	50 ug/mL
							4-Chloroaniline	50 ug/mL
							4-Chlorophenyl phenyl ether	50 ug/mL
							4-Nitroaniline	50 ug/mL
							4-Nitrophenol	100 ug/mL
							Acenaphthene	50 ug/mL
							Acenaphthylene	50 ug/mL
							Acetophenone	50 ug/mL
							Aniline	50 ug/mL
							Anthracene	50 ug/mL
							Azobenzene	50 ug/mL
							Benzo[a]anthracene	50 ug/mL
							Benzo[a]pyrene	50 ug/mL
							Benzo[b]fluoranthene	50 ug/mL
							Benzo[g,h,i]perylene	50 ug/mL
							Benzo[k]fluoranthene	50 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzyl alcohol	50 ug/mL
							Bis(2-chloroethoxy)methane	50 ug/mL
							Bis(2-chloroethyl)ether	50 ug/mL
							Bis(2-ethylhexyl) phthalate	50 ug/mL
							Butyl benzyl phthalate	50 ug/mL
							Carbazole	50 ug/mL
							Chrysene	50 ug/mL
							Di-n-butyl phthalate	50 ug/mL
							Di-n-octyl phthalate	50 ug/mL
							Dibenz(a,h)anthracene	50 ug/mL
							Dibenzofuran	50 ug/mL
							Diethyl phthalate	50 ug/mL
							Dimethyl phthalate	50 ug/mL
							Diphenylamine	42.5 ug/mL
							Fluoranthene	50 ug/mL
							Fluorene	50 ug/mL
							Hexachlorobenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexachlorocyclopentadiene	50 ug/mL
							Hexachloroethane	50 ug/mL
							Indeno[1,2,3-cd]pyrene	50 ug/mL
							Isophorone	50 ug/mL
							N-Nitrosodi-n-propylamine	50 ug/mL
							N-Nitrosodimethylamine	50 ug/mL
							N-Nitrosodiphenylamine	50 ug/mL
							Naphthalene	50 ug/mL
							Nitrobenzene	50 ug/mL
							Pentachlorophenol	100 ug/mL
							Phenanthrene	50 ug/mL
							Phenol	50 ug/mL
							Pyrene	50 ug/mL
							Pyridine	100 ug/mL
							2,4,6-Tribromophenol (Surr)	50 ug/mL
							2-Fluorobiphenyl	50 ug/mL
							2-Fluorophenol (Surr)	50 ug/mL
							Nitrobenzene-d5 (Surr)	50 ug/mL
							Phenol-d5 (Surr)	50 ug/mL
							Terphenyl-d14 (Surr)	50 ug/mL
							Alachlor	50 ug/mL
							Benzoic acid	100 ug/mL
.MS-HSL-WS_00011	01/31/25	03/21/24	Methylene Chloride, Lot 00614	10 mL	571995_00195	2 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dichlorobenzene	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Diphenylamine	170 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	400 ug/mL
					8270SurStkHL_00449	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-581076_00002	0.5 mL	Alachlor	200 ug/mL
					OP-569731_00098	2 mL	Benzoic acid	400 ug/mL
..571995_00195	06/30/25		Restek, Lot A0205288		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Diphenylamine	850 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	2000 ug/mL
..8270SurStkHL_00449	06/30/28		Restek, Lot A0198748		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-581076_00002	06/30/25		Restek, Lot A0205766		(Purchased Reagent)		Alachlor	4000 ug/mL
..OP-569731_00098	01/31/25		Restek, Lot A0199925		(Purchased Reagent)		Benzoic acid	2000 ug/mL
MS-SIM IS_00059	10/09/24	12/14/23	Methylene Chloride, Lot 157164	100 mL	MS-IS_00037	1000 uL	Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
.MS-IS_00037	10/09/24	10/09/23	Methylene Chloride, Lot MeCl2_Cycl_00563	50 mL	MS-567684_00045	10 mL	Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00045	01/31/28		Restek, Lot A0193798		(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-SIM-CAL WS_00006	09/30/24	03/20/24	Methylene Chloride, Lot MeCl2_Cyclo_538	10 mL	MS-SIM-WS_00005	1 mL	1-Methylnaphthalene	5 ug/mL
							2-Methylnaphthalene	5 ug/mL
							Acenaphthene	5 ug/mL
							Acenaphthylene	5 ug/mL
							Anthracene	5 ug/mL
							Benzo[a]anthracene	5 ug/mL
							Benzo[a]pyrene	5 ug/mL
							Benzo[b]fluoranthene	5 ug/mL
							Benzo[g,h,i]perylene	5 ug/mL
							Benzo[k]fluoranthene	5 ug/mL
							Chrysene	5 ug/mL
							Dibenz(a,h)anthracene	5 ug/mL
							Fluoranthene	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluorene	5 ug/mL
							Indeno[1,2,3-cd]pyrene	5 ug/mL
							Naphthalene	5 ug/mL
							Phenanthrene	5 ug/mL
							Pyrene	5 ug/mL
							2-Fluorobiphenyl	4.9985 ug/mL
							2-methylnaphthalene-d10	4.939 ug/mL
							Fluoranthene-d10	4.9995 ug/mL
							Nitrobenzene-d5 (Surr)	5.005 ug/mL
							Terphenyl-d14 (Surr)	5 ug/mL
.MS-SIM-WS_00005	09/30/24	03/20/24	Methylene Chloride, Lot MeCl2_Cycl_538	10 mL	571995_00168	0.5 mL	1-Methylnaphthalene	50 ug/mL
							2-Methylnaphthalene	50 ug/mL
							Acenaphthene	50 ug/mL
							Acenaphthylene	50 ug/mL
							Anthracene	50 ug/mL
							Benzo[a]anthracene	50 ug/mL
							Benzo[a]pyrene	50 ug/mL
							Benzo[b]fluoranthene	50 ug/mL
							Benzo[g,h,i]perylene	50 ug/mL
							Benzo[k]fluoranthene	50 ug/mL
							Chrysene	50 ug/mL
							Dibenz(a,h)anthracene	50 ug/mL
							Fluoranthene	50 ug/mL
							Fluorene	50 ug/mL
							Indeno[1,2,3-cd]pyrene	50 ug/mL
							Naphthalene	50 ug/mL
							Phenanthrene	50 ug/mL
							Pyrene	50 ug/mL
					8270SIMSurStk_00050	0.5 mL	2-Fluorobiphenyl	49.985 ug/mL
							2-methylnaphthalene-d10	49.39 ug/mL
							Fluoranthene-d10	49.995 ug/mL
							Nitrobenzene-d5 (Surr)	50.05 ug/mL
							Terphenyl-d14 (Surr)	50 ug/mL
..571995_00168	09/30/24		Restek, Lot A0195772		(Purchased Reagent)		1-Methylnaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..8270SIMSurStk_00050	05/03/25		o2si, Lot 501810		(Purchased Reagent)		2-Fluorobiphenyl	999.7 mg/L
							2-methylnaphthalene-d10	987.8 mg/L
							Fluoranthene-d10	999.9 mg/L
							Nitrobenzene-d5 (Surr)	1001 mg/L
							Terphenyl-d14 (Surr)	1000 mg/L
MS-SIM-ICV1_00004	07/20/24	05/06/24	Methylene Chloride, Lot MeCl2_Cycl_00538	10 mL	8270SIMSurStk_00046	5 uL	2-Fluorobiphenyl	0.5 ug/mL
							2-methylnaphthalene-d10	0.5 ug/mL
							Fluoranthene-d10	0.5 ug/mL
							Nitrobenzene-d5 (Surr)	0.5 ug/mL
							Terphenyl-d14 (Surr)	0.5 ug/mL
					MS-571995.SEC_00022	5 uL	2-Methylnaphthalene	0.5 ug/mL
							Acenaphthene	0.5 ug/mL
							Acenaphthylene	0.5 ug/mL
							Anthracene	0.5 ug/mL
							Benzo[a]anthracene	0.5 ug/mL
							Benzo[a]pyrene	0.5 ug/mL
							Benzo[b]fluoranthene	0.5 ug/mL
							Benzo[g,h,i]perylene	0.5 ug/mL
							Benzo[k]fluoranthene	0.5 ug/mL
							Chrysene	0.5 ug/mL
							Dibenz(a,h)anthracene	0.5 ug/mL
							Fluoranthene	0.5 ug/mL
							Fluorene	0.5 ug/mL
							Indeno[1,2,3-cd]pyrene	0.5 ug/mL
							Naphthalene	0.5 ug/mL
							Phenanthrene	0.5 ug/mL
							Pyrene	0.5 ug/mL
.8270SIMSurStk_00046	05/03/25		o2si, Lot 501810		(Purchased Reagent)		2-Fluorobiphenyl	1000 mg/L
							2-methylnaphthalene-d10	1000 mg/L
							Fluoranthene-d10	1000 mg/L
							Nitrobenzene-d5 (Surr)	1000 mg/L
							Terphenyl-d14 (Surr)	1000 mg/L
.MS-571995.SEC_00022	07/20/24		Restek, Lot a0194078		(Purchased Reagent)		2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
mv-Cent BFB_00007							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Trihalomethanes, Total	
							Xylenes, Total	
					mv-IS/SS Tune_00001	10 mL	BFB	50 ug/mL
.mv-IS/SS Tune_00001	11/30/23		Restek, Lot A0143593		(Purchased Reagent)		BFB	250 ug/mL
MV-Gas A_00187	06/10/24	05/09/24	P&T Methanol, Lot 198123	12.5 mL	MV-569722_00023	1250 uL	Bromomethane	250 ug/mL
							Chloroethane	250 ug/mL
							Chloromethane	250 ug/mL
							Dichlorodifluoromethane	250 ug/mL
							Dichlorofluoromethane	250 ug/mL
							Trichlorofluoromethane	250 ug/mL
							Vinyl chloride	250 ug/mL
					MV-569723_00018	1250 uL	2-Chloroethyl vinyl ether	250 ug/mL
.MV-569722_00023	05/31/26		RESTEK, Lot A0198219		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.MV-569723_00018	01/31/26		RESTEK, Lot A0193735		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
MV-Gas B_00162	05/29/24	04/29/24	P&T Methanol, Lot EG636-US	12.5 mL	MV-569722.sec_00017	1250 uL	Bromomethane	250 ug/mL
							Chloroethane	250 ug/mL
							Chloromethane	250 ug/mL
							Vinyl chloride	250 ug/mL
.MV-569722.sec_00017	05/31/26		RESTEK, Lot A0197640		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
mv-IS_SS_00079	03/01/25	04/17/24	P&T Methanol, Lot EG636-US	50 mL	mv-30241_00014	1000 uL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5	50 ug/mL
							Fluorobenzene	50 ug/mL
					MV-567650_00030	1000 uL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.mv-30241_00014	05/31/28		Restek, Lot A0198297		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
.MV-567650_00030	05/31/26		Restek, Lot A0172587		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
MV-MegaMain B_00104	06/13/24	05/13/24	P&T Methanol, Lot EG-636-US	25 mL	MV-569721.sec_00011	800 uL	2-Butanone (MEK)	400 ug/mL
							2-Hexanone	400 ug/mL
							4-Methyl-2-pentanone (MIBK)	400 ug/mL
							Acetone	400 ug/mL
					MV-571992.sec_00010	1000 uL	1,1,1-Trichloroethane	100 ug/mL
							1,1,2,2-Tetrachloroethane	100 ug/mL
							1,1,2-Trichloroethane	100 ug/mL
							1,1-Dichloroethane	100 ug/mL
							1,1-Dichloroethene	100 ug/mL
							1,2-Dibromoethane	100 ug/mL
							1,2-Dichloroethane	100 ug/mL
							1,2-Dichloroethene, Total	200 ug/mL
							1,2-Dichloropropane	100 ug/mL
							Benzene	100 ug/mL
							Bromobenzene	100 ug/mL
							Bromochloromethane	100 ug/mL
							Bromodichloromethane	100 ug/mL
							Bromoform	100 ug/mL
							Carbon disulfide	100 ug/mL
							Carbon tetrachloride	100 ug/mL
							Chlorobenzene	100 ug/mL
							Chloroform	100 ug/mL
							cis-1,3-Dichloropropene	100 ug/mL
							Dibromochloromethane	100 ug/mL
							Ethylbenzene	100 ug/mL
							Methylene Chloride	100 ug/mL
							Styrene	100 ug/mL
							Tetrachloroethene	100 ug/mL
							Toluene	100 ug/mL
							trans-1,3-Dichloropropene	100 ug/mL
							Trichloroethene	100 ug/mL
							Xylenes, Total	200 ug/mL
.MV-569721.sec_00011	02/28/26		RESTEK, Lot A0194631		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MV-571992.sec_00010	08/31/25		RESTEK, Lot A0195252		(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloroethene, Total	5000 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
MV-MegaMainA_00108	06/10/24	05/08/24	P&T Methanol, Lot EG636-US	25 mL	MV-568720_00048	1250 uL	Acrolein	987.5 ug/mL
					MV-569721_00015	800 uL	2-Butanone (MEK)	400 ug/mL
							2-Hexanone	400 ug/mL
							4-Methyl-2-pentanone (MIBK)	400 ug/mL
							Acetone	400 ug/mL
					MV-569724_00037	1000 uL	Vinyl acetate	200 ug/mL
					MV-569727_00024	3000 uL	Cyclohexanone	3000 ug/mL
					MV-571992_00015	1000 uL	1,1,1,2-Tetrachloroethane	100 ug/mL
							1,1,1-Trichloroethane	100 ug/mL
							1,1,2,2-Tetrachloroethane	100 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	100 ug/mL
							1,1,2-Trichloroethane	100 ug/mL
							1,1-Dichloroethane	100 ug/mL
							1,1-Dichloroethene	100 ug/mL
							1,1-Dichloropropene	100 ug/mL
							1,2,3-Trichlorobenzene	100 ug/mL
							1,2,3-Trichloropropane	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2,4-Trimethylbenzene	100 ug/mL
							1,2-Dibromo-3-Chloropropane	100 ug/mL
							1,2-Dibromoethane	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Dichloroethane	100 ug/mL
							1,2-Dichloropropane	100 ug/mL
							1,3,5-Trimethylbenzene	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dichloropropane	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	2000 ug/mL
							2,2-Dichloropropane	100 ug/mL
							2-Chlorotoluene	100 ug/mL
							2-Methyl-2-propanol	1000 ug/mL
							3-Chloro-1-propene	100 ug/mL
							4-Chlorotoluene	100 ug/mL
							4-Isopropyltoluene	100 ug/mL
							Acrylonitrile	1000 ug/mL
							Benzene	100 ug/mL
							Bromobenzene	100 ug/mL
							Bromochloromethane	100 ug/mL
							Bromodichloromethane	100 ug/mL
							Bromoform	100 ug/mL
							Carbon disulfide	100 ug/mL
							Carbon tetrachloride	100 ug/mL
							Chlorobenzene	100 ug/mL
							Chloroform	100 ug/mL
							cis-1,2-Dichloroethene	100 ug/mL
							cis-1,3-Dichloropropene	100 ug/mL
							Cyclohexane	100 ug/mL
							Dibromochloromethane	100 ug/mL
							Dibromomethane	100 ug/mL
							Ethyl ether	100 ug/mL
							Ethyl methacrylate	100 ug/mL
							Ethylbenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexane	100 ug/mL
							Iodomethane	100 ug/mL
							Isobutyl alcohol	2500 ug/mL
							Isopropylbenzene	100 ug/mL
							m-Xylene & p-Xylene	100 ug/mL
							Methyl acetate	200 ug/mL
							Methyl tert-butyl ether	100 ug/mL
							Methylcyclohexane	100 ug/mL
							Methylene Chloride	100 ug/mL
							n-Butylbenzene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Heptane	100 ug/mL
							N-Propylbenzene	100 ug/mL
							Naphthalene	100 ug/mL
							o-Xylene	100 ug/mL
							sec-Butylbenzene	100 ug/mL
							Styrene	100 ug/mL
							tert-Butylbenzene	100 ug/mL
							Tetrachloroethene	100 ug/mL
							Tetrahydrofuran	200 ug/mL
							Toluene	100 ug/mL
							trans-1,2-Dichloroethene	100 ug/mL
							trans-1,3-Dichloropropene	100 ug/mL
							trans-1,4-Dichloro-2-butene	100 ug/mL
							Trichloroethene	100 ug/mL
					MV-CUS17739.s_00012	2000 uL	1-Chlorohexane	80 ug/mL
							2-Pentanone	320 ug/mL
							sec-Butyl Alcohol	2400 ug/mL
.MV-568720_00048	04/30/25		RESTEK, Lot A0203711		(Purchased Reagent)		Acrolein	19750 ug/mL
.MV-569721_00015	01/31/26		RESTEK, Lot A0193494		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
.MV-569724_00037	01/31/25		RESTEK, Lot A0200199		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
.MV-569727_00024	04/30/26		RESTEK, Lot A0197009		(Purchased Reagent)		Cyclohexanone	25000 ug/mL
.MV-571992_00015	09/30/24		RESTEK, Lot A0183568		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichloroethene	2500 ug/mL
.MV-CUS17739.s_00012	11/30/25	Agilent, Lot 0006765276.s			(Purchased Reagent)		1-Chlorohexane	1000 ug/mL
							2-Pentanone	4000 ug/mL
							sec-Butyl Alcohol	30000 ug/mL
MV-MegaMainA_00108	06/10/24	05/08/24	P&T Methanol, Lot EG636-US	25 mL	MV-571992_00015	1000 uL	1,2-Dichloroethene, Total	200 ug/mL
							Xylenes, Total	200 ug/mL
.MV-571992_00015	09/30/24	RESTEK, Lot A0183568			(Purchased Reagent)		1,2-Dichloroethene, Total	5000 ug/mL
							Xylenes, Total	5000 ug/mL
Prep spike1IV_00018	04/30/25	Inorganic Ventures, Lot U2-MEB734690			(Purchased Reagent)		Antimony	100 ug/mL
							Mo	100 ug/mL
							Si	1000 ug/mL
							SiO2	2140 ug/mL
							Sn	100 ug/mL
							Ti	100 ug/mL
							Zr	100 ug/mL
Prep spike2IV_00017	04/30/25	Inorganic Ventures, Lot U2-MEB734691			(Purchased Reagent)		Aluminum	1000 ug/mL
							Arsenic	100 ug/mL
							B	200 ug/mL
							Barium	100 ug/mL
							Beryllium	100 ug/mL
							Cadmium	100 ug/mL
							Calcium	5000 ug/mL
							Chromium	100 ug/mL
							Cobalt	100 ug/mL
							Copper	100 ug/mL
							Iron	1000 ug/mL
							Lead	100 ug/mL
							Li	100 ug/mL
							Magnesium	5000 ug/mL
							Manganese	100 ug/mL
							Nickel	100 ug/mL
							P	2000 ug/mL
							Potassium	5000 ug/mL
							Selenium	100 ug/mL
							Silver	5 ug/mL
							Sodium	5000 ug/mL
							Sr	100 ug/mL
							Sulfur	2000 ug/mL
							Thallium	100 ug/mL
							Vanadium	100 ug/mL
							Zinc	100 ug/mL

Reagent

1000 Ag_00019

logged in 01-31-24
logged in tracker
8163577
CoA Attached

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Silver (Ag) – 1000 µg/mL

Matrix: 5% HNO_3

8163577
ID: 1000 Ag_00019
Exp:03/08/26 Prpd:ADL Opn:01/31/24
1000 Ag CPI

Product #: TA-1000511

Product Lot #: 1436101

Source Material Lot #: X24E070

*Expiration Date: 8 March 2026

Element	Certified Concentration & Uncertainty
Ag	994.0 ± 3.0 µg/mL (w/v)
	988.0 ± 3.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure silver (Ag) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3151, lot #160729**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	MAJOR	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	<2	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	<2	Cr	<0.5	Hg	<0.5	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5
Bi	0.8	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	34	Fe	<10	La	<0.5	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	<2
Ce	<0.2	Gd	<0.2										

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

24 March 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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Europe
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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

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Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

Reagent

1000 Li_00044

7552143
ID: 1000 Li_00044
Exp:06/23/24 Prpd:LMT Opn:01/16/23
1000 Li CPI reverified

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Lithium (Li) – 1000 µg/mL

Matrix: 5% HNO_3

Product #: TA-1000291

Product Lot #: 1186016-37

Source Material Lot #: 1136215/N12E019

Element	Certified Concentration & Uncertainty
Li	1006 ± 5 µg/mL (w/v)
	997.0 ± 5.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure lithium carbonate (Li_2CO_3) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3129a, lot #100714**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	<2	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	<2	Cr	<0.5	Hg	<0.5	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	<0.5	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	MAJOR	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	<2
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

December 23, 2022
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

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Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

Reagent

1000 Sr_00017

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: TA-1000531

SE Std Strontium (Sr) – 1000 µg/mL

Lot #: 1194650-27

Matrix: 5% HNO_3

Source Material Lot #: SRZ082018A1/SRE082017A2

Element	Certified Concentration & Uncertainty
Sr	997.0 ± 6.0 µg/mL (w/v)
	992.0 ± 6.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.9965% pure strontium nitrate [$Sr(NO_3)_2$] dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3153a, lot #990906**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	<2	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	<2	Cr	<0.5	Hg	<0.5	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	64	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	MAJOR	Y	1
Ca	277	Fe	<10	La	<0.5	Ni	<2	Rh	0.8	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	4
Ce	0.4	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau, Certifying Officer

January 13, 2023
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
  - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM
Ag	3151	-	Hf	3122	-	S	3154	2770
Al	3101a	-	Hg	3133	3133	Sb	3102a	3102a
As	3103a	3103a	Ho	3123a	-	Sc	3148a	3148a
Au	3121	-	In	3124a	3124a	Se	3149	3149
B	3107	3107	K	3141a	3141a	Si	3150	-
Ba	3104a	-	La	3127a	3127a	Sm	3147a	-
Be	3105a	3105a	Li	3129a	3129a	Sn	3161a	-
Bi	3106	3106	Lu	3130a	-	SO_4^{-2}	3181	-
Br	3184	-	Mg	3131a	3131a	Sr	3153a	3153a
Ca	3109a	3109a	Mn	3132	3132	Ta	3155	-
Cd	3108	-	Mo	3134	3134	Tb	3157a	-
Ce	3110	3110	Na	3152a	-	Te	3156	-
Cl	3182	1818a	Nb	3137	-	Th	-	-
Co	3113	3113	Nd	3135a	-	Ti	3162a	3162a
Cr	3112a	-	Ni	3136	-	Tl	3158	3158
Cs	3111a	-	NO_3^-	3185	-	Tm	3160a	-
Cu	3114	-	P	3139a	3139a	U	3164	-
Dy	3115a	-	Pb	3128	-	V	3165	-
Er	3116a	-	Pd	3138	-	W	3163	3163
Eu	3117a	-	PO_4^{-3}	3186	-	Y	3167a	3167a
F-	3183	-	Pr	3142a	-	Yb	3166a	-
Fe	3126a	-	Pt	3140	3140	Zn	3168a	3168a
Ga	3119a	-	Rb	3145a	-	Zr	3169	3169
Gd	3118a	-	Re	3143	-			
Ge	3120a	-	Rh	3144	3144			

Reagent

1000 u_00048

logged 12-14-23
logged tracker
8114274
COA attached

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Uranium (U) – 1000 µg/mL

Matrix: 5% HNO_3

8114274
ID: 1000 U_00048
Exp:05/21/25 Prpd: Opn:12/14/23
1000 U CPI

Product #: TA-1000641

Product Lot #: 1421328

Source Material Lot #: 12030222-100

*Expiration Date: 21 May 2025

Element	Certified Concentration & Uncertainty
U	995.0 ± 5.0 µg/mL (w/v)
	990.0 ± 5.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.99% pure uranyl nitrate hexahydrate [$UO_2(NO_3)_2{\cdot}6H_2O$] dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3164, lot #080521**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	<2	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	<2	Cr	4	Hg	<0.5	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	<0.5	Ni	3	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	<2
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

19 May 2022
Certification Date

Date Opened

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

Reagent

1000 Zn_00031

logged in 9/20/23
logged in tracker
7951016
COA attached

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Zinc (Zn) – 1000 µg/mL

Matrix: 5% HNO_3

7951016
ID: 1000 Zn_00031
Exp: 03/05/26 Prpd:
1000 Zn CPI

Product #: TA-1000681

Lot #: 1390097

Source Material Lot #: Y28D045

*Expiration Date: 5 March 2026

Element	Certified Concentration & Uncertainty
Zn	998.0 ± 5.0 µg/mL (w/v)
	986.0 ± 5.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.9999% pure zinc (Zn) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3168a**, **lot #120629**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	<2	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	<2	Cr	<0.5	Hg	<0.5	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	<0.5	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	MAJOR
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

21 March 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM
Ag	3151	-	Hf	3122	-	S	3154	2770
Al	3101a	-	Hg	3133	3133	Sb	3102a	3102a
As	3103a	3103a	Ho	3123a	-	Sc	3148a	3148a
Au	3121	-	In	3124a	3124a	Se	3149	3149
B	3107	3107	K	3141a	3141a	Si	3150	-
Ba	3104a	-	La	3127a	3127a	Sm	3147a	-
Be	3105a	3105a	Li	3129a	3129a	Sn	3161a	-
Bi	3106	3106	Lu	3130a	-	SO_4^{-2}	3181	-
Br^-	3184	-	Mg	3131a	3131a	Sr	3153a	3153a
Ca	3109a	3109a	Mn	3132	3132	Ta	3155	-
Cd	3108	-	Mo	3134	3134	Tb	3157a	-
Ce	3110	3110	Na	3152a	-	Te	3156	-
Cl^-	3182	1818a	Nb	3137	-	Th	-	-
Co	3113	3113	Nd	3135a	-	Ti	3162a	3162a
Cr	3112a	-	Ni	3136	-	Tl	3158	3158
Cs	3111a	-	NO_3^-	3185	-	Tm	3160a	-
Cu	3114	-	P	3139a	3139a	U	3164	-
Dy	3115a	-	Pb	3128	-	V	3165	-
Er	3116a	-	Pd	3138	-	W	3163	3163
Eu	3117a	-	PO_4^{-3}	3186	-	Y	3167a	3167a
F^-	3183	-	Pr	3142a	-	Yb	3166a	-
Fe	3126a	-	Pt	3140	3140	Zn	3168a	3168a
Ga	3119a	-	Rb	3145a	-	Zr	3169	3169
Gd	3118a	-	Re	3143	-			
Ge	3120a	-	Rh	3144	3144			

Reagent

1000 Zr_00025

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Zirconium (Zr) – 1000 µg/mL

Matrix: 2% HNO_3

Product #: S4400-1000691

Lot #: 1241783-14

Element	Certified Concentration & Uncertainty
Zr	994.0 ± 5.0 µg/mL (w/v)
	985.0 ± 5.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 17034**, **ISO/IEC 17025 and ISO 9001**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.994% pure zirconium dinitrate oxide hydrate ($N_2O_7Zr{\cdot}xH_2O$). The solution was diluted with filtered (0.22um), 18 M-ohm water and stabilized with the appropriate high-purity acid as indicated in the listed matrix. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3169, lot #1133407**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	9	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	0.7	Te	<1
Al	19	Cs	<0.5	Hf	17	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	<2	Cr	2	Hg	<0.5	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	1	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	2	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	<2
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau, Certifying Officer

January 13, 2023
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

Reagent

10000 Al SS_00005

Certificate of Analysis

Certified Reference Material

Product Description:

Aluminum

Product Number:	**S1-Al-1000**
Lot Number:	**2229332S**
Matrix:	5% HNO_3

Certified Value:

Element	(µg/mL)	SRM ID
Aluminum	10013 ± 50	*

The Certified Reference Material is prepared gravimetrically and certified against NIST SRM 3100 series when available via inductively coupled plasma optical emission spectrometry (ICP-OES) and classical wet assay analysis by a subcontracted ISO 17025 and ISO Guide 34 accredited laboratory. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor *k* is about 2.

* Refer to Traceability Information, Section d

Density: 1.085 g/mL ± 0.002 g/mL @ 20.0°C ± 0.3°C

Uncertified Values:

Trace Metal Impurity Scan: The data reported are based upon inductively coupled plasma mass spectrometry (ICP-MS) analysis. The values are reported in µg/mL.

Ag	<	0.001	Cs	<	0.001	Ho	<	0.001	Nb	<	0.001	Ru	<	0.002	Th	<	0.001
As		0.001	Cu		0.006	In	<	0.001	Nd	<	0.001	Sb		0.001	Ti	<	0.001
Au	<	0.001	Dy	<	0.001	Ir		0.001	Ni	<	0.001	Sc	<	0.001	Tl		0.003
B		0.004	Er	<	0.001	K	<	0.9	P	<	0.4	Se	<	0.03	Tm	<	0.001
Ba	<	0.001	Eu	<	0.1	La	<	0.001	Pb	<	0.001	Si		0.2	U	<	0.001
Be	<	0.001	Fe	<	0.06	Li		0.03	Pd		0.07	Sm	<	0.001	V	<	0.003
Bi	<	0.001	Ga		0.06	Lu	<	0.001	Pr	<	0.001	Sn	<	0.002	W	<	0.001
Ca		0.4	Gd	<	0.001	Mg	<	0.008	Pt	<	0.001	Sr		0.001	Y	<	0.001
Cd	<	0.001	Ge	<	0.003	Mn		0.02	Rb	<	0.001	Ta	<	0.001	Yb	<	0.001
Ce	<	0.06	Hf	<	0.001	Mo	<	0.001	Re	<	0.001	Tb		0.001	Zn	<	0.007
Co	<	0.001	Hg	<	0.001	Na	<	0.1	Rn		0.001	Te	<	0.001	Zr	<	0.001
Cr	<	0.009															

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Expiration Information:

The expiry date is guaranteed to be valid for **eighteen** months from the shipping date provided and is guaranteed through the month of expiration. For this reason, standards from the same lot may have different expiration dates.

Shipped Date: **December 2022**
Expiration Date: **June 30, 2024**
Certificate Issue Date: **October 20, 2022**

Chris Ramsgard, Product Manager Standard Solutions

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Email: esi@icpms.com | Web: www.icpms.com

5/23/2024
4:40:30 AM

Preparation Information:

This standard is prepared using material purchased from a qualified vendor per ISO 9001:2015 guidelines and assayed by analytical methods for conformity prior to use. This standard was manufactured under appropriate laboratory conditions in accordance with ISO 9001, ISO 17025 and ISO 17034 requirements. High-purity acid has been used to place the materials in solution and to stabilize the standard. The matrix is as noted in 18 megaohm deionized water. Stability of this product is based upon rigorous short term and long term testing of the solution for the certified value. This testing includes, but is not limited to, the effect of temperature and packaging on the product. If during the period of validity, a recall is instituted due to substantial changes in the stability of this product, the purchaser will be notified.

Homogeneity:

This product is determined to be homogeneous following in-house procedures developed in accordance with the requirements of ISO 17034 and ISO Guide 35.

Intended Use:

This product is intended for use as a calibration standard, quality control standard, and/or for the validation of analytical methods. The standard is confirmed homogeneous, therefore the minimum sample size should be consistent with the end user's measurement capabilities.

Traceability Information:

The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties. The maintenance of the base and derived units of International System of Units (SI) with traceability of measurement results (contemporary metrology) to SI ensures their comparability over time as follows.

a. **Standard Weight and Analytical Balance**
   The standard weights are traceable to NIST and are used to calibrate balances regularly. These weights are calibrated annually by an ISO 17025 accredited calibration laboratory.
b. **Volumetric Device**
   The calibration of volumetric vessels is verified initially upon receipt and prior to use using the ASTM method E542.
c. **Thermometer**
   The standard thermometers are calibrated every year by an ISO 17025 accredited metrology service.
d. **Calibration Standards:**
   The Calibration Standard is traceable to SRM 3100 Series Spectrometric Standard Solutions. If an SRM is not available, a second source standard or independent lot is used.

Refer to Safety Datasheet (SDS) for hazardous information.

NOTICE: HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The data and information as stated was furnished by the manufacturer of the product. The information provided in this certificate pertains only to the lot number specified. None of the information provided in this certificate may be used, reproduced or transmitted in any form or by any means without written approval from High-Purity Standards.

Reagent

10000 Al_00028

logged 12-14-23
logged tracker
8114297
CoA attached

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Aluminum (Al) – 10,000 µg/mL

Matrix: 2% HNO_3

8114297
ID: 10000 Al_00028
Exp:07/09/24 Prpd: Opn:12/14/23
10000 Al cpi

Product #: 4400-10M11-500

Lot #: 1427343

*Expiration Date: 9 July 2026

Element	Certified Concentration & Uncertainty
Al	10,025 ± 37 µg/mL (w/v)
	9400 ± 34 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 17034, ISO/IEC 17025 and ISO 9001**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.999% pure aluminum nitrate [$Al(NO_3)_3$]. The solution was diluted with filtered (0.22um), 18 M-ohm water and stabilized with the appropriate high-purity acid as indicated in the listed matrix. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3101a, lot #140903**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	<10	Ge	<5	Lu	<2	P	<1000	Sb	15	Te	<10
Al	MAJOR	Cs	<5	Hf	<2	Mg	<50	Pb	<10	Sc	<50	Ti	<20
As	<20	Cr	28	Hg	<5	Mn	<10	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	<10	Ho	<2	Mo	<5	Pr	<2	Si	<1000	Tm	<2
B	<50	Dy	<2	In	nd	Na	<250	Pt	<5	Sm	<2	V	12
Ba	11	Er	<2	Ir	<2	Nb	<5	Rb	<5	Sn	<5	W	<5
Bi	<5	Eu	<2	K	<250	Nd	<2	Re	<2	Sr	<10	Y	<5
Ca	<250	Fe	361	La	<5	Ni	<20	Rh	<5	Ta	<5	Yb	<2
Cd	<5	Ga	296	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20
Ce	<2	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

25 July 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

Reagent

10000 Ca_00027

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: 4400-10M91-500

Calcium (Ca) – 10,000 µg/mL

Lot #: 1268108-19

Matrix: 4% HNO_3

Element	Certified Concentration & Uncertainty
Ca	9998 ± 23 µg/mL (w/v)
	9633 ± 22 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 17034, ISO/IEC 17025 and ISO 9001**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.999% pure calcium carbonate ($CaCO_3$). The solution was diluted with filtered (0.22um), 18 M-ohm water and stabilized with the appropriate high-purity acid as indicated in the listed matrix. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3109a, lot #130213**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	<10	Ge	<5	Lu	<2	P	<1000	Sb	<5	Te	<10
Al	<20	Cs	<5	Hf	<2	Mg	175	Pb	<10	Sc	<50	Tl	<20
As	<20	Cr	<5	Hg	<5	Mn	<10	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	<10	Ho	<2	Mo	<5	Pr	<2	Si	<1000	Tm	<2
B	<50	Dy	<2	In	nd	Na	<250	Pt	<5	Sm	<2	V	<10
Ba	<10	Er	<2	Ir	<2	Nb	<5	Rb	<5	Sn	<5	W	<5
Bi	<2	Eu	<2	K	<250	Nd	<2	Re	<2	Sr	234	Y	<5
Ca	MAJOR	Fe	<100	La	<5	Ni	<20	Rh	<5	Ta	<5	Yb	<2
Cd	<5	Ga	<5	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20
Ce	<2	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

February 28, 2023
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

Reagent

10000 Fe SS_00007

logged 12-14-23
logged Tracker
8114085
COA Attached

Certificate of Analysis

8114085
ID: 10000 Fe SS_00007
Exp:06/30/25 Prpd:ADL Opn:12/14/22
10000 Fe ESI SS

Product Description: Iron

Product Number: **S1-Fe-10000x100**

Lot Number: **2324416x100**

Matrix: 10% HNO3

Density: 1.065 g/mL ± 0.002 g/mL @ 20.4°C ± 0.3°C

Certified Value:

Element	µg/mL	SRM ID
Fe	10000 ± 30	3126a

The Certified Value is based on gravimetric and volumetric preparation, and verified against NIST SRM 3100 series when available via inductively coupled plasma optical emission spectrometry (ICP-OES) and/or inductively coupled plasma mass spectrometry (ICP-MS) using an internal laboratory-developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor k is about 2.
* Refer to Traceability Information, Section 4

Uncertified Values:

Trace Metal Impurity Scan: The data reported are based upon a scan of this specific lot via ICP-OES/ICP-MS analysis. The values are reported in µg/L.

Ag	<0.1	Cu	55	Li	<0.1	Rb	<0.1	Th	<0.1
Al	<4.5	Dy	<0.1	Lu	<0.1	Re	<0.1	Ti	<0.1
As	<5.7	Er	<0.1	Mg	<0.5	Rh	<0.1	Tl	<0.1
Au	<0.1	Eu	<0.1	Mn	69	Ru	<0.1	Tm	<0.1
B	<5	Fe	M	Mo	<3	Sb	<4	U	<0.3
Ba	<0.1	Ga	<5	Na	<18	Sc	<0.1	V	<0.3
Be	<0.1	Gd	<0.1	Nb	<0.1	Se	<0.5	W	<0.1
Bi	<0.1	Ge	56	Nd	<0.1	Si	<10	Y	<0.1
Ca	<5	Hf	<0.1	Ni	68	Sm	<0.1	Yb	<0.1
Cd	<0.1	Ho	<0.1	Os	<0.1	Sn	<3	Zn	<58
Ce	<0.1	In	<0.1	Pb	<0.3	Sr	<0.1	Zr	<0.1
Co	72	Ir	<0.1	Pd	<0.1	Ta	<0.1		
Cr	38	K	<5	Pr	<0.1	Tb	<0.1		
Cs	<0.1	La	<0.1	Pt	<0.1	Te	<0.1		

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Expiration Information:

The expiry date is guaranteed to be valid for eighteen months from the shipping date provided and is guaranteed through the month of expiration. For this reason, standards from the same lot may have different expiration dates.

Shipped Date: December 2023

Expiration Date: June 30, 2025

Certificate Issue Date: September 20, 2023

Chris Ramsgard, Product Manager Standard Solutions

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Email: esi@icpms.com | Web: www.icpms.com

5/23/2024
4:40:30 AM

Preparation Information:

This standard is prepared using **99.995%** pure **Iron Metal** which was purchased from a qualified vendor per ISO 9001 guidelines and assayed by analytical methods for conformity prior to use. This standard was manufactured under appropriate laboratory conditions using the methods developed at NIST for SRM Spectrometric Standard Solutions. Sub-boiling distilled high-purity acid has been used to place the materials in solution and stabilize the standard. The matrix is as noted above in 18 megaohm deionized water. Stability of this product is based upon rigorous short-term and long-term testing of the solution for the certified value. This testing includes, but is not limited to, the effect of temperature and packaging on the product. If, during the period of validity, a recall is instituted due to substantial changes in the stability of this product, the purchaser will be notified.

Homogeneity:

This product is determined to be homogeneous following in-house procedures developed in accordance with the requirements of ISO 17034 and ISO Guide 35.

Intended Use:

This product is intended for use as a calibration standard, quality control standard, and/or for the validation of analytical methods. The standard is confirmed homogeneous; therefore, the minimum sample size should be consistent with the end user's measurement capabilities.

Traceability Information:

The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties. The maintenance of the base and derived units of International System of Units (SI) with traceability of measurement results (contemporary metrology) to SI ensures their comparability over time as follows.

1. **Standard Weight and Analytical Balance**
   The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in 'NIST Weights and Measures Measurement Assurance Program' with a certificate of measurement traceability to NIST primary standards. The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.
2. **Volumetric Device**
   The calibrations of volumetric vessels are verified using the ASTM method E542.
3. **Thermometer**
   The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.
4. **Calibration Standards**
   The Calibration Standard is traceable to SRM 3100 Series Spectrometric Standard Solutions. If an SRM is not available, a second source standard or independent lot is used.

Accreditation:

This product has been manufactured by an ISO 9001 registered and ISO/IEC 17025 and ISO 17034 accredited laboratory

Refer to Safety Datasheet (SDS) for hazardous information.

NOTICE: ESI products are intended for laboratory use only. All products should be handled and used by trained professional personnel. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The data and information as stated was furnished by the manufacturer of the product. The information provided in this certificate pertains only to the lot number specified. None of the information provided in this certificate may be used, reproduced or transmitted in any form or by any means without written approval from ESI.

Reagent

10000 Fe_00029

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: 4400-10M261500-DENS

Iron (Fe) – 10,000 µg/mL

Lot #: 1240670-21

Matrix: 4% HNO_3

Element	Certified Concentration & Uncertainty
Fe	**9981 ± 39 µg/mL (w/v)**
	9562 ± 38 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 17034, ISO/IEC 17025 and ISO 9001**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.999% pure iron nitrate nonahydrate [$Fe(NO_3)_3$]. The solution was diluted with filtered (0.22um), 18 M-ohm water and stabilized with the appropriate high-purity acid as indicated in the listed matrix. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3126a, lot #140812**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	19	Ge	<5	Lu	<2	P	<1000	Sb	<5	Te	<10
Al	<20	Cs	<5	Hf	<2	Mg	<50	Pb	<10	Sc	<50	Ti	<20
As	<20	Cr	17	Hg	<5	Mn	14	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	<10	Ho	<2	Mo	<5	Pr	<2	Si	<1000	Tm	<2
B	<50	Dy	<2	In	nd	Na	<250	Pt	<5	Sm	<2	V	<10
Ba	<10	Er	<2	Ir	<2	Nb	<5	Rb	<5	Sn	<5	W	<5
Bi	<2	Eu	<2	K	<250	Nd	<2	Re	<2	Sr	<10	Y	<5
Ca	<250	Fe	MAJOR	La	<5	Ni	<20	Rh	<5	Ta	<5	Yb	<2
Cd	<5	Ga	<5	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20
Ce	<2	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau, Certifying Officer

February 28, 2023
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

Reagent

10000 K_00018

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: 4400-10M411-500

Potassium (K) – 10,000 µg/mL

Lot #: 1137797-60

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty
K	10,092 ± 47 µg/mL (w/v)
	9893 ± 46 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 17034, ISO/IEC 17025 and ISO 9001**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.997% pure potassium nitrate (KNO_3). The solution was diluted with filtered (0.22um), 18 M-ohm water and stabilized with the appropriate high-purity acid as indicated in the listed matrix. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3141a, lot #140813**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	<10	Ge	<5	Lu	<2	P	<1000	Sb	<5	Te	<10
Al	<20	Cs	<5	Hf	<2	Mg	<50	Pb	<10	Sc	<50	Ti	<20
As	<20	Cr	<5	Hg	<5	Mn	<10	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	<10	Ho	<2	Mo	<5	Pr	<2	Si	<1000	Tm	<2
B	<50	Dy	<2	In	nd	Na	<250	Pt	<5	Sm	<2	V	<10
Ba	<10	Er	<2	Ir	<2	Nb	<5	Rb	<5	Sn	<5	W	<5
Bi	<2	Eu	<2	K	MAJOR	Nd	<2	Re	<2	Sr	<10	Y	<5
Ca	<250	Fe	<100	La	<5	Ni	<20	Rh	<5	Ta	<5	Yb	<2
Cd	394	Ga	<5	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20
Ce	<2	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

February 28, 2023
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Quality Manual Rev: No. 7, July 24, 2019

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

Reagent

10000 Mg_00025

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: 4400-10M311-500

Magnesium (Mg) – 10,000 µg/mL

Lot #: 1303817-6

Matrix: 4% HNO_3

Element	Certified Concentration & Uncertainty
Mg	10,060 ± 21 µg/mL (w/v)
	9544 ± 20 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 17034, ISO/IEC 17025 and ISO 9001**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.999% pure magnesium nitrate [$Mg(NO_3)_2$]. The solution was diluted with filtered (0.22um), 18 M-ohm water and stabilized with the appropriate high-purity acid as indicated in the listed matrix. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3131a, lot #140110**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	<10	Ge	<5	Lu	<2	P	<1000	Sb	9	Te	<10
Al	<20	Cs	<5	Hf	<2	Mg	MAJOR	Pb	11	Sc	<50	Ti	<20
As	<20	Cr	<5	Hg	<5	Mn	11	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	<10	Ho	<2	Mo	7	Pr	<2	Si	<1000	Tm	<2
B	<50	Dy	<2	In	nd	Na	<250	Pt	<5	Sm	<2	V	<10
Ba	232	Er	<2	Ir	<2	Nb	<5	Rb	<5	Sn	7	W	<5
Bi	<2	Eu	<2	K	<250	Nd	<2	Re	<2	Sr	<10	Y	<5
Ca	568	Fe	<100	La	<5	Ni	<20	Rh	<5	Ta	<5	Yb	<2
Cd	<5	Ga	<5	Li	<20	Os	<5	Ru	9	Tb	<5	Zn	<20
Ce	<2	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau, Certifying Officer

February 28, 2023
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

Reagent

10000 Na SS_00008

7759050
ID: 10000 Na SS_00008
Exp:11/30/24 Prpd:LMT Opn:05/22/23
10000 Na ESI SS

Certificate of Analysis

Product Description: Sodium

Product Number:	**S1-Na-10000x100**
Lot Number:	**2306846-100**
Matrix:	1% HNO3
Density:	1.028 g/mL ± 0.002 g/mL @ 21.3°C ± 0.3°C

Certified Value:

Element	µg/mL	SRM ID
Na	10000 ± 30	3152a

The Certified Value is based on gravimetric and volumetric preparation, and verified against NIST SRM 3100 series when available via inductively coupled plasma optical emission spectrometry (ICP-OES) and/or inductively coupled plasma mass spectrometry (ICP-MS) using an internal laboratory-developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor k is about 2.
* Refer to Traceability Information, Section 4

Uncertified Values:

Trace Metal Impurity Scan: The data reported are based upon a scan of this specific lot via ICP-OES/ICP-MS analysis. The values are reported in µg/L.

Ag	<0.1	Cu	<2	Li	52	Rb	<0.1	Th	<0.1
Al	65	Dy	<0.1	Lu	<0.1	Re	<1	Ti	<0.1
As	<0.3	Er	<0.1	Mg	<0.5	Rh	<0.1	Tl	<0.1
Au	<0.1	Eu	<0.1	Mn	<0.3	Ru	na	Tm	<0.1
B	<5	Fe	<5	Mo	<0.1	Sb	<0.1	U	<0.3
Ba	<0.1	Ga	<0.1	Na	M	Sc	<0.1	V	<0.3
Be	<0.1	Gd	<0.1	Nb	<0.1	Se	<0.5	W	<0.1
Bi	<0.1	Ge	<0.1	Nd	<0.1	Si	<10	Y	<0.1
Ca	<5	Hf	<0.1	Ni	<1	Sm	<0.1	Yb	<0.1
Cd	<0.1	Ho	<0.1	Os	<0.1	Sn	<3	Zn	<0.1
Ce	<0.1	In	<0.1	Pb	<0.3	Sr	<0.1	Zr	<0.1
Co	<0.3	Ir	<0.1	Pd	<0.1	Ta	<0.1		
Cr	<0.3	K	170	Pr	<0.1	Tb	<0.1		
Cs	<0.1	La	<0.1	Pt	<0.1	Te	<0.1		

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Expiration Information:

The expiry date is guaranteed to be valid for eighteen months from the shipping date provided and is guaranteed through the month of expiration. For this reason, standards from the same lot may have different expiration dates.

Shipped Date: May 2023
Expiration Date: November 30, 2024
Certificate Issue Date: March 23, 2023

Chris Ramsgard, Product Manager Standard Solutions

7277 World Communications Dr. | Omaha, NE 68122 USA | Phone: +1.402.991.7800 | Fax: +1.402.991.7799
Email: esi@icpms.com | Web: www.icpms.com

5/23/2024
4:40:30 AM

Preparation Information:

This standard is prepared using **99.999%** pure **NaNO3** which was purchased from a qualified vendor per ISO 9001 guidelines and assayed by analytical methods for conformity prior to use. This standard was manufactured under appropriate laboratory conditions using the methods developed at NIST for SRM Spectrometric Standard Solutions. Sub-boiling distilled high-purity acid has been used to place the materials in solution and stabilize the standard. The matrix is as noted above in 18 megaohm deionized water. Stability of this product is based upon rigorous short-term and long-term testing of the solution for the certified value. This testing includes, but is not limited to, the effect of temperature and packaging on the product. If, during the period of validity, a recall is instituted due to substantial changes in the stability of this product, the purchaser will be notified.

Homogeneity:

This product is determined to be homogeneous following in-house procedures developed in accordance with the requirements of ISO 17034 and ISO Guide 35.

Intended Use:

This product is intended for use as a calibration standard, quality control standard, and/or for the validation of analytical methods. The standard is confirmed homogeneous; therefore, the minimum sample size should be consistent with the end user's measurement capabilities.

Traceability Information:

The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties. The maintenance of the base and derived units of International System of Units (SI) with traceability of measurement results (contemporary metrology) to SI ensures their comparability over time as follows.

1. **Standard Weight and Analytical Balance**
   The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in 'NIST Weights and Measures Measurement Assurance Program' with a certificate of measurement traceability to NIST primary standards. The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.
2. **Volumetric Device**
   The calibrations of volumetric vessels are verified using the ASTM method E542.
3. **Thermometer**
   The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.
4. **Calibration Standards**
   The Calibration Standard is traceable to SRM 3100 Series Spectrometric Standard Solutions. If an SRM is not available, a second source standard or independent lot is used.

Accreditation:

This product has been manufactured by an ISO 9001 registered and ISO/IEC 17025 and ISO 17034 accredited laboratory

Refer to Safety Datasheet (SDS) for hazardous information.

NOTICE: ESI products are intended for laboratory use only. All products should be handled and used by trained professional personnel. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The data and information as stated was furnished by the manufacturer of the product. The information provided in this certificate pertains only to the lot number specified. None of the information provided in this certificate may be used, reproduced or transmitted in any form or by any means without written approval from ESI.

Reagent

10000 Na_00093

logged 9-14-23
logged in tracker
7941881
CoA attached

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Sodium (Na) – 10,000 µg/mL

Matrix: 3% HNO_3

7941881
ID: 10000 Na_00093
Exp: 03/06/26 Prpd:
10000 Na CPI

Product #: 4400-10M521-500

Lot #: 1390063

*Expiration Date: 6 March 2026

Element	Certified Concentration & Uncertainty
Na	10,050 ± 22 µg/mL (w/v)
	9758 ± 21 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 17034, ISO/IEC 17025 and ISO 9001**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.997% pure sodium carbonate (Na_2CO_3). The solution was diluted with filtered (0.22um), 18 M-ohm water and stabilized with the appropriate high-purity acid as indicated in the listed matrix. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3152a, lot #200413.** The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	<10	Ge	<5	Lu	<2	P	<1000	Sb	<5	Te	<10
Al	<20	Cs	<5	Hf	<2	Mg	<50	Pb	<10	Sc	<50	Ti	<20
As	<20	Cr	<5	Hg	<5	Mn	<10	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	<10	Ho	<2	Mo	<5	Pr	<2	Si	<1000	Tm	<2
B	<50	Dy	<2	In	nd	Na	MAJOR	Pt	<5	Sm	<2	V	<10
Ba	<10	Er	<2	Ir	<2	Nb	<5	Rb	<5	Sn	<5	W	<5
Bi	<2	Eu	<2	K	<250	Nd	<2	Re	<2	Sr	<10	Y	<5
Ca	<250	Fe	<100	La	<5	Ni	<20	Rh	<5	Ta	<5	Yb	<2
Cd	<5	Ga	<5	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20
Ce	<2	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

21 March 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
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Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
  - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 195601O1 – Requirements *(Registrar: TUV NORD)*

Reagent

10000 Na_00095

8146396
ID: 10000 Na_00095
Exp: 03/06/26 Prpd:
10000 Na CPI

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Sodium (Na) – 10,000 µg/mL

Matrix: 3% HNO_3

Product #: 4400-10M521-500

Lot #: 1399373

*Expiration Date: 6 March 2026

Element	Certified Concentration & Uncertainty
Na	10,050 ± 22 µg/mL (w/v)
	9758 ± 21 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 17034, ISO/IEC 17025 and ISO 9001**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.997% pure sodium carbonate (Na_2CO_3). The solution was diluted with filtered (0.22um), 18 M-ohm water and stabilized with the appropriate high-purity acid as indicated in the listed matrix. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3152a, lot #200413**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	<10	Ge	<5	Lu	<2	P	<1000	Sb	<5	Te	<10
Al	<20	Cs	<5	Hf	<2	Mg	<50	Pb	<10	Sc	<50	Ti	<20
As	<20	Cr	<5	Hg	<5	Mn	<10	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	<10	Ho	<2	Mo	<5	Pr	<2	Si	<1000	Tm	<2
B	<50	Dy	<2	In	nd	Na	MAJOR	Pt	<5	Sm	<2	V	<10
Ba	<10	Er	<2	Ir	<2	Nb	<5	Rb	<5	Sn	<5	W	<5
Bi	<2	Eu	<2	K	<250	Nd	<2	Re	<2	Sr	<10	Y	<5
Ca	<250	Fe	<100	La	<5	Ni	<20	Rh	<5	Ta	<5	Yb	<2
Cd	<5	Ga	<5	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20
Ce	<2	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

21 March 2023
Certification Date

-NA SO TACS
Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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5580 Skylane Boulevard P: 707.525.5788
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F: 707.545.7901

Europe
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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

Reagent

10000 S_00017

logged 7-14-23
logged in tracker
7857941
CoA attached
5/23/2024
4:40:30 AM

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

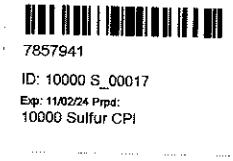
Single-Element Aqueous CRM

Product #: S4400-10M544

Sulfur (S) – 10,000 µg/mL

Lot #: 1205121-26

Matrix: H_2O



Element	Certified Concentration & Uncertainty
S	9970 ± 56 µg/mL (w/v)
	9775 ± 54 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 17034**, **ISO/IEC 17025 and ISO 9001**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.999% pure ammonium sulfate [$(NH_4)_2SO_4$]. The solution was diluted with filtered (0.22um), 18 M-ohm water and stabilized with the appropriate high-purity acid as indicated in the listed matrix. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3154, lot #892205.** The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	<10	Ge	<5	Lu	<2	P	<1000	Sb	<5	Te	<10
Al	<20	Cs	<5	Hf	<2	Mg	<50	Pb	<10	Sc	<50	Ti	<20
As	<20	Cr	8	Hg	<5	Mn	<10	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	<10	Ho	<2	Mo	<5	Pr	<2	Si	<1000	Tm	<2
B	<50	Dy	<2	In	nd	Na	<250	Pt	<5	Sm	<2	V	<10
Ba	<10	Er	<2	Ir	<2	Nb	<5	Rb	20	Sn	<5	W	<5
Bi	<2	Eu	<2	K	<250	Nd	<2	Re	63	Sr	<10	Y	<5
Ca	<250	Fe	<100	La	<5	Ni	<20	Rh	<5	Ta	<5	Yb	<2
Cd	<5	Ga	<5	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20
Ce	<2	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

May 2, 2023
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

5/23/2024
4:40:30 AM

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

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Reagent

10000 Th_00030

logged in 4/20/23
logged in tracker
7951024
CoA attached

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous RM

Thorium (Th) – 10,000 µg/mL

Matrix: 3% HNO_3

7951024

ID: 10000 Th_00030

Exp:04/03/26 Prpd: Opn:09/20/23

10,000 Th CPI

Product #: S4400-10M591

Lot #: 1396827

*Expiration Date: 3 April 2026

Element	Certified Concentration & Uncertainty
Th	9954 ± 52 µg/mL (w/v)
	9054 ± 47 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (RM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This RM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to, **ISO 17034**, **ISO/IEC 17025** and **ISO 9001**. This RM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using pure thorium nitrate [$Th(NO_3)_4$]. The solution was diluted with filtered (0.22um), 18 M-ohm water and stabilized with the appropriate high-purity acid as indicated in the listed matrix. The balances used in the preparation of this RM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable method against an alternate lot as NIST SRM is not available. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	<10	Ge	<5	Lu	<2	P	<1000	Sb	<5	Te	<10
Al	85	Cs	<5	Hf	<2	Mg	<50	Pb	<10	Sc	<50	Ti	<20
As	<20	Cr	14	Hg	<5	Mn	<10	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	<10	Ho	<2	Mo	<5	Pr	8	Si	<1000	Tm	<2
B	<50	Dy	<2	In	nd	Na	<250	Pt	<5	Sm	3	V	<10
Ba	<10	Er	<2	Ir	<2	Nb	<5	Rb	17	Sn	<5	W	<5
Bi	<2	Eu	<2	K	<250	Nd	3	Re	<2	Sr	<10	Y	<5
Ca	<250	Fe	<100	La	27	Ni	<20	Rh	<5	Ta	<5	Yb	<2
Cd	<5	Ga	<5	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20
Ce	51	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the RM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original RM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

29 March 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034:2016 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025:2017 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001:2015 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

Reagent

3,5-DNA Stock_00052

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31661 **Lot No.:** A0193965

Description : 3,5-Dinitroaniline Standard

3, 5-Dinitroaniline Std 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,5-Dinitroaniline	618-87-1	10311HS	99%	1,004.0 µg/mL	+/- 37.4502

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

571995_00168

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571995 **Lot No.:** A0190414

Description : 8270 List 1 / Std #1 MegaMix (2017)

8270 List 1 / Std #1 MegaMix (2017) 500-2000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : April 30, 2024 **Storage:** 0°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate. **Ship:** Ambient

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dioxane	1,003.3 µg/mL	+/- 5.8469 µg/mL	Gravimetric
	CAS # 123-91-1 (Lot SHBN3770)		+/- 12.0005 µg/mL	Unstressed
	Purity 99%		+/- 19.0922 µg/mL	Stressed
2	N-Nitrosodimethylamine	1,006.7 µg/mL	+/- 5.8664 µg/mL	Gravimetric
	CAS # 62-75-9 (Lot 220624JLM)		+/- 12.0403 µg/mL	Unstressed
	Purity 99%		+/- 19.1557 µg/mL	Stressed
3	Pyridine	2,011.7 µg/mL	+/- 11.6960 µg/mL	Gravimetric
	CAS # 110-86-1 (Lot SHBN7324)		+/- 24.0476 µg/mL	Unstressed
	Purity 99%		+/- 38.2714 µg/mL	Stressed
4	Phenol	1,006.3 µg/mL	+/- 5.8644 µg/mL	Gravimetric
	CAS # 108-95-2 (Lot MKCK1120)		+/- 12.0364 µg/mL	Unstressed
	Purity 99%		+/- 19.1493 µg/mL	Stressed
5	Aniline	1,004.7 µg/mL	+/- 5.8547 µg/mL	Gravimetric
	CAS # 62-53-3 (Lot X22F726)		+/- 12.0164 µg/mL	Unstressed
	Purity 99%		+/- 19.1176 µg/mL	Stressed
6	Bis(2-chloroethyl)ether	1,004.0 µg/mL	+/- 5.8508 µg/mL	Gravimetric
	CAS # 111-44-4 (Lot SHBL6942)		+/- 12.0084 µg/mL	Unstressed
	Purity 99%		+/- 19.1049 µg/mL	Stressed
7	n-Decane (C10)	1,007.2 µg/mL	+/- 5.8693 µg/mL	Gravimetric
	CAS # 124-18-5 (Lot SHBN8619)		+/- 12.0463 µg/mL	Unstressed
	Purity 99%		+/- 19.1652 µg/mL	Stressed

8	2-Chlorophenol		1,005.3	µg/mL	+/-	5.8586	µg/mL	Gravimetric
	CAS # 95-57-8	(Lot STBH7290)			+/-	12.0244	µg/mL	Unstressed
	Purity 99%				+/-	19.1303	µg/mL	Stressed
9	1,3-Dichlorobenzene		1,003.0	µg/mL	+/-	5.8450	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCCD5315)			+/-	11.9965	µg/mL	Unstressed
	Purity 99%				+/-	19.0859	µg/mL	Stressed
10	1,4-Dichlorobenzene		1,005.3	µg/mL	+/-	5.8586	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS4401V)			+/-	12.0244	µg/mL	Unstressed
	Purity 99%				+/-	19.1303	µg/mL	Stressed
11	Benzyl alcohol		1,003.3	µg/mL	+/-	5.8469	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBK5943)			+/-	12.0005	µg/mL	Unstressed
	Purity 99%				+/-	19.0922	µg/mL	Stressed
12	1,2-Dichlorobenzene		1,005.3	µg/mL	+/-	5.8586	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBN3835)			+/-	12.0244	µg/mL	Unstressed
	Purity 99%				+/-	19.1303	µg/mL	Stressed
13	2-Methylphenol (o-cresol)		1,005.2	µg/mL	+/-	5.8576	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBN7598)			+/-	12.0224	µg/mL	Unstressed
	Purity 99%				+/-	19.1271	µg/mL	Stressed
14	2,2'-oxybis(1-chloropropane)		1,006.7	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 12549200)			+/-	12.0403	µg/mL	Unstressed
	Purity 99%				+/-	19.1557	µg/mL	Stressed
15	Acetophenone		1,005.0	µg/mL	+/-	5.8567	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot STBH8205)			+/-	12.0204	µg/mL	Unstressed
	Purity 99%				+/-	19.1240	µg/mL	Stressed
16	3-Methylphenol (m-cresol)		503.7	µg/mL	+/-	2.9351	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot STBJ0710)			+/-	6.0242	µg/mL	Unstressed
	Purity 99%				+/-	9.5842	µg/mL	Stressed
17	4-Methylphenol (p-cresol)		503.0	µg/mL	+/-	2.9312	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot SHBN1151)			+/-	6.0162	µg/mL	Unstressed
	Purity 99%				+/-	9.5715	µg/mL	Stressed
18	N-Nitroso-di-n-propylamine		1,002.7	µg/mL	+/-	5.8431	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot 2D5VJ)			+/-	11.9925	µg/mL	Unstressed
	Purity 99%				+/-	19.0796	µg/mL	Stressed
19	Hexachloroethane		1,003.3	µg/mL	+/-	5.8469	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot QTORH)			+/-	12.0005	µg/mL	Unstressed
	Purity 99%				+/-	19.0922	µg/mL	Stressed
20	Nitrobenzene		1,005.8	µg/mL	+/-	5.8615	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot 10224044)			+/-	12.0304	µg/mL	Unstressed
	Purity 99%				+/-	19.1398	µg/mL	Stressed
21	Isophorone		1,004.3	µg/mL	+/-	5.8528	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKCC9506)			+/-	12.0124	µg/mL	Unstressed
	Purity 99%				+/-	19.1113	µg/mL	Stressed
22	2-Nitrophenol		1,003.2	µg/mL	+/-	5.8460	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCCB2407)			+/-	11.9985	µg/mL	Unstressed
	Purity 99%				+/-	19.0891	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.8	µg/mL	+/-	5.8440	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot XW5GK)			+/-	11.9945	µg/mL	Unstressed
	Purity 99%				+/-	19.0827	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,007.5	µg/mL	+/-	5.8712	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 13670200)			+/-	12.0503	µg/mL	Unstressed
	Purity 99%				+/-	19.1715	µg/mL	Stressed
25	2,4-Dichlorophenol		1,002.2	µg/mL	+/-	5.8401	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBZ6787)			+/-	11.9865	µg/mL	Unstressed
	Purity 99%				+/-	19.0700	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		1,003.7	µg/mL	+/-	5.8489	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBM0526)			+/-	12.0045	µg/mL	Unstressed
	Purity 99%				+/-	19.0986	µg/mL	Stressed
27	Naphthalene		1,003.3	µg/mL	+/-	5.8469	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKCH0219)			+/-	12.0005	µg/mL	Unstressed
	Purity 99%				+/-	19.0922	µg/mL	Stressed
28	2,6-Dichlorophenol		1,007.7	µg/mL	+/-	5.8722	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot MKCP7682)			+/-	12.0523	µg/mL	Unstressed
	Purity 99%				+/-	19.1747	µg/mL	Stressed
29	4-Chloroaniline		1,007.7	µg/mL	+/-	5.8722	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot H24K)			+/-	12.0523	µg/mL	Unstressed
	Purity 99%				+/-	19.1747	µg/mL	Stressed
30	Hexachlorobutadiene		1,004.0	µg/mL	+/-	5.8508	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot X05J)			+/-	12.0084	µg/mL	Unstressed
	Purity 99%				+/-	19.1049	µg/mL	Stressed
31	4-Chloro-3-methylphenol		1,002.3	µg/mL	+/-	5.8411	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot BCCD4461)			+/-	11.9885	µg/mL	Unstressed
	Purity 99%				+/-	19.0732	µg/mL	Stressed
32	2-Methylnaphthalene		1,009.1	µg/mL	+/-	5.8807	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot STBK0259)			+/-	12.0697	µg/mL	Unstressed
	Purity 96%				+/-	19.2024	µg/mL	Stressed
33	1-Methylnaphthalene		1,004.2	µg/mL	+/-	5.8518	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 5234.00-3)			+/-	12.0104	µg/mL	Unstressed
	Purity 99%				+/-	19.1081	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,007.3	µg/mL	+/-	5.8703	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 13278000)			+/-	12.0483	µg/mL	Unstressed
	Purity 99%				+/-	19.1684	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,003.3	µg/mL	+/-	5.8469	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 0012019)			+/-	12.0005	µg/mL	Unstressed
	Purity 99%				+/-	19.0922	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,004.7	µg/mL	+/-	5.8547	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot STBJ5914)			+/-	12.0164	µg/mL	Unstressed
	Purity 99%				+/-	19.1176	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,006.8	µg/mL	+/-	5.8671	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHN01)			+/-	12.0418	µg/mL	Unstressed
	Purity 98%				+/-	19.1580	µg/mL	Stressed
38	2-Chloronaphthalene		1,007.0	µg/mL	+/-	5.8683	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot RPN7O)			+/-	12.0443	µg/mL	Unstressed
	Purity 99%				+/-	19.1620	µg/mL	Stressed
39	Biphenyl		1,003.7	µg/mL	+/-	5.8489	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot MKCL6515)			+/-	12.0045	µg/mL	Unstressed
	Purity 99%				+/-	19.0986	µg/mL	Stressed

40	2-Nitroaniline		1,003.7	µg/mL	+/-	5.8489	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKCJ8895)			+/-	12.0045	µg/mL	Unstressed
	Purity 99%				+/-	19.0986	µg/mL	Stressed
41	Acenaphthylene		1,004.2	µg/mL	+/-	5.8518	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot Q24W)			+/-	12.0104	µg/mL	Unstressed
	Purity 96%				+/-	19.1080	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,002.7	µg/mL	+/-	5.8431	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot 1-DXX-24-1)			+/-	11.9925	µg/mL	Unstressed
	Purity 99%				+/-	19.0796	µg/mL	Stressed
43	Dimethylphthalate		1,008.0	µg/mL	+/-	5.8741	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)			+/-	12.0563	µg/mL	Unstressed
	Purity 99%				+/-	19.1811	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,005.3	µg/mL	+/-	5.8586	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot BCCG1833)			+/-	12.0244	µg/mL	Unstressed
	Purity 99%				+/-	19.1303	µg/mL	Stressed
45	3-Nitroaniline		1,008.7	µg/mL	+/-	5.8780	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKCH5457)			+/-	12.0643	µg/mL	Unstressed
	Purity 99%				+/-	19.1937	µg/mL	Stressed
46	Acenaphthene		1,000.0	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKCQ4733)			+/-	11.9606	µg/mL	Unstressed
	Purity 99%				+/-	19.0288	µg/mL	Stressed
47	2,4-Dinitrophenol		2,016.3	µg/mL	+/-	11.7231	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot STBK5145-DR3)			+/-	24.1034	µg/mL	Unstressed
	Purity 99%				+/-	38.3602	µg/mL	Stressed
48	Dibenzofuran		1,002.0	µg/mL	+/-	5.8392	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKCN1772)			+/-	11.9845	µg/mL	Unstressed
	Purity 99%				+/-	19.0669	µg/mL	Stressed
49	4-Nitrophenol		2,007.5	µg/mL	+/-	11.6718	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKCN1089)			+/-	23.9978	µg/mL	Unstressed
	Purity 99%				+/-	38.1921	µg/mL	Stressed
50	2,4-Dinitrotoluene		1,003.8	µg/mL	+/-	5.8499	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)			+/-	12.0065	µg/mL	Unstressed
	Purity 99%				+/-	19.1018	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,002.7	µg/mL	+/-	5.8431	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot PR-30126)			+/-	11.9925	µg/mL	Unstressed
	Purity 99%				+/-	19.0796	µg/mL	Stressed
52	Fluorene		1,006.8	µg/mL	+/-	5.8673	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 094650L18G)			+/-	12.0423	µg/mL	Unstressed
	Purity 99%				+/-	19.1588	µg/mL	Stressed
53	n-Hexadecane (C16)		1,004.8	µg/mL	+/-	5.8556	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBM4146)			+/-	12.0183	µg/mL	Unstressed
	Purity 98%				+/-	19.1207	µg/mL	Stressed
54	Diethylphthalate		1,008.2	µg/mL	+/-	5.8751	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot BCCD3396)			+/-	12.0583	µg/mL	Unstressed
	Purity 99%				+/-	19.1842	µg/mL	Stressed
55	4-Chlorophenyl phenyl ether		1,005.2	µg/mL	+/-	5.8576	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKCQ0984)			+/-	12.0224	µg/mL	Unstressed
	Purity 99%				+/-	19.1271	µg/mL	Stressed

56	4-Nitroaniline		1,005.5	µg/mL	+/-	5.8596	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot RP220906)			+/-	12.0264	µg/mL	Unstressed
	Purity 99%				+/-	19.1335	µg/mL	Stressed
57	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,012.0	µg/mL	+/-	11.6979	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot RP220915)			+/-	24.0516	µg/mL	Unstressed
	Purity 99%				+/-	38.2777	µg/mL	Stressed
58	Diphenylamine		853.5	µg/mL	+/-	4.9738	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot MKCH1042)			+/-	10.2084	µg/mL	Unstressed
	Purity 99%				+/-	16.2411	µg/mL	Stressed
59	Azobenzene		1,001.8	µg/mL	+/-	5.8382	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot BCCC9136)			+/-	11.9825	µg/mL	Unstressed
	Purity 99%				+/-	19.0637	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		1,007.2	µg/mL	+/-	5.8693	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBH6361)			+/-	12.0463	µg/mL	Unstressed
	Purity 99%				+/-	19.1652	µg/mL	Stressed
61	Hexachlorobenzene		1,006.0	µg/mL	+/-	5.8625	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot 13562400)			+/-	12.0324	µg/mL	Unstressed
	Purity 99%				+/-	19.1430	µg/mL	Stressed
62	Pentachlorophenol		2,016.7	µg/mL	+/-	11.7251	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 211229RSR)			+/-	24.1074	µg/mL	Unstressed
	Purity 99%				+/-	38.3665	µg/mL	Stressed
63	n-Octadecane (C18)		1,007.4	µg/mL	+/-	5.8709	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot UE5NG)			+/-	12.0496	µg/mL	Unstressed
	Purity 98%				+/-	19.1704	µg/mL	Stressed
64	Phenanthrene		1,002.0	µg/mL	+/-	5.8392	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKCQ2033)			+/-	11.9845	µg/mL	Unstressed
	Purity 99%				+/-	19.0669	µg/mL	Stressed
65	Anthracene		1,004.2	µg/mL	+/-	5.8518	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKCP3968)			+/-	12.0104	µg/mL	Unstressed
	Purity 99%				+/-	19.1081	µg/mL	Stressed
66	Carbazole		1,002.8	µg/mL	+/-	5.8440	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot 13058900)			+/-	11.9945	µg/mL	Unstressed
	Purity 99%				+/-	19.0827	µg/mL	Stressed
67	Di-n-butylphthalate		1,001.2	µg/mL	+/-	5.8343	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKCN4337)			+/-	11.9746	µg/mL	Unstressed
	Purity 99%				+/-	19.0510	µg/mL	Stressed
68	Fluoranthene		1,005.8	µg/mL	+/-	5.8615	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKCQ4728)			+/-	12.0304	µg/mL	Unstressed
	Purity 99%				+/-	19.1398	µg/mL	Stressed
69	Pyrene		1,006.7	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCCG7845)			+/-	12.0403	µg/mL	Unstressed
	Purity 99%				+/-	19.1557	µg/mL	Stressed
70	Benzyl butyl phthalate		1,008.5	µg/mL	+/-	5.8771	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot MKCN9008)			+/-	12.0623	µg/mL	Unstressed
	Purity 99%				+/-	19.1906	µg/mL	Stressed
71	Benz(a)anthracene		1,001.9	µg/mL	+/-	5.8387	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot RP220209)			+/-	11.9836	µg/mL	Unstressed
	Purity 96%				+/-	19.0654	µg/mL	Stressed

72	Chrysene		1,007.0	µg/mL	+/-	5.8683	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot 468677L08C)			+/-	12.0443	µg/mL	Unstressed
	Purity 99%				+/-	19.1620	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,004.7	µg/mL	+/-	5.8547	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKCQ3468)			+/-	12.0164	µg/mL	Unstressed
	Purity 99%				+/-	19.1176	µg/mL	Stressed
74	Di-n-octyl phthalate		1,006.5	µg/mL	+/-	5.8654	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 13651900)			+/-	12.0383	µg/mL	Unstressed
	Purity 99%				+/-	19.1525	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,001.3	µg/mL	+/-	5.8353	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot 012022B)			+/-	11.9765	µg/mL	Unstressed
	Purity 99%				+/-	19.0542	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,005.7	µg/mL	+/-	5.8605	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot 012022K)			+/-	12.0284	µg/mL	Unstressed
	Purity 99%				+/-	19.1367	µg/mL	Stressed
77	Benzo(a)pyrene		1,004.7	µg/mL	+/-	5.8547	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot Z8BKF)			+/-	12.0164	µg/mL	Unstressed
	Purity 99%				+/-	19.1176	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,002.5	µg/mL	+/-	5.8421	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot 8-URV-39-3)			+/-	11.9905	µg/mL	Unstressed
	Purity 99%				+/-	19.0764	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,007.3	µg/mL	+/-	5.8703	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/-	12.0483	µg/mL	Unstressed
	Purity 99%				+/-	19.1684	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,003.4	µg/mL	+/-	5.8471	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot PMEVE)			+/-	12.0008	µg/mL	Unstressed
	Purity 98%				+/-	19.0927	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 1000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 855 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.
This lot was approved even though the %D for 4,6-DN-2-MP was greater than 10%.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

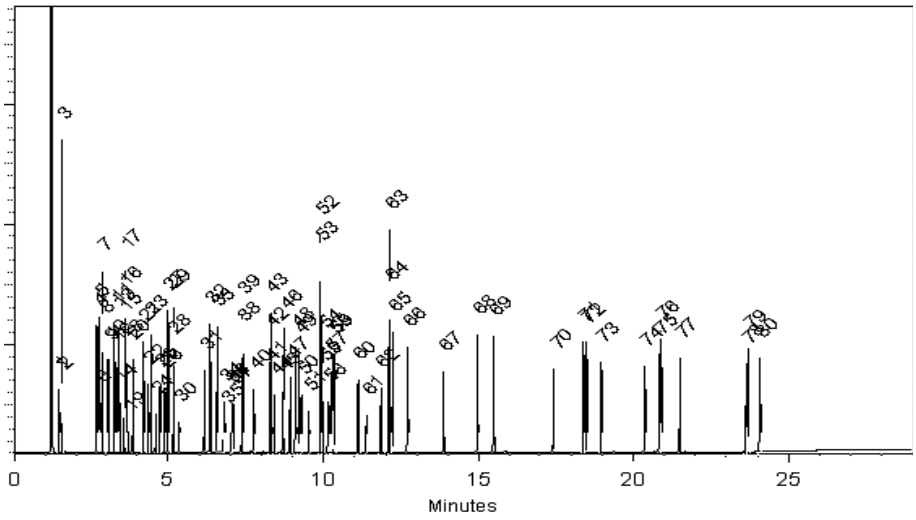
Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 10-Oct-2022 **Balance:** B442140311

Marlina Cowan -- Operations Tech II ARM QC

Date Passed: 17-Oct-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

571995_00187

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571995 **Lot No.:** A0195772

Description : 8270 List 1 / Std #1 MegaMix (2017)

8270 List 1 / Std #1 MegaMix (2017) 500-2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : September 30, 2024 **Storage:** 0°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	1,005.4 µg/mL	+/- 18.5755
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.2 µg/mL	+/- 18.5718
3	Pyridine	110-86-1	SHBN7324	99%	2,010.1 µg/mL	+/- 37.1374
4	Phenol	108-95-2	MKCK1120	99%	1,005.1 µg/mL	+/- 18.5706
5	Aniline	62-53-3	X22F726	99%	1,005.2 µg/mL	+/- 18.5718
6	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,005.0 µg/mL	+/- 18.5681
7	n-Decane (C10)	124-18-5	SHBN8619	99%	1,004.9 µg/mL	+/- 18.5669
8	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.1 µg/mL	+/- 18.5706
9	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.9 µg/mL	+/- 18.5669
10	1,4-Dichlorobenzene	106-46-7	MKBS4401V	99%	1,005.1 µg/mL	+/- 18.5706
11	Benzyl alcohol	100-51-6	SHBK5943	99%	1,004.9 µg/mL	+/- 18.5669
12	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,005.1 µg/mL	+/- 18.5706
13	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,005.3 µg/mL	+/- 18.5743
14	2,2'-oxybis(1-chloropropane)	108-60-1	2-KMW-57-8	99%	1,005.3 µg/mL	+/- 18.5730
15	Acetophenone	98-86-2	STBH8205	99%	1,005.4 µg/mL	+/- 18.5755
16	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	502.3 µg/mL	+/- 9.2831

17	4-Methylphenol (p-cresol)	106-44-5	SHBN1151	99%	502.7	µg/mL	+/- 9.2893
18	N-Nitroso-di-n-propylamine	621-64-7	2D5VJ	99%	1,005.1	µg/mL	+/- 18.5706
19	Hexachloroethane	67-72-1	QTORH	99%	1,004.9	µg/mL	+/- 18.5656
20	Nitrobenzene	98-95-3	10224044	99%	1,004.9	µg/mL	+/- 18.5656
21	Isophorone	78-59-1	MKCC9506	99%	1,005.1	µg/mL	+/- 18.5706
22	2-Nitrophenol	88-75-5	BCCB2407	99%	1,004.9	µg/mL	+/- 18.5669
23	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,005.2	µg/mL	+/- 18.5718
24	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,004.9	µg/mL	+/- 18.5669
25	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,005.4	µg/mL	+/- 18.5755
26	1,2,4-Trichlorobenzene	120-82-1	SHBM0526	99%	1,005.2	µg/mL	+/- 18.5718
27	Naphthalene	91-20-3	MKCH0219	99%	1,004.7	µg/mL	+/- 18.5619
28	2,6-Dichlorophenol	87-65-0	MKCP7682	99%	1,005.0	µg/mL	+/- 18.5681
29	4-Chloroaniline	106-47-8	H24K	99%	1,004.9	µg/mL	+/- 18.5669
30	Hexachlorobutadiene	87-68-3	664800	99%	1,004.9	µg/mL	+/- 18.5669
31	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,004.9	µg/mL	+/- 18.5656
32	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,005.0	µg/mL	+/- 18.5680
33	1-Methylnaphthalene	90-12-0	5234.00-3	99%	1,005.1	µg/mL	+/- 18.5706
34	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCS1444	99%	1,005.2	µg/mL	+/- 18.5718
35	Hexachlorocyclopentadiene	77-47-4	0012019	99%	1,005.2	µg/mL	+/- 18.5718
36	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.9	µg/mL	+/- 18.5656
37	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,005.1	µg/mL	+/- 18.5697
38	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,004.9	µg/mL	+/- 18.5669
39	Biphenyl	92-52-4	MKCJ6240	99%	1,005.3	µg/mL	+/- 18.5743
40	2-Nitroaniline	88-74-4	MKCK7278	99%	1,005.0	µg/mL	+/- 18.5681
41	Acenaphthylene	208-96-8	U25W	96%	1,005.0	µg/mL	+/- 18.5680
42	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,005.3	µg/mL	+/- 18.5743
43	Dimethylphthalate	131-11-3	10117699	99%	1,005.1	µg/mL	+/- 18.5706
44	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,005.0	µg/mL	+/- 18.5681
45	3-Nitroaniline	99-09-2	MKCH5457	99%	1,005.1	µg/mL	+/- 18.5706
46	Acenaphthene	83-32-9	MKCR7169	99%	1,004.7	µg/mL	+/- 18.5619
47	2,4-Dinitrophenol	51-28-5	DR221221RSR	99%	2,010.0	µg/mL	+/- 37.1362
48	Dibenzofuran	132-64-9	MKCN1772	99%	1,005.3	µg/mL	+/- 18.5743
49	4-Nitrophenol	100-02-7	MKCN1089	99%	2,009.8	µg/mL	+/- 37.1325
50	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,005.2	µg/mL	+/- 18.5718
51	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,004.8	µg/mL	+/- 18.5644
52	Fluorene	86-73-7	10217947	99%	1,005.3	µg/mL	+/- 18.5743

53	n-Hexadecane (C16)	544-76-3	SHBQ0897	99%	1,004.9	µg/mL	+/- 18.5669
54	Diethylphthalate	84-66-2	BCCD3396	99%	1,005.2	µg/mL	+/- 18.5718
55	4-Chlorophenyl phenyl ether	7005-72-3	MKCQ0984	99%	1,005.1	µg/mL	+/- 18.5693
56	4-Nitroaniline	100-01-6	RP230111	99%	1,005.0	µg/mL	+/- 18.5681
57	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	221221JIM	99%	2,010.3	µg/mL	+/- 37.1411
58	Diphenylamine	122-39-4	MKCH1042	99%	854.3	µg/mL	+/- 15.7844
59	Azobenzene	103-33-3	BCCC9136	99%	1,004.9	µg/mL	+/- 18.5656
60	4-Bromophenyl phenyl ether	101-55-3	STBB9729V	99%	1,004.8	µg/mL	+/- 18.5644
61	Hexachlorobenzene	118-74-1	13994200	99%	1,004.9	µg/mL	+/- 18.5669
62	Pentachlorophenol	87-86-5	RP221012	99%	2,010.1	µg/mL	+/- 37.1374
63	n-Octadecane (C18)	593-45-3	UE5NG	98%	1,005.0	µg/mL	+/- 18.5685
64	Phenanthrene	85-01-8	MKCQ2033	99%	1,004.9	µg/mL	+/- 18.5669
65	Anthracene	120-12-7	MKCP3968	99%	1,005.4	µg/mL	+/- 18.5755
66	Carbazole	86-74-8	13058900	99%	1,005.1	µg/mL	+/- 18.5693
67	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,005.3	µg/mL	+/- 18.5730
68	Fluoranthene	206-44-0	MKCQ4728	99%	1,005.1	µg/mL	+/- 18.5693
69	Pyrene	129-00-0	BCCG7845	99%	1,005.1	µg/mL	+/- 18.5706
70	Benzyl butyl phthalate	85-68-7	MKCN9008	99%	1,005.1	µg/mL	+/- 18.5693
71	Benz(a)anthracene	56-55-3	0012022BAA	99%	1,005.1	µg/mL	+/- 18.5706
72	Chrysene	218-01-9	468677R25M	99%	1,004.9	µg/mL	+/- 18.5669
73	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,005.0	µg/mL	+/- 18.5681
74	Di-n-octyl phthalate	117-84-0	13651900	99%	1,005.3	µg/mL	+/- 18.5743
75	Benzo(b)fluoranthene	205-99-2	012022B	99%	1,004.9	µg/mL	+/- 18.5669
76	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,005.1	µg/mL	+/- 18.5693
77	Benzo(a)pyrene	50-32-8	J6IUE	99%	1,005.1	µg/mL	+/- 18.5706
78	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	99%	1,005.3	µg/mL	+/- 18.5730
79	Dibenz(a,h)anthracene	53-70-3	ER032211-01	99%	1,005.1	µg/mL	+/- 18.5706
80	Benzo(g,h,i)perylene	191-24-2	PMEVE	98%	1,005.2	µg/mL	+/- 18.5721

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 1000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 855 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.
This lot was approved even though the %D for 4,6-DN-2-MP was greater than 10%.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

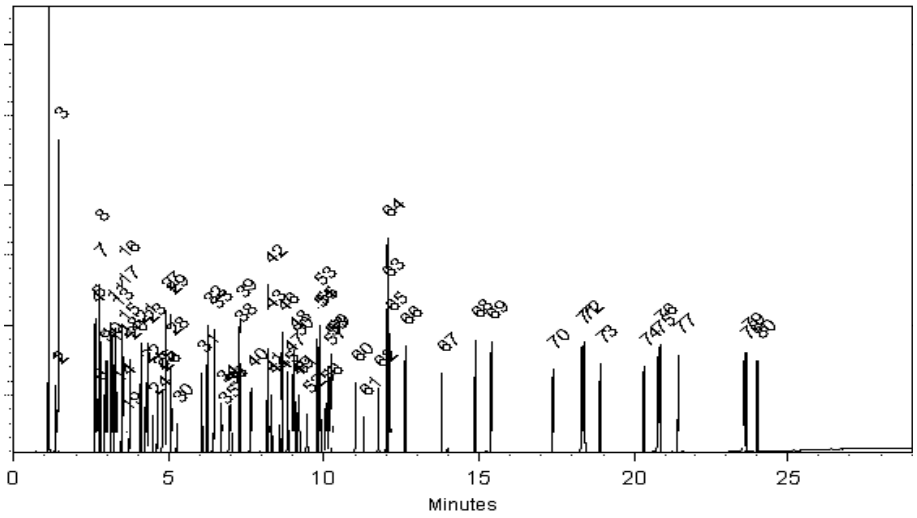
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Nick Yaw - Operations Tech I

Date Mixed: 10-Mar-2023 **Balance Serial #** B442140311

Christie Mills - Operations Tech II - ARM QC

Date Passed: 05-Apr-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

571995_00195

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571995 **Lot No.:** A0205288

Description : 8270 List 1 / Std #1 MegaMix (2017)

8270 List 1 / Std #1 MegaMix (2017) 500-2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : June 30, 2025 **Storage:** 0°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBQ2407	99%	1,009.8 µg/mL	+/- 18.6617
2	N-Nitrosodimethylamine	62-75-9	S231113RSR	99%	1,005.3 µg/mL	+/- 18.5785
3	Pyridine	110-86-1	SHBP6240	99%	2,019.3 µg/mL	+/- 37.3086
4	Phenol	108-95-2	MKCK1120	99%	1,004.7 µg/mL	+/- 18.5662
5	Aniline	62-53-3	X22F726	99%	1,008.0 µg/mL	+/- 18.6278
6	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,006.5 µg/mL	+/- 18.6001
7	n-Decane (C10)	124-18-5	SHBQ1342	99%	1,006.5 µg/mL	+/- 18.6001
8	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.2 µg/mL	+/- 18.5754
9	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,005.0 µg/mL	+/- 18.5724
10	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,008.3 µg/mL	+/- 18.6340
11	Benzyl alcohol	100-51-6	SHBK5469	99%	1,006.2 µg/mL	+/- 18.5939
12	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,009.0 µg/mL	+/- 18.6463
13	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,005.5 µg/mL	+/- 18.5816
14	2,2'-oxybis(1-chloropropane)	108-60-1	230714JLM	99%	1,004.2 µg/mL	+/- 18.5570
15	Acetophenone	98-86-2	STBH8205	99%	1,004.5 µg/mL	+/- 18.5631
16	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	503.3 µg/mL	+/- 9.3016

17	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	504.8	µg/mL	+/- 9.3293
18	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,005.8	µg/mL	+/- 18.5878
19	Hexachloroethane	67-72-1	QTORH	99%	1,004.8	µg/mL	+/- 18.5693
20	Nitrobenzene	98-95-3	10224044	99%	1,005.3	µg/mL	+/- 18.5785
21	Isophorone	78-59-1	MKCC9506	99%	1,006.8	µg/mL	+/- 18.6062
22	2-Nitrophenol	88-75-5	RP230509C	99%	1,008.2	µg/mL	+/- 18.6309
23	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,007.7	µg/mL	+/- 18.6216
24	Bis(2-chloroethoxy)methane	111-91-1	14866000	98%	1,008.3	µg/mL	+/- 18.6325
25	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,009.7	µg/mL	+/- 18.6586
26	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,009.3	µg/mL	+/- 18.6524
27	Naphthalene	91-20-3	STBL1057	99%	1,008.5	µg/mL	+/- 18.6370
28	2,6-Dichlorophenol	87-65-0	MKCP7682	99%	1,005.8	µg/mL	+/- 18.5878
29	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,003.2	µg/mL	+/- 18.5385
30	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,009.4	µg/mL	+/- 18.6537
31	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,005.3	µg/mL	+/- 18.5785
32	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,000.0	µg/mL	+/- 18.4800
33	1-Methylnaphthalene	90-12-0	5234.00-8	98%	999.6	µg/mL	+/- 18.4726
34	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,007.0	µg/mL	+/- 18.6093
35	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.1	µg/mL	+/- 18.6295
36	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,009.2	µg/mL	+/- 18.6494
37	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,006.5	µg/mL	+/- 18.5993
38	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,006.7	µg/mL	+/- 18.6032
39	Biphenyl	92-52-4	MKCL6515	99%	1,005.8	µg/mL	+/- 18.5878
40	2-Nitroaniline	88-74-4	RP230531	99%	1,007.0	µg/mL	+/- 18.6093
41	Acenaphthylene	208-96-8	O03R	98%	1,009.9	µg/mL	+/- 18.6627
42	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,005.7	µg/mL	+/- 18.5847
43	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.7	µg/mL	+/- 18.5847
44	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,006.3	µg/mL	+/- 18.5970
45	3-Nitroaniline	99-09-2	RP231103CTH-1	99%	1,007.7	µg/mL	+/- 18.6216
46	Acenaphthene	83-32-9	MKCR7169	99%	1,000.0	µg/mL	+/- 18.4800
47	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	2,017.7	µg/mL	+/- 37.2779
48	Dibenzofuran	132-64-9	MKCN1772	99%	1,008.5	µg/mL	+/- 18.6370
49	4-Nitrophenol	100-02-7	RP230627	99%	2,018.3	µg/mL	+/- 37.2902
50	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,006.3	µg/mL	+/- 18.5970
51	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,005.3	µg/mL	+/- 18.5785
52	Fluorene	86-73-7	10241100	99%	1,005.0	µg/mL	+/- 18.5724

53	n-Hexadecane (C16)	544-76-3	SHBM4146	98%	1,006.3	µg/mL	+/- 18.5963
54	Diethylphthalate	84-66-2	BCCD3396	99%	1,008.5	µg/mL	+/- 18.6370
55	4-Chlorophenyl phenyl ether	7005-72-3	MKCQ0984	99%	1,007.5	µg/mL	+/- 18.6186
56	4-Nitroaniline	100-01-6	RP230111	99%	1,005.5	µg/mL	+/- 18.5816
57	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	2,019.0	µg/mL	+/- 37.3025
58	Diphenylamine	122-39-4	MKCH1042	99%	857.8	µg/mL	+/- 15.8527
59	Azobenzene	103-33-3	BCCK0887	99%	1,004.7	µg/mL	+/- 18.5662
60	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,009.3	µg/mL	+/- 18.6524
61	Hexachlorobenzene	118-74-1	14876600	99%	1,009.3	µg/mL	+/- 18.6524
62	Pentachlorophenol	87-86-5	RP231108CTH	99%	2,018.7	µg/mL	+/- 37.2963
63	n-Octadecane (C18)	593-45-3	UE5NG	98%	1,008.4	µg/mL	+/- 18.6356
64	Phenanthrene	85-01-8	MKCQ8876	99%	1,006.8	µg/mL	+/- 18.6062
65	Anthracene	120-12-7	MKCR0570	99%	1,007.5	µg/mL	+/- 18.6186
66	Carbazole	86-74-8	14872900	99%	1,007.2	µg/mL	+/- 18.6124
67	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,009.3	µg/mL	+/- 18.6524
68	Fluoranthene	206-44-0	MKCQ4728	99%	1,006.8	µg/mL	+/- 18.6062
69	Pyrene	129-00-0	BCCK2592	99%	1,004.3	µg/mL	+/- 18.5600
70	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,006.7	µg/mL	+/- 18.6032
71	Benz(a)anthracene	56-55-3	I30012022BAA	99%	1,009.0	µg/mL	+/- 18.6463
72	Chrysene	218-01-9	RP231102CTH	99%	1,004.8	µg/mL	+/- 18.5693
73	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,007.3	µg/mL	+/- 18.6155
74	Di-n-octyl phthalate	117-84-0	14783100	99%	1,008.5	µg/mL	+/- 18.6370
75	Benzo(b)fluoranthene	205-99-2	022013B	99%	1,006.7	µg/mL	+/- 18.6032
76	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,007.2	µg/mL	+/- 18.6124
77	Benzo(a)pyrene	50-32-8	O45GL	98%	1,006.6	µg/mL	+/- 18.6024
78	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,008.3	µg/mL	+/- 18.6336
79	Dibenz(a,h)anthracene	53-70-3	1-SLH-51-1	99%	1,007.2	µg/mL	+/- 18.6124
80	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,007.8	µg/mL	+/- 18.6247

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 1000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 855 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.
This lot was approved even though the %D for 4,6-DN-2-MP was greater than 10%.

Tech Tips:

N-Nitrosodiphenylamine (86-30-6) is prone to breakdown in the injection port and will be converted to Diphenylamine (122-39-4). When comparing the response of Diphenylamine to mixtures manufactured using N-Nitrosodiphenylamine, a difference in response will be observed. The ratio of the MW can be used to calculate the theoretical concentration of the N-Nitrosodiphenylamine.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

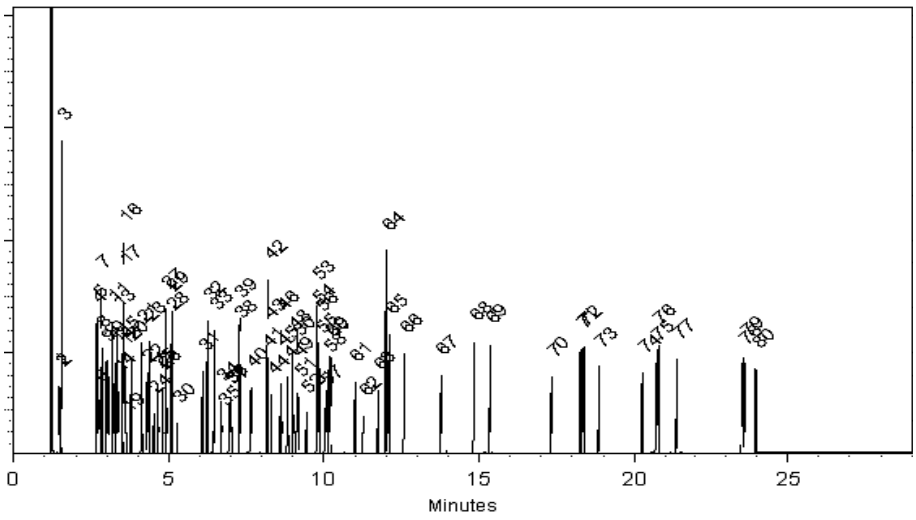
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brittany Federinko - Operations Tech I

Date Mixed: 11-Dec-2023 **Balance Serial #** B442140311

Dillan Murphy - Operations Technician I

Date Passed: 14-Dec-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

571995_00212

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
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Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571995 **Lot No.:** A0210070

Description : 8270 List 1 / Std #1 MegaMix (2017)

8270 List 1 / Std #1 MegaMix (2017) 500-2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : February 28, 2025 **Storage:** 0°C or colder

Handling: Sonicate prior to use. Carcinogen/reproductive toxin. Photosensitive. Sonicate. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBQ2407	99%	1,001.0 µg/mL	+/- 18.4984
2	N-Nitrosodimethylamine	62-75-9	S240313RSR	99%	1,009.8 µg/mL	+/- 18.6601
3	Pyridine	110-86-1	SHBP6240	99%	2,003.3 µg/mL	+/- 37.0200
4	Phenol	108-95-2	MKCK1120	99%	1,005.0 µg/mL	+/- 18.5724
5	Aniline	62-53-3	X22F726	99%	1,006.5 µg/mL	+/- 18.6001
6	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,003.1 µg/mL	+/- 18.7106
7	n-Decane (C10)	124-18-5	SHBQ1342	99%	1,004.3 µg/mL	+/- 18.5585
8	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.3 µg/mL	+/- 18.5031
9	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,001.3 µg/mL	+/- 18.5031
10	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,006.8 µg/mL	+/- 18.6047
11	Benzyl alcohol	100-51-6	SHBK5469	99%	1,005.5 µg/mL	+/- 18.5816
12	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,006.5 µg/mL	+/- 18.6001
13	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,005.8 µg/mL	+/- 18.5862
14	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,003.5 µg/mL	+/- 18.7176
15	Acetophenone	98-86-2	STBH8205	99%	1,008.5 µg/mL	+/- 18.6370
16	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	501.8 µg/mL	+/- 9.2723

17	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	501.0	µg/mL	+/- 9.2585
18	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,010.0	µg/mL	+/- 18.6648
19	Hexachloroethane	67-72-1	DAXRI	99%	1,003.8	µg/mL	+/- 18.7223
20	Nitrobenzene	98-95-3	10224044	99%	1,005.0	µg/mL	+/- 18.7456
21	Isophorone	78-59-1	MKCC9506	99%	1,005.5	µg/mL	+/- 18.7549
22	2-Nitrophenol	88-75-5	RP230509C	99%	1,005.5	µg/mL	+/- 18.5816
23	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,008.5	µg/mL	+/- 18.6370
24	Bis(2-chloroethoxy)methane	111-91-1	14866000	98%	1,002.3	µg/mL	+/- 18.6951
25	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,006.0	µg/mL	+/- 18.5908
26	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,003.3	µg/mL	+/- 18.5400
27	Naphthalene	91-20-3	STBL1057	99%	1,000.5	µg/mL	+/- 18.6616
28	2,6-Dichlorophenol	87-65-0	MKCP7682	99%	1,007.8	µg/mL	+/- 18.6232
29	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,009.0	µg/mL	+/- 18.6463
30	Hexachlorobutadiene	87-68-3	X05J	99%	1,007.5	µg/mL	+/- 18.7922
31	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,005.0	µg/mL	+/- 18.5724
32	2-Methylnaphthalene	91-57-6	STBK0259	96%	999.8	µg/mL	+/- 18.4770
33	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 18.4800
34	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,008.8	µg/mL	+/- 18.6417
35	Hexachlorocyclopentadiene	77-47-4	099063P13G	99%	1,006.9	µg/mL	+/- 18.7805
36	2,4,6-Trichlorophenol	88-06-2	STBK8870	99%	1,004.0	µg/mL	+/- 18.5539
37	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,008.9	µg/mL	+/- 18.6446
38	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,010.0	µg/mL	+/- 18.8388
39	Biphenyl	92-52-4	MKCS5928	99%	1,004.5	µg/mL	+/- 18.5631
40	2-Nitroaniline	88-74-4	RP230531	99%	1,004.0	µg/mL	+/- 18.5539
41	Acenaphthylene	208-96-8	214935L31M	98%	1,000.9	µg/mL	+/- 18.6700
42	1,3-Dinitrobenzene	99-65-0	TRC3-1075941-2-1	99%	1,006.8	µg/mL	+/- 18.6047
43	Dimethylphthalate	131-11-3	358221L17K	99%	1,001.3	µg/mL	+/- 18.6756
44	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,008.0	µg/mL	+/- 18.8015
45	3-Nitroaniline	99-09-2	RP231103CTH-1	99%	1,006.3	µg/mL	+/- 18.5955
46	Acenaphthene	83-32-9	MKCR7169	99%	1,009.6	µg/mL	+/- 18.8318
47	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	2,016.3	µg/mL	+/- 37.2602
48	Dibenzofuran	132-64-9	MKCN1772	99%	1,002.0	µg/mL	+/- 18.5169
49	4-Nitrophenol	100-02-7	RP240328CTH	99%	2,011.0	µg/mL	+/- 37.1632
50	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.3	µg/mL	+/- 18.7129
51	2,3,4,6-Tetrachlorophenol	58-90-2	PR-34476	99%	1,001.0	µg/mL	+/- 18.4984
52	Fluorene	86-73-7	10241100	99%	1,009.9	µg/mL	+/- 18.8365

53	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	1,003.0	µg/mL	+/- 18.5354
54	Diethylphthalate	84-66-2	BCCJ6241	99%	1,010.0	µg/mL	+/- 18.8388
55	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,000.9	µg/mL	+/- 18.6686
56	4-Nitroaniline	100-01-6	RP230111	99%	1,005.5	µg/mL	+/- 18.5816
57	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	S240403RSR	99%	2,011.0	µg/mL	+/- 37.1632
58	Diphenylamine	122-39-4	MKCT1512	99%	852.0	µg/mL	+/- 15.7449
59	Azobenzene	103-33-3	BCCK0887	99%	1,004.8	µg/mL	+/- 18.5677
60	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,001.6	µg/mL	+/- 18.6826
61	Hexachlorobenzene	118-74-1	14407000	99%	1,000.0	µg/mL	+/- 18.6523
62	Pentachlorophenol	87-86-5	RP240304ECS	99%	2,010.8	µg/mL	+/- 37.1586
63	n-Octadecane (C18)	593-45-3	UE5NG	98%	1,001.6	µg/mL	+/- 18.5088
64	Phenanthrene	85-01-8	MKCS5188	99%	1,000.9	µg/mL	+/- 18.6686
65	Anthracene	120-12-7	MKCR0570	99%	1,002.8	µg/mL	+/- 18.7036
66	Carbazole	86-74-8	14872900	99%	1,005.8	µg/mL	+/- 18.5862
67	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,003.4	µg/mL	+/- 18.7153
68	Fluoranthene	206-44-0	MKCQ4728	99%	1,003.1	µg/mL	+/- 18.7106
69	Pyrene	129-00-0	BCCK2592	99%	1,006.1	µg/mL	+/- 18.7666
70	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,003.6	µg/mL	+/- 18.7199
71	Benz(a)anthracene	56-55-3	I40012022BAA	99%	1,000.5	µg/mL	+/- 18.6616
72	Chrysene	218-01-9	RP240130RSR	99%	1,002.3	µg/mL	+/- 18.6943
73	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.9	µg/mL	+/- 18.6873
74	Di-n-octyl phthalate	117-84-0	15172900	99%	1,004.0	µg/mL	+/- 18.7269
75	Benzo(b)fluoranthene	205-99-2	022013B	99%	1,001.1	µg/mL	+/- 18.6733
76	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,005.5	µg/mL	+/- 18.7549
77	Benzo(a)pyrene	50-32-8	O45GL	98%	1,004.5	µg/mL	+/- 18.7362
78	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,006.4	µg/mL	+/- 18.7712
79	Dibenz(a,h)anthracene	53-70-3	1-SLH-51-1	99%	1,001.5	µg/mL	+/- 18.6803
80	Benzo(g,h,i)perylene	191-24-2	RP240105ECS	99%	1,001.3	µg/mL	+/- 18.6756

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 1000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 855 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.
This lot was approved even though the %D for 4,6-DN-2-MP was greater than 10%.

Tech Tips:

N-Nitrosodiphenylamine (86-30-6) is prone to breakdown in the injection port and will be converted to Diphenylamine (122-39-4). When comparing the response of Diphenylamine to mixtures manufactured using N-Nitrosodiphenylamine, a difference in response will be observed. The ratio of the MW can be used to calculate the theoretical concentration of the N-Nitrosodiphenylamine.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

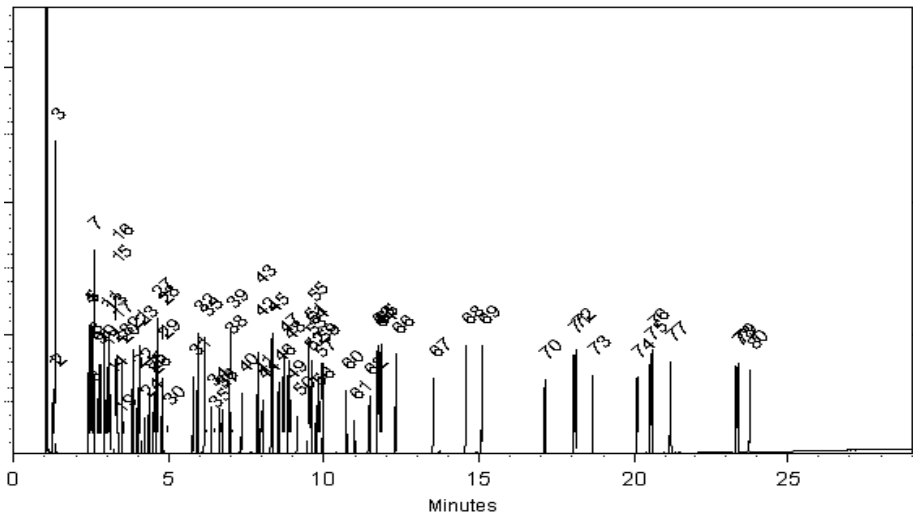
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 09-Apr-2024 **Balance Serial #** B442140311

John Lidgett - AD Chemist

Date Passed: 19-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

571995_00213

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571995 **Lot No.:** A0210070

Description : 8270 List 1 / Std #1 MegaMix (2017)

8270 List 1 / Std #1 MegaMix (2017) 500-2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : February 28, 2025 **Storage:** 0°C or colder

Handling: Sonicate prior to use. Carcinogen/reproductive toxin. Photosensitive. Sonicate. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBQ2407	99%	1,001.0 µg/mL	+/- 18.4984
2	N-Nitrosodimethylamine	62-75-9	S240313RSR	99%	1,009.8 µg/mL	+/- 18.6601
3	Pyridine	110-86-1	SHBP6240	99%	2,003.3 µg/mL	+/- 37.0200
4	Phenol	108-95-2	MKCK1120	99%	1,005.0 µg/mL	+/- 18.5724
5	Aniline	62-53-3	X22F726	99%	1,006.5 µg/mL	+/- 18.6001
6	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,003.1 µg/mL	+/- 18.7106
7	n-Decane (C10)	124-18-5	SHBQ1342	99%	1,004.3 µg/mL	+/- 18.5585
8	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.3 µg/mL	+/- 18.5031
9	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,001.3 µg/mL	+/- 18.5031
10	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,006.8 µg/mL	+/- 18.6047
11	Benzyl alcohol	100-51-6	SHBK5469	99%	1,005.5 µg/mL	+/- 18.5816
12	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,006.5 µg/mL	+/- 18.6001
13	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,005.8 µg/mL	+/- 18.5862
14	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,003.5 µg/mL	+/- 18.7176
15	Acetophenone	98-86-2	STBH8205	99%	1,008.5 µg/mL	+/- 18.6370
16	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	501.8 µg/mL	+/- 9.2723

17	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	501.0	µg/mL	+/- 9.2585
18	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,010.0	µg/mL	+/- 18.6648
19	Hexachloroethane	67-72-1	DAXRI	99%	1,003.8	µg/mL	+/- 18.7223
20	Nitrobenzene	98-95-3	10224044	99%	1,005.0	µg/mL	+/- 18.7456
21	Isophorone	78-59-1	MKCC9506	99%	1,005.5	µg/mL	+/- 18.7549
22	2-Nitrophenol	88-75-5	RP230509C	99%	1,005.5	µg/mL	+/- 18.5816
23	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,008.5	µg/mL	+/- 18.6370
24	Bis(2-chloroethoxy)methane	111-91-1	14866000	98%	1,002.3	µg/mL	+/- 18.6951
25	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,006.0	µg/mL	+/- 18.5908
26	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,003.3	µg/mL	+/- 18.5400
27	Naphthalene	91-20-3	STBL1057	99%	1,000.5	µg/mL	+/- 18.6616
28	2,6-Dichlorophenol	87-65-0	MKCP7682	99%	1,007.8	µg/mL	+/- 18.6232
29	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,009.0	µg/mL	+/- 18.6463
30	Hexachlorobutadiene	87-68-3	X05J	99%	1,007.5	µg/mL	+/- 18.7922
31	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,005.0	µg/mL	+/- 18.5724
32	2-Methylnaphthalene	91-57-6	STBK0259	96%	999.8	µg/mL	+/- 18.4770
33	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 18.4800
34	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,008.8	µg/mL	+/- 18.6417
35	Hexachlorocyclopentadiene	77-47-4	099063P13G	99%	1,006.9	µg/mL	+/- 18.7805
36	2,4,6-Trichlorophenol	88-06-2	STBK8870	99%	1,004.0	µg/mL	+/- 18.5539
37	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,008.9	µg/mL	+/- 18.6446
38	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,010.0	µg/mL	+/- 18.8388
39	Biphenyl	92-52-4	MKCS5928	99%	1,004.5	µg/mL	+/- 18.5631
40	2-Nitroaniline	88-74-4	RP230531	99%	1,004.0	µg/mL	+/- 18.5539
41	Acenaphthylene	208-96-8	214935L31M	98%	1,000.9	µg/mL	+/- 18.6700
42	1,3-Dinitrobenzene	99-65-0	TRC3-1075941-2-1	99%	1,006.8	µg/mL	+/- 18.6047
43	Dimethylphthalate	131-11-3	358221L17K	99%	1,001.3	µg/mL	+/- 18.6756
44	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,008.0	µg/mL	+/- 18.8015
45	3-Nitroaniline	99-09-2	RP231103CTH-1	99%	1,006.3	µg/mL	+/- 18.5955
46	Acenaphthene	83-32-9	MKCR7169	99%	1,009.6	µg/mL	+/- 18.8318
47	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	2,016.3	µg/mL	+/- 37.2602
48	Dibenzofuran	132-64-9	MKCN1772	99%	1,002.0	µg/mL	+/- 18.5169
49	4-Nitrophenol	100-02-7	RP240328CTH	99%	2,011.0	µg/mL	+/- 37.1632
50	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.3	µg/mL	+/- 18.7129
51	2,3,4,6-Tetrachlorophenol	58-90-2	PR-34476	99%	1,001.0	µg/mL	+/- 18.4984
52	Fluorene	86-73-7	10241100	99%	1,009.9	µg/mL	+/- 18.8365

53	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	1,003.0	µg/mL	+/- 18.5354
54	Diethylphthalate	84-66-2	BCCJ6241	99%	1,010.0	µg/mL	+/- 18.8388
55	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,000.9	µg/mL	+/- 18.6686
56	4-Nitroaniline	100-01-6	RP230111	99%	1,005.5	µg/mL	+/- 18.5816
57	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	S240403RSR	99%	2,011.0	µg/mL	+/- 37.1632
58	Diphenylamine	122-39-4	MKCT1512	99%	852.0	µg/mL	+/- 15.7449
59	Azobenzene	103-33-3	BCCK0887	99%	1,004.8	µg/mL	+/- 18.5677
60	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,001.6	µg/mL	+/- 18.6826
61	Hexachlorobenzene	118-74-1	14407000	99%	1,000.0	µg/mL	+/- 18.6523
62	Pentachlorophenol	87-86-5	RP240304ECS	99%	2,010.8	µg/mL	+/- 37.1586
63	n-Octadecane (C18)	593-45-3	UE5NG	98%	1,001.6	µg/mL	+/- 18.5088
64	Phenanthrene	85-01-8	MKCS5188	99%	1,000.9	µg/mL	+/- 18.6686
65	Anthracene	120-12-7	MKCR0570	99%	1,002.8	µg/mL	+/- 18.7036
66	Carbazole	86-74-8	14872900	99%	1,005.8	µg/mL	+/- 18.5862
67	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,003.4	µg/mL	+/- 18.7153
68	Fluoranthene	206-44-0	MKCQ4728	99%	1,003.1	µg/mL	+/- 18.7106
69	Pyrene	129-00-0	BCCK2592	99%	1,006.1	µg/mL	+/- 18.7666
70	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,003.6	µg/mL	+/- 18.7199
71	Benz(a)anthracene	56-55-3	I40012022BAA	99%	1,000.5	µg/mL	+/- 18.6616
72	Chrysene	218-01-9	RP240130RSR	99%	1,002.3	µg/mL	+/- 18.6943
73	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.9	µg/mL	+/- 18.6873
74	Di-n-octyl phthalate	117-84-0	15172900	99%	1,004.0	µg/mL	+/- 18.7269
75	Benzo(b)fluoranthene	205-99-2	022013B	99%	1,001.1	µg/mL	+/- 18.6733
76	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,005.5	µg/mL	+/- 18.7549
77	Benzo(a)pyrene	50-32-8	O45GL	98%	1,004.5	µg/mL	+/- 18.7362
78	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,006.4	µg/mL	+/- 18.7712
79	Dibenz(a,h)anthracene	53-70-3	1-SLH-51-1	99%	1,001.5	µg/mL	+/- 18.6803
80	Benzo(g,h,i)perylene	191-24-2	RP240105ECS	99%	1,001.3	µg/mL	+/- 18.6756

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 1000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 855 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.
This lot was approved even though the %D for 4,6-DN-2-MP was greater than 10%.

Tech Tips:

N-Nitrosodiphenylamine (86-30-6) is prone to breakdown in the injection port and will be converted to Diphenylamine (122-39-4). When comparing the response of Diphenylamine to mixtures manufactured using N-Nitrosodiphenylamine, a difference in response will be observed. The ratio of the MW can be used to calculate the theoretical concentration of the N-Nitrosodiphenylamine.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

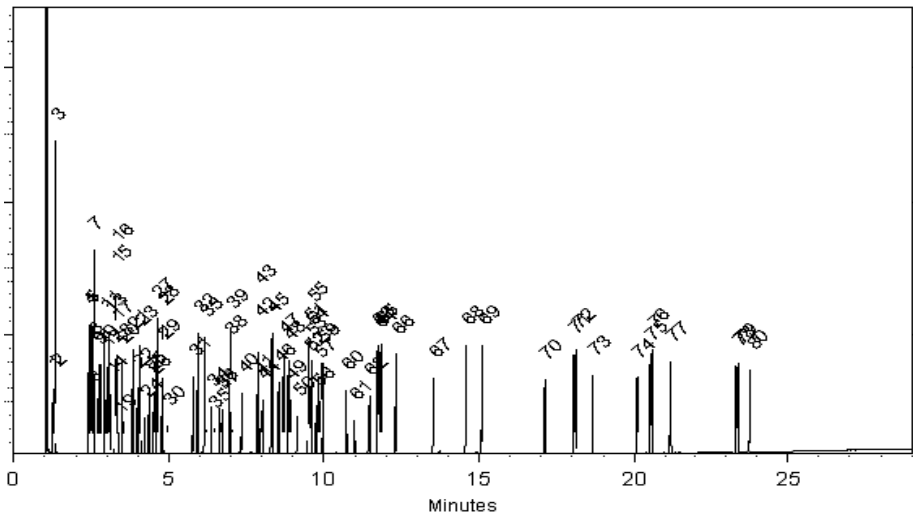
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 09-Apr-2024 **Balance Serial #** B442140311

John Lidgett - AD Chemist

Date Passed: 19-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

571995_00214

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571995 **Lot No.:** A0210070

Description : 8270 List 1 / Std #1 MegaMix (2017)

8270 List 1 / Std #1 MegaMix (2017) 500-2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : February 28, 2025 **Storage:** 0°C or colder

Handling: Sonicate prior to use. Carcinogen/reproductive toxin. Photosensitive. Sonicate. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBQ2407	99%	1,001.0 µg/mL	+/- 18.4984
2	N-Nitrosodimethylamine	62-75-9	S240313RSR	99%	1,009.8 µg/mL	+/- 18.6601
3	Pyridine	110-86-1	SHBP6240	99%	2,003.3 µg/mL	+/- 37.0200
4	Phenol	108-95-2	MKCK1120	99%	1,005.0 µg/mL	+/- 18.5724
5	Aniline	62-53-3	X22F726	99%	1,006.5 µg/mL	+/- 18.6001
6	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,003.1 µg/mL	+/- 18.7106
7	n-Decane (C10)	124-18-5	SHBQ1342	99%	1,004.3 µg/mL	+/- 18.5585
8	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.3 µg/mL	+/- 18.5031
9	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,001.3 µg/mL	+/- 18.5031
10	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,006.8 µg/mL	+/- 18.6047
11	Benzyl alcohol	100-51-6	SHBK5469	99%	1,005.5 µg/mL	+/- 18.5816
12	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,006.5 µg/mL	+/- 18.6001
13	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,005.8 µg/mL	+/- 18.5862
14	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,003.5 µg/mL	+/- 18.7176
15	Acetophenone	98-86-2	STBH8205	99%	1,008.5 µg/mL	+/- 18.6370
16	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	501.8 µg/mL	+/- 9.2723

17	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	501.0	µg/mL	+/- 9.2585
18	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,010.0	µg/mL	+/- 18.6648
19	Hexachloroethane	67-72-1	DAXRI	99%	1,003.8	µg/mL	+/- 18.7223
20	Nitrobenzene	98-95-3	10224044	99%	1,005.0	µg/mL	+/- 18.7456
21	Isophorone	78-59-1	MKCC9506	99%	1,005.5	µg/mL	+/- 18.7549
22	2-Nitrophenol	88-75-5	RP230509C	99%	1,005.5	µg/mL	+/- 18.5816
23	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,008.5	µg/mL	+/- 18.6370
24	Bis(2-chloroethoxy)methane	111-91-1	14866000	98%	1,002.3	µg/mL	+/- 18.6951
25	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,006.0	µg/mL	+/- 18.5908
26	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,003.3	µg/mL	+/- 18.5400
27	Naphthalene	91-20-3	STBL1057	99%	1,000.5	µg/mL	+/- 18.6616
28	2,6-Dichlorophenol	87-65-0	MKCP7682	99%	1,007.8	µg/mL	+/- 18.6232
29	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,009.0	µg/mL	+/- 18.6463
30	Hexachlorobutadiene	87-68-3	X05J	99%	1,007.5	µg/mL	+/- 18.7922
31	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,005.0	µg/mL	+/- 18.5724
32	2-Methylnaphthalene	91-57-6	STBK0259	96%	999.8	µg/mL	+/- 18.4770
33	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 18.4800
34	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,008.8	µg/mL	+/- 18.6417
35	Hexachlorocyclopentadiene	77-47-4	099063P13G	99%	1,006.9	µg/mL	+/- 18.7805
36	2,4,6-Trichlorophenol	88-06-2	STBK8870	99%	1,004.0	µg/mL	+/- 18.5539
37	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,008.9	µg/mL	+/- 18.6446
38	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,010.0	µg/mL	+/- 18.8388
39	Biphenyl	92-52-4	MKCS5928	99%	1,004.5	µg/mL	+/- 18.5631
40	2-Nitroaniline	88-74-4	RP230531	99%	1,004.0	µg/mL	+/- 18.5539
41	Acenaphthylene	208-96-8	214935L31M	98%	1,000.9	µg/mL	+/- 18.6700
42	1,3-Dinitrobenzene	99-65-0	TRC3-1075941-2-1	99%	1,006.8	µg/mL	+/- 18.6047
43	Dimethylphthalate	131-11-3	358221L17K	99%	1,001.3	µg/mL	+/- 18.6756
44	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,008.0	µg/mL	+/- 18.8015
45	3-Nitroaniline	99-09-2	RP231103CTH-1	99%	1,006.3	µg/mL	+/- 18.5955
46	Acenaphthene	83-32-9	MKCR7169	99%	1,009.6	µg/mL	+/- 18.8318
47	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	2,016.3	µg/mL	+/- 37.2602
48	Dibenzofuran	132-64-9	MKCN1772	99%	1,002.0	µg/mL	+/- 18.5169
49	4-Nitrophenol	100-02-7	RP240328CTH	99%	2,011.0	µg/mL	+/- 37.1632
50	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.3	µg/mL	+/- 18.7129
51	2,3,4,6-Tetrachlorophenol	58-90-2	PR-34476	99%	1,001.0	µg/mL	+/- 18.4984
52	Fluorene	86-73-7	10241100	99%	1,009.9	µg/mL	+/- 18.8365

53	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	1,003.0	µg/mL	+/- 18.5354
54	Diethylphthalate	84-66-2	BCCJ6241	99%	1,010.0	µg/mL	+/- 18.8388
55	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,000.9	µg/mL	+/- 18.6686
56	4-Nitroaniline	100-01-6	RP230111	99%	1,005.5	µg/mL	+/- 18.5816
57	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	S240403RSR	99%	2,011.0	µg/mL	+/- 37.1632
58	Diphenylamine	122-39-4	MKCT1512	99%	852.0	µg/mL	+/- 15.7449
59	Azobenzene	103-33-3	BCCK0887	99%	1,004.8	µg/mL	+/- 18.5677
60	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,001.6	µg/mL	+/- 18.6826
61	Hexachlorobenzene	118-74-1	14407000	99%	1,000.0	µg/mL	+/- 18.6523
62	Pentachlorophenol	87-86-5	RP240304ECS	99%	2,010.8	µg/mL	+/- 37.1586
63	n-Octadecane (C18)	593-45-3	UE5NG	98%	1,001.6	µg/mL	+/- 18.5088
64	Phenanthrene	85-01-8	MKCS5188	99%	1,000.9	µg/mL	+/- 18.6686
65	Anthracene	120-12-7	MKCR0570	99%	1,002.8	µg/mL	+/- 18.7036
66	Carbazole	86-74-8	14872900	99%	1,005.8	µg/mL	+/- 18.5862
67	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,003.4	µg/mL	+/- 18.7153
68	Fluoranthene	206-44-0	MKCQ4728	99%	1,003.1	µg/mL	+/- 18.7106
69	Pyrene	129-00-0	BCCK2592	99%	1,006.1	µg/mL	+/- 18.7666
70	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,003.6	µg/mL	+/- 18.7199
71	Benz(a)anthracene	56-55-3	I40012022BAA	99%	1,000.5	µg/mL	+/- 18.6616
72	Chrysene	218-01-9	RP240130RSR	99%	1,002.3	µg/mL	+/- 18.6943
73	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.9	µg/mL	+/- 18.6873
74	Di-n-octyl phthalate	117-84-0	15172900	99%	1,004.0	µg/mL	+/- 18.7269
75	Benzo(b)fluoranthene	205-99-2	022013B	99%	1,001.1	µg/mL	+/- 18.6733
76	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,005.5	µg/mL	+/- 18.7549
77	Benzo(a)pyrene	50-32-8	O45GL	98%	1,004.5	µg/mL	+/- 18.7362
78	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,006.4	µg/mL	+/- 18.7712
79	Dibenz(a,h)anthracene	53-70-3	1-SLH-51-1	99%	1,001.5	µg/mL	+/- 18.6803
80	Benzo(g,h,i)perylene	191-24-2	RP240105ECS	99%	1,001.3	µg/mL	+/- 18.6756

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 1000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 855 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.
This lot was approved even though the %D for 4,6-DN-2-MP was greater than 10%.

Tech Tips:

N-Nitrosodiphenylamine (86-30-6) is prone to breakdown in the injection port and will be converted to Diphenylamine (122-39-4). When comparing the response of Diphenylamine to mixtures manufactured using N-Nitrosodiphenylamine, a difference in response will be observed. The ratio of the MW can be used to calculate the theoretical concentration of the N-Nitrosodiphenylamine.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

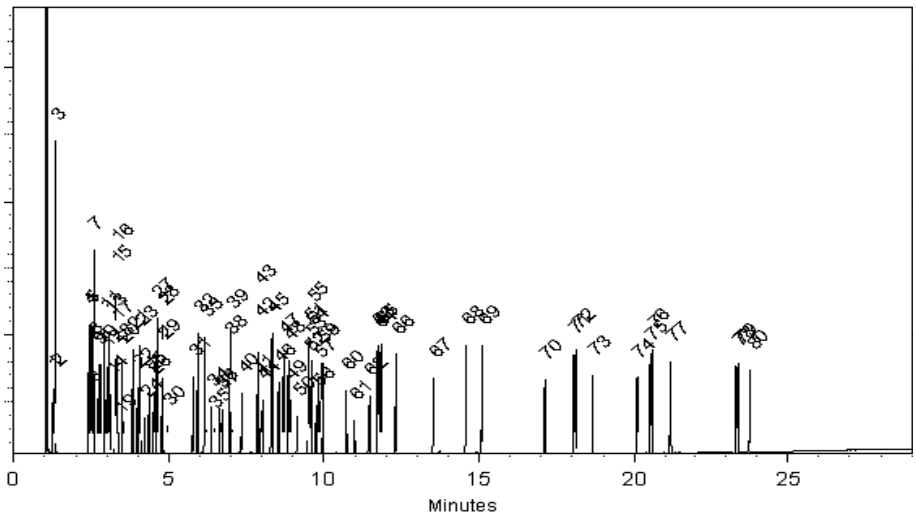
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 09-Apr-2024 **Balance Serial #** B442140311

John Lidgett - AD Chemist

Date Passed: 19-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

571995_00215

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571995 **Lot No.:** A0210070

Description : 8270 List 1 / Std #1 MegaMix (2017)

8270 List 1 / Std #1 MegaMix (2017) 500-2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : February 28, 2025 **Storage:** 0°C or colder

Handling: Sonicate prior to use. Carcinogen/reproductive toxin. Photosensitive. Sonicate. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBQ2407	99%	1,001.0 µg/mL	+/- 18.4984
2	N-Nitrosodimethylamine	62-75-9	S240313RSR	99%	1,009.8 µg/mL	+/- 18.6601
3	Pyridine	110-86-1	SHBP6240	99%	2,003.3 µg/mL	+/- 37.0200
4	Phenol	108-95-2	MKCK1120	99%	1,005.0 µg/mL	+/- 18.5724
5	Aniline	62-53-3	X22F726	99%	1,006.5 µg/mL	+/- 18.6001
6	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,003.1 µg/mL	+/- 18.7106
7	n-Decane (C10)	124-18-5	SHBQ1342	99%	1,004.3 µg/mL	+/- 18.5585
8	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.3 µg/mL	+/- 18.5031
9	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,001.3 µg/mL	+/- 18.5031
10	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,006.8 µg/mL	+/- 18.6047
11	Benzyl alcohol	100-51-6	SHBK5469	99%	1,005.5 µg/mL	+/- 18.5816
12	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,006.5 µg/mL	+/- 18.6001
13	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,005.8 µg/mL	+/- 18.5862
14	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,003.5 µg/mL	+/- 18.7176
15	Acetophenone	98-86-2	STBH8205	99%	1,008.5 µg/mL	+/- 18.6370
16	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	501.8 µg/mL	+/- 9.2723

17	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	501.0	µg/mL	+/- 9.2585
18	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,010.0	µg/mL	+/- 18.6648
19	Hexachloroethane	67-72-1	DAXRI	99%	1,003.8	µg/mL	+/- 18.7223
20	Nitrobenzene	98-95-3	10224044	99%	1,005.0	µg/mL	+/- 18.7456
21	Isophorone	78-59-1	MKCC9506	99%	1,005.5	µg/mL	+/- 18.7549
22	2-Nitrophenol	88-75-5	RP230509C	99%	1,005.5	µg/mL	+/- 18.5816
23	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,008.5	µg/mL	+/- 18.6370
24	Bis(2-chloroethoxy)methane	111-91-1	14866000	98%	1,002.3	µg/mL	+/- 18.6951
25	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,006.0	µg/mL	+/- 18.5908
26	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,003.3	µg/mL	+/- 18.5400
27	Naphthalene	91-20-3	STBL1057	99%	1,000.5	µg/mL	+/- 18.6616
28	2,6-Dichlorophenol	87-65-0	MKCP7682	99%	1,007.8	µg/mL	+/- 18.6232
29	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,009.0	µg/mL	+/- 18.6463
30	Hexachlorobutadiene	87-68-3	X05J	99%	1,007.5	µg/mL	+/- 18.7922
31	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,005.0	µg/mL	+/- 18.5724
32	2-Methylnaphthalene	91-57-6	STBK0259	96%	999.8	µg/mL	+/- 18.4770
33	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 18.4800
34	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,008.8	µg/mL	+/- 18.6417
35	Hexachlorocyclopentadiene	77-47-4	099063P13G	99%	1,006.9	µg/mL	+/- 18.7805
36	2,4,6-Trichlorophenol	88-06-2	STBK8870	99%	1,004.0	µg/mL	+/- 18.5539
37	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,008.9	µg/mL	+/- 18.6446
38	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,010.0	µg/mL	+/- 18.8388
39	Biphenyl	92-52-4	MKCS5928	99%	1,004.5	µg/mL	+/- 18.5631
40	2-Nitroaniline	88-74-4	RP230531	99%	1,004.0	µg/mL	+/- 18.5539
41	Acenaphthylene	208-96-8	214935L31M	98%	1,000.9	µg/mL	+/- 18.6700
42	1,3-Dinitrobenzene	99-65-0	TRC3-1075941-2-1	99%	1,006.8	µg/mL	+/- 18.6047
43	Dimethylphthalate	131-11-3	358221L17K	99%	1,001.3	µg/mL	+/- 18.6756
44	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,008.0	µg/mL	+/- 18.8015
45	3-Nitroaniline	99-09-2	RP231103CTH-1	99%	1,006.3	µg/mL	+/- 18.5955
46	Acenaphthene	83-32-9	MKCR7169	99%	1,009.6	µg/mL	+/- 18.8318
47	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	2,016.3	µg/mL	+/- 37.2602
48	Dibenzofuran	132-64-9	MKCN1772	99%	1,002.0	µg/mL	+/- 18.5169
49	4-Nitrophenol	100-02-7	RP240328CTH	99%	2,011.0	µg/mL	+/- 37.1632
50	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.3	µg/mL	+/- 18.7129
51	2,3,4,6-Tetrachlorophenol	58-90-2	PR-34476	99%	1,001.0	µg/mL	+/- 18.4984
52	Fluorene	86-73-7	10241100	99%	1,009.9	µg/mL	+/- 18.8365

53	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	1,003.0	µg/mL	+/- 18.5354
54	Diethylphthalate	84-66-2	BCCJ6241	99%	1,010.0	µg/mL	+/- 18.8388
55	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,000.9	µg/mL	+/- 18.6686
56	4-Nitroaniline	100-01-6	RP230111	99%	1,005.5	µg/mL	+/- 18.5816
57	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	S240403RSR	99%	2,011.0	µg/mL	+/- 37.1632
58	Diphenylamine	122-39-4	MKCT1512	99%	852.0	µg/mL	+/- 15.7449
59	Azobenzene	103-33-3	BCCK0887	99%	1,004.8	µg/mL	+/- 18.5677
60	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,001.6	µg/mL	+/- 18.6826
61	Hexachlorobenzene	118-74-1	14407000	99%	1,000.0	µg/mL	+/- 18.6523
62	Pentachlorophenol	87-86-5	RP240304ECS	99%	2,010.8	µg/mL	+/- 37.1586
63	n-Octadecane (C18)	593-45-3	UE5NG	98%	1,001.6	µg/mL	+/- 18.5088
64	Phenanthrene	85-01-8	MKCS5188	99%	1,000.9	µg/mL	+/- 18.6686
65	Anthracene	120-12-7	MKCR0570	99%	1,002.8	µg/mL	+/- 18.7036
66	Carbazole	86-74-8	14872900	99%	1,005.8	µg/mL	+/- 18.5862
67	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,003.4	µg/mL	+/- 18.7153
68	Fluoranthene	206-44-0	MKCQ4728	99%	1,003.1	µg/mL	+/- 18.7106
69	Pyrene	129-00-0	BCCK2592	99%	1,006.1	µg/mL	+/- 18.7666
70	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,003.6	µg/mL	+/- 18.7199
71	Benz(a)anthracene	56-55-3	I40012022BAA	99%	1,000.5	µg/mL	+/- 18.6616
72	Chrysene	218-01-9	RP240130RSR	99%	1,002.3	µg/mL	+/- 18.6943
73	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.9	µg/mL	+/- 18.6873
74	Di-n-octyl phthalate	117-84-0	15172900	99%	1,004.0	µg/mL	+/- 18.7269
75	Benzo(b)fluoranthene	205-99-2	022013B	99%	1,001.1	µg/mL	+/- 18.6733
76	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,005.5	µg/mL	+/- 18.7549
77	Benzo(a)pyrene	50-32-8	O45GL	98%	1,004.5	µg/mL	+/- 18.7362
78	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,006.4	µg/mL	+/- 18.7712
79	Dibenz(a,h)anthracene	53-70-3	1-SLH-51-1	99%	1,001.5	µg/mL	+/- 18.6803
80	Benzo(g,h,i)perylene	191-24-2	RP240105ECS	99%	1,001.3	µg/mL	+/- 18.6756

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 1000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 855 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.
This lot was approved even though the %D for 4,6-DN-2-MP was greater than 10%.

Tech Tips:

N-Nitrosodiphenylamine (86-30-6) is prone to breakdown in the injection port and will be converted to Diphenylamine (122-39-4). When comparing the response of Diphenylamine to mixtures manufactured using N-Nitrosodiphenylamine, a difference in response will be observed. The ratio of the MW can be used to calculate the theoretical concentration of the N-Nitrosodiphenylamine.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

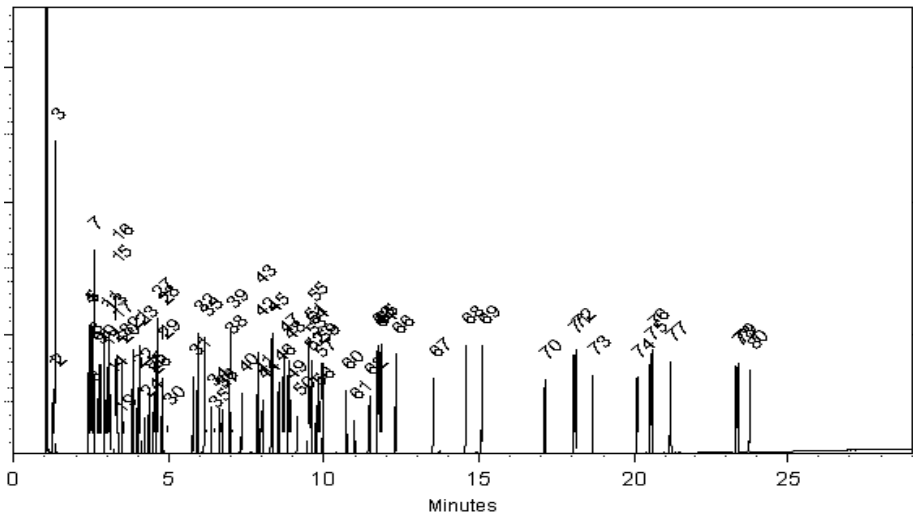
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 09-Apr-2024 **Balance Serial #** B442140311

John Lidgett - AD Chemist

Date Passed: 19-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8081ABResPS_00049

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Reference Material Producer
Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32415 **Lot No.:** A0184236

Description : Organochlorine Pesticide Mix AB #3

Organochlorine Pesticide Mix AB #3 2,000 µg/mL, Hexane/Toluene (50:50), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2026 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	alpha-BHC **CAS #** 319-84-6 (Lot 13026900) **Purity** 99%	2,002.0 µg/mL	+/- 11.7489 µg/mL +/- 91.1896 µg/mL +/- 131.6653 µg/mL	Gravimetric Unstressed Stressed
2	gamma-BHC (Lindane) **CAS #** 58-89-9 (Lot 12918800) **Purity** 99%	2,001.1 µg/mL	+/- 11.7436 µg/mL +/- 91.1486 µg/mL +/- 131.6062 µg/mL	Gravimetric Unstressed Stressed
3	beta-BHC **CAS #** 319-85-7 (Lot BCCC6425) **Purity** 99%	2,000.9 µg/mL	+/- 11.7421 µg/mL +/- 91.1372 µg/mL +/- 131.5897 µg/mL	Gravimetric Unstressed Stressed
4	delta-BHC **CAS #** 319-86-8 (Lot 13112400) **Purity** 99%	2,000.9 µg/mL	+/- 11.7421 µg/mL +/- 91.1372 µg/mL +/- 131.5897 µg/mL	Gravimetric Unstressed Stressed
5	Heptachlor **CAS #** 76-44-8 (Lot 803759) **Purity** 99%	2,003.7 µg/mL	+/- 11.7585 µg/mL +/- 91.2647 µg/mL +/- 131.7739 µg/mL	Gravimetric Unstressed Stressed
6	Aldrin **CAS #** 309-00-2 (Lot 12983100) **Purity** 96%	2,007.8 µg/mL	+/- 11.7828 µg/mL +/- 91.4534 µg/mL +/- 132.0463 µg/mL	Gravimetric Unstressed Stressed
7	Heptachlor epoxide (isomer B) **CAS #** 1024-57-3 (Lot 12468900) **Purity** 99%	2,002.5 µg/mL	+/- 11.7518 µg/mL +/- 91.2123 µg/mL +/- 131.6982 µg/mL	Gravimetric Unstressed Stressed

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

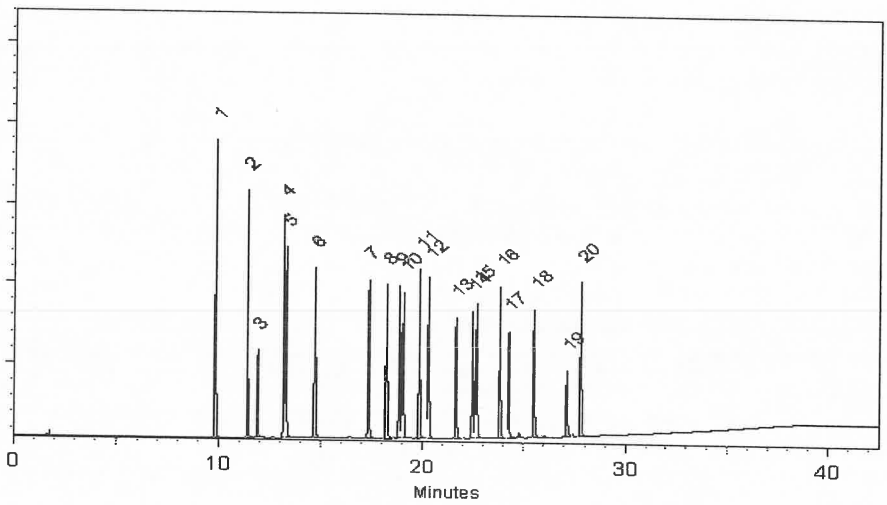
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
150°C to 300°C
@ 4°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 18-Apr-2022 **Balance:** B442140311

Christie Mills - Operations Technician II

Date Passed: 06-May-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

01-Aug-2020 rev.

Reagent

8081ABResPS_00052

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32415 **Lot No.:** A0192368

Description : Organochlorine Pesticide Mix AB #3

Organochlorine Pesticide Mix AB #3 2,000 µg/mL, Hexane/Toluene (50:50), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2027 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	alpha-BHC	319-84-6	13429800	99%	2,013.5 µg/mL	+/- 89.9814
2	gamma-BHC (Lindane)	58-89-9	13858100	98%	2,000.0 µg/mL	+/- 89.3781
3	beta-BHC	319-85-7	BCCC6425	99%	2,014.0 µg/mL	+/- 90.0038
4	delta-BHC	319-86-8	13855400	99%	2,012.5 µg/mL	+/- 89.9367
5	Heptachlor	76-44-8	803759	99%	2,020.0 µg/mL	+/- 90.2719
6	Aldrin	309-00-2	13858900	99%	2,019.0 µg/mL	+/- 90.2272
7	Heptachlor epoxide (isomer B)	1024-57-3	13823700	99%	2,012.5 µg/mL	+/- 89.9367
8	trans-Chlordane	5103-74-2	32943	98%	2,005.6 µg/mL	+/- 89.6271
9	cis-Chlordane	5103-71-9	31766	98%	2,000.0 µg/mL	+/- 89.3781
10	Endosulfan I	959-98-8	BCCF4060	99%	2,011.0 µg/mL	+/- 89.8697
11	4,4'-DDE	72-55-9	GHYQG	99%	2,010.0 µg/mL	+/- 89.8250
12	Dieldrin	60-57-1	13027100	98%	2,000.0 µg/mL	+/- 89.3781
13	Endrin	72-20-8	13332600	98%	2,010.0 µg/mL	+/- 89.8241
14	4,4'-DDD	72-54-8	HAN02	99%	2,013.5 µg/mL	+/- 89.9814
15	Endosulfan II	33213-65-9	13331400	99%	2,014.5 µg/mL	+/- 90.0261
16	Endrin aldehyde	7421-93-4	30720	98%	2,010.0 µg/mL	+/- 89.8241

17	4,4'-DDT	50-29-3	221025JLM	99%	2,017.5	µg/mL	+/-	90.1602
18	Endosulfan sulfate	1031-07-8	BCCH9010	99%	2,007.0	µg/mL	+/-	89.6910
19	Methoxychlor	72-43-5	13494600	97%	2,007.9	µg/mL	+/-	89.7312
20	Endrin ketone	53494-70-5	1-ABS-16-7	98%	2,006.6	µg/mL	+/-	89.6708

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Hexane/Toluene (50:50)
CAS # 110-54-3/108-88-3
Purity 99%

Quality Confirmation Test

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
150°C to 300°C
@ 4°C/min. (hold 5 min.)

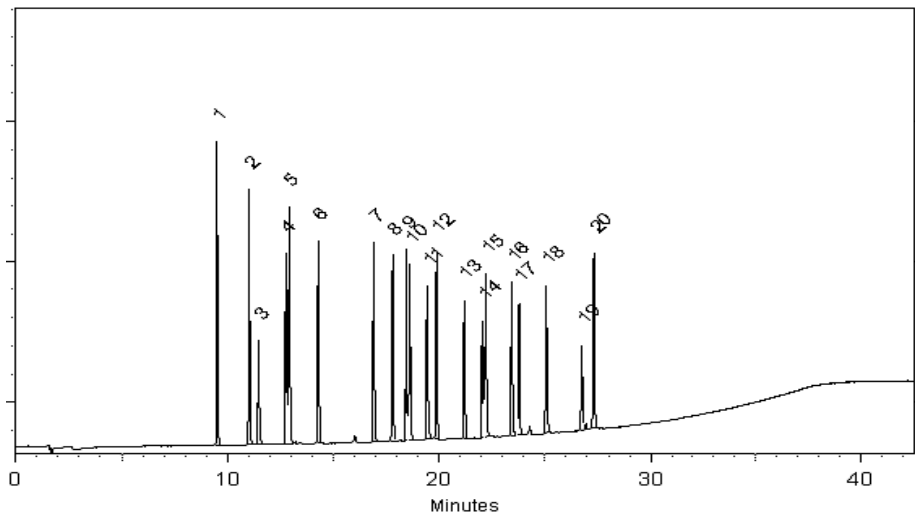
Inj. Temp:
200°C

Det. Temp:
300°C

Det. Type:
ECD

Split Vent:
Split ratio 280:1

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 07-Dec-2022 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 22-Dec-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8081ABResSS_00027

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Reference Material Producer
Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

chromatographic plus

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32415.SEC **Lot No.:** A0197059

Description : Organochlorine Pesticide Mix AB #3

Organochlorine Pesticide Mix AB #3 2,000µg/mL, Hexane/Toluene (50:50), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2027 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	alpha-BHC	319-84-6.SEC	G130554	98%	2,001.2 µg/mL	+/- 89.4300
2	gamma-BHC (Lindane)	58-89-9.SEC	LB95924V	97%	2,002.6 µg/mL	+/- 89.4928
3	beta-BHC	319-85-7.SEC	13588300	98%	2,003.3 µg/mL	+/- 89.5263
4	delta-BHC	319-86-8.SEC	LRAD2090	99%	2,020.0 µg/mL	+/- 90.2719
5	Heptachlor	76-44-8.SEC	13977800	98%	2,001.7 µg/mL	+/- 89.4563
6	Aldrin	309-00-2.SEC	ER062311-01	99%	2,002.6 µg/mL	+/- 89.4943
7	Heptachlor epoxide (isomer B)	1024-57-3 *	13978600	99%	2,010.7 µg/mL	+/- 89.8563
8	trans-Chlordane	5103-74-2.SEC	LRAD3896	99%	2,002.4 µg/mL	+/- 89.4854
9	cis-Chlordane	5103-71-9 *	31766	98%	2,010.2 µg/mL	+/- 89.8329
10	Endosulfan I	959-98-8.SEC	7832200	99%	2,005.9 µg/mL	+/- 89.6418
11	4,4'-DDE	72-55-9.SEC	13791500	99%	2,001.6 µg/mL	+/- 89.4496
12	Dieldrin	60-57-1.SEC	BCBW6023	96%	1,999.3 µg/mL	+/- 89.3467
13	Endrin	72-20-8 *	14123200	98%	2,009.0 µg/mL	+/- 89.7803
14	4,4'-DDD	72-54-8.SEC	13519400	99%	2,007.9 µg/mL	+/- 89.7312
15	Endosulfan II	33213-65-9.SEG	139276	99%	2,008.6 µg/mL	+/- 89.7625
16	Endrin aldehyde	7421-93-4 *	30720	98%	2,001.0 µg/mL	+/- 89.4212

Reagent

8081ChlrStkPS_00035

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571052-FL **Lot No.:** A0185496

Description : Chlordane Standard

Chlordane Standard 5,000µg/mL, Isooctane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Chlordane	5,040.0 µg/mL	+/- 29.5775	µg/mL	Gravimetric
	CAS # 57-74-9 (Lot 978545)		+/- 159.7376	µg/mL	Unstressed
	Purity ----%		+/- 208.6704	µg/mL	Stressed

Solvent: Isooctane
CAS # 540-84-1
Purity 99%

Specific Reference Material Notes:
This material may be reported as technical chlordane, with CAS number 12789-03-6

Tech Tips:
CAS #57-74-9 nomenclature is based on EPA method 8081B.

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK

Safety Data Sheet

Revision Date: 09/13/21
www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name:	**571052-SL / Chlordane Standard**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	2
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:
Hazardous to the aquatic environment - Acute Category 1
Hazardous to the aquatic environment - Chronic Category 1
Flammable Liquid Category 2
Skin Corrosion/Irritation Category 2
Carcinogenicity Category 2
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 3

GHS Signal Word:
Danger

GHS Hazard:
Highly flammable liquid and vapour.
Causes skin irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

GHS Precautions:

Safety Precautions:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilation and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash hands and skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.

First Aid Measures:
IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions: Harmful or irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment

Storage Technical Measures and Conditions: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
isooctane	540-84-1	Not established	None Known	300 ppm; 1401 mg/m3	No data available
chlordane	57-74-9	100 mg/m3 IDLH	None Known	0.5 mg/m3 TWA (inhalable fraction and vapor)	0.5 mg/m3 TWA

Personal Protection:

Engineering Measures: Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.

Eye Protection: Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin Protection: Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available
Odor:	Mild
Physical State:	No data available
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	3.94 (air = 1)
Boiling Point (°C):	99 °C
Melting Point (°C):	-107 °C
Flash Point (°F):	19
Flammability:	Highly Flammable
Upper Flammable/Explosive Limit, % in air:	No data available
Lower Flammable/Explosive Limit, % in air:	No data available
Autoignition Temperature (°C):	No data available deg C
Decomposition Temperature (°C):	No data available
Specific Gravity:	0.69 g/cm3 at 20 °C
Evaporation Rate:	No data available
Odor Threshold:	No data available
Solubility:	Negligible; 0-1%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	0
Molecular Weight:	No data available

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions.

Monograph 79 [2001]; Monograph 53 [1991]	57-74-9	Group 2B

12. ECOLOGICAL INFORMATION

Overview:	No ecological information available
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	No data
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste.Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:	
DOT Proper Shipping Name:	Octanes
UN Number:	UN1262
Hazard Class:	3
Packing Group:	II
International:	
IATA Proper Shipping Name:	Octanes
UN Number:	UN1262
Hazard Class:	3
Packing Group:	II

Marine Pollutant: Yes

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
isooctane	540-84-1	Y	N

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
isooctane	540-84-1	X	-	-	X
chlordane	57-74-9	X	X	X	-

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Chlordane	57-74-9	Prop 65 Cancer

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
isooctane	540-84-1	X	X	X	-
chlordane	57-74-9	X	X	X	X

16. OTHER INFORMATION

Prior Version Date:	01/14/16
Other Information:	Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.
References:	No data available

Reagent

8081EvalBStk3_00012

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

5/23/2024
4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571991 **Lot No.:** A0179337

Description : 8081 Performance Evaluation Mix

8081 Performance Evaluation Mix 5-10µg/mL, Hexane/Toluene (90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2024 **Storage:** 10°C or colder

Ship: Ambient

Page 353 of 3951

CERTIFIED VALUES

Elution Order	Compound		Gravi. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Endrin		5.0 µg/mL	+/- 0.1545	µg/mL	Gravimetric
	CAS # 72-20-8	(Lot 12618300)		+/- 0.2740	µg/mL	Unstressed
	Purity 98%			+/- 0.3627	µg/mL	Stressed
2	4,4'-DDT		10.0 µg/mL	+/- 0.3084	µg/mL	Gravimetric
	CAS # 50-29-3	(Lot 210916JLM)		+/- 0.5469	µg/mL	Unstressed
	Purity 99%			+/- 0.7240	µg/mL	Stressed

Solvent: Hexane/Toluene (90:10)
CAS # 110-54-3/108-88-3
Purity 99%

Reagent

8081HCBStkPS_00036

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USA

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CERTIFICATE OF ANALYSIS

Catalog No: APP-9-112
Description: Hexachlorobenzene
Lot: 222031229
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Mar 15, 2022
Expiration: Mar 15, 2032
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
Hexachlorobenzene	118-74-1	99.0	101.2	100.2

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

Reagent

8081HCBStkSS_00058

ISO 17034

Agilent
Trusted Answers

Reference Material Certificate

Product Name: Hexachlorobenzene Standard

Product Number: EPA-1125-1

Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006635838

Lot Issue Date: 05-Oct-2021

Expiration Date: 31-Oct-2025

Component Name	CERTIFIED VALUES Concentration	Expanded Uncertainty	CAS#	Analyte Lot
hexachlorobenzene	1001	± 5 µg/mL	000118-74-1	RM03125

Matrix: acetone

Description:
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:
This analytical reference standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Expiration of Certification:
The certification of this analytical reference standard is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.

Reagent

8081MirxStkPS_00059

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CERTIFICATE OF ANALYSIS

Catalog No: P-066S-10X
Description: Mirex
Lot: 222031255-01
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Apr 11, 2023
Expiration: May 11, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
Mirex	2385-85-5	100.0	1017	1017

This Certified Reference Material was verified in accordance with ISO/IEC 17025 (AT-1339) and ISO 17034 (AR-1463)

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[3] Purity/Identity determined by one or more of the following methods: GC/MS, LC/MS, NMR, FTIR, Melting Point.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 5/18

1. **Quality Standards:**

   ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers

   ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories

   ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

8081ToxSS_00056

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CERTIFICATE OF ANALYSIS

Catalog No: P-093S-H-10X
Description: Toxaphene
Lot: 221071537
Solvent: Hexane
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Jul 29, 2021
Expiration: Jul 29, 2031
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
Toxaphene	8001-35-2	Tech Mix	1007	1007

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

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Rev. 7/20

1. **Quality Standards:**

   ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers

   ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories

   ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

8081ToxSS_00075

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CERTIFICATE OF ANALYSIS

Catalog No: P-093S-H-10X
Description: Toxaphene
Lot: 223031071
Solvent: Hexane
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Mar 9, 2023
Expiration: Mar 9, 2033
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
Toxaphene	8001-35-2	Tech Mix	1006	1006

This Certified Reference Material was verified in accordance with ISO/IEC 17025 (AT-1339) and ISO 17034 (AR-1463)

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

[2] All weights are traceable through NIST, Test No. 684/291344-18 & 684/292805-19

[3] Purity/Identity determined by one or more of the following methods: GC/MS, LC/MS, NMR, FTIR, Melting Point.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

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1. **Quality Standards:**

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   ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories

   ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

8081ToxSS_00076

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CERTIFICATE OF ANALYSIS

Catalog No: P-093S-H-10X
Description: Toxaphene
Lot: 223031071
Solvent: Hexane
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Mar 9, 2023
Expiration: Mar 9, 2033
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
Toxaphene	8001-35-2	Tech Mix	1006	1006

This Certified Reference Material was verified in accordance with ISO/IEC 17025 (AT-1339) and ISO 17034 (AR-1463)

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[1] Certified Analyte Concentration = Purity x Prepared Concentration.

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[2] All weights are traceable through NIST, Test No. 684/291344-18 & 684/292805-19

[3] Purity/Identity determined by one or more of the following methods: GC/MS, LC/MS, NMR, FTIR, Melting Point.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

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This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

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1. **Quality Standards:**

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   ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories

   ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

8082 LCS_00071

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\SGC_P3\20240411-132124.b\0411105.D

Lims ID: LCS_0071 Inj. Date: 11-Apr-2024 09:24:51

Worklist ID: 280-0132124-005 Instrument: SGC_P3

Method: PCB_P3

Detector 1: GC ECD1A

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 L0C_LVI_1
1 PCB-1016	200.0	183.8	91.9	71-128
1 PCB-1016-1	200.0	176.1	88.0	71-128
1 PCB-1016-2	200.0	194.4	97.2	71-128
1 PCB-1016-3	200.0	180.0	90.0	71-128
1 PCB-1016-4	200.0	176.2	88.1	71-128
1 PCB-1016-5	200.0	192.2	96.1	71-128
12 PCB-1260	200.0	203.9	101.9	75-126
12 PCB-1260-1	200.0	206.1	103.0	75-126
12 PCB-1260-2	200.0	197.1	98.6	75-126
12 PCB-1260-3	200.0	201.9	100.9	75-126
12 PCB-1260-4	200.0	198.6	99.3	75-126
12 PCB-1260-5	200.0	215.8	107.9	75-126
19 1260 Res 1	200.0	*ND	0.0	
16 1260 Res 2	200.0	*ND	0.0	
18 1260 Res 3	200.0	*ND	0.0	

Detector 2: GC ECD2B

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 L0C_LVI_1
1 PCB-1016	200.0	193.9	97.0	71-128
1 PCB-1016-1	200.0	191.2	95.6	71-128
1 PCB-1016-2	200.0	191.8	95.9	71-128
1 PCB-1016-3	200.0	188.6	94.3	71-128
1 PCB-1016-4	200.0	195.5	97.7	71-128
1 PCB-1016-5	200.0	202.4	101.2	71-128
12 PCB-1260	200.0	195.5	97.7	75-126
12 PCB-1260-1	200.0	192.4	96.2	75-126
12 PCB-1260-2	200.0	199.5	99.7	75-126
12 PCB-1260-3	200.0	193.9	97.0	75-126
12 PCB-1260-4	200.0	197.0	98.5	75-126
12 PCB-1260-5	200.0	194.4	97.2	75-126

Samples for Limit Group: 1, Lims Prep Method: 3510C_LVI_1YR

280-189703-H-1-A

Reagent

8270 SIM Surr_00128

Preliminary Report

Eurofins Denver
CCV, Cal Verification Report

Data File: \\chromfs\Denver\ChromData\SMS_D\20240430-132795.b\SMS_D-043024005.D
Lims ID: SIM Surr Check
Client ID:
Sample Type: CCV
Inject. Date: 30-Apr-2024 09:33:30 ALS Bottle#: 41 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: SIM Surr Check
Operator ID: MB Instrument ID: SMS_D
Sublist:

Method: \\chromfs\Denver\ChromData\SMS_D\20240430-132795.b\8270_SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 30-Apr-2024 11:01:48 Calib Date: 03-Apr-2024 11:31:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_D\20240403-131820.b\SMS_D-040324A008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1639

Start Cal Date: 03-Apr-2024 08:47:30
End Cal Date: 03-Apr-2024 11:31:30

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	Min. RRF	%D	Max. %D	%Rec
$ 4 Nitrobenzene-d5	1.326006	0.008		1.259674	0.000	-5.0	35	95
$ 5 2-methylnaphthalene-d10	1.022449	0.0		1.109672	0.000	8.5	35	109
$ 6 2-Fluorobiphenyl	1.899648	0.001		2.078967	0.000	9.4	35	109
$ 7 Fluoranthene-d10	1.146008	0.0		1.172740	0.000	2.3	35	102
$ 8 Terphenyl-d14	0.995487	0.0		1.050476	0.000	5.5	35	106
9 N-Nitrosodiethylamine	*ND							
10 N-Nitrosodi-n-propylami	*ND							
11 Naphthalene	*ND							
12 2-Methylnaphthalene	*ND							
13 1-Methylnaphthalene	*ND							
14 Acenaphthylene	*ND							
15 Acenaphthene	*ND							
16 Dibenzofuran	*ND							
17 Fluorene	*ND							
18 Phenanthrene	*ND							
19 Anthracene	*ND							
20 Fluoranthene	*ND							
21 Pyrene	*ND							
22 Benzo[a]anthracene	*ND							
23 Chrysene	*ND							
24 Benzo[b]fluoranthene	*ND							
25 Benzo[k]fluoranthene	*ND							
26 Benzo[a]pyrene	*ND							
27 Indeno[1,2,3-cd]pyrene	*ND							
28 Dibenz(a,h)anthracene	*ND							

Preliminary Report

Data File: \\chromfs\Denver\ChromData\SMS_D\20240430-132795.b\SMS_D-043024005.D

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	Min. RRF	%D	Max. %D	%Rec
29 Benzo[g,h,i]perylene	*ND							
30 Dimethyl phthalate	*ND							
31 N-Nitrosodimethylamine	*ND							
32 N-Nitrosodiphenylamine	*ND							
33 Di-n-butyl phthalate	*ND							
34 Diethyl phthalate	*ND							
35 Butyl benzyl phthalate	*ND							
36 Di-n-octyl phthalate	*ND							
38 Pentachlorophenol_T	*ND							
40 Benzidine_T	*ND							
41 4,4'-DDE	*ND							
42 4,4'-DDD	*ND							
43 4,4'-DDT	*ND							
37 1,4-Dioxane	*ND							
S 44 TPAH	*ND							

(I) Fails an Initial Calibration Test

Reagent

8270_LCS_Main_00095

Preliminary Report

Eurofins Denver
Area/Height Percent Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240507-133120.b\G6_050424040.D
Lims ID: lcs check
Client ID:
Sample Type: LCS
Inject. Date: 07-May-2024 15:01:30 ALS Bottle#: 42 Worklist Smp#: 34
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: LCS
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240507-133120.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 08-May-2024 08:17:26 Calib Date: 06-May-2024 15:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240506-133060.b\G6_050424008.D
Process Host: CTX1683

Detector: MS SCAN
Number of peaks found: 100

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.678	1.624	1.737	631241	0.36	2.49		16 1,4-Dioxane
1.892	1.876	1.908	873137	0.49	0.62		17 N-Nitrosodimethylamine
1.918	1.908	2.052	2564436	1.45	0.76		18 Pyridine
2.068	2.052	2.122	32436	0.02	1.99		
3.764	3.742	3.780	1757953	0.99	0.80		28 Aniline
3.796	3.780	3.806	1825184	1.03	0.78		29 Phenol
3.817	3.806	3.839	1535000	0.87	0.78		32 Bis(2-chloroethyl)ether
3.876	3.860	3.897	1756514	0.99	0.77		33 2-Chlorophenol
3.924	3.903	3.946	2344631	1.33	0.92		34 n-Decane
3.994	3.978	4.015	1844597	1.04	0.73		35 1,3-Dichlorobenzene
4.042	4.026	4.047	910061	0.51	0.70		* 1 1,4-Dichlorobenzene-d4
4.058	4.047	4.079	2279155	1.29	0.88		37 1,4-Dichlorobenzene
4.197	4.170	4.256	3562547	2.01	1.33		39 Benzyl alcohol 40 1,2-Dichlorobenzene
4.272	4.256	4.288	2356232	1.33	0.79		41 Indene
4.304	4.288	4.309	2032162	1.15	1.00		43 2,2'-oxybis[1-chloropropane]
4.315	4.309	4.389	2597081	1.47	1.10		42 2-Methylphenol
4.411	4.389	4.416	2281852	1.29	0.79		45 Acetophenone
4.422	4.416	4.443	2228993	1.26	0.89		46 N-Nitrosodi-n-propylamine
4.459	4.443	4.480	1927644	1.09	0.99		48 3-Methylphenol 47 4-Methylphenol 49 3 & 4 Methylphenol

Preliminary Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240507-133120.b\G6_050424040.D

Detector: MS SCAN

Number of peaks found: 100

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
4.496	4.480	4.518	1552136	0.88	0.83		52 Hexachloroethane
4.561	4.539	4.577	1612418	0.91	0.70		53 Nitrobenzene
4.791	4.769	4.839	2185887	1.24	0.85		55 Isophorone
4.860	4.839	4.876	1374062	0.78	0.78		56 2-Nitrophenol
4.940	4.924	4.983	1659793	0.94	0.76		58 2,4-Dimethylphenol
4.999	4.983	5.021	1631189	0.92	0.77		60 Bis(2-chloroethoxy)methane
5.090	5.021	5.095	1404371	0.79	2.02		63 Benzoic acid
5.106	5.095	5.144	1975820	1.12	0.97		62 2,4-Dichlorophenol
5.165	5.144	5.181	1856181	1.05	0.81		66 1,2,4-Trichlorobenzene
5.208	5.186	5.219	1412870	0.80	0.85		* 2 Naphthalene-d8
5.229	5.219	5.245	2466854	1.39	0.78		67 Naphthalene
5.304	5.277	5.325	3464679	1.96	1.45		69 4-Chloroaniline 68 2,6-Dichlorophenol
5.325	5.325	5.347	27121	0.02	0.88		
5.368	5.347	5.390	1561979	0.88	0.75		71 Hexachlorobutadiene
5.802	5.785	5.834	1928144	1.09	0.78		77 4-Chloro-3-methylphenol
5.839	5.834	5.871	43991	0.02	1.08		
5.892	5.871	5.908	2538319	1.43	0.81		80 2-Methylnaphthalene
5.935	5.908	5.951	29863	0.02	0.82		
5.962	5.951	5.967	96841	0.05	0.78		
5.983	5.967	5.999	2443829	1.38	0.75		81 1-Methylnaphthalene
6.058	6.037	6.080	3824018	2.16	0.80		84 1,2,4,5-Tetrachlorobenzene 83 Hexachlorocyclopentadiene
6.096	6.080	6.117	39559	0.02	0.85		
6.181	6.165	6.213	1774489	1.00	0.79		87 2,4,6-Trichlorophenol
6.229	6.213	6.320	1789736	1.01	0.95		88 2,4,5-Trichlorophenol
6.347	6.320	6.374	4758365	2.69	1.12		90 1,1'-Biphenyl 91 2-Chloronaphthalene
6.465	6.427	6.486	1656585	0.94	0.77		93 2-Nitroaniline
6.502	6.486	6.529	29776	0.02	1.05		
6.598	6.577	6.620	39850	0.02	0.92		
6.657	6.636	6.689	3071393	1.74	1.24		96 Dimethyl phthalate 97 1,3-Dinitrobenzene
6.705	6.689	6.721	1607530	0.91	0.83		98 2,6-Dinitrotoluene

Preliminary Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240507-133120.b\G6_050424040.D

Detector: MS SCAN

Number of peaks found: 100

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
6.748	6.727	6.770	2267477	1.28	0.75		99 Acenaphthylene
6.866	6.844	6.877	1633302	0.92	0.76		100 3-Nitroaniline
6.887	6.877	6.903	1325842	0.75	0.81		* 3 Acenaphthene-d10
6.919	6.903	6.941	2675440	1.51	0.76		101 Acenaphthene
6.973	6.951	7.048	1758997	0.99	0.90		102 2,4-Dinitrophenol
7.091	7.069	7.181	6049212	3.42	1.40		108 Dibenzofuran 109 2,4-Dinitrotoluene 107 4-Nitrophenol
7.230	7.214	7.304	1659496	0.94	0.88		114 2,3,4,6-Tetrachlorophenol
7.347	7.326	7.363	2041113	1.15	0.83		116 Diethyl phthalate
7.385	7.363	7.401	2916000	1.65	0.86		117 Hexadecane
7.422	7.401	7.444	4536826	2.56	1.20		118 Fluorene 120 4-Chlorophenyl phenyl ether
7.465	7.444	7.476	1475199	0.83	0.88		122 4-Nitroaniline
7.497	7.476	7.513	2303150	1.30	0.81		123 4,6-Dinitro-2-methylphenol
7.513	7.513	7.529	41158	0.02	0.75		
7.551	7.529	7.567	2238707	1.27	0.82		125 Diphenylamine 126 N-Nitrosodiphenylamine
7.583	7.567	7.604	2343642	1.32	0.89		128 1,2-Diphenylhydrazine 129 Azobenzene
7.738	7.716	7.759	19908	0.01	0.95		
7.904	7.877	7.920	1830251	1.03	0.83		138 4-Bromophenyl phenyl ether
7.968	7.941	7.984	1766087	1.00	0.80		140 Hexachlorobenzene
8.171	8.150	8.198	2533845	1.43	0.85		143 Pentachlorophenol
8.208	8.198	8.262	237226	0.13	1.87		
8.289	8.262	8.305	3228378	1.82	0.98		288 n-Octadecane
8.326	8.305	8.337	1528395	0.86	1.05		* 4 Phenanthrene-d10
8.347	8.337	8.369	2700775	1.53	0.80		148 Phenanthrene
8.396	8.374	8.417	2693475	1.52	0.80		151 Anthracene
8.567	8.545	8.588	2494751	1.41	0.81		152 Carbazole
8.588	8.588	8.647	18422	0.01	0.96		
8.695	8.674	8.733	35416	0.02	1.30		
8.941	8.920	8.963	2466034	1.39	0.85		155 Di-n-butyl phthalate
9.075	9.053	9.107	102204	0.06	0.98		
9.123	9.107	9.155	13568	0.01	1.33		

Preliminary Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240507-133120.b\G6_050424040.D

Detector: MS SCAN
Number of peaks found: 100

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
9.348	9.321	9.385	23426	0.01	1.34		
9.465	9.428	9.481	18306	0.01	1.15		
9.508	9.481	9.524	2665212	1.51	0.84		160 Fluoranthene
9.647	9.631	9.695	29767	0.02	0.96		
9.722	9.695	9.743	2778728	1.57	0.85		162 Pyrene
10.428	10.401	10.503	2508295	1.42	1.01		169 Butyl benzyl phthalate
11.049	11.006	11.075	3816382	2.16	1.62		* 5 Chrysene-d12 173 Benzo[a]anthracene
11.091	11.075	11.145	2760700	1.56	1.22		175 Chrysene
11.177	11.145	11.268	3068686	1.73	1.38		176 Bis(2-ethylhexyl) phthalate
11.380	11.364	11.428	12056	0.01	1.47		
11.813	11.787	11.840	37345	0.02	1.32		
12.156	12.108	12.284	2840182	1.61	1.81		178 Di-n-octyl phthalate
12.380	12.348	12.418	16371	0.01	1.63		
12.632	12.578	12.653	2411995	1.36	1.81		179 Benzo[b]fluoranthene
12.675	12.653	12.798	2504457	1.42	1.66		181 Benzo[k]fluoranthene
12.995	12.969	13.017	11140	0.01	1.74		
13.156	13.102	13.209	2178104	1.23	1.79		183 Benzo[a]pyrene
13.252	13.209	13.364	1138452	0.64	1.89		* 6 Perylene-d12
15.135	15.071	15.162	1903273	1.08	2.26		187 Indeno[1,2,3-cd]pyrene
15.194	15.162	15.338	2170727	1.23	2.61		188 Dibenz(a,h)anthracene
15.595	15.525	15.750	1922999	1.09	2.59		189 Benzo[g,h,i]perylene
			176949403			Totals	

Total Unknown Area% = 0.54

Flag Legend
- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

Reagent

8270SIMSurStk_00046

o2si smart solutions®

7290B Investment Drive North Charleston, South Carolina 29417
Phone: 866.272.0932 Fax: 866.509.5146 www.o2si.com

ACCREDITED

ISO 17025 Accredited Chemical Testing Lab
Cert. No. 3031.01

Date Received: _____

Certificate of Analysis

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
112220-01 -5PAK	501810	≤ -10 °C	Methylene Chloride	3-May-2025	Custom Surrogate Mix, 8-2220, 1000 mg/L, 5 x 1 ml

Compound	CAS No.	Purity (%)	Neat Material Lot No.	Concentration	
fluoranthene-d10	93951-69-0	99.3	1458.12.4P	999 ± 5.82	mg/L
2-fluorobiphenyl	321-60-8	99.69	8.286.1P	1000 ± 21.49	mg/l
2-fluorophenol	367-12-4	99.8	10.7.3.3P	999.7 ± 12.6	mg/L
2-methylnaphthalene-d10	7297-45-2	98	1457.120.4.1P	995.7 ± 5.79	mg/L
nitrobenzene-d5	4165-60-0	99.67	7.9.3P	1001 ± 7.89	mg/l
phenol-d5	4165-62-2	98.9	11.120.8.1P	1000 ± 12.6	mg/L
p-terphenyl-d14	1718-51-0	98	9.12.9.3P	999.6 ± 12.72	mg/l
2,4,6-tribromophenol	118-79-6	99.8	12.1.6P	1000 ± 12.6	mg/L

Certified By: _____

Kerry Robinson
Manufacture Date 4-May-2023

Follow all storage requirements, keep tightly closed when not in use, and use good laboratory practices when handling.
This Reference Material was manufactured, produced, and/or certified under a quality management system by an ISO/IEC accredited testing laboratory. Certificates of accreditation can be reviewed by visiting www.o2si.com.

All weights are traceable through N. I. S. T. Test No. 822/264157-00.
Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

The stated uncertainty is the expanded uncertainty with a coverage factor of two to give a 95% confidence level.

Reagent

8270SurStkHL_00449

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567685 **Lot No.:** A0198748

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5,000µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : June 30, 2028 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorophenol	367-12-4	STBJ3299	99%	5,021.6 µg/mL	+/- 151.8433
2	Phenol-d5	4165-62-2	GH-100	99%	5,000.6 µg/mL	+/- 151.2083
3	Nitrobenzene-d5	4165-60-0	I-25158	99%	5,018.2 µg/mL	+/- 151.7404
4	2-Fluorobiphenyl	321-60-8	00021384	99%	5,002.2 µg/mL	+/- 151.2566
5	2,4,6-Tribromophenol	118-79-6	RP220811	99%	5,001.0 µg/mL	+/- 151.2204
6	p-Terphenyl-d14	1718-51-0	PR-32599	99%	5,014.2 µg/mL	+/- 151.6195

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

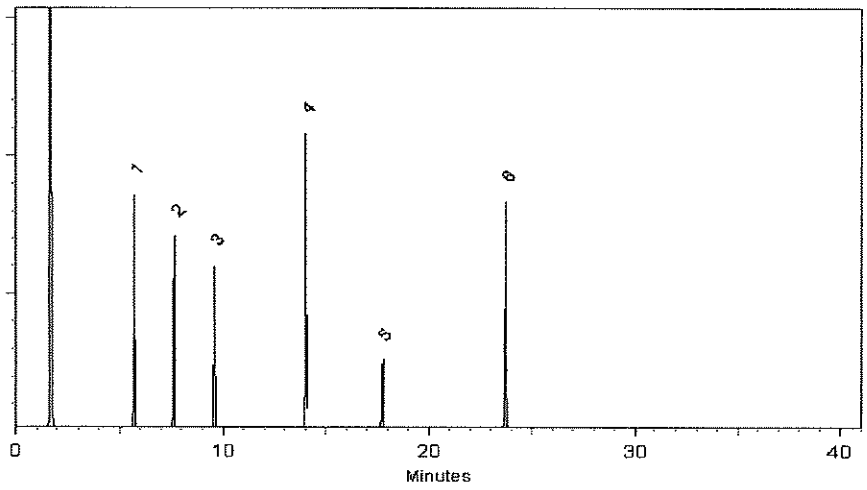
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 06-Jun-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8270SurStkHL_00450

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567685 **Lot No.:** A0198748

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5,000µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : June 30, 2028 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorophenol	367-12-4	STBJ3299	99%	5,021.6 µg/mL	+/- 151.8433
2	Phenol-d5	4165-62-2	GH-100	99%	5,000.6 µg/mL	+/- 151.2083
3	Nitrobenzene-d5	4165-60-0	I-25158	99%	5,018.2 µg/mL	+/- 151.7404
4	2-Fluorobiphenyl	321-60-8	00021384	99%	5,002.2 µg/mL	+/- 151.2566
5	2,4,6-Tribromophenol	118-79-6	RP220811	99%	5,001.0 µg/mL	+/- 151.2204
6	p-Terphenyl-d14	1718-51-0	PR-32599	99%	5,014.2 µg/mL	+/- 151.6195

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

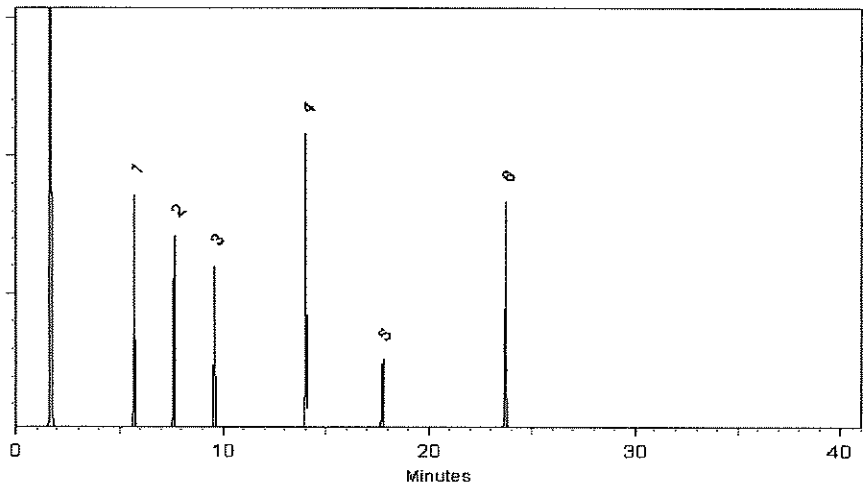
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 06-Jun-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8270SurStkHL_00456

RESTEK
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www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567685 **Lot No.:** A0205946

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5,000µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2028 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS.#	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorophenol	367-12-4	STBK1705	99%	5,003.0 µg/mL	+/- 151.3205
2	Phenol-d5	4165-62-2	HJ-481	99%	5,003.0 µg/mL	+/- 151.3205
3	Nitrobenzene-d5	4165-60-0	I-25158	99%	5,001.5 µg/mL	+/- 151.2752
4	2-Fluorobiphenyl	321-60-8	00021384	99%	5,002.0 µg/mL	+/- 151.2903
5	2,4,6-Tribromophenol	118-79-6	RP230831RSR	99%	5,001.0 µg/mL	+/- 151.2600
6	p-Terphenyl-d14	1718-51-0	PR-32599	99%	5,003.0 µg/mL	+/- 151.3205

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

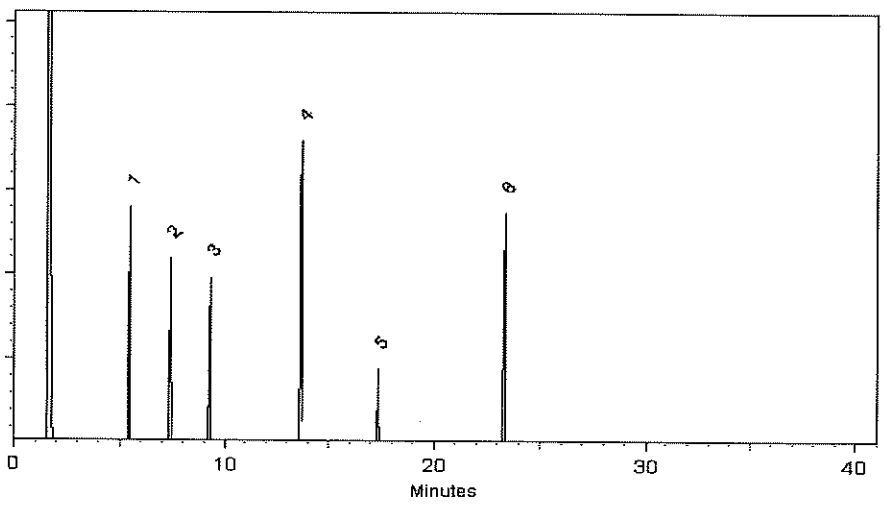
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I

Date Mixed: 26-Dec-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 28-Dec-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8270SurStkHL_00457

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567685 **Lot No.:** A0205946

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5,000µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2028 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS.#	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorophenol	367-12-4	STBK1705	99%	5,003.0 µg/mL	+/- 151.3205
2	Phenol-d5	4165-62-2	HJ-481	99%	5,003.0 µg/mL	+/- 151.3205
3	Nitrobenzene-d5	4165-60-0	I-25158	99%	5,001.5 µg/mL	+/- 151.2752
4	2-Fluorobiphenyl	321-60-8	00021384	99%	5,002.0 µg/mL	+/- 151.2903
5	2,4,6-Tribromophenol	118-79-6	RP230831RSR	99%	5,001.0 µg/mL	+/- 151.2600
6	p-Terphenyl-d14	1718-51-0	PR-32599	99%	5,003.0 µg/mL	+/- 151.3205

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

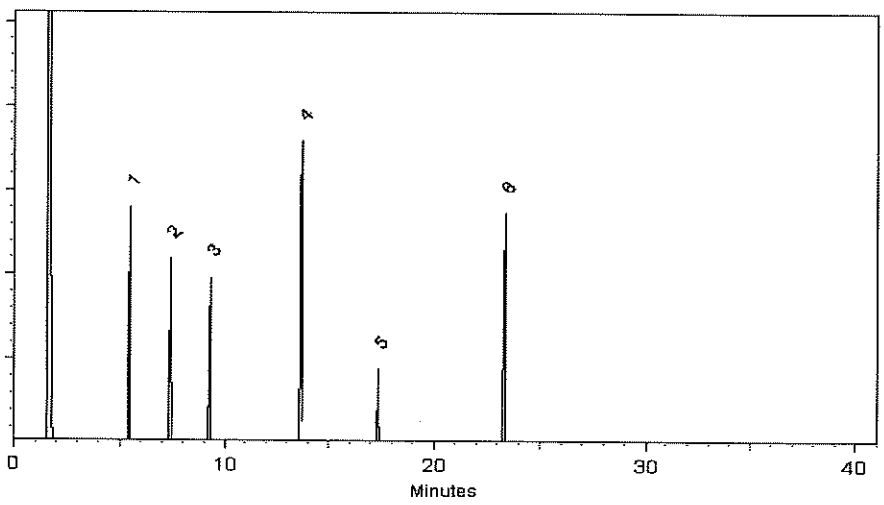
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I

Date Mixed: 26-Dec-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 28-Dec-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

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Reagent

8270SurStkHL_00458

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

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chromatographic plus

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567685 **Lot No.:** A0205946

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5,000µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2028 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS.#	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorophenol	367-12-4	STBK1705	99%	5,003.0 µg/mL	+/- 151.3205
2	Phenol-d5	4165-62-2	HJ-481	99%	5,003.0 µg/mL	+/- 151.3205
3	Nitrobenzene-d5	4165-60-0	I-25158	99%	5,001.5 µg/mL	+/- 151.2752
4	2-Fluorobiphenyl	321-60-8	00021384	99%	5,002.0 µg/mL	+/- 151.2903
5	2,4,6-Tribromophenol	118-79-6	RP230831RSR	99%	5,001.0 µg/mL	+/- 151.2600
6	p-Terphenyl-d14	1718-51-0	PR-32599	99%	5,003.0 µg/mL	+/- 151.3205

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Page 399 of 3951

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

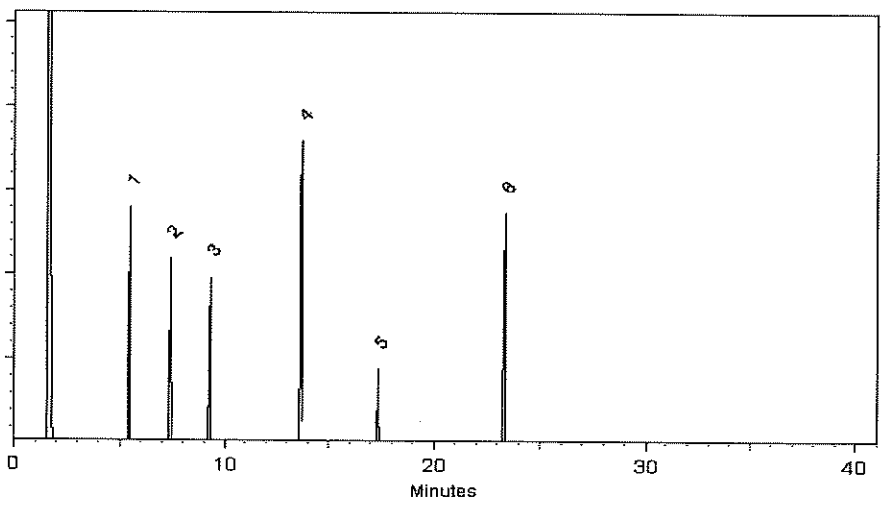
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I

Date Mixed: 26-Dec-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 28-Dec-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
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- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330 LCS_00134

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20240301-130735.b\03010011.D

Lims ID: 8330 LCS_00134 Inj. Date: 01-Mar-2024 12:30:35

Worklist ID: 280-0130735-011 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_	Limits 2 3535
4 HMX	0.5000	0.4367	87.3	66-115	65-135
8 RDX	0.5000	0.4730	94.6	69-122	68-130
9 2,4,6-Trinitrophenol	0.5000	0.5271	105.4	63-135	80-120
11 1,3,5-Trinitrobenzene	0.5000	0.5189	103.8	62-127	73-125
12 1,3-Dinitrobenzene	0.5000	0.5073	101.5	59-131	78-120
13 Nitrobenzene	0.5000	0.5288	105.8	46-144	65-134
14 3,5-Dinitroaniline	0.5000	0.5048	101.0	55-119	71-117
15 Tetryl	0.5000	0.4891	97.8	56-131	64-128
16 Nitroglycerin	5.00	5.39	107.8	70-125	74-127
17 2,4,6-Trinitrotoluene	0.5000	0.4808	96.2	46-139	71-123
18 4-Amino-2,6-dinitrotolu	0.5000	0.4971	99.4	43-120	76-125
19 2-Amino-4,6-dinitrotolu	0.5000	0.4882	97.6	46-124	79-120
20 2,6-Dinitrotoluene	0.5000	0.4971	99.4	51-130	77-127
21 2,4-Dinitrotoluene	0.5000	0.4832	96.6	53-127	78-120
22 o-Nitrotoluene	0.5000	0.5062	101.2	37-138	70-127
23 p-Nitrotoluene	0.5000	0.5029	100.6	41-137	71-127
24 m-Nitrotoluene	0.5000	0.5100	102.0	31-140	73-125
25 PETN	5.00	5.09	101.7	67-127	73-127

Samples for Limit Group: 1, Lims Prep Method: 8330B_Sonc_10g

280-188024-A-1-A 280-188024-A-2-A 280-188024-A-3-A

280-188024-A-4-A 280-188024-A-5-A

Samples for Limit Group: 2, Lims Prep Method: 3535

410-161632-D-1-A 410-161632-D-2-A 410-161632-D-4-A

410-161632-D-6-A 410-161632-A-7-A 410-161632-A-8-A

Reagent

8330 LCS_00135

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20240426-132709.b\8330SURR135.D

Lims ID: 8330LCS135 Inj. Date: 26-Apr-2024 16:12:12

Worklist ID: 280-0132709-057 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535
4 HMX	0.5000	0.4520	90.4	65-135
8 RDX	0.5000	0.4499	90.0	68-130
9 2,4,6-Trinitrophenol	0.5000	0.5151	103.0	80-120
11 1,3,5-Trinitrobenzene	0.5000	0.5018	100.4	73-125
12 1,3-Dinitrobenzene	0.5000	0.4976	99.5	78-120
13 Nitrobenzene	0.5000	0.5060	101.2	65-134
14 3,5-Dinitroaniline	0.5000	0.4915	98.3	71-117
15 Tetryl	0.5000	0.5018	100.4	64-128
16 Nitroglycerin	5.00	5.01	100.1	74-127
17 2,4,6-Trinitrotoluene	0.5000	0.4764	95.3	71-123
18 4-Amino-2,6-dinitrotolu	0.5000	0.4969	99.4	76-125
19 2-Amino-4,6-dinitrotolu	0.5000	0.4860	97.2	79-120
20 2,6-Dinitrotoluene	0.5000	0.4963	99.3	77-127
21 2,4-Dinitrotoluene	0.5000	0.4811	96.2	78-120
22 o-Nitrotoluene	0.5000	0.4850	97.0	70-127
23 p-Nitrotoluene	0.5000	0.4768	95.4	71-127
24 m-Nitrotoluene	0.5000	0.4770	95.4	73-125
25 PETN	5.00	5.19	103.8	73-127

Samples for Limit Group: 1, Lims Prep Method: 3535

280-190264-C-6-A
410-168708-B-13-A
410-168533-E-1-A
410-168533-D-2-A
410-168533-E-3-A
410-168533-D-4-A
410-168533-E-5-A
410-168533-D-6-A
410-168533-E-8-A
410-168533-D-9-A
410-168533-B-10-A
410-168533-C-11-A
410-168533-B-12-A
410-168533-B-13-A
410-168533-B-14-A
410-168533-C-15-A
280-190487-B-1-A
280-190487-B-2-A
280-190487-B-3-A
280-190487-B-4-A
280-190487-B-5-A
280-190487-B-6-A
280-190487-B-7-A
280-190487-B-8-A
280-190487-B-9-A
280-190487-B-10-A
280-190487-B-11-A
280-190487-B-12-A
280-190487-B-13-A
280-190487-B-14-A
280-190487-B-15-A
280-190487-B-16-A

Reagent

8330 LCSMix2_00113

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31451 **Lot No.:** A0199657

Description : 8330 Calibration Mix #2

8330 Calibration Std #2 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Tetryl	479-45-8	211028JLM	99%	1,010.0 µg/mL	+/- 47.1183
2	4-Amino-2,6-dinitrotoluene	19406-51-0	ER070908-01	99%	1,008.0 µg/mL	+/- 47.0250
3	2-Amino-4,6-dinitrotoluene	35572-78-2	A210503-001	99%	1,006.0 µg/mL	+/- 46.9317
4	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,010.0 µg/mL	+/- 47.1183
5	2-Nitrotoluene	88-72-2	BCBZ7826	99%	1,000.0 µg/mL	+/- 46.6518
6	4-Nitrotoluene	99-99-0	BCCB0171	99%	1,006.0 µg/mL	+/- 46.9317
7	3-Nitrotoluene	99-08-1	07329LG	99%	1,006.0 µg/mL	+/- 46.9317

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

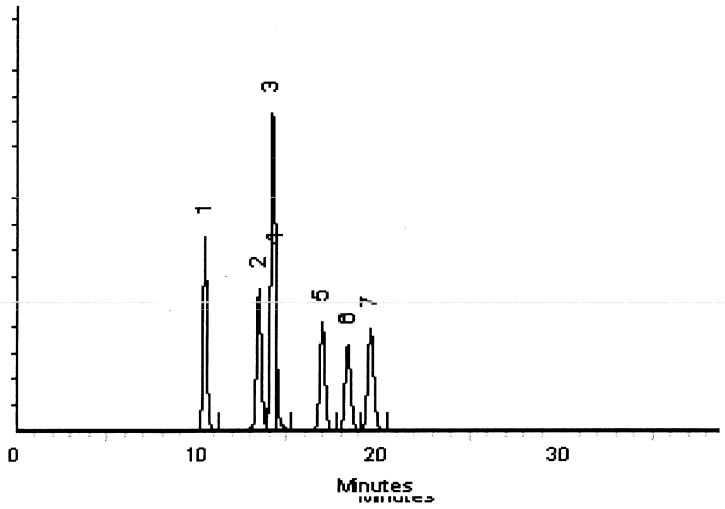
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
5µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Alicia Leathers - Operation Technician I

Date Mixed: 07-Jul-2023 **Balance Serial #** B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 20-Jul-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330 LCSMix2_00114

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31451 **Lot No.:** A0199657

Description : 8330 Calibration Mix #2

8330 Calibration Std #2 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Tetryl	479-45-8	211028JLM	99%	1,010.0 µg/mL	+/- 47.1183
2	4-Amino-2,6-dinitrotoluene	19406-51-0	ER070908-01	99%	1,008.0 µg/mL	+/- 47.0250
3	2-Amino-4,6-dinitrotoluene	35572-78-2	A210503-001	99%	1,006.0 µg/mL	+/- 46.9317
4	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,010.0 µg/mL	+/- 47.1183
5	2-Nitrotoluene	88-72-2	BCBZ7826	99%	1,000.0 µg/mL	+/- 46.6518
6	4-Nitrotoluene	99-99-0	BCCB0171	99%	1,006.0 µg/mL	+/- 46.9317
7	3-Nitrotoluene	99-08-1	07329LG	99%	1,006.0 µg/mL	+/- 46.9317

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

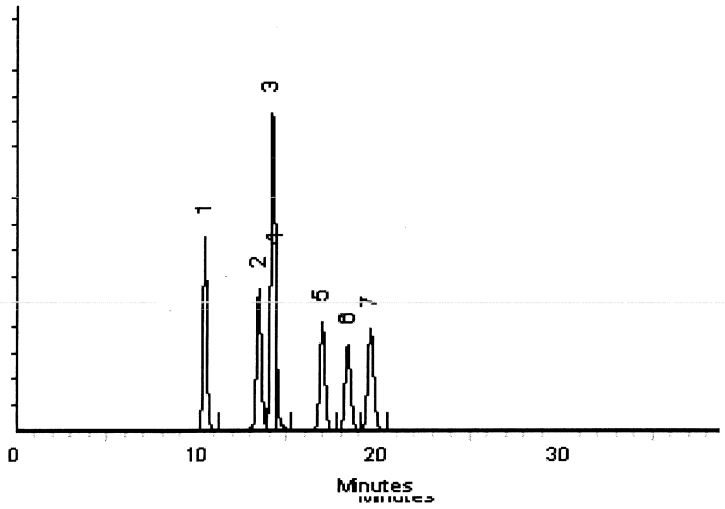
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
5µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Alicia Leathers - Operation Technician I

Date Mixed: 07-Jul-2023 **Balance Serial #** B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 20-Jul-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330 Stock_TS_00024

Agilent

Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Stock Standard

Product Number: NAIM-833E-1

Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006684308

Lot Issue Date: 01-Jun-2022

Expiration Date: 30-Jun-2025

Component Name	CERTIFIED VALUES Concentration	Expanded Uncertainty	CAS#	Analyte Lot
HMX	1001	± 5 µg/mL	002691-41-0	RM06237
RDX	1001	± 5 µg/mL	000121-82-4	RM10915
1,3,5-trinitrobenzene	1001	± 5 µg/mL	000099-35-4	RM17843
m-dinitrobenzene	1002	± 5 µg/mL	000099-65-0	RM14290
nitrobenzene	1002	± 5 µg/mL	000098-95-3	RM11472
2,4,6-trinitrotoluene (TNT)	1001	± 5 µg/mL	000118-96-7	RM16204
2,4-dinitrotoluene	1002	± 5 µg/mL	000121-14-2	RM10279
tetryl	1003	± 5 µg/mL	000479-45-8	RM14651
2,6-dinitrotoluene	1003	± 5 µg/mL	000606-20-2	RM16636
2-nitrotoluene	1003	± 5 µg/mL	000088-72-2	NT01996
3-nitrotoluene	1002	± 5 µg/mL	000099-08-1	NT02212
4-nitrotoluene	1003	± 5 µg/mL	000099-99-0	NT02096
2-amino-4,6-dinitrotoluene	1003	± 5 µg/mL	035572-78-2	RM04232
4-amino-2,6-dinitrotoluene	1004	± 5 µg/mL	019406-51-0	RM04226

Matrix: acetonitrile

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Reagent

8330_NG_Stk_00145

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568871 **Lot No.:** A0201048

Description : Custom Nitroglycerin Standard

Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	5,008.0 µg/mL	+/- 236.3643

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Page 419 of 3951

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

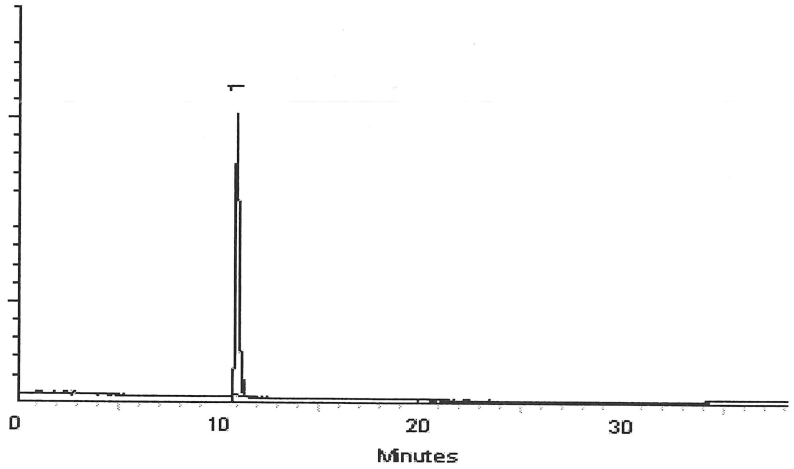
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Kylie Struble - Operations Technician I

Jennifer Pollino - Operations Tech III - ARM QC

Date Mixed: 16-Aug-2023 **Balance Serial #** 1128360905

Date Passed: 25-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_NG_Stk_00147

RESTEK

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

5/23/2024
4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568871 **Lot No.:** A0201048

Description : Custom Nitroglycerin Standard

Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	5,008.0 µg/mL	+/- 236.3643

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Page 424 of 3951

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

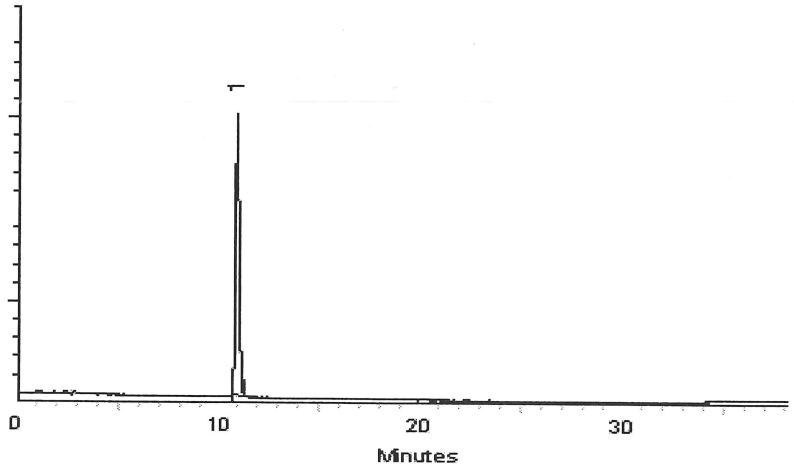
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Kylie Struble - Operations Technician I

Jennifer Pollino - Operations Tech III - ARM QC

Date Mixed: 16-Aug-2023 **Balance Serial #** 1128360905

Date Passed: 25-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_NG_Stk_00148

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568871 **Lot No.:** A0203257

Description : Custom Nitroglycerin Standard

Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	5,004.0 µg/mL	+/- 236.1755

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Page 429 of 3951

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

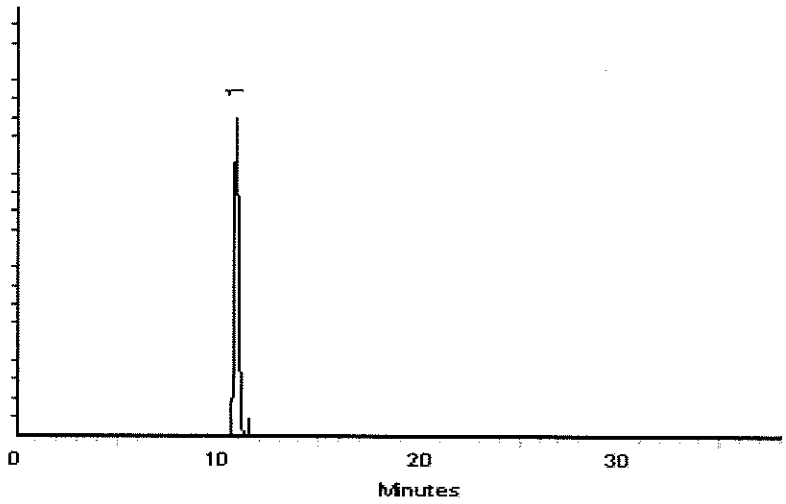
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler - Operations Tech I

Date Mixed: 17-Oct-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-Oct-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_NG_Stk_00150

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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568871 **Lot No.:** A0203257

Description : Custom Nitroglycerin Standard

Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	5,004.0 µg/mL	+/- 236.1755

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Page 433 of 3951

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

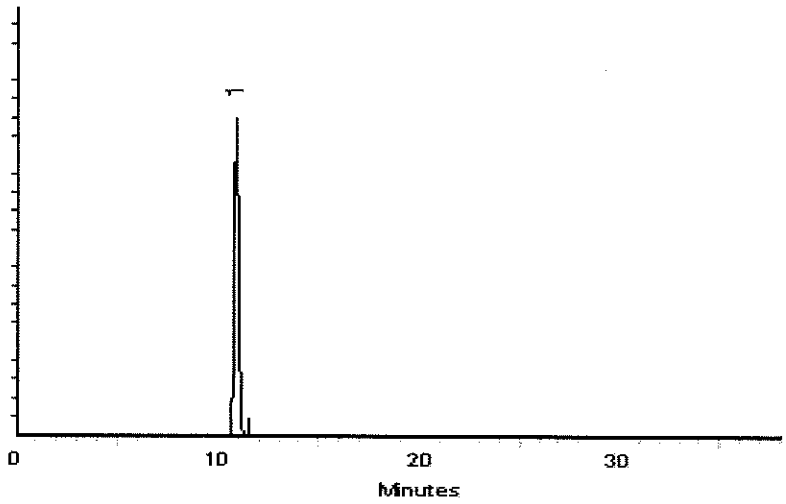
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler - Operations Tech I

Date Mixed: 17-Oct-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-Oct-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_NG1000_00011

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31498 **Lot No.:** A0197032

Description : Nitroglycerin Standard

Nitroglycerin Standard 1,000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	1,006.0 µg/mL	+/- 46.9317

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_NG1000_00012

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ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31498 **Lot No.:** A0197032

Description : Nitroglycerin Standard

Nitroglycerin Standard 1,000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	1,006.0 µg/mL	+/- 46.9317

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_NG1000_00014

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31498 **Lot No.:** A0208632

Description : Nitroglycerin Standard

Nitroglycerin Standard 1,000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2029 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	1,002.0 µg/mL	+/- 46.7451

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

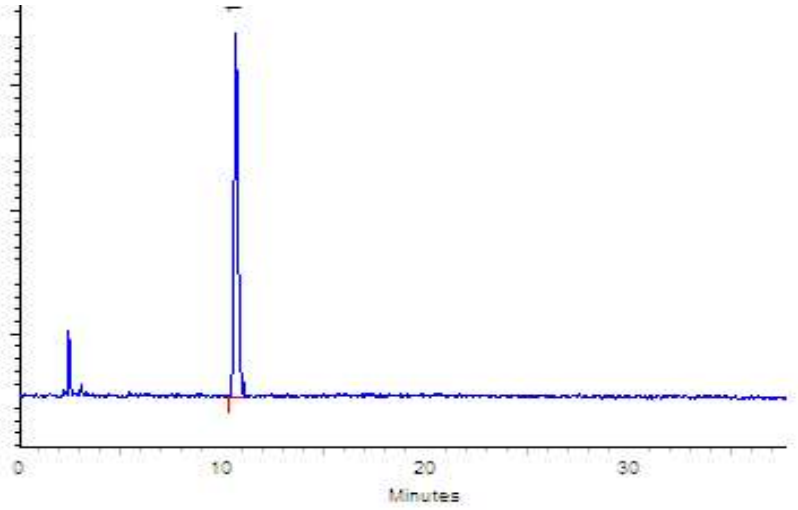
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
5µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 04-Mar-2024 **Balance Serial #** 1128342314

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 06-Mar-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_PETN_Stk_00152

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568872 **Lot No.:** A0198972

Description : Custom PETN Standard

Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,012.0 µg/mL	+/- 236.5531

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

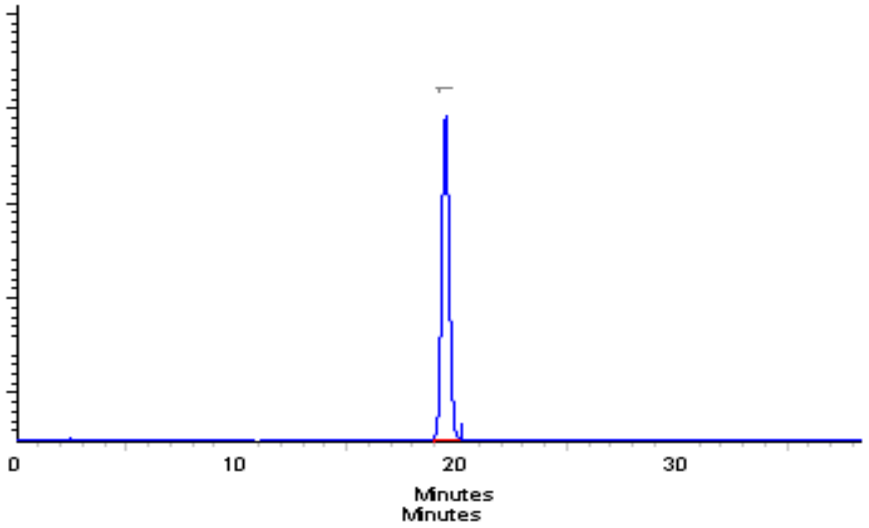
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bryan Snyder - Operations Tech I

Date Mixed: 14-Jun-2023 **Balance Serial #** 1128342314

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

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- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_PETN_Stk_00153

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110 Benner Circle
Bellefonte, PA 16823-8812
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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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Catalog No. : 568872 **Lot No.:** A0198972

Description : Custom PETN Standard

Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,012.0 µg/mL	+/- 236.5531

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

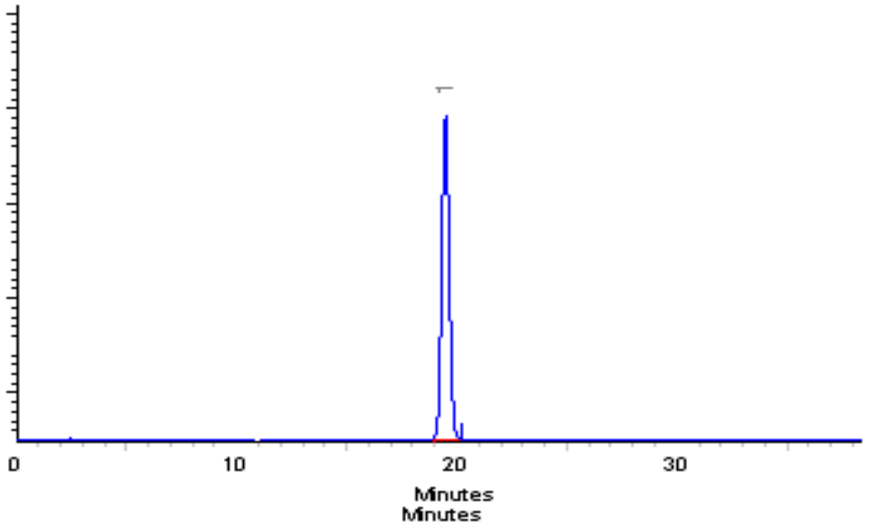
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bryan Snyder - Operations Tech I

Date Mixed: 14-Jun-2023 **Balance Serial #** 1128342314

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

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Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_PETN_Stk_00154

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568872 **Lot No.:** A0198972

Description : Custom PETN Standard

Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,012.0 µg/mL	+/- 236.5531

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

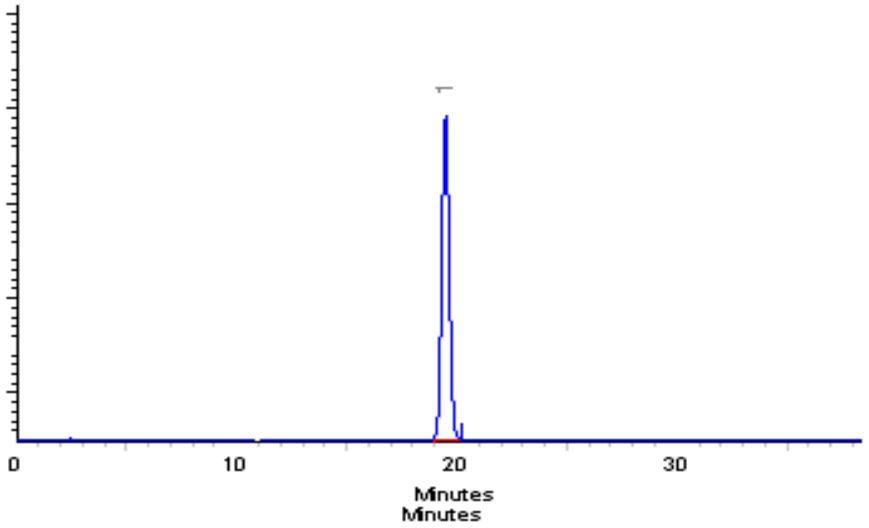
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bryan Snyder - Operations Tech I

Date Mixed: 14-Jun-2023 **Balance Serial #** 1128342314

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_PETN_Stk_00156

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110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568872 **Lot No.:** A0205209

Description : Custom PETN Standard

Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,028.0 µg/mL	+/- 237.3082

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

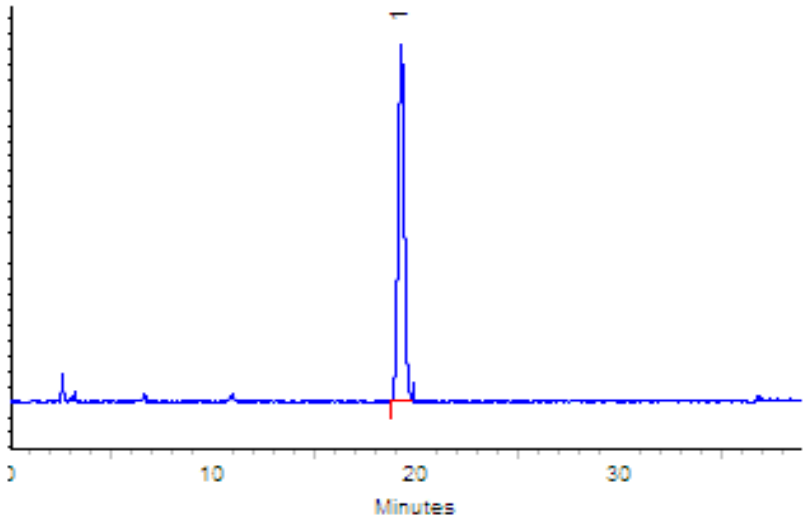
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Russ Bookhamer - Operations Technician I

Date Mixed: 07-Dec-2023 **Balance Serial #** B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 12-Dec-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_PETN1000_00015

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Bellefonte, PA 16823-8812
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31600 **Lot No.:** A0198747

Description : PETN Standard

PETN Standard 1000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2028 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	1,003.0 µg/mL	+/- 46.7917

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Page 463 of 3951

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_PETN1000_00016

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110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31600 **Lot No.:** A0198747

Description : PETN Standard

PETN Standard 1000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2028 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	1,003.0 µg/mL	+/- 46.7917

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Page 466 of 3951

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_PETN1000_00017

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31600 **Lot No.:** A0207895

Description : PETN Standard

PETN Standard 1000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2029 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	1,006.3 µg/mL	+/- 46.9434

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

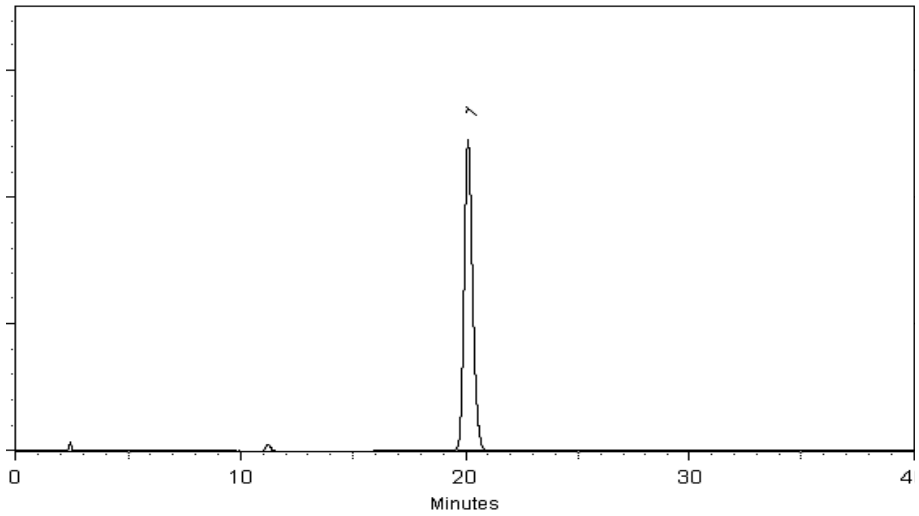
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

John Friedline - Operations Technician I

Date Mixed: 15-Feb-2024 **Balance Serial #** 1127510105

Dillan Murphy - Operations Technician I

Date Passed: 20-Feb-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

833035DNAStk_00057

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-4
Description: 3,5-Dinitroaniline
Lot: 223041214
Solvent: Methanol (50%)
Acetonitrile (50%)
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Apr 14, 2023
Expiration: May 14, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
3,5-Dinitroaniline	618-87-1	100.0	100.8	100.8

This Certified Reference Material was verified in accordance with ISO/IEC 17025 (AT-1339) and ISO 17034 (AR-1463)

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

[2] All weights are traceable through NIST, Test No. 684/291344-18 & 684/292805-19

[3] Purity/Identity determined by one or more of the following methods: GC/MS, LC/MS, NMR, FTIR, Melting Point.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

Reagent

833035DNAStk_00059

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-4
Description: 3,5-Dinitroaniline
Lot: 223041214
Solvent: Methanol (50%)
Acetonitrile (50%)
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Apr 14, 2023
Expiration: May 14, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
3,5-Dinitroaniline	618-87-1	100.0	100.8	100.8

This Certified Reference Material was verified in accordance with ISO/IEC 17025 (AT-1339) and ISO 17034 (AR-1463)

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

[2] All weights are traceable through NIST, Test No. 684/291344-18 & 684/292805-19

[3] Purity/Identity determined by one or more of the following methods: GC/MS, LC/MS, NMR, FTIR, Melting Point.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

Reagent

8330LCSMix1_00151

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

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ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA
ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

chromatographic plus

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31450 **Lot No.:** A0196548

Description : 8330 Calibration Mix #1

8330 Calibration Std #1 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	HMX	2691-41-0	220927JLM	99%	1,010.0 µg/mL	+/- 47.1183
2	RDX	121-82-4	080228JLM	99%	1,002.0 µg/mL	+/- 46.7451
3	1,3,5-Trinitrobenzene	99-35-4	A6TDK	99%	1,010.0 µg/mL	+/- 47.1183
4	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,008.0 µg/mL	+/- 47.0250
5	Nitrobenzene	98-95-3	10224044	99%	1,009.0 µg/mL	+/- 47.0716
6	2,4,6-Trinitrotoluene	118-96-7	D13332500	99%	1,007.0 µg/mL	+/- 46.9783
7	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,006.0 µg/mL	+/- 46.9317

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

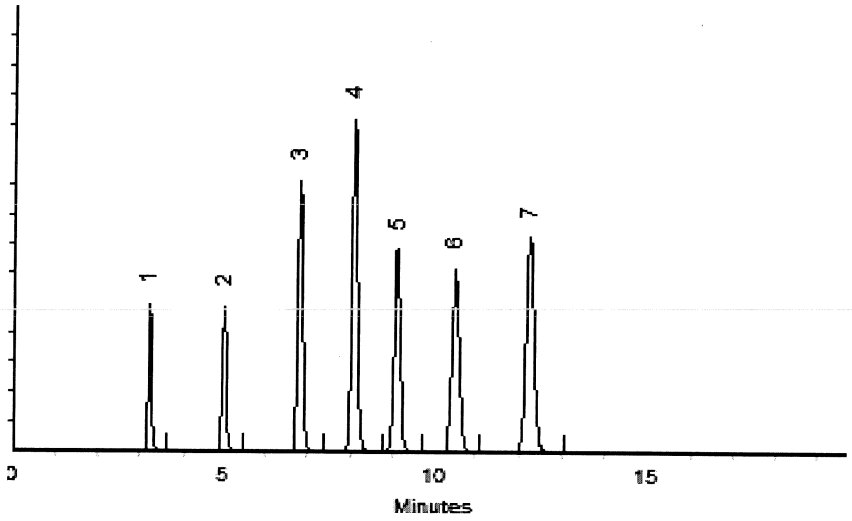
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler - Operations Tech I

Date Mixed: 03-Apr-2023 **Balance Serial #** B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 05-Apr-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330LCSMix1_00152

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31450 **Lot No.:** A0196548

Description : 8330 Calibration Mix #1

8330 Calibration Std #1 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	HMX	2691-41-0	220927JLM	99%	1,010.0 µg/mL	+/- 47.1183
2	RDX	121-82-4	080228JLM	99%	1,002.0 µg/mL	+/- 46.7451
3	1,3,5-Trinitrobenzene	99-35-4	A6TDK	99%	1,010.0 µg/mL	+/- 47.1183
4	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,008.0 µg/mL	+/- 47.0250
5	Nitrobenzene	98-95-3	10224044	99%	1,009.0 µg/mL	+/- 47.0716
6	2,4,6-Trinitrotoluene	118-96-7	D13332500	99%	1,007.0 µg/mL	+/- 46.9783
7	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,006.0 µg/mL	+/- 46.9317

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

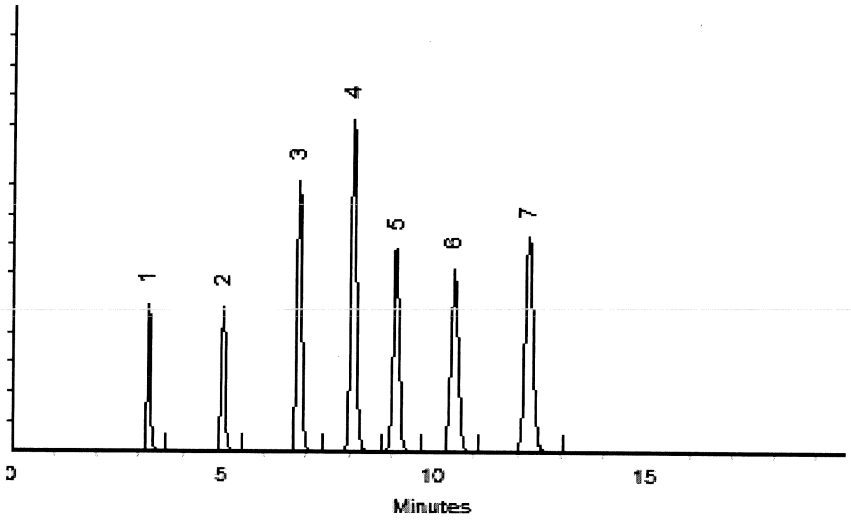
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler - Operations Tech I

Date Mixed: 03-Apr-2023 **Balance Serial #** B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 05-Apr-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330PAStkPS_00074

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-3
Description: Picric acid
Lot: 223031306
Solvent: Acetonitrile (50%)
Methanol (50%)
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Mar 23, 2023
Expiration: Apr 23, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
Picric acid	88-89-1	99.1	100.4	99.5

This Certified Reference Material was verified in accordance with ISO/IEC 17025 (AT-1339) and ISO 17034 (AR-1463)

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

[2] All weights are traceable through NIST, Test No. 684/291344-18 & 684/292805-19

[3] Purity/Identity determined by one or more of the following methods: GC/MS, LC/MS, NMR, FTIR, Melting Point.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

Reagent

8330PAStkPS_00075

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

5/23/2024
4:40:30 AM

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-3
Description: Picric acid
Lot: 223041157
Solvent: Acetonitrile (50%)
Methanol (50%)
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Apr 12, 2023
Expiration: May 12, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity³ %	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
Picric acid	88-89-1	99.1	100.3	99.4

This Certified Reference Material was verified in accordance with ISO/IEC 17025 (AT-1339) and ISO 17034 (AR-1463)

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

² All weights are traceable through NIST, Test No. 684/291344-18 & 684/292805-19

³ Purity/Identity determined by one or more of the following methods: GC/MS, LC/MS, NMR, FTIR, Melting Point.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

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Reagent

8330Surrogate_00155

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20240426-132709.b\8330SURR155.D

Lims ID: 8330Surr155 Inj. Date: 26-Apr-2024 15:49:11

Worklist ID: 280-0132709-056 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535
$ 10 1,2-Dinitrobenzene	0.5000	0.4971	99.4	83-119

Samples for Limit Group: 1, Lims Prep Method: 3535

280-190264-C-6-A	410-168708-B-13-A	410-168533-E-1-A
410-168533-D-2-A	410-168533-E-3-A	410-168533-D-4-A
410-168533-E-5-A	410-168533-D-6-A	410-168533-E-8-A
410-168533-D-9-A	410-168533-B-10-A	410-168533-C-11-A
410-168533-B-12-A	410-168533-B-13-A	410-168533-B-14-A
410-168533-C-15-A	280-190487-B-1-A	280-190487-B-2-A
280-190487-B-3-A	280-190487-B-4-A	280-190487-B-5-A
280-190487-B-6-A	280-190487-B-7-A	280-190487-B-8-A
280-190487-B-9-A	280-190487-B-10-A	280-190487-B-11-A
280-190487-B-12-A	280-190487-B-13-A	280-190487-B-14-A
280-190487-B-15-A	280-190487-B-16-A	

Reagent

8330SurrStkSS_00310

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0200577

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

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Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

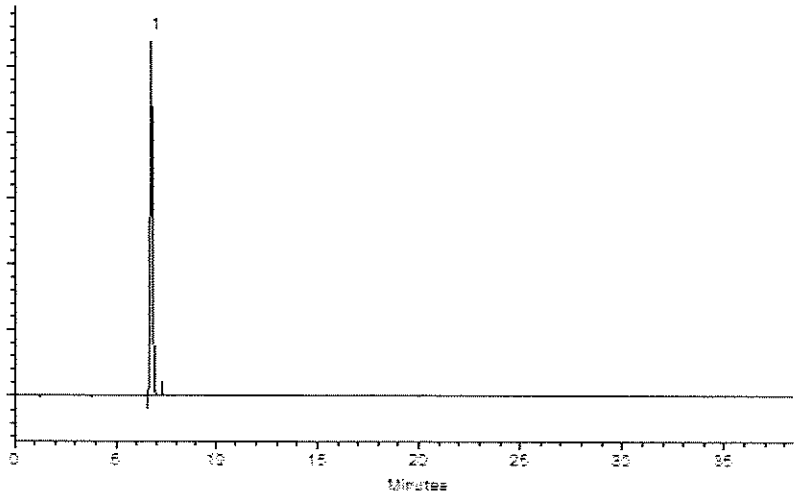
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

Jennifer Polino - Operations Tech III - ARM QC **Date Passed:** 21-Aug-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00311

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0200577

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Page 497 of 3951

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

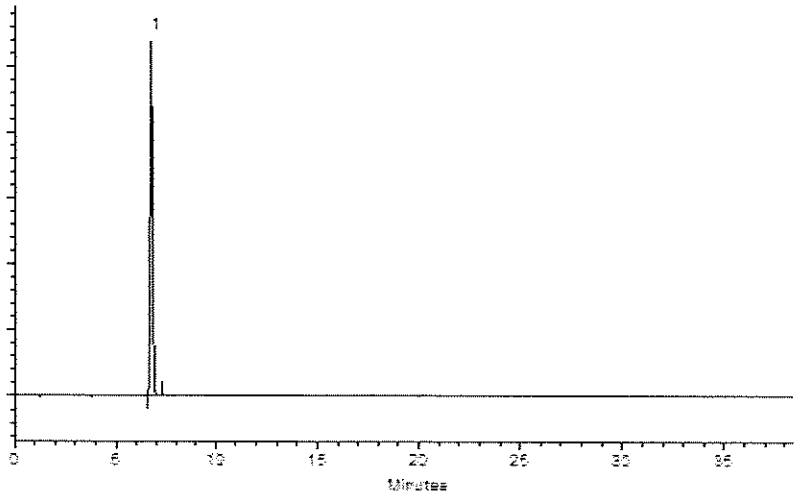
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

Jennifer Polino - Operations Tech III - ARM QC **Date Passed:** 21-Aug-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00312

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0200577

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Page 501 of 3951

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

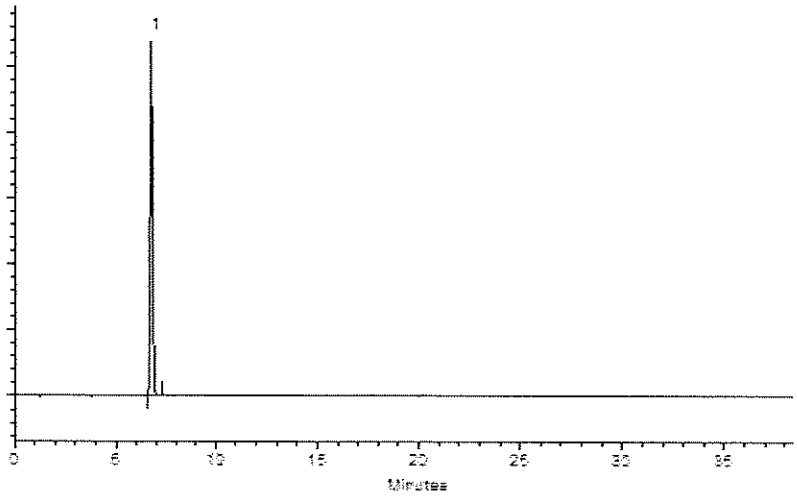
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

Jennifer Polino - Operations Tech III - ARM QC **Date Passed:** 21-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00313

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0200577

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Page 505 of 3951

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

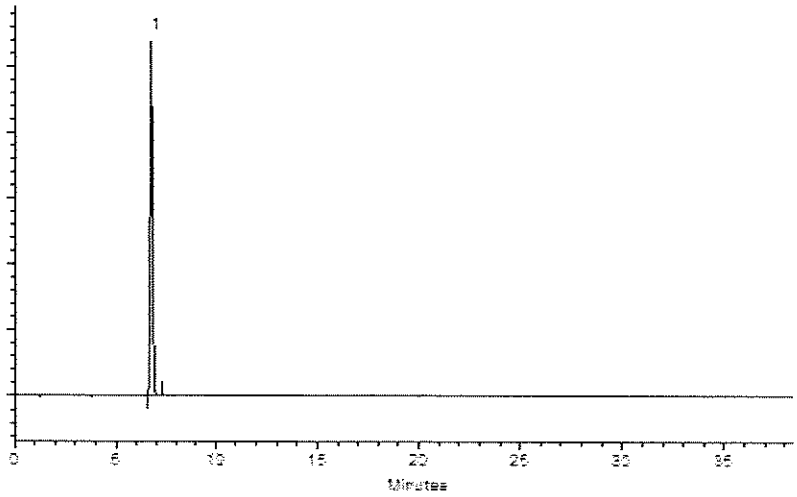
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I — **Date Mixed:** 03-Aug-2023 — **Balance Serial #** B707717271

Jennifer Polino - Operations Tech III - ARM QC — **Date Passed:** 21-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00314

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110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ilac-MRA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0200577

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Page 509 of 3951

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

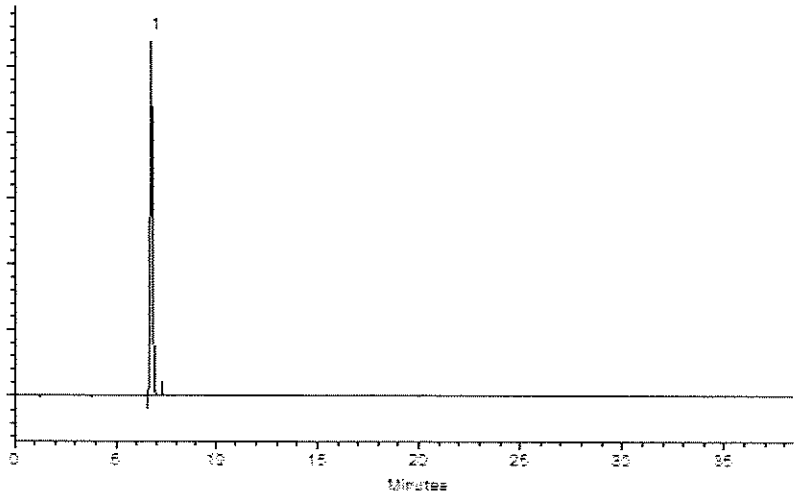
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

Jennifer Polino - Operations Tech III - ARM QC **Date Passed:** 21-Aug-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

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- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00315

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0200577

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Page 513 of 3951

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

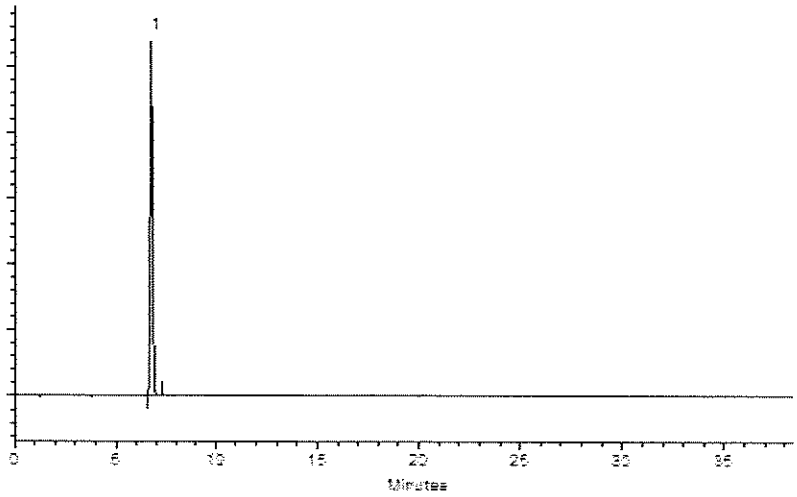
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

Jennifer Polino - Operations Tech III - ARM QC **Date Passed:** 21-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

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- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00316

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ilac-MRA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0200577

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Page 517 of 3951

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

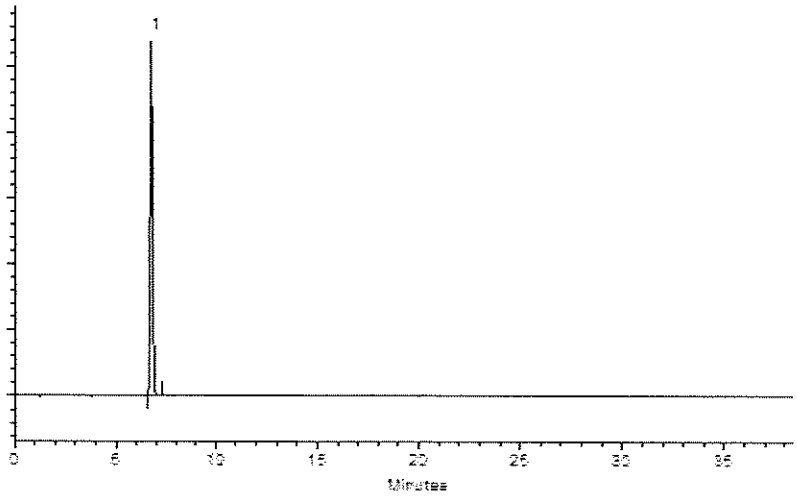
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

Jennifer Polino - Operations Tech III - ARM QC **Date Passed:** 21-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

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Purity Notes:

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Reagent

8330SurrStkSS_00317

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

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Catalog No. : 31453 **Lot No.:** A0200577

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Page 521 of 3951

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

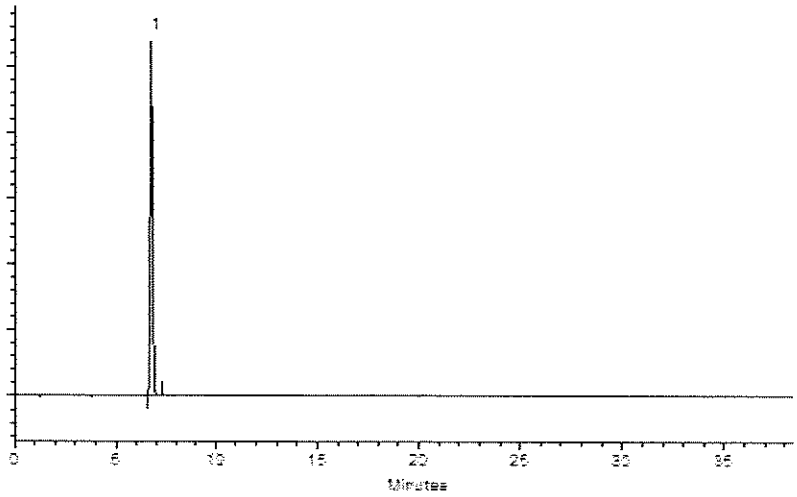
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



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Laith Clemente - Operations Technician I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

Jennifer Polino - Operations Tech III - ARM QC **Date Passed:** 21-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

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Reagent

8330SurrStkSS_00318

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0205460

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP231117RSR	99%	1,004.0 µg/mL	+/- 56.4136

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol

CAS # 67-56-1

Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

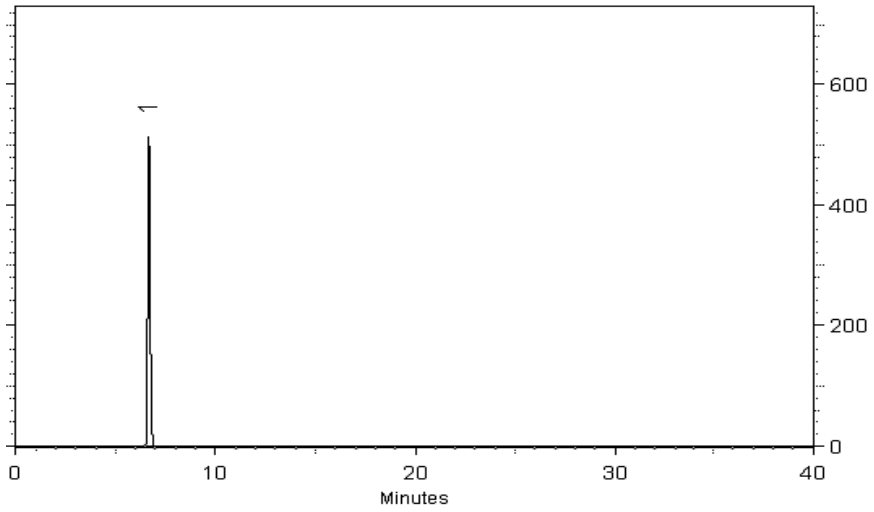
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Malina Homan - Operations Technician I

Date Mixed: 13-Dec-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-Dec-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00319

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0205460

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP231117RSR	99%	1,004.0 µg/mL	+/- 56.4136

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol

CAS # 67-56-1

Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

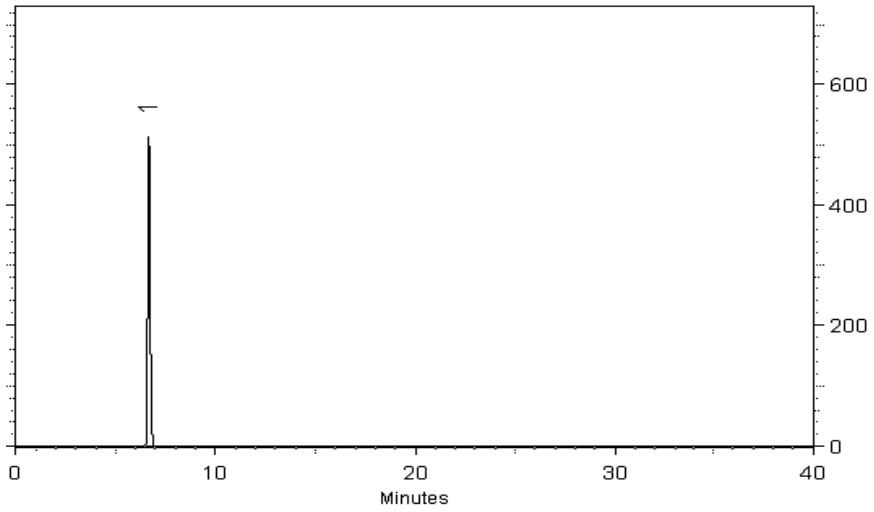
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Malina Homan - Operations Technician I

Date Mixed: 13-Dec-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-Dec-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStock_00173

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-SS
Description: 1,2-Dinitrobenzene
Lot: 219051500
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: May 22, 2019
Expiration: May 22, 2029
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
1,2-Dinitrobenzene	528-29-0	100.0	1002	1002

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 7/20

Reagent

AR_1248_RES_00017

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
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Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3232.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32010 **Lot No.:** A0162497

Description : Aroclor® 1248 Standard

Aroclor® 1248 Standard 1,000µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2026 **Storage:** 25°C nominal

Handling: This product contains PCBs.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Aroclor 1248		1,006.0 µg/mL	+/- 5.9753	µg/mL	Gravimetric
	CAS # 12672-29-6	(Lot 9303900)		+/- 31.8975	µg/mL	Unstressed
	Purity ----%			+/- 41.6615	µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

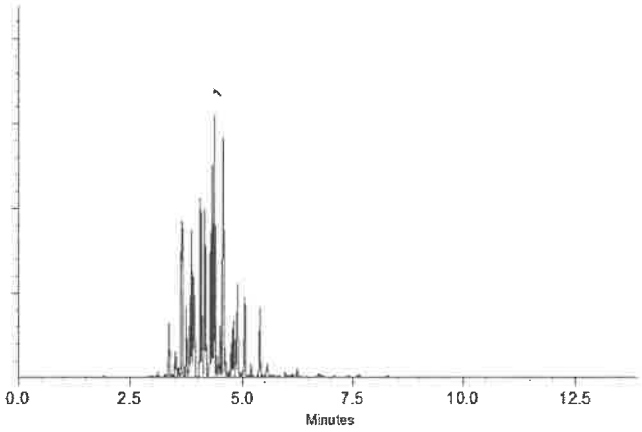
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Kylie Struble - Operations Technician I

Date Mixed: 13-Jul-2020 **Balance:** 1128360905

Justine Albertson - Operations Tech-ARM QC

Date Passed: 16-Jul-2020

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

AR_1660_RES_00013

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32039 **Lot No.:** A0186455

Description : Aroclor® 1016/1260 Mix

Aroclor® 1016/1260 Mix 1,000 µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2028 **Storage:** 25°C nominal

Handling: This product contains PCBs. **Ship:** Ambient

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Aroclor 1016	1,001.0 µg/mL	+/- 5.8333 µg/mL	Gravimetric
	CAS # 12674-11-2 (Lot 4)		+/- 31.7181 µg/mL	Unstressed
	Purity ----%		+/- 41.4385 µg/mL	Stressed
2	Aroclor 1260	1,004.8 µg/mL	+/- 5.8552 µg/mL	Gravimetric
	CAS # 11096-82-5 (Lot 1240731)		+/- 31.8369 µg/mL	Unstressed
	Purity ----%		+/- 41.5937 µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

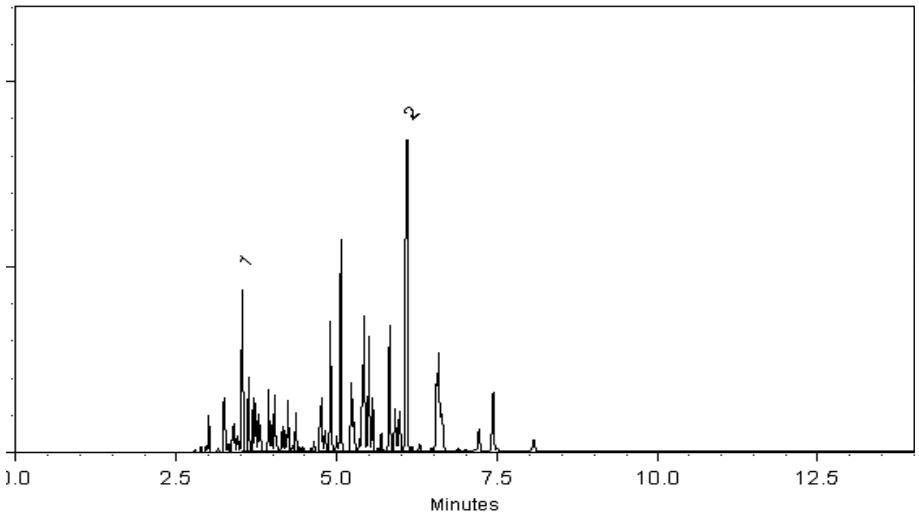
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 20-Jun-2022 **Balance:** 1128360905

Christie Mills - Operations Tech II - ARM QC

Date Passed: 23-Jun-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

AR_1660_RES_00023

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Certificate of Analysis

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Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32039 **Lot No.:** A0191718

Description : Aroclor® 1016/1260 Mix

Aroclor® 1016/1260 Mix 1,000 µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2029 **Storage:** 25°C nominal

Handling: This product contains PCBs. **Ship:** Ambient

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Aroclor 1016	1,001.0 µg/mL	+/- 5.8332 µg/mL	Gravimetric
	CAS # 12674-11-2 (Lot 4)		+/- 31.7173 µg/mL	Unstressed
	Purity ----%		+/- 41.4374 µg/mL	Stressed
2	Aroclor 1260	1,001.1 µg/mL	+/- 5.8336 µg/mL	Gravimetric
	CAS # 11096-82-5 (Lot 1294610)		+/- 31.7197 µg/mL	Unstressed
	Purity ----%		+/- 41.4405 µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

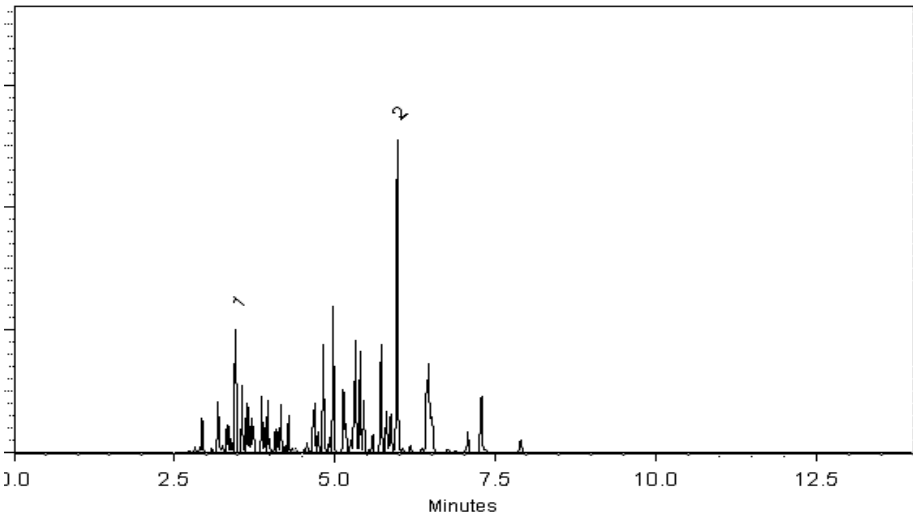
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 15-Nov-2022 **Balance:** 1128360905

Marlina Cowan -- Operations Tech II ARM QC

Date Passed: 17-Nov-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

AR_1660_RESss_00026

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Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32039.SEC **Lot No.:** A0167874

Description : Aroclor® 1016/1260 Mix

Aroclor® 1016/1260 Mix 1,000µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2027 **Storage:** 25°C nominal

Handling: This product contains PCBs. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Aroclor 1016	1,006.7 µg/mL	+/- 5.9793	µg/mL	Gravimetric
	CAS # 12674-11-2 * (Lot 04)		+/- 31.9186	µg/mL	Unstressed
	Purity ----%		+/- 41.6891	µg/mL	Stressed
2	Aroclor 1260	1,006.0 µg/mL	+/- 5.9753	µg/mL	Gravimetric
	CAS # 11096-82-5.SEC (Lot NT01023)		+/- 31.8975	µg/mL	Unstressed
	Purity ----%		+/- 41.6615	µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

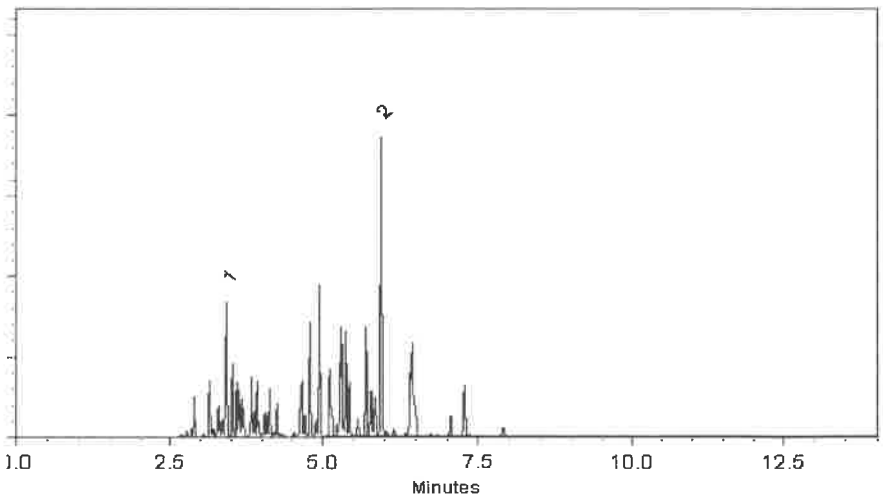
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Jeremy Warefield - Operations Tech I

Date Mixed: 06-Jan-2021 **Balance:** 1128353505

Alexis Shelow - Operations Tech I

Date Passed: 11-Jan-2021

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

AR_2154_RES_00012

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Certificate of Analysis

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Reference Material Producer
Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569745 **Lot No.:** A0168876

Description : PCB-1221/1254 Standard

PCB-1221/1254 Standard 1,000µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2027 **Storage:** 25°C nominal

Handling: This product contains PCBs. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	Aroclor 1221	(Lot 60099900)	1,004.0 µg/mL	+/-	5.9635	µg/mL	Gravimetric
	CAS # 11104-28-2			+/-	31.8340	µg/mL	Unstressed
	Purity ----%			+/-	41.5787	µg/mL	Stressed
2	Aroclor 1254	(Lot 124-191-B)	1,006.0 µg/mL	+/-	5.9753	µg/mL	Gravimetric
	CAS # 11097-69-1			+/-	31.8975	µg/mL	Unstressed
	Purity ----%			+/-	41.6615	µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD

This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Miranda Kline - Operations Technician I

Date Mixed: 08-Feb-2021 **Balance:** B442140311

Justine Albertson - Operations Tech-ARM QC

Date Passed: 19-Feb-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  - k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
  - It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
  - Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

AR_3262_RES_00009

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569746 **Lot No.:** A0169742

Description : PCB-1232/1262 Standard

PCB-1232/1262 Standard 1,000µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2027 **Storage:** 25°C nominal

Handling: This product contains PCBs. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Aroclor 1232	1,010.0 µg/mL	+/- 5.9991	µg/mL	Gravimetric
	CAS # 11141-16-5 (Lot 15665-01)		+/- 32.0243	µg/mL	Unstressed
	Purity ----%		+/- 41.8271	µg/mL	Stressed
2	Aroclor 1262	1,006.0 µg/mL	+/- 5.9753	µg/mL	Gravimetric
	CAS # 37324-23-5 (Lot 10849100)		+/- 31.8975	µg/mL	Unstressed
	Purity ----%		+/- 41.6615	µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

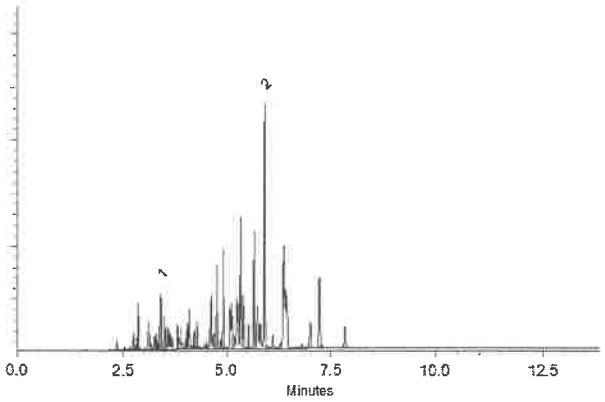
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler - Operations Tech I

Date Mixed: 04-Mar-2021 **Balance:** 1128360905

Justine Albertson - Operations Tech-ARM QC

Date Passed: 10-Mar-2021

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

AR_4268_L7_00031

Preliminary Report

Eurofins Denver
CCV, Cal Verification Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240221-130443.b\0221004.D
Lims ID: CCV 4268
Client ID:
Sample Type: CCV
Inject. Date: 21-Feb-2024 10:42:14 ALS Bottle#: 4 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ccv 4268
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub5

Method: \\chromfs\Denver\ChromData\SGC_J\20240221-130443.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 27-Feb-2024 08:48:11 Calib Date: 21-Feb-2024 13:12:59
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240221-130443.b\0221013.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1668

First Level Reviewer: USP3 Date: 21-Feb-2024 11:03:51

Start Cal Date: 07-Feb-2024 10:32:02
End Cal Date: 21-Feb-2024 13:12:59

Detector 1: GC ECD1A

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D	%Rec
10 PCB-1242	500.0		486.8		-2.6	20	97
10 PCB-1242-1	500.0	0.009	476.2	0.017737	-4.8	20	95
10 PCB-1242-2	500.0	0.012	482.5	0.035165	-3.5	20	97
10 PCB-1242-3	500.0	0.008	472.3	0.044340	-5.5	20	94
10 PCB-1242-4	500.0	0.012	495.4	0.032439	-0.9	20	99
10 PCB-1242-5	500.0	0.012	507.5	0.025914	1.5	20	102
13 PCB-1268	500.0		476.6		-4.7	20	95
13 PCB-1268-1	500.0	0.015	474.5	0.173087	-5.1	20	95
13 PCB-1268-2	500.0	0.012	472.4	0.184999	-5.5	20	94
13 PCB-1268-3	500.0	0.016	475.7	0.150720	-4.9	20	95
13 PCB-1268-4	500.0	0.012	479.7	0.064413	-4.1	20	96
13 PCB-1268-5	500.0	0.012	480.7	0.446643	-3.9	20	96
S 8 Polychlorinated biphe			963.4			20	

Start Cal Date: 07-Feb-2024 10:32:02
End Cal Date: 21-Feb-2024 13:12:59

Detector 2: GC ECD2B

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D	%Rec

Preliminary Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240221-130443.b\0221004.D

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D	%Rec
10 PCB-1242	500.0		447.7		-10.5	20	90
10 PCB-1242-1	500.0	0.002	448.9	0.016835	-10.2	20	90
10 PCB-1242-2	500.0	0.002	461.9	0.033570	-7.6	20	92
10 PCB-1242-3	500.0	0.002	454.0	0.067880	-9.2	20	91
10 PCB-1242-4	500.0	0.002	443.4	0.028616	-11.3	20	89
10 PCB-1242-5	500.0	0.002	430.4	0.021511	-13.9	20	86
13 PCB-1268	500.0		467.5		-6.5	20	94
13 PCB-1268-1	500.0	0.005	462.0	0.135000	-7.6	20	92
13 PCB-1268-2	500.0	0.005	471.4	0.152230	-5.7	20	94
13 PCB-1268-3	500.0	0.001	466.0	0.114729	-6.8	20	93
13 PCB-1268-4	500.0	0.005	458.4	0.054738	-8.3	20	92
13 PCB-1268-5	500.0	0.005	479.9	0.346986	-4.0	20	96
S 8 Polychlorinated biphe			915.2			20	

Reagent

AR_4268_RES_00007

RESTEK® CERTIFIED REFERENCE MATERIAL

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Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569747 **Lot No.:** A0143137

Description : PCB-1242/1268 Standard

PCB-1242/1268 Standard 1,000µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2025 **Storage:** 25°C nominal

Handling: This product contains PCBs.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Aroclor 1242 **CAS #** 53469-21-9 (Lot 01141-A) **Purity** ----%	1,000.0 µg/mL	+/- 5.9397 µg/mL +/- 31.7072 µg/mL +/- 41.4130 µg/mL	Gravimetric Unstressed Stressed
2	Aroclor 1268 **CAS #** 11100-14-4 (Lot 2743900) **Purity** ----%	1,000.0 µg/mL	+/- 5.9397 µg/mL +/- 31.7072 µg/mL +/- 41.4130 µg/mL	Gravimetric Unstressed Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

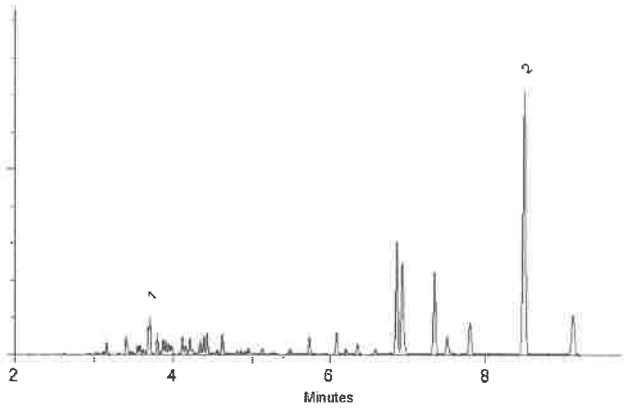
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Talion - Mix Technician

Date Mixed: 12-Nov-2018 **Balance:** B251644995

Justine Albertson - Operations Tech-ARM QC

Date Passed: 19-Nov-2018

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

BNB IS_00027

Preliminary Report

Eurofins Denver
Internal Standard Recovery Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240221-130443.b\0221003.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 21-Feb-2024 10:20:11 ALS Bottle#: 3 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub1

Method: \\chromfs\Denver\ChromData\SGC_J\20240221-130443.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 27-Feb-2024 08:48:11 Calib Date: 21-Feb-2024 13:12:59
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240221-130443.b\0221013.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1668

First Level Reviewer: USP3 Date: 21-Feb-2024 11:03:31

Istd Cal Sample: \\chromfs\Denver\ChromData\SGC_J\20240207-130028.b\0207007.D
Sample Type: ICIS ICal Level: 5
Sublist: chrom-8082_J*sub1
Sample Info: ICIS

Response Recoveries, Detector: GC ECD1A

Compound	Standard	Lower Limit	Upper Limit	Sample	% Rec
* 17 1-Bromo-2-nitrobenzene	85019054	42509527	170038108	74997481	88.21

RT Recoveries

Compound	Standard	Lower Limit	Upper Limit	Sample	DLT(min.)	% Diff
* 17 1-Bromo-2-nitrobenzene	2.833	2.333	3.333	2.830	0.003	-0.095

Response Recoveries, Detector: GC ECD2B

Compound	Standard	Lower Limit	Upper Limit	Sample	% Rec
* 17 1-Bromo-2-nitrobenzene	82348200	41174100	164696400	79441441	96.47

RT Recoveries

Compound	Standard	Lower Limit	Upper Limit	Sample	DLT(min.)	% Diff
* 17 1-Bromo-2-nitrobenzene	2.770	2.270	3.270	2.770	-0.001	0.029

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.500 minutes of internal standard RT.
RT LOWER LIMIT = - 0.500 minutes of internal standard RT.

Reagent

BNB stock_00030

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32279 **Lot No.:** A0182850

Description : 1-Bromo-2-nitrobenzene Standard

1-Bromo-2-nitrobenzene Standard 1000 µg/mL, Acetone, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2025 **Storage:** 10°C or colder

Ship: Ambient

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1-Bromo-2-nitrobenzene	1,008.0 µg/mL	+/- 5.9872 µg/mL	Gravimetric
	CAS # 577-19-5 (Lot 643872/1)		+/- 56.5308 µg/mL	Unstressed
	Purity 99%		+/- 57.8530 µg/mL	Stressed

Solvent: Acetone
CAS # 67-64-1
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

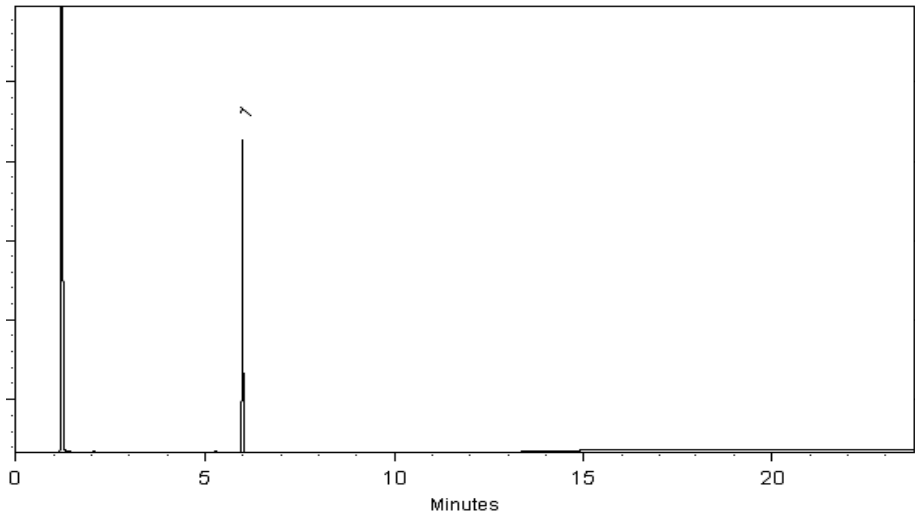
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Josh McCloskey - Operations Technician I

Date Mixed: 14-Mar-2022 **Balance:** 1128353505

Marlina Cowan - Operations Tech I

Date Passed: 17-Mar-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

BNB stock_00031

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32279 **Lot No.:** A0172090

Description : 1-Bromo-2-nitrobenzene Standard

1-Bromo-2-nitrobenzene Standard 1000 µg/mL, Acetone, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2024 **Storage:** 10°C or colder

Ship: Ambient

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1-Bromo-2-nitrobenzene	1,006.0 µg/mL	+/- 5.9753 µg/mL	Gravimetric
	CAS # 577-19-5 (Lot 643872/1)		+/- 56.4187 µg/mL	Unstressed
	Purity 99%		+/- 57.7382 µg/mL	Stressed

Solvent: Acetone
CAS # 67-64-1
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

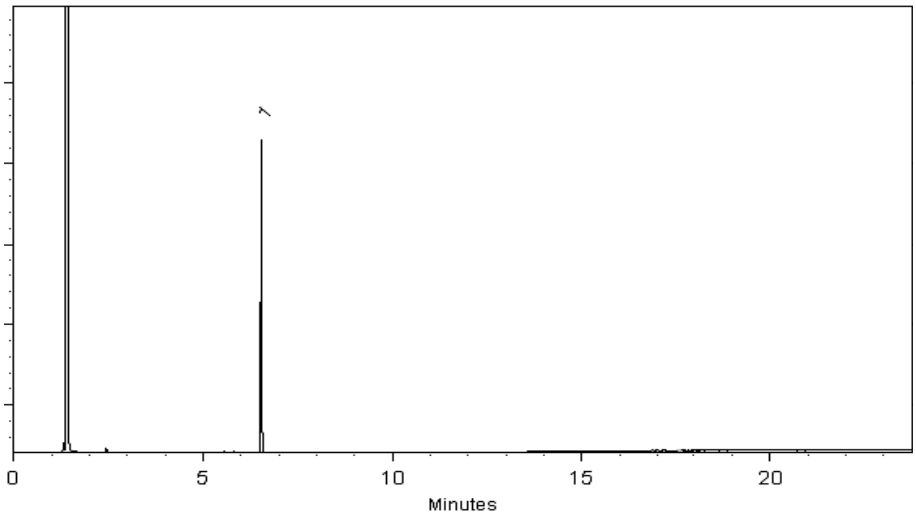
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dalton Stover - Operations Technician I

Date Mixed: 05-May-2021 **Balance:** 1128353505

Marlina Cowan - Operations Tech I

Date Passed: 07-May-2021

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

CALSTD-1_00004

8020686
ID: CALSTD-1_00004
Exp:11/02/24 Prpd:LMT Opn:10/21/23
ICP-MS Cal Std 1 CPI new

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Product #: TA-CAL1

Lot #: 1321095-1

Multi-Element Aqueous CRM

ICP ICPMS CAL Mix # 1

Matrix: 5% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	99.95 ± 0.50 mg/L	Li	99.98 ± 0.50 mg/L	Si	1000 ± 5 mg/L
Ba	100.1 ± 0.5 mg/L	Mn	99.99 ± 0.50 mg/L	Sn	99.99 ± 0.50 mg/L
Be	100.0 ± 0.5 mg/L	Mo	100.0 ± 0.5 mg/L	Sr	100.0 ± 0.5 mg/L
Cd	99.99 ± 0.50 mg/L	Ni	100.0 ± 0.5 mg/L	Ti	100.0 ± 0.5 mg/L
Co	99.95 ± 0.50 mg/L	Pb	100.0 ± 0.5 mg/L	Tl	100.0 ± 0.5 mg/L
Cr	100.0 ± 0.5 mg/L	Sb	99.99 ± 0.50 mg/L	V	99.99 ± 0.50 mg/L
Cu	100.0 ± 0.5 mg/L	Se	99.99 ± 0.50 mg/L		

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
As	1299133	Li	1195499	Si	1271053
Ba	1162561	Mn	1136846	Sn	1116280
Be	1270256	Mo	1205113	Sr	1123421
Cd	1240656	Ni	1084161	Ti	1237770
Co	1237802	Pb	1035677	Tl	1059794
Cr	1242583	Sb	978317	V	1139942
Cu	1207839	Se	1285040		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see final page)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see final page)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

May 2, 2023
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

May 2, 2023
Certification Date

...n the usage and/or implementation of the product/data described herein.

...s from the certification date shown below, provided the ...ed if this product is recalled due to any significant changes in ...

... the bottle immediately prior to use; (2) not pipette directly from the CRM's ... calibrated balances or certified, class A ... same matrix as the original CRM or other ... ory conditions. Do not freeze, heat, or immerse

...d Safety Information: Refer to the Safety Data Sheet (SDS).

...mogeneity: *This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. ...plicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.*

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
  - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM
Ag	3151	-
Al	3101a	-
As	3103a	3103a
Au	3121	-
B	3107	3107
Ba	3104a	-
Be	3105a	3105a
Bi	3106	3106
Br-	3184	-
Ca	3109a	3109a
Cd	3108	-
Ce	3110	3110
Cl-	3182	1818a
Co	3113	3113
Cr	3112a	-
Cs	3111a	-
Cu	3114	-
Dy	3115a	-
Er	3116a	-
Eu	3117a	-
F-	3183	-
Fe	3126a	-
Ga	3119a	-
Gd	3118a	-
Ge	3120a	-

Analyte	Aq. SRM	MO SRM
Hf	3122	-
Hg	3133	3133
Ho	3123a	-
In	3124a	3124a
K	3141a	3141a
La	3127a	3127a
Li	3129a	3129a
Lu	3130a	-
Mg	3131a	3131a
Mn	3132	3132
Mo	3134	3134
Na	3152a	-
Nb	3137	-
Nd	3135a	-
Ni	3136	-
NO_3^-	3185	-
P	3139a	3139a
Pb	3128	-
Pd	3138	-
PO_4^{-3}	3186	-
Pr	3142a	-
Pt	3140	3140
Rb	3145a	-
Re	3143	-
Rh	3144	3144

Analyte	Aq. SRM	MO SRM
S	3154	2770
Sb	3102a	3102a
Sc	3148a	3148a
Se	3149	3149
Si	3150	-
Sm	3147a	-
Sn	3161a	-
SO_4^{-2}	3181	-
Sr	3153a	3153a
Ta	3155	-
Tb	3157a	-
Te	3156	-
Th	-	-
Ti	3162a	3162a
Tl	3158	3158
Tm	3160a	-
U	3164	-
V	3165	-
W	3163	3163
Y	3167a	3167a
Yb	3166a	-
Zn	3168a	3168a
Zr	3169	3169

Reagent

CALSTD-1_00005

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CAL1

ICP ICPMS CAL Mix # 1

Lot #: 1437070

Matrix: 5% HNO_3/tr. HF

*Expiration Date: 11 February 2026

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	100.0 ± 0.5 mg/L	Li	99.99 ± 0.50 mg/L	Si	1000 ± 5 mg/L
Ba	100.0 ± 0.5 mg/L	Mn	99.99 ± 0.50 mg/L	Sn	99.99 ± 0.50 mg/L
Be	100.0 ± 0.5 mg/L	Mo	100.0 ± 0.5 mg/L	Sr	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.0 ± 0.5 mg/L	Ti	100.0 ± 0.5 mg/L
Co	100.0 ± 0.5 mg/L	Pb	100.0 ± 0.5 mg/L	Tl	100.0 ± 0.5 mg/L
Cr	100.0 ± 0.5 mg/L	Sb	100.0 ± 0.5 mg/L	V	100.0 ± 0.5 mg/L
Cu	100.0 ± 0.5 mg/L	Se	100.0 ± 0.5 mg/L		

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
As	1338706	Li	1316990	Si	1271053
Ba	1353868	Mn	1294994	Sn	1116280
Be	1396842	Mo	1240650	Sr	1387735
Cd	1378234	Ni	1348734	Ti	1318831
Co	1375613	Pb	1382458	Tl	1222802
Cr	1361547	Sb	1395096	V	1294996
Cu	1353861	Se	1396823		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see final page)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see final page)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

USA
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Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

22 February 2024
Certification Date

3/28/24
Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
  - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM
Ag	3151	-
Al	3101a	-
As	3103a	3103a
Au	3121	-
B	3107	3107
Ba	3104a	-
Be	3105a	3105a
Bi	3106	3106
Br^-	3184	-
Ca	3109a	3109a
Cd	3108	-
Ce	3110	3110
Cl^-	3182	1818a
Co	3113	3113
Cr	3112a	-
Cs	3111a	-
Cu	3114	-
Dy	3115a	-
Er	3116a	-
Eu	3117a	-
F^-	3183	-
Fe	3126a	-
Ga	3119a	-
Gd	3118a	-
Ge	3120a	-

Analyte	Aq. SRM	MO SRM
Hf	3122	-
Hg	3133	3133
Ho	3123a	-
In	3124a	3124a
K	3141a	3141a
La	3127a	3127a
Li	3129a	3129a
Lu	3130a	-
Mg	3131a	3131a
Mn	3132	3132
Mo	3134	3134
Na	3152a	-
Nb	3137	-
Nd	3135a	-
Ni	3136	-
NO_3^-	3185	-
P	3139a	3139a
Pb	3128	-
Pd	3138	-
PO_4^{-3}	3186	-
Pr	3142a	-
Pt	3140	3140
Rb	3145a	-
Re	3143	-
Rh	3144	3144

Analyte	Aq. SRM	MO SRM
S	3154	2770
Sb	3102a	3102a
Sc	3148a	3148a
Se	3149	3149
Si	3150	-
Sm	3147a	-
Sn	3161a	-
SO_4^{-2}	3181	-
Sr	3153a	3153a
Ta	3155	-
Tb	3157a	-
Te	3156	-
Th	-	-
Ti	3162a	3162a
Tl	3158	3158
Tm	3160a	-
U	3164	-
V	3165	-
W	3163	3163
Y	3167a	3167a
Yb	3166a	-
Zn	3168a	3168a
Zr	3169	3169

Reagent

CN CAL Std_00083

Reagent

CN ICV Std_00084

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Certificate of Analysis

Cyanide Standard, 1000 ppm CN^-

Lot Number: 1310P81 **Product Number:** 2543

Manufacture Date: OCT 17, 2023
Expiration Date: APR 2024

This standard is prepared using accurate volumetric techniques from material that has been assayed against Silver Nitrate solution certified traceable to NIST Standard Reference Material 999. The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is the combined uncertainty based on the stability of the assayed Potassium Cyanide, and the uncertainty in the mass and volume measurements.
Use 0.16% (w/v) (0.04 N) Sodium Hydroxide or 0.225 % (w/v) (0.04 N) Potassium Hydroxide to make dilutions of this standard. Restandardize weekly if extreme accuracy is required.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Cyanide	151-50-8	ACS
Sodium Hydroxide	1310-73-2	Reagent

Test	Specification	Result
Appearance	Colorless liquid	Passed
Cyanide (CN^-)	995-1005 ppm	999 ppm

Specification	Reference
Stock Standard Cyanide Solution	APHA (4500-CN- F)
Stock Cyanide Solution	APHA (4500-CN- E)
Stock Cyanide Solution	APHA (4500-CN- K)
Stock Cyanide Solution	APHA (4500-CN- H)
Cyanide Reference Solution (1000 mg/L)	EPA (SW-846) (7.3.3.2)
Cyanide Calibration Stock Solution (1,000 mg/L CN-)	EPA (SW-846) (9213)
Stock Cyanide Solution	EPA (335.3)
Stock Cyanide Solution	EPA (335.2)
Cyanide Solution Stock	ASTM (D 4282)
Simple Cyanide Solution, Stock (1.0 g/L CN)	ASTM (D 4374)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
2543-4	120 mL amber poly	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

Heidi J Green (10/17/2023)

Operations Manager

This document is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

Hg CPI Stock_00004

Approved 11/28/23
ADL

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Mercury (Hg) – 1000 µg/mL

Matrix: 2% HNO_3

8086305
ID: Hg CPI Stock_00004
Exp:03/08/25 Prpd: Opn:11/28/23
Hg ICV Stock CPI 1000ppm

Product #: S4400-1000331

Lot #: 1293435-11

Element	Certified Concentration & Uncertainty
Hg	993.0 ± 5.0 µg/mL (w/v)
	980.0 ± 5.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 17034, ISO/IEC 17025 and ISO 9001**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure mercury (Hg). The solution was diluted with filtered (0.22um), 18 M-ohm water and stabilized with the appropriate high-purity acid as indicated in the listed matrix. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3133, lot #160921**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	4	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	<2	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	<2	Cr	<0.5	Hg	MAJOR	Mn	<1	Pd	0.6	Se	<2	Tl	1
Au	7	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	<0.5	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	<2
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

September 8, 2023
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

Reagent

Hg EE 1000ppm_00007

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Certificate of Analysis

Certified Reference Material

Product Description:	Mercury
Product Number:	**HP100033-1-100**
Lot Number:	**2314224-100EE**
Matrix:	2% HNO3
Density:	1.013 g/mL ± 0.002 g/mL @ 21.6°C ± 0.3°C

Certified Value:

Element	µg/mL	SRM ID
Hg	1000 ± 6	3133

The Certified value is based on gravimetric and volumetric preparation, and verified against NIST SRM 3100 series when available via inductively coupled plasma optical emission spectrometry (ICP-OES) and/or inductively coupled plasma mass spectrometry (ICP-MS) using an internal laboratory-developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor k is about 2.

* Refer to Traceability Information, Section 4

Uncertified Values:

Trace Metal Impurity Scan: The data reported are based upon a scan of this specific lot via ICP-OES/ICP-MS analysis. The values are reported in µg/L.

Ag	7	Cu	<0.02	La	<0.02	Pt	<0.02	Te	<22
Al	<0.05	Dy	<0.02	Li	<0.02	Rb	<0.02	Th	<0.3
As	na	Er	<0.02	Lu	<0.02	Re	<0.02	Ti	<0.02
Au	<0.4	Eu	<0.02	Mg	<0.1	Rh	<0.02	Tl	<2
B	<0.2	Fe	<1	Mn	<0.5	Ru	<0.02	Tm	<0.02
Ba	<0.02	Ga	<0.02	Mo	<0.2	Sb	<5	U	<0.05
Be	<0.02	Gd	<0.02	Na	<3	Sc	<0.02	V	<0.05
Bi	<0.02	Ge	<4	Nb	<0.02	Se	<2	W	<2
Ca	<1	Hf	<0.02	Nd	<0.02	Si	<5	Y	<0.02
Cd	<0.2	Hg	M	Ni	<0.02	Sm	<0.02	Yb	<0.02
Ce	<0.02	Ho	<0.02	Os	<0.7	Sn	<2	Zn	<0.02
Co	<0.05	In	<0.02	Pb	<0.05	Sr	<0.02	Zr	<0.02
Cr	<0.05	Ir	<3	Pd	<0.7	Ta	<0.02		
Cs	na	K	<1	Pr	<0.02	Tb	<0.02		

Packaging and Storage Conditions:

The standard is packaged in a a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Expiration Information:

The expiry date is guaranteed to be valid for eighteen months from the shipping date provided and is guaranteed through the month of expiration. For this reason, standards from the same lot may have different expiration dates.

Shipped Date:	August 2023
Expiration Date:	February 28, 2025
Certificate Issue Date:	May 26, 2023

Carson R Geib

Carson Geib, Quality and Compliance Manager

2345A Charleston Regional Pkwy, Charleston, South Carolina 29492
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5/23/2024
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Preparation Information:

This standard is prepared using **99.9998%** pure **Mercury Metal** which was purchased from a qualified vendor per ISO 9001 guidelines and assayed by analytical methods for conformity prior to use. This standard was manufactured under appropriate laboratory conditions using the methods developed at NIST for SRM Spectrometric Standard Solutions. Sub-boiling distilled high-purity acid has been used to place the materials in solution and stabilize the standard. The matrix is as noted above in 18 megaohm deionized water. Stability of this product is based upon rigorous short-term and long-term testing of the solution for the certified value. This testing includes, but is not limited to, the effect of temperature and packaging on the product. If, during the period of validity, a recall is instituted due to substantial changes in the stability of this product, the purchaser will be notified.

Homogeneity:

This product is determined to be homogeneous following in-house procedures developed in accordance with the requirements of ISO 17034 and ISO Guide 35.

Intended Use:

This product is intended for use as a calibration standard, quality control standard, and/or for the validation of analytical methods. The standard is confirmed homogeneous; therefore, the minimum sample size should be consistent with the end user's measurement capabilities.

Traceability Information:

The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties. The maintenance of the base and derived units of International System of Units (SI) with traceability of measurement results (contemporary metrology) to SI ensures their comparability over time as follows.

1. **Standard Weight and Analytical Balance**
   The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in 'NIST Weights and Measures Measurement Assurance Program' with a certificate of measurement traceability to NIST primary standards. The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.
2. **Volumetric Device**
   The calibrations of volumetric vessels are verified using the ASTM method E542.
3. **Thermometer**
   The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.
4. **Calibration Standards**
   The Calibration Standard is traceable to SRM 3100 Series Spectrometric Standard Solutions. If an SRM is not available, a second source standard or independent lot is used.

Accreditation:

This CRM was manufactured by an ISO 17025 chemical testing lab (Certificate number AT-1529) and ISO 17034 Reference Material Producer (RMP) (Certificate number AR-1436) accredited by ANSI National Accreditation Board (ANAB).

Refer to Safety Datasheet (SDS) for hazardous information.

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IC N03 cal_00030

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Certificate of Analysis

Nitrate Nitrogen Standard, 1000 ppm N (4427 ppm NO_3^-)

Lot Number: 1304R00 **Product Number:** 5459

Manufacture Date: APR 27, 2023
Expiration Date: OCT 2024

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Chloroform	67-66-3	
Potassium Nitrate	7757-79-1	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 A)
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 B)
Stock Nitrate Solution: 1 mL = 1.0 mg NO3-N	EPA (353.2)
Stock Nitrate Solution: 1.0 mL = 1.00 mg NO3-N	EPA (353.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5459-16	500 mL natural poly	18 months
5459-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Heidi J Green (04/27/2023)
Operations Manager

This document is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

IC NO3 ICV_00020

Certified Reference Material

▪ Certificate of Analysis ▪

Product: 1000 mg/L Nitrate as N (NO_3-N)
Catalog Number: 052-125mL, 991-500mL
Lot No. 341022m
Starting Material: Potassium Nitrate (KNO_3)
Matrix: 18 megohm deionized water
Density: 1.0066 ± 0.0003 g/mL , 20.8 °C and 766 mm Hg
Verification Method: Ion Chromatography
Certificate Issue Date: December 13, 2022
Expiration Date: October 13, 2024
Revision Number: Original

CERTIFICATION

Parameter	Certified Value[1]	Uncertainty[2]	NIST Traceability	
	mg/L	%	SRM Number[3]	Recovery %
Nitrate as N (NO_3-N)	1000	0.672	3185	102

16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ 800.372.0122 ▪ 303.431.8454 ▪ fax 303.421.0159 ▪ www.eraqc.com

▪ Certificate of Analysis ▪

1. The **Certified Value** is the actual gravimetric/volumetric "made-to" concentration confirmed by ERA analytical verification. The certified value is monitored and the purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The **Uncertainty** represents an expanded uncertainty and approximates a 95% confidence interval. The uncertainty is based on the characterization, homogeneity and stability characteristics of the product, multiplied by a coverage factor (k=2). The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product. The formula used to calculate the expanded uncertainty is:
$U_{expanded} = k * SQRT((U_{char}^2) + (U_{homogen}^2) + (U_{LTS}^2) + (U_{STS}^2) + (U_{RSS}^2))$

Where:

$U_{expanded}$ = Expanded uncertainty.
k = Coverage factor.
U_{char} = Combined standard uncertainty of the manufacturing and/or analytical verification assessment.
$U_{homogen}$ = Standard uncertainty of the homogeneity assessment.
U_{LTS} = Standard uncertainty associated with long-term stability.
U_{STS} = Standard uncertainty associated with short-term (transport) stability.
U_{RSS} = Standard uncertainty associated with repeated sampling of the product (where permitted by product use instructions).

3. Where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. **Analytical Traceability Recovery (%)** = [(% recovery ERA certified reference material)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing this ERA certified reference material and/or it's associated stock solution(s) against the applicable NIST SRMs.

4. **Metrological Traceability**. This certified reference material is metrologically traceable to NIST mass reference materials through an unbroken chain of comparisons.

5. **Storage**: 20-25°C

6. **Intended Use**: This standard is intended to be used to calibrate your analytical process and/or as a quality control check of the entire process for the analytes/matrix included in the standard.

7. **Minimum Sample Size**: ERA suggests that when subsampling this product prior to analysis, you use a minimum sample size of at least 1 mL. Using a smaller sample size may invalidate the assigned value and/or uncertainty shown.

8. **Repeat Sampling**: Repeated Sampling of this product is permitted, provided minimum sample sizes and storage instructions are adhered to.

9. **Safety**: ERA products may be hazardous and are intended for use by professional laboratory personnel trained in the competent handling of such materials. Responsibility for the safe use of these products rests entirely with the buyer and/or user. Safety Data Sheets (SDS) for all ERA products are available through our website: www.eraqc.com

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer
Brian Miller

Quality Officer
Matthew Seebeck

ISO 17034:2016 ACCREDITED Reference Material Producer CERT #1539.03

ISO/IEC 17025:2017 ACCREDITED Chemical Testing Laboratory CERT #1539.02

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Reagent

ICP CAL STD 4_00013

CPI INTERNATIONAL

7868460
ID: ICP CAL STD 4_00013
Exp:01/31/25 Prpd: Opn:07/25/23
ICP CAL STD 4 PRIMARY

Certificate of Analysis

Custom Standard

Catalog Number: TA-CM-FEB19-DEN1+250
Lot Number: 2319116
Manufacture Date: July 10, 2023
Expiration: January 31, 2025
Matrix: 2% HNO3

Analyte	Certified Concentration (µg/mL)	Analyte	Certified Concentration (µg/mL)
Ag	100 ± 1	K	10000 ± 100
Al	100 ± 1	Mg	4000 ± 20
B	100 ± 1	Na	5000 ± 30
Bi	200 ± 2	Zn	100 ± 1
Ca	1000 ± 6	Zr	100 ± 1
Fe	500 ± 5		

Packaging, Storage, Instructions For Use

Store at room temperature (15-30°C)

This certified reference material (CRM) is packaged in HDPE as a whole volume ready to use sample. No secondary preparative steps are necessary. Allow to equilibrate to room temperature before use. Small aliquots should be poured out of the bottle rather than directly pipetted out of bottle in order to prevent contamination or premature degradation. This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001 (certified by Perry Johnson), ISO/IEC 17025 (accredited by ANAB), and ISO 17034 (accredited by ANAB) quality system.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this CRM. The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties.

Method: This CRM was verified by ICP.

Balance: The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in 'NIST Weights and Measures Measurement Assurance Program' with a certificate of measurement traceability to NIST primary standards. The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.

Thermometer: The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.

Glassware: All glassware used in the manufacture of our CRMs is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. The calibrations of volumetric vessels are verified using the ASTM method E542.

CPI INTERNATIONAL

Catalog Number: TA-CM-FEB19-DEN1+250

Lot Number: 2319116

Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

Uncertainty

The ± uncertainty associated with the concentration is the expanded manufacturing uncertainty at 95% confidence interval (CI) with K=2.

Homogeneity

This product is determined to be homogeneous following in-house procedures developed in accordance with the requirements of ISO 17034 and ISO Guide 35.

Moven Mututuvari

Moven Mututuvari, Ph. D, Laboratory Manager

07/10/2023

Certification Issue Date

Reagent

ICP ICSAB 1_00007

logged 10-9-23
logged in tracker
7983359
CoA Attached

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

ICP ICSAB Mix Solution 1

7983359
ID: ICP ICSAB 1_00007
Exp:03/11/25 Prpt: Opn:10/09/23
ICP ICSAB 1 CPI

Product #: TA-ICP-ICSAB-1

Lot #: 1399525

Matrix: 5% HNO_3/0.5% HF

*Expiration Date: 30 June 2025

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Mo	100.1 ± 0.5 mg/L	Si	1000 ± 5 mg/L	Ti	100.1 ± 0.5 mg/L
Sb	100.2 ± 0.5 mg/L	Sn	100.3 ± 0.5 mg/L		

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
Mo	1240650	Si	1289108	Ti	1091371
Sb	1162568	Sn	1116280		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 17034, ISO/IEC 17025** and **ISO 9001**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see final page)**. The solution was diluted with filtered (0.22 µm), 18 M-ohm deionized water and stabilized the appropriate high-purity acid(s) as indicated in the listed matrix. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see final page)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***18 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

11 September 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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Europe
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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
  - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM
Ag	3151	-
Al	3101a	-
As	3103a	3103a
Au	3121	-
B	3107	3107
Ba	3104a	-
Be	3105a	3105a
Bi	3106	3106
Br-	3184	-
Ca	3109a	3109a
Cd	3108	-
Ce	3110	3110
Cl-	3182	1818a
Co	3113	3113
Cr	3112a	-
Cs	3111a	-
Cu	3114	-
Dy	3115a	-
Er	3116a	-
Eu	3117a	-
F-	3183	-
Fe	3126a	-
Ga	3119a	-
Gd	3118a	-
Ge	3120a	-

Analyte	Aq. SRM	MO SRM
Hf	3122	-
Hg	3133	3133
Ho	3123a	-
In	3124a	3124a
K	3141a	3141a
La	3127a	3127a
Li	3129a	3129a
Lu	3130a	-
Mg	3131a	3131a
Mn	3132	3132
Mo	3134	3134
Na	3152a	-
Nb	3137	-
Nd	3135a	-
Ni	3136	-
NO_3-	3185	-
P	3139a	3139a
Pb	3128	-
Pd	3138	-
PO_4^{-3}	3186	-
Pr	3142a	-
Pt	3140	3140
Rb	3145a	-
Re	3143	-
Rh	3144	3144

Analyte	Aq. SRM	MO SRM
S	3154	2770
Sb	3102a	3102a
Sc	3148a	3148a
Se	3149	3149
Si	3150	-
Sm	3147a	-
Sn	3161a	-
SO_4^{-2}	3181	-
Sr	3153a	3153a
Ta	3155	-
Tb	3157a	-
Te	3156	-
Th	-	-
Ti	3162a	3162a
Tl	3158	3158
Tm	3160a	-
U	3164	-
V	3165	-
W	3163	3163
Y	3167a	3167a
Yb	3166a	-
Zn	3168a	3168a
Zr	3169	3169

Reagent

ICP ICSAB 2_00007

logged 10-9-23
logged in tracker
7983322
CoA Attached

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

7983322
ID ICP ICSAB 2_00007
Exp: 03/14/25 Prpd:
ICP ICSAB 2 CPI

Product #: TA-ICP-ICSAB-2

ICP ICSAB Mix Solution 2

Lot #: 1333445-1

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.0 ± 0.5 mg/L	Cr	100.0 ± 0.5 mg/L	Pb	100.0 ± 0.5 mg/L
As	99.94 ± 0.50 mg/L	Cu	100.0 ± 0.5 mg/L	Se	100.0 ± 0.5 mg/L
B	1000 ± 5 mg/L	K	1000 ± 5 mg/L	Sr	100.0 ± 0.5 mg/L
Ba	99.99 ± 0.50 mg/L	Mn	100.0 ± 0.5 mg/L	Tl	100.0 ± 0.5 mg/L
Be	50.02 ± 0.25 mg/L	Na	1000 ± 5 mg/L	V	100.1 ± 0.5 mg/L
Cd	99.99 ± 0.50 mg/L	Ni	100.0 ± 0.5 mg/L	Zn	99.98 ± 0.50 mg/L
Co	100.0 ± 0.5 mg/L	P	1000 ± 5 mg/L		

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
Ag	1198373	Cr	1242583	Pb	992969
As	AN18-150ASX	Cu	1207839	Se	1285040
B	1237794	K	1287603	Sr	1244946
Ba	1216157	Mn	1136846	Tl	1059794
Be	1270256	Na	1245609	V	1139942
Cd	1240656	Ni	1084161	Zn	1149838
Co	1237802	P	1035677		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2

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The Netherlands

www.cpiinternational.com

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

September 14, 2023
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM
Ag	3151	-
Al	3101a	-
As	3103a	3103a
Au	3121	-
B	3107	3107
Ba	3104a	-
Be	3105a	3105a
Bi	3106	3106
Br-	3184	-
Ca	3109a	3109a
Cd	3108	-
Ce	3110	3110
Cl-	3182	1818a
Co	3113	3113
Cr	3112a	-
Cs	3111a	-
Cu	3114	-
Dy	3115a	-
Er	3116a	-
Eu	3117a	-
F-	3183	-
Fe	3126a	-
Ga	3119a	-
Gd	3118a	-
Ge	3120a	-

Analyte	Aq. SRM	MO SRM
Hf	3122	-
Hg	3133	3133
Ho	3123a	-
In	3124a	3124a
K	3141a	3141a
La	3127a	3127a
Li	3129a	3129a
Lu	3130a	-
Mg	3131a	3131a
Mn	3132	3132
Mo	3134	3134
Na	3152a	-
Nb	3137	-
Nd	3135a	-
Ni	3136	-
NO_3-	3185	-
P	3139a	3139a
Pb	3128	-
Pd	3138	-
PO_4^{-3}	3186	-
Pr	3142a	-
Pt	3140	3140
Rb	3145a	-
Re	3143	-
Rh	3144	3144

Analyte	Aq. SRM	MO SRM
S	3154	2770
Sb	3102a	3102a
Sc	3148a	3148a
Se	3149	3149
Si	3150	-
Sm	3147a	-
Sn	3161a	-
SO_4^{-2}	3181	-
Sr	3153a	3153a
Ta	3155	-
Tb	3157a	-
Te	3156	-
Th	-	-
Ti	3162a	3162a
Tl	3158	3158
Tm	3160a	-
U	3164	-
V	3165	-
W	3163	3163
Y	3167a	3167a
Yb	3166a	-
Zn	3168a	3168a
Zr	3169	3169

Reagent

ICP ICV STD 4_00003

CPI INTERNATIONAL

7711774
ID: CAL STD 1_00003
Exp:10/13/24 Prpd:LMT Opn:04/28/23
ICP CAL STD 1 PRIMARY

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CAL1

ICP ICPMS CAL Mix # 1

Lot #: 1321095-1

Matrix: 5% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	99.95 ± 0.50 mg/L	Li	99.98 ± 0.50 mg/L	Si	1000 ± 5 mg/L
Ba	100.1 ± 0.5 mg/L	Mn	99.99 ± 0.50 mg/L	Sn	99.99 ± 0.50 mg/L
Be	100.0 ± 0.5 mg/L	Mo	100.0 ± 0.5 mg/L	Sr	100.0 ± 0.5 mg/L
Cd	99.99 ± 0.50 mg/L	Ni	100.0 ± 0.5 mg/L	Ti	100.0 ± 0.5 mg/L
Co	99.95 ± 0.50 mg/L	Pb	100.0 ± 0.5 mg/L	Tl	100.0 ± 0.5 mg/L
Cr	100.0 ± 0.5 mg/L	Sb	99.99 ± 0.50 mg/L	V	99.99 ± 0.50 mg/L
Cu	100.0 ± 0.5 mg/L	Se	99.99 ± 0.50 mg/L		

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
As	1299133	Li	1195499	Si	1271053
Ba	1162561	Mn	1136846	Sn	1116280
Be	1270256	Mo	1205113	Sr	1123421
Cd	1240656	Ni	1084161	Ti	1237770
Co	1237802	Pb	1035677	Tl	1059794
Cr	1242583	Sb	978317	V	1139942
Cu	1207839	Se	1285040		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see final page)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see final page)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

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Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately [illegible]. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified [illegible] volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or [illegible] chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

April 13, 2023
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
  - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM
Ag	3151	-	Hf	3122	-	S	3154	2770
Al	3101a	-	Hg	3133	3133	Sb	3102a	3102a
As	3103a	3103a	Ho	3123a	-	Sc	3148a	3148a
Au	3121	-	In	3124a	3124a	Se	3149	3149
B	3107	3107	K	3141a	3141a	Si	3150	-
Ba	3104a	-	La	3127a	3127a	Sm	3147a	-
Be	3105a	3105a	Li	3129a	3129a	Sn	3161a	-
Bi	3106	3106	Lu	3130a	-	SO_4^{-2}	3181	-
Br	3184	-	Mg	3131a	3131a	Sr	3153a	3153a
Ca	3109a	3109a	Mn	3132	3132	Ta	3155	-
Cd	3108	-	Mo	3134	3134	Tb	3157a	-
Ce	3110	3110	Na	3152a	-	Te	3156	-
Cl	3182	1818a	Nb	3137	-	Th	-	-
Co	3113	3113	Nd	3135a	-	Ti	3162a	3162a
Cr	3112a	-	Ni	3136	-	Tl	3158	3158
Cs	3111a	-	NO_3^-	3185	-	Tm	3160a	-
Cu	3114	-	P	3139a	3139a	U	3164	-
Dy	3115a	-	Pb	3128	-	V	3165	-
Er	3116a	-	Pd	3138	-	W	3163	3163
Eu	3117a	-	PO_4^{-3}	3186	-	Y	3167a	3167a
F-	3183	-	Pr	3142a	-	Yb	3166a	-
Fe	3126a	-	Pt	3140	3140	Zn	3168a	3168a
Ga	3119a	-	Rb	3145a	-	Zr	3169	3169
Gd	3118a	-	Re	3143	-			
Ge	3120a	-	Rh	3144	3144			

Reagent

ICP LLCCV_03783

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Certificate of Analysis

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inorganicventures.com

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	IV-68440
Lot Number:	U2-MEB734692
Matrix:	5% (v/v) HNO3 tr. HF

Value / Analyte(s):	300 µg/mL ea:	
	Potassium,	Phosphorus,
	100 µg/mL ea:	
	Sodium,	
	50 µg/mL ea:	
	Silicon,	
	20 µg/mL ea:	
	Magnesium,	Calcium,
	10 µg/mL ea:	
	Aluminum,	Boron,
	Iron,	Tin,
	Sulfur,	
	6 µg/mL ea:	
	Uranium,	
	4 µg/mL ea:	
	Nickel,	
	2 µg/mL ea:	
	Antimony,	Selenium,
	Zinc,	Molybdenum,
	Lithium,	
	1.5 µg/mL ea:	
	Copper,	Arsenic,
	Thallium,	
	1 µg/mL ea:	
	Zirconium,	Vanadium,
	Strontium,	Titanium,
	Barium,	Cobalt,
	Chromium,	Silver,
	Manganese,	
	0.9 µg/mL ea:	
	Lead,	
	0.5 µg/mL ea:	
	Cadmium,	
	0.1 µg/mL ea:	
	Beryllium	

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	9.99 ± 0.03 µg/mL	Antimony, Sb	2.000 ± 0.015 µg/mL
Arsenic, As	1.500 ± 0.009 µg/mL	Barium, Ba	1.000 ± 0.005 µg/mL
Beryllium, Be	0.1000 ± 0.0006 µg/mL	Boron, B	10.00 ± 0.07 µg/mL
Cadmium, Cd	0.4999 ± 0.0030 µg/mL	Calcium, Ca	20.00 ± 0.07 µg/mL
Chromium, Cr	1.000 ± 0.005 µg/mL	Cobalt, Co	1.000 ± 0.004 µg/mL
Copper, Cu	1.500 ± 0.009 µg/mL	Iron, Fe	10.00 ± 0.04 µg/mL
Lead, Pb	0.900 ± 0.004 µg/mL	Lithium, Li	1.999 ± 0.009 µg/mL
Magnesium, Mg	20.00 ± 0.09 µg/mL	Manganese, Mn	1.001 ± 0.005 µg/mL
Molybdenum, Mo	2.001 ± 0.016 µg/mL	Nickel, Ni	3.999 ± 0.024 µg/mL
Phosphorus, P	300.0 ± 1.5 µg/mL	Potassium, K	300.0 ± 1.3 µg/mL
Selenium, Se	2.000 ± 0.012 µg/mL	Silicon, Si	50.00 ± 0.28 µg/mL
Silver, Ag	1.000 ± 0.007 µg/mL	Sodium, Na	100.0 ± 0.4 µg/mL
Strontium, Sr	1.000 ± 0.004 µg/mL	Sulfur, S	9.99 ± 0.04 µg/mL
Thallium, Tl	1.500 ± 0.009 µg/mL	Tin, Sn	10.00 ± 0.04 µg/mL
Titanium, Ti	1.000 ± 0.006 µg/mL	Uranium, U	6.000 ± 0.031 µg/mL
Vanadium, V	1.000 ± 0.005 µg/mL	Zinc, Zn	2.001 ± 0.009 µg/mL
Zirconium, Zr	1.000 ± 0.007 µg/mL		

Density: 1.027 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Al	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
As	Calculated		See Sec. 4.2
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Ba	ICP Assay	3104a	140909
Ba	Calculated		See Sec. 4.2
Ba	Gravimetric		See Sec. 4.2
Be	Calculated		See Sec. 4.2
Ca	EDTA	3109a	130213
Ca	ICP Assay	3109a	130213
Ca	Calculated		See Sec. 4.2
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Cd	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Co	Calculated		See Sec. 4.2
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	120618
Cu	EDTA	928	928
Cu	Calculated		See Sec. 4.2
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Fe	Calculated		See Sec. 4.2
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Calculated		See Sec. 4.2
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mg	Calculated		See Sec. 4.2
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Mn	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	130418
Na	ICP Assay	3152a	200413
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Ni	Calculated		See Sec. 4.2
P	ICP Assay	3139a	060717

P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2
S	Acidimetric	84L	84L
S	ICP Assay	traceable to 3154	P2-S680745
S	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
Sb	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Si	ICP Assay	3150	130912
Si	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	140917
Sn	Calculated		See Sec. 4.2
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Sr	Calculated		See Sec. 4.2
Ti	ICP Assay	3162a	130925
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2
U	ICP Assay	traceable to 3164	R2-U689597
U	Calculated		See Sec. 4.2
V	ICP Assay	3165	160906
V	EDTA	928	928
V	Calculated		See Sec. 4.2
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928
Zn	Calculated		See Sec. 4.2
Zr	ICP Assay	3169	130920
Zr	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 11, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 11, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

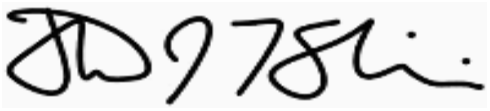
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Stock VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Reagent

ICP PDS 1_00038

logged in 3-5-24
8201800
COA Attached

CPI INTERNATIONAL

Certificate of Analysis

8201800
ID: ICP PDS 1_00038
Exp:08/31/25 Prpd: Opn:03/05/24
ICP PDS 1 CPI

Custom Standard

Catalog Number: TA-CM-OCT18-DEN3-100
Lot Number: 2403856
Manufacture Date: February 8, 2024
Expiration: August 31, 2025
Matrix: 2% HNO3

Analyte	Certified Concentration (mg/L)	Analyte	Certified Concentration (mg/L)
Ag	5.00 ± 0.05	Mg	2000 ± 10
Al	100 ± 1	Mn	5.00 ± 0.05
As	20.0 ± 0.2	Na	2000 ± 10
Ba	10.0 ± 0.1	Ni	5.00 ± 0.05
Be	5.00 ± 0.05	P	200 ± 2
Ca	2000 ± 10	Pb	10.0 ± 0.1
Cd	5.00 ± 0.05	Se	20.0 ± 0.2
Co	5.00 ± 0.05	Sr	5.00 ± 0.05
Cr	5.00 ± 0.05	Th	20.0 ± 0.2
Cu	5.00 ± 0.05	Tl	20.0 ± 0.2
Fe	100 ± 1	U	50.0 ± 0.5
K	2000 ± 20	V	5.00 ± 0.05
Li	10.0 ± 0.1	Zn	20.0 ± 0.2

Packaging, Storage, Instructions For Use

Store at room temperature (15-30°C)

This certified reference material (CRM) is packaged in HDPE as a whole volume ready to use sample. No secondary preparative steps are necessary. Allow to equilibrate to room temperature before use. Small aliquots should be poured out of the bottle rather than directly pipetted out of bottle in order to prevent contamination or premature degradation. This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001 (certified by Perry Johnson), ISO/IEC 17025 (accredited by ANAB), and ISO 17034 (accredited by ANAB) quality system.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this CRM. The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties.

Method: This CRM was verified by ICP.

Balance: The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in 'NIST Weights and Measures Measurement Assurance Program' with a certificate of measurement traceability to NIST primary standards. The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.

Thermometer: The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.

Glassware: All glassware used in the manufacture of our CRMs is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. The calibrations of volumetric vessels are verified using the ASTM method E542.

CPI INTERNATIONAL

Catalog Number: TA-CM-OCT18-DEN3-100

Lot Number: 2403856

Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

Uncertainty

The ± uncertainty associated with the concentration is the expanded manufacturing uncertainty at 95% confidence interval (CI) with K=2.

Homogeneity

This product is determined to be homogeneous following in-house procedures developed in accordance with the requirements of ISO 17034 and ISO Guide 35.

Julio Soto, Quality Manager

02/08/2024

Certification Issue Date

Reagent

Icp stk ICSA_00040

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Certificate of Analysis

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F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-ICS-A
Lot Number:	T2-MEB726136
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Aluminum, Calcium, Magnesium, 2 000 µg/mL ea: Iron

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**5 008 ± 17 µg/mL**	**Calcium, Ca**	**5 008 ± 21 µg/mL**
Iron, Fe	**2 003 ± 9 µg/mL**	**Magnesium, Mg**	**5 008 ± 21 µg/mL**

Density: 1.083 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000330	M	Eu	<	0.000240	O	Na		0.180000	M	Se	<	0.001600	M	Zn	0.007200
s	Al	<		s	Fe	<		M	Nb	<	0.000110	O	Si		0.071000	M	Zr	0.002700
M	As	<	0.003900	M	Ga		0.080000	M	Nd	<	0.000710	M	Sm	<	0.000110			
M	Au	<	0.005100	M	Gd	<	0.000110	O	Ni		0.015000	M	Sn	<	0.000480			
O	B	<	0.022000	M	Ge	<	0.002800	M	Os	<	0.000110	O	Sr		0.023000			
O	Ba		0.009600	M	Hf	<	0.000400	O	P	<	0.022000	M	Ta	<	0.000110			
O	Be	<	0.000440	M	Hg	<	0.000740	M	Pb		0.001300	M	Tb	<	0.000110			
M	Bi		0.001500	M	Ho	<	0.000110	M	Pd	<	0.000230	M	Te	<	0.000350			
s	Ca	<		M	In	<	0.000110	M	Pr	<	0.000110	M	Th	<	0.000110			
M	Cd	<	0.000420	M	Ir	<	0.000110	M	Pt	<	0.000110	M	Ti	<	0.002300			
M	Ce	<	0.000880	O	K		0.033000	M	Rb	<	0.000250	M	Tl	<	0.000110			
M	Co		0.005200	M	La		0.000640	M	Re	<	0.000110	M	Tm	<	0.000110			
O	Cr		0.044000	O	Li		0.006400	M	Rh	<	0.000110	M	U		0.000810			
M	Cs		0.004100	M	Lu	<	0.000110	M	Ru	<	0.000110	M	V	<	0.001800			
M	Cu	<	0.001300	s	Mg	<		O	S	<	0.220000	M	W	<	0.001500			
M	Dy	<	0.000110	O	Mn		0.005200	M	Sb	<	0.001900	M	Y	<	0.000980			
M	Er	<	0.000110	M	Mo		0.003400	M	Sc	<	0.000900	M	Yb	<	0.000110			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 17, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

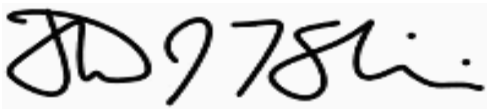
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Reagent

Icp stk ICSA_00043

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Certificate of Analysis

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-ICS-A
Lot Number:	T2-MEB726136
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Aluminum, Calcium, Magnesium, 2 000 µg/mL ea: Iron

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**5 008 ± 17 µg/mL**	**Calcium, Ca**	**5 008 ± 21 µg/mL**
Iron, Fe	**2 003 ± 9 µg/mL**	**Magnesium, Mg**	**5 008 ± 21 µg/mL**

Density: 1.083 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000330	M	Eu	<	0.000240	O	Na		0.180000	M	Se	<	0.001600	M	Zn	0.007200
s	Al	<		s	Fe	<		M	Nb	<	0.000110	O	Si		0.071000	M	Zr	0.002700
M	As	<	0.003900	M	Ga		0.080000	M	Nd	<	0.000710	M	Sm	<	0.000110			
M	Au	<	0.005100	M	Gd	<	0.000110	O	Ni		0.015000	M	Sn	<	0.000480			
O	B	<	0.022000	M	Ge	<	0.002800	M	Os	<	0.000110	O	Sr		0.023000			
O	Ba		0.009600	M	Hf	<	0.000400	O	P	<	0.022000	M	Ta	<	0.000110			
O	Be	<	0.000440	M	Hg	<	0.000740	M	Pb		0.001300	M	Tb	<	0.000110			
M	Bi		0.001500	M	Ho	<	0.000110	M	Pd	<	0.000230	M	Te	<	0.000350			
s	Ca	<		M	In	<	0.000110	M	Pr	<	0.000110	M	Th	<	0.000110			
M	Cd	<	0.000420	M	Ir	<	0.000110	M	Pt	<	0.000110	M	Ti	<	0.002300			
M	Ce	<	0.000880	O	K		0.033000	M	Rb	<	0.000250	M	Tl	<	0.000110			
M	Co		0.005200	M	La		0.000640	M	Re	<	0.000110	M	Tm	<	0.000110			
O	Cr		0.044000	O	Li		0.006400	M	Rh	<	0.000110	M	U		0.000810			
M	Cs		0.004100	M	Lu	<	0.000110	M	Ru	<	0.000110	M	V	<	0.001800			
M	Cu	<	0.001300	s	Mg	<		O	S	<	0.220000	M	W	<	0.001500			
M	Dy	<	0.000110	O	Mn		0.005200	M	Sb	<	0.001900	M	Y	<	0.000980			
M	Er	<	0.000110	M	Mo		0.003400	M	Sc	<	0.000900	M	Yb	<	0.000110			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 17, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

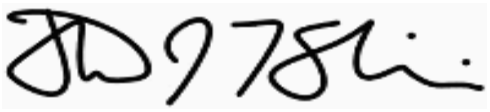
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Reagent

ICV MIX-1a_00003

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Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	IV-67795-A
Lot Number:	U2-MEB734729
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	100 µg/mL ea:

Arsenic, Barium,
Beryllium, Cadmium,
Cobalt, Chromium,
Copper, Lithium,
Manganese, Nickel,
Lead, Selenium,
Strontium, Thallium,
Vanadium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	**100.0 ± 0.7 µg/mL**	**Barium, Ba**	**100.0 ± 0.4 µg/mL**
Beryllium, Be	**100.0 ± 0.6 µg/mL**	**Cadmium, Cd**	**100.0 ± 0.4 µg/mL**
Chromium, Cr	**100.0 ± 0.6 µg/mL**	**Cobalt, Co**	**100.0 ± 0.5 µg/mL**
Copper, Cu	**100.1 ± 0.4 µg/mL**	**Lead, Pb**	**100.0 ± 0.5 µg/mL**
Lithium, Li	**100.1 ± 0.4 µg/mL**	**Manganese, Mn**	**100.0 ± 0.4 µg/mL**
Nickel, Ni	**100.0 ± 0.4 µg/mL**	**Selenium, Se**	**100.0 ± 0.6 µg/mL**
Strontium, Sr	**100.0 ± 0.4 µg/mL**	**Thallium, Tl**	**100.0 ± 0.5 µg/mL**
Vanadium, V	**100.0 ± 0.4 µg/mL**		

Density: 1.029 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
As	Calculated		See Sec. 4.2
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Sr	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
V	ICP Assay	3165	160906
V	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 12, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 12, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

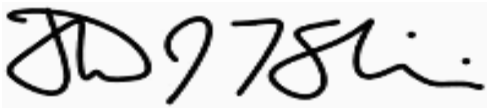
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Stock VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Reagent

MNX,TNX,DNX_00092

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ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Custom Standard
Product Number: CUS-23984
Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006744504
Lot Issue Date: 17-May-2023
Expiration Date: 30-Jun-2024

Component Name	Concentration		Uncertainty	CAS#	Analyte Lot
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	100.4	±	0.5 µg/mL	N/A	RM12426
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	100.2	±	0.5 µg/mL	N/A	RM12428
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	116.9	±	0.6 µg/mL	N/A	RM12428

Matrix: acetonitrile

Description:
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20ºC to 25ºC immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:
This analytical reference standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Expiration of Certification:
The certification of this analytical reference standard is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.

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Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative

Reagent

MS CALSTD-2_00105

8142891
ID: MS CALSTD-2_00105
Exp: 06/27/25 Prpd: LMT
MS CAL STD 2

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CAL2

ICP ICPMS CAL Mix # 2

Lot #: 1375876

Matrix: 5% HNO_3

*Expiration Date: 27 June 2025

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	2000 ± 10 mg/L	Fe	2000 ± 10 mg/L	Mg	2000 ± 10 mg/L
Ca	2000 ± 10 mg/L	K	2000 ± 10 mg/L	Na	2000 ± 10 mg/L

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
Al	1249289	Fe	1249266	Mg	1222806
Ca	1344004	K	1367374	Na	1344394

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

27 June 2023
Certification Date

NA
Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM
Ag	3151	-
Al	3101a	-
As	3103a	3103a
Au	3121	-
B	3107	3107
Ba	3104a	-
Be	3105a	3105a
Bi	3106	3106
Br^-	3184	-
Ca	3109a	3109a
Cd	3108	-
Ce	3110	3110
Cl^-	3182	1818a
Co	3113	3113
Cr	3112a	-
Cs	3111a	-
Cu	3114	-
Dy	3115a	-
Er	3116a	-
Eu	3117a	-
F^-	3183	-
Fe	3126a	-
Ga	3119a	-
Gd	3118a	-
Ge	3120a	-

Analyte	Aq. SRM	MO SRM
Hf	3122	-
Hg	3133	3133
Ho	3123a	-
In	3124a	3124a
K	3141a	3141a
La	3127a	3127a
Li	3129a	3129a
Lu	3130a	-
Mg	3131a	3131a
Mn	3132	3132
Mo	3134	3134
Na	3152a	-
Nb	3137	-
Nd	3135a	-
Ni	3136	-
NO_3^-	3185	-
P	3139a	3139a
Pb	3128	-
Pd	3138	-
PO_4^{-3}	3186	-
Pr	3142a	-
Pt	3140	3140
Rb	3145a	-
Re	3143	-
Rh	3144	3144

Analyte	Aq. SRM	MO SRM
S	3154	2770
Sb	3102a	3102a
Sc	3148a	3148a
Se	3149	3149
Si	3150	-
Sm	3147a	-
Sn	3161a	-
SO_4^{-2}	3181	-
Sr	3153a	3153a
Ta	3155	-
Tb	3157a	-
Te	3156	-
Th	-	-
Ti	3162a	3162a
Tl	3158	3158
Tm	3160a	-
U	3164	-
V	3165	-
W	3163	3163
Y	3167a	3167a
Yb	3166a	-
Zn	3168a	3168a
Zr	3169	3169

Reagent

MS CALSTD-5a_00003

Standard Verification Form

Standard Information			
Vendor Standard Name	TA-CH-NOV21-DEC2 (Soln A + B)		
Vendor	CPI		
Lot number	220527		
Initial Verification	☐	Re-Verification	☒

TALS "Reagent" Information	
TALS Standard ID	MSCalSTD 5a + 5b
COA Reviewed against what is in TALS	☒

Verification Information and Data			
Verified by	MT	Instrument ID	077
Verification Date	1/2/24	Method Reference	6020/200.8
ID of Standard Used for Verification	913192	Batch # / Chrom Work List #	see printed data

Attach to this form: formulary report , COA and data used for verification
Attach to standard in TALS: this form and all supporting documentation including the original CoA

See Acceptance Criteria Below:			
Approved for Use	☒	Not Approved for Use	☐

New expiration date can be no greater than ½ the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.

New Expiration Date:	9/25/24

1st Level Review: MT Date: 1/2/24

2nd Level Review: RS Date: 1-2-24

QA Review (Re-verification only)	Kelly Maddox	Date: 1/10/2024

Acceptance Criteria		
Department	**Standard Analytes**	**Poor Performers* and Esterified Analytes**
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

*See analytical SOP for details on poor performing analytes.

CPI INTERNATIONAL

Certificate of Analysis

Custom Standard

Catalog Number: TA-CM-NOV21-DEN2 (Soln A)
Lot Number: 220527
Manufacture Date: 06/10/22

Expiration: 12/31/2023
Matrix: 2% HNO3
Hazards: Irritant, Corrosive

Analyte	Certified Concentration (ppm)
Boron (B)	1000 ± 5.75
Lithium (Li)	100 ± 0.575
Phosphorus (P)	4000 ± 23.0
Silver (Ag)	100 ± 0.575
Strontium (Sr)	100 ± 0.575
Zinc (Zn)	100 ± 0.575

Catalog Number: TA-CM-NOV21-DEN2 (Soln B)
Lot Number: 220527
Manufacture Date: 06/10/22

Expiration: 12/31/2023
Matrix: 2% HNO3
Hazards: Irritant, Corrosive

Analyte	Certified Concentration (ppm)
Thorium (Th)	100 ± 0.575

Packaging, Storage, Instructions For Use

Store at room temperature (15-30°C).

This certified reference material (CRM) is packaged in HDPE as a whole volume ready to use sample. No secondary preparative steps are necessary. Allow to equilibrate to room temperature before use. Small aliquots should be poured out of the bottle rather than directly pipetted out of bottle in order to prevent contamination or premature degradation. This CRM was manufactured by NSI Lab Solutions following quality procedures meeting the requirements of ISO 9001, ISO 17025, and ISO 17034.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this CRM.

Method: This CRM was verified by ICP.

5/23/2024
4:40:30 AM

CPI INTERNATIONAL

Catalog Number: 4400-100113DF06
Lot Number: 220527

Balance: All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.
All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

Thermometer: All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

Glassware: All glassware used in the manufacture of our CRMs is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

Uncertainty

The ± uncertainty associated with the concentration is the expanded manufacturing uncertainty at 95% confidence interval (CI) with K=2.

Homogeneity

This CRM was thoroughly mixed in production and is guaranteed homogeneous.

Ewart Morris

Ewart Morris, Inorganics Technical Manager

Mark Hammersla

Mark Hammersla, President

Sample Report

Sample Table

Sample Name	lot 220527 1000x
Data File Name	022SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\ALL010224.b
Acq Date Time	2024-01-02T11:31:15-07:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	013CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag	
Li	7	3	45	106.242	ppb	106.242	3.10	3039678	50000		
Be	9	1	6	0.027	ppb	0.027	206.06	57	2000		
B	11	1	6	993.296	ppb	993.296	1.43	293959	2000		
Na	23	2	45	5.309	ppb	5.309	11.44	18314	400000		
Mg	24	2	45	5.051	ppb	5.051	7.94	677	400000		
Al	27	2	45	5.331	ppb	5.331	54.28	480	400000		
Si	28	2	45	-3.533	ppb	-3.533	-69.11	7852	10000		
P	31	2	45	9236.227	ppb	9236.227	2.09	11607	10000		
K	39	2	45	-8.277	ppb	-8.277	-139.89	22028	400000		
Ca	40	1	45	8.233	ppb	8.233	2.99	105293	400000		
Ti	47	2	45	0.604	ppb	0.604	86.64	20	4000		
V	51	2	72	-0.075	ppb	-0.075	-115.62	663	2000		
Cr	52	2	72	0.034	ppb	0.034	109.34	1203	5000		
Mn	55	2	72	0.039	ppb	0.039	256.52	223	10000		
Fe	56	1	72	3.857	ppb	3.857	1.00	106098	10000		
(Fe)	57	2	72	3.427	ppb	3.427	42.34	490	400000		
Co	59	2	72	0.012	ppb	0.012	191.44	207	2000		
Ni	60	2	72	-0.004	ppb	-0.004	-1883.68	370	5000		
Cu	63	2	72	-0.383	ppb	-0.383	-36.61	2957	5000		
Zn	66	2	72	96.984	ppb	96.984	3.43	39806	5000		97%
As	75	2	72	0.041	ppb	0.041	98.06	63	2000		
Se	78	1	72	0.034	ppb	0.034	157.82	29	2000		
Sr	88	2	72	100.076	ppb	100.076	3.35	87853	4000		100%
Zr	90	2	72	1.607	ppb	1.607	27.89	847	1000		
Mo	95	2	115	0.580	ppb	0.580	6.90	770	2000		
Ag	107	2	115	96.795	ppb	96.795	0.35	403122	100		97%
Cd	111	2	115	0.032	ppb	0.032	76.89	33	2000		
Sn	120	2	115	-0.018	ppb	-0.018	-95.99	753	2000		
Sb	121	2	115	0.065	ppb	0.065	47.55	230	1000		
Ba	137	2	115	0.011	ppb	0.011	105.08	47	5000		
W	182	2	165	-0.006	ppb	-0.006	-24971.22	2274	100		
Tl	205	2	165	0.030	ppb	0.030	39.51	1533	2000		
Pb	208	2	165	0.002	ppb	0.002	1747.84	3027	5000		
Th	232	2	193	104.905	ppb	104.905	0.53	2028739	2000		105%
U	238	2	193	0.105	ppb	0.105	15.25	7432	2000		

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	383748	0.18	384270	99.86	60	120	
Sc (IS)	45	1	HMI H2	19288527	1.11	19359293	99.63	60	120	
Sc (IS)	45	2	HMI He	1011584	1.80	1016409	99.53	60	120	
Sc (IS)	45	3	No Gas	33552158	1.69	33817122	99.22	60	120	
Ge Internal standard	72	1	HMI H2	10888572	0.65	11007786	98.92	60	120	
Ge Internal standard	72	2	HMI He	1414850	3.53	1410934	100.28	60	120	
In Internal standard	115	2	HMI He	5275248	0.45	5134272	102.75	60	120	
Ho-165	165	2	HMI He	22424168	0.54	22488313	99.71	60	120	
Ir (IS)	193	2	HMI He	16153073	0.57	16456919	98.15	60	120	

Reagent

MS ICSA STOCK_00053

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	6020ICS-0A
Lot Number:	U2-MEB735840
Matrix:	1% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Chloride,
	2 000 µg/mL ea: Carbon,
	1 000 µg/mL ea: Calcium, Aluminum, Iron, Potassium, Magnesium, Sodium, Phosphorus, Sulfur,
	20 µg/mL ea: Titanium, Molybdenum

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**999 ± 3 µg/mL**	**Calcium, Ca**	**999 ± 3 µg/mL**
Carbon, C	**1 998 ± 4 µg/mL**	**Chloride, Cl**	**9 990.0 ± 30.0 µg/mL**
Iron, Fe	**999 ± 4 µg/mL**	**Magnesium, Mg**	**999 ± 4 µg/mL**
Molybdenum, Mo	**19.98 ± 0.11 µg/mL**	**Phosphorus, P**	**999 ± 5 µg/mL**
Potassium, K	**999 ± 4 µg/mL**	**Sodium, Na**	**999 ± 4 µg/mL**
Sulfur, S	**999 ± 5 µg/mL**	**Titanium, Ti**	**19.98 ± 0.15 µg/mL**

Density: 1.030 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
C	Acidimetric	84L	84L
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cl	Acidimetric	84L	84L
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mo	ICP Assay	3134	130418
Na	ICP Assay	3152a	200413
Na	Gravimetric		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
S	Acidimetric	84L	84L
S	ICP Assay	traceable to 3154	P2-S680745
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000120	M	Er	<	0.000009	M	Mn		0.003100	s	S	<		O	V	<	0.004400
s	Al	<		M	Eu	<	0.000059	s	Mo	<		M	Sb		0.000940	M	W		0.003600
M	As		0.007300	s	Fe	<		s	Na	<		M	Sc	<	0.000810	M	Y	<	0.000079
M	Au	<	0.000081	M	Ga		0.028000	M	Nb	<	0.000079	M	Se	<	0.003600	M	Yb	<	0.000098
M	B	<	0.004700	M	Gd	<	0.000040	M	Nd	<	0.000030	O	Si	<	0.021000	M	Zn		0.003700
M	Ba		0.006300	M	Ge	<	0.001800	M	Ni		0.008800	M	Sm	<	0.000009	M	Zr		0.001400
O	Be	<	0.000310	M	Hf	<	0.000098	M	Os	<	0.000011	M	Sn		0.000510				
M	Bi	<	0.000630	M	Hg	<	0.000011	s	P	<		M	Sr		0.009200				
s	Ca	<		M	Ho	<	0.000009	M	Pb		0.000610	M	Ta		0.000200				
O	Cd	<	0.003900	M	In	<	0.000380	M	Pd	<	0.000040	M	Tb	<	0.000009				
M	Ce	<	0.000120	M	Ir	<	0.000011	M	Pr	<	0.000020	M	Te	<	0.000040				
M	Co		0.001900	s	K	<		M	Pt	<	0.000009	M	Th	<	0.000098				
M	Cr		0.013000	M	La	<	0.000300	M	Rb		0.040000	s	Ti	<					
M	Cs		0.000960	O	Li		0.001300	M	Re	<	0.000040	M	Tl	<	0.000020				
M	Cu		0.017000	M	Lu	<	0.000009	M	Rh	<	0.000030	M	Tm	<	0.000009				
M	Dy	<	0.000009	s	Mg	<		M	Ru	<	0.000110	M	U	<	0.000079				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 18, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 18, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

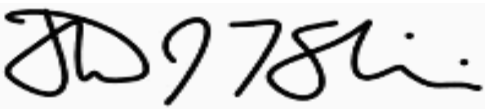
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor

Certificate Approved By:

Thomas Kozikowski
Stock VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Reagent

MS ICSA STOCK_00055

8142894
ID: MS ICSA STOCK_00055
Exp: 10/29/25 Prpd:
ICP-MS ICSA STOCK SOLUTIO

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICPMS-ICSA

ICPMS ICSA Mix

Lot #: 1401663

Matrix: 2% HNO_3

*Expiration Date: 29 October 2025

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	1000 ± 5 mg/L	Fe	1000 ± 5 mg/L	Na	1000 ± 5 mg/L
C	1998 ± 10 mg/L	K	1000 ± 5 mg/L	P	999.9 ± 5.0 mg/L
Ca	1000 ± 5 mg/L	Mg	1000 ± 5 mg/L	S	1000 ± 5 mg/L
Cl	10,000 ± 50 mg/L	Mo	20.00 ± 0.10 mg/L	Ti	19.98 ± 0.10 mg/L

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
Al	1369281	Fe	1249266	Na	1369048
C	M061010	K	1367374	P	1385912
Ca	1344004	Mg	1222806	S	1207779
Cl	231495	Mo	1120495	Ti	1279907

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see final page)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see final page)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Trace Concentrations (µg/L)

Ag	<0.5	Co	3	Ge	0.6	Lu	<0.2	P	MAJOR	Sb	3	Te	<1
Al	MAJOR	Cs	<0.5	Hf	<0.2	Mg	MAJOR	Pb	3	Sc	<5	Ti	MAJOR
As	<2	Cr	107	Hg	<0.5	Mn	4	Pd	1	Se	<2	Tl	2
Au	2	Cu	4	Ho	<0.2	Mo	MAJOR	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	MAJOR	Pt	<0.5	Sm	<0.2	V	<1
Ba	5	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	5	Sn	12	W	1
Bi	3	Eu	<0.2	K	MAJOR	Nd	<0.2	Re	0.3	Sr	8	Y	<0.5
Ca	MAJOR	Fe	MAJOR	La	<0.5	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	3	Ga	27	Li	107	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	12
Ce	0.3	Gd	<0.2										

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5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer	9 November 2023 **Certification Date**	**Date Opened**

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM
Ag	3151	-	Hf	3122	-	S	3154	2770
Al	3101a	-	Hg	3133	3133	Sb	3102a	3102a
As	3103a	3103a	Ho	3123a	-	Sc	3148a	3148a
Au	3121	-	In	3124a	3124a	Se	3149	3149
B	3107	3107	K	3141a	3141a	Si	3150	-
Ba	3104a	-	La	3127a	3127a	Sm	3147a	-
Be	3105a	3105a	Li	3129a	3129a	Sn	3161a	-
Bi	3106	3106	Lu	3130a	-	SO_4^{-2}	3181	-
Br-	3184	-	Mg	3131a	3131a	Sr	3153a	3153a
Ca	3109a	3109a	Mn	3132	3132	Ta	3155	-
Cd	3108	-	Mo	3134	3134	Tb	3157a	-
Ce	3110	3110	Na	3152a	-	Te	3156	-
Cl-	3182	1818a	Nb	3137	-	Th	-	-
Co	3113	3113	Nd	3135a	-	Ti	3162a	3162a
Cr	3112a	-	Ni	3136	-	Tl	3158	3158
Cs	3111a	-	NO_3^-	3185	-	Tm	3160a	-
Cu	3114	-	P	3139a	3139a	U	3164	-
Dy	3115a	-	Pb	3128	-	V	3165	-
Er	3116a	-	Pd	3138	-	W	3163	3163
Eu	3117a	-	PO_4^{-3}	3186	-	Y	3167a	3167a
F-	3183	-	Pr	3142a	-	Yb	3166a	-
Fe	3126a	-	Pt	3140	3140	Zn	3168a	3168a
Ga	3119a	-	Rb	3145a	-	Zr	3169	3169
Gd	3118a	-	Re	3143	-			
Ge	3120a	-	Rh	3144	3144			

Reagent

MS ICVMIX--3_00006

logged in 4-25-24
logged in Tracker
8291900
COA Attached

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

8291900
ID: ICP CALSTD-3_00012
Exp:10/08/25 Prpd: Opn:04/23/24
ICP CAL STD 3 SECONDARY

Product #: TA-CAL3-SS

ICP ICPMS CAL Mix # 3

Lot #: 1294928-1

Matrix: 5% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
P	1000 ± 5 mg/L	U	100.0 ± 0.5 mg/L
S	1000 ± 5 mg/L	W	99.99 ± 0.50 mg/L

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #
P	AR18-111PX	U	AR19-22UX
S	AS18-183SX	W	2101843

Intended Use: This solution is intended for use as a second source certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

April 9, 2024
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM
Ag	3151	-
Al	3101a	-
As	3103a	3103a
Au	3121	-
B	3107	3107
Ba	3104a	-
Be	3105a	3105a
Bi	3106	3106
Br^-	3184	-
Ca	3109a	3109a
Cd^+	3108	-
Ce	3110	3110
Cl^-	3182	1818a
Co	3113	3113
Cr	3112a	-
Cs	3111a	-
Cu	3114	-
Dy	3115a	-
Er	3116a	-
Eu	3117a	-
F^-	3183	-
Fe	3126a	-
Ga	3119a	-
Gd	3118a	-
Ge	3120a	-

Analyte	Aq. SRM	MO SRM
Hf	3122	-
Hg	3133	3133
Ho	3123a	-
In	3124a	3124a
K	3141a	3141a
La	3127a	3127a
Li	3129a	3129a
Lu	3130a	-
Mg	3131a	3131a
Mn	3132	3132
Mo	3134	3134
Na	3152a	-
Nb	3137	-
Nd	3135a	-
Ni	3136	-
NO_3^-	3185	-
P	3139a	3139a
Pb	3128	-
Pd	3138	-
PO_4^{-3}	3186	-
Pr	3142a	-
Pt	3140	3140
Rb	3145a	-
Re	3143	-
Rh	3144	3144

Analyte	Aq. SRM	MO SRM
S	3154	2770
Sb	3102a	3102a
Sc	3148a	3148a
Se	3149	3149
Si	3150	-
Sm	3147a	-
Sn	3161a	-
SO_4^{-2}	3181	-
Sr	3153a	3153a
Ta	3155	-
Tb	3157a	-
Te	3156	-
Th	-	-
Tl	3162a	3162a
Tl	3158	3158
Tm	3160a	-
U	3164	-
V	3165	-
W	3163	3163
Y	3167a	3167a
Yb	3166a	-
Zn	3168a	3168a
Zr	3169	3169

Reagent

MS ICVMIX--5_00004

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Certificate of Analysis

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inorganicventures.com

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	35-TSPEURF-TA-1
Lot Number:	U2-MEB734067
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 1 000 µg/mL ea: Phosphorus, Boron, 100 µg/mL ea: Silver, Lithium, Strontium, Thorium, Zinc

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	1 000 ± 7 µg/mL	Calcium, Ca	5 000 ± 16 µg/mL
Lithium, Li	100.0 ± 0.4 µg/mL	Magnesium, Mg	5 000 ± 22 µg/mL
Phosphorus, P	1 000 ± 5 µg/mL	Potassium, K	5 000 ± 22 µg/mL
Silver, Ag	100.0 ± 0.4 µg/mL	Sodium, Na	5 000 ± 23 µg/mL
Strontium, Sr	100.0 ± 0.4 µg/mL	Thorium, Th	100.0 ± 0.5 µg/mL
Zinc, Zn	100.0 ± 0.4 µg/mL		

Density: 1.087 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Na	ICP Assay	Traceable to 3152A	S2-NA700842
Na	Gravimetric		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Sr	Calculated		See Sec. 4.2
Th	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 12, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 12, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

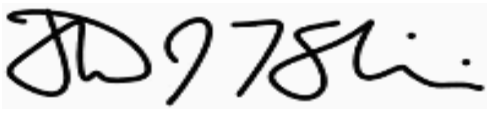
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Reagent

MS ICVMIX-2_00007

7759049
ID: MS ICVMIX-2_00007
Exp:11/02/24 Prpd:LMT Opn:05/22/23
ICP-MS ICV Std 2 CPI reve

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CAL2-SS

ICP ICPMS CAL Mix # 2

Lot #: 1294936-1

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	2000 ± 10 mg/L	Fe	2000 ± 10 mg/L	Mg	2000 ± 10 mg/L
Ca	2000 ± 10 mg/L	K	2000 ± 10 mg/L	Na	2000 ± 10 mg/L

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
Al	AR19-12ALX	Fe	AS18-178FEX	Mg	AR19-13MGX
Ca	BB19-08CAX	K	AZ18-163KX	Na	AU18-172NAX

Intended Use: This solution is intended for use as a second source certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

May 2, 2023
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
  - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM
Ag	3151	-	Hf	3122	-	S	3154	2770
Al	3101a	-	Hg	3133	3133	Sb	3102a	3102a
As	3103a	3103a	Ho	3123a	-	Sc	3148a	3148a
Au	3121	-	In	3124a	3124a	Se	3149	3149
B	3107	3107	K	3141a	3141a	Si	3150	-
Ba	3104a	-	La	3127a	3127a	Sm	3147a	-
Be	3105a	3105a	Li	3129a	3129a	Sn	3161a	-
Bi	3106	3106	Lu	3130a	-	SO_4^{-2}	3181	-
Br	3184	-	Mg	3131a	3131a	Sr	3153a	3153a
Ca	3109a	3109a	Mn	3132	3132	Ta	3155	-
Cd	3108	-	Mo	3134	3134	Tb	3157a	-
Ce	3110	3110	Na	3152a	-	Te	3156	-
Cl	3182	1818a	Nb	3137	-	Th	-	-
Co	3113	3113	Nd	3135a	-	Ti	3162a	3162a
Cr	3112a	-	Ni	3136	-	Tl	3158	3158
Cs	3111a	-	NO_3	3185	-	Tm	3160a	-
Cu	3114	-	P	3139a	3139a	U	3164	-
Dy	3115a	-	Pb	3128	-	V	3165	-
Er	3116a	-	Pd	3138	-	W	3163	3163
Eu	3117a	-	PO_4^{-3}	3186	-	Y	3167a	3167a
F-	3183	-	Pr	3142a	-	Yb	3166a	-
Fe	3126a	-	Pt	3140	3140	Zn	3168a	3168a
Ga	3119a	-	Rb	3145a	-	Zr	3169	3169
Gd	3118a	-	Re	3143	-			
Ge	3120a	-	Rh	3144	3144			

Reagent

MS LLCCV_00010

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info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	IV-67794
Lot Number:	T2-MEB722097
Matrix:	5% (v/v) HNO3 tr. HF
Value / Analyte(s):	30 µg/mL ea: Sodium,
	20 µg/mL ea: Calcium,
	12 µg/mL ea: Potassium,
	10 µg/mL ea: Boron, Phosphorus,
	5 µg/mL ea: Aluminum, Iron, Magnesium,
	1 µg/mL ea: Lithium, Tin, Zinc,
	0.5 µg/mL ea: Selenium, Vanadium, Strontium, Titanium, Arsenic,
	0.2 µg/mL ea: Chromium, Copper, Nickel, Molybdenum, Antimony,
	0.1 µg/mL ea: Lead, Thallium, Uranium, Thorium, Manganese, Silver, Cadmium, Cobalt, Barium, Beryllium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	4.997 ± 0.025 µg/mL	Antimony, Sb	0.2001 ± 0.0017 µg/mL
Arsenic, As	0.5003 ± 0.0030 µg/mL	Barium, Ba	0.1000 ± 0.0006 µg/mL
Beryllium, Be	0.1000 ± 0.0008 µg/mL	Boron, B	10.00 ± 0.06 µg/mL
Cadmium, Cd	0.1000 ± 0.0007 µg/mL	Calcium, Ca	20.00 ± 0.09 µg/mL
Chromium, Cr	0.2000 ± 0.0013 µg/mL	Cobalt, Co	0.1000 ± 0.0008 µg/mL
Copper, Cu	0.1998 ± 0.0009 µg/mL	Iron, Fe	4.995 ± 0.026 µg/mL
Lead, Pb	0.1000 ± 0.0007 µg/mL	Lithium, Li	1.000 ± 0.006 µg/mL
Magnesium, Mg	4.998 ± 0.026 µg/mL	Manganese, Mn	0.1000 ± 0.0008 µg/mL
Molybdenum, Mo	0.1998 ± 0.0013 µg/mL	Nickel, Ni	0.2002 ± 0.0010 µg/mL
Phosphorus, P	10.00 ± 0.05 µg/mL	Potassium, K	12.00 ± 0.06 µg/mL
Selenium, Se	0.5001 ± 0.0041 µg/mL	Silver, Ag	0.1000 ± 0.0009 µg/mL
Sodium, Na	29.98 ± 0.13 µg/mL	Strontium, Sr	0.4999 ± 0.0030 µg/mL
Thallium, Tl	0.1000 ± 0.0008 µg/mL	Thorium, Th	0.1000 ± 0.0006 µg/mL
Tin, Sn	1.000 ± 0.007 µg/mL	Titanium, Ti	0.4998 ± 0.0042 µg/mL
Uranium, U	0.1000 ± 0.0008 µg/mL	Vanadium, V	0.4996 ± 0.0029 µg/mL
Zinc, Zn	1.000 ± 0.006 µg/mL		

Density: 1.026 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Al	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Ba	Calculated		See Sec. 4.2
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Ca	Calculated		See Sec. 4.2
Cd	Calculated		See Sec. 4.2
Co	Calculated		See Sec. 4.2
Cr	Calculated		See Sec. 4.2
Cu	Calculated		See Sec. 4.2
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Fe	Calculated		See Sec. 4.2
K	ICP Assay	3141a	140813
K	Calculated		See Sec. 4.2
K	Gravimetric		See Sec. 4.2
Li	Calculated		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mg	Calculated		See Sec. 4.2
Mn	Calculated		See Sec. 4.2
Mo	Calculated		See Sec. 4.2
Na	ICP Assay	Traceable to 3152A	S2-NA700842
Na	Calculated		See Sec. 4.2
Na	Gravimetric		See Sec. 4.2
Ni	Calculated		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
P	Calculated		See Sec. 4.2
Pb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
Se	Calculated		See Sec. 4.2
Sn	Calculated		See Sec. 4.2
Sr	Calculated		See Sec. 4.2
Th	Calculated		See Sec. 4.2
Ti	Calculated		See Sec. 4.2
Tl	Calculated		See Sec. 4.2
U	Calculated		See Sec. 4.2
V	Calculated		See Sec. 4.2
Zn	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.24 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 29, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 29, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

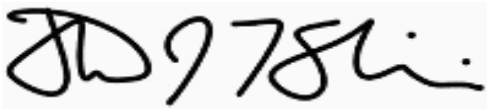
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Reagent

MS-31615_00010

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31615 **Lot No.:** A0187536

Description : GC/MS Tuning Mixture

GC/MS Tuning Mixture 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2025 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Pentachlorophenol **CAS #** 87-86-5 (Lot 211229RSR) **Purity** 99%	1,001.6 µg/mL	+/- 5.8779 µg/mL +/- 45.6221 µg/mL +/- 65.8721 µg/mL	Gravimetric Unstressed Stressed
2	DFTPP (Decafluorotriphenylphosphine) **CAS #** 5074-71-5 (Lot Q117-147) **Purity** 95%	1,001.3 µg/mL	+/- 5.8762 µg/mL +/- 45.6084 µg/mL +/- 65.8524 µg/mL	Gravimetric Unstressed Stressed
3	Benzidine **CAS #** 92-87-5 (Lot 220511RSR) **Purity** 99%	1,002.0 µg/mL	+/- 5.8803 µg/mL +/- 45.6403 µg/mL +/- 65.8984 µg/mL	Gravimetric Unstressed Stressed
4	4,4'-DDT **CAS #** 50-29-3 (Lot 220428JLM) **Purity** 98%	1,002.3 µg/mL	+/- 5.8823 µg/mL +/- 45.6560 µg/mL +/- 65.9211 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

3+2=5

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

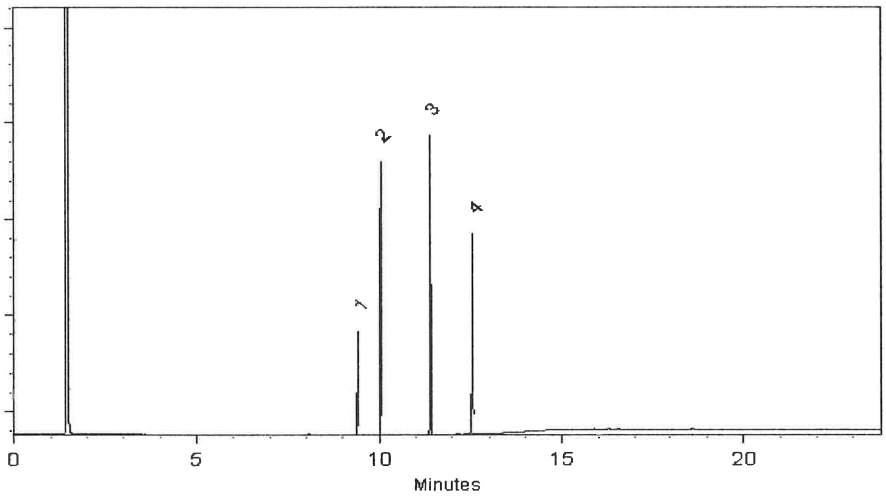
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Matt Fragassi - Mix Technician

Date Mixed: 20-Jul-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 25-Jul-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

MS-31615_00017

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31615 **Lot No.:** A0189454

Description : GC/MS Tuning Mixture

GC/MS Tuning Mixture 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2025 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Pentachlorophenol	1,001.6 µg/mL	+/- 5.8779 µg/mL	Gravimetric
	CAS # 87-86-5 (Lot 211229RSR)		+/- 45.6221 µg/mL	Unstressed
	Purity 99%		+/- 65.8721 µg/mL	Stressed
2	DFTPP (Decafluorotriphenylphosphine)	1,000.9 µg/mL	+/- 5.8740 µg/mL	Gravimetric
	CAS # 5074-71-5 (Lot Q117-147)		+/- 45.5911 µg/mL	Unstressed
	Purity 95%		+/- 65.8274 µg/mL	Stressed
3	Benzidine	1,001.6 µg/mL	+/- 5.8779 µg/mL	Gravimetric
	CAS # 92-87-5 (Lot 220511RSR)		+/- 45.6221 µg/mL	Unstressed
	Purity 99%		+/- 65.8721 µg/mL	Stressed
4	4,4'-DDT	1,002.0 µg/mL	+/- 5.8800 µg/mL	Gravimetric
	CAS # 50-29-3 (Lot 220805JLM)		+/- 45.6381 µg/mL	Unstressed
	Purity 98%		+/- 65.8953 µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

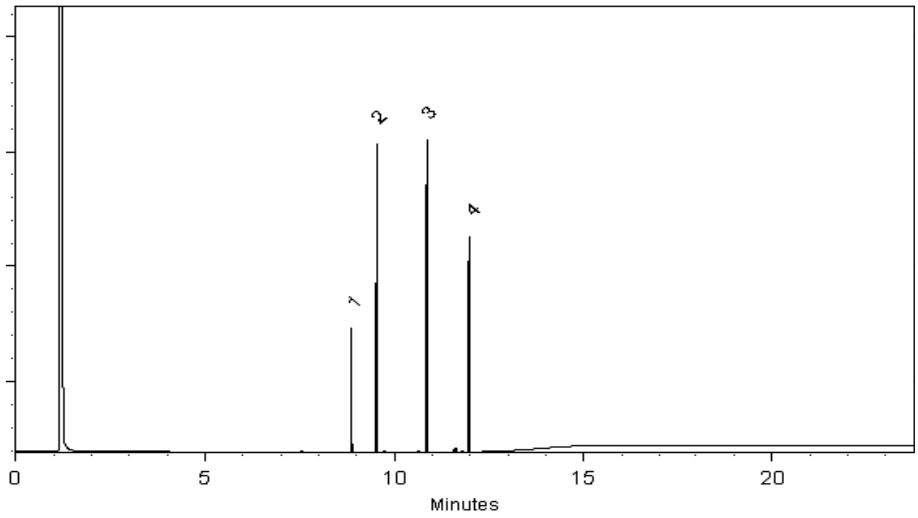
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cathleen Soltis - Mix Technician

Date Mixed: 11-Sep-2022 **Balance:** 1128353505

Fang-Yun Weaver – Operations Lead Tech – ARM QC

Date Passed: 15-Sep-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

MS-31615_00018

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31615 **Lot No.:** A0189454

Description : GC/MS Tuning Mixture

GC/MS Tuning Mixture 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2025 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Pentachlorophenol	1,001.6 µg/mL	+/- 5.8779 µg/mL	Gravimetric
	CAS # 87-86-5 (Lot 211229RSR)		+/- 45.6221 µg/mL	Unstressed
	Purity 99%		+/- 65.8721 µg/mL	Stressed
2	DFTPP (Decafluorotriphenylphosphine)	1,000.9 µg/mL	+/- 5.8740 µg/mL	Gravimetric
	CAS # 5074-71-5 (Lot Q117-147)		+/- 45.5911 µg/mL	Unstressed
	Purity 95%		+/- 65.8274 µg/mL	Stressed
3	Benzidine	1,001.6 µg/mL	+/- 5.8779 µg/mL	Gravimetric
	CAS # 92-87-5 (Lot 220511RSR)		+/- 45.6221 µg/mL	Unstressed
	Purity 99%		+/- 65.8721 µg/mL	Stressed
4	4,4'-DDT	1,002.0 µg/mL	+/- 5.8800 µg/mL	Gravimetric
	CAS # 50-29-3 (Lot 220805JLM)		+/- 45.6381 µg/mL	Unstressed
	Purity 98%		+/- 65.8953 µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

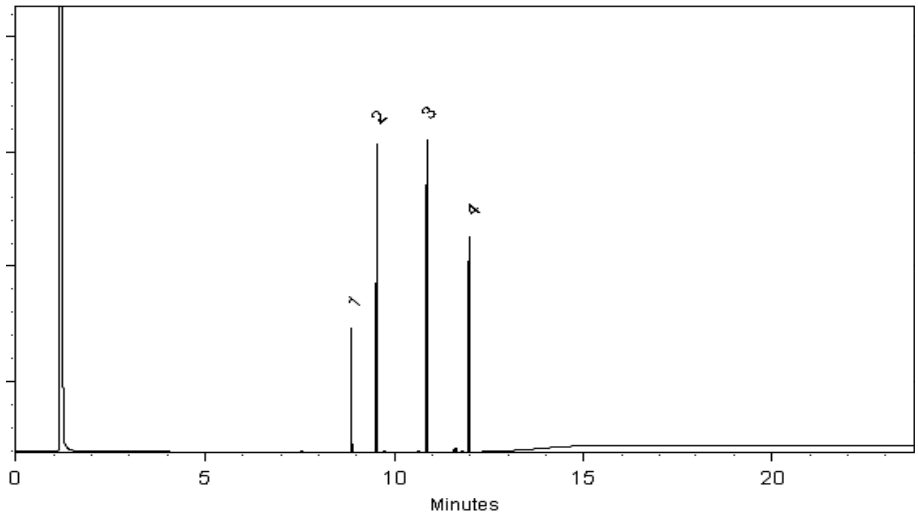
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cathleen Soltis - Mix Technician

Date Mixed: 11-Sep-2022 **Balance:** 1128353505

Fang-Yun Weaver – Operations Lead Tech – ARM QC

Date Passed: 15-Sep-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

MS-567680_00129

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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567680 **Lot No.:** A0202688

Description : 8270 List 2 / Std #3

8270 List 2 / Std #3 2,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2024 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L., K=2)
1	6-Methylchrysene	1705-85-7	P46527-0125	99%	2,001.9 µg/mL	+/- 90.1809
2	3-Methylcholanthrene	56-49-5	MKCM7171	98%	2,013.5 µg/mL	+/- 90.7038

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Page 695 of 3951

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

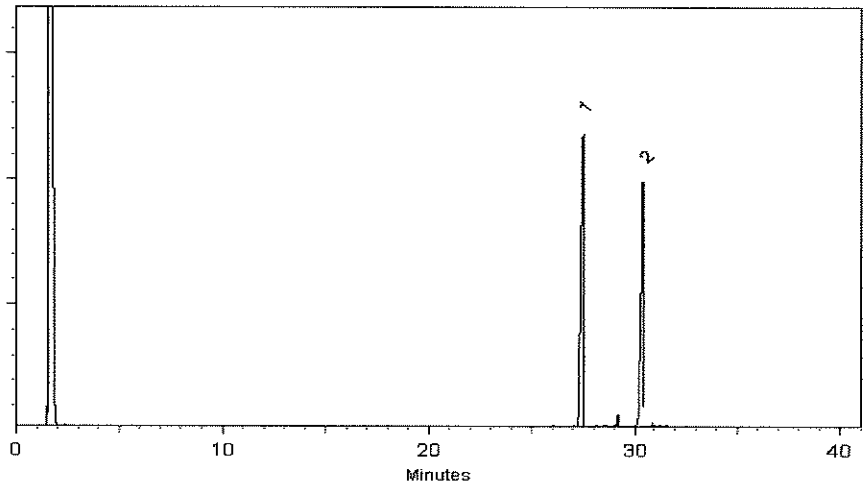
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I

Date Mixed: 01-Oct-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 10-Oct-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MS-567680_00130

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567680 **Lot No.:** A0202688

Description : 8270 List 2 / Std #3

8270 List 2 / Std #3 2,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2024 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L., K=2)
1	6-Methylchrysene	1705-85-7	P46527-0125	99%	2,001.9 µg/mL	+/- 90.1809
2	3-Methylcholanthrene	56-49-5	MKCM7171	98%	2,013.5 µg/mL	+/- 90.7038

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Page 699 of 3951

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

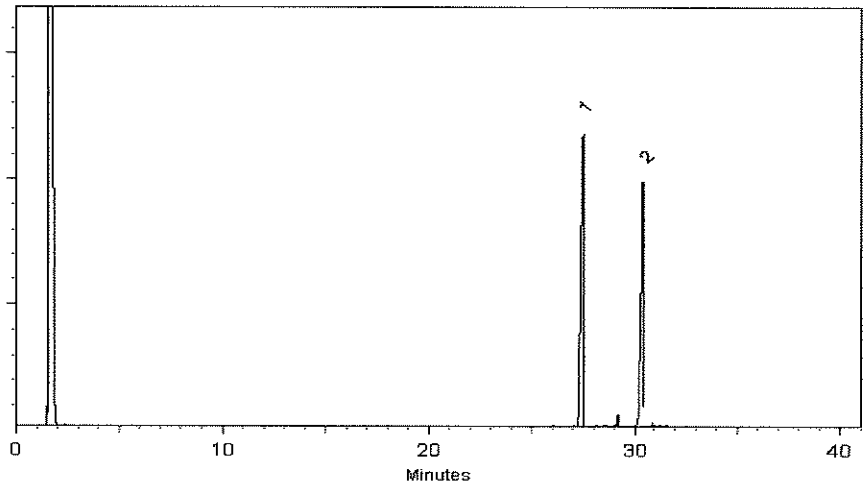
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I

Date Mixed: 01-Oct-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 10-Oct-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MS-567680_00136

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567680 **Lot No.:** A0202688

Description : 8270 List 2 / Std #3

8270 List 2 / Std #3 2,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2024 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L., K=2)
1	6-Methylchrysene	1705-85-7	P46527-0125	99%	2,001.9 µg/mL	+/- 90.1809
2	3-Methylcholanthrene	56-49-5	MKCM7171	98%	2,013.5 µg/mL	+/- 90.7038

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Page 703 of 3951

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

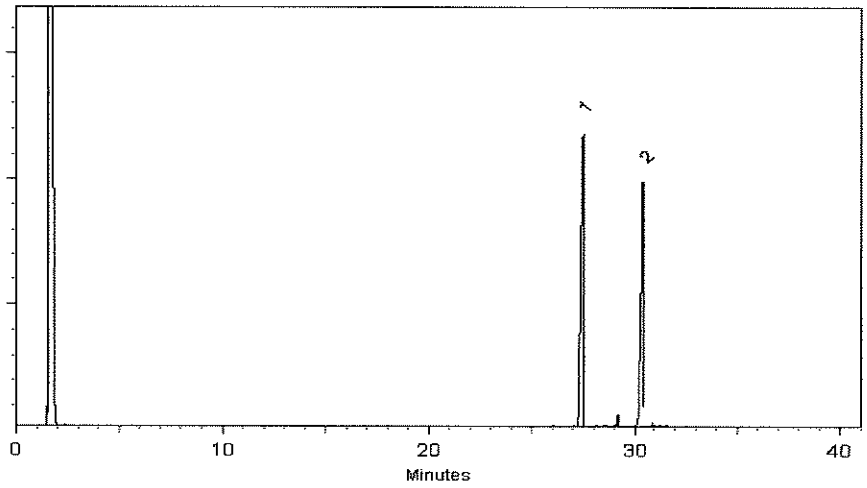
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I

Date Mixed: 01-Oct-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 10-Oct-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MS-567680_00137

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

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ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567680 **Lot No.:** A0202688

Description : 8270 List 2 / Std #3

8270 List 2 / Std #3 2,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2024 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L., K=2)
1	6-Methylchrysene	1705-85-7	P46527-0125	99%	2,001.9 µg/mL	+/- 90.1809
2	3-Methylcholanthrene	56-49-5	MKCM7171	98%	2,013.5 µg/mL	+/- 90.7038

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Page 707 of 3951

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

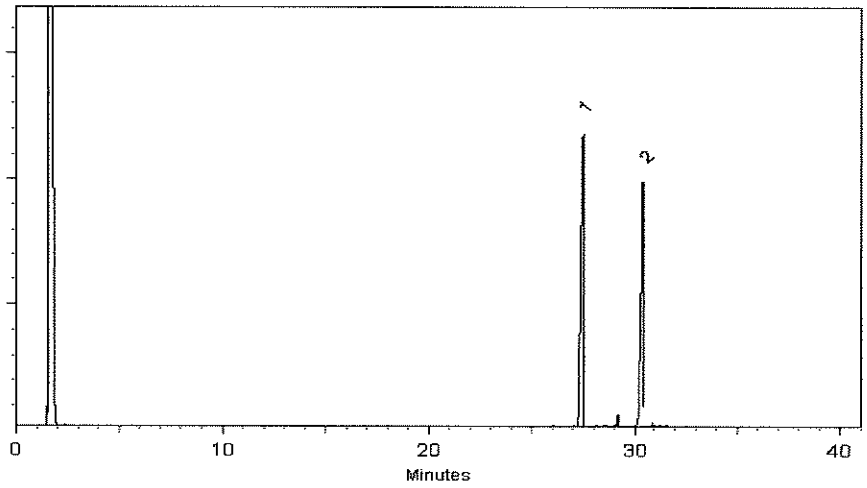
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I

Date Mixed: 01-Oct-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 10-Oct-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MS-567684_00045

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567684 **Lot No.:** A0193798

Description : 8270 Internal Standard

8270 Internal Standard 2,000µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2028 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dichlorobenzene-d4	3855-82-1	PR-30447	99%	2,018.2 µg/mL	+/- 90.9009
2	Naphthalene-d8	1146-65-2	M-2180	99%	2,011.9 µg/mL	+/- 90.6172
3	Acenaphthene-d10	15067-26-2	PR-31822	99%	2,017.4 µg/mL	+/- 90.8649
4	Phenanthrene-d10	1517-22-2	PR-32303	99%	2,005.1 µg/mL	+/- 90.3087
5	Chrysene-d12	1719-03-5	PR-32210	99%	2,007.3 µg/mL	+/- 90.4077
6	Perylene-d12	1520-96-3	PR-33205	99%	2,016.6 µg/mL	+/- 90.8289

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

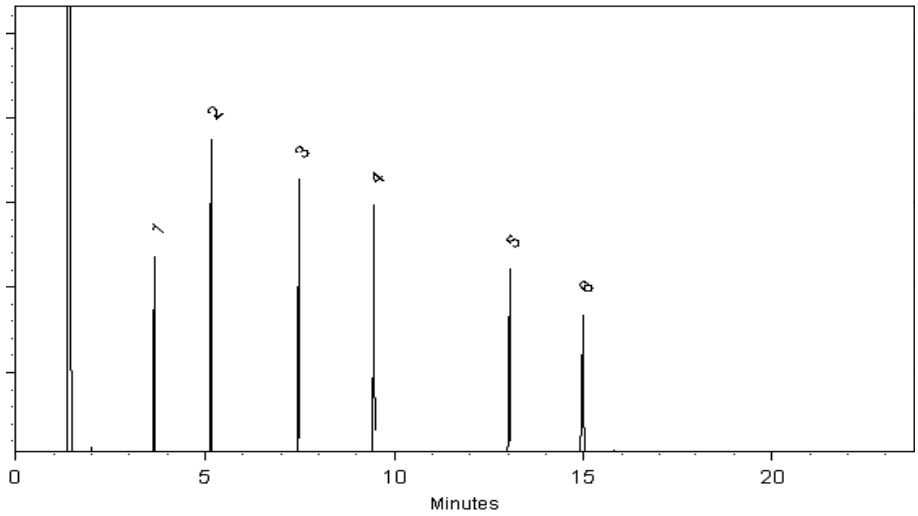
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 20-Jan-2023 **Balance Serial #** 1128353505

Christie Mills - Operations Tech II - ARM QC

Date Passed: 24-Jan-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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Reagent

MS-571995.SEC_00022

RESTEK
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Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

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Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571995.SEC **Lot No.:** A0194078

Description : 8270 List 1 / Std #1 MegaMix (2017)

8270 List 1 / Std #1 MegaMix (2017) 500-2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : July 31, 2024 **Storage:** 0°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1.SEC	QHRWO	99%	1,007.3 µg/mL	+/- 18.6139
2	N-Nitrosodimethylamine	62-75-9.SEC	61H72	99%	1,005.5 µg/mL	+/- 18.5816
3	Pyridine	110-86-1.SEC	QN8DK	99%	2,014.3 µg/mL	+/- 37.2233
4	Phenol	108-95-2.SEC	EDPYN	99%	1,004.3 µg/mL	+/- 18.5585
5	Aniline	62-53-3.SEC	ZCD3N	99%	1,007.5 µg/mL	+/- 18.6186
6	Bis(2-chloroethyl)ether	111-44-4.SEC	FA010143	99%	1,007.5 µg/mL	+/- 18.6186
7	n-Decane (C10)	124-18-5.SEC	UCVNN	99%	1,002.5 µg/mL	+/- 18.5262
8	2-Chlorophenol	95-57-8.SEC	GJ01	99%	1,006.5 µg/mL	+/- 18.6001
9	1,3-Dichlorobenzene	541-73-1.SEC	ZA2ZI	99%	1,006.5 µg/mL	+/- 18.6001
10	1,4-Dichlorobenzene	106-46-7.SEC	J5GVD	99%	1,006.8 µg/mL	+/- 18.6047
11	Benzyl alcohol	100-51-6.SEC	QZBUO	99%	1,009.5 µg/mL	+/- 18.6555
12	1,2-Dichlorobenzene	95-50-1.SEC	R6QDM	99%	1,002.8 µg/mL	+/- 18.5308
13	2-Methylphenol (o-cresol)	95-48-7.SEC	NC7HL	99%	1,007.0 µg/mL	+/- 18.6093
14	2,2'-oxybis(1-chloropropane)	108-60-1.SEC	29-MAR-45-5	99%	1,004.0 µg/mL	+/- 18.5539
15	Acetophenone	98-86-2.SEC	NSGTI	99%	1,004.0 µg/mL	+/- 18.5539
16	3-Methylphenol (m-cresol)	108-39-4.SEC	6LHTM	99%	501.3 µg/mL	+/- 9.2631

17	4-Methylphenol (p-cresol)	106-44-5.SEC 65S2E	99%	504.3	µg/mL	+/- 9.3185
18	N-Nitroso-di-n-propylamine	621-64-7.SEC 13924400	99%	1,005.0	µg/mL	+/- 18.5724
19	Hexachloroethane	67-72-1.SEC 10173016	99%	1,005.8	µg/mL	+/- 18.5862
20	Nitrobenzene	98-95-3.SEC FLYIG	99%	1,007.3	µg/mL	+/- 18.6139
21	Isophorone	78-59-1.SEC XHGJI	98%	1,004.5	µg/mL	+/- 18.5631
22	2-Nitrophenol	88-75-5.SEC GXJ7J	99%	1,005.8	µg/mL	+/- 18.5862
23	2,4-Dimethylphenol	105-67-9.SEC MKBL3650V	99%	1,009.3	µg/mL	+/- 18.6509
24	Bis(2-chloroethoxy)methane	111-91-1 * 13670200	99%	1,007.3	µg/mL	+/- 18.6139
25	2,4-Dichlorophenol	120-83-2.SEC FHM01	99%	1,007.0	µg/mL	+/- 18.6093
26	1,2,4-Trichlorobenzene	120-82-1.SEC IGLFA	99%	1,003.5	µg/mL	+/- 18.5446
27	Naphthalene	91-20-3.SEC AM5NG	99%	1,008.3	µg/mL	+/- 18.6324
28	2,6-Dichlorophenol	87-65-0.SEC SIDBB	99%	1,006.3	µg/mL	+/- 18.5955
29	4-Chloroaniline	106-47-8.SEC 10171860	99%	1,006.0	µg/mL	+/- 18.5908
30	Hexachlorobutadiene	87-68-3.SEC 13889400	97%	1,003.7	µg/mL	+/- 18.5485
31	4-Chloro-3-methylphenol	59-50-7.SEC FDO02	99%	1,009.0	µg/mL	+/- 18.6463
32	2-Methylnaphthalene	91-57-6.SEC 76023-1	99%	1,009.0	µg/mL	+/- 18.6463
33	1-Methylnaphthalene	90-12-0.SEC OEE3F	98%	1,005.2	µg/mL	+/- 18.5767
34	1,2,4,5-Tetrachlorobenzene	95-94-3.SEC AF02	99%	1,007.3	µg/mL	+/- 18.6139
35	Hexachlorocyclopentadiene	77-47-4.SEC 12833000	99%	1,005.3	µg/mL	+/- 18.5770
36	2,4,6-Trichlorophenol	88-06-2.SEC UUMYM	99%	1,004.8	µg/mL	+/- 18.5677
37	2,4,5-Trichlorophenol	95-95-4.SEC MKBQ9937V	97%	1,002.3	µg/mL	+/- 18.5216
38	2-Chloronaphthalene	91-58-7.SEC 13924200	99%	1,008.5	µg/mL	+/- 18.6370
39	Biphenyl	92-52-4.SEC 33OQE	99%	1,008.3	µg/mL	+/- 18.6324
40	2-Nitroaniline	88-74-4.SEC T6E7B	99%	1,008.3	µg/mL	+/- 18.6324
41	Acenaphthylene	208-96-8.SEC 0012014	96%	1,006.1	µg/mL	+/- 18.5923
42	1,3-Dinitrobenzene	99-65-0.SEC 3XXLB	99%	1,006.8	µg/mL	+/- 18.6047
43	Dimethylphthalate	131-11-3.SEC 483WC	99%	1,005.8	µg/mL	+/- 18.5862
44	2,6-Dinitrotoluene	606-20-2.SEC GE01	99%	1,006.0	µg/mL	+/- 18.5908
45	3-Nitroaniline	99-09-2.SEC FGN03	99%	1,006.5	µg/mL	+/- 18.6001
46	Acenaphthene	83-32-9.SEC BWZJE	99%	1,008.3	µg/mL	+/- 18.6324
47	2,4-Dinitrophenol	51-28-5.SEC YTR6B	98%	2,011.2	µg/mL	+/- 37.1670
48	Dibenzofuran	132-64-9.SEC 27ZGC	99%	1,003.3	µg/mL	+/- 18.5400
49	4-Nitrophenol	100-02-7.SEC H75QG	99%	2,019.8	µg/mL	+/- 37.3249
50	2,4-Dinitrotoluene	121-14-2.SEC SHRSA	99%	1,006.5	µg/mL	+/- 18.6001
51	2,3,4,6-Tetrachlorophenol	58-90-2.SEC B18W03261	99%	1,004.0	µg/mL	+/- 18.5539
52	Fluorene	86-73-7.SEC 13590100	98%	1,003.3	µg/mL	+/- 18.5405

53	n-Hexadecane (C16)	544-76-3.SEC A0328141	99%	1,005.3	µg/mL	+/- 18.5770
54	Diethylphthalate	84-66-2.SEC UMBJC	99%	1,007.5	µg/mL	+/- 18.6186
55	4-Chlorophenyl phenyl ether	7005-72-3.SECP31G	98%	1,006.7	µg/mL	+/- 18.6039
56	4-Nitroaniline	100-01-6.SEC 5ITRC	99%	1,004.8	µg/mL	+/- 18.5677
57	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1.SEC DR13924100	99%	2,018.0	µg/mL	+/- 37.2926
58	Diphenylamine	122-39-4.SEC 10164691	99%	857.5	µg/mL	+/- 15.8466
59	Azobenzene	103-33-3.SEC JUWAG	99%	1,007.5	µg/mL	+/- 18.6186
60	4-Bromophenyl phenyl ether	101-55-3.SEC 84C6D	99%	1,005.0	µg/mL	+/- 18.5724
61	Hexachlorobenzene	118-74-1.SEC G137934	99%	1,009.8	µg/mL	+/- 18.6601
62	Pentachlorophenol	87-86-5.SEC 13924300	99%	2,017.8	µg/mL	+/- 37.2879
63	n-Octadecane (C18)	593-45-3.SEC A0406344	99%	1,009.8	µg/mL	+/- 18.6601
64	Phenanthrene	85-01-8.SEC 8637000	98%	1,009.4	µg/mL	+/- 18.6537
65	Anthracene	120-12-7.SEC WDFNJ	99%	1,006.3	µg/mL	+/- 18.5955
66	Carbazole	86-74-8.SEC LMIZB	99%	1,003.8	µg/mL	+/- 18.5493
67	Di-n-butylphthalate	84-74-2.SEC 42FSG	99%	1,006.0	µg/mL	+/- 18.5908
68	Fluoranthene	206-44-0.SEC FREGF	99%	1,006.5	µg/mL	+/- 18.6001
69	Pyrene	129-00-0.SEC ROVJC	99%	1,008.0	µg/mL	+/- 18.6278
70	Benzyl butyl phthalate	85-68-7.SEC GX3GL	98%	1,008.2	µg/mL	+/- 18.6310
71	Benz(a)anthracene	56-55-3.SEC MTENF	98%	1,001.3	µg/mL	+/- 18.5043
72	chrysene	218-01-9.SEC NICZC	99%	1,007.8	µg/mL	+/- 18.6232
73	Bis(2-ethylhexyl)phthalate	117-81-7.SEC MT8AG	99%	1,007.3	µg/mL	+/- 18.6139
74	Di-n-octyl phthalate	117-84-0.SEC O8DLD	99%	1,005.8	µg/mL	+/- 18.5862
75	Benzo(b)fluoranthene	205-99-2.SEC I4OWH	99%	1,006.8	µg/mL	+/- 18.6047
76	Benzo(k)fluoranthene	207-08-9.SEC 9711000	99%	1,003.3	µg/mL	+/- 18.5400
77	Benzo(a)pyrene	50-32-8.SEC SLCL0394	99%	1,007.0	µg/mL	+/- 18.6093
78	Indeno(1,2,3-cd)pyrene	193-39-5.SEC 0012014	99%	1,006.3	µg/mL	+/- 18.5955
79	Dibenz(a,h)anthracene	53-70-3.SEC 0012022	99%	1,009.5	µg/mL	+/- 18.6555
80	Benzo(g,h,i)perylene	191-24-2.SEC 0022012	96%	1,008.0	µg/mL	+/- 18.6278

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

Specific Reference Material Notes:

N-nitrosodiphenylamine 1000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 855 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

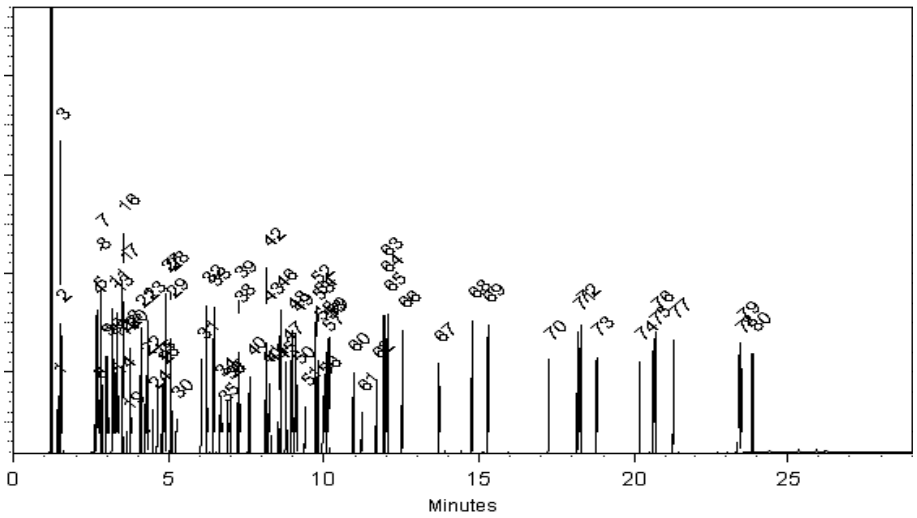
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

John Friedline - Operations Technician I

Date Mixed: 30-Jan-2023 **Balance Serial #** 1128353505

Christie Mills - Operations Tech II - ARM QC

Date Passed: 06-Feb-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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Reagent

MS-571995.SEC_00023

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571995.SEC **Lot No.:** A0194078

Description : 8270 List 1 / Std #1 MegaMix (2017)

8270 List 1 / Std #1 MegaMix (2017) 500-2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : July 31, 2024 **Storage:** 0°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1.SEC	QHRWO	99%	1,007.3 µg/mL	+/- 18.6139
2	N-Nitrosodimethylamine	62-75-9.SEC	61H72	99%	1,005.5 µg/mL	+/- 18.5816
3	Pyridine	110-86-1.SEC	QN8DK	99%	2,014.3 µg/mL	+/- 37.2233
4	Phenol	108-95-2.SEC	EDPYN	99%	1,004.3 µg/mL	+/- 18.5585
5	Aniline	62-53-3.SEC	ZCD3N	99%	1,007.5 µg/mL	+/- 18.6186
6	Bis(2-chloroethyl)ether	111-44-4.SEC	FA010143	99%	1,007.5 µg/mL	+/- 18.6186
7	n-Decane (C10)	124-18-5.SEC	UCVNN	99%	1,002.5 µg/mL	+/- 18.5262
8	2-Chlorophenol	95-57-8.SEC	GJ01	99%	1,006.5 µg/mL	+/- 18.6001
9	1,3-Dichlorobenzene	541-73-1.SEC	ZA2ZI	99%	1,006.5 µg/mL	+/- 18.6001
10	1,4-Dichlorobenzene	106-46-7.SEC	J5GVD	99%	1,006.8 µg/mL	+/- 18.6047
11	Benzyl alcohol	100-51-6.SEC	QZBUO	99%	1,009.5 µg/mL	+/- 18.6555
12	1,2-Dichlorobenzene	95-50-1.SEC	R6QDM	99%	1,002.8 µg/mL	+/- 18.5308
13	2-Methylphenol (o-cresol)	95-48-7.SEC	NC7HL	99%	1,007.0 µg/mL	+/- 18.6093
14	2,2'-oxybis(1-chloropropane)	108-60-1.SEC	29-MAR-45-5	99%	1,004.0 µg/mL	+/- 18.5539
15	Acetophenone	98-86-2.SEC	NSGTI	99%	1,004.0 µg/mL	+/- 18.5539
16	3-Methylphenol (m-cresol)	108-39-4.SEC	6LHTM	99%	501.3 µg/mL	+/- 9.2631

17	4-Methylphenol (p-cresol)	106-44-5.SEC 65S2E	99%	504.3	µg/mL	+/- 9.3185
18	N-Nitroso-di-n-propylamine	621-64-7.SEC 13924400	99%	1,005.0	µg/mL	+/- 18.5724
19	Hexachloroethane	67-72-1.SEC 10173016	99%	1,005.8	µg/mL	+/- 18.5862
20	Nitrobenzene	98-95-3.SEC FLYIG	99%	1,007.3	µg/mL	+/- 18.6139
21	Isophorone	78-59-1.SEC XHGJI	98%	1,004.5	µg/mL	+/- 18.5631
22	2-Nitrophenol	88-75-5.SEC GXJ7J	99%	1,005.8	µg/mL	+/- 18.5862
23	2,4-Dimethylphenol	105-67-9.SEC MKBL3650V	99%	1,009.3	µg/mL	+/- 18.6509
24	Bis(2-chloroethoxy)methane	111-91-1 * 13670200	99%	1,007.3	µg/mL	+/- 18.6139
25	2,4-Dichlorophenol	120-83-2.SEC FHM01	99%	1,007.0	µg/mL	+/- 18.6093
26	1,2,4-Trichlorobenzene	120-82-1.SEC IGLFA	99%	1,003.5	µg/mL	+/- 18.5446
27	Naphthalene	91-20-3.SEC AM5NG	99%	1,008.3	µg/mL	+/- 18.6324
28	2,6-Dichlorophenol	87-65-0.SEC SIDBB	99%	1,006.3	µg/mL	+/- 18.5955
29	4-Chloroaniline	106-47-8.SEC 10171860	99%	1,006.0	µg/mL	+/- 18.5908
30	Hexachlorobutadiene	87-68-3.SEC 13889400	97%	1,003.7	µg/mL	+/- 18.5485
31	4-Chloro-3-methylphenol	59-50-7.SEC FDO02	99%	1,009.0	µg/mL	+/- 18.6463
32	2-Methylnaphthalene	91-57-6.SEC 76023-1	99%	1,009.0	µg/mL	+/- 18.6463
33	1-Methylnaphthalene	90-12-0.SEC OEE3F	98%	1,005.2	µg/mL	+/- 18.5767
34	1,2,4,5-Tetrachlorobenzene	95-94-3.SEC AF02	99%	1,007.3	µg/mL	+/- 18.6139
35	Hexachlorocyclopentadiene	77-47-4.SEC 12833000	99%	1,005.3	µg/mL	+/- 18.5770
36	2,4,6-Trichlorophenol	88-06-2.SEC UUMYM	99%	1,004.8	µg/mL	+/- 18.5677
37	2,4,5-Trichlorophenol	95-95-4.SEC MKBQ9937V	97%	1,002.3	µg/mL	+/- 18.5216
38	2-Chloronaphthalene	91-58-7.SEC 13924200	99%	1,008.5	µg/mL	+/- 18.6370
39	Biphenyl	92-52-4.SEC 33OQE	99%	1,008.3	µg/mL	+/- 18.6324
40	2-Nitroaniline	88-74-4.SEC T6E7B	99%	1,008.3	µg/mL	+/- 18.6324
41	Acenaphthylene	208-96-8.SEC 0012014	96%	1,006.1	µg/mL	+/- 18.5923
42	1,3-Dinitrobenzene	99-65-0.SEC 3XXLB	99%	1,006.8	µg/mL	+/- 18.6047
43	Dimethylphthalate	131-11-3.SEC 483WC	99%	1,005.8	µg/mL	+/- 18.5862
44	2,6-Dinitrotoluene	606-20-2.SEC GE01	99%	1,006.0	µg/mL	+/- 18.5908
45	3-Nitroaniline	99-09-2.SEC FGN03	99%	1,006.5	µg/mL	+/- 18.6001
46	Acenaphthene	83-32-9.SEC BWZJE	99%	1,008.3	µg/mL	+/- 18.6324
47	2,4-Dinitrophenol	51-28-5.SEC YTR6B	98%	2,011.2	µg/mL	+/- 37.1670
48	Dibenzofuran	132-64-9.SEC 27ZGC	99%	1,003.3	µg/mL	+/- 18.5400
49	4-Nitrophenol	100-02-7.SEC H75QG	99%	2,019.8	µg/mL	+/- 37.3249
50	2,4-Dinitrotoluene	121-14-2.SEC SHRSA	99%	1,006.5	µg/mL	+/- 18.6001
51	2,3,4,6-Tetrachlorophenol	58-90-2.SEC B18W03261	99%	1,004.0	µg/mL	+/- 18.5539
52	Fluorene	86-73-7.SEC 13590100	98%	1,003.3	µg/mL	+/- 18.5405

53	n-Hexadecane (C16)	544-76-3.SEC A0328141	99%	1,005.3	µg/mL	+/- 18.5770
54	Diethylphthalate	84-66-2.SEC UMBJC	99%	1,007.5	µg/mL	+/- 18.6186
55	4-Chlorophenyl phenyl ether	7005-72-3.SECP31G	98%	1,006.7	µg/mL	+/- 18.6039
56	4-Nitroaniline	100-01-6.SEC 5ITRC	99%	1,004.8	µg/mL	+/- 18.5677
57	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1.SEC DR13924100	99%	2,018.0	µg/mL	+/- 37.2926
58	Diphenylamine	122-39-4.SEC 10164691	99%	857.5	µg/mL	+/- 15.8466
59	Azobenzene	103-33-3.SEC JUWAG	99%	1,007.5	µg/mL	+/- 18.6186
60	4-Bromophenyl phenyl ether	101-55-3.SEC 84C6D	99%	1,005.0	µg/mL	+/- 18.5724
61	Hexachlorobenzene	118-74-1.SEC G137934	99%	1,009.8	µg/mL	+/- 18.6601
62	Pentachlorophenol	87-86-5.SEC 13924300	99%	2,017.8	µg/mL	+/- 37.2879
63	n-Octadecane (C18)	593-45-3.SEC A0406344	99%	1,009.8	µg/mL	+/- 18.6601
64	Phenanthrene	85-01-8.SEC 8637000	98%	1,009.4	µg/mL	+/- 18.6537
65	Anthracene	120-12-7.SEC WDFNJ	99%	1,006.3	µg/mL	+/- 18.5955
66	Carbazole	86-74-8.SEC LMIZB	99%	1,003.8	µg/mL	+/- 18.5493
67	Di-n-butylphthalate	84-74-2.SEC 42FSG	99%	1,006.0	µg/mL	+/- 18.5908
68	Fluoranthene	206-44-0.SEC FREGF	99%	1,006.5	µg/mL	+/- 18.6001
69	Pyrene	129-00-0.SEC ROVJC	99%	1,008.0	µg/mL	+/- 18.6278
70	Benzyl butyl phthalate	85-68-7.SEC GX3GL	98%	1,008.2	µg/mL	+/- 18.6310
71	Benz(a)anthracene	56-55-3.SEC MTENF	98%	1,001.3	µg/mL	+/- 18.5043
72	chrysene	218-01-9.SEC NICZC	99%	1,007.8	µg/mL	+/- 18.6232
73	Bis(2-ethylhexyl)phthalate	117-81-7.SEC MT8AG	99%	1,007.3	µg/mL	+/- 18.6139
74	Di-n-octyl phthalate	117-84-0.SEC O8DLD	99%	1,005.8	µg/mL	+/- 18.5862
75	Benzo(b)fluoranthene	205-99-2.SEC I4OWH	99%	1,006.8	µg/mL	+/- 18.6047
76	Benzo(k)fluoranthene	207-08-9.SEC 9711000	99%	1,003.3	µg/mL	+/- 18.5400
77	Benzo(a)pyrene	50-32-8.SEC SLCL0394	99%	1,007.0	µg/mL	+/- 18.6093
78	Indeno(1,2,3-cd)pyrene	193-39-5.SEC 0012014	99%	1,006.3	µg/mL	+/- 18.5955
79	Dibenz(a,h)anthracene	53-70-3.SEC 0012022	99%	1,009.5	µg/mL	+/- 18.6555
80	Benzo(g,h,i)perylene	191-24-2.SEC 0022012	96%	1,008.0	µg/mL	+/- 18.6278

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

Specific Reference Material Notes:

N-nitrosodiphenylamine 1000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 855 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

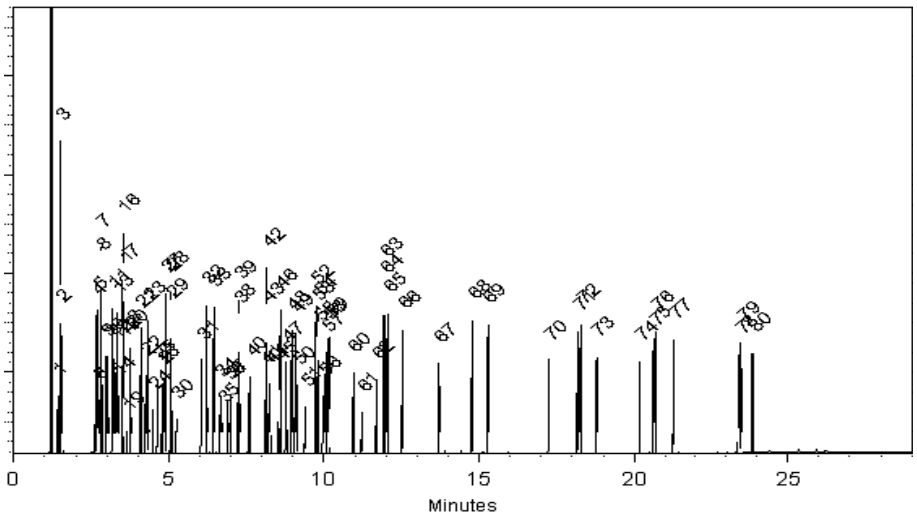
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

John Friedline - Operations Technician I

Date Mixed: 30-Jan-2023 **Balance Serial #** 1128353505

Christie Mills - Operations Tech II - ARM QC

Date Passed: 06-Feb-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MS-581076_00002

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

gravimetric

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 581076 **Lot No.:** A0205766

Description : Denver 8270 Standard

Denver 8270 Standard 4,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2025 **Storage:** 10°C or colder

Handling: Sonicate prior to use. This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2,3-Dichloroaniline	608-27-5	11518TI	99%	4,024.0 µg/mL	+/- 96.7619
2	Alachlor	15972-60-8	14920500	99%	4,000.0 µg/mL	+/- 96.1848
3	alpha-Methylstyrene	98-83-9	MKCM3639	99%	4,016.0 µg/mL	+/- 96.5696

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Russ Bookhamer - Operations Technician I

Date Mixed: 20-Dec-2023 **Balance:** 1128360905

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

mv-30241_00014

RESTEK
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Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30241 **Lot No.:** A0198297

Description : 8260A Internal Standard Mix

8260A Internal Standard Mix 2,500 µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Fluorobenzene	462-06-6	BCBZ5549	99%	2,504.7 µg/mL	+/- 140.7155
2	Chlorobenzene-d5	3114-55-4	PR-29571	99%	2,513.3 µg/mL	+/- 141.2024
3	1,4-Dichlorobenzene-d4	3855-82-1	PR-30447	99%	2,515.3 µg/mL	+/- 141.3148

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

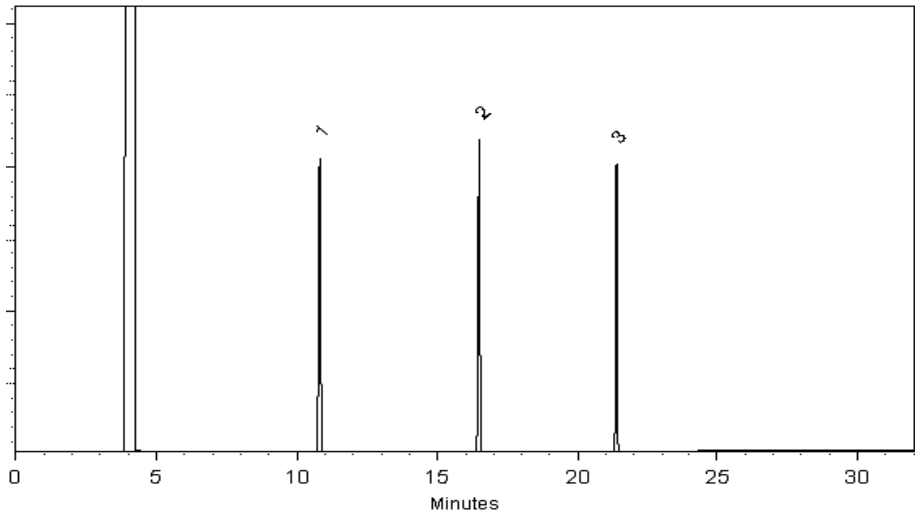
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bryan Snyder - Operations Tech I

Date Mixed: 22-May-2023 **Balance Serial #** 1128342314

Dillan Murphy - Operations Technician I

Date Passed: 24-May-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MV-567650_00030

RESTEK
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567650 **Lot No.:** A0172587

Description : 8260 Surrogate Standard

8260 Surrogate Standard 2,500µg/mL, P&T Methanol, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : May 31, 2026 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dibromofluoromethane **CAS #** 1868-53-7 (Lot 012021) **Purity** 99%	2,510.9 µg/mL	+/- 14.5983 µg/mL +/- 140.7809 µg/mL +/- 144.0750 µg/mL	Gravimetric Unstressed Stressed
2	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 (Lot PR-29377) **Purity** 99%	2,518.0 µg/mL	+/- 14.6399 µg/mL +/- 141.1818 µg/mL +/- 144.4852 µg/mL	Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 (Lot PR-31750) **Purity** 99%	2,500.4 µg/mL	+/- 14.5375 µg/mL +/- 140.1949 µg/mL +/- 143.4753 µg/mL	Gravimetric Unstressed Stressed
4	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 20401KO) **Purity** 99%	2,520.9 µg/mL	+/- 14.6567 µg/mL +/- 141.3444 µg/mL +/- 144.6516 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Rcvd 4/25/20

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

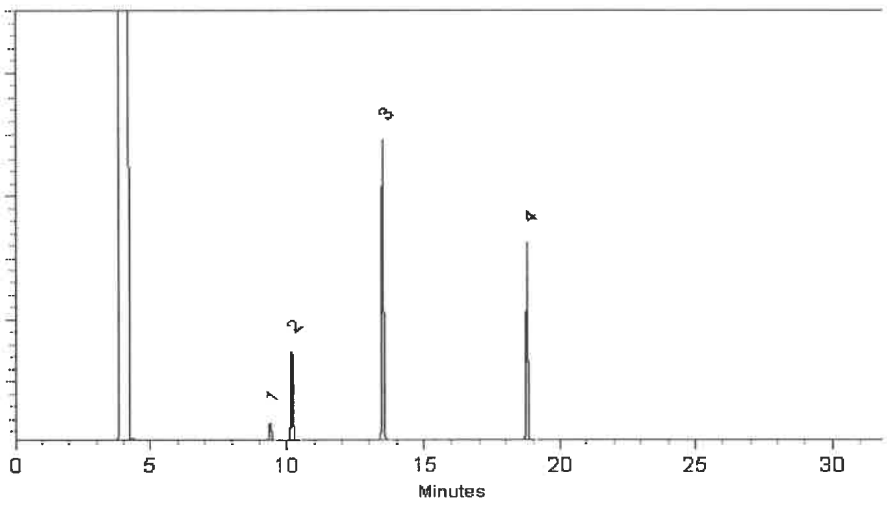
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler - Operations Tech I

Date Mixed: 19-May-2021 **Balance:** B707717271

Alexis Shelow - Operations Tech I

Date Passed: 21-May-2021

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

MV-568720_00048

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Bellefonte, PA 16823-8812
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568720 **Lot No.:** A0203711

Description : 8260 List 1/Std #5 Acrolein High

8260 List 1/Std #5 Acrolein High 19,750µg/mL, Water, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** -20°C or colder

Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acrolein	107-02-8	RD230921RSR	99%	19,875.0 µg/mL	+/- 583.8872

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Water
CAS # 7732-18-5
Purity 99%

1/10/24 gm

Quality Confirmation Test

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

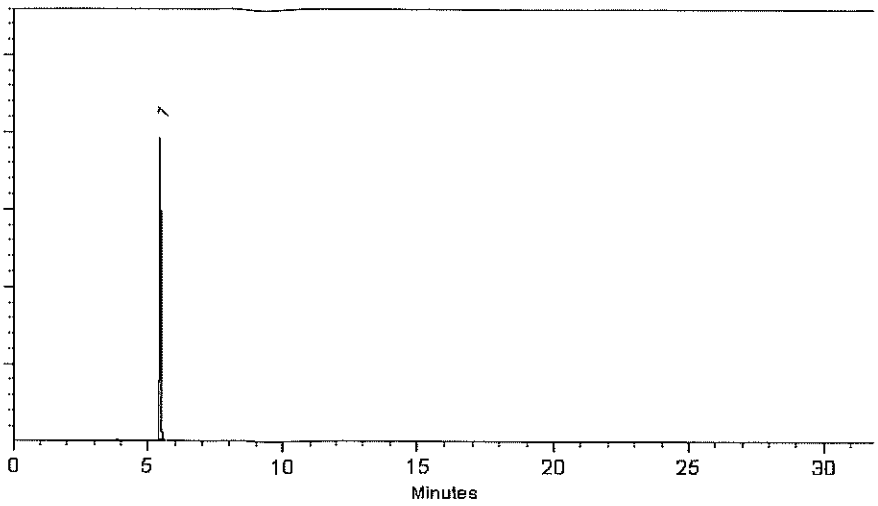
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I — **Date Mixed:** 26-Oct-2023 — **Balance Serial #** B707717271

Marlina Cowan – Operations Tech II ARM QC — **Date Passed:** 03-Nov-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

MV-569721.sec_00011

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Catalog No. : 569721.SEC **Lot No.:** A0194631

Description : 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2026 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acetone	67-64-1.SEC	S25F025	99%	12,530.8 µg/mL	+/- 433.0935
2	2-Butanone (MEK)	78-93-3.SEC	HDLUO	99%	12,522.8 µg/mL	+/- 432.8170
3	4-Methyl-2-pentanone (MIBK)	108-10-1.SEC	E29T040	99%	12,555.6 µg/mL	+/- 433.9507
4	2-Hexanone	591-78-6.SEC	Y3TUO	99%	12,580.4 µg/mL	+/- 434.8078

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Rev 5/25/23

Quality Confirmation Test

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

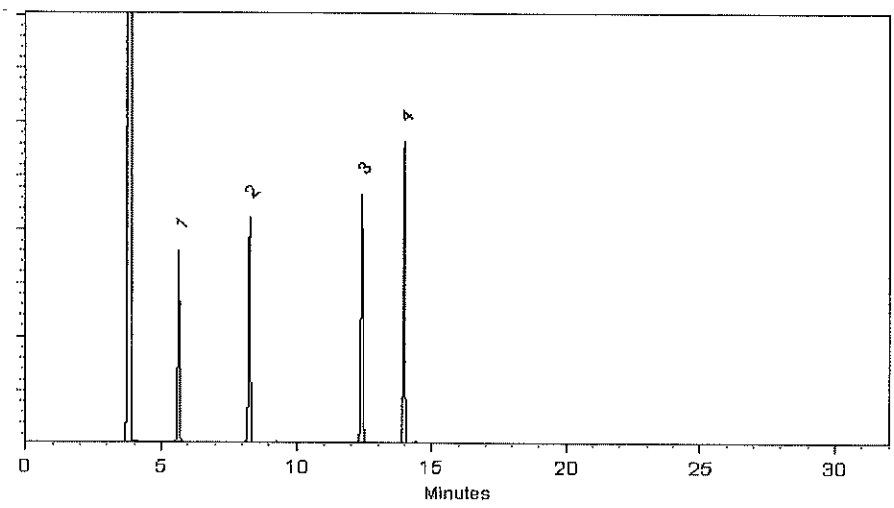
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bryan Snyder - Operations Tech I

Date Mixed: 14-Feb-2023 **Balance Serial #** 1128342314

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Feb-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

MV-569721_00015

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Catalog No. : 569721 **Lot No.:** A0193494

Description : 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2026 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acetone	67-64-1	SHBP8774	99%	12,581.8 µg/mL	+/- 434.7671
2	2-Butanone (MEK)	78-93-3	SHBL5543	99%	12,578.5 µg/mL	+/- 434.6548
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP4724	99%	12,602.3 µg/mL	+/- 435.4755
4	2-Hexanone	591-78-6	MKCQ6663	99%	12,587.5 µg/mL	+/- 434.9658

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

5/16/23

Quality Confirmation Test

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

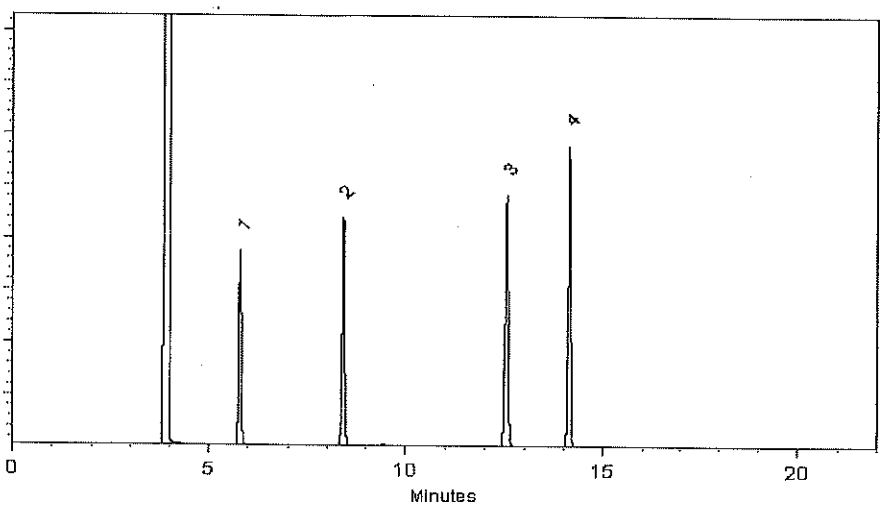
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bethany Lowery - Operations Tech I

Date Mixed: 12-Jan-2023 **Balance Serial #** B251644995

Christie Mills - Operations Tech II - ARM QC

Date Passed: 16-Jan-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

MV-569722.sec_00017

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Catalog No. : 569722.SEC **Lot No.:** A0197640

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2026 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dichlorodifluoromethane (CFC-12)	75-71-8.SEC	28302	99%	2,519.8 µg/mL	+/- 142.0069
2	Chloromethane (methyl chloride)	74-87-3.SEC	00016950	99%	2,503.3 µg/mL	+/- 142.0942
3	Vinyl chloride	75-01-4.SEC	MKBK6872V	99%	2,508.3 µg/mL	+/- 141.4767
4	1,3-Butadiene	106-99-0.SEC	26996	99%	2,521.0 µg/mL	+/- 142.1930
5	Bromomethane (methyl bromide)	74-83-9.SEC	00017022	99%	2,516.4 µg/mL	+/- 141.9614
6	Chloroethane (ethyl chloride)	75-00-3.SEC	00004202	98%	2,532.0 µg/mL	+/- 143.0282
7	Dichlorofluoromethane (CFC-21)	75-43-4 *	14150400	90%	2,502.0 µg/mL	+/- 140.5515
8	Trichlorofluoromethane (CFC-11)	75-69-4.SEC	00010739	99%	2,524.7 µg/mL	+/- 143.6054

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

Rec'd 5/11/23

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

Quality Confirmation Test

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

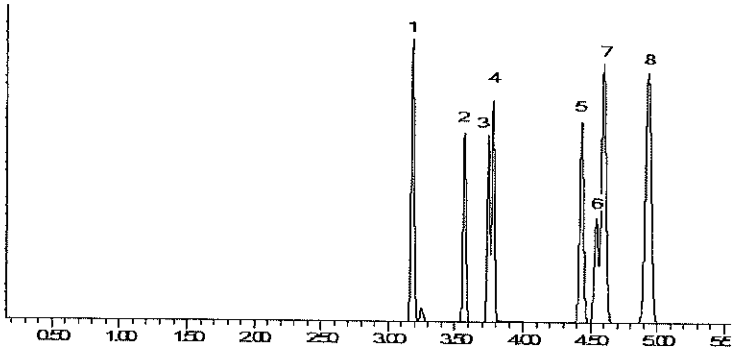
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD

Split Vent:
25.0 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Lane Kibe - Mix Technician **Date Mixed:** 02-May-2023 **Balance Serial #** 1128342314

Marlina Cowan – Operations Tech II ARM QC **Date Passed:** 09-May-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

MV-569722_00023

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Catalog No. : 569722 **Lot No.:** A0198219

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2026 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dichlorodifluoromethane (CFC-12)	75-71-8	00012554	99%	2,501.0 µg/mL	+/- 141.1841
2	Chloromethane (methyl chloride)	74-87-3	SHBM9611	99%	2,503.5 µg/mL	+/- 141.4535
3	Vinyl chloride	75-01-4	00015559	99%	2,504.0 µg/mL	+/- 141.5201
4	1,3-Butadiene	106-99-0	00015314	99%	2,503.4 µg/mL	+/- 140.8433
5	Bromomethane (methyl bromide)	74-83-9	101604	99%	2,508.8 µg/mL	+/- 141.7591
6	Chloroethane (ethyl chloride)	75-00-3	107-401039114-1	99%	2,500.4 µg/mL	+/- 141.1450
7	Dichlorofluoromethane (CFC-21)	75-43-4	14150400	90%	2,502.0 µg/mL	+/- 140.5515
8	Trichlorofluoromethane (CFC-11)	75-69-4	MKCL8411	99%	2,504.2 µg/mL	+/- 141.6568

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Rev 1
10/5/23

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

Quality Confirmation Test

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

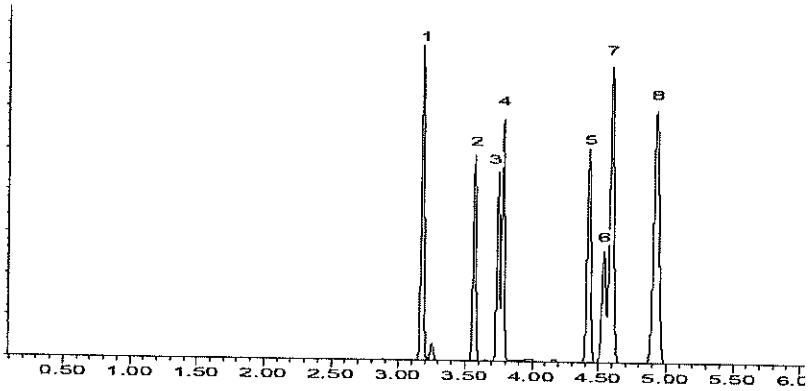
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD

Split Vent:
25.0 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician **Date Mixed:** 18-May-2023 **Balance Serial #** B707717271

Marlina Cowan – Operations Tech II ARM QC **Date Passed:** 23-May-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

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Catalog No. : 569723 **Lot No.:** A0193735

Description : 8260 List 1 / Std #4 2-CEVE (2015)

8260 List 1 / Std #4 2-CEVE (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2026 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Chloroethyl vinyl ether	110-75-8	MKCK6742	99%	2,500.0 µg/mL	+/- 31.1129

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

5/1/23 JW -00018

Tech Tips:
Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Quality Confirmation Test

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

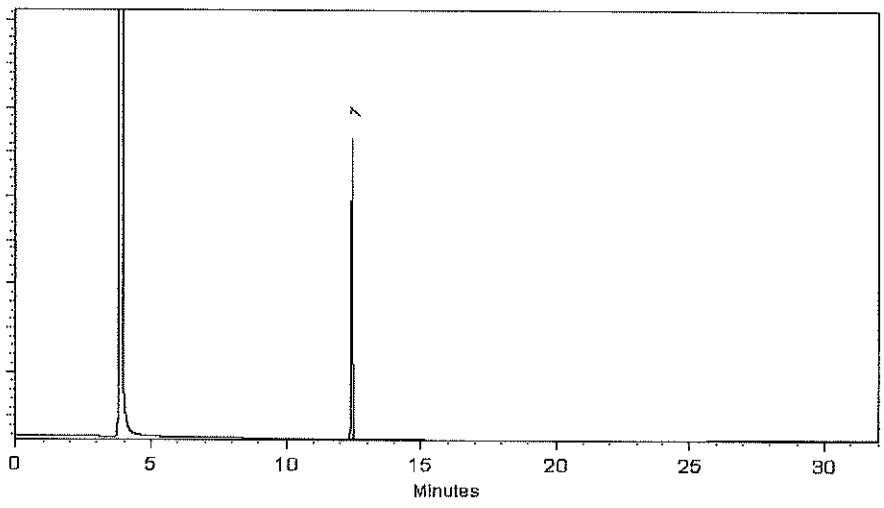
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Josh McCloskey - Operations Technician I

Date Mixed: 19-Jan-2023 **Balance Serial #** B707717271

Christie Mills - Operations Tech II - ARM QC

Date Passed: 23-Jan-2023

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Reagent

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Catalog No. : 569724 **Lot No.:** A0200199

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)

8260 List 1 / Std #6 Vinyl Acetate (2015) 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2025 **Storage:** -20°C or colder

Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Vinyl acetate	108-05-4	RD220630	99%	5,036.0 µg/mL	+/- 174.0672

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

12/6/23
- 00037

Quality Confirmation Test

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

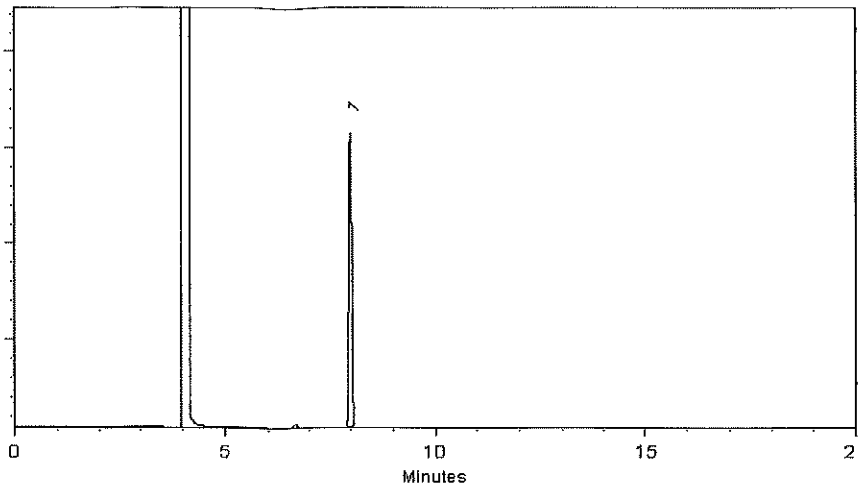
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Josh McCloskey - Operations Technician I

Date Mixed: 24-Jul-2023 **Balance Serial #** B707717271

Dillan Murphy - Operations Technician I

Date Passed: 26-Jul-2023

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Reagent

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Catalog No. : 569727 **Lot No.:** A0197009

Description : 8260 List 2/ Std #3 Cyclohexanone (2015)

8260 List 2/ Std #3 Cyclohexanone (2015) 25,000µg/mL, Water, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Cyclohexanone	108-94-1	MKCC7732	99%	25,006.5 µg/mL	+/- 864.2827

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Water
CAS # 7732-18-5
Purity 99%

Rcvd 1/15/23

Quality Confirmation Test

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

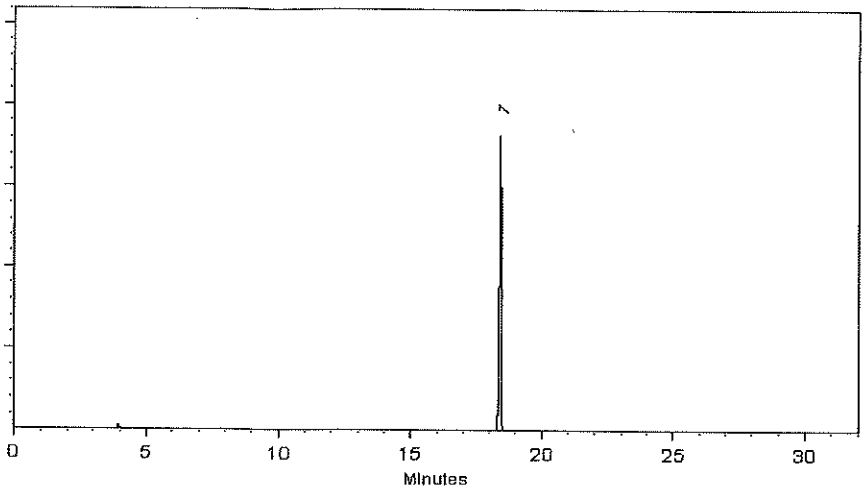
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Russ Bookhamer - Operations Technician I

Date Mixed: 14-Apr-2023 **Balance Serial #** B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 18-Apr-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

MV-571992.sec_00010

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Catalog No. : 571992.SEC **Lot No.:** A0195252

Description : 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1,250-62,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2025 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Diethyl ether (ethyl ether)	60-29-7.SEC	F23X068	99%	2,516.7 µg/mL	+/- 86.9644
2	1,1,2-Trichlorotrifluoroethane (CFC-113)	76-13-1.SEC	18342	99%	2,520.0 µg/mL	+/- 87.0795
3	1,1-Dichloroethene	75-35-4.SEC	13896500	99%	2,525.0 µg/mL	+/- 87.2523
4	tert-Butanol (TBA)	75-65-0.SEC	DI34O	99%	25,129.5 µg/mL	+/- 868.3580
5	Methyl acetate	79-20-9.SEC	UCNEL	99%	5,029.0 µg/mL	+/- 173.7790
6	Iodomethane (methyl iodide)	74-88-4.SEC	Y25A027	99%	2,521.7 µg/mL	+/- 87.1371
7	Allyl chloride (3-chloropropene)	107-05-1.SEC	RD210329	99%	2,518.2 µg/mL	+/- 87.0162
8	Methylene chloride (dichloromethane)	75-09-2.SEC	FGM02	99%	2,516.7 µg/mL	+/- 86.9644
9	Carbon disulfide	75-15-0.SEC	MKBL1376V	99%	2,511.7 µg/mL	+/- 86.7916
10	Acrylonitrile	107-13-1.SEC	V54AD	99%	25,200.3 µg/mL	+/- 870.8057
11	Methyl-tert-butyl ether (MTBE)	1634-04-4.SEC	CDCQG	99%	2,517.3 µg/mL	+/- 86.9874
12	cis-1,2-Dichloroethene	156-59-2.SEC	YZO5O	99%	2,515.3 µg/mL	+/- 86.9183
13	n-Hexane (C6)	110-54-3.SEC	10188491	99%	2,514.7 µg/mL	+/- 86.8953
14	1,1-Dichloroethane	75-34-3.SEC	1026.30-3	98%	2,512.6 µg/mL	+/- 86.8223
15	2,2-Dichloropropane	594-20-7.SEC	GI01	99%	2,521.5 µg/mL	+/- 87.1314
16	trans-1,2-Dichloroethene	156-60-5.SEC	L5QOH	99%	2,525.0 µg/mL	+/- 87.2523

17	Isobutanol (2-Methyl-1-propanol)	78-83-1.SEC PH2XK	99%	62,830.8	µg/mL	+/- 2,171.1398
18	Chloroform	67-66-3.SEC 1297547	99%	2,511.7	µg/mL	+/- 86.7916
19	Bromochloromethane	74-97-5 * 230206JLM	99%	2,515.7	µg/mL	+/- 86.9298
20	Tetrahydrofuran	109-99-9.SEC 3NYHE	99%	5,018.5	µg/mL	+/- 173.4162
21	1,1,1-Trichloroethane	71-55-6.SEC 13891800	99%	2,506.5	µg/mL	+/- 86.6130
22	Cyclohexane	110-82-7.SEC YADRA	99%	2,523.3	µg/mL	+/- 87.1947
23	1,1-Dichloropropene	563-58-6.SEC 556500	99%	2,520.5	µg/mL	+/- 87.0968
24	Carbon tetrachloride	56-23-5.SEC 11466	99%	2,520.5	µg/mL	+/- 87.0968
25	n-Heptane (C7)	142-82-5.SEC TFHUC	99%	2,516.5	µg/mL	+/- 86.9586
26	1,2-Dichloroethane	107-06-2.SEC 00016165	99%	2,519.8	µg/mL	+/- 87.0738
27	Benzene	71-43-2.SEC 101960P29K	99%	2,518.8	µg/mL	+/- 87.0392
28	Trichloroethene	79-01-6.SEC H04X050	99%	2,524.3	µg/mL	+/- 87.2293
29	Methylcyclohexane	108-87-2.SEC Q02QG	99%	2,515.8	µg/mL	+/- 86.9356
30	1,2-Dichloropropane	78-87-5.SEC ERRBI-RH	99%	2,516.8	µg/mL	+/- 86.9701
31	1,4-Dioxane	123-91-1.SEC QHRWO	99%	50,137.2	µg/mL	+/- 1,732.5061
32	Dibromomethane	74-95-3.SEC MOKKJ	99%	2,516.3	µg/mL	+/- 86.9528
33	cis-1,3-Dichloropropene	10061-01-5.SEC ZLXJ-TJ	99%	2,502.8	µg/mL	+/- 86.4863
34	Toluene	108-88-3.SEC YND2B-BD	99%	2,522.2	µg/mL	+/- 87.1544
35	Ethyl methacrylate	97-63-2.SEC AQSPO	99%	2,510.8	µg/mL	+/- 86.7628
36	trans-1,3-Dichloropropene	10061-02-6.SEC DMSL	98%	2,517.1	µg/mL	+/- 86.9804
37	1,1,2-Trichloroethane	79-00-5.SEC 9245400	99%	2,512.2	µg/mL	+/- 86.8089
38	1,3-Dichloropropane	142-28-9.SEC IQCON	99%	2,519.3	µg/mL	+/- 87.0565
39	Tetrachloroethene	127-18-4.SEC F09W014	99%	2,521.3	µg/mL	+/- 87.1256
40	Dibromochloromethane	124-48-1.SEC 10234064	99%	2,517.5	µg/mL	+/- 86.9932
41	1,2-Dibromoethane (EDB)	106-93-4.SEC 050675P15E	99%	2,518.3	µg/mL	+/- 87.0220
42	Chlorobenzene	108-90-7.SEC 1161936	99%	2,515.8	µg/mL	+/- 86.9356
43	m-Xylene	108-38-3.SEC 7ZV6F	99%	1,255.3	µg/mL	+/- 43.3814
44	p-Xylene	106-42-3.SEC D6UOA	99%	1,260.3	µg/mL	+/- 43.5541
45	Ethylbenzene	100-41-4.SEC PI4SE	99%	2,517.7	µg/mL	+/- 86.9989
46	1,1,1,2-Tetrachloroethane	630-20-6.SEC 13789800	99%	2,517.5	µg/mL	+/- 86.9932
47	o-Xylene	95-47-6.SEC UJ6RI	99%	2,515.8	µg/mL	+/- 86.9356
48	Styrene	100-42-5.SEC QGQ7F	99%	2,521.3	µg/mL	+/- 87.1256
49	Isopropylbenzene (cumene)	98-82-8.SEC 7P24L	99%	2,515.0	µg/mL	+/- 86.9068
50	Bromoform	75-25-2.SEC 13723500	99%	2,522.5	µg/mL	+/- 87.1659
51	Bromodichloromethane	75-27-4.SEC 28128	99%	2,524.2	µg/mL	+/- 87.2235
52	1,1,2,2-Tetrachloroethane	79-34-5.SEC BCCD5088	99%	2,523.7	µg/mL	+/- 87.2063

53	1,2,3-Trichloropropane	96-18-4.SEC 6V2ED	99%	2,522.2	µg/mL	+/- 87.1544
54	trans-1,4-Dichloro-2-butene	110-57-6.SEC RD230316RSR	96%	2,517.0	µg/mL	+/- 86.9745
55	n-Propylbenzene	103-65-1.SEC XCGEC	99%	2,518.8	µg/mL	+/- 87.0392
56	Bromobenzene	108-86-1.SEC 2FUHG-EM	99%	2,518.3	µg/mL	+/- 87.0220
57	1,3,5-Trimethylbenzene	108-67-8.SEC GI2SM	99%	2,514.3	µg/mL	+/- 86.8837
58	2-Chlorotoluene	95-49-8.SEC BRHPM	99%	2,515.7	µg/mL	+/- 86.9298
59	4-Chlorotoluene	106-43-4.SEC S5SKD	99%	2,518.8	µg/mL	+/- 87.0392
60	tert-Butylbenzene	98-06-6.SEC D6OHC	99%	2,522.0	µg/mL	+/- 87.1487
61	1,2,4-Trimethylbenzene	95-63-6.SEC JHZDD	99%	2,517.3	µg/mL	+/- 86.9874
62	sec-Butylbenzene	135-98-8.SEC O4HRF	99%	2,522.0	µg/mL	+/- 87.1487
63	4-Isopropyltoluene (p-cymene)	99-87-6.SEC 13889300	98%	2,518.1	µg/mL	+/- 87.0142
64	1,3-Dichlorobenzene	541-73-1.SEC ZA2ZI	99%	2,515.0	µg/mL	+/- 86.9068
65	1,4-Dichlorobenzene	106-46-7.SEC J5GVD	99%	2,522.5	µg/mL	+/- 87.1659
66	n-Butylbenzene	104-51-8.SEC MMPGA	99%	2,523.7	µg/mL	+/- 87.2063
67	1,2-Dichlorobenzene	95-50-1.SEC R6QDM	99%	2,512.0	µg/mL	+/- 86.8031
68	1,2-Dibromo-3-chloropropane	96-12-8.SEC Q135-105	99%	2,517.7	µg/mL	+/- 86.9989
69	1,2,4-Trichlorobenzene	120-82-1.SEC IGLFA	99%	2,515.7	µg/mL	+/- 86.9298
70	Hexachlorobutadiene	87-68-3.SEC 13889400	97%	2,520.4	µg/mL	+/- 87.0928
71	Naphthalene	91-20-3.SEC AM5NG	99%	2,520.0	µg/mL	+/- 87.0795
72	1,2,3-Trichlorobenzene	87-61-6.SEC A0043055	99%	2,517.8	µg/mL	+/- 87.0047

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

Quality Confirmation Test

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

Carrier Gas:
hellum-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

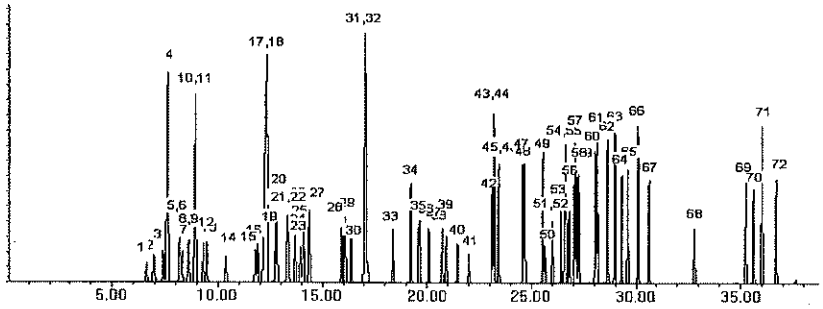
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD

Split Vent:
20.0 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

John Friedline - Operations Technician I

Date Mixed: 28-Feb-2023 **Balance Serial #** 1127510105

Christie Mills - Operations Tech II - ARM QC

Date Passed: 22-Mar-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

MV-571992_00015

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571992 **Lot No.:** A0183568

Description : 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1,250-62,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7 (Lot SHBN4280) **Purity** 99%	2,506.6 µg/mL	+/- 14.5737 µg/mL +/- 151.2358 µg/mL +/- 151.5949 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 (Lot 00016133) **Purity** 99%	2,514.5 µg/mL	+/- 14.6195 µg/mL +/- 151.7109 µg/mL +/- 152.0711 µg/mL	Gravimetric Unstressed Stressed
3	1,1-dichloroethene **CAS #** 75-35-4 (Lot SHBG8609V) **Purity** 99%	2,515.1 µg/mL	+/- 14.6232 µg/mL +/- 151.7486 µg/mL +/- 152.1089 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 (Lot 101619K21F-1) **Purity** 99%	25,080.8 µg/mL	+/- 145.8140 µg/mL +/- 1,513.2321 µg/mL +/- 1,516.8247 µg/mL	Gravimetric Unstressed Stressed
5	Methyl acetate **CAS #** 79-20-9 (Lot SHBM1320) **Purity** 99%	5,026.6 µg/mL	+/- 29.2252 µg/mL +/- 303.2786 µg/mL +/- 303.9986 µg/mL	Gravimetric Unstressed Stressed
6	Iodomethane (methyl iodide) **CAS #** 74-88-4 (Lot RD220125) **Purity** 99%	2,505.3 µg/mL	+/- 14.5657 µg/mL +/- 151.1528 µg/mL +/- 151.5117 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 (Lot RD211021) **Purity** 99%	2,509.1 µg/mL	+/- 14.5883 µg/mL +/- 151.3866 µg/mL +/- 151.7460 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane)		2,513.3	µg/mL	+/-	14.6123	µg/mL	Gravimetric
	CAS # 75-09-2	(Lot SHBP1417)			+/-	151.6355	µg/mL	Unstressed
	Purity 99%				+/-	151.9955	µg/mL	Stressed
9	Carbon disulfide		2,510.1	µg/mL	+/-	14.5941	µg/mL	Gravimetric
	CAS # 75-15-0	(Lot N28F701)			+/-	151.4470	µg/mL	Unstressed
	Purity 99%				+/-	151.8065	µg/mL	Stressed
10	Acrylonitrile		25,102.9	µg/mL	+/-	145.9426	µg/mL	Gravimetric
	CAS # 107-13-1	(Lot SHBK4954)			+/-	1,514.5670	µg/mL	Unstressed
	Purity 99%				+/-	1,518.1628	µg/mL	Stressed
11	Methyl-tert-butyl ether (MTBE)		2,513.8	µg/mL	+/-	14.6152	µg/mL	Gravimetric
	CAS # 1634-04-4	(Lot SHBN6497)			+/-	151.6657	µg/mL	Unstressed
	Purity 99%				+/-	152.0258	µg/mL	Stressed
12	cis-1,2-Dichloroethene		2,515.1	µg/mL	+/-	14.6232	µg/mL	Gravimetric
	CAS # 156-59-2	(Lot MKCP7830)			+/-	151.7486	µg/mL	Unstressed
	Purity 99%				+/-	152.1089	µg/mL	Stressed
13	n-Hexane (C6)		2,515.5	µg/mL	+/-	14.6253	µg/mL	Gravimetric
	CAS # 110-54-3	(Lot SHBL9879)			+/-	151.7713	µg/mL	Unstressed
	Purity 99%				+/-	152.1316	µg/mL	Stressed
14	1,1-Dichloroethane		2,517.9	µg/mL	+/-	14.6391	µg/mL	Gravimetric
	CAS # 75-34-3	(Lot 760200)			+/-	151.9146	µg/mL	Unstressed
	Purity 99%				+/-	152.2752	µg/mL	Stressed
15	2,2-Dichloropropane		2,517.9	µg/mL	+/-	14.6391	µg/mL	Gravimetric
	CAS # 594-20-7	(Lot RD211103)			+/-	151.9146	µg/mL	Unstressed
	Purity 99%				+/-	152.2752	µg/mL	Stressed
16	trans-1,2-Dichloroethene		2,511.4	µg/mL	+/-	14.6014	µg/mL	Gravimetric
	CAS # 156-60-5	(Lot MKBH9850V)			+/-	151.5224	µg/mL	Unstressed
	Purity 99%				+/-	151.8821	µg/mL	Stressed
17	Isobutanol (2-Methyl-1-propanol)		62,633.1	µg/mL	+/-	364.1354	µg/mL	Gravimetric
	CAS # 78-83-1	(Lot 098794J01H)			+/-	3,778.9321	µg/mL	Unstressed
	Purity 99%				+/-	3,787.9040	µg/mL	Stressed
18	chloroform		2,510.9	µg/mL	+/-	14.5984	µg/mL	Gravimetric
	CAS # 67-66-3	(Lot SHBN8469)			+/-	151.4922	µg/mL	Unstressed
	Purity 99%				+/-	151.8519	µg/mL	Stressed
19	Bromochloromethane		2,517.0	µg/mL	+/-	14.6341	µg/mL	Gravimetric
	CAS # 74-97-5	(Lot 00008541)			+/-	151.8618	µg/mL	Unstressed
	Purity 99%				+/-	152.2223	µg/mL	Stressed
20	Tetrahydrofuran		5,036.1	µg/mL	+/-	29.2805	µg/mL	Gravimetric
	CAS # 109-99-9	(Lot SHBN3757)			+/-	303.8517	µg/mL	Unstressed
	Purity 99%				+/-	304.5731	µg/mL	Stressed
21	1,1,1-trichloroethane		2,509.6	µg/mL	+/-	14.5912	µg/mL	Gravimetric
	CAS # 71-55-6	(Lot RD220215)			+/-	151.4168	µg/mL	Unstressed
	Purity 99%				+/-	151.7763	µg/mL	Stressed
22	Cyclohexane		2,510.0	µg/mL	+/-	14.5934	µg/mL	Gravimetric
	CAS # 110-82-7	(Lot EA003-US)			+/-	151.4394	µg/mL	Unstressed
	Purity 99%				+/-	151.7990	µg/mL	Stressed
23	1,1-Dichloropropene		2,513.8	µg/mL	+/-	14.6152	µg/mL	Gravimetric
	CAS # 563-58-6	(Lot 220217JLM)			+/-	151.6657	µg/mL	Unstressed
	Purity 99%				+/-	152.0258	µg/mL	Stressed

24	carbon tetrachloride		2,513.5	µg/mL	+/-	14.6137	µg/mL	Gravimetric
	CAS # 56-23-5	(Lot SHBL8097)			+/-	151.6506	µg/mL	Unstressed
	Purity 99%				+/-	152.0106	µg/mL	Stressed
25	n-Heptane (C7)		2,511.4	µg/mL	+/-	14.6014	µg/mL	Gravimetric
	CAS # 142-82-5	(Lot SGBL9221)			+/-	151.5224	µg/mL	Unstressed
	Purity 99%				+/-	151.8821	µg/mL	Stressed
26	1,2-Dichloroethane		2,514.4	µg/mL	+/-	14.6188	µg/mL	Gravimetric
	CAS # 107-06-2	(Lot MKCN9758)			+/-	151.7034	µg/mL	Unstressed
	Purity 99%				+/-	152.0636	µg/mL	Stressed
27	Benzene		2,509.3	µg/mL	+/-	14.5890	µg/mL	Gravimetric
	CAS # 71-43-2	(Lot MKCM9242)			+/-	151.3942	µg/mL	Unstressed
	Purity 99%				+/-	151.7536	µg/mL	Stressed
28	Trichloroethene		2,507.5	µg/mL	+/-	14.5788	µg/mL	Gravimetric
	CAS # 79-01-6	(Lot SHBL5816)			+/-	151.2886	µg/mL	Unstressed
	Purity 99%				+/-	151.6478	µg/mL	Stressed
29	Methylcyclohexane		2,510.3	µg/mL	+/-	14.5948	µg/mL	Gravimetric
	CAS # 108-87-2	(Lot SHBL0078)			+/-	151.4545	µg/mL	Unstressed
	Purity 99%				+/-	151.8141	µg/mL	Stressed
30	1,2-Dichloropropane		2,510.9	µg/mL	+/-	14.5984	µg/mL	Gravimetric
	CAS # 78-87-5	(Lot BCBR0882V)			+/-	151.4922	µg/mL	Unstressed
	Purity 99%				+/-	151.8519	µg/mL	Stressed
31	1,4-Dioxane		50,187.5	µg/mL	+/-	291.7792	µg/mL	Gravimetric
	CAS # 123-91-1	(Lot SHBM9675)			+/-	3,028.0328	µg/mL	Unstressed
	Purity 99%				+/-	3,035.2219	µg/mL	Stressed
32	Dibromomethane		2,511.0	µg/mL	+/-	14.5992	µg/mL	Gravimetric
	CAS # 74-95-3	(Lot 10201030)			+/-	151.4998	µg/mL	Unstressed
	Purity 99%				+/-	151.8594	µg/mL	Stressed
33	cis-1,3-Dichloropropene		2,513.8	µg/mL	+/-	14.6152	µg/mL	Gravimetric
	CAS # 10061-01-5	(Lot RD220311)			+/-	151.6657	µg/mL	Unstressed
	Purity 99%				+/-	152.0258	µg/mL	Stressed
34	Toluene		2,518.4	µg/mL	+/-	14.6420	µg/mL	Gravimetric
	CAS # 108-88-3	(Lot MKCQ2779)			+/-	151.9447	µg/mL	Unstressed
	Purity 99%				+/-	152.3055	µg/mL	Stressed
35	Ethyl methacrylate		2,511.4	µg/mL	+/-	14.6014	µg/mL	Gravimetric
	CAS # 97-63-2	(Lot MKCL0907)			+/-	151.5224	µg/mL	Unstressed
	Purity 99%				+/-	151.8821	µg/mL	Stressed
36	trans-1,3-Dichloropropene		2,504.5	µg/mL	+/-	14.5615	µg/mL	Gravimetric
	CAS # 10061-02-6	(Lot RD211104)			+/-	151.1083	µg/mL	Unstressed
	Purity 98%				+/-	151.4671	µg/mL	Stressed
37	1,1,2-Trichloroethane		2,513.6	µg/mL	+/-	14.6144	µg/mL	Gravimetric
	CAS # 79-00-5	(Lot FGB01)			+/-	151.6581	µg/mL	Unstressed
	Purity 99%				+/-	152.0182	µg/mL	Stressed
38	1,3-Dichloropropane		2,513.6	µg/mL	+/-	14.6144	µg/mL	Gravimetric
	CAS # 142-28-9	(Lot BCBC6265)			+/-	151.6581	µg/mL	Unstressed
	Purity 99%				+/-	152.0182	µg/mL	Stressed
39	Tetrachloroethene		2,507.5	µg/mL	+/-	14.5788	µg/mL	Gravimetric
	CAS # 127-18-4	(Lot SHBJ7422)			+/-	151.2886	µg/mL	Unstressed
	Purity 99%				+/-	151.6478	µg/mL	Stressed

40	dibromochloromethane		2,514.8	µg/mL	+/-	14.6210	µg/mL	Gravimetric
	CAS # 124-48-1	(Lot MKCM8659)			+/-	151.7260	µg/mL	Unstressed
	Purity 99%				+/-	152.0862	µg/mL	Stressed
41	1,2-Dibromoethane (EDB)		2,513.9	µg/mL	+/-	14.6159	µg/mL	Gravimetric
	CAS # 106-93-4	(Lot BCCF5058)			+/-	151.6732	µg/mL	Unstressed
	Purity 99%				+/-	152.0333	µg/mL	Stressed
42	Chlorobenzene		2,507.9	µg/mL	+/-	14.5810	µg/mL	Gravimetric
	CAS # 108-90-7	(Lot SHBL8110)			+/-	151.3112	µg/mL	Unstressed
	Purity 99%				+/-	151.6704	µg/mL	Stressed
43	m-Xylene		1,260.0	µg/mL	+/-	7.3257	µg/mL	Gravimetric
	CAS # 108-38-3	(Lot Q13G020)			+/-	76.0214	µg/mL	Unstressed
	Purity 99%				+/-	76.2019	µg/mL	Stressed
44	p-Xylene		1,258.6	µg/mL	+/-	7.3178	µg/mL	Gravimetric
	CAS # 106-42-3	(Lot 10234437)			+/-	75.9384	µg/mL	Unstressed
	Purity 99%				+/-	76.1187	µg/mL	Stressed
45	Ethylbenzene		2,516.0	µg/mL	+/-	14.6282	µg/mL	Gravimetric
	CAS # 100-41-4	(Lot SHBM4308)			+/-	151.8014	µg/mL	Unstressed
	Purity 99%				+/-	152.1618	µg/mL	Stressed
46	1,1,1,2-Tetrachloroethane		2,519.1	µg/mL	+/-	14.6464	µg/mL	Gravimetric
	CAS # 630-20-6	(Lot TMWGK)			+/-	151.9900	µg/mL	Unstressed
	Purity 99%				+/-	152.3508	µg/mL	Stressed
47	o-Xylene		2,513.5	µg/mL	+/-	14.6134	µg/mL	Gravimetric
	CAS # 95-47-6	(Lot SHBN5105)			+/-	151.6479	µg/mL	Unstressed
	Purity 98%				+/-	152.0079	µg/mL	Stressed
48	Styrene		2,509.1	µg/mL	+/-	14.5883	µg/mL	Gravimetric
	CAS # 100-42-5	(Lot MKCP3941)			+/-	151.3866	µg/mL	Unstressed
	Purity 99%				+/-	151.7460	µg/mL	Stressed
49	Isopropylbenzene (cumene)		2,518.5	µg/mL	+/-	14.6428	µg/mL	Gravimetric
	CAS # 98-82-8	(Lot Z20D022)			+/-	151.9523	µg/mL	Unstressed
	Purity 99%				+/-	152.3130	µg/mL	Stressed
50	bromoform		2,511.0	µg/mL	+/-	14.5992	µg/mL	Gravimetric
	CAS # 75-25-2	(Lot SHBK4455)			+/-	151.5001	µg/mL	Unstressed
	Purity 98%				+/-	151.8597	µg/mL	Stressed
51	bromodichloromethane		2,518.1	µg/mL	+/-	14.6406	µg/mL	Gravimetric
	CAS # 75-27-4	(Lot MKCM7156)			+/-	151.9296	µg/mL	Unstressed
	Purity 99%				+/-	152.2903	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane		2,515.5	µg/mL	+/-	14.6253	µg/mL	Gravimetric
	CAS # 79-34-5	(Lot CFA4D)			+/-	151.7713	µg/mL	Unstressed
	Purity 99%				+/-	152.1316	µg/mL	Stressed
53	1,2,3-Trichloropropane		2,512.5	µg/mL	+/-	14.6079	µg/mL	Gravimetric
	CAS # 96-18-4	(Lot 332900)			+/-	151.5903	µg/mL	Unstressed
	Purity 99%				+/-	151.9502	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene		2,511.8	µg/mL	+/-	14.6038	µg/mL	Gravimetric
	CAS # 110-57-6	(Lot RD220405A)			+/-	151.5480	µg/mL	Unstressed
	Purity 95%				+/-	151.9078	µg/mL	Stressed
55	n-Propylbenzene		2,515.6	µg/mL	+/-	14.6261	µg/mL	Gravimetric
	CAS # 103-65-1	(Lot MKCN1126)			+/-	151.7788	µg/mL	Unstressed
	Purity 99%				+/-	152.1392	µg/mL	Stressed

56	Bromobenzene		2,516.9	µg/mL	+/-	14.6333	µg/mL	Gravimetric
	CAS # 108-86-1	(Lot MKBD4032V)			+/-	151.8542	µg/mL	Unstressed
	Purity 99%				+/-	152.2147	µg/mL	Stressed
57	1,3,5-Trimethylbenzene		2,512.3	µg/mL	+/-	14.6064	µg/mL	Gravimetric
	CAS # 108-67-8	(Lot BCCD0427)			+/-	151.5752	µg/mL	Unstressed
	Purity 99%				+/-	151.9350	µg/mL	Stressed
58	2-Chlorotoluene		2,510.9	µg/mL	+/-	14.5984	µg/mL	Gravimetric
	CAS # 95-49-8	(Lot MKCF5243)			+/-	151.4922	µg/mL	Unstressed
	Purity 99%				+/-	151.8519	µg/mL	Stressed
59	4-Chlorotoluene		2,513.1	µg/mL	+/-	14.6115	µg/mL	Gravimetric
	CAS # 106-43-4	(Lot MKCC8496)			+/-	151.6280	µg/mL	Unstressed
	Purity 99%				+/-	151.9880	µg/mL	Stressed
60	tert-Butylbenzene		2,514.6	µg/mL	+/-	14.6202	µg/mL	Gravimetric
	CAS # 98-06-6	(Lot STBD6954V)			+/-	151.7185	µg/mL	Unstressed
	Purity 99%				+/-	152.0787	µg/mL	Stressed
61	1,2,4-Trimethylbenzene		2,517.1	µg/mL	+/-	14.6348	µg/mL	Gravimetric
	CAS # 95-63-6	(Lot WXBC9428V)			+/-	151.8696	µg/mL	Unstressed
	Purity 98%				+/-	152.2302	µg/mL	Stressed
62	sec-Butylbenzene		2,519.3	µg/mL	+/-	14.6471	µg/mL	Gravimetric
	CAS # 135-98-8	(Lot MKCN2920)			+/-	151.9975	µg/mL	Unstressed
	Purity 99%				+/-	152.3584	µg/mL	Stressed
63	p-Isopropyltoluene (p-Cymene)		2,512.0	µg/mL	+/-	14.6050	µg/mL	Gravimetric
	CAS # 99-87-6	(Lot MKCP6638)			+/-	151.5601	µg/mL	Unstressed
	Purity 99%				+/-	151.9199	µg/mL	Stressed
64	1,3-Dichlorobenzene		2,515.5	µg/mL	+/-	14.6253	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBZ7498)			+/-	151.7713	µg/mL	Unstressed
	Purity 99%				+/-	152.1316	µg/mL	Stressed
65	1,4-Dichlorobenzene		2,513.4	µg/mL	+/-	14.6130	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS4401V)			+/-	151.6431	µg/mL	Unstressed
	Purity 99%				+/-	152.0031	µg/mL	Stressed
66	n-Butylbenzene		2,511.0	µg/mL	+/-	14.5992	µg/mL	Gravimetric
	CAS # 104-51-8	(Lot 09418JJ)			+/-	151.4998	µg/mL	Unstressed
	Purity 99%				+/-	151.8594	µg/mL	Stressed
67	1,2-Dichlorobenzene		2,511.4	µg/mL	+/-	14.6014	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBN3835)			+/-	151.5224	µg/mL	Unstressed
	Purity 99%				+/-	151.8821	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane		2,512.4	µg/mL	+/-	14.6074	µg/mL	Gravimetric
	CAS # 96-12-8	(Lot HBMVB)			+/-	151.5855	µg/mL	Unstressed
	Purity 97%				+/-	151.9454	µg/mL	Stressed
69	1,2,4-Trichlorobenzene		2,510.4	µg/mL	+/-	14.5955	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBM0526)			+/-	151.4620	µg/mL	Unstressed
	Purity 99%				+/-	151.8216	µg/mL	Stressed
70	Hexachlorobutadiene		2,509.3	µg/mL	+/-	14.5890	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot X05J)			+/-	151.3942	µg/mL	Unstressed
	Purity 99%				+/-	151.7536	µg/mL	Stressed
71	Naphthalene		2,520.6	µg/mL	+/-	14.6551	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKCH0219)			+/-	152.0805	µg/mL	Unstressed
	Purity 99%				+/-	152.4415	µg/mL	Stressed

72	1,2,3-Trichlorobenzene		2,513.0	µg/mL	+/-	14.6108	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot MKBX7627V)			+/-	151.6204	µg/mL	Unstressed
	Purity 99%				+/-	151.9804	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

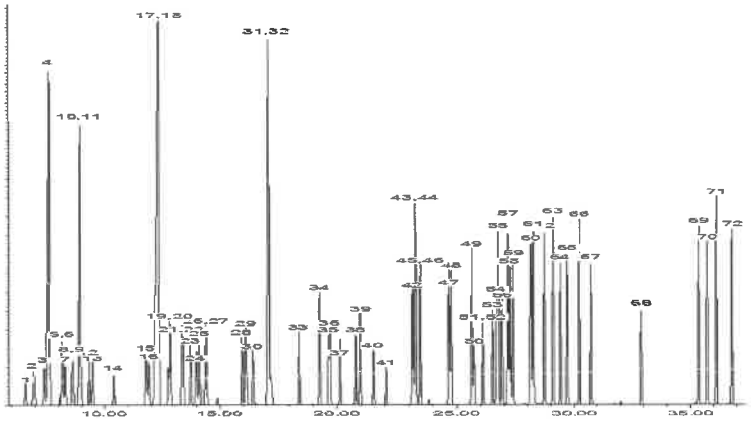
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 31-Mar-2022 **Balance:** B707717271

Feng-Yun Lo - QC Analyst

Date Passed: 21-Apr-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

MV-CUS17739.s_00012

Agilent

Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Custom Standard

Product Number: CUS-17739

Storage Conditions: Store Frozen (-25° to -10°C).

Lot Number: 0006765276

Lot Issue Date: 03-Oct-2023

Expiration Date: 30-Nov-2025

Component Name	Concentration		Uncertainty	CAS#	Analyte Lot
1-chlorohexane	1005	±	5 µg/mL	000544-10-5	RM04913
2-pentanone	4014	±	20 µg/mL	000107-87-9	RM13478
sec-butanol	30122	±	151 µg/mL	000078-92-2	RM13506

Matrix: methanol (purge & trap grade)

Description:
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:
This analytical reference standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Expiration of Certification:
The certification of this analytical reference standard is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.

CSD-QA-015.2

ISO 17025
Cert No. AT-1937

Agilent

Trusted Answers

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative

ANAB
ANSI National Accreditation Board
ACCREDITED
REFERENCE MATERIAL PRODUCER

ISO 17034
Cert No. AR-1936

RM was produced in accordance with the TUV/SUD registered ISO 9001:2015 Quality Management System. Cert# 951215321

www.agilent.com/quality/
CSD-QA-015.2

ISO 17025
Cert No. AT-1937

5/23/2024
4:40:30 AM

Reagent

mv-IS/SS Tune_00001

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 570812 **Lot No.:** A0143593

Description : 8260 IS/Surrogate Mix (2016)

8260 IS/Surrogate Mix (2016) 250-5,000µg/mL, P&T Methanol, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	tert-Butyl-d9-alcohol		5,000.1 µg/mL	+/- 29.0694 µg/mL	Gravimetric
	CAS # 25725-11-5	(Lot CD-107)		+/- 107.0521 µg/mL	Unstressed
	Purity 98%			+/- 110.1643 µg/mL	Stressed
2	Dibromofluoromethane		250.2 µg/mL	+/- 1.4580 µg/mL	Gravimetric
	CAS # 1868-53-7	(Lot 0012017)		+/- 5.3577 µg/mL	Unstressed
	Purity 99%			+/- 5.5134 µg/mL	Stressed
3	1,2-Dichloroethane-d4		250.3 µg/mL	+/- 1.4584 µg/mL	Gravimetric
	CAS # 17060-07-0	(Lot PR-29377)		+/- 5.3592 µg/mL	Unstressed
	Purity 99%			+/- 5.5149 µg/mL	Stressed
4	1,4-Dioxane-d8		5,000.5 µg/mL	+/- 29.0716 µg/mL	Gravimetric
	CAS # 17647-74-4	(Lot I-19942)		+/- 107.0602 µg/mL	Unstressed
	Purity 99%			+/- 110.1726 µg/mL	Stressed
5	Fluorobenzene		250.1 µg/mL	+/- 1.4573 µg/mL	Gravimetric
	CAS # 462-06-6	(Lot BCBK8171V)		+/- 5.3549 µg/mL	Unstressed
	Purity 99%			+/- 5.5105 µg/mL	Stressed
6	Toluene-d8		250.1 µg/mL	+/- 1.4575 µg/mL	Gravimetric
	CAS # 2037-26-5	(Lot PR-27311)		+/- 5.3556 µg/mL	Unstressed
	Purity 99%			+/- 5.5112 µg/mL	Stressed
7	Chlorobenzene-d5		250.5 µg/mL	+/- 1.4600 µg/mL	Gravimetric
	CAS # 3114-55-4	(Lot PR-23926)		+/- 5.3649 µg/mL	Unstressed
	Purity 99%			+/- 5.5208 µg/mL	Stressed

8	1-Bromo-4-fluorobenzene (BFB)		250.1	µg/mL	+/-	1.4575	µg/mL	Gravimetric
	CAS # 460-00-4	(Lot 20401KO)			+/-	5.3556	µg/mL	Unstressed
	Purity 99%				+/-	5.5112	µg/mL	Stressed
9	1,4-Dichlorobenzene-d4		250.2	µg/mL	+/-	1.4580	µg/mL	Gravimetric
	CAS # 3855-82-1	(Lot PR-18488)			+/-	5.3577	µg/mL	Unstressed
	Purity 99%				+/-	5.5134	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

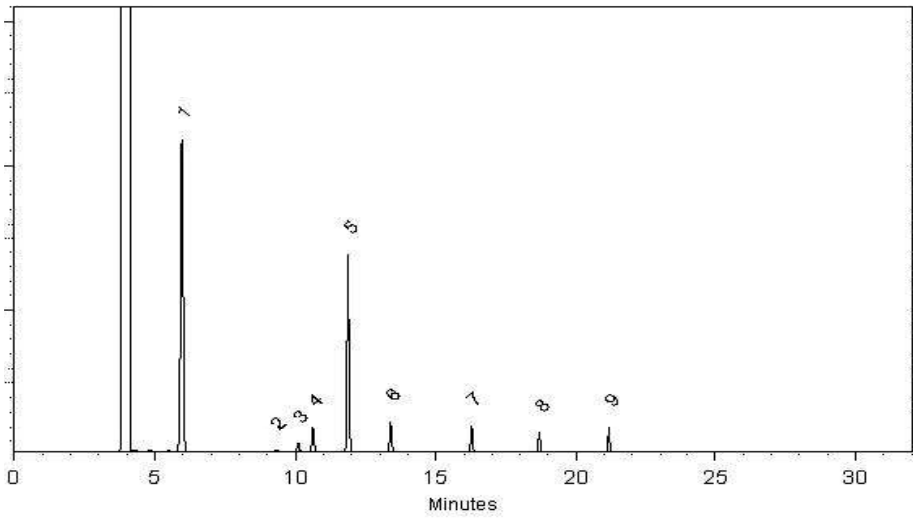
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Tallon - Mix Technician

Date Mixed: 29-Nov-2018 **Balance:** B251644995

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 18-Dec-2018

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

NH3 CAL STD_00036

RICCA CHEMICAL COMPANY®

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Pocomoke City, MD 21851
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1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Ammonia Nitrogen Standard, 1000 ppm N (1216 ppm NH_3)

Lot Number: 2312G14 **Product Number:** 5455

Manufacture Date: DEC 22, 2023
Expiration Date: JUN 2025

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Chloride	12125-02-9	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonia nitrogen)	ASTM (D 3590 A)
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonium nitrogen)	ASTM (D 3590 B)
Stock Ammonium Chloride Solution	APHA (4500-CN- L)
Stock Ammonium Solution	APHA (4500-NH3 C)
Stock Ammonium chloride Solution	APHA (4500-NH3 D)
Stock Ammonium Solution	APHA (4500-NH3 F)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.3)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.4)
Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.1)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5455-16	500 mL natural poly	18 months
5455-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Jose Pena (12/22/2023)

Operations Manager

This document is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

NH3 ICV STD_00034

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Ion Chromatography Solution
Catalog Number:	ICNNH41
Lot Number:	S2-NH700817
Matrix:	H2O
Value / Analyte(s):	1 000 µg/mL ea: Ammonium as N
Starting Material:	Ammonium chloride
Starting Material Lot#:	1736
Starting Material Purity:	99.8500%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 4 µg/mL

Density: 0.999 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **995 ± 4 µg/mL**
Fajans NIST SRM 999c Lot Number: 999c

Assay Method #2 **1002 ± 4 µg/mL**
IC Assay NIST SRM 194a Lot Number: 194a

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

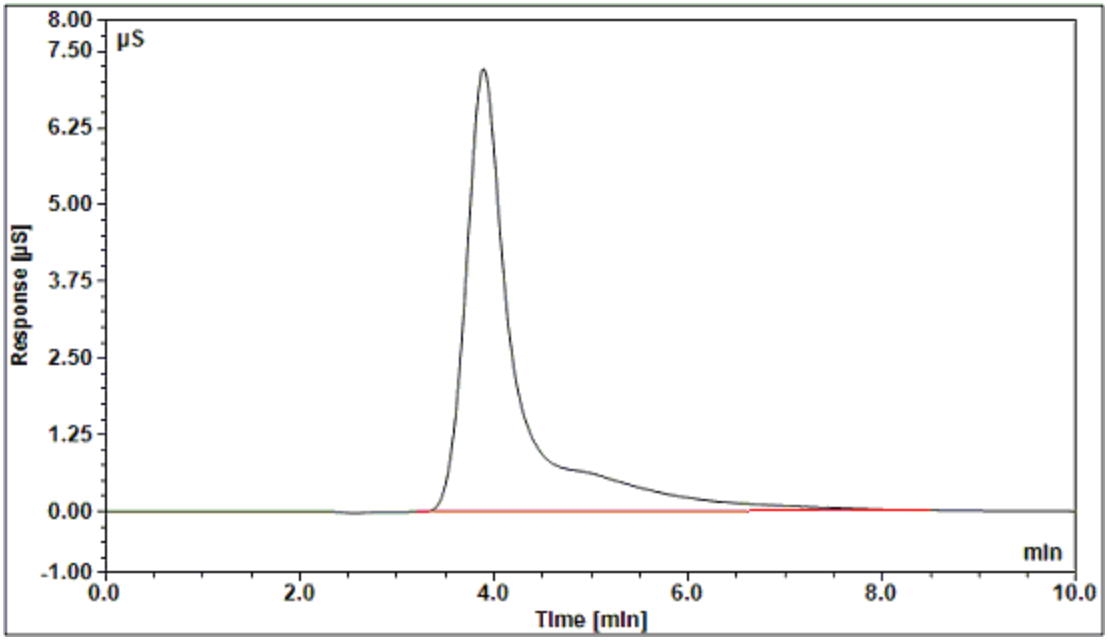
4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 CHROMATOGRAM



Dionex ICS-2000 Ion Chromatograph

Analytical Column:	IonPac CS18 2 x 250 mm	**Eluent:**	10 mM MSA
Guard Column:	IonPac CG18 2 x 50 mm	**Eluent Flow Rate:**	0.25 mL/min
Anion Self Regen Suppressor/ Chemical Suppression:	N/A	**Column Temp:**	30°C
		Cell Temp:	35°C
		Scale X-Axis:	minutes
Cation Self Regen Suppressor/ Chemical Suppression:	CERS 500 2mm	**Scale Y-Axis:**	8 µS/cm
		Concentration:	10 µg/g
Suppressor Current/ Chemical Suppressant:	8 mA		

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 25, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 25, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Reagent

NO2 Cal std_00040

RICCA CHEMICAL COMPANY®

1490 Lammers Pike
Batesville, IN 47006
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Nitrite Nitrogen Standard, 1000 ppm N (3285 ppm NO_2^-)

Lot Number: 4310M18 **Product Number:** 5461

Manufacture Date: OCT 20, 2023
Expiration Date: APR 2024

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrite	7758-09-0	ACS
Chloroform	67-66-3	

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Potassium Permanganate)	995-1005 ppm N	1005 ppm N	8040

Specification	Reference
Nitrite Solution, Stock (1.0 mL = 1.0 mg NO2-N)	ASTM (D 3867 A)
Nitrite Solution, Stock (1.0 mL = 1.0 mg NO2-N)	ASTM (D 3867 B)
Stock Nitrite Solution: 1 mL = 1.0 mg NO2-N	EPA (353.2)
Stock Nitrite Solution: 1.0 mL = 1.00 mg NO2-N	EPA (353.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5461-16	500 mL natural poly	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

Paul Brandon (10/20/2023)
Production Manager
This document is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

OP-32232_00103

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32232 **Lot No.:** A0209707

Description : Hexachlorocyclopentadiene Standard

Hexachlorocyclopentadiene 1000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2029 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Hexachlorocyclopentadiene	77-47-4	099063P13G	99%	1,008.0 µg/mL	+/- 56.6383

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

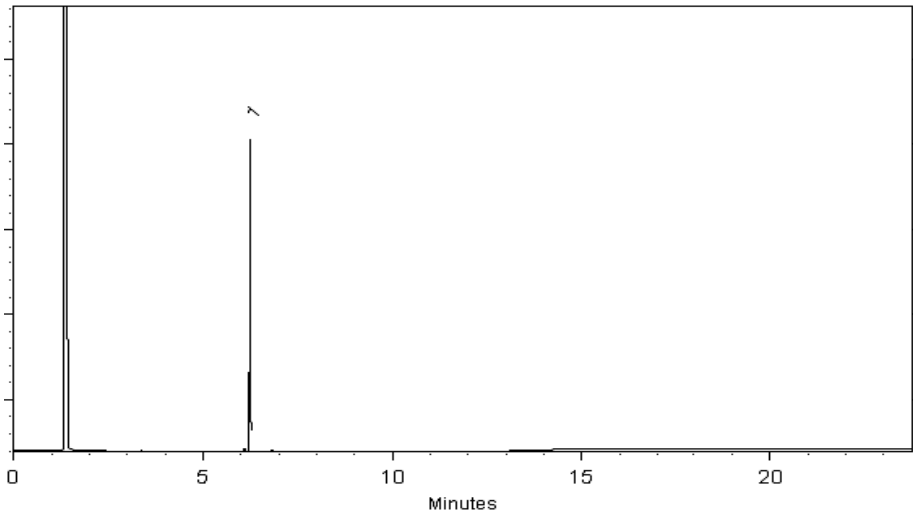
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Stacey Wanner - Operations Technician I

Date Mixed: 02-Apr-2024 **Balance Serial #** B345965662

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 03-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-32232_00104

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

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Catalog No. : 32232 **Lot No.:** A0209707

Description : Hexachlorocyclopentadiene Standard

Hexachlorocyclopentadiene 1000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2029 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Hexachlorocyclopentadiene	77-47-4	099063P13G	99%	1,008.0 µg/mL	+/- 56.6383

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol

CAS # 67-56-1

Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

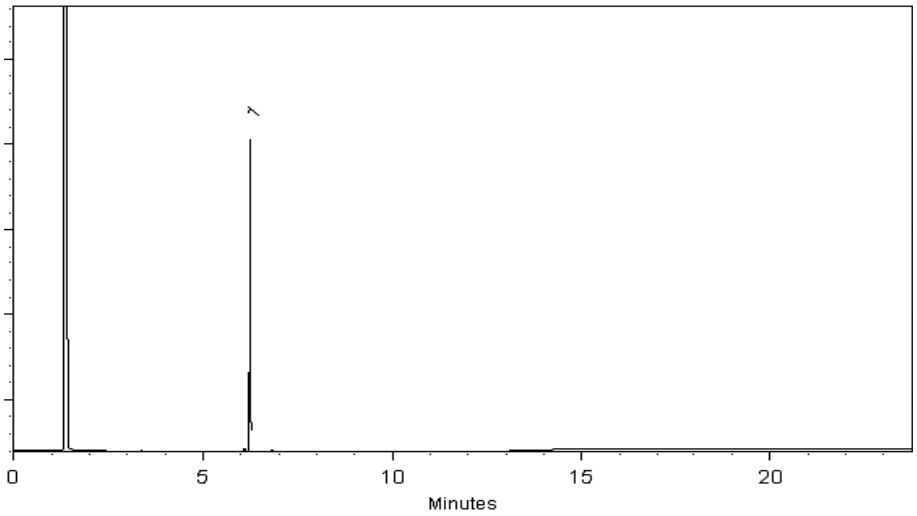
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

Inj. Vol
1µl



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Stacey Wanner - Operations Technician I

Date Mixed: 02-Apr-2024 **Balance Serial #** B345965662

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 03-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

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- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-32232_00105

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

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Description : Hexachlorocyclopentadiene Standard

Hexachlorocyclopentadiene 1000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2029 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Hexachlorocyclopentadiene	77-47-4	099063P13G	99%	1,008.0 µg/mL	+/- 56.6383

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol

CAS # 67-56-1

Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

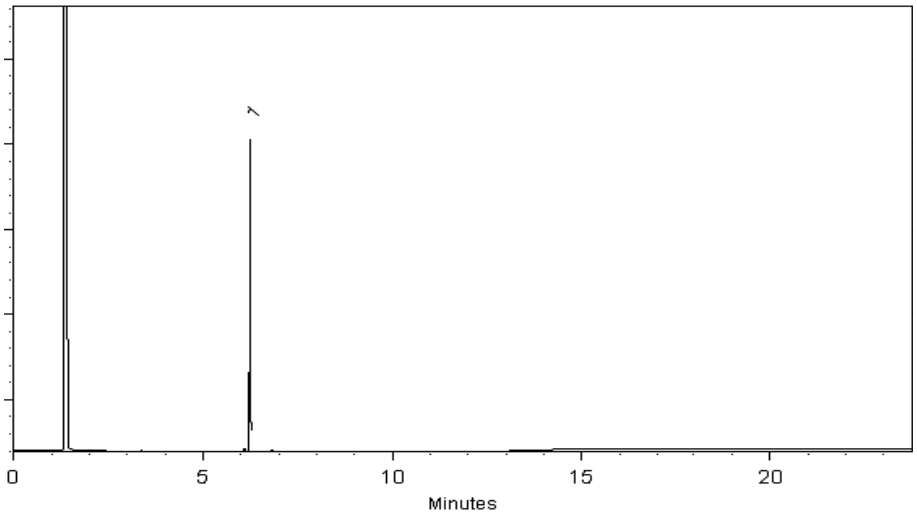
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

Inj. Vol
1µl



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Stacey Wanner - Operations Technician I

Date Mixed: 02-Apr-2024 **Balance Serial #** B345965662

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 03-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
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Purity Notes:

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Manufacturing Notes:

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Handling Notes:

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- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-32232_00106

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110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

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Description : Hexachlorocyclopentadiene Standard

Hexachlorocyclopentadiene 1000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2029 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Hexachlorocyclopentadiene	77-47-4	099063P13G	99%	1,008.0 µg/mL	+/- 56.6383

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol

CAS # 67-56-1

Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

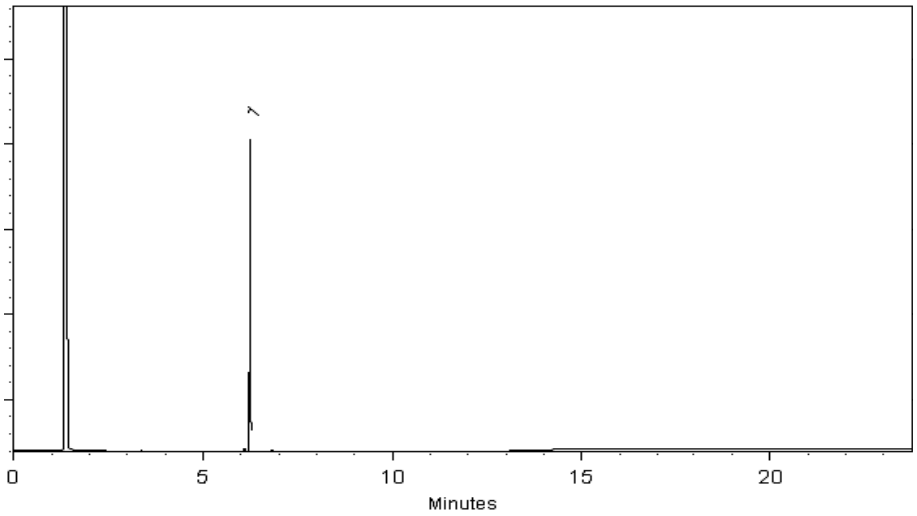
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

Inj. Vol
1µl



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Stacey Wanner - Operations Technician I

Date Mixed: 02-Apr-2024 **Balance Serial #** B345965662

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 03-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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Handling Notes:

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Reagent

OP-32232_00107

RESTEK
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Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

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Description : Hexachlorocyclopentadiene Standard

Hexachlorocyclopentadiene 1000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2029 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Hexachlorocyclopentadiene	77-47-4	099063P13G	99%	1,008.0 µg/mL	+/- 56.6383

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol

CAS # 67-56-1

Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

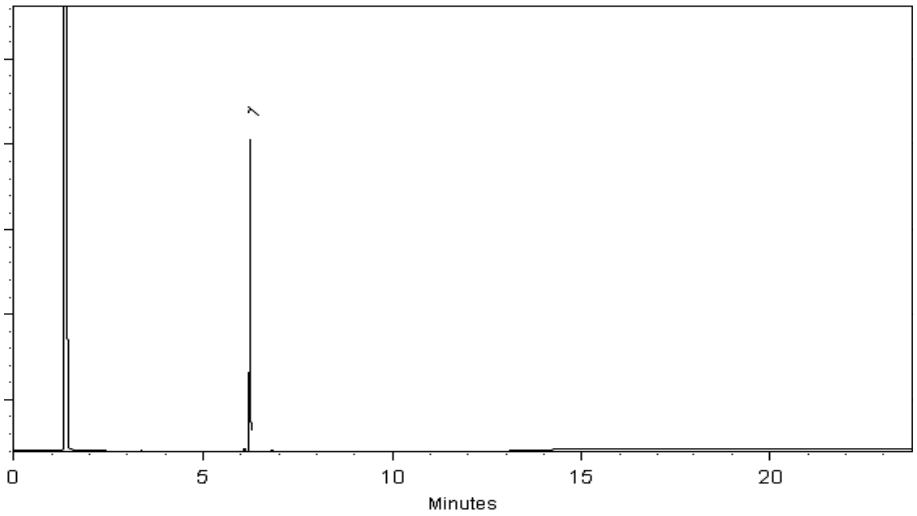
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

Inj. Vol
1µl



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Stacey Wanner - Operations Technician I

Date Mixed: 02-Apr-2024 **Balance Serial #** B345965662

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 03-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

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- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-32232_00108

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32232 **Lot No.:** A0209707

Description : Hexachlorocyclopentadiene Standard

Hexachlorocyclopentadiene 1000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2029 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Hexachlorocyclopentadiene	77-47-4	099063P13G	99%	1,008.0 µg/mL	+/- 56.6383

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol

CAS # 67-56-1

Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

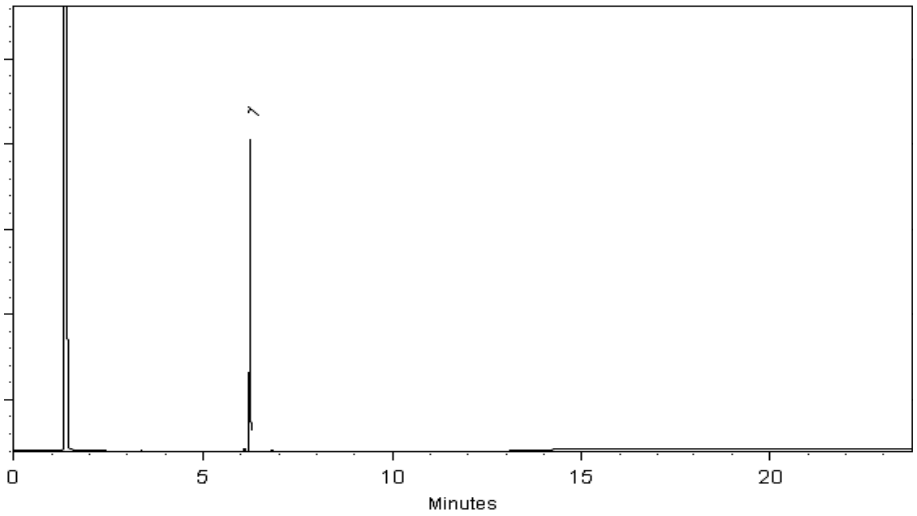
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Stacey Wanner - Operations Technician I

Date Mixed: 02-Apr-2024 **Balance Serial #** B345965662

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 03-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-32232_00109

RESTEK
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www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32232 **Lot No.:** A0209707

Description : Hexachlorocyclopentadiene Standard

Hexachlorocyclopentadiene 1000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2029 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Hexachlorocyclopentadiene	77-47-4	099063P13G	99%	1,008.0 µg/mL	+/- 56.6383

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol

CAS # 67-56-1

Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

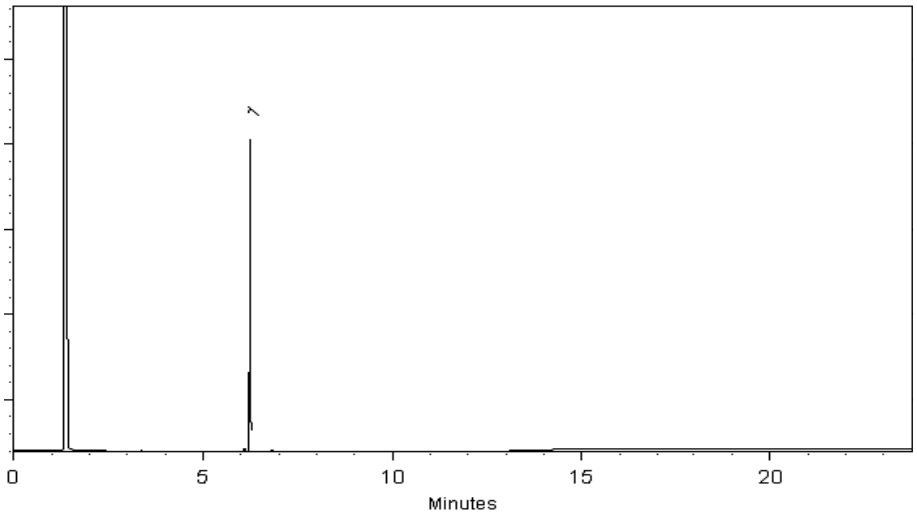
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Stacey Wanner - Operations Technician I

Date Mixed: 02-Apr-2024 **Balance Serial #** B345965662

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 03-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-32232_00113

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Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32232 **Lot No.:** A0209707

Description : Hexachlorocyclopentadiene Standard

Hexachlorocyclopentadiene 1000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2029 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Hexachlorocyclopentadiene	77-47-4	099063P13G	99%	1,008.0 µg/mL	+/- 56.6383

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol

CAS # 67-56-1

Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

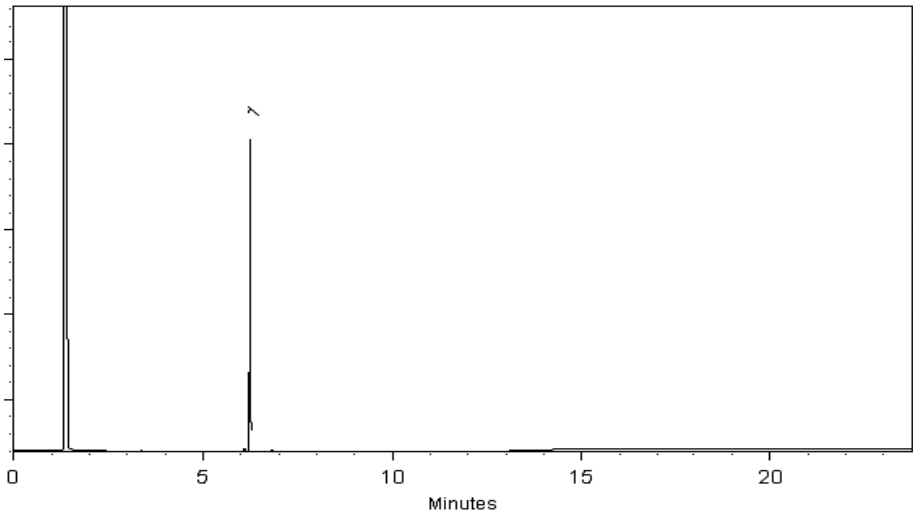
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Stacey Wanner - Operations Technician I

Date Mixed: 02-Apr-2024 **Balance Serial #** B345965662

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 03-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-567681_00285

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567681 **Lot No.:** A0210137

Description : 8270 List 2 / Std #4

8270 List 2 / Std #4 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o,o,o-Triethyl phosphorothioate	126-68-1	2-KRR-57-1	98%	1,002.2 µg/mL	+/- 45.7533
2	Safrole	94-59-7	322225/11292	99%	1,004.7 µg/mL	+/- 45.8653
3	Zinophos (thionazine)	297-97-2	15220400	99%	1,005.3 µg/mL	+/- 45.8957
4	Sulfotepp	3689-24-5	15220200	97%	1,003.6 µg/mL	+/- 45.8178
5	Diallate (cis and trans) 74% cis-Diallate; 26% trans-Diallate	2303-16-4	15057400	99%	1,007.3 µg/mL	+/- 45.9870
6	Phorate	298-02-2	14838600	99%	1,002.0 µg/mL	+/- 45.7435
7	Dimethoate	60-51-5	15053300	99%	1,007.3 µg/mL	+/- 45.9870
8	Disulfoton	298-04-4	15093900	99%	1,008.7 µg/mL	+/- 46.0479
9	Methyl parathion	298-00-0	15220300	99%	1,004.0 µg/mL	+/- 45.8348
10	Parathion (Ethyl parathion)	56-38-2	820087	99%	1,002.7 µg/mL	+/- 45.7740
11	Aramite 2% Isomer 1; 2% Isomer 2; 36% Isomer 3; 60% Isomer 4	140-57-8	15149600	99%	1,006.7 µg/mL	+/- 45.9566
12	Famphur	52-85-7	14625500	99%	1,006.7 µg/mL	+/- 45.9566

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

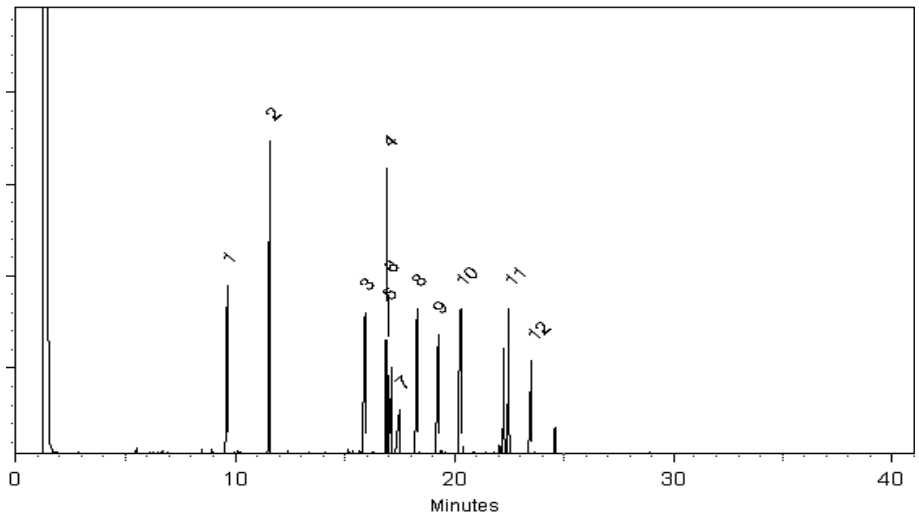
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bethany Lowery - Operations Tech I

Date Mixed: 10-Apr-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 15-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-567681_00286

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567681 **Lot No.:** A0210137

Description : 8270 List 2 / Std #4

8270 List 2 / Std #4 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o,o,o-Triethyl phosphorothioate	126-68-1	2-KRR-57-1	98%	1,002.2 µg/mL	+/- 45.7533
2	Safrole	94-59-7	322225/11292	99%	1,004.7 µg/mL	+/- 45.8653
3	Zinophos (thionazine)	297-97-2	15220400	99%	1,005.3 µg/mL	+/- 45.8957
4	Sulfotepp	3689-24-5	15220200	97%	1,003.6 µg/mL	+/- 45.8178
5	Diallate (cis and trans) 74% cis-Diallate; 26% trans-Diallate	2303-16-4	15057400	99%	1,007.3 µg/mL	+/- 45.9870
6	Phorate	298-02-2	14838600	99%	1,002.0 µg/mL	+/- 45.7435
7	Dimethoate	60-51-5	15053300	99%	1,007.3 µg/mL	+/- 45.9870
8	Disulfoton	298-04-4	15093900	99%	1,008.7 µg/mL	+/- 46.0479
9	Methyl parathion	298-00-0	15220300	99%	1,004.0 µg/mL	+/- 45.8348
10	Parathion (Ethyl parathion)	56-38-2	820087	99%	1,002.7 µg/mL	+/- 45.7740
11	Aramite 2% Isomer 1; 2% Isomer 2; 36% Isomer 3; 60% Isomer 4	140-57-8	15149600	99%	1,006.7 µg/mL	+/- 45.9566
12	Famphur	52-85-7	14625500	99%	1,006.7 µg/mL	+/- 45.9566

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

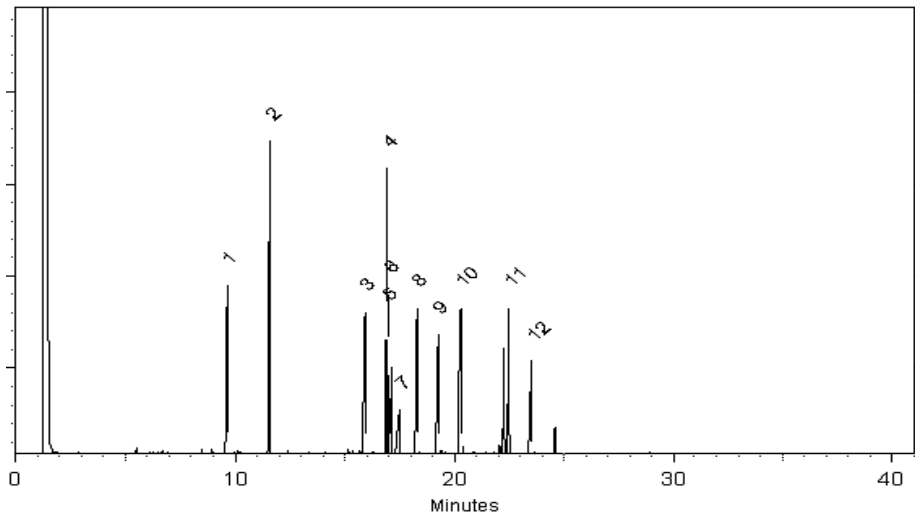
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bethany Lowery - Operations Tech I

Date Mixed: 10-Apr-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 15-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

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$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-567681_00287

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567681 **Lot No.:** A0210137

Description : 8270 List 2 / Std #4

8270 List 2 / Std #4 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o,o,o-Triethyl phosphorothioate	126-68-1	2-KRR-57-1	98%	1,002.2 µg/mL	+/- 45.7533
2	Safrole	94-59-7	322225/11292	99%	1,004.7 µg/mL	+/- 45.8653
3	Zinophos (thionazine)	297-97-2	15220400	99%	1,005.3 µg/mL	+/- 45.8957
4	Sulfotepp	3689-24-5	15220200	97%	1,003.6 µg/mL	+/- 45.8178
5	Diallate (cis and trans) 74% cis-Diallate; 26% trans-Diallate	2303-16-4	15057400	99%	1,007.3 µg/mL	+/- 45.9870
6	Phorate	298-02-2	14838600	99%	1,002.0 µg/mL	+/- 45.7435
7	Dimethoate	60-51-5	15053300	99%	1,007.3 µg/mL	+/- 45.9870
8	Disulfoton	298-04-4	15093900	99%	1,008.7 µg/mL	+/- 46.0479
9	Methyl parathion	298-00-0	15220300	99%	1,004.0 µg/mL	+/- 45.8348
10	Parathion (Ethyl parathion)	56-38-2	820087	99%	1,002.7 µg/mL	+/- 45.7740
11	Aramite 2% Isomer 1; 2% Isomer 2; 36% Isomer 3; 60% Isomer 4	140-57-8	15149600	99%	1,006.7 µg/mL	+/- 45.9566
12	Famphur	52-85-7	14625500	99%	1,006.7 µg/mL	+/- 45.9566

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

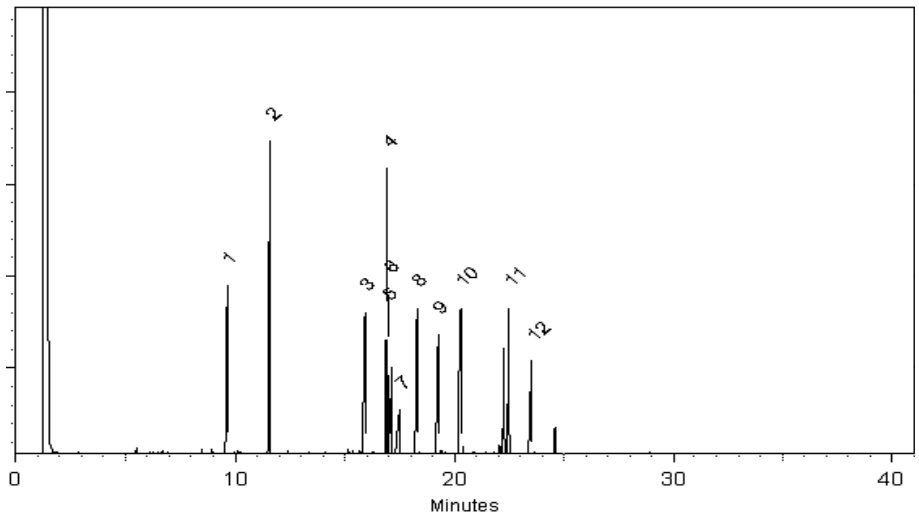
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bethany Lowery - Operations Tech I

Date Mixed: 10-Apr-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 15-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-567681_00288

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

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ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567681 **Lot No.:** A0210137

Description : 8270 List 2 / Std #4

8270 List 2 / Std #4 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o,o,o-Triethyl phosphorothioate	126-68-1	2-KRR-57-1	98%	1,002.2 µg/mL	+/- 45.7533
2	Safrole	94-59-7	322225/11292	99%	1,004.7 µg/mL	+/- 45.8653
3	Zinophos (thionazine)	297-97-2	15220400	99%	1,005.3 µg/mL	+/- 45.8957
4	Sulfotepp	3689-24-5	15220200	97%	1,003.6 µg/mL	+/- 45.8178
5	Diallate (cis and trans) 74% cis-Diallate; 26% trans-Diallate	2303-16-4	15057400	99%	1,007.3 µg/mL	+/- 45.9870
6	Phorate	298-02-2	14838600	99%	1,002.0 µg/mL	+/- 45.7435
7	Dimethoate	60-51-5	15053300	99%	1,007.3 µg/mL	+/- 45.9870
8	Disulfoton	298-04-4	15093900	99%	1,008.7 µg/mL	+/- 46.0479
9	Methyl parathion	298-00-0	15220300	99%	1,004.0 µg/mL	+/- 45.8348
10	Parathion (Ethyl parathion)	56-38-2	820087	99%	1,002.7 µg/mL	+/- 45.7740
11	Aramite 2% Isomer 1; 2% Isomer 2; 36% Isomer 3; 60% Isomer 4	140-57-8	15149600	99%	1,006.7 µg/mL	+/- 45.9566
12	Famphur	52-85-7	14625500	99%	1,006.7 µg/mL	+/- 45.9566

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

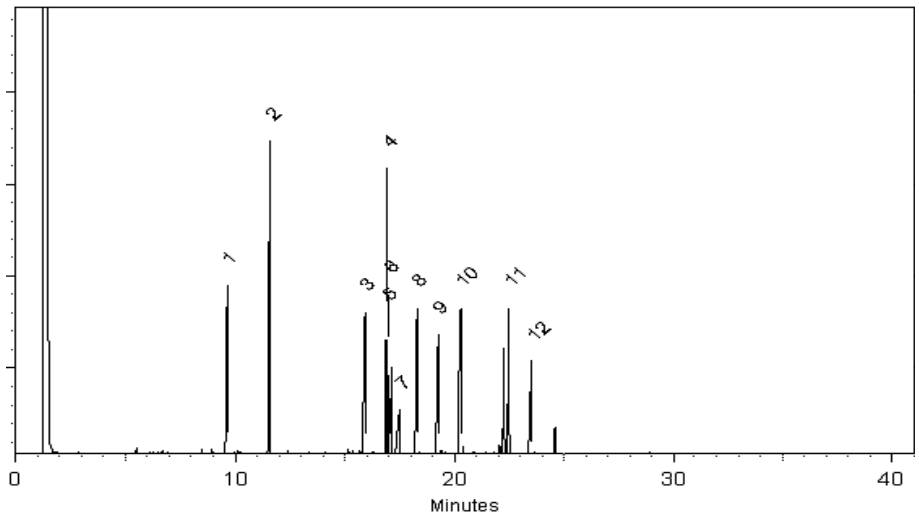
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bethany Lowery - Operations Tech I

Date Mixed: 10-Apr-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 15-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-567681_00289

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567681 **Lot No.:** A0210137

Description : 8270 List 2 / Std #4

8270 List 2 / Std #4 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o,o,o-Triethyl phosphorothioate	126-68-1	2-KRR-57-1	98%	1,002.2 µg/mL	+/- 45.7533
2	Safrole	94-59-7	322225/11292	99%	1,004.7 µg/mL	+/- 45.8653
3	Zinophos (thionazine)	297-97-2	15220400	99%	1,005.3 µg/mL	+/- 45.8957
4	Sulfotepp	3689-24-5	15220200	97%	1,003.6 µg/mL	+/- 45.8178
5	Diallate (cis and trans) 74% cis-Diallate; 26% trans-Diallate	2303-16-4	15057400	99%	1,007.3 µg/mL	+/- 45.9870
6	Phorate	298-02-2	14838600	99%	1,002.0 µg/mL	+/- 45.7435
7	Dimethoate	60-51-5	15053300	99%	1,007.3 µg/mL	+/- 45.9870
8	Disulfoton	298-04-4	15093900	99%	1,008.7 µg/mL	+/- 46.0479
9	Methyl parathion	298-00-0	15220300	99%	1,004.0 µg/mL	+/- 45.8348
10	Parathion (Ethyl parathion)	56-38-2	820087	99%	1,002.7 µg/mL	+/- 45.7740
11	Aramite 2% Isomer 1; 2% Isomer 2; 36% Isomer 3; 60% Isomer 4	140-57-8	15149600	99%	1,006.7 µg/mL	+/- 45.9566
12	Famphur	52-85-7	14625500	99%	1,006.7 µg/mL	+/- 45.9566

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

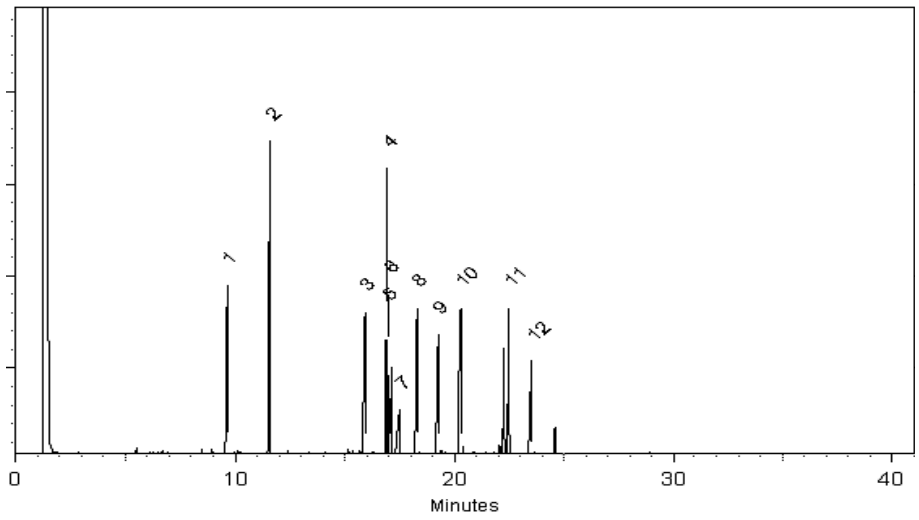
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bethany Lowery - Operations Tech I

Date Mixed: 10-Apr-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 15-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-567681_00290

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Fax: 1-814-353-1309

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Certificate of Analysis

chromatographic plus

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ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567681 **Lot No.:** A0210137

Description : 8270 List 2 / Std #4

8270 List 2 / Std #4 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o,o,o-Triethyl phosphorothioate	126-68-1	2-KRR-57-1	98%	1,002.2 µg/mL	+/- 45.7533
2	Safrole	94-59-7	322225/11292	99%	1,004.7 µg/mL	+/- 45.8653
3	Zinophos (thionazine)	297-97-2	15220400	99%	1,005.3 µg/mL	+/- 45.8957
4	Sulfotepp	3689-24-5	15220200	97%	1,003.6 µg/mL	+/- 45.8178
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7	Dimethoate	60-51-5	15053300	99%	1,007.3 µg/mL	+/- 45.9870
8	Disulfoton	298-04-4	15093900	99%	1,008.7 µg/mL	+/- 46.0479
9	Methyl parathion	298-00-0	15220300	99%	1,004.0 µg/mL	+/- 45.8348
10	Parathion (Ethyl parathion)	56-38-2	820087	99%	1,002.7 µg/mL	+/- 45.7740
11	Aramite 2% Isomer 1; 2% Isomer 2; 36% Isomer 3; 60% Isomer 4	140-57-8	15149600	99%	1,006.7 µg/mL	+/- 45.9566
12	Famphur	52-85-7	14625500	99%	1,006.7 µg/mL	+/- 45.9566

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

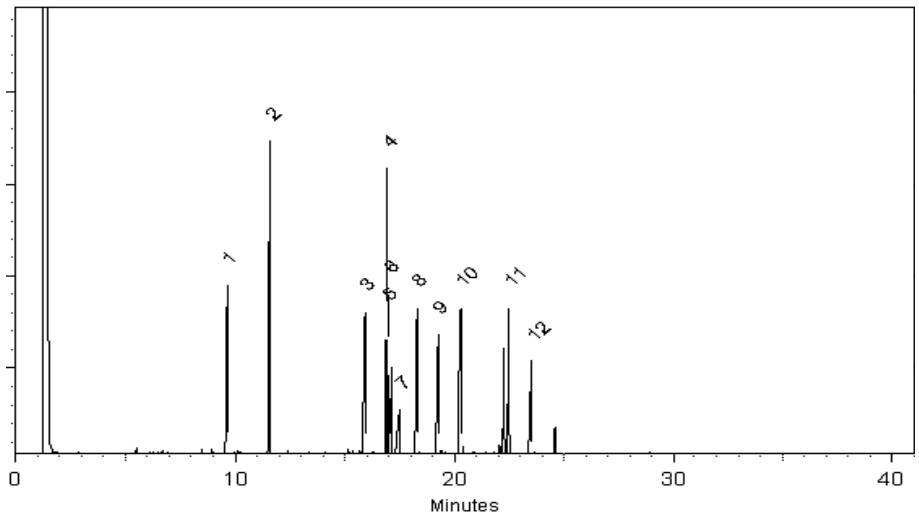
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bethany Lowery - Operations Tech I

Date Mixed: 10-Apr-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 15-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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Manufacturing Notes:

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Handling Notes:

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- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-567681_00291

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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

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Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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Catalog No. : 567681 **Lot No.:** A0210137

Description : 8270 List 2 / Std #4

8270 List 2 / Std #4 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o,o,o-Triethyl phosphorothioate	126-68-1	2-KRR-57-1	98%	1,002.2 µg/mL	+/- 45.7533
2	Safrole	94-59-7	322225/11292	99%	1,004.7 µg/mL	+/- 45.8653
3	Zinophos (thionazine)	297-97-2	15220400	99%	1,005.3 µg/mL	+/- 45.8957
4	Sulfotepp	3689-24-5	15220200	97%	1,003.6 µg/mL	+/- 45.8178
5	Diallate (cis and trans) 74% cis-Diallate; 26% trans-Diallate	2303-16-4	15057400	99%	1,007.3 µg/mL	+/- 45.9870
6	Phorate	298-02-2	14838600	99%	1,002.0 µg/mL	+/- 45.7435
7	Dimethoate	60-51-5	15053300	99%	1,007.3 µg/mL	+/- 45.9870
8	Disulfoton	298-04-4	15093900	99%	1,008.7 µg/mL	+/- 46.0479
9	Methyl parathion	298-00-0	15220300	99%	1,004.0 µg/mL	+/- 45.8348
10	Parathion (Ethyl parathion)	56-38-2	820087	99%	1,002.7 µg/mL	+/- 45.7740
11	Aramite 2% Isomer 1; 2% Isomer 2; 36% Isomer 3; 60% Isomer 4	140-57-8	15149600	99%	1,006.7 µg/mL	+/- 45.9566
12	Famphur	52-85-7	14625500	99%	1,006.7 µg/mL	+/- 45.9566

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

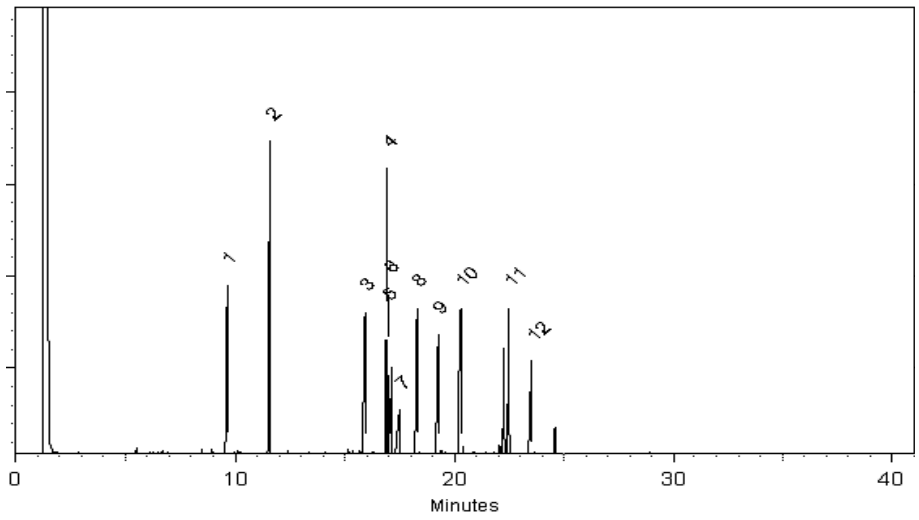
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bethany Lowery - Operations Tech I

Date Mixed: 10-Apr-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 15-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-567681_00292

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567681 **Lot No.:** A0210137

Description : 8270 List 2 / Std #4

8270 List 2 / Std #4 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o,o,o-Triethyl phosphorothioate	126-68-1	2-KRR-57-1	98%	1,002.2 µg/mL	+/- 45.7533
2	Safrole	94-59-7	322225/11292	99%	1,004.7 µg/mL	+/- 45.8653
3	Zinophos (thionazine)	297-97-2	15220400	99%	1,005.3 µg/mL	+/- 45.8957
4	Sulfotepp	3689-24-5	15220200	97%	1,003.6 µg/mL	+/- 45.8178
5	Diallate (cis and trans) 74% cis-Diallate; 26% trans-Diallate	2303-16-4	15057400	99%	1,007.3 µg/mL	+/- 45.9870
6	Phorate	298-02-2	14838600	99%	1,002.0 µg/mL	+/- 45.7435
7	Dimethoate	60-51-5	15053300	99%	1,007.3 µg/mL	+/- 45.9870
8	Disulfoton	298-04-4	15093900	99%	1,008.7 µg/mL	+/- 46.0479
9	Methyl parathion	298-00-0	15220300	99%	1,004.0 µg/mL	+/- 45.8348
10	Parathion (Ethyl parathion)	56-38-2	820087	99%	1,002.7 µg/mL	+/- 45.7740
11	Aramite 2% Isomer 1; 2% Isomer 2; 36% Isomer 3; 60% Isomer 4	140-57-8	15149600	99%	1,006.7 µg/mL	+/- 45.9566
12	Famphur	52-85-7	14625500	99%	1,006.7 µg/mL	+/- 45.9566

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

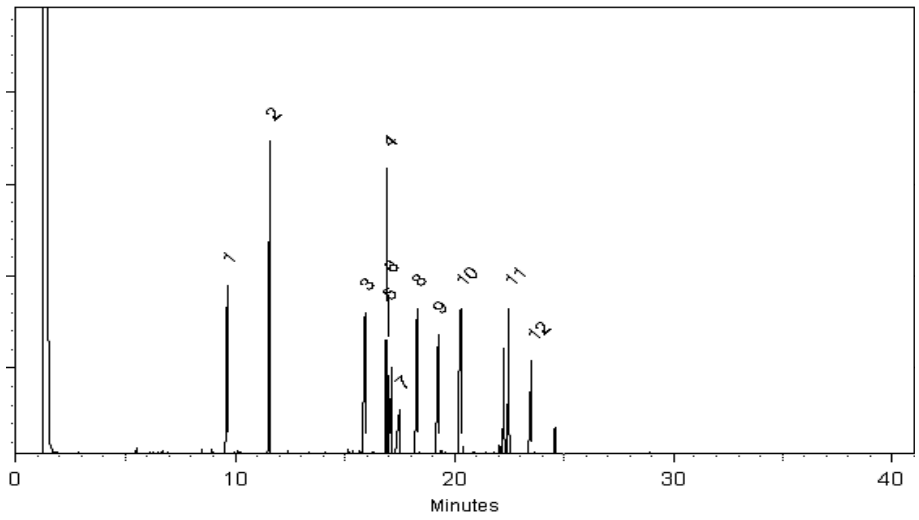
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bethany Lowery - Operations Tech I

Date Mixed: 10-Apr-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 15-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-567682_00116

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567682 **Lot No.:** A0199703

Description : 8270 List 2 / Std #5 Methapyrilene

8270 List 2 / Std #5 Methapyrilene 2,000µg/mL, Methylene chloride, 1mL/ampul
*The reported compound masses are for Methapyrilene HCl. Purity is adjusted to correct for the HCl salt. The reported concentration is of Methapyrilene.

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2025 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methapyrilene hydrochloride	135-23-9	3-JLW-10-1	87%	2,001.0 µg/mL	+/- 37.0044

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:
*The reported compound masses are for Methapyrilene HCl. Purity is adjusted to correct for the HCl salt. The reported concentration is of Methapyrilene, CAS # 91-80-5

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

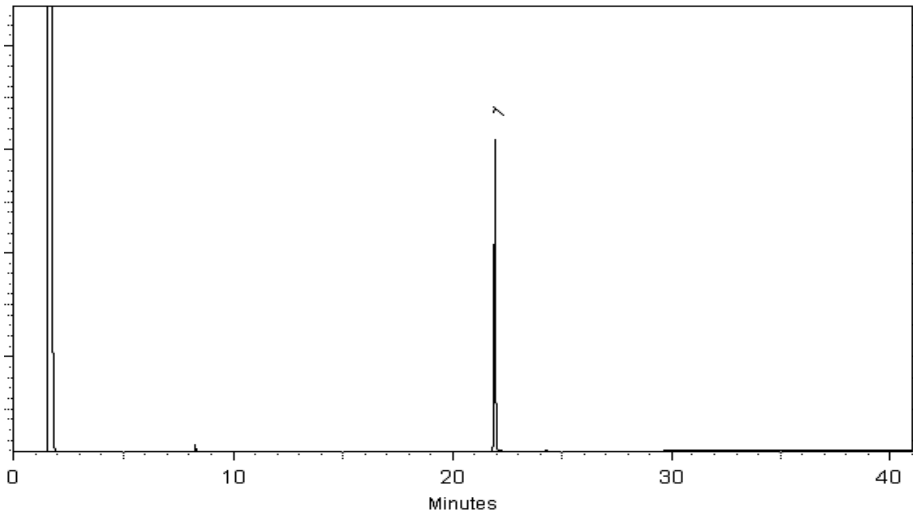
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 07-Jul-2023 **Balance Serial #** B442140311

Amanda Miller - Operations Tech III - ARM QC

Date Passed: 18-Jul-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-567682_00128

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CERTIFIED REFERENCE MATERIAL

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ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

Certificate of Analysis

chromatographic plus

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567682 **Lot No.:** A0205900

Description : 8270 List 2 / Std #5 Methapyrilene

8270 List 2 / Std #5 Methapyrilene 2,000µg/mL, Methylene chloride, 1mL/ampul
*The reported compound masses are for Methapyrilene HCl. Purity is adjusted to correct for the HCl salt. The reported concentration is of Methapyrilene.

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2025 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methapyrilene hydrochloride	135-23-9	3-JLW-10-1	87%	1,999.9 µg/mL	+/- 37.0297

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:
*The reported compound masses are for Methapyrilene HCl. Purity is adjusted to correct for the HCl salt. The reported concentration is of Methapyrilene, CAS # 91-80-5

Page 859 of 3951

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

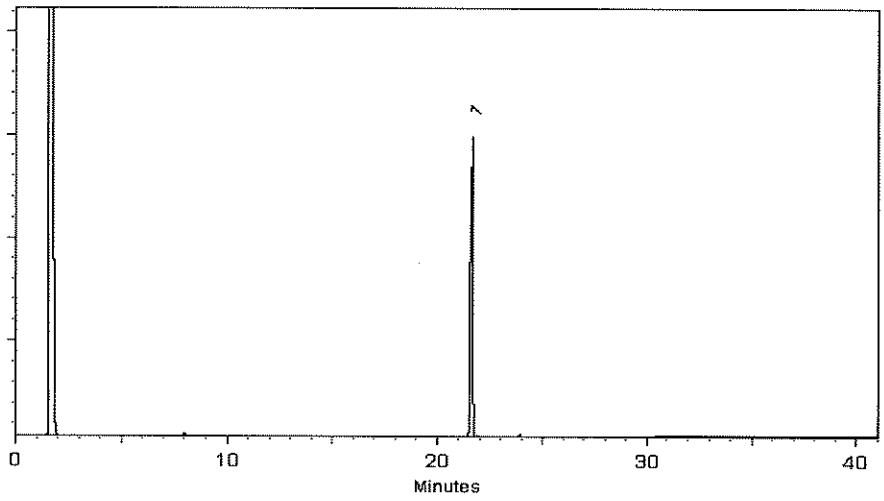
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 23-Dec-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 28-Dec-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-567682_00129

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567682 **Lot No.:** A0205900

Description : 8270 List 2 / Std #5 Methapyrilene

8270 List 2 / Std #5 Methapyrilene 2,000µg/mL, Methylene chloride, 1mL/ampul
*The reported compound masses are for Methapyrilene HCl. Purity is adjusted to correct for the HCl salt. The reported concentration is of Methapyrilene.

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2025 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

Page 863 of 3951

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methapyrilene hydrochloride	135-23-9	3-JLW-10-1	87%	1,999.9 µg/mL	+/- 37.0297

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:
*The reported compound masses are for Methapyrilene HCl. Purity is adjusted to correct for the HCl salt. The reported concentration is of Methapyrilene, CAS # 91-80-5

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

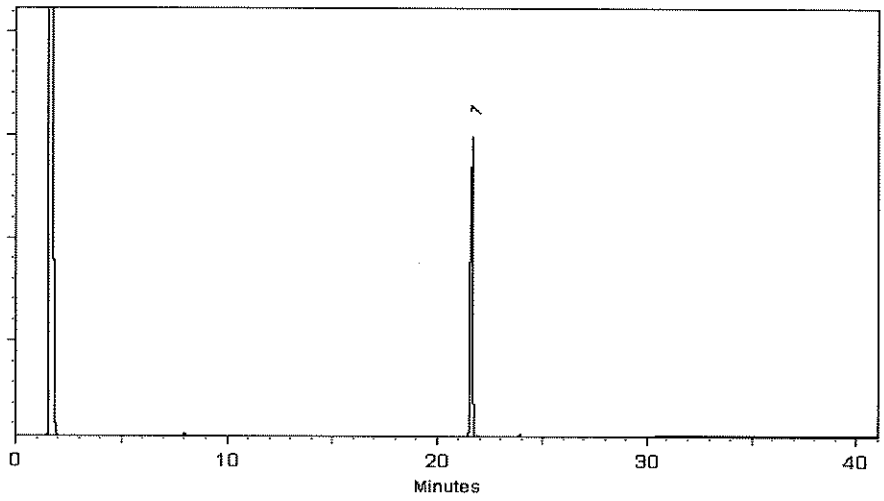
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 23-Dec-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 28-Dec-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-567682_00130

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/23/2024 4:40:30 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567682 **Lot No.:** A0205900

Description : 8270 List 2 / Std #5 Methapyrilene

8270 List 2 / Std #5 Methapyrilene 2,000µg/mL, Methylene chloride, 1mL/ampul
*The reported compound masses are for Methapyrilene HCl. Purity is adjusted to correct for the HCl salt. The reported concentration is of Methapyrilene.

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2025 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

Page 867 of 3951

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methapyrilene hydrochloride	135-23-9	3-JLW-10-1	87%	1,999.9 µg/mL	+/- 37.0297

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:
*The reported compound masses are for Methapyrilene HCl. Purity is adjusted to correct for the HCl salt. The reported concentration is of Methapyrilene, CAS # 91-80-5

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

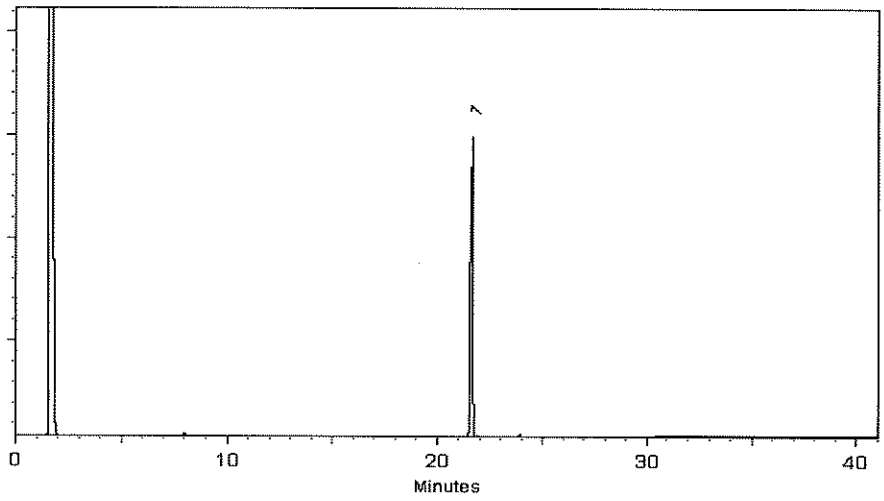
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 23-Dec-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 28-Dec-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-568727_00147

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568727 **Lot No.:** A0203894

Description : 8270 List 2/ Std #8 Dibenz(a,j)acridine

8270 List 2/ Std #8 Dibenz(a,j)acridine 2,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2026 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dibenz(a,j)acridine	224-42-0	0012011	97%	2,013.7 µg/mL	+/- 91.8692

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

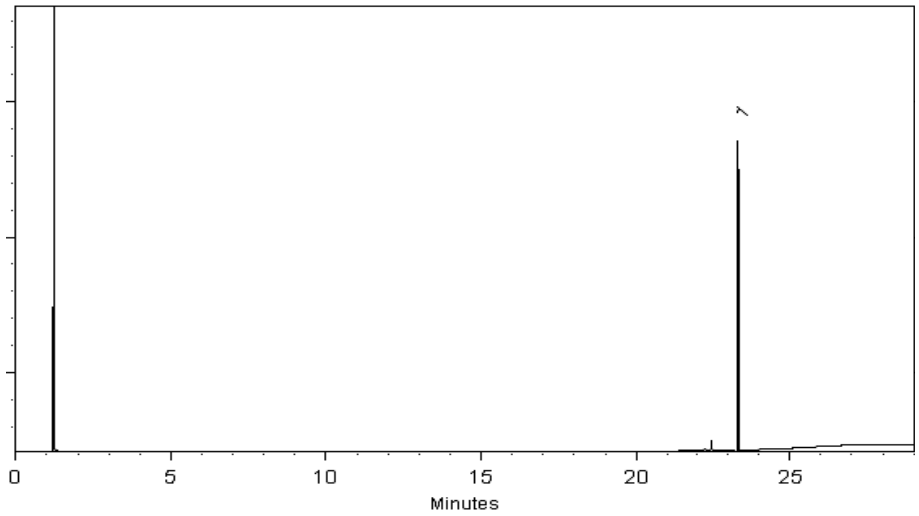
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dakota Parson - Operations Technician I

Date Mixed: 31-Oct-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 09-Nov-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-568727_00148

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568727 **Lot No.:** A0203894

Description : 8270 List 2/ Std #8 Dibenz(a,j)acridine

8270 List 2/ Std #8 Dibenz(a,j)acridine 2,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2026 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dibenz(a,j)acridine	224-42-0	0012011	97%	2,013.7 µg/mL	+/- 91.8692

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

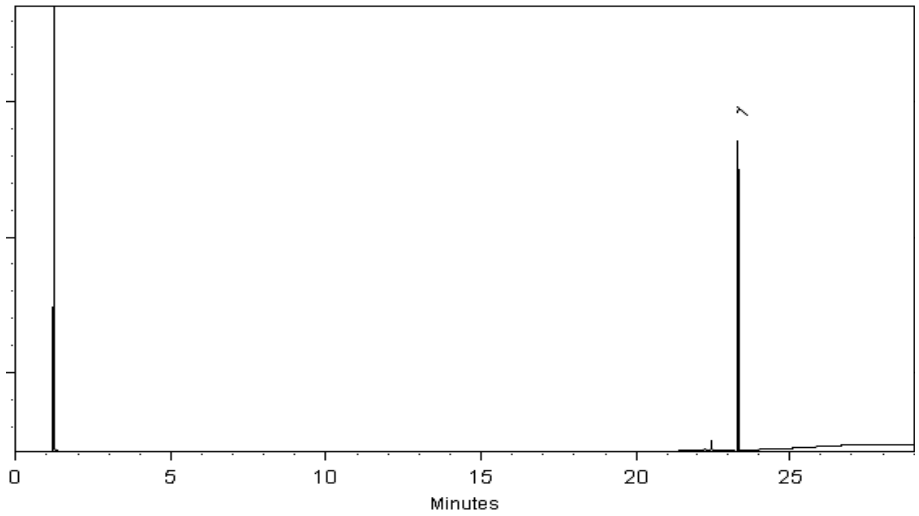
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dakota Parson - Operations Technician I

Date Mixed: 31-Oct-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 09-Nov-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-568727_00149

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Catalog No. : 568727 **Lot No.:** A0203894

Description : 8270 List 2/ Std #8 Dibenz(a,j)acridine

8270 List 2/ Std #8 Dibenz(a,j)acridine 2,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2026 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dibenz(a,j)acridine	224-42-0	0012011	97%	2,013.7 µg/mL	+/- 91.8692

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

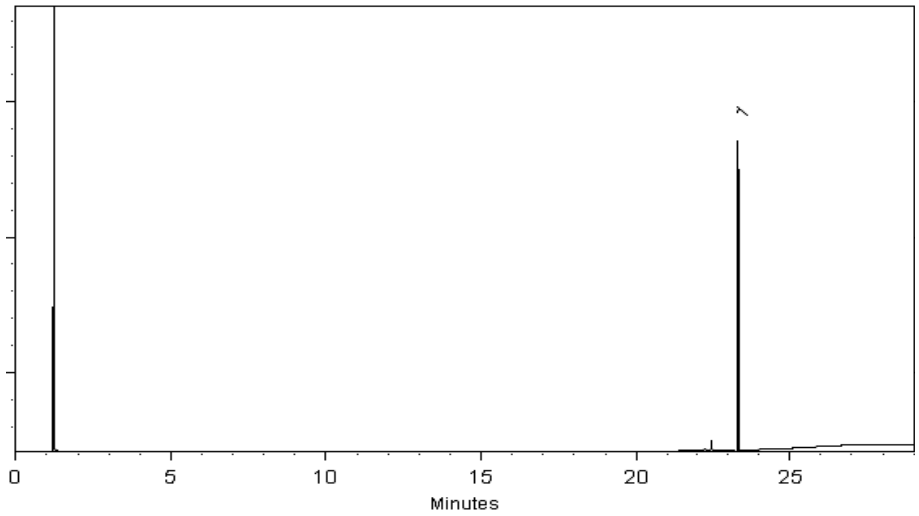
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dakota Parson - Operations Technician I

Date Mixed: 31-Oct-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 09-Nov-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-568727_00150

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Catalog No. : 568727 **Lot No.:** A0203894

Description : 8270 List 2/ Std #8 Dibenz(a,j)acridine

8270 List 2/ Std #8 Dibenz(a,j)acridine 2,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2026 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dibenz(a,j)acridine	224-42-0	0012011	97%	2,013.7 µg/mL	+/- 91.8692

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

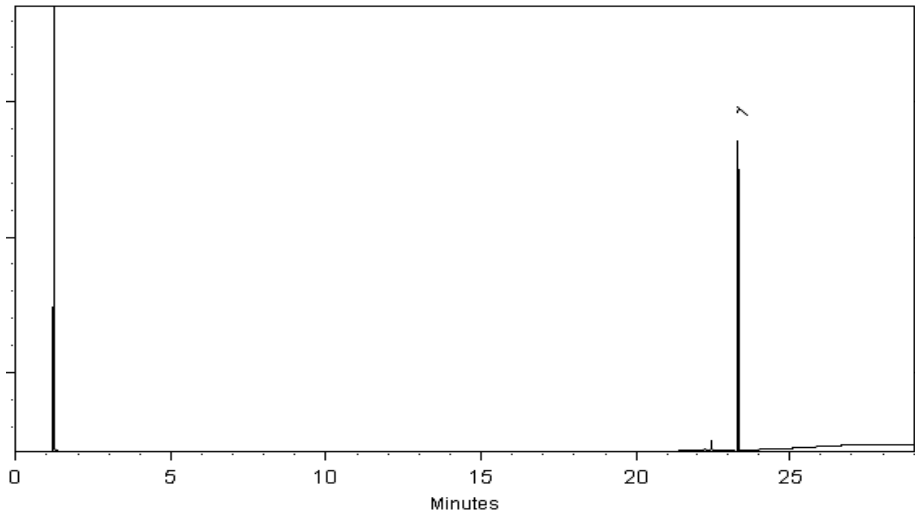
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
0.2µl



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Dakota Parson - Operations Technician I

Date Mixed: 31-Oct-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 09-Nov-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

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- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569730_00246

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Catalog No. : 569730 **Lot No.:** A0201346

Description : 8270 List 1 / Std #9

8270 List 1 / Std #9 2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : February 28, 2025 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Benzidine	92-87-5	S230609RSRB	99%	2,006.0 µg/mL	+/- 37.0623
2	3,3'-Dichlorobenzidine	91-94-1	S230321RSR	99%	2,002.0 µg/mL	+/- 36.9884

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

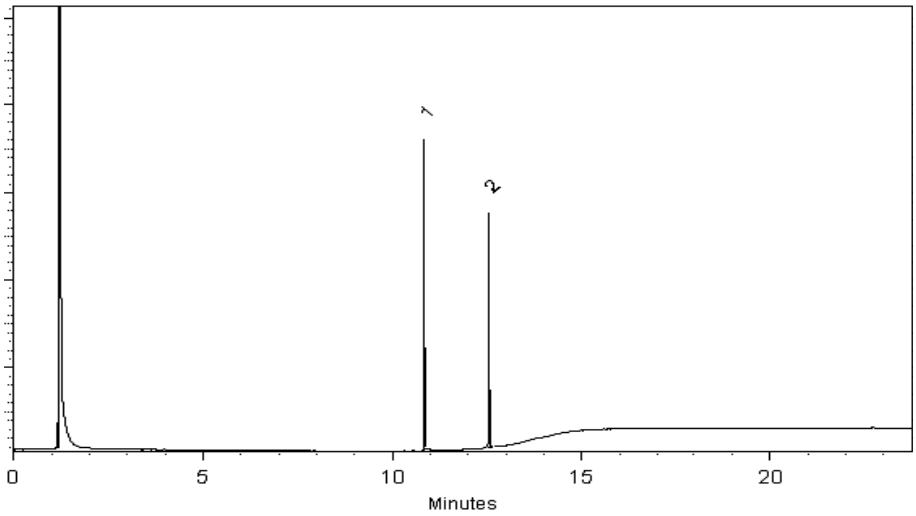
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 24-Aug-2023 **Balance Serial #** 1122030677

Christie Mills - Operations Lead Tech - ARM QC

Date Passed: 30-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569731_00081

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569731 **Lot No.:** A0193718

Description : 8270 List 1 / Std #10

8270 List 1 / Std #10 2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : July 31, 2024 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Indene	95-13-6	RD221018	98%	2,007.2 µg/mL	+/- 112.7560
2	Benzoic acid	65-85-0	MKCL7479	99%	2,009.9 µg/mL	+/- 112.9084

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

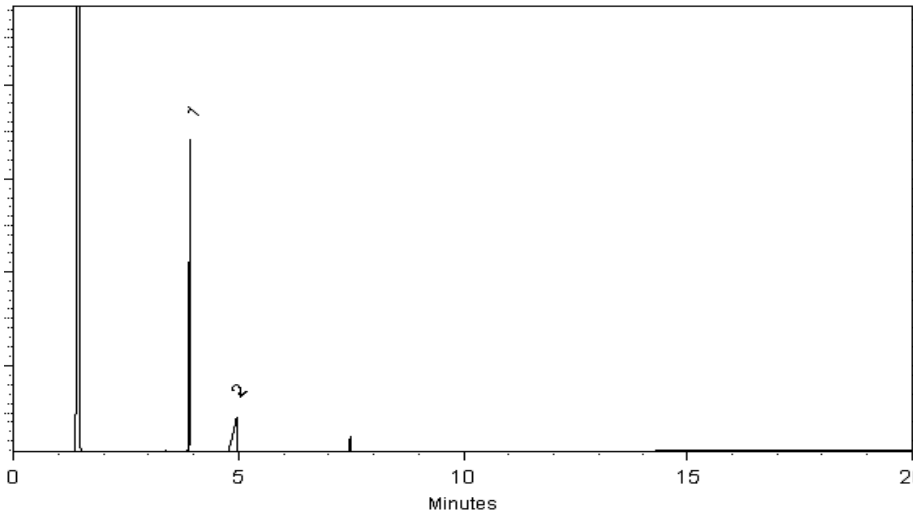
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 18-Jan-2023 **Balance Serial #** 1128360905

Christie Mills - Operations Tech II - ARM QC

Date Passed: 23-Jan-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569731_00082

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ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569731 **Lot No.:** A0193718

Description : 8270 List 1 / Std #10

8270 List 1 / Std #10 2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : July 31, 2024 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Indene	95-13-6	RD221018	98%	2,007.2 µg/mL	+/- 112.7560
2	Benzoic acid	65-85-0	MKCL7479	99%	2,009.9 µg/mL	+/- 112.9084

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

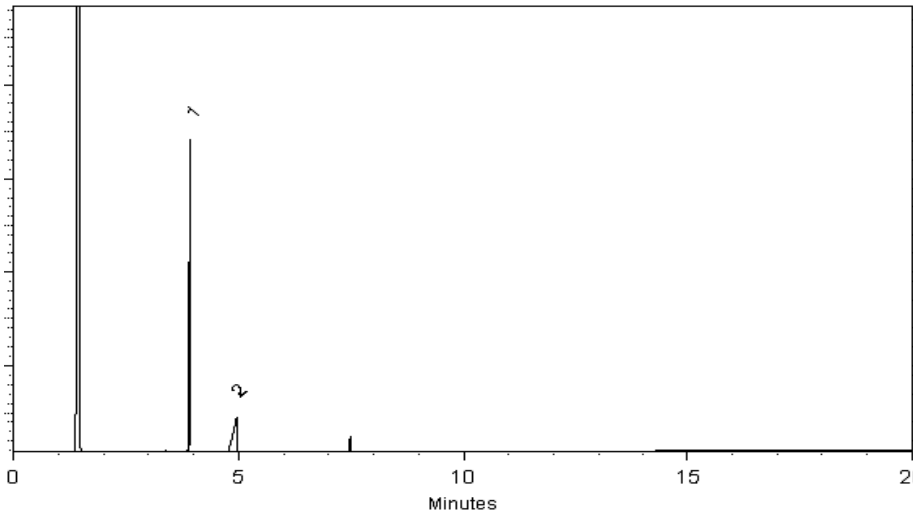
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 18-Jan-2023 **Balance Serial #** 1128360905

Christie Mills - Operations Tech II - ARM QC

Date Passed: 23-Jan-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569731_00098

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569731 **Lot No.:** A0199925

Description : 8270 List 1 / Std #10

8270 List 1 / Std #10 2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2025 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Indene	95-13-6	RD221018	98%	2,005.1 µg/mL	+/- 112.6381
2	Benzoic acid	65-85-0	MKCL7479	99%	2,002.0 µg/mL	+/- 112.4616

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

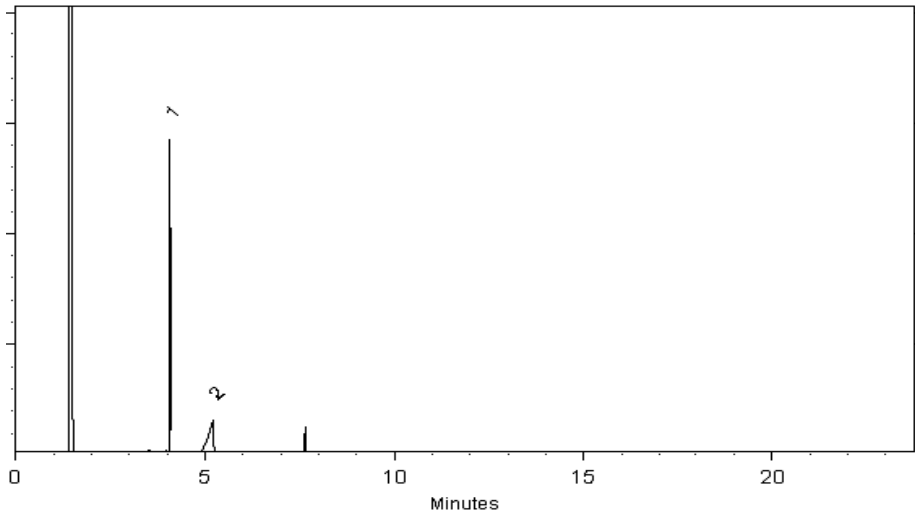
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 16-Jul-2023 **Balance Serial #** 1128360905

Amanda Miller - Operations Tech III - ARM QC

Date Passed: 18-Jul-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569732_00149

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569732 **Lot No.:** A0200906

Description : 8270 List 1 / Std #11

8270 List 1 / Std #11 2,000µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : February 28, 2025 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Benzaldehyde	100-52-7	RD230209RSRA	99%	2,007.8 µg/mL	+/- 58.9672
2	epsilon-Caprolactam	105-60-2	I16X016	99%	2,008.0 µg/mL	+/- 58.9746
3	Atrazine	1912-24-9	5FYWL	99%	2,003.5 µg/mL	+/- 58.8424

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

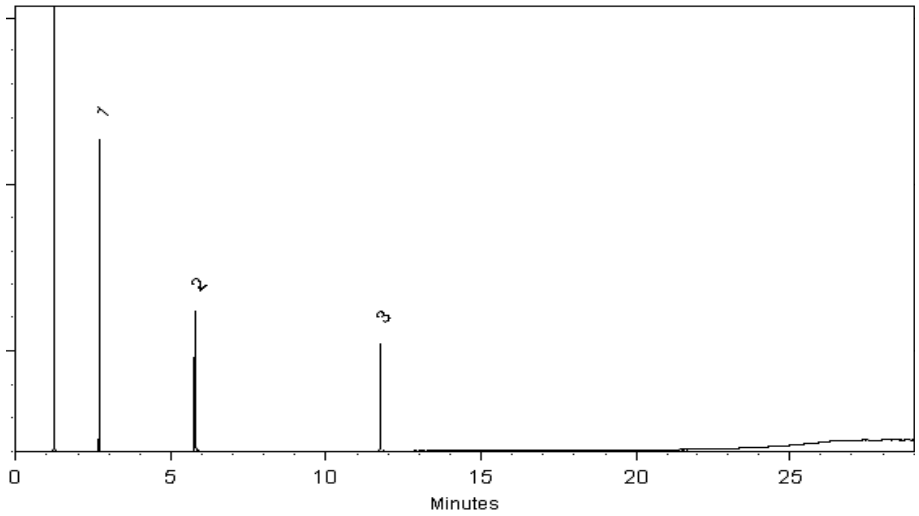
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I

Date Mixed: 11-Aug-2023 **Balance Serial #** 1128360905

Dillan Murphy - Operations Technician I

Date Passed: 17-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569733_00282

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CERTIFIED REFERENCE MATERIAL

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ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569733 **Lot No.:** A0204102

Description : 8270 List 2 / Std #2 (2015)

8270 List 2 / Std #2 (2015) 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2024 **Storage:** -20°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methyl methanesulfonate	66-27-3	MKCM5645	99%	1,010.0 µg/mL	+/- 23.1865
2	Ethyl methanesulfonate	62-50-0	H6VUB	99%	1,010.0 µg/mL	+/- 23.1865
3	Pentachloroethane	76-01-7	13550700	97%	1,009.8 µg/mL	+/- 23.1812
4	Hexachloropropene	1888-71-7	44391/3	99%	1,010.0 µg/mL	+/- 23.1865
5	Isosafrole (cis & trans) 16% cis; 84% trans	120-58-1	MKBZ0058V	97%	1,007.8 µg/mL	+/- 23.1367
6	1-Chloronaphthalene	90-13-1	K2OBC	99%	1,010.0 µg/mL	+/- 23.1865
7	1,4-Naphthoquinone	130-15-4	14226100	99%	1,010.0 µg/mL	+/- 23.1865
8	Pentachlorobenzene	608-93-5	MKCD4132	99%	1,010.0 µg/mL	+/- 23.1865
9	2,3,5,6-Tetrachlorophenol	935-95-5	RP230513	99%	1,010.0 µg/mL	+/- 23.1865
10	Dinoseb	88-85-7	50001	98%	1,009.4 µg/mL	+/- 23.1727
11	Isodrin	465-73-6	14507900	98%	1,008.4 µg/mL	+/- 23.1502
12	Chlorobenzilate	510-15-6	14624300	99%	1,009.0 µg/mL	+/- 23.1635
13	7,12-Dimethylbenz(a)anthracene	57-97-6	LUQXO	99%	1,009.0 µg/mL	+/- 23.1635

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

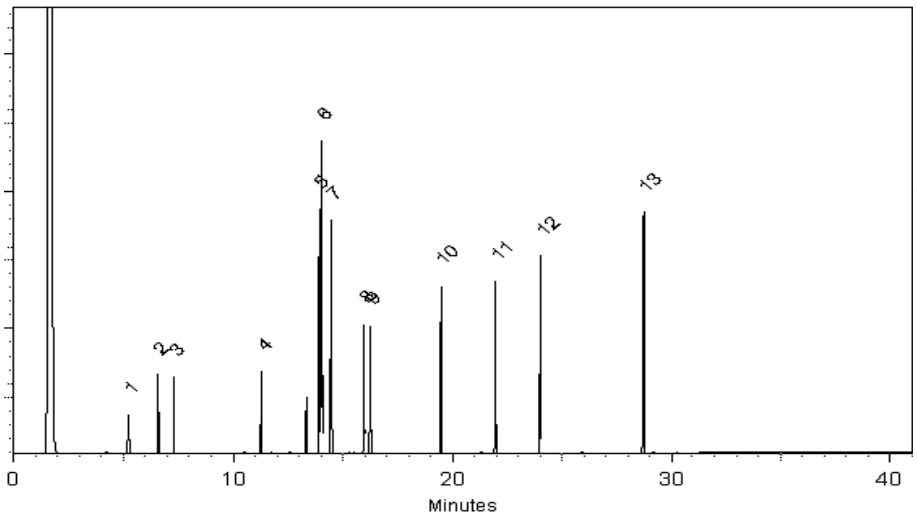
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dakota Parson - Operations Technician I

Date Mixed: 03-Nov-2023 **Balance Serial #** 1128360905

Dillan Murphy - Operations Technician I

Date Passed: 08-Nov-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569733_00300

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569733 **Lot No.:** A0210015

Description : 8270 List 2 / Std #2 (2015)

8270 List 2 / Std #2 (2015) 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** -20°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methyl methanesulfonate	66-27-3	MKCM5645	99%	1,006.0 µg/mL	+/- 23.0947
2	Ethyl methanesulfonate	62-50-0	H6VUB	99%	1,003.0 µg/mL	+/- 23.0258
3	Pentachloroethane	76-01-7	13550700	97%	999.1 µg/mL	+/- 22.9363
4	Hexachloropropene	1888-71-7	44391/3	99%	1,003.0 µg/mL	+/- 23.0258
5	Isosafrole (cis & trans) 16% cis; 84% trans	120-58-1	MKBZ0058V	97%	1,002.0 µg/mL	+/- 23.0031
6	1-Chloronaphthalene	90-13-1	TXRHO	98%	1,002.5 µg/mL	+/- 23.0152
7	1,4-Naphthoquinone	130-15-4	KKMWB	99%	1,002.0 µg/mL	+/- 23.0028
8	Pentachlorobenzene	608-93-5	MKCS7191	99%	1,001.0 µg/mL	+/- 22.9799
9	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,000.0 µg/mL	+/- 22.9569
10	Dinoseb	88-85-7	50001	99%	1,000.0 µg/mL	+/- 22.9569
11	Isodrin	465-73-6	14507900	98%	1,005.5 µg/mL	+/- 23.0827
12	Chlorobenzilate	510-15-6	15121900	99%	1,008.0 µg/mL	+/- 23.1406
13	7,12-Dimethylbenz(a)anthracene	57-97-6	BJR5G	99%	1,002.0 µg/mL	+/- 23.0028

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

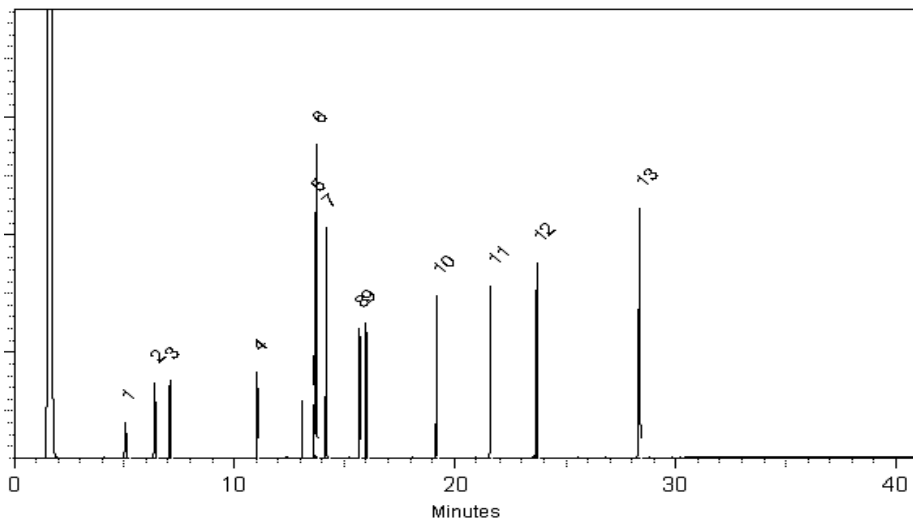
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Josh McCloskey - Operations Technician I

Date Mixed: 09-Apr-2024 **Balance Serial #** B442140311

Marlina Cowan -- Operations Tech II ARM QC

Date Passed: 18-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569733_00301

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569733 **Lot No.:** A0210015

Description : 8270 List 2 / Std #2 (2015)

8270 List 2 / Std #2 (2015) 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** -20°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methyl methanesulfonate	66-27-3	MKCM5645	99%	1,006.0 µg/mL	+/- 23.0947
2	Ethyl methanesulfonate	62-50-0	H6VUB	99%	1,003.0 µg/mL	+/- 23.0258
3	Pentachloroethane	76-01-7	13550700	97%	999.1 µg/mL	+/- 22.9363
4	Hexachloropropene	1888-71-7	44391/3	99%	1,003.0 µg/mL	+/- 23.0258
5	Isosafrole (cis & trans) 16% cis; 84% trans	120-58-1	MKBZ0058V	97%	1,002.0 µg/mL	+/- 23.0031
6	1-Chloronaphthalene	90-13-1	TXRHO	98%	1,002.5 µg/mL	+/- 23.0152
7	1,4-Naphthoquinone	130-15-4	KKMWB	99%	1,002.0 µg/mL	+/- 23.0028
8	Pentachlorobenzene	608-93-5	MKCS7191	99%	1,001.0 µg/mL	+/- 22.9799
9	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,000.0 µg/mL	+/- 22.9569
10	Dinoseb	88-85-7	50001	99%	1,000.0 µg/mL	+/- 22.9569
11	Isodrin	465-73-6	14507900	98%	1,005.5 µg/mL	+/- 23.0827
12	Chlorobenzilate	510-15-6	15121900	99%	1,008.0 µg/mL	+/- 23.1406
13	7,12-Dimethylbenz(a)anthracene	57-97-6	BJR5G	99%	1,002.0 µg/mL	+/- 23.0028

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

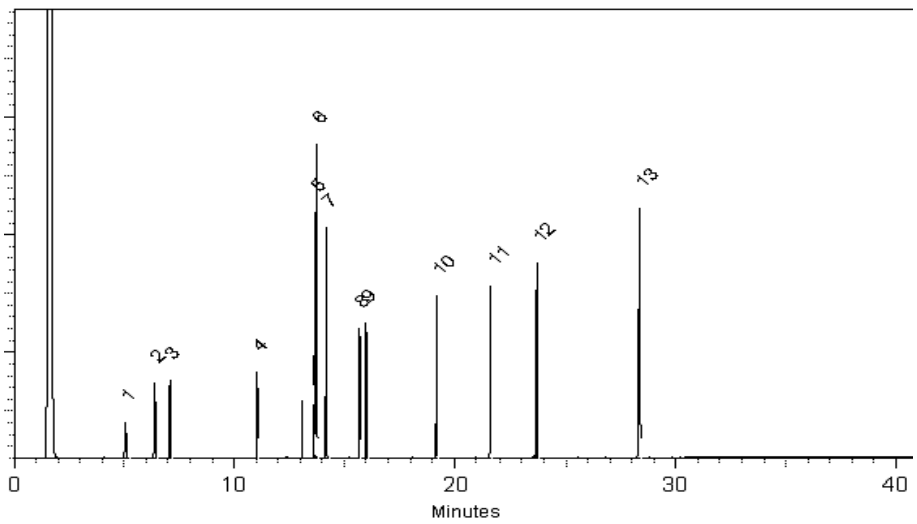
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Josh McCloskey - Operations Technician I

Date Mixed: 09-Apr-2024 **Balance Serial #** B442140311

Marlina Cowan -- Operations Tech II ARM QC

Date Passed: 18-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569733_00302

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www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569733 **Lot No.:** A0210015

Description : 8270 List 2 / Std #2 (2015)

8270 List 2 / Std #2 (2015) 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** -20°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methyl methanesulfonate	66-27-3	MKCM5645	99%	1,006.0 µg/mL	+/- 23.0947
2	Ethyl methanesulfonate	62-50-0	H6VUB	99%	1,003.0 µg/mL	+/- 23.0258
3	Pentachloroethane	76-01-7	13550700	97%	999.1 µg/mL	+/- 22.9363
4	Hexachloropropene	1888-71-7	44391/3	99%	1,003.0 µg/mL	+/- 23.0258
5	Isosafrole (cis & trans) 16% cis; 84% trans	120-58-1	MKBZ0058V	97%	1,002.0 µg/mL	+/- 23.0031
6	1-Chloronaphthalene	90-13-1	TXRHO	98%	1,002.5 µg/mL	+/- 23.0152
7	1,4-Naphthoquinone	130-15-4	KKMWB	99%	1,002.0 µg/mL	+/- 23.0028
8	Pentachlorobenzene	608-93-5	MKCS7191	99%	1,001.0 µg/mL	+/- 22.9799
9	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,000.0 µg/mL	+/- 22.9569
10	Dinoseb	88-85-7	50001	99%	1,000.0 µg/mL	+/- 22.9569
11	Isodrin	465-73-6	14507900	98%	1,005.5 µg/mL	+/- 23.0827
12	Chlorobenzilate	510-15-6	15121900	99%	1,008.0 µg/mL	+/- 23.1406
13	7,12-Dimethylbenz(a)anthracene	57-97-6	BJR5G	99%	1,002.0 µg/mL	+/- 23.0028

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

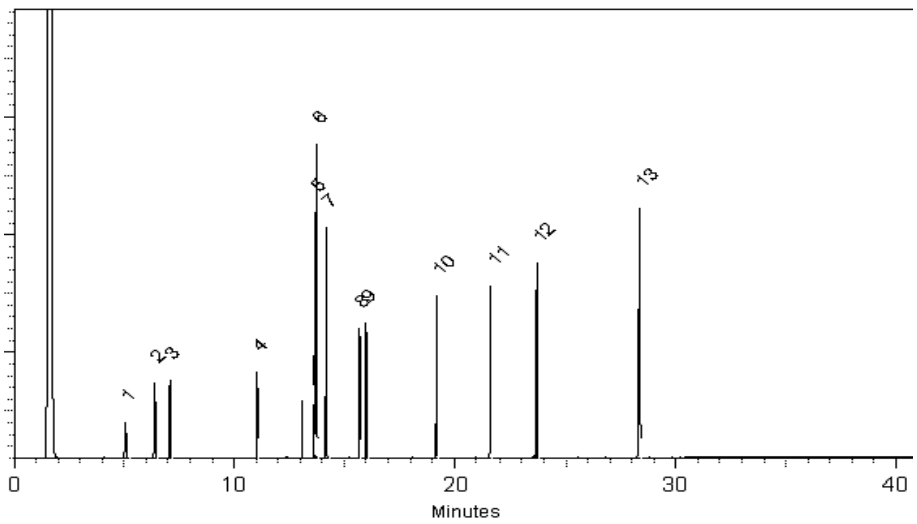
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Josh McCloskey - Operations Technician I

Date Mixed: 09-Apr-2024 **Balance Serial #** B442140311

Marlina Cowan -- Operations Tech II ARM QC

Date Passed: 18-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569733_00303

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Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569733 **Lot No.:** A0210015

Description : 8270 List 2 / Std #2 (2015)

8270 List 2 / Std #2 (2015) 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** -20°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methyl methanesulfonate	66-27-3	MKCM5645	99%	1,006.0 µg/mL	+/- 23.0947
2	Ethyl methanesulfonate	62-50-0	H6VUB	99%	1,003.0 µg/mL	+/- 23.0258
3	Pentachloroethane	76-01-7	13550700	97%	999.1 µg/mL	+/- 22.9363
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5	Isosafrole (cis & trans) 16% cis; 84% trans	120-58-1	MKBZ0058V	97%	1,002.0 µg/mL	+/- 23.0031
6	1-Chloronaphthalene	90-13-1	TXRHO	98%	1,002.5 µg/mL	+/- 23.0152
7	1,4-Naphthoquinone	130-15-4	KKMWB	99%	1,002.0 µg/mL	+/- 23.0028
8	Pentachlorobenzene	608-93-5	MKCS7191	99%	1,001.0 µg/mL	+/- 22.9799
9	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,000.0 µg/mL	+/- 22.9569
10	Dinoseb	88-85-7	50001	99%	1,000.0 µg/mL	+/- 22.9569
11	Isodrin	465-73-6	14507900	98%	1,005.5 µg/mL	+/- 23.0827
12	Chlorobenzilate	510-15-6	15121900	99%	1,008.0 µg/mL	+/- 23.1406
13	7,12-Dimethylbenz(a)anthracene	57-97-6	BJR5G	99%	1,002.0 µg/mL	+/- 23.0028

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

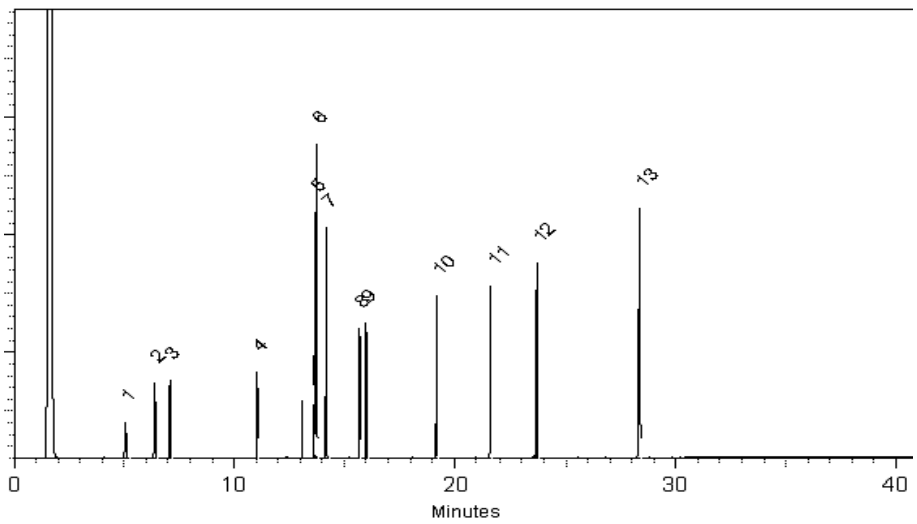
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Josh McCloskey - Operations Technician I

Date Mixed: 09-Apr-2024 **Balance Serial #** B442140311

Marlina Cowan -- Operations Tech II ARM QC

Date Passed: 18-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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Manufacturing Notes:

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Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569733_00304

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CERTIFIED REFERENCE MATERIAL

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ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569733 **Lot No.:** A0210015

Description : 8270 List 2 / Std #2 (2015)

8270 List 2 / Std #2 (2015) 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** -20°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methyl methanesulfonate	66-27-3	MKCM5645	99%	1,006.0 µg/mL	+/- 23.0947
2	Ethyl methanesulfonate	62-50-0	H6VUB	99%	1,003.0 µg/mL	+/- 23.0258
3	Pentachloroethane	76-01-7	13550700	97%	999.1 µg/mL	+/- 22.9363
4	Hexachloropropene	1888-71-7	44391/3	99%	1,003.0 µg/mL	+/- 23.0258
5	Isosafrole (cis & trans) 16% cis; 84% trans	120-58-1	MKBZ0058V	97%	1,002.0 µg/mL	+/- 23.0031
6	1-Chloronaphthalene	90-13-1	TXRHO	98%	1,002.5 µg/mL	+/- 23.0152
7	1,4-Naphthoquinone	130-15-4	KKMWB	99%	1,002.0 µg/mL	+/- 23.0028
8	Pentachlorobenzene	608-93-5	MKCS7191	99%	1,001.0 µg/mL	+/- 22.9799
9	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,000.0 µg/mL	+/- 22.9569
10	Dinoseb	88-85-7	50001	99%	1,000.0 µg/mL	+/- 22.9569
11	Isodrin	465-73-6	14507900	98%	1,005.5 µg/mL	+/- 23.0827
12	Chlorobenzilate	510-15-6	15121900	99%	1,008.0 µg/mL	+/- 23.1406
13	7,12-Dimethylbenz(a)anthracene	57-97-6	BJR5G	99%	1,002.0 µg/mL	+/- 23.0028

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

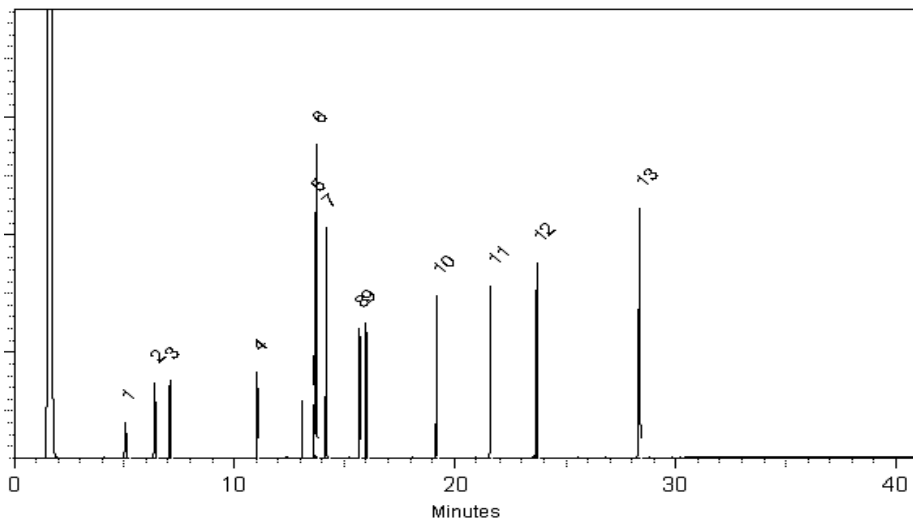
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Josh McCloskey - Operations Technician I

Date Mixed: 09-Apr-2024 **Balance Serial #** B442140311

Marlina Cowan -- Operations Tech II ARM QC

Date Passed: 18-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569733_00305

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569733 **Lot No.:** A0210015

Description : 8270 List 2 / Std #2 (2015)

8270 List 2 / Std #2 (2015) 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** -20°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methyl methanesulfonate	66-27-3	MKCM5645	99%	1,006.0 µg/mL	+/- 23.0947
2	Ethyl methanesulfonate	62-50-0	H6VUB	99%	1,003.0 µg/mL	+/- 23.0258
3	Pentachloroethane	76-01-7	13550700	97%	999.1 µg/mL	+/- 22.9363
4	Hexachloropropene	1888-71-7	44391/3	99%	1,003.0 µg/mL	+/- 23.0258
5	Isosafrole (cis & trans) 16% cis; 84% trans	120-58-1	MKBZ0058V	97%	1,002.0 µg/mL	+/- 23.0031
6	1-Chloronaphthalene	90-13-1	TXRHO	98%	1,002.5 µg/mL	+/- 23.0152
7	1,4-Naphthoquinone	130-15-4	KKMWB	99%	1,002.0 µg/mL	+/- 23.0028
8	Pentachlorobenzene	608-93-5	MKCS7191	99%	1,001.0 µg/mL	+/- 22.9799
9	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,000.0 µg/mL	+/- 22.9569
10	Dinoseb	88-85-7	50001	99%	1,000.0 µg/mL	+/- 22.9569
11	Isodrin	465-73-6	14507900	98%	1,005.5 µg/mL	+/- 23.0827
12	Chlorobenzilate	510-15-6	15121900	99%	1,008.0 µg/mL	+/- 23.1406
13	7,12-Dimethylbenz(a)anthracene	57-97-6	BJR5G	99%	1,002.0 µg/mL	+/- 23.0028

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

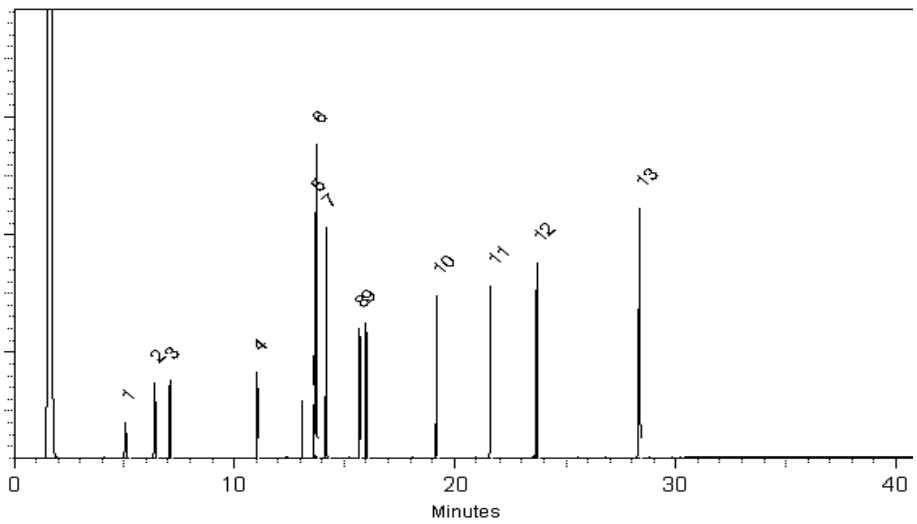
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Josh McCloskey - Operations Technician I

Date Mixed: 09-Apr-2024 **Balance Serial #** B442140311

Marlina Cowan -- Operations Tech II ARM QC

Date Passed: 18-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569733_00306

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

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ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569733 **Lot No.:** A0210015

Description : 8270 List 2 / Std #2 (2015)

8270 List 2 / Std #2 (2015) 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** -20°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methyl methanesulfonate	66-27-3	MKCM5645	99%	1,006.0 µg/mL	+/- 23.0947
2	Ethyl methanesulfonate	62-50-0	H6VUB	99%	1,003.0 µg/mL	+/- 23.0258
3	Pentachloroethane	76-01-7	13550700	97%	999.1 µg/mL	+/- 22.9363
4	Hexachloropropene	1888-71-7	44391/3	99%	1,003.0 µg/mL	+/- 23.0258
5	Isosafrole (cis & trans) 16% cis; 84% trans	120-58-1	MKBZ0058V	97%	1,002.0 µg/mL	+/- 23.0031
6	1-Chloronaphthalene	90-13-1	TXRHO	98%	1,002.5 µg/mL	+/- 23.0152
7	1,4-Naphthoquinone	130-15-4	KKMWB	99%	1,002.0 µg/mL	+/- 23.0028
8	Pentachlorobenzene	608-93-5	MKCS7191	99%	1,001.0 µg/mL	+/- 22.9799
9	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,000.0 µg/mL	+/- 22.9569
10	Dinoseb	88-85-7	50001	99%	1,000.0 µg/mL	+/- 22.9569
11	Isodrin	465-73-6	14507900	98%	1,005.5 µg/mL	+/- 23.0827
12	Chlorobenzilate	510-15-6	15121900	99%	1,008.0 µg/mL	+/- 23.1406
13	7,12-Dimethylbenz(a)anthracene	57-97-6	BJR5G	99%	1,002.0 µg/mL	+/- 23.0028

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

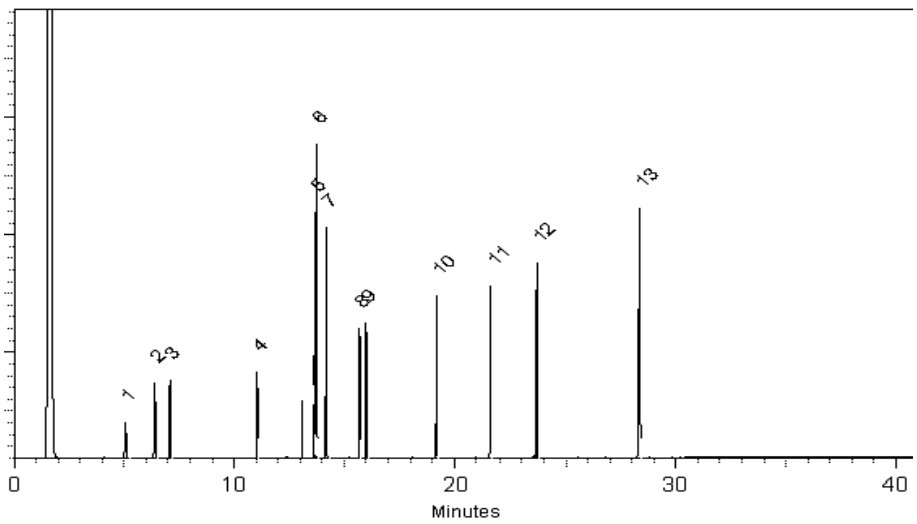
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Josh McCloskey - Operations Technician I

Date Mixed: 09-Apr-2024 **Balance Serial #** B442140311

Marlina Cowan -- Operations Tech II ARM QC

Date Passed: 18-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-570667_00275

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110 Benner Circle
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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 570667 **Lot No.:** A0200379

Description : 8270 Supplemental Standard #1

8270 Supplemental Standard #1 1,000µg/mL, Methylene chloride, 1mL/ampul
Also described as 8270 List 2 / Std #1

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2024 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Picoline	109-06-8	STBJ3945	99%	1,004.2 µg/mL	+/- 18.5934
2	N-Nitrosomethylethylamine	10595-95-6	14446400	99%	1,002.7 µg/mL	+/- 18.5656
3	Acrylamide	79-06-1	01402JA	99%	1,002.9 µg/mL	+/- 18.5693
4	N-Nitrosodiethylamine	55-18-5	UT2EJ	99%	1,003.9 µg/mL	+/- 18.5878
5	N-Nitrosopyrrolidine	930-55-2	21-JPO-19-1	99%	1,003.1 µg/mL	+/- 18.5730
6	o-Toluidine	95-53-4	03417PZ	99%	1,006.5 µg/mL	+/- 18.6360
7	N-Nitrosomorpholine	59-89-2	GOJNI	99%	1,004.4 µg/mL	+/- 18.5971
8	N-Nitrosopiperidine	100-75-4	14406900	98%	1,004.1 µg/mL	+/- 18.5917
9	Phentermine (a,a-Dimethylphenethylamine)	122-09-8	S230330RSR	99%	1,002.9 µg/mL	+/- 18.5693
10	Quinoline	91-22-5	UU6EC	99%	1,007.9 µg/mL	+/- 18.6619
11	N-Nitrosodi-n-butylamine	924-16-3	7BSAG	99%	1,003.9 µg/mL	+/- 18.5878
12	1,4-Phenylenediamine	106-50-3	14345400	99%	1,004.2 µg/mL	+/- 18.5934
13	1,4-Dinitrobenzene	100-25-4	STBF8844V	99%	1,006.3 µg/mL	+/- 18.6323
14	1-Naphthylamine (1-aminonaphthalene)	134-32-7	WRJNI	99%	1,004.0 µg/mL	+/- 18.5897
15	2-Naphthylamine (2-aminonaphthalene)	91-59-8	811345	99%	1,006.0 µg/mL	+/- 18.6267

16	5-Nitro-o-toluidine	99-55-8	H67GL	99%	1,002.9	µg/mL	+/-	18.5693
17	1,3,5-Trinitrobenzene	99-35-4	A6TDK	99%	1,004.0	µg/mL	+/-	18.5897
18	Phenacetin	62-44-2	00629MB	99%	1,002.8	µg/mL	+/-	18.5675
19	4-Aminobiphenyl	92-67-1	SLCD6545	99%	1,004.0	µg/mL	+/-	18.5897
20	Propyzamide	23950-58-5	14533700	99%	1,003.5	µg/mL	+/-	18.5804
21	Pentachloronitrobenzene (quintozene)	82-68-8	14011000	98%	1,005.7	µg/mL	+/-	18.6207
22	4-Nitroquinoline-N-oxide	56-57-5	WXBD7133V	99%	1,004.4	µg/mL	+/-	18.5971
23	p-Dimethylaminoazobenzene	60-11-7	BCBP8840V	98%	1,005.5	µg/mL	+/-	18.6171
24	3,3'-Dimethylbenzidine (o-tolidine)	119-93-7	ELVJM	99%	1,003.0	µg/mL	+/-	18.5712
25	2-Acetylaminofluorene	53-96-3	WZDQE	99%	1,002.0	µg/mL	+/-	18.5527
26	4,4'-Methylene-bis(2-chloroaniline)	101-14-4	RP230106	97%	1,002.5	µg/mL	+/-	18.5618
27	Dibenz(a,h)acridine	226-36-8	012016	99%	1,004.0	µg/mL	+/-	18.5897

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

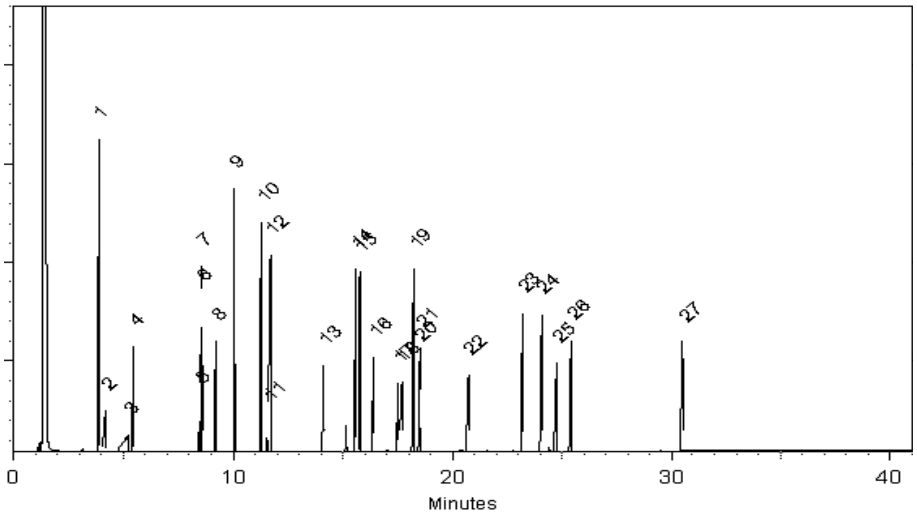
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 27-Jul-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-570667_00276

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 570667 **Lot No.:** A0200379

Description : 8270 Supplemental Standard #1

8270 Supplemental Standard #1 1,000µg/mL, Methylene chloride, 1mL/ampul
Also described as 8270 List 2 / Std #1

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2024 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Picoline	109-06-8	STBJ3945	99%	1,004.2 µg/mL	+/- 18.5934
2	N-Nitrosomethylethylamine	10595-95-6	14446400	99%	1,002.7 µg/mL	+/- 18.5656
3	Acrylamide	79-06-1	01402JA	99%	1,002.9 µg/mL	+/- 18.5693
4	N-Nitrosodiethylamine	55-18-5	UT2EJ	99%	1,003.9 µg/mL	+/- 18.5878
5	N-Nitrosopyrrolidine	930-55-2	21-JPO-19-1	99%	1,003.1 µg/mL	+/- 18.5730
6	o-Toluidine	95-53-4	03417PZ	99%	1,006.5 µg/mL	+/- 18.6360
7	N-Nitrosomorpholine	59-89-2	GOJNI	99%	1,004.4 µg/mL	+/- 18.5971
8	N-Nitrosopiperidine	100-75-4	14406900	98%	1,004.1 µg/mL	+/- 18.5917
9	Phentermine (a,a-Dimethylphenethylamine)	122-09-8	S230330RSR	99%	1,002.9 µg/mL	+/- 18.5693
10	Quinoline	91-22-5	UU6EC	99%	1,007.9 µg/mL	+/- 18.6619
11	N-Nitrosodi-n-butylamine	924-16-3	7BSAG	99%	1,003.9 µg/mL	+/- 18.5878
12	1,4-Phenylenediamine	106-50-3	14345400	99%	1,004.2 µg/mL	+/- 18.5934
13	1,4-Dinitrobenzene	100-25-4	STBF8844V	99%	1,006.3 µg/mL	+/- 18.6323
14	1-Naphthylamine (1-aminonaphthalene)	134-32-7	WRJNI	99%	1,004.0 µg/mL	+/- 18.5897
15	2-Naphthylamine (2-aminonaphthalene)	91-59-8	811345	99%	1,006.0 µg/mL	+/- 18.6267

16	5-Nitro-o-toluidine	99-55-8	H67GL	99%	1,002.9	µg/mL	+/-	18.5693
17	1,3,5-Trinitrobenzene	99-35-4	A6TDK	99%	1,004.0	µg/mL	+/-	18.5897
18	Phenacetin	62-44-2	00629MB	99%	1,002.8	µg/mL	+/-	18.5675
19	4-Aminobiphenyl	92-67-1	SLCD6545	99%	1,004.0	µg/mL	+/-	18.5897
20	Propyzamide	23950-58-5	14533700	99%	1,003.5	µg/mL	+/-	18.5804
21	Pentachloronitrobenzene (quintozene)	82-68-8	14011000	98%	1,005.7	µg/mL	+/-	18.6207
22	4-Nitroquinoline-N-oxide	56-57-5	WXBD7133V	99%	1,004.4	µg/mL	+/-	18.5971
23	p-Dimethylaminoazobenzene	60-11-7	BCBP8840V	98%	1,005.5	µg/mL	+/-	18.6171
24	3,3'-Dimethylbenzidine (o-tolidine)	119-93-7	ELVJM	99%	1,003.0	µg/mL	+/-	18.5712
25	2-Acetylaminofluorene	53-96-3	WZDQE	99%	1,002.0	µg/mL	+/-	18.5527
26	4,4'-Methylene-bis(2-chloroaniline)	101-14-4	RP230106	97%	1,002.5	µg/mL	+/-	18.5618
27	Dibenz(a,h)acridine	226-36-8	012016	99%	1,004.0	µg/mL	+/-	18.5897

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

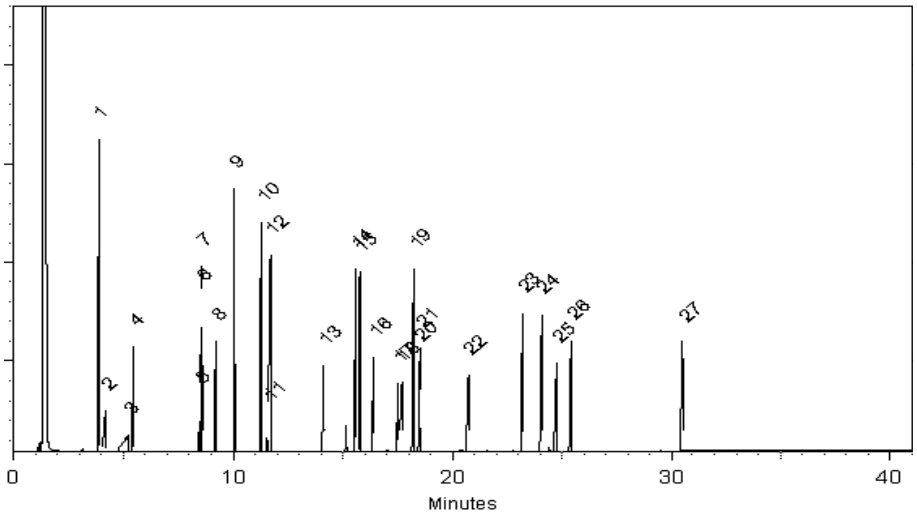
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 27-Jul-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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Catalog No. : 570667 **Lot No.:** A0200379

Description : 8270 Supplemental Standard #1

8270 Supplemental Standard #1 1,000µg/mL, Methylene chloride, 1mL/ampul
Also described as 8270 List 2 / Std #1

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2024 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Picoline	109-06-8	STBJ3945	99%	1,004.2 µg/mL	+/- 18.5934
2	N-Nitrosomethylethylamine	10595-95-6	14446400	99%	1,002.7 µg/mL	+/- 18.5656
3	Acrylamide	79-06-1	01402JA	99%	1,002.9 µg/mL	+/- 18.5693
4	N-Nitrosodiethylamine	55-18-5	UT2EJ	99%	1,003.9 µg/mL	+/- 18.5878
5	N-Nitrosopyrrolidine	930-55-2	21-JPO-19-1	99%	1,003.1 µg/mL	+/- 18.5730
6	o-Toluidine	95-53-4	03417PZ	99%	1,006.5 µg/mL	+/- 18.6360
7	N-Nitrosomorpholine	59-89-2	GOJNI	99%	1,004.4 µg/mL	+/- 18.5971
8	N-Nitrosopiperidine	100-75-4	14406900	98%	1,004.1 µg/mL	+/- 18.5917
9	Phentermine (a,a-Dimethylphenethylamine)	122-09-8	S230330RSR	99%	1,002.9 µg/mL	+/- 18.5693
10	Quinoline	91-22-5	UU6EC	99%	1,007.9 µg/mL	+/- 18.6619
11	N-Nitrosodi-n-butylamine	924-16-3	7BSAG	99%	1,003.9 µg/mL	+/- 18.5878
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14	1-Naphthylamine (1-aminonaphthalene)	134-32-7	WRJNI	99%	1,004.0 µg/mL	+/- 18.5897
15	2-Naphthylamine (2-aminonaphthalene)	91-59-8	811345	99%	1,006.0 µg/mL	+/- 18.6267

16	5-Nitro-o-toluidine	99-55-8	H67GL	99%	1,002.9	µg/mL	+/-	18.5693
17	1,3,5-Trinitrobenzene	99-35-4	A6TDK	99%	1,004.0	µg/mL	+/-	18.5897
18	Phenacetin	62-44-2	00629MB	99%	1,002.8	µg/mL	+/-	18.5675
19	4-Aminobiphenyl	92-67-1	SLCD6545	99%	1,004.0	µg/mL	+/-	18.5897
20	Propyzamide	23950-58-5	14533700	99%	1,003.5	µg/mL	+/-	18.5804
21	Pentachloronitrobenzene (quintozene)	82-68-8	14011000	98%	1,005.7	µg/mL	+/-	18.6207
22	4-Nitroquinoline-N-oxide	56-57-5	WXBD7133V	99%	1,004.4	µg/mL	+/-	18.5971
23	p-Dimethylaminoazobenzene	60-11-7	BCBP8840V	98%	1,005.5	µg/mL	+/-	18.6171
24	3,3'-Dimethylbenzidine (o-tolidine)	119-93-7	ELVJM	99%	1,003.0	µg/mL	+/-	18.5712
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* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

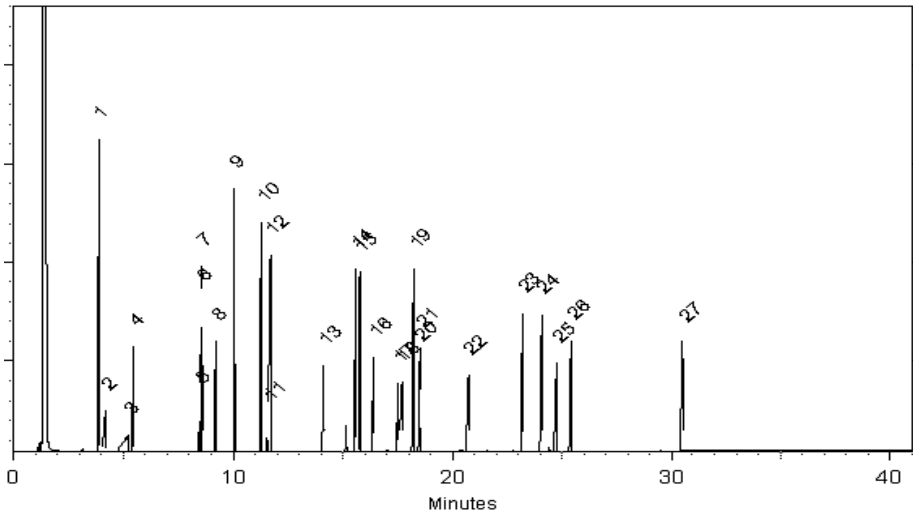
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



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Penelope Riglin - Operations Tech I

Date Mixed: 27-Jul-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
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Purity Notes:

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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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Handling Notes:

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Catalog No. : 570667 **Lot No.:** A0200379

Description : 8270 Supplemental Standard #1

8270 Supplemental Standard #1 1,000µg/mL, Methylene chloride, 1mL/ampul
Also described as 8270 List 2 / Std #1

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2024 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
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16	5-Nitro-o-toluidine	99-55-8	H67GL	99%	1,002.9	µg/mL	+/-	18.5693
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25	2-Acetylaminofluorene	53-96-3	WZDQE	99%	1,002.0	µg/mL	+/-	18.5527
26	4,4'-Methylene-bis(2-chloroaniline)	101-14-4	RP230106	97%	1,002.5	µg/mL	+/-	18.5618
27	Dibenz(a,h)acridine	226-36-8	012016	99%	1,004.0	µg/mL	+/-	18.5897

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
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Det. Type:
FID

Split Vent:
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Inj. Vol
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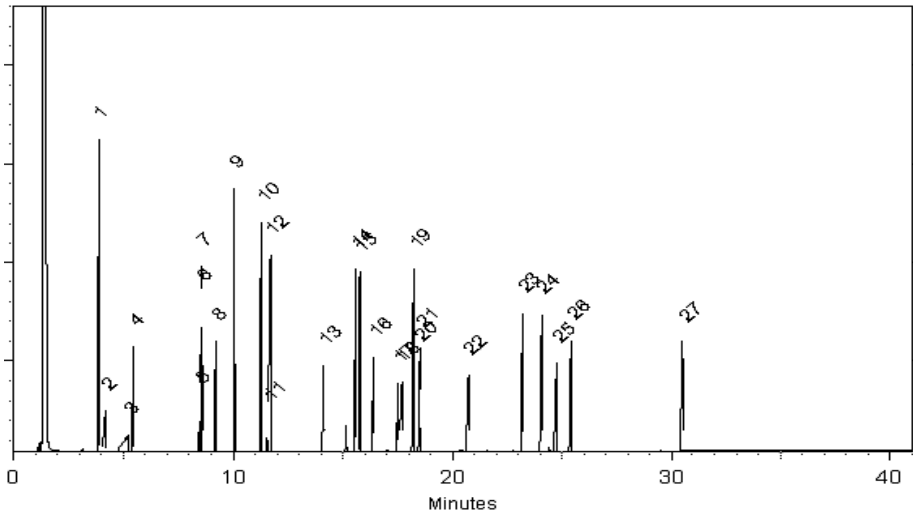

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Penelope Riglin - Operations Tech I

Date Mixed: 27-Jul-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

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- Purity values are rounded to the nearest whole number.

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Catalog No. : 570667 **Lot No.:** A0200379

Description : 8270 Supplemental Standard #1

8270 Supplemental Standard #1 1,000µg/mL, Methylene chloride, 1mL/ampul
Also described as 8270 List 2 / Std #1

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2024 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Picoline	109-06-8	STBJ3945	99%	1,004.2 µg/mL	+/- 18.5934
2	N-Nitrosomethylethylamine	10595-95-6	14446400	99%	1,002.7 µg/mL	+/- 18.5656
3	Acrylamide	79-06-1	01402JA	99%	1,002.9 µg/mL	+/- 18.5693
4	N-Nitrosodiethylamine	55-18-5	UT2EJ	99%	1,003.9 µg/mL	+/- 18.5878
5	N-Nitrosopyrrolidine	930-55-2	21-JPO-19-1	99%	1,003.1 µg/mL	+/- 18.5730
6	o-Toluidine	95-53-4	03417PZ	99%	1,006.5 µg/mL	+/- 18.6360
7	N-Nitrosomorpholine	59-89-2	GOJNI	99%	1,004.4 µg/mL	+/- 18.5971
8	N-Nitrosopiperidine	100-75-4	14406900	98%	1,004.1 µg/mL	+/- 18.5917
9	Phentermine (a,a-Dimethylphenethylamine)	122-09-8	S230330RSR	99%	1,002.9 µg/mL	+/- 18.5693
10	Quinoline	91-22-5	UU6EC	99%	1,007.9 µg/mL	+/- 18.6619
11	N-Nitrosodi-n-butylamine	924-16-3	7BSAG	99%	1,003.9 µg/mL	+/- 18.5878
12	1,4-Phenylenediamine	106-50-3	14345400	99%	1,004.2 µg/mL	+/- 18.5934
13	1,4-Dinitrobenzene	100-25-4	STBF8844V	99%	1,006.3 µg/mL	+/- 18.6323
14	1-Naphthylamine (1-aminonaphthalene)	134-32-7	WRJNI	99%	1,004.0 µg/mL	+/- 18.5897
15	2-Naphthylamine (2-aminonaphthalene)	91-59-8	811345	99%	1,006.0 µg/mL	+/- 18.6267

16	5-Nitro-o-toluidine	99-55-8	H67GL	99%	1,002.9	µg/mL	+/-	18.5693
17	1,3,5-Trinitrobenzene	99-35-4	A6TDK	99%	1,004.0	µg/mL	+/-	18.5897
18	Phenacetin	62-44-2	00629MB	99%	1,002.8	µg/mL	+/-	18.5675
19	4-Aminobiphenyl	92-67-1	SLCD6545	99%	1,004.0	µg/mL	+/-	18.5897
20	Propyzamide	23950-58-5	14533700	99%	1,003.5	µg/mL	+/-	18.5804
21	Pentachloronitrobenzene (quintozene)	82-68-8	14011000	98%	1,005.7	µg/mL	+/-	18.6207
22	4-Nitroquinoline-N-oxide	56-57-5	WXBD7133V	99%	1,004.4	µg/mL	+/-	18.5971
23	p-Dimethylaminoazobenzene	60-11-7	BCBP8840V	98%	1,005.5	µg/mL	+/-	18.6171
24	3,3'-Dimethylbenzidine (o-tolidine)	119-93-7	ELVJM	99%	1,003.0	µg/mL	+/-	18.5712
25	2-Acetylaminofluorene	53-96-3	WZDQE	99%	1,002.0	µg/mL	+/-	18.5527
26	4,4'-Methylene-bis(2-chloroaniline)	101-14-4	RP230106	97%	1,002.5	µg/mL	+/-	18.5618
27	Dibenz(a,h)acridine	226-36-8	012016	99%	1,004.0	µg/mL	+/-	18.5897

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

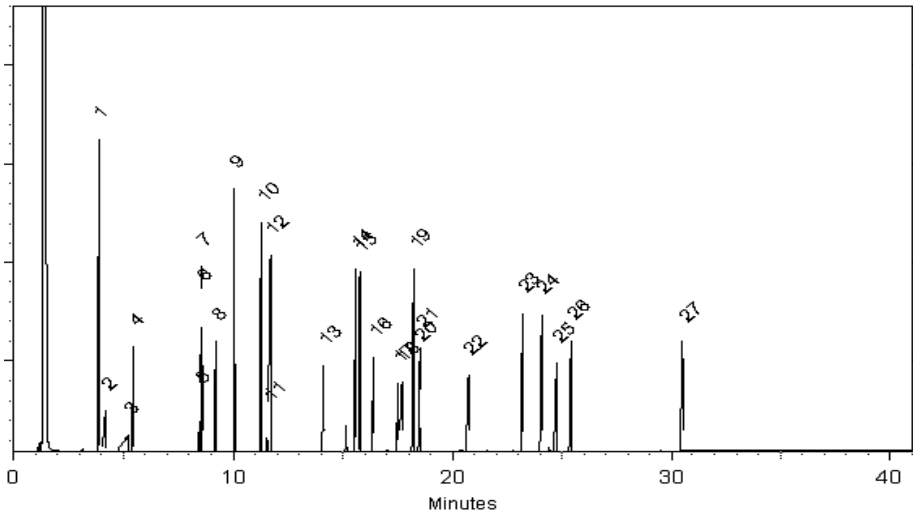
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 27-Jul-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-570667_00280

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 570667 **Lot No.:** A0200379

Description : 8270 Supplemental Standard #1

8270 Supplemental Standard #1 1,000µg/mL, Methylene chloride, 1mL/ampul
Also described as 8270 List 2 / Std #1

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2024 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Picoline	109-06-8	STBJ3945	99%	1,004.2 µg/mL	+/- 18.5934
2	N-Nitrosomethylethylamine	10595-95-6	14446400	99%	1,002.7 µg/mL	+/- 18.5656
3	Acrylamide	79-06-1	01402JA	99%	1,002.9 µg/mL	+/- 18.5693
4	N-Nitrosodiethylamine	55-18-5	UT2EJ	99%	1,003.9 µg/mL	+/- 18.5878
5	N-Nitrosopyrrolidine	930-55-2	21-JPO-19-1	99%	1,003.1 µg/mL	+/- 18.5730
6	o-Toluidine	95-53-4	03417PZ	99%	1,006.5 µg/mL	+/- 18.6360
7	N-Nitrosomorpholine	59-89-2	GOJNI	99%	1,004.4 µg/mL	+/- 18.5971
8	N-Nitrosopiperidine	100-75-4	14406900	98%	1,004.1 µg/mL	+/- 18.5917
9	Phentermine (a,a-Dimethylphenethylamine)	122-09-8	S230330RSR	99%	1,002.9 µg/mL	+/- 18.5693
10	Quinoline	91-22-5	UU6EC	99%	1,007.9 µg/mL	+/- 18.6619
11	N-Nitrosodi-n-butylamine	924-16-3	7BSAG	99%	1,003.9 µg/mL	+/- 18.5878
12	1,4-Phenylenediamine	106-50-3	14345400	99%	1,004.2 µg/mL	+/- 18.5934
13	1,4-Dinitrobenzene	100-25-4	STBF8844V	99%	1,006.3 µg/mL	+/- 18.6323
14	1-Naphthylamine (1-aminonaphthalene)	134-32-7	WRJNI	99%	1,004.0 µg/mL	+/- 18.5897
15	2-Naphthylamine (2-aminonaphthalene)	91-59-8	811345	99%	1,006.0 µg/mL	+/- 18.6267

16	5-Nitro-o-toluidine	99-55-8	H67GL	99%	1,002.9	µg/mL	+/-	18.5693
17	1,3,5-Trinitrobenzene	99-35-4	A6TDK	99%	1,004.0	µg/mL	+/-	18.5897
18	Phenacetin	62-44-2	00629MB	99%	1,002.8	µg/mL	+/-	18.5675
19	4-Aminobiphenyl	92-67-1	SLCD6545	99%	1,004.0	µg/mL	+/-	18.5897
20	Propyzamide	23950-58-5	14533700	99%	1,003.5	µg/mL	+/-	18.5804
21	Pentachloronitrobenzene (quintozene)	82-68-8	14011000	98%	1,005.7	µg/mL	+/-	18.6207
22	4-Nitroquinoline-N-oxide	56-57-5	WXBD7133V	99%	1,004.4	µg/mL	+/-	18.5971
23	p-Dimethylaminoazobenzene	60-11-7	BCBP8840V	98%	1,005.5	µg/mL	+/-	18.6171
24	3,3'-Dimethylbenzidine (o-tolidine)	119-93-7	ELVJM	99%	1,003.0	µg/mL	+/-	18.5712
25	2-Acetylaminofluorene	53-96-3	WZDQE	99%	1,002.0	µg/mL	+/-	18.5527
26	4,4'-Methylene-bis(2-chloroaniline)	101-14-4	RP230106	97%	1,002.5	µg/mL	+/-	18.5618
27	Dibenz(a,h)acridine	226-36-8	012016	99%	1,004.0	µg/mL	+/-	18.5897

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

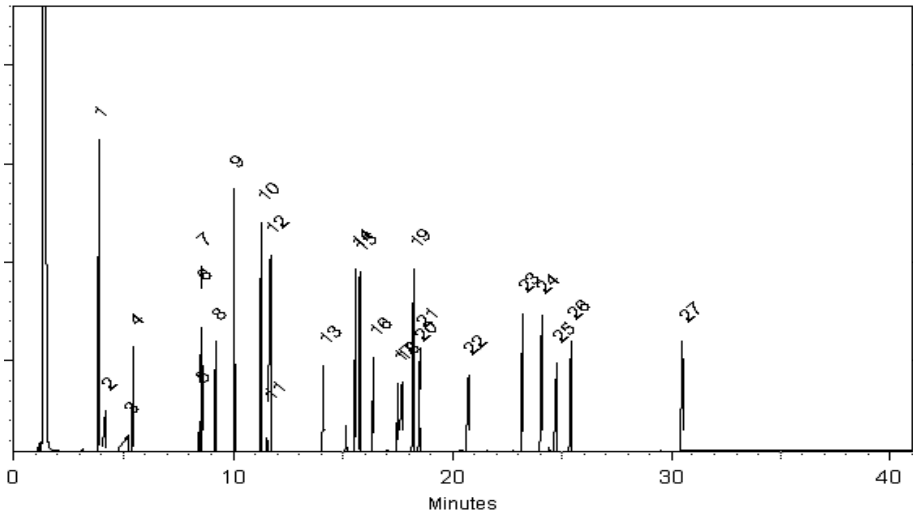
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 27-Jul-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-570667_00281

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 570667 **Lot No.:** A0200379

Description : 8270 Supplemental Standard #1

8270 Supplemental Standard #1 1,000µg/mL, Methylene chloride, 1mL/ampul
Also described as 8270 List 2 / Std #1

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2024 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Picoline	109-06-8	STBJ3945	99%	1,004.2 µg/mL	+/- 18.5934
2	N-Nitrosomethylethylamine	10595-95-6	14446400	99%	1,002.7 µg/mL	+/- 18.5656
3	Acrylamide	79-06-1	01402JA	99%	1,002.9 µg/mL	+/- 18.5693
4	N-Nitrosodiethylamine	55-18-5	UT2EJ	99%	1,003.9 µg/mL	+/- 18.5878
5	N-Nitrosopyrrolidine	930-55-2	21-JPO-19-1	99%	1,003.1 µg/mL	+/- 18.5730
6	o-Toluidine	95-53-4	03417PZ	99%	1,006.5 µg/mL	+/- 18.6360
7	N-Nitrosomorpholine	59-89-2	GOJNI	99%	1,004.4 µg/mL	+/- 18.5971
8	N-Nitrosopiperidine	100-75-4	14406900	98%	1,004.1 µg/mL	+/- 18.5917
9	Phentermine (a,a-Dimethylphenethylamine)	122-09-8	S230330RSR	99%	1,002.9 µg/mL	+/- 18.5693
10	Quinoline	91-22-5	UU6EC	99%	1,007.9 µg/mL	+/- 18.6619
11	N-Nitrosodi-n-butylamine	924-16-3	7BSAG	99%	1,003.9 µg/mL	+/- 18.5878
12	1,4-Phenylenediamine	106-50-3	14345400	99%	1,004.2 µg/mL	+/- 18.5934
13	1,4-Dinitrobenzene	100-25-4	STBF8844V	99%	1,006.3 µg/mL	+/- 18.6323
14	1-Naphthylamine (1-aminonaphthalene)	134-32-7	WRJNI	99%	1,004.0 µg/mL	+/- 18.5897
15	2-Naphthylamine (2-aminonaphthalene)	91-59-8	811345	99%	1,006.0 µg/mL	+/- 18.6267

16	5-Nitro-o-toluidine	99-55-8	H67GL	99%	1,002.9	µg/mL	+/-	18.5693
17	1,3,5-Trinitrobenzene	99-35-4	A6TDK	99%	1,004.0	µg/mL	+/-	18.5897
18	Phenacetin	62-44-2	00629MB	99%	1,002.8	µg/mL	+/-	18.5675
19	4-Aminobiphenyl	92-67-1	SLCD6545	99%	1,004.0	µg/mL	+/-	18.5897
20	Propyzamide	23950-58-5	14533700	99%	1,003.5	µg/mL	+/-	18.5804
21	Pentachloronitrobenzene (quintozene)	82-68-8	14011000	98%	1,005.7	µg/mL	+/-	18.6207
22	4-Nitroquinoline-N-oxide	56-57-5	WXBD7133V	99%	1,004.4	µg/mL	+/-	18.5971
23	p-Dimethylaminoazobenzene	60-11-7	BCBP8840V	98%	1,005.5	µg/mL	+/-	18.6171
24	3,3'-Dimethylbenzidine (o-tolidine)	119-93-7	ELVJM	99%	1,003.0	µg/mL	+/-	18.5712
25	2-Acetylaminofluorene	53-96-3	WZDQE	99%	1,002.0	µg/mL	+/-	18.5527
26	4,4'-Methylene-bis(2-chloroaniline)	101-14-4	RP230106	97%	1,002.5	µg/mL	+/-	18.5618
27	Dibenz(a,h)acridine	226-36-8	012016	99%	1,004.0	µg/mL	+/-	18.5897

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

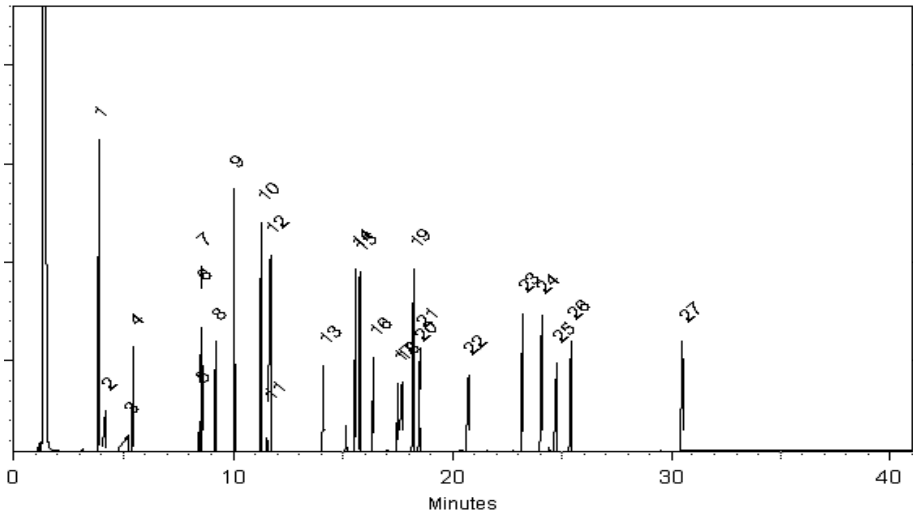
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 27-Jul-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-570667_00282

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 570667 **Lot No.:** A0200379

Description : 8270 Supplemental Standard #1

8270 Supplemental Standard #1 1,000µg/mL, Methylene chloride, 1mL/ampul
Also described as 8270 List 2 / Std #1

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2024 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Picoline	109-06-8	STBJ3945	99%	1,004.2 µg/mL	+/- 18.5934
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4	N-Nitrosodiethylamine	55-18-5	UT2EJ	99%	1,003.9 µg/mL	+/- 18.5878
5	N-Nitrosopyrrolidine	930-55-2	21-JPO-19-1	99%	1,003.1 µg/mL	+/- 18.5730
6	o-Toluidine	95-53-4	03417PZ	99%	1,006.5 µg/mL	+/- 18.6360
7	N-Nitrosomorpholine	59-89-2	GOJNI	99%	1,004.4 µg/mL	+/- 18.5971
8	N-Nitrosopiperidine	100-75-4	14406900	98%	1,004.1 µg/mL	+/- 18.5917
9	Phentermine (a,a-Dimethylphenethylamine)	122-09-8	S230330RSR	99%	1,002.9 µg/mL	+/- 18.5693
10	Quinoline	91-22-5	UU6EC	99%	1,007.9 µg/mL	+/- 18.6619
11	N-Nitrosodi-n-butylamine	924-16-3	7BSAG	99%	1,003.9 µg/mL	+/- 18.5878
12	1,4-Phenylenediamine	106-50-3	14345400	99%	1,004.2 µg/mL	+/- 18.5934
13	1,4-Dinitrobenzene	100-25-4	STBF8844V	99%	1,006.3 µg/mL	+/- 18.6323
14	1-Naphthylamine (1-aminonaphthalene)	134-32-7	WRJNI	99%	1,004.0 µg/mL	+/- 18.5897
15	2-Naphthylamine (2-aminonaphthalene)	91-59-8	811345	99%	1,006.0 µg/mL	+/- 18.6267

16	5-Nitro-o-toluidine	99-55-8	H67GL	99%	1,002.9	µg/mL	+/-	18.5693
17	1,3,5-Trinitrobenzene	99-35-4	A6TDK	99%	1,004.0	µg/mL	+/-	18.5897
18	Phenacetin	62-44-2	00629MB	99%	1,002.8	µg/mL	+/-	18.5675
19	4-Aminobiphenyl	92-67-1	SLCD6545	99%	1,004.0	µg/mL	+/-	18.5897
20	Propyzamide	23950-58-5	14533700	99%	1,003.5	µg/mL	+/-	18.5804
21	Pentachloronitrobenzene (quintozene)	82-68-8	14011000	98%	1,005.7	µg/mL	+/-	18.6207
22	4-Nitroquinoline-N-oxide	56-57-5	WXBD7133V	99%	1,004.4	µg/mL	+/-	18.5971
23	p-Dimethylaminoazobenzene	60-11-7	BCBP8840V	98%	1,005.5	µg/mL	+/-	18.6171
24	3,3'-Dimethylbenzidine (o-tolidine)	119-93-7	ELVJM	99%	1,003.0	µg/mL	+/-	18.5712
25	2-Acetylaminofluorene	53-96-3	WZDQE	99%	1,002.0	µg/mL	+/-	18.5527
26	4,4'-Methylene-bis(2-chloroaniline)	101-14-4	RP230106	97%	1,002.5	µg/mL	+/-	18.5618
27	Dibenz(a,h)acridine	226-36-8	012016	99%	1,004.0	µg/mL	+/-	18.5897

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

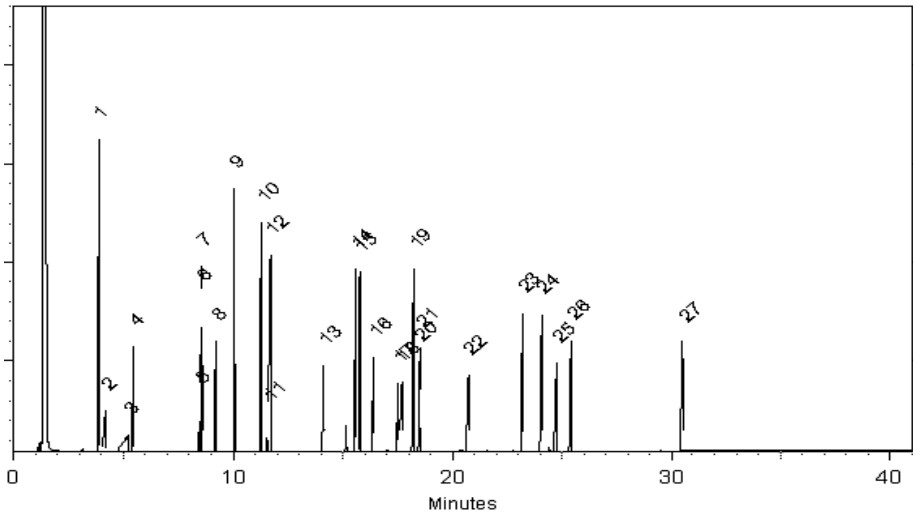
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 27-Jul-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

Pest/PCBstock_00044

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32000 **Lot No.:** A0192797

Description : Pesticide Surrogate Mix

Pesticide Surrogate Mix 200 µg/mL, Acetone, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2029 **Storage:** 10°C or colder

Handling: Contains PCBs - sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2,4,5,6-Tetrachloro-m-xylene	877-09-8	RP220407	99%	201.1 µg/mL	+/- 11.1565
2	Decachlorobiphenyl (BZ# 209)	2051-24-3	30638	99%	201.2 µg/mL	+/- 11.1620

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetone
CAS # 67-64-1
Purity 99%

Quality Confirmation Test

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

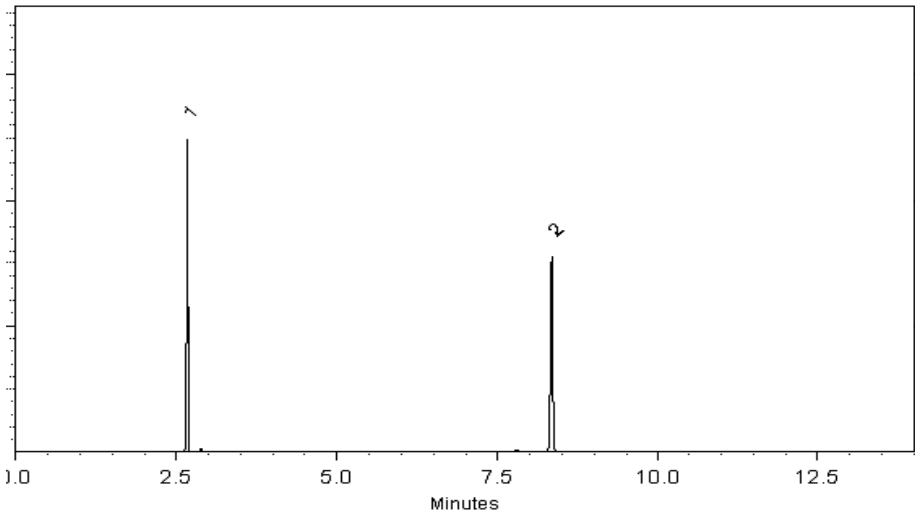
Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD

Split Vent:
10 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Jess Hoy - Operations Tech I

Date Mixed: 19-Dec-2022 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Dec-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

Pest/PCBstock_00048

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32000 **Lot No.:** A0192797

Description : Pesticide Surrogate Mix

Pesticide Surrogate Mix 200 µg/mL, Acetone, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2029 **Storage:** 10°C or colder

Handling: Contains PCBs - sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2,4,5,6-Tetrachloro-m-xylene	877-09-8	RP220407	99%	201.1 µg/mL	+/- 11.1565
2	Decachlorobiphenyl (BZ# 209)	2051-24-3	30638	99%	201.2 µg/mL	+/- 11.1620

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetone
CAS # 67-64-1
Purity 99%

Quality Confirmation Test

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

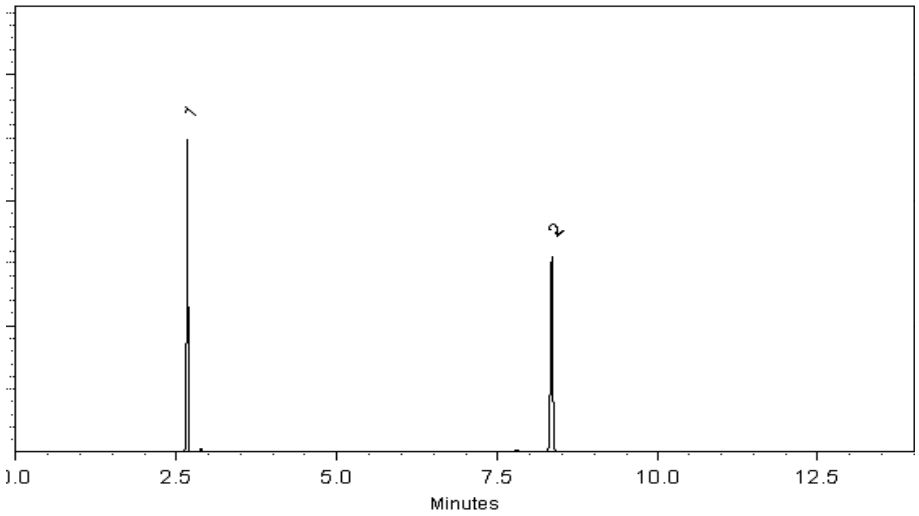
Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD

Split Vent:
10 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Jess Hoy - Operations Tech I

Date Mixed: 19-Dec-2022 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Dec-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

Pest/PCBstock_00051

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32000 **Lot No.:** A0192797

Description : Pesticide Surrogate Mix

Pesticide Surrogate Mix 200 µg/mL, Acetone, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2029 **Storage:** 10°C or colder

Handling: Contains PCBs - sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2,4,5,6-Tetrachloro-m-xylene	877-09-8	RP220407	99%	201.1 µg/mL	+/- 11.1565
2	Decachlorobiphenyl (BZ# 209)	2051-24-3	30638	99%	201.2 µg/mL	+/- 11.1620

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetone
CAS # 67-64-1
Purity 99%

Quality Confirmation Test

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

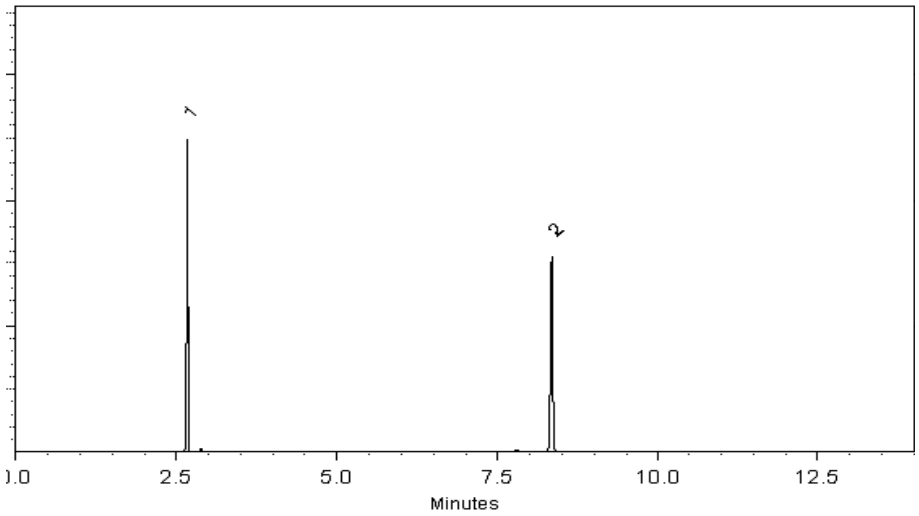
Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD

Split Vent:
10 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Jess Hoy - Operations Tech I

Date Mixed: 19-Dec-2022 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Dec-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

Pest/PCBstock_00055

Reference Standard Data Pack

Pesticide Surrogate Mix

Catalog # 32000

Lot # A0197094

110 Benner Circle Bellefonte, PA 16823-8812
1-814-353-1300 1-800-356-1688
www.restek.com

FOR LABORATORY USE ONLY. READ SDS PRIOR TO USE.

RAW MATERIAL TEST INFORMATION AVAILABLE UPON REQUEST

MANUFACTURED UNDER RESTEK'S ISO 9001 REGISTERED QUALITY SYSTEM

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32000 **Lot No.:** A0197094

Description : Pesticide Surrogate Mix

Pesticide Surrogate Mix 200 µg/mL, Acetone, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2029 **Storage:** 10°C or colder

Handling: Contains PCBs - sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2,4,5,6-Tetrachloro-m-xylene	877-09-8	RP220407	99%	201.2 µg/mL	+/- 11.1631
2	Decachlorobiphenyl (BZ# 209)	2051-24-3	30638	99%	201.7 µg/mL	+/- 11.1898

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetone
CAS # 67-64-1
Purity 99%

Quality Confirmation Test

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

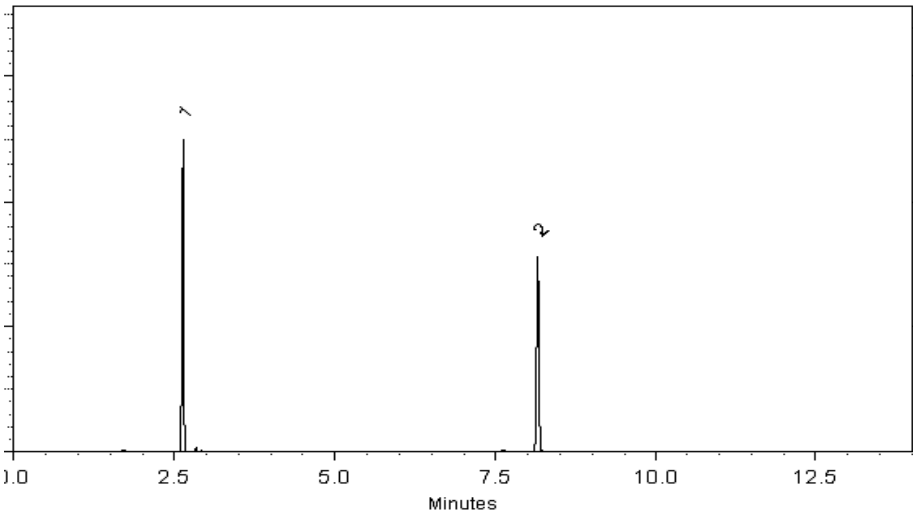
Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD

Split Vent:
10 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Jess Hoy - Operations Tech I

Date Mixed: 17-Apr-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reference Material Batch Record
Lot #: A0197094

Catalog #: 32000	**Target:** 200 ug/mL	
Description: Pesticide Surrogate Mix		
Solvent: Acetone	**Solvent Lot:** 22D1062005	**Final Volume:** 500 ml

Made by: Jess Hoy	**Date:** 4/17/2023 2:56:32PM		
Tested by: Dillan Murphy	**Date:** 4/18/2023 2:09:52PM		
Pass	**By:** Jennifer Pollino	**Date:** 4/24/2023 6:40:35AM	
Packaged by: Bryan Snyder / Jess Hoy	**Date:** 4/17/2023 11:48:33P	**No. Units:** 340	**Pkg Size:** 1 mL
Balance Used: BEDE001735 XP205	**Serial #:** 1128360905		

Compound	CAS	Storage Location	Lot #	Purity	Target Conc(ug/mL)	Target	Actual	Calc Conc(ug/mL)
2,4,5,6-Tetrachloro-m-xylene	877-09-8	R0495	RP220407	0.99	200.00	100.00 mg	100.59 mg	201.2
Decachlorobiphenyl (BZ# 209)	2051-24-3	R0506	30638	0.99	200.00	100.00 mg	100.83 mg	201.7

QA Report: Pesticide Surrogate Mix (Cat.#32000)

	Runs of Lot # A0130424						Runs of Lot # A0197094							
COMPONENT	Run #1	Run #2	Run #3	AVG	STD DEV	% RSD	Run #1	Run #2	Run #3	AVG	STD DEV	% RSD	%D MEAN	P/F
2,4,5,6-Tetrachloro-m-xylene	391587237	393485533	391645965	392239578	1079428	0.28	402708589	407181554	403639247	404509797	2360137	0.58	-3.13	PASS
Decachlorobiphenyl (BZ# 209)	352535283	360753720	360791659	358026887	4755907	1.33	365846398	370418852	370551829	368939026	2679120	0.73	-3.05	PASS

Reagent

PicricARestek_00124

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31499 **Lot No.:** A0195778

Description : Picric Acid Standard

Picric Acid Standard 1000µg/mL, Methanol, 1mL/1000µg/mL *PGI BOX REQUIRED* SHIP FED EX GROUND ONLY

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Picric Acid	88-89-1	06130CU	99%	1,002.0 µg/mL	+/- 46.7451

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol

CAS # 67-56-1

Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

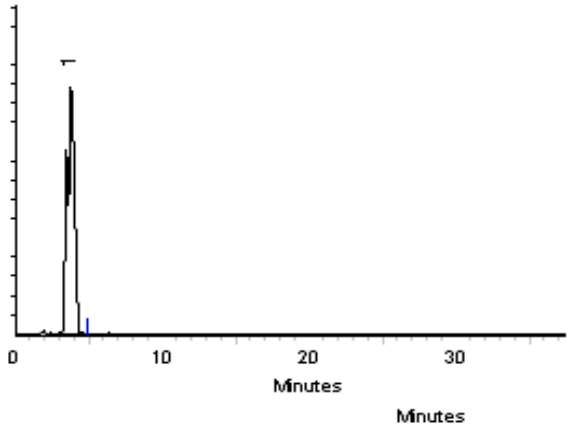
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Alicia Leathers - Operation Technician I

Date Mixed: 12-Mar-2023 **Balance Serial #** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Mar-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

Prep spike1IV_00018

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	IV-66967-A
Lot Number:	U2-MEB734690
Matrix:	5% (v/v) HNO3 0.4% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Silicon, 100 µg/mL ea: Tin, Titanium, Zirconium, Molybdenum, Antimony

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	**100.1 ± 0.7 µg/mL**	**Molybdenum, Mo**	**100.1 ± 0.6 µg/mL**
Silicon, Si	**1 001 ± 7 µg/mL**	**Tin, Sn**	**100.1 ± 0.5 µg/mL**
Titanium, Ti	**100.1 ± 0.7 µg/mL**	**Zirconium, Zr**	**100.1 ± 0.8 µg/mL**

Density: 1.030 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Sb	ICP Assay	3102a	140911
Si	ICP Assay	Traceable to 3150	S2-SI702546
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925
Zr	ICP Assay	3169	130920

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 12, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 12, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

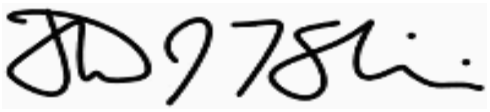
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Stock VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Reagent

Prep spike2IV_00017

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	IV-66967-B
Lot Number:	U2-MEB734691
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea:
	Calcium, Potassium,
	Magnesium, Sodium,
	2 000 µg/mL ea:
	Sulfur, Phosphorus,
	1 000 µg/mL ea:
	Iron, Aluminum,
	200 µg/mL ea:
	Boron,
	100 µg/mL ea:
	Barium, Beryllium,
	Arsenic, Cadmium,
	Cobalt, Chromium,
	Copper, Lithium,
	Nickel, Manganese,
	Lead, Selenium,
	Strontium, Thallium,
	Vanadium, Zinc,
	5 µg/mL ea:
	Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	1 000 ± 3 µg/mL	Arsenic, As	100.0 ± 0.8 µg/mL
Barium, Ba	100.0 ± 0.4 µg/mL	Beryllium, Be	100.0 ± 0.6 µg/mL
Boron, B	200.0 ± 1.4 µg/mL	Cadmium, Cd	100.0 ± 0.4 µg/mL
Calcium, Ca	5 000 ± 16 µg/mL	Chromium, Cr	100.0 ± 0.6 µg/mL
Cobalt, Co	100.0 ± 0.6 µg/mL	Copper, Cu	100.0 ± 0.5 µg/mL
Iron, Fe	1 000 ± 4 µg/mL	Lead, Pb	100.0 ± 0.5 µg/mL
Lithium, Li	100.0 ± 0.4 µg/mL	Magnesium, Mg	5 000 ± 22 µg/mL
Manganese, Mn	100.0 ± 0.5 µg/mL	Nickel, Ni	100.0 ± 0.5 µg/mL
Phosphorus, P	2 000 ± 10 µg/mL	Potassium, K	5 000 ± 22 µg/mL
Selenium, Se	100.0 ± 0.6 µg/mL	Silver, Ag	5.003 ± 0.022 µg/mL
Sodium, Na	5 000 ± 22 µg/mL	Strontium, Sr	100.0 ± 0.4 µg/mL
Sulfur, S	2 000 ± 10 µg/mL	Thallium, Tl	100.0 ± 0.5 µg/mL
Vanadium, V	100.0 ± 0.5 µg/mL	Zinc, Zn	100.0 ± 0.5 µg/mL

Density: 1.103 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
As	Calculated		See Sec. 4.2
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	200413
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
S	Acidimetric	84L	84L
S	ICP Assay	traceable to 3154	P2-S680745
Se	ICP Assay	3149	100901
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Sr	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Low Silver Note: This solution contains “LOW” levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 11, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 11, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

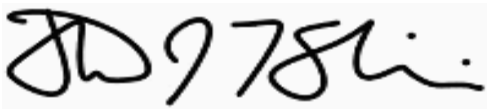
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Stock VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Method 8260D DOD

Volatile Organic Compounds by GC/MS by Method 8260D DOD

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-624SilM ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
DET-003-240401-GW	280-191098-1	103	101	100	103
DET-003-240402-GW	280-191098-2	106	102	102	100
FWGTB-240401-TB001	280-191098-3	102	99	99	100
DET-004-240401-GW	280-191098-5	108	104	98	101
	MB 280-653926/9	101	100	99	102
	LCS 280-653926/4	101	100	101	97
	LCSD 280-653926/5	103	98	98	99
DET-003-240401-GW MS	280-191098-1 MS	101	101	97	98
DET-003-240401-GW MSD	280-191098-1 MSD	101	102	100	97

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-119
DCA = 1,2-Dichloroethane-d4 (Surr)	81-118
TOL = Toluene-d8 (Surr)	89-112
BFB = 4-Bromofluorobenzene (Surr)	85-114

Column to be used to flag recovery values

FORM II 8260D

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: ms11_00011094A.D

Lab ID: LCS 280-653926/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	50.0	49.4	99	74-131	
1,1,2,2-Tetrachloroethane	50.0	45.7	91	71-121	
1,1,2-Trichloroethane	50.0	48.0	96	80-119	
1,1-Dichloroethane	50.0	50.4	101	77-125	
1,1-Dichloroethene	50.0	51.4	103	71-131	
1,2-Dibromoethane	50.0	47.8	96	77-121	
1,2-Dichloroethane	50.0	48.2	96	73-128	
1,2-Dichloroethene, Total	100	101	101	79-121	
1,2-Dichloropropane	50.0	50.1	100	78-122	
2-Butanone (MEK)	200	194	97	56-143	
2-Hexanone	200	195	97	57-139	
4-Methyl-2-pentanone (MIBK)	200	191	96	67-130	
Acetone	200	200	100	39-160	
Benzene	50.0	50.8	102	79-120	
Bromochloromethane	50.0	50.8	102	78-123	
Bromodichloromethane	50.0	50.1	100	79-125	
Bromoform	50.0	48.4	97	66-130	
Bromomethane	50.0	52.2	104	53-141	
Carbon disulfide	50.0	52.0	104	64-133	
Carbon tetrachloride	50.0	49.8	100	72-136	
Chlorobenzene	50.0	50.0	100	82-118	
Chloroethane	50.0	51.4	103	60-138	
Chloroform	50.0	50.1	100	79-124	
Chloromethane	50.0	54.6	109	50-139	
cis-1,3-Dichloropropene	50.0	51.2	102	75-124	
Dibromochloromethane	50.0	47.3	95	74-126	
Ethylbenzene	50.0	49.8	100	79-121	
Methylene Chloride	50.0	50.3	101	74-124	
Styrene	50.0	53.6	107	78-123	
Tetrachloroethene	50.0	49.3	99	74-129	
Toluene	50.0	50.3	101	80-121	
trans-1,3-Dichloropropene	50.0	52.3	105	73-127	
Trichloroethene	50.0	48.9	98	79-123	
Vinyl chloride	50.0	49.1	98	58-137	
Xylenes, Total	100	103	103	79-121	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: ms11_00011095.D

Lab ID: LCSD 280-653926/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	50.0	49.8	100	1	20	74-131	
1,1,2,2-Tetrachloroethane	50.0	45.1	90	1	20	71-121	
1,1,2-Trichloroethane	50.0	47.2	94	2	20	80-119	
1,1-Dichloroethane	50.0	50.9	102	1	20	77-125	
1,1-Dichloroethene	50.0	50.9	102	1	20	71-131	
1,2-Dibromoethane	50.0	47.6	95	0	20	77-121	
1,2-Dichloroethane	50.0	48.9	98	1	20	73-128	
1,2-Dichloroethene, Total	100	102	102	0	20	79-121	
1,2-Dichloropropane	50.0	51.2	102	2	20	78-122	
2-Butanone (MEK)	200	182	91	6	20	56-143	
2-Hexanone	200	188	94	3	20	57-139	
4-Methyl-2-pentanone (MIBK)	200	187	94	2	20	67-130	
Acetone	200	196	98	2	20	39-160	
Benzene	50.0	50.4	101	1	20	79-120	
Bromochloromethane	50.0	51.3	103	1	20	78-123	
Bromodichloromethane	50.0	49.0	98	2	20	79-125	
Bromoform	50.0	47.0	94	3	20	66-130	
Bromomethane	50.0	56.1	112	7	20	53-141	
Carbon disulfide	50.0	51.5	103	1	20	64-133	
Carbon tetrachloride	50.0	49.6	99	0	20	72-136	
Chlorobenzene	50.0	48.4	97	3	20	82-118	
Chloroethane	50.0	53.9	108	5	20	60-138	
Chloroform	50.0	50.6	101	1	20	79-124	
Chloromethane	50.0	57.5	115	5	20	50-139	
cis-1,3-Dichloropropene	50.0	50.4	101	2	20	75-124	
Dibromochloromethane	50.0	48.3	97	2	20	74-126	
Ethylbenzene	50.0	48.1	96	3	20	79-121	
Methylene Chloride	50.0	51.3	103	2	20	74-124	
Styrene	50.0	53.4	107	0	20	78-123	
Tetrachloroethene	50.0	50.1	100	2	20	74-129	
Toluene	50.0	49.3	99	2	20	80-121	
trans-1,3-Dichloropropene	50.0	51.2	102	2	20	73-127	
Trichloroethene	50.0	50.3	101	3	20	79-123	
Vinyl chloride	50.0	51.2	102	4	20	58-137	
Xylenes, Total	100	102	102	1	20	79-121	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: ms11_00011120.D

Lab ID: 280-191098-1 MS Client ID: DET-003-240401-GW MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	25.0	0.50 U	22.7	91	74-131	
1,1,2,2-Tetrachloroethane	25.0	0.80 U	22.0	88	71-121	
1,1,2-Trichloroethane	25.0	0.80 U	22.6	91	80-119	
1,1-Dichloroethane	25.0	0.80 U	24.2	97	77-125	
1,1-Dichloroethene	25.0	0.80 U	20.9	83	71-131	
1,2-Dibromoethane	25.0	0.80 U	22.8	91	77-121	
1,2-Dichloroethane	25.0	0.50 U	24.5	98	73-128	
1,2-Dichloroethene, Total	50.0	0.40 U	47.9	96	79-121	
1,2-Dichloropropane	25.0	0.80 U	22.8	91	78-122	
2-Butanone (MEK)	100	8.0 U	102	102	56-143	
2-Hexanone	100	4.0 U	93.4	93	57-139	
4-Methyl-2-pentanone (MIBK)	100	3.2 U	96.8	97	67-130	
Acetone	100	8.0 U	101	101	39-160	
Benzene	25.0	0.80 U	23.4	94	79-120	
Bromochloromethane	25.0	0.80 U	26.1	104	78-123	
Bromodichloromethane	25.0	0.50 U	22.5	90	79-125	
Bromoform	25.0	1.8 U	21.4	85	66-130	
Carbon disulfide	25.0	0.80 U	22.1	88	64-133	
Carbon tetrachloride	25.0	0.50 U	21.7	87	72-136	
Chlorobenzene	25.0	0.80 U	22.8	91	82-118	
Chloroform	25.0	0.80 U	23.9	96	79-124	
cis-1,3-Dichloropropene	25.0	0.40 U	22.2	89	75-124	
Dibromochloromethane	25.0	0.50 U	21.4	86	74-126	
Ethylbenzene	25.0	0.40 U	22.2	89	79-121	
Methylene Chloride	25.0	1.8 U	24.5	98	74-124	
Styrene	25.0	0.80 U	24.5	98	78-123	
Tetrachloroethene	25.0	0.80 U	21.9	88	74-129	
Toluene	25.0	0.40 U	23.0	92	80-121	
trans-1,3-Dichloropropene	25.0	0.40 U	23.1	93	73-127	
Trichloroethene	25.0	0.40 U	22.4	90	79-123	
Xylenes, Total	50.0	0.80 U	46.1	92	79-121	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: ms11_00011121.D

Lab ID: 280-191098-1 MSD Client ID: DET-003-240401-GW MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	25.0	23.7	95	4	20	74-131	
1,1,2,2-Tetrachloroethane	25.0	23.4	94	6	20	71-121	
1,1,2-Trichloroethane	25.0	23.4	94	4	20	80-119	
1,1-Dichloroethane	25.0	24.4	98	1	20	77-125	
1,1-Dichloroethene	25.0	23.3	93	11	20	71-131	
1,2-Dibromoethane	25.0	23.5	94	3	20	77-121	
1,2-Dichloroethane	25.0	23.4	94	5	20	73-128	
1,2-Dichloroethene, Total	50.0	51.9	104	8	20	79-121	
1,2-Dichloropropane	25.0	23.5	94	3	20	78-122	
2-Butanone (MEK)	100	101	101	2	20	56-143	
2-Hexanone	100	96.0	96	3	20	57-139	
4-Methyl-2-pentanone (MIBK)	100	92.4	92	5	20	67-130	
Acetone	100	96.3	96	5	20	39-160	
Benzene	25.0	24.1	97	3	20	79-120	
Bromochloromethane	25.0	25.7	103	2	20	78-123	
Bromodichloromethane	25.0	23.3	93	3	20	79-125	
Bromoform	25.0	22.1	89	3	20	66-130	
Carbon disulfide	25.0	23.1	92	4	20	64-133	
Carbon tetrachloride	25.0	21.6	86	1	20	72-136	
Chlorobenzene	25.0	24.4	98	7	20	82-118	
Chloroform	25.0	25.1	100	5	20	79-124	
cis-1,3-Dichloropropene	25.0	23.2	93	5	20	75-124	
Dibromochloromethane	25.0	21.9	88	2	20	74-126	
Ethylbenzene	25.0	24.5	98	10	20	79-121	
Methylene Chloride	25.0	24.1	96	2	20	74-124	
Styrene	25.0	25.3	101	3	20	78-123	
Tetrachloroethene	25.0	23.1	92	5	20	74-129	
Toluene	25.0	24.4	97	6	20	80-121	
trans-1,3-Dichloropropene	25.0	22.8	91	2	20	73-127	
Trichloroethene	25.0	23.7	95	6	20	79-123	
Xylenes, Total	50.0	48.6	97	5	20	79-121	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab File ID: ms11_00011098.D Lab Sample ID: MB 280-653926/9

Matrix: Water Heated Purge:(Y/N) Y

Instrument ID: VMS_MS11 Date Analyzed: 05/18/2024 07:06

GC Column: RXI-624SilMS ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-653926/4	ms11_00011094A.D	05/18/2024 05:39
	LCSD 280-653926/5	ms11_00011095.D	05/18/2024 06:01
FWGTB-240401-TB001	280-191098-3	ms11_00011100.D	05/18/2024 07:49
DET-003-240401-GW	280-191098-1	ms11_00011106.D	05/18/2024 09:57
DET-003-240402-GW	280-191098-2	ms11_00011107.D	05/18/2024 10:18
DET-004-240401-GW	280-191098-5	ms11_00011108.D	05/18/2024 10:39
DET-003-240401-GW MS	280-191098-1 MS	ms11_00011120.D	05/18/2024 14:58
DET-003-240401-GW MSD	280-191098-1 MSD	ms11_00011121.D	05/18/2024 15:20

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab File ID: ms11_00011035.D BFB Injection Date: 05/17/2024

Instrument ID: VMS_MS11 BFB Injection Time: 07:14

Analysis Batch No.: 653788

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.0	
75	30.0 - 60.0 % of mass 95	49.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.3	(0.3) 1
174	Greater than 50% of mass 95	82.0	
175	5.0 - 9.0 % of mass 174	6.6	(8.0) 1
176	95.0 - 101.0 % of mass 174	78.8	(96.1) 1
177	5.0 - 9.0 % of mass 176	5.4	(6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 280-653788/13	ms11_00011040	05/17/2024	9:24
	IC 280-653788/14	ms11_00011041	05/17/2024	9:45
	IC 280-653788/15	ms11_00011042	05/17/2024	10:07
	IC 280-653788/16	ms11_00011043	05/17/2024	10:29
	IC 280-653788/17	ms11_00011044	05/17/2024	10:51
	ICIS 280-653788/18	ms11_00011045	05/17/2024	11:13
	IC 280-653788/19	ms11_00011046	05/17/2024	11:35
	IC 280-653788/20	ms11_00011047	05/17/2024	11:56
	IC 280-653788/21	ms11_00011048	05/17/2024	12:18
	ICV 280-653788/31	ms11_00011060	05/17/2024	16:43
	ICV 280-653788/33	ms11_00011062	05/17/2024	17:27

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab File ID: ms11_00011093A.D BFB Injection Date: 05/18/2024

Instrument ID: VMS_MS11 BFB Injection Time: 05:17

Analysis Batch No.: 653926

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.8	
75	30.0 - 60.0 % of mass 95	49.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.3	
173	Less than 2.0 % of mass 174	0.2	(0.2) 1
174	Greater than 50% of mass 95	82.5	
175	5.0 - 9.0 % of mass 174	5.9	(7.2) 1
176	95.0 - 101.0 % of mass 174	78.6	(95.3) 1
177	5.0 - 9.0 % of mass 176	5.5	(7.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 280-653926/2	ms11_00011094	05/18/2024	5:39
	LCS 280-653926/4	ms11_00011094	05/18/2024	5:39
	LCSD 280-653926/5	ms11_00011095	05/18/2024	6:01
	MB 280-653926/9	ms11_00011098	05/18/2024	7:06
FWGTB-240401-TB001	280-191098-3	ms11_00011100	05/18/2024	7:49
DET-003-240401-GW	280-191098-1	ms11_00011106	05/18/2024	9:57
DET-003-240402-GW	280-191098-2	ms11_00011107	05/18/2024	10:18
DET-004-240401-GW	280-191098-5	ms11_00011108	05/18/2024	10:39
DET-003-240401-GW MS	280-191098-1 MS	ms11_00011120	05/18/2024	14:58
DET-003-240401-GW MSD	280-191098-1 MSD	ms11_00011121	05/18/2024	15:20
	CCVC 280-653926/39	ms11_00011124	05/18/2024	16:25

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Sample No.: ICIS 280-653788/18 Date Analyzed: 05/17/2024 11:13

Instrument ID: VMS_MS11 GC Column: RXI-624SilMS ID: 0.25(mm)

Lab File ID (Standard): ms11_00011045.D Heated Purge: (Y/N) Y

Calibration ID: 93529

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1220363	5.11	298191	7.64	555778	9.87
UPPER LIMIT		2440726	5.28	596382	7.80	1111556	10.04
LOWER LIMIT		610182	4.94	149096	7.47	277889	9.71
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 280-653926/2		1224196	5.11	311436	7.64	594870	9.87
LCS 280-653926/4		1224196	5.11	311436	7.64	594870	9.87
LCSD 280-653926/5		1288969	5.11	331326	7.64	604525	9.87
MB 280-653926/9		1231391	5.11	308506	7.64	524726	9.87
280-191098-3	FWGTB-240401-TB001	1151246	5.11	285109	7.64	492747	9.87
280-191098-1	DET-003-240401-GW	1151589	5.11	290722	7.64	484832	9.87
280-191098-1 MS	DET-003-240401-GW MS	1183635	5.11	305307	7.64	562367	9.87
280-191098-1 MSD	DET-003-240401-GW MSD	1212200	5.11	305671	7.64	571840	9.87
CCVC 280-653926/39		1281448	5.11	326585	7.64	588117	9.87

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.167 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW | Lab Sample ID: 280-191098-1

Matrix: Water | Lab File ID: ms11_00011106.D

Analysis Method: 8260D | Date Collected: 05/06/2024 10:16

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2024 09:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RXI-624SilMS ID: 0.25(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) Y pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 653926 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
71-55-6	1,1,1-Trichloroethane	0.50	U	1.0	0.50	0.39
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.21
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.27
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.22
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.23
106-93-4	1,2-Dibromoethane	0.80	U	1.0	0.80	0.18
107-06-2	1,2-Dichloroethane	0.50	U M	1.0	0.50	0.28
540-59-0	1,2-Dichloroethene, Total	0.40	U	1.0	0.40	0.32
78-87-5	1,2-Dichloropropane	0.80	U	1.0	0.80	0.24
78-93-3	2-Butanone (MEK)	8.0	U	10	8.0	4.6
591-78-6	2-Hexanone	4.0	U	5.0	4.0	0.81
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	0.98
67-64-1	Acetone	8.0	U	15	8.0	6.6
71-43-2	Benzene	0.80	U	1.0	0.80	0.14
74-97-5	Bromochloromethane	0.80	U	1.0	0.80	0.40
75-27-4	Bromodichloromethane	0.50	U	1.0	0.50	0.19
75-25-2	Bromoform	1.8	U	2.0	1.8	0.25
74-83-9	Bromomethane	4.0	U M	5.0	4.0	2.4
75-15-0	Carbon disulfide	0.80	U M	2.0	0.80	0.26
56-23-5	Carbon tetrachloride	0.50	U	1.0	0.50	0.23
108-90-7	Chlorobenzene	0.80	U	1.0	0.80	0.092
75-00-3	Chloroethane	1.0	U	2.0	1.0	0.64
67-66-3	Chloroform	0.80	U	1.0	0.80	0.36
74-87-3	Chloromethane	1.0	U	2.0	1.0	0.23
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
124-48-1	Dibromochloromethane	0.50	U	1.0	0.50	0.28
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.14
75-09-2	Methylene Chloride	1.8	U	2.0	1.8	0.94
100-42-5	Styrene	0.80	U	1.0	0.80	0.13
127-18-4	Tetrachloroethene	0.80	U	1.0	0.80	0.40
108-88-3	Toluene	0.40	U	1.0	0.40	0.32
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.14
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.30
75-01-4	Vinyl chloride	0.40	U	1.0	0.40	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW | Lab Sample ID: 280-191098-1

Matrix: Water | Lab File ID: ms11_00011106.D

Analysis Method: 8260D | Date Collected: 05/06/2024 10:16

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2024 09:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RXI-624SilMS ID: 0.25(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) Y pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 653926 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1330-20-7	Xylenes, Total	0.80	U	1.0	0.80	0.11

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		81-118
460-00-4	4-Bromofluorobenzene (Surr)	103		85-114
1868-53-7	Dibromofluoromethane (Surr)	103		80-119
2037-26-5	Toluene-d8 (Surr)	100		89-112

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011106.D
Lims ID: 280-191098-L-1
Client ID: DET-003-240401-GW
Sample Type: Client
Inject. Date: 18-May-2024 09:57:30 ALS Bottle#: 8 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-191098-L-1
Operator ID: MED Instrument ID: VMS_MS11

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-May-2024 15:06:19 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: BX8N Date: 19-May-2024 14:50:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.110	5.109	0.001	99	1151589	50.0	
* 2 Chlorobenzene-d5	119	7.638	7.637	0.001	85	290722	50.0	
* 3 1,4-Dichlorobenzene-d4	152	9.872	9.872	0.000	95	484832	50.0	
$ 4 Dibromofluoromethane (Surr)	111	4.607	4.607	0.000	92	305332	51.5	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.858	4.858	0.000	0	324759	50.3	
$ 6 Toluene-d8 (Surr)	98	6.367	6.366	0.001	93	1146599	50.2	
$ 7 4-Bromofluorobenzene (Surr)	95	8.741	8.741	0.000	91	404024	51.7	
$ 8 BFB	95	8.741	8.741	0.000	91	404024	NR	
9 Dichlorodifluoromethane	85		1.702				ND	
10 Chloromethane	50		1.869				ND	
11 Vinyl chloride	62		1.967				ND	
12 Bromomethane	94		2.232				ND	U
13 Chloroethane	64		2.330				ND	
14 Dichlorofluoromethane	67		2.512				ND	
15 Trichlorofluoromethane	101		2.554				ND	
16 Ethanol	45		2.666				ND	U
17 Ethyl ether	59		2.763				ND	
18 Acrolein	56		2.875				ND	
19 1,1-Dichloroethene	96		2.959				ND	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151		2.959				ND	
21 Acetone	43		2.973				ND	
22 Isopropyl alcohol	45		3.057				ND	
23 Iodomethane	142		3.070				ND	
24 Carbon disulfide	76		3.140				ND	U
25 Acetonitrile	41		3.182				ND	
26 Methyl acetate	43		3.196				ND	
27 3-Chloro-1-propene	41		3.224				ND	7
28 Methylene Chloride	84		3.322				ND	
29 2-Methyl-2-propanol	59		3.364				ND	
30 Acrylonitrile	53		3.475				ND	
31 Methyl tert-butyl ether	73		3.503				ND	
32 trans-1,2-Dichloroethene	96		3.517				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
33 Hexane	57		3.713				ND	
34 Vinyl acetate	43		3.811				ND	
35 1,1-Dichloroethane	63		3.839				ND	
36 Isopropyl ether	87		3.839				ND	
37 2-Chloro-1,3-butadiene	53		3.895				ND	
38 Tert-butyl ethyl ether	59		4.104				ND	
39 2-Butanone (MEK)	43		4.216				ND	
40 Ethyl acetate	43		4.230				ND	U
41 cis-1,2-Dichloroethene	96		4.244				ND	
42 2,2-Dichloropropane	77		4.258				ND	
43 Propionitrile	54		4.272				ND	
44 sec-Butyl Alcohol	45		4.341				ND	
45 Methacrylonitrile	41		4.383				ND	
46 Chlorobromomethane	128		4.425				ND	
47 Tetrahydrofuran	42		4.439				ND	
48 Chloroform	83		4.481				ND	
49 1,1,1-Trichloroethane	97		4.621				ND	
50 Cyclohexane	56		4.691				ND	
51 1,1-Dichloropropene	75		4.732				ND	
52 Carbon tetrachloride	117		4.746				ND	
53 Isobutyl alcohol	43		4.760				ND	
54 Benzene	78		4.886				ND	
55 1,2-Dichloroethane	62		4.914				ND	U
56 Tert-amyl methyl ether	73		4.956				ND	
57 n-Heptane	43		5.082				ND	
58 n-Butanol	56		5.249				ND	
59 Trichloroethene	130		5.389				ND	
60 2-Pentanone	43		5.487				ND	
61 Methylcyclohexane	55		5.570				ND	
62 1,2-Dichloropropane	63		5.584				ND	
63 Methyl methacrylate	100		5.598				ND	
64 1,4-Dioxane	88		5.640				ND	
65 Dibromomethane	93		5.654				ND	
66 Dichlorobromomethane	83		5.780				ND	
67 2-Nitropropane	41		5.948				ND	U
68 2-Chloroethyl vinyl ether	63		5.989				ND	
69 cis-1,3-Dichloropropene	75		6.129				ND	
70 4-Methyl-2-pentanone (MIBK)	43		6.241				ND	
71 Toluene	91		6.422				ND	
72 trans-1,3-Dichloropropene	75		6.604				ND	
73 Ethyl methacrylate	69		6.618				ND	
74 1,1,2-Trichloroethane	97		6.771				ND	
75 Tetrachloroethene	164		6.869				ND	
76 1,3-Dichloropropane	76		6.925				ND	
77 2-Hexanone	43		6.939				ND	
78 Chlorodibromomethane	129		7.121				ND	
79 Ethylene Dibromide	107		7.232				ND	
80 1-Chlorohexane	91		7.623				ND	7
81 Chlorobenzene	112		7.665				ND	
82 1,1,1,2-Tetrachloroethane	131		7.735				ND	
83 Ethylbenzene	106		7.749				ND	
84 m-Xylene & p-Xylene	91		7.861				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
85 o-Xylene	106		8.224			ND		
86 Styrene	104		8.238			ND		
87 Bromoform	173		8.419			ND		
88 Isopropylbenzene	105		8.559			ND		
89 cis-1,4-Dichloro-2-butene	53		8.615			ND		U
90 Cyclohexanone	55		8.657			ND		
91 1,1,2,2-Tetrachloroethane	83		8.852			ND		
92 Bromobenzene	156		8.880			ND		
93 trans-1,4-Dichloro-2-butene	53		8.880			ND		
94 1,2,3-Trichloropropane	110		8.908			ND		
95 N-Propylbenzene	120		8.964			ND		
96 2-Chlorotoluene	126		9.062			ND		
97 1,3,5-Trimethylbenzene	105		9.132			ND		
98 4-Chlorotoluene	126		9.174			ND		
99 tert-Butylbenzene	119		9.439			ND		
100 1,2,4-Trimethylbenzene	105		9.509			ND		
101 sec-Butylbenzene	134		9.662			ND		
102 1,3-Dichlorobenzene	146		9.788			ND		
103 4-Isopropyltoluene	119		9.816			ND		
104 1,4-Dichlorobenzene	146		9.886			ND		U
105 1,2,3-Trimethylbenzene	105		9.914			ND		
106 n-Butylbenzene	91		10.221			ND		
107 1,2-Dichlorobenzene	146		10.249			ND		
108 1,2-Dibromo-3-Chloropropane	157		11.031			ND		
109 1,3,5-Trichlorobenzene	180		11.213			ND		
110 1,2,4-Trichlorobenzene	180		11.855			ND		
111 Hexachlorobutadiene	225		11.995			ND		
112 Naphthalene	128		12.121			ND		
113 1,2,3-Trichlorobenzene	180		12.344			ND		
114 Methyl cyclohexane TIC	1		0.000			ND		
115 Ethylene oxide TIC	1		0.000			ND		
116 1-Chlorohexane TIC	1		0.000			ND		
117 1-Chloro-1-fluoroethane TIC	1		0.000			ND		
118 Pentachloroethane	167		0.000			ND		
119 t-Amyl alcohol	1		0.000			ND		
120 Ethyl acrylate	55		0.000			ND		
121 Tetrahydrothiophene TIC	1		0.000			ND		
S 122 Xylenes, Total	106		0.000			ND		7
S 123 1,2-Dichloroethene, Total	1		0.000			ND		7
S 124 1,3-Dichloropropene, Total	1		0.000			ND		7
S 125 Trihalomethanes, Total	1		0.000			ND		7
S 126 TAH	1				0		0	7
S 127 Total BTEX	1		0.000			ND		7
T 129 Propene TIC	1		1.369			ND		
T 128 Propene oxide TIC	1		1.369			ND		
T 130 1,3-Butadiene TIC	1		1.985			ND		
T 131 2,3-Dichloro-1-propene TIC	1		6.150			ND		
T 132 4-Ethyltoluene TIC	1		9.345			ND		
T 133 Dicyclopentadiene TIC	1		9.670			ND		
T 134 Dichloroacetonitrile TIC	1		0.000			ND		

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

mv-IS_SS_00079 Amount Added: 5.00 Units: uL Run Reagent

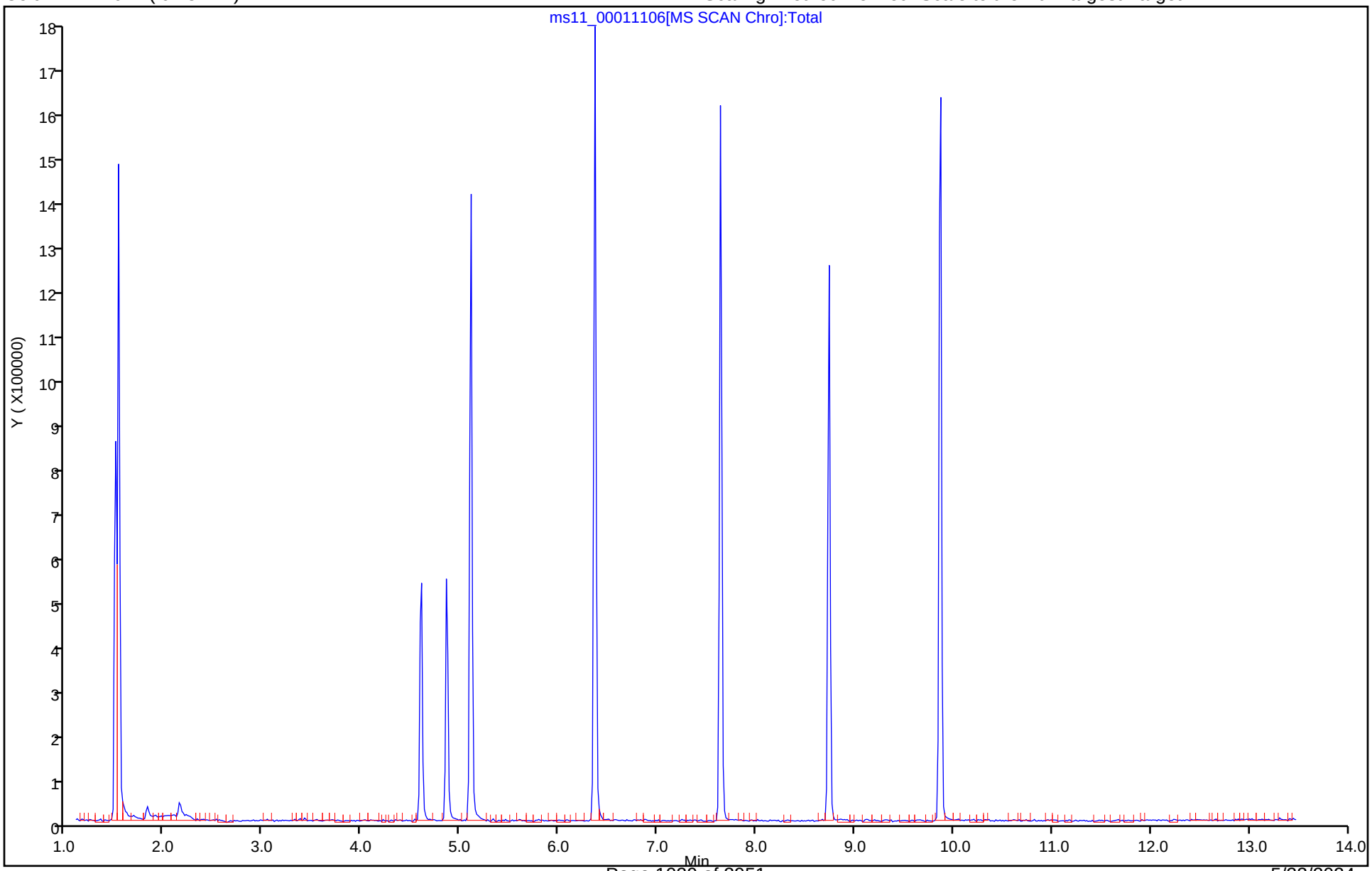
Report Date: 19-May-2024 15:06:30 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011106.D

Injection Date:	18-May-2024 09:57:30	Instrument ID:	VMS_MS11	Operator ID:	MED
Lims ID:	280-191098-L-1	Lab Sample ID:	280-191098-1	Worklist Smp#:	20
Client ID:	DET-003-240401-GW				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011106.D
Lims ID: 280-191098-L-1
Client ID: DET-003-240401-GW
Sample Type: Client
Inject. Date: 18-May-2024 09:57:30 ALS Bottle#: 8 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-191098-L-1
Operator ID: MED Instrument ID: VMS_MS11

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-May-2024 15:06:19 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: BX8N Date: 19-May-2024 14:50:58

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	50.0	51.5	103.05
$ 5 1,2-Dichloroethane-d4 (Surr)	50.0	50.3	100.59
$ 6 Toluene-d8 (Surr)	50.0	50.2	100.33
$ 7 4-Bromofluorobenzene (Surr)	50.0	51.7	103.38

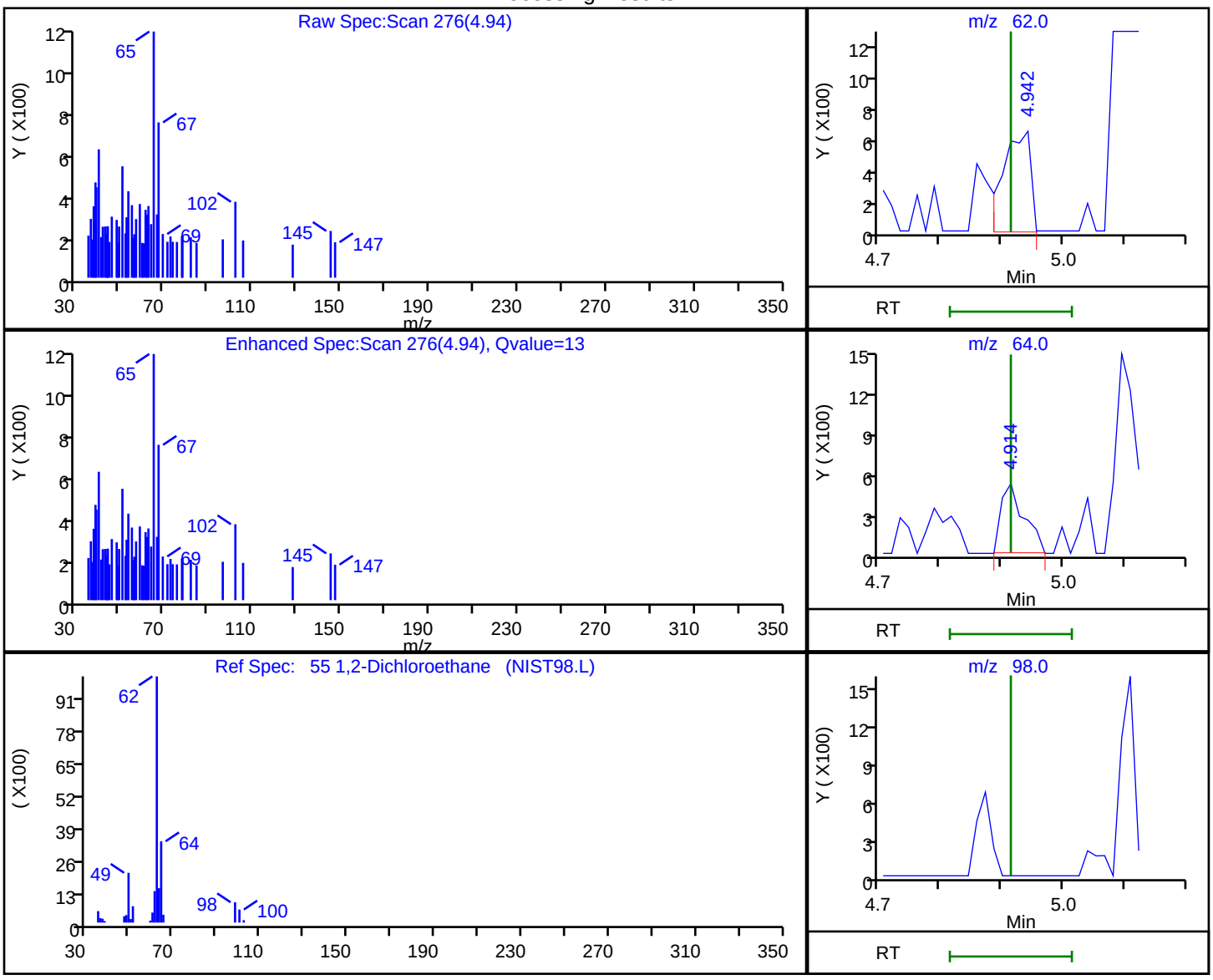
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011106.D				
Injection Date:	18-May-2024 09:57:30	Instrument ID:	VMS_MS11		
Lims ID:	280-191098-L-1	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	MED	ALS Bottle#:	8	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (0.25 mm)	Detector	MS SCAN		

55 1,2-Dichloroethane, CAS: 107-06-2

Processing Results



RT	Mass	Response	Amount
4.94	62.00	1904	0.322050
4.91	64.00	1342	
4.91	98.00	0	

Reviewer: BX8N, 19-May-2024 14:50:47 -06:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

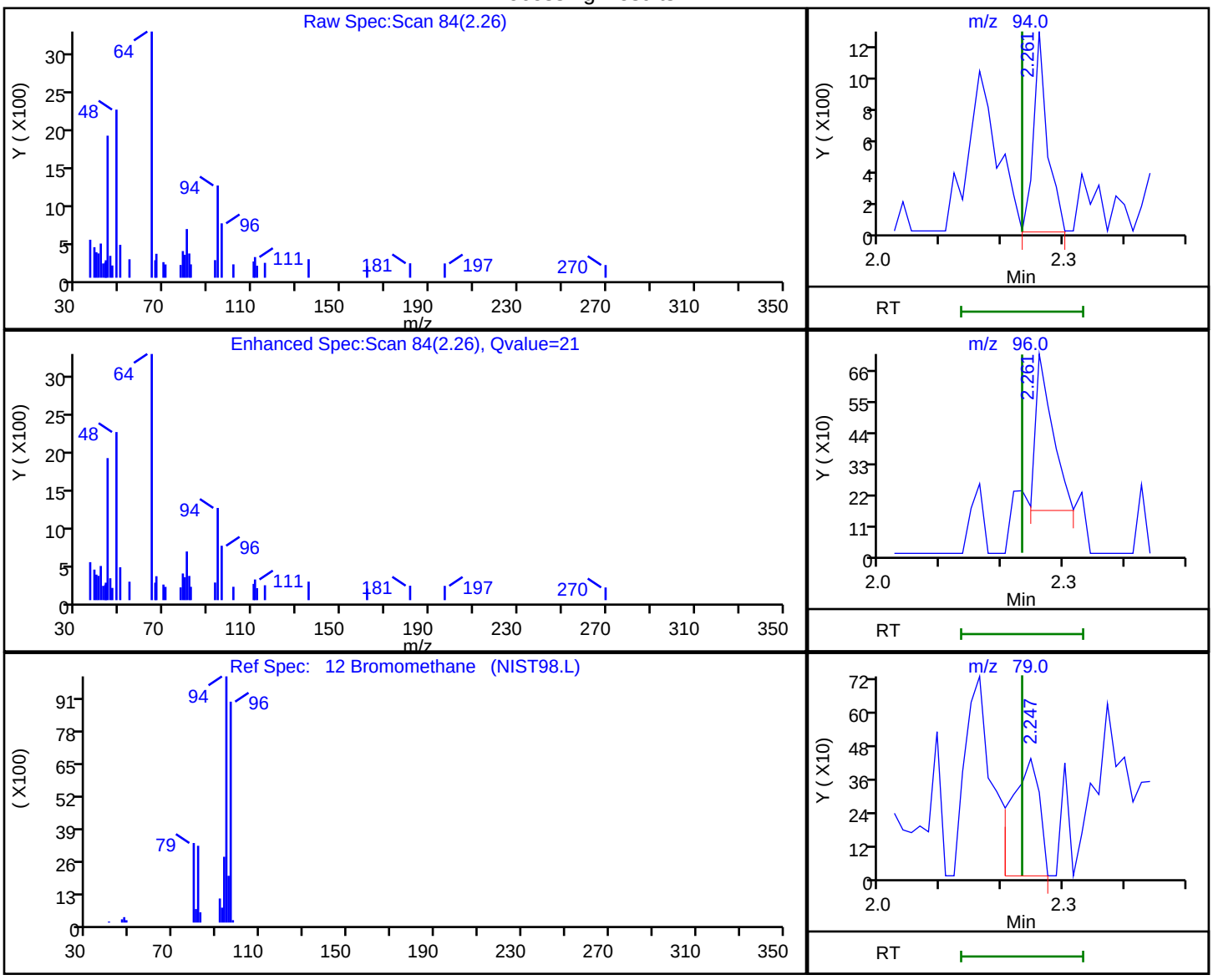
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011106.D				
Injection Date:	18-May-2024 09:57:30	Instrument ID:	VMS_MS11		
Lims ID:	280-191098-L-1	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	MED	ALS Bottle#:	8	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (0.25 mm)	Detector	MS SCAN		

12 Bromomethane, CAS: 74-83-9

Processing Results



RT	Mass	Response	Amount
2.26	94.00	1877	0.712774
2.26	96.00	1060	
2.25	79.00	1340	

Reviewer: BX8N, 19-May-2024 14:50:36 -06:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

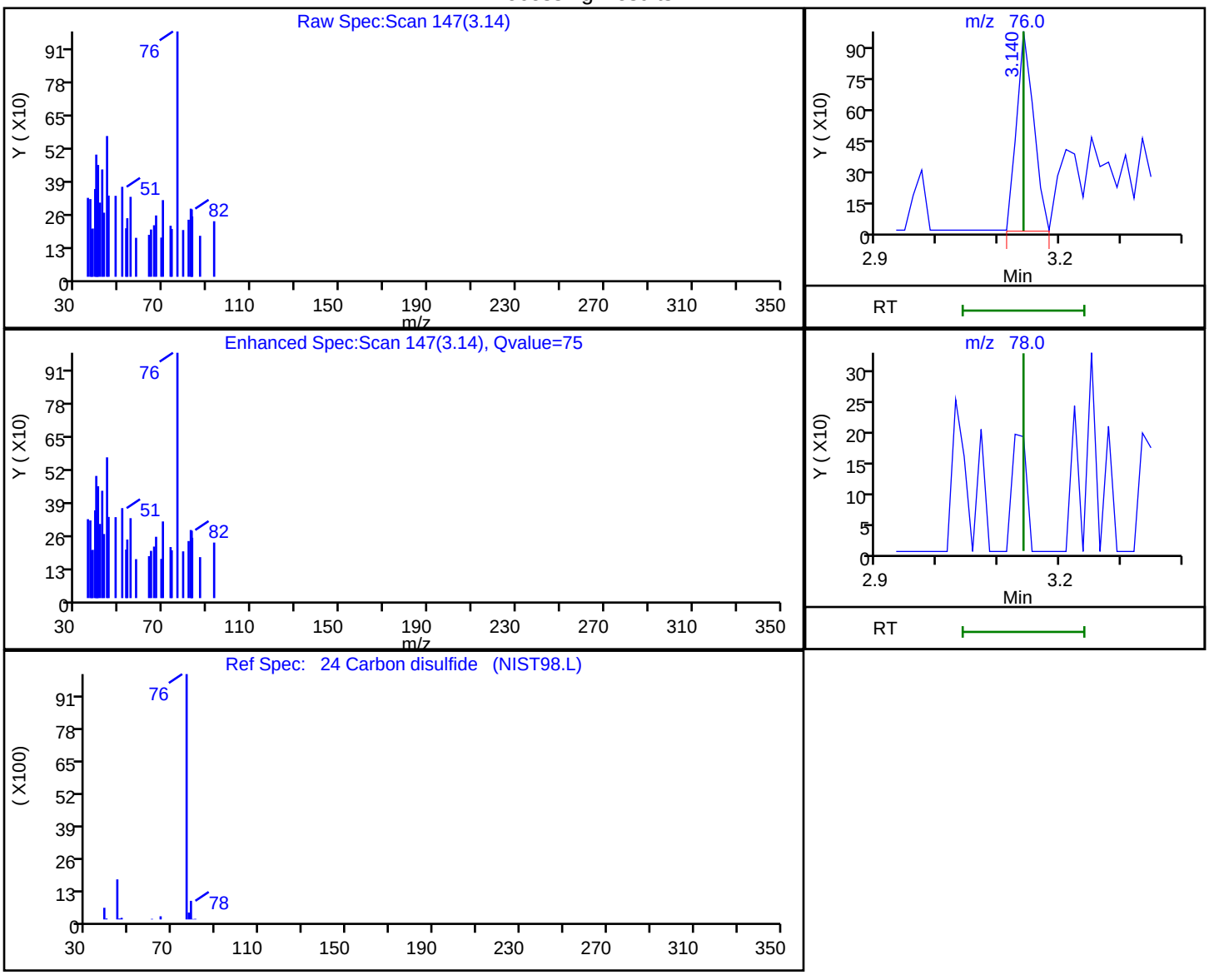
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011106.D				
Injection Date:	18-May-2024 09:57:30	Instrument ID:	VMS_MS11		
Lims ID:	280-191098-L-1	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	MED	ALS Bottle#:	8	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (0.25 mm)	Detector	MS SCAN		

24 Carbon disulfide, CAS: 75-15-0

Processing Results



RT	Mass	Response	Amount
3.14	76.00	1887	0.174055
3.14	78.00	0	

Reviewer: BX8N, 19-May-2024 14:50:41 -06:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240402-GW | Lab Sample ID: 280-191098-2

Matrix: Water | Lab File ID: ms11_00011107.D

Analysis Method: 8260D | Date Collected: 05/06/2024 10:16

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2024 10:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RXI-624SilMS ID: 0.25(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) Y pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 653926 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
71-55-6	1,1,1-Trichloroethane	0.50	U	1.0	0.50	0.39
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.21
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.27
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.22
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.23
106-93-4	1,2-Dibromoethane	0.80	U	1.0	0.80	0.18
107-06-2	1,2-Dichloroethane	0.50	U	1.0	0.50	0.28
540-59-0	1,2-Dichloroethene, Total	0.40	U	1.0	0.40	0.32
78-87-5	1,2-Dichloropropane	0.80	U	1.0	0.80	0.24
78-93-3	2-Butanone (MEK)	8.0	U	10	8.0	4.6
591-78-6	2-Hexanone	4.0	U	5.0	4.0	0.81
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	0.98
67-64-1	Acetone	8.0	U	15	8.0	6.6
71-43-2	Benzene	0.80	U	1.0	0.80	0.14
74-97-5	Bromochloromethane	0.80	U	1.0	0.80	0.40
75-27-4	Bromodichloromethane	0.50	U	1.0	0.50	0.19
75-25-2	Bromoform	1.8	U	2.0	1.8	0.25
74-83-9	Bromomethane	4.0	U M	5.0	4.0	2.4
75-15-0	Carbon disulfide	0.80	U M	2.0	0.80	0.26
56-23-5	Carbon tetrachloride	0.50	U	1.0	0.50	0.23
108-90-7	Chlorobenzene	0.80	U	1.0	0.80	0.092
75-00-3	Chloroethane	1.0	U	2.0	1.0	0.64
67-66-3	Chloroform	0.80	U	1.0	0.80	0.36
74-87-3	Chloromethane	1.0	U	2.0	1.0	0.23
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
124-48-1	Dibromochloromethane	0.50	U	1.0	0.50	0.28
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.14
75-09-2	Methylene Chloride	1.8	U	2.0	1.8	0.94
100-42-5	Styrene	0.80	U	1.0	0.80	0.13
127-18-4	Tetrachloroethene	0.80	U	1.0	0.80	0.40
108-88-3	Toluene	0.40	U	1.0	0.40	0.32
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.14
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.30
75-01-4	Vinyl chloride	0.40	U	1.0	0.40	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240402-GW | Lab Sample ID: 280-191098-2

Matrix: Water | Lab File ID: ms11_00011107.D

Analysis Method: 8260D | Date Collected: 05/06/2024 10:16

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2024 10:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RXI-624SilMS ID: 0.25(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) Y pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 653926 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1330-20-7	Xylenes, Total	0.80	U	1.0	0.80	0.11

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		81-118
460-00-4	4-Bromofluorobenzene (Surr)	100		85-114
1868-53-7	Dibromofluoromethane (Surr)	106		80-119
2037-26-5	Toluene-d8 (Surr)	102		89-112

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011107.D
Lims ID: 280-191098-K-2
Client ID: DET-003-240402-GW
Sample Type: Client
Inject. Date: 18-May-2024 10:18:30 ALS Bottle#: 9 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-191098-L-5
Operator ID: MED Instrument ID: VMS_MS11

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2024 09:35:39 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1675

First Level Reviewer: BX8N Date: 20-May-2024 09:35:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.110	5.109	0.001	100	1158190	50.0	
* 2 Chlorobenzene-d5	119	7.638	7.637	0.001	85	292092	50.0	
* 3 1,4-Dichlorobenzene-d4	152	9.872	9.872	0.000	95	505681	50.0	
$ 4 Dibromofluoromethane (Surr)	111	4.607	4.607	0.000	93	316210	53.1	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.858	4.858	0.000	0	329939	50.8	
$ 6 Toluene-d8 (Surr)	98	6.367	6.366	0.001	93	1172926	51.1	
$ 7 4-Bromofluorobenzene (Surr)	95	8.741	8.741	0.000	92	406722	49.9	
$ 8 BFB	95	8.741	8.741	0.000	92	406722	NR	
9 Dichlorodifluoromethane	85		1.702				ND	
10 Chloromethane	50		1.869				ND	
11 Vinyl chloride	62		1.967				ND	
12 Bromomethane	94		2.232				ND	U
13 Chloroethane	64		2.330				ND	
14 Dichlorofluoromethane	67		2.512				ND	
15 Trichlorofluoromethane	101		2.554				ND	
16 Ethanol	45		2.666				ND	U
17 Ethyl ether	59		2.763				ND	
18 Acrolein	56		2.875				ND	
19 1,1-Dichloroethene	96		2.959				ND	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151		2.959				ND	
21 Acetone	43		2.973				ND	
22 Isopropyl alcohol	45		3.057				ND	U
23 Iodomethane	142		3.070				ND	
24 Carbon disulfide	76		3.140				ND	U
25 Acetonitrile	41		3.182				ND	
26 Methyl acetate	43		3.196				ND	
27 3-Chloro-1-propene	41		3.224				ND	7
28 Methylene Chloride	84		3.322				ND	
29 2-Methyl-2-propanol	59		3.364				ND	
30 Acrylonitrile	53		3.475				ND	
31 Methyl tert-butyl ether	73		3.503				ND	
32 trans-1,2-Dichloroethene	96		3.517				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
33 Hexane	57		3.713				ND	
34 Vinyl acetate	43		3.811				ND	
35 1,1-Dichloroethane	63		3.839				ND	
36 Isopropyl ether	87		3.839				ND	
37 2-Chloro-1,3-butadiene	53		3.895				ND	
38 Tert-butyl ethyl ether	59		4.104				ND	
39 2-Butanone (MEK)	43		4.216				ND	
40 Ethyl acetate	43		4.230				ND	
41 cis-1,2-Dichloroethene	96		4.244				ND	
42 2,2-Dichloropropane	77		4.258				ND	
43 Propionitrile	54		4.272				ND	
44 sec-Butyl Alcohol	45		4.341				ND	
45 Methacrylonitrile	41		4.383				ND	
46 Chlorobromomethane	128		4.425				ND	
47 Tetrahydrofuran	42		4.439				ND	
48 Chloroform	83		4.481				ND	
49 1,1,1-Trichloroethane	97		4.621				ND	
50 Cyclohexane	56		4.691				ND	
51 1,1-Dichloropropene	75		4.732				ND	
52 Carbon tetrachloride	117		4.746				ND	
53 Isobutyl alcohol	43		4.760				ND	
54 Benzene	78		4.886				ND	
55 1,2-Dichloroethane	62		4.914				ND	
56 Tert-amyl methyl ether	73		4.956				ND	
57 n-Heptane	43		5.082				ND	
58 n-Butanol	56		5.249				ND	
59 Trichloroethene	130		5.389				ND	
60 2-Pentanone	43		5.487				ND	
61 Methylcyclohexane	55		5.570				ND	
62 1,2-Dichloropropane	63		5.584				ND	
63 Methyl methacrylate	100		5.598				ND	
64 1,4-Dioxane	88		5.640				ND	
65 Dibromomethane	93		5.654				ND	
66 Dichlorobromomethane	83		5.780				ND	
67 2-Nitropropane	41		5.948				ND	U
68 2-Chloroethyl vinyl ether	63		5.989				ND	
69 cis-1,3-Dichloropropene	75		6.129				ND	
70 4-Methyl-2-pentanone (MIBK)	43		6.241				ND	
71 Toluene	91		6.422				ND	
72 trans-1,3-Dichloropropene	75		6.604				ND	
73 Ethyl methacrylate	69		6.618				ND	
74 1,1,2-Trichloroethane	97		6.771				ND	
75 Tetrachloroethene	164		6.869				ND	
76 1,3-Dichloropropane	76		6.925				ND	
77 2-Hexanone	43		6.939				ND	
78 Chlorodibromomethane	129		7.121				ND	
79 Ethylene Dibromide	107		7.232				ND	
80 1-Chlorohexane	91		7.623				ND	7
81 Chlorobenzene	112		7.665				ND	
82 1,1,1,2-Tetrachloroethane	131		7.735				ND	
83 Ethylbenzene	106		7.749				ND	
84 m-Xylene & p-Xylene	91		7.861				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
85 o-Xylene	106		8.224				ND	
86 Styrene	104		8.238				ND	
87 Bromoform	173		8.419				ND	
88 Isopropylbenzene	105		8.559				ND	
89 cis-1,4-Dichloro-2-butene	53		8.615				ND	7
90 Cyclohexanone	55		8.657				ND	
91 1,1,2,2-Tetrachloroethane	83		8.852				ND	
92 Bromobenzene	156		8.880				ND	
93 trans-1,4-Dichloro-2-butene	53		8.880				ND	
94 1,2,3-Trichloropropane	110		8.908				ND	
95 N-Propylbenzene	120		8.964				ND	
96 2-Chlorotoluene	126		9.062				ND	
97 1,3,5-Trimethylbenzene	105		9.132				ND	
98 4-Chlorotoluene	126		9.174				ND	
99 tert-Butylbenzene	119		9.439				ND	
100 1,2,4-Trimethylbenzene	105		9.509				ND	
101 sec-Butylbenzene	134		9.662				ND	
102 1,3-Dichlorobenzene	146		9.788				ND	
103 4-Isopropyltoluene	119		9.816				ND	
104 1,4-Dichlorobenzene	146		9.886				ND	U
105 1,2,3-Trimethylbenzene	105		9.914				ND	
106 n-Butylbenzene	91		10.221				ND	
107 1,2-Dichlorobenzene	146		10.249				ND	
108 1,2-Dibromo-3-Chloropropane	157		11.031				ND	
109 1,3,5-Trichlorobenzene	180		11.213				ND	
110 1,2,4-Trichlorobenzene	180		11.855				ND	
111 Hexachlorobutadiene	225		11.995				ND	
112 Naphthalene	128		12.121				ND	
113 1,2,3-Trichlorobenzene	180		12.344				ND	
114 Methyl cyclohexane TIC	1		0.000				ND	
115 Ethylene oxide TIC	1		0.000				ND	
116 1-Chlorohexane TIC	1		0.000				ND	
117 1-Chloro-1-fluoroethane TIC	1		0.000				ND	
118 Pentachloroethane	167		0.000				ND	
119 t-Amyl alcohol	1		0.000				ND	
120 Ethyl acrylate	55		0.000				ND	
121 Tetrahydrothiophene TIC	1		0.000				ND	
S 122 Xylenes, Total	106		0.000				ND	7
S 123 1,2-Dichloroethene, Total	1		0.000				ND	7
S 124 1,3-Dichloropropene, Total	1		0.000				ND	7
S 125 Trihalomethanes, Total	1		0.000				ND	7
S 126 TAH	1				0		0	7
S 127 Total BTEX	1		0.000				ND	7
T 129 Propene TIC	1		1.369				ND	
T 128 Propene oxide TIC	1		1.369				ND	
T 130 1,3-Butadiene TIC	1		1.985				ND	
T 131 2,3-Dichloro-1-propene TIC	1		6.150				ND	
T 132 4-Ethyltoluene TIC	1		9.345				ND	
T 133 Dicyclopentadiene TIC	1		9.670				ND	
T 134 Dichloroacetonitrile TIC	1		0.000				ND	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

mv-IS_SS_00079 Amount Added: 5.00 Units: uL Run Reagent

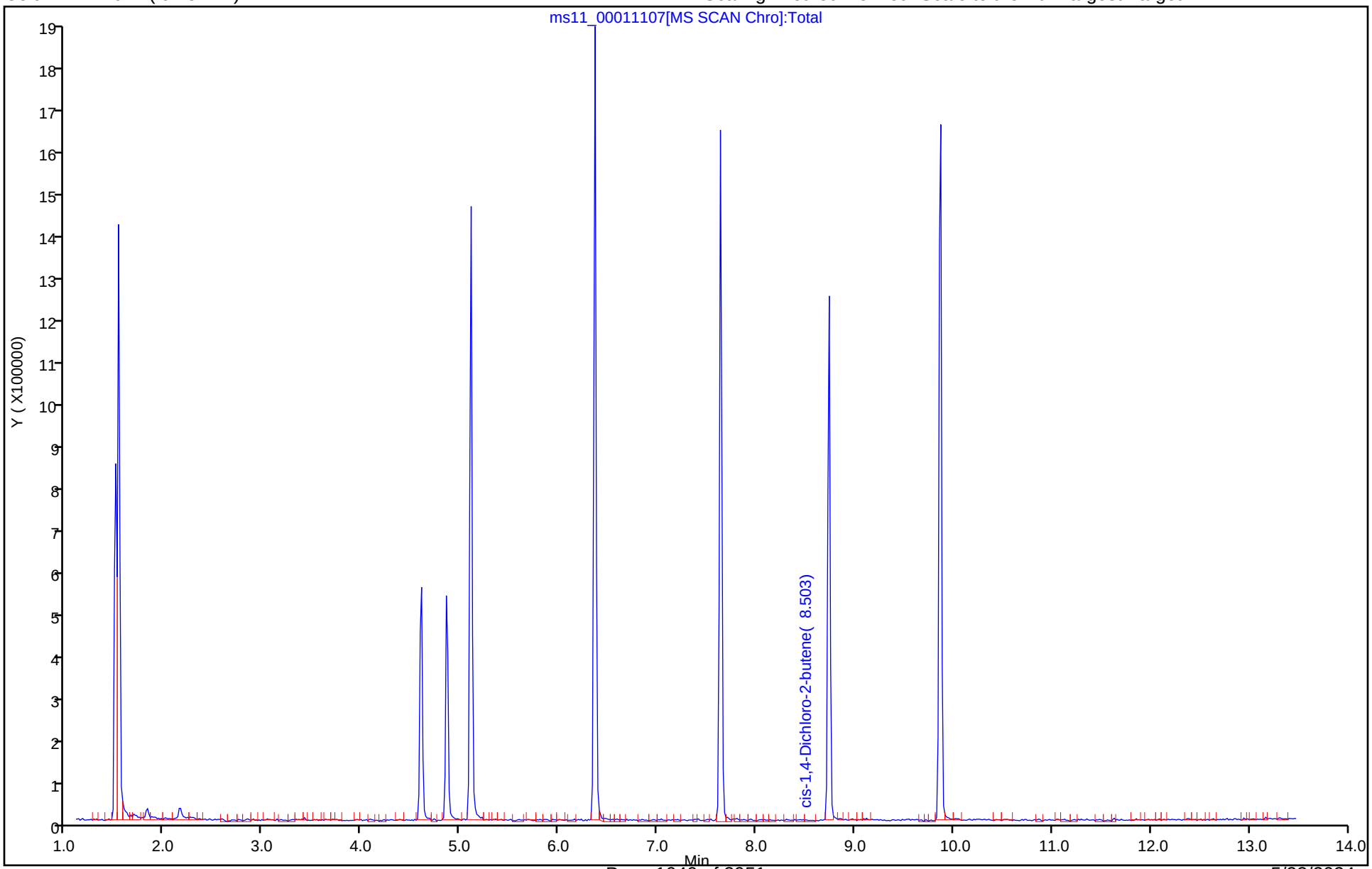
Report Date: 20-May-2024 09:35:52 Chrom Revision: 2.3 15-May-2024 08:18:50

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011107.D

Injection Date:	18-May-2024 10:18:30	Instrument ID:	VMS_MS11	Operator ID:	MED
Lims ID:	280-191098-K-2	Lab Sample ID:	280-191098-2	Worklist Smp#:	21
Client ID:	DET-003-240402-GW				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011107.D
Lims ID: 280-191098-K-2
Client ID: DET-003-240402-GW
Sample Type: Client
Inject. Date: 18-May-2024 10:18:30 ALS Bottle#: 9 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-191098-L-5
Operator ID: MED Instrument ID: VMS_MS11

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2024 09:35:39 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1675

First Level Reviewer: BX8N Date: 20-May-2024 09:35:11

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	50.0	53.1	106.11
$ 5 1,2-Dichloroethane-d4 (Surr)	50.0	50.8	101.62
$ 6 Toluene-d8 (Surr)	50.0	51.1	102.15
$ 7 4-Bromofluorobenzene (Surr)	50.0	49.9	99.78

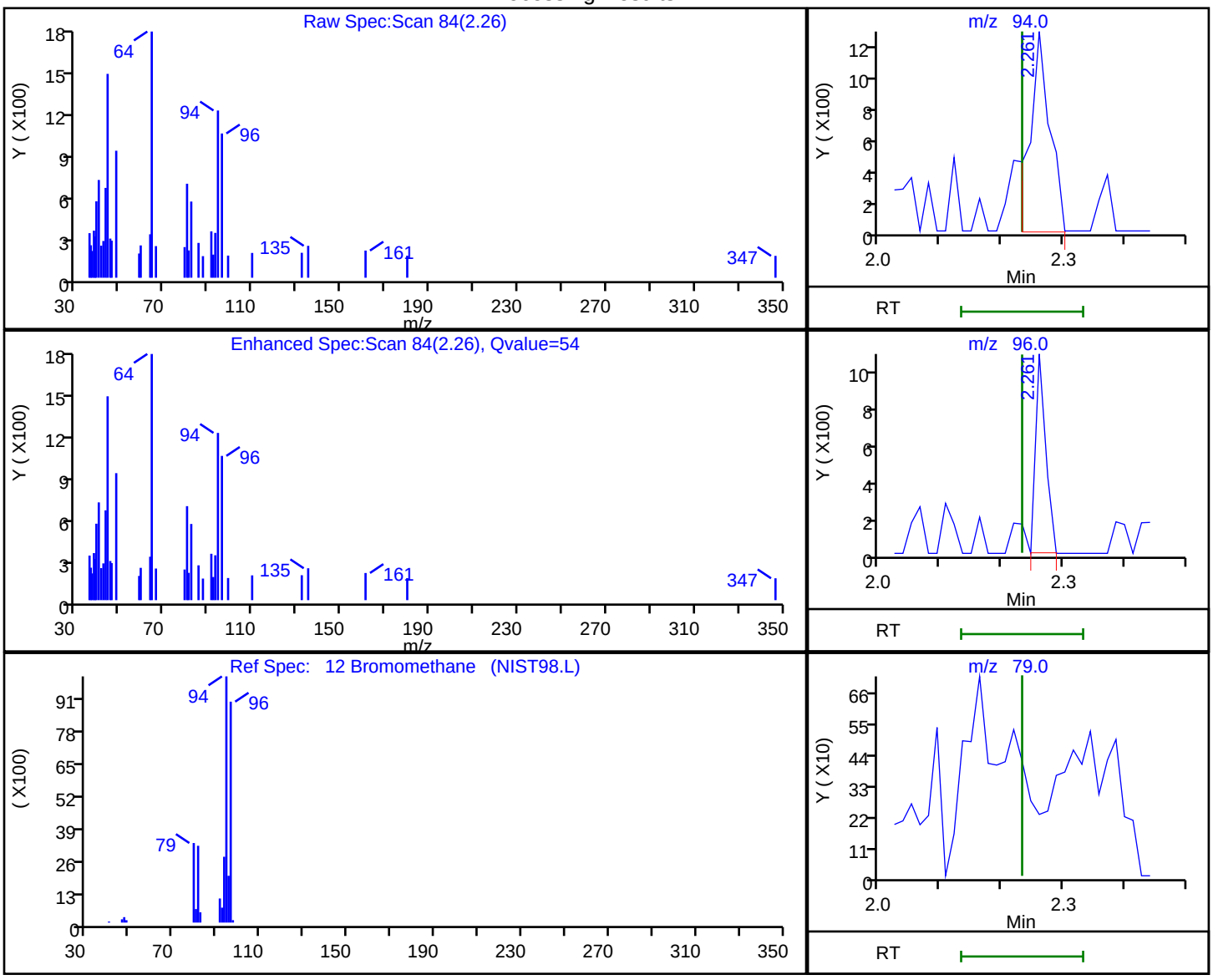
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011107.D				
Injection Date:	18-May-2024 10:18:30	Instrument ID:	VMS_MS11		
Lims ID:	280-191098-K-2	Lab Sample ID:	280-191098-2		
Client ID:	DET-003-240402-GW				
Operator ID:	MED	ALS Bottle#:	9	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (0.25 mm)	Detector	MS SCAN		

12 Bromomethane, CAS: 74-83-9

Processing Results



RT	Mass	Response	Amount
2.26	94.00	2741	1.034938
2.26	96.00	1200	
2.23	79.00	0	

Reviewer: BX8N, 20-May-2024 09:34:52 -06:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

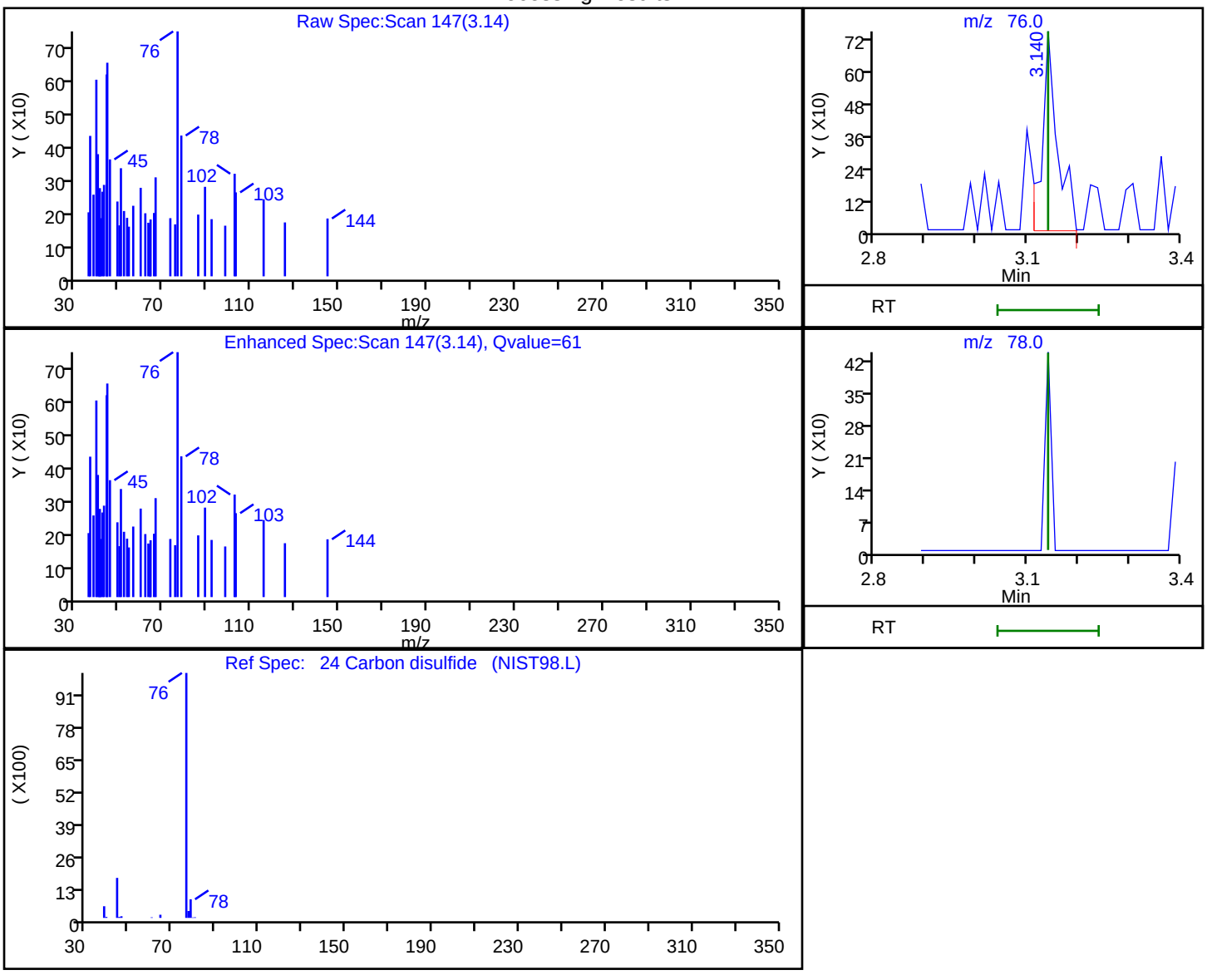
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011107.D				
Injection Date:	18-May-2024 10:18:30	Instrument ID:	VMS_MS11		
Lims ID:	280-191098-K-2	Lab Sample ID:	280-191098-2		
Client ID:	DET-003-240402-GW				
Operator ID:	MED	ALS Bottle#:	9	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (0.25 mm)	Detector	MS SCAN		

24 Carbon disulfide, CAS: 75-15-0

Processing Results



RT	Mass	Response	Amount
3.14	76.00	1561	0.143164
3.14	78.00	0	

Reviewer: BX8N, 20-May-2024 09:34:59 -06:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: FWGTB-240401-TB001 | Lab Sample ID: 280-191098-3

Matrix: Water | Lab File ID: ms11_00011100.D

Analysis Method: 8260D | Date Collected: 05/06/2024 10:15

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2024 07:49

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RXI-624SilMS ID: 0.25(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) Y pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 653926 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
71-55-6	1,1,1-Trichloroethane	0.50	U	1.0	0.50	0.39
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.21
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.27
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.22
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.23
106-93-4	1,2-Dibromoethane	0.80	U	1.0	0.80	0.18
107-06-2	1,2-Dichloroethane	0.50	U	1.0	0.50	0.28
540-59-0	1,2-Dichloroethene, Total	0.40	U	1.0	0.40	0.32
78-87-5	1,2-Dichloropropane	0.80	U	1.0	0.80	0.24
78-93-3	2-Butanone (MEK)	8.0	U	10	8.0	4.6
591-78-6	2-Hexanone	4.0	U	5.0	4.0	0.81
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	0.98
67-64-1	Acetone	8.0	U	15	8.0	6.6
71-43-2	Benzene	0.80	U	1.0	0.80	0.14
74-97-5	Bromochloromethane	0.80	U	1.0	0.80	0.40
75-27-4	Bromodichloromethane	0.50	U	1.0	0.50	0.19
75-25-2	Bromoform	1.8	U	2.0	1.8	0.25
74-83-9	Bromomethane	4.0	U M	5.0	4.0	2.4
75-15-0	Carbon disulfide	0.80	U M	2.0	0.80	0.26
56-23-5	Carbon tetrachloride	0.50	U	1.0	0.50	0.23
108-90-7	Chlorobenzene	0.80	U	1.0	0.80	0.092
75-00-3	Chloroethane	1.0	U	2.0	1.0	0.64
67-66-3	Chloroform	0.80	U	1.0	0.80	0.36
74-87-3	Chloromethane	1.0	U	2.0	1.0	0.23
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
124-48-1	Dibromochloromethane	0.50	U	1.0	0.50	0.28
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.14
75-09-2	Methylene Chloride	1.8	U	2.0	1.8	0.94
100-42-5	Styrene	0.80	U	1.0	0.80	0.13
127-18-4	Tetrachloroethene	0.80	U	1.0	0.80	0.40
108-88-3	Toluene	0.40	U	1.0	0.40	0.32
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.14
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.30
75-01-4	Vinyl chloride	0.40	U	1.0	0.40	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: FWGTB-240401-TB001 | Lab Sample ID: 280-191098-3

Matrix: Water | Lab File ID: ms11_00011100.D

Analysis Method: 8260D | Date Collected: 05/06/2024 10:15

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2024 07:49

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RXI-624SilMS ID: 0.25(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) Y pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 653926 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1330-20-7	Xylenes, Total	0.80	U	1.0	0.80	0.11

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		81-118
460-00-4	4-Bromofluorobenzene (Surr)	100		85-114
1868-53-7	Dibromofluoromethane (Surr)	102		80-119
2037-26-5	Toluene-d8 (Surr)	99		89-112

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011100.D
Lims ID: 280-191098-A-3
Client ID: FWGTB-240401-TB001
Sample Type: Client
Inject. Date: 18-May-2024 07:49:30 ALS Bottle#: 2 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-191098-A-3
Operator ID: MED Instrument ID: VMS_MS11

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 18-May-2024 08:44:29 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1671

First Level Reviewer: BX8N Date: 18-May-2024 08:43:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.110	5.109	0.001	99	1151246	50.0	
* 2 Chlorobenzene-d5	119	7.637	7.637	0.000	85	285109	50.0	
* 3 1,4-Dichlorobenzene-d4	152	9.872	9.872	0.000	95	492747	50.0	
$ 4 Dibromofluoromethane (Surr)	111	4.607	4.607	0.000	92	301246	50.9	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.858	4.858	0.000	0	320082	49.6	
$ 6 Toluene-d8 (Surr)	98	6.367	6.366	0.001	92	1114975	49.7	
$ 7 4-Bromofluorobenzene (Surr)	95	8.741	8.741	0.000	90	397085	50.0	
$ 8 BFB	95	8.741	8.741	0.000	90	397085	NR	
9 Dichlorodifluoromethane	85		1.702				ND	
10 Chloromethane	50		1.869				ND	
11 Vinyl chloride	62		1.967				ND	
12 Bromomethane	94		2.232				ND	U
13 Chloroethane	64		2.330				ND	
14 Dichlorofluoromethane	67		2.512				ND	
15 Trichlorofluoromethane	101		2.554				ND	
16 Ethanol	45		2.666				ND	
17 Ethyl ether	59		2.763				ND	
18 Acrolein	56		2.875				ND	
19 1,1-Dichloroethene	96		2.959				ND	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151		2.959				ND	
21 Acetone	43		2.973				ND	
22 Isopropyl alcohol	45		3.057				ND	
23 Iodomethane	142		3.070				ND	
24 Carbon disulfide	76		3.140				ND	U
25 Acetonitrile	41		3.182				ND	7
26 Methyl acetate	43		3.196				ND	
27 3-Chloro-1-propene	41		3.224				ND	7
28 Methylene Chloride	84		3.322				ND	
29 2-Methyl-2-propanol	59		3.364				ND	
30 Acrylonitrile	53		3.475				ND	
31 Methyl tert-butyl ether	73		3.503				ND	
32 trans-1,2-Dichloroethene	96		3.517				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
33 Hexane	57		3.713				ND	
34 Vinyl acetate	43		3.811				ND	
35 1,1-Dichloroethane	63		3.839				ND	
36 Isopropyl ether	87		3.839				ND	
37 2-Chloro-1,3-butadiene	53		3.895				ND	
38 Tert-butyl ethyl ether	59		4.104				ND	
39 2-Butanone (MEK)	43		4.216				ND	
40 Ethyl acetate	43		4.230				ND	
41 cis-1,2-Dichloroethene	96		4.244				ND	
42 2,2-Dichloropropane	77		4.258				ND	
43 Propionitrile	54		4.272				ND	
44 sec-Butyl Alcohol	45		4.341				ND	
45 Methacrylonitrile	41		4.383				ND	
46 Chlorobromomethane	128		4.425				ND	
47 Tetrahydrofuran	42		4.439				ND	
48 Chloroform	83		4.481				ND	
49 1,1,1-Trichloroethane	97		4.621				ND	
50 Cyclohexane	56		4.691				ND	
51 1,1-Dichloropropene	75		4.732				ND	
52 Carbon tetrachloride	117		4.746				ND	
53 Isobutyl alcohol	43		4.760				ND	
54 Benzene	78		4.886				ND	
55 1,2-Dichloroethane	62		4.914				ND	
56 Tert-amyl methyl ether	73		4.956				ND	
57 n-Heptane	43		5.082				ND	
58 n-Butanol	56		5.249				ND	
59 Trichloroethene	130		5.389				ND	
60 2-Pentanone	43		5.487				ND	
61 Methylcyclohexane	55		5.570				ND	
62 1,2-Dichloropropane	63		5.584				ND	
63 Methyl methacrylate	100		5.598				ND	
64 1,4-Dioxane	88		5.640				ND	
65 Dibromomethane	93		5.654				ND	
66 Dichlorobromomethane	83		5.780				ND	
67 2-Nitropropane	41		5.948				ND	
68 2-Chloroethyl vinyl ether	63		5.989				ND	
69 cis-1,3-Dichloropropene	75		6.129				ND	
70 4-Methyl-2-pentanone (MIBK)	43		6.241				ND	
71 Toluene	91		6.422				ND	
72 trans-1,3-Dichloropropene	75		6.604				ND	
73 Ethyl methacrylate	69		6.618				ND	
74 1,1,2-Trichloroethane	97		6.771				ND	
75 Tetrachloroethene	164		6.869				ND	
76 1,3-Dichloropropane	76		6.925				ND	
77 2-Hexanone	43		6.939				ND	
78 Chlorodibromomethane	129		7.121				ND	
79 Ethylene Dibromide	107		7.232				ND	
80 1-Chlorohexane	91		7.623				ND	7
81 Chlorobenzene	112		7.665				ND	
82 1,1,1,2-Tetrachloroethane	131		7.735				ND	
83 Ethylbenzene	106		7.749				ND	
84 m-Xylene & p-Xylene	91		7.861				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
85 o-Xylene	106		8.224			ND		
86 Styrene	104		8.238			ND		
87 Bromoform	173		8.419			ND		
88 Isopropylbenzene	105		8.559			ND		
89 cis-1,4-Dichloro-2-butene	53		8.615			ND		U
90 Cyclohexanone	55		8.657			ND		
91 1,1,2,2-Tetrachloroethane	83		8.852			ND		
92 Bromobenzene	156		8.880			ND		
93 trans-1,4-Dichloro-2-butene	53		8.880			ND		
94 1,2,3-Trichloropropane	110		8.908			ND		
95 N-Propylbenzene	120		8.964			ND		
96 2-Chlorotoluene	126		9.062			ND		
97 1,3,5-Trimethylbenzene	105		9.132			ND		
98 4-Chlorotoluene	126		9.174			ND		
99 tert-Butylbenzene	119		9.439			ND		
100 1,2,4-Trimethylbenzene	105		9.509			ND		
101 sec-Butylbenzene	134		9.662			ND		
102 1,3-Dichlorobenzene	146		9.788			ND		
103 4-Isopropyltoluene	119		9.816			ND		
104 1,4-Dichlorobenzene	146		9.886			ND		U
105 1,2,3-Trimethylbenzene	105		9.914			ND		
106 n-Butylbenzene	91		10.221			ND		
107 1,2-Dichlorobenzene	146		10.249			ND		
108 1,2-Dibromo-3-Chloropropane	157		11.031			ND		
109 1,3,5-Trichlorobenzene	180		11.213			ND		
110 1,2,4-Trichlorobenzene	180		11.855			ND		
111 Hexachlorobutadiene	225		11.995			ND		
112 Naphthalene	128		12.121			ND		
113 1,2,3-Trichlorobenzene	180		12.344			ND		
114 Methyl cyclohexane TIC	1		0.000			ND		
115 Ethylene oxide TIC	1		0.000			ND		
116 1-Chlorohexane TIC	1		0.000			ND		
117 1-Chloro-1-fluoroethane TIC	1		0.000			ND		
118 Pentachloroethane	167		0.000			ND		
119 t-Amyl alcohol	1		0.000			ND		
120 Ethyl acrylate	55		0.000			ND		
121 Tetrahydrothiophene TIC	1		0.000			ND		
S 122 Xylenes, Total	106		0.000			ND		7
S 123 1,2-Dichloroethene, Total	1		0.000			ND		7
S 124 1,3-Dichloropropene, Total	1		0.000			ND		7
S 125 Trihalomethanes, Total	1		0.000			ND		7
S 126 TAH	1				0		0	7
S 127 Total BTEX	1		0.000			ND		7
T 129 Propene TIC	1		1.369			ND		
T 128 Propene oxide TIC	1		1.369			ND		
T 130 1,3-Butadiene TIC	1		1.985			ND		
T 131 2,3-Dichloro-1-propene TIC	1		6.150			ND		
T 132 4-Ethyltoluene TIC	1		9.345			ND		
T 133 Dicyclopentadiene TIC	1		9.670			ND		
T 134 Dichloroacetonitrile TIC	1		0.000			ND		

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

mv-IS_SS_00079 Amount Added: 5.00 Units: uL Run Reagent

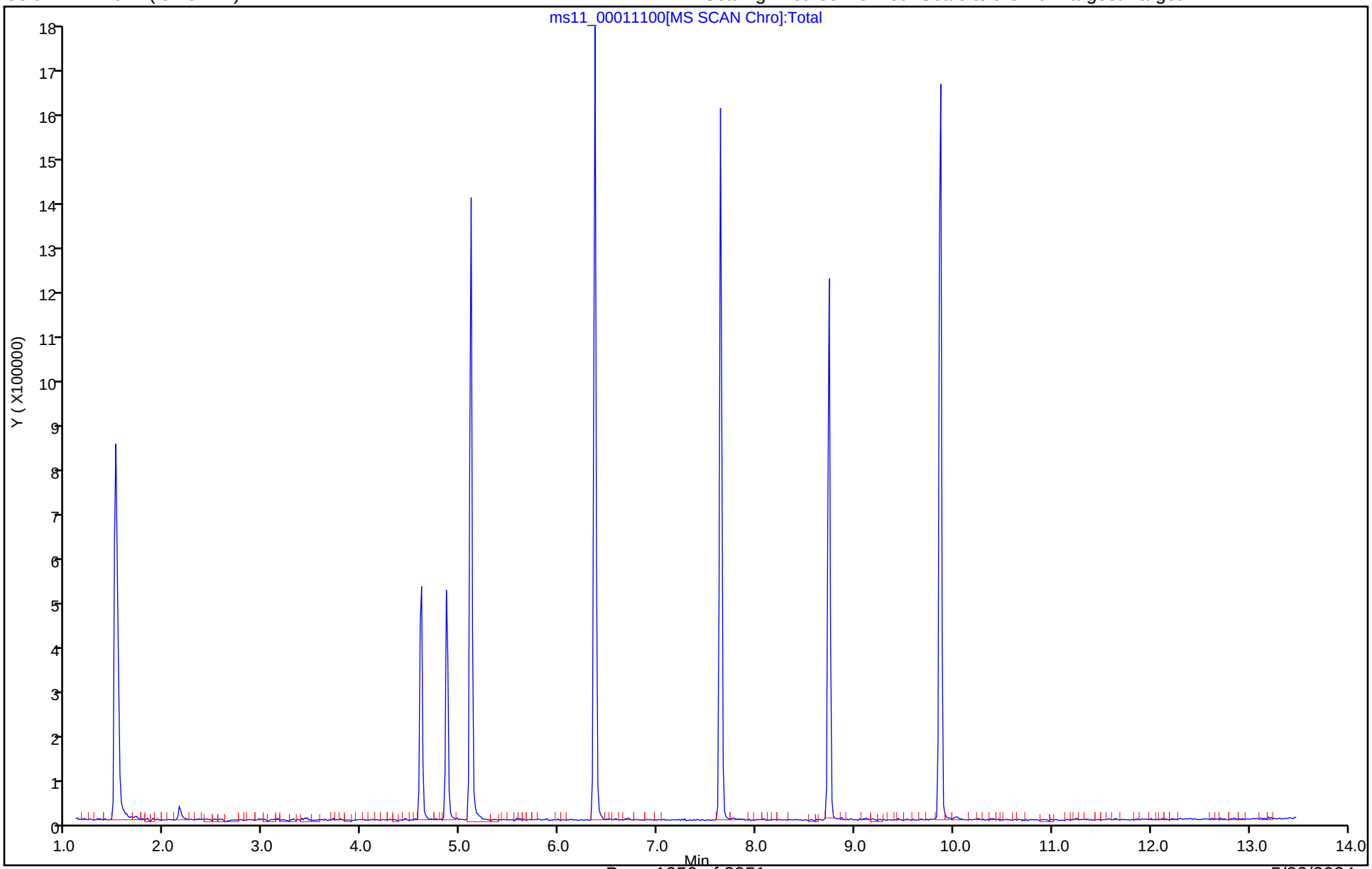
Report Date: 18-May-2024 08:44:50 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011100.D

Injection Date:	18-May-2024 07:49:30	Instrument ID:	VMS_MS11	Operator ID:	MED
Lims ID:	280-191098-A-3	Lab Sample ID:	280-191098-3	Worklist Smp#:	14
Client ID:	FWGTB-240401-TB001				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011100.D
Lims ID: 280-191098-A-3
Client ID: FWGTB-240401-TB001
Sample Type: Client
Inject. Date: 18-May-2024 07:49:30 ALS Bottle#: 2 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-191098-A-3
Operator ID: MED Instrument ID: VMS_MS11

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 18-May-2024 08:44:29 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1671

First Level Reviewer: BX8N Date: 18-May-2024 08:43:51

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	50.0	50.9	101.70
$ 5 1,2-Dichloroethane-d4 (Surr)	50.0	49.6	99.17
$ 6 Toluene-d8 (Surr)	50.0	49.7	99.48
$ 7 4-Bromofluorobenzene (Surr)	50.0	50.0	99.97

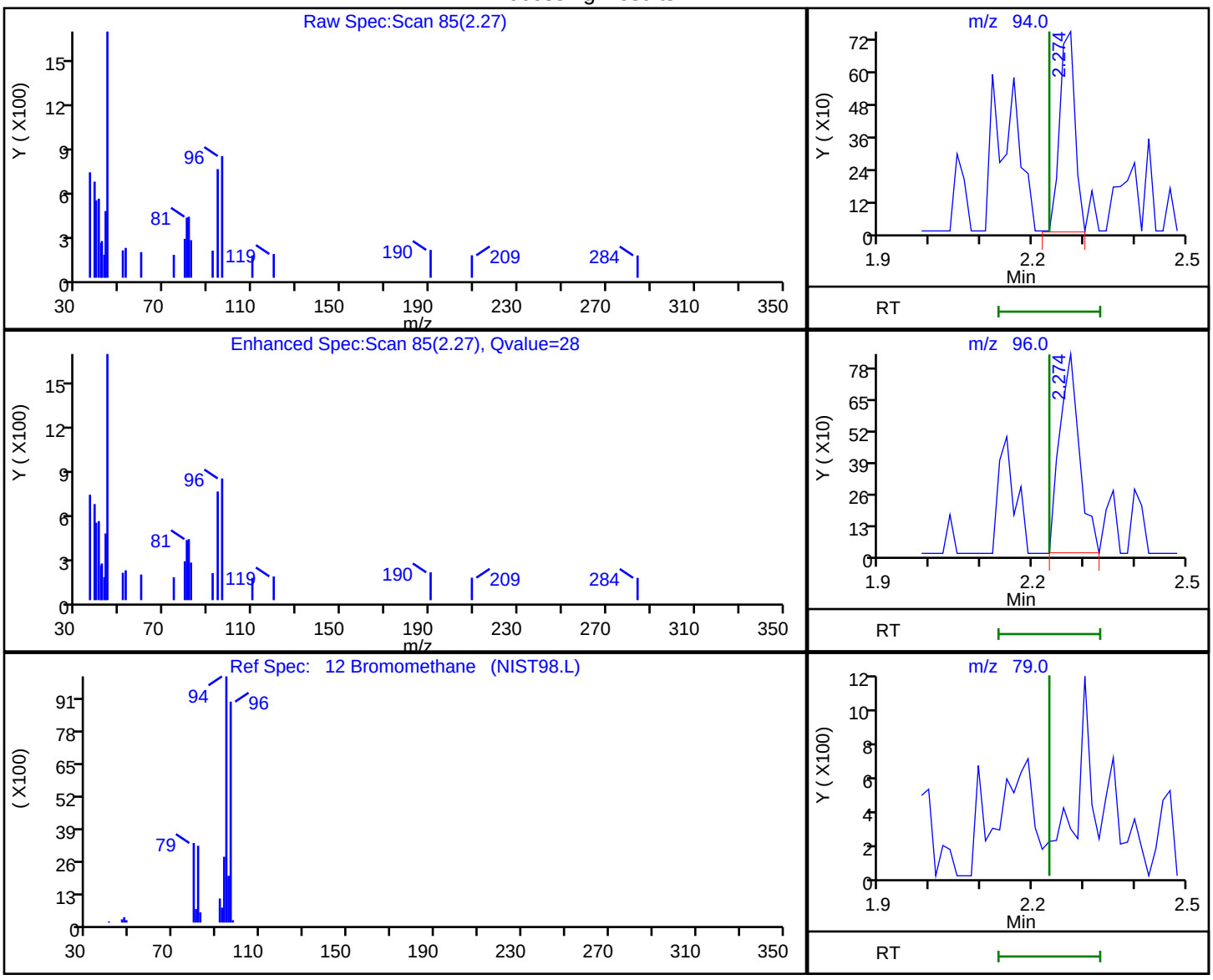
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011100.D				
Injection Date:	18-May-2024 07:49:30	Instrument ID:	VMS_MS11		
Lims ID:	280-191098-A-3	Lab Sample ID:	280-191098-3		
Client ID:	FWGTB-240401-TB001				
Operator ID:	MED	ALS Bottle#:	2	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (0.25 mm)	Detector	MS SCAN		

12 Bromomethane, CAS: 74-83-9

Processing Results



RT	Mass	Response	Amount
2.27	94.00	1550	0.588774
2.27	96.00	2259	
2.23	79.00	0	

Reviewer: BX8N, 18-May-2024 08:43:34 -06:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

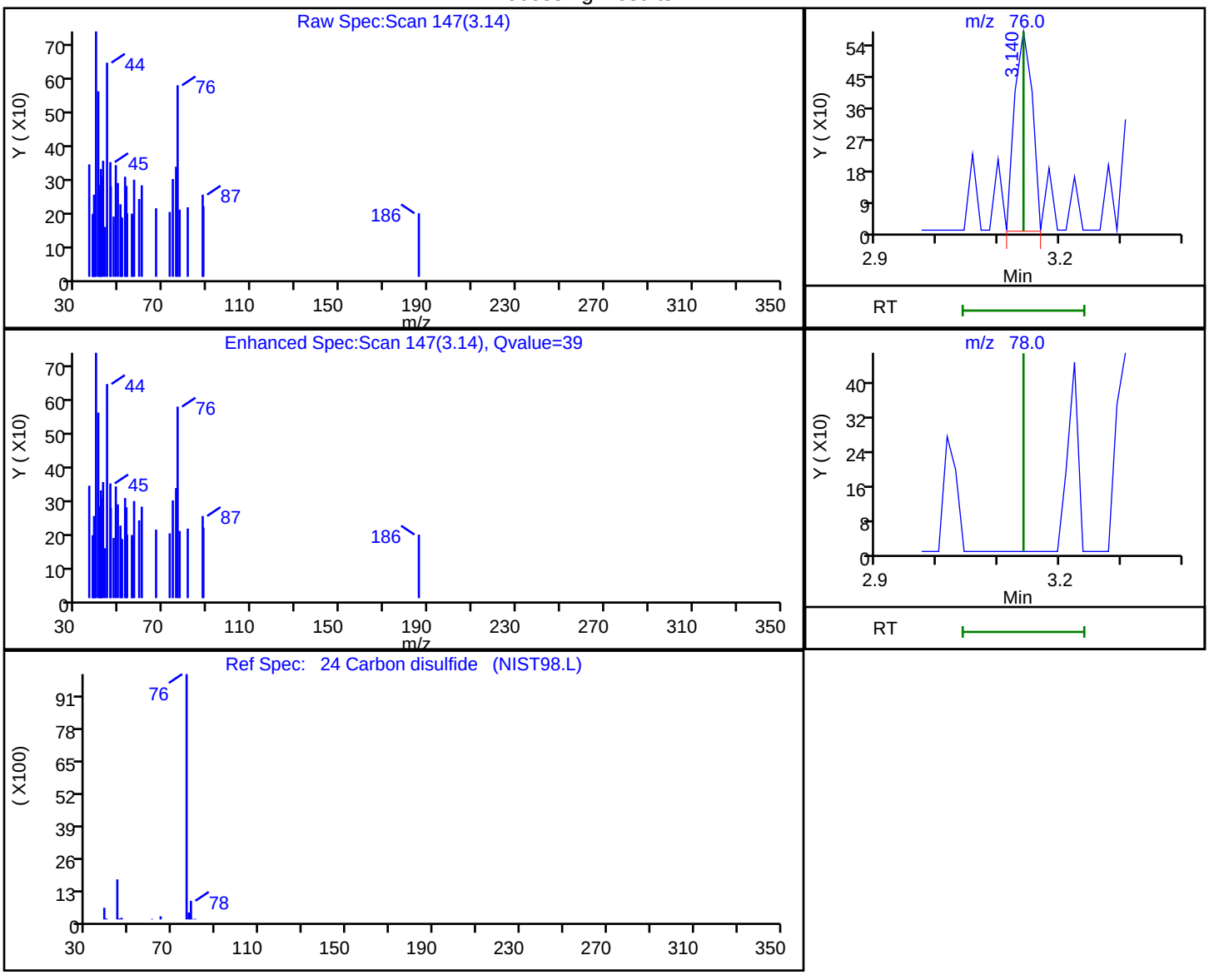
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011100.D				
Injection Date:	18-May-2024 07:49:30	Instrument ID:	VMS_MS11		
Lims ID:	280-191098-A-3	Lab Sample ID:	280-191098-3		
Client ID:	FWGTB-240401-TB001				
Operator ID:	MED	ALS Bottle#:	2	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (0.25 mm)	Detector	MS SCAN		

24 Carbon disulfide, CAS: 75-15-0

Processing Results



RT	Mass	Response	Amount
3.14	76.00	1158	0.106844
3.14	78.00	0	

Reviewer: BX8N, 18-May-2024 08:43:36 -06:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-004-240401-GW | Lab Sample ID: 280-191098-5

Matrix: Water | Lab File ID: ms11_00011108.D

Analysis Method: 8260D | Date Collected: 05/06/2024 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2024 10:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RXI-624SilMS ID: 0.25(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) Y pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 653926 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
71-55-6	1,1,1-Trichloroethane	0.50	U	1.0	0.50	0.39
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.21
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.27
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.22
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.23
106-93-4	1,2-Dibromoethane	0.80	U	1.0	0.80	0.18
107-06-2	1,2-Dichloroethane	0.50	U M	1.0	0.50	0.28
540-59-0	1,2-Dichloroethene, Total	0.40	U	1.0	0.40	0.32
78-87-5	1,2-Dichloropropane	0.80	U	1.0	0.80	0.24
78-93-3	2-Butanone (MEK)	8.0	U	10	8.0	4.6
591-78-6	2-Hexanone	4.0	U	5.0	4.0	0.81
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	0.98
67-64-1	Acetone	8.0	U	15	8.0	6.6
71-43-2	Benzene	0.80	U	1.0	0.80	0.14
74-97-5	Bromochloromethane	0.80	U	1.0	0.80	0.40
75-27-4	Bromodichloromethane	0.50	U	1.0	0.50	0.19
75-25-2	Bromoform	1.8	U	2.0	1.8	0.25
74-83-9	Bromomethane	4.0	U	5.0	4.0	2.4
75-15-0	Carbon disulfide	0.80	U M	2.0	0.80	0.26
56-23-5	Carbon tetrachloride	0.50	U	1.0	0.50	0.23
108-90-7	Chlorobenzene	0.80	U	1.0	0.80	0.092
75-00-3	Chloroethane	1.0	U	2.0	1.0	0.64
67-66-3	Chloroform	0.80	U	1.0	0.80	0.36
74-87-3	Chloromethane	1.0	U	2.0	1.0	0.23
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
124-48-1	Dibromochloromethane	0.50	U	1.0	0.50	0.28
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.14
75-09-2	Methylene Chloride	1.8	U	2.0	1.8	0.94
100-42-5	Styrene	0.80	U	1.0	0.80	0.13
127-18-4	Tetrachloroethene	0.80	U	1.0	0.80	0.40
108-88-3	Toluene	0.40	U	1.0	0.40	0.32
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.14
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.30
75-01-4	Vinyl chloride	0.40	U	1.0	0.40	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-004-240401-GW | Lab Sample ID: 280-191098-5

Matrix: Water | Lab File ID: ms11_00011108.D

Analysis Method: 8260D | Date Collected: 05/06/2024 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2024 10:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RXI-624SilMS ID: 0.25(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) Y pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 653926 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1330-20-7	Xylenes, Total	0.80	U	1.0	0.80	0.11

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		81-118
460-00-4	4-Bromofluorobenzene (Surr)	101		85-114
1868-53-7	Dibromofluoromethane (Surr)	108		80-119
2037-26-5	Toluene-d8 (Surr)	98		89-112

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011108.D
Lims ID: 280-191098-L-5
Client ID: DET-004-240401-GW
Sample Type: Client
Inject. Date: 18-May-2024 10:39:30 ALS Bottle#: 10 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-191098-L-5
Operator ID: MED Instrument ID: VMS_MS11

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2024 09:35:39 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1675

First Level Reviewer: BX8N Date: 20-May-2024 09:35:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.110	5.109	0.001	99	1170472	50.0	
* 2 Chlorobenzene-d5	119	7.637	7.637	0.000	85	295583	50.0	
* 3 1,4-Dichlorobenzene-d4	152	9.872	9.872	0.000	95	500348	50.0	
$ 4 Dibromofluoromethane (Surr)	111	4.607	4.607	0.000	91	325684	54.1	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.858	4.858	0.000	0	340881	51.9	
$ 6 Toluene-d8 (Surr)	98	6.366	6.366	0.000	92	1139346	49.0	
$ 7 4-Bromofluorobenzene (Surr)	95	8.741	8.741	0.000	91	407811	50.6	
$ 8 BFB	95	8.741	8.741	0.000	91	407811	NR	
9 Dichlorodifluoromethane	85		1.702				ND	
10 Chloromethane	50		1.869				ND	
11 Vinyl chloride	62		1.967				ND	
12 Bromomethane	94		2.232				ND	
13 Chloroethane	64		2.330				ND	
14 Dichlorofluoromethane	67		2.512				ND	
15 Trichlorofluoromethane	101		2.554				ND	
16 Ethanol	45		2.666				ND	U
17 Ethyl ether	59		2.763				ND	
18 Acrolein	56		2.875				ND	
19 1,1-Dichloroethene	96		2.959				ND	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151		2.959				ND	
21 Acetone	43		2.973				ND	
22 Isopropyl alcohol	45		3.057				ND	
23 Iodomethane	142		3.070				ND	
24 Carbon disulfide	76		3.140				ND	U
25 Acetonitrile	41		3.182				ND	7
26 Methyl acetate	43		3.196				ND	
27 3-Chloro-1-propene	41		3.224				ND	
28 Methylene Chloride	84		3.322				ND	
29 2-Methyl-2-propanol	59		3.364				ND	
30 Acrylonitrile	53		3.475				ND	
31 Methyl tert-butyl ether	73		3.503				ND	
32 trans-1,2-Dichloroethene	96		3.517				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
33 Hexane	57		3.713				ND	
34 Vinyl acetate	43		3.811				ND	
35 1,1-Dichloroethane	63		3.839				ND	
36 Isopropyl ether	87		3.839				ND	
37 2-Chloro-1,3-butadiene	53		3.895				ND	
38 Tert-butyl ethyl ether	59		4.104				ND	
39 2-Butanone (MEK)	43		4.216				ND	
40 Ethyl acetate	43		4.230				ND	U
41 cis-1,2-Dichloroethene	96		4.244				ND	
42 2,2-Dichloropropane	77		4.258				ND	
43 Propionitrile	54		4.272				ND	
44 sec-Butyl Alcohol	45		4.341				ND	
45 Methacrylonitrile	41		4.383				ND	
46 Chlorobromomethane	128		4.425				ND	
47 Tetrahydrofuran	42		4.439				ND	
48 Chloroform	83		4.481				ND	
49 1,1,1-Trichloroethane	97		4.621				ND	
50 Cyclohexane	56		4.691				ND	
51 1,1-Dichloropropene	75		4.732				ND	
52 Carbon tetrachloride	117		4.746				ND	
53 Isobutyl alcohol	43		4.760				ND	
54 Benzene	78		4.886				ND	
55 1,2-Dichloroethane	62		4.914				ND	U
56 Tert-amyl methyl ether	73		4.956				ND	
57 n-Heptane	43		5.082				ND	
58 n-Butanol	56		5.249				ND	
59 Trichloroethene	130		5.389				ND	
60 2-Pentanone	43		5.487				ND	
61 Methylcyclohexane	55		5.570				ND	
62 1,2-Dichloropropane	63		5.584				ND	
63 Methyl methacrylate	100		5.598				ND	
64 1,4-Dioxane	88		5.640				ND	
65 Dibromomethane	93		5.654				ND	
66 Dichlorobromomethane	83		5.780				ND	
67 2-Nitropropane	41		5.948				ND	U
68 2-Chloroethyl vinyl ether	63		5.989				ND	
69 cis-1,3-Dichloropropene	75		6.129				ND	
70 4-Methyl-2-pentanone (MIBK)	43		6.241				ND	
71 Toluene	91		6.422				ND	
72 trans-1,3-Dichloropropene	75		6.604				ND	
73 Ethyl methacrylate	69		6.618				ND	
74 1,1,2-Trichloroethane	97		6.771				ND	
75 Tetrachloroethene	164		6.869				ND	
76 1,3-Dichloropropane	76		6.925				ND	
77 2-Hexanone	43		6.939				ND	
78 Chlorodibromomethane	129		7.121				ND	
79 Ethylene Dibromide	107		7.232				ND	
80 1-Chlorohexane	91		7.623				ND	7
81 Chlorobenzene	112		7.665				ND	
82 1,1,1,2-Tetrachloroethane	131		7.735				ND	
83 Ethylbenzene	106		7.749				ND	
84 m-Xylene & p-Xylene	91		7.861				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
85 o-Xylene	106		8.224			ND		
86 Styrene	104		8.238			ND		
87 Bromoform	173		8.419			ND		
88 Isopropylbenzene	105		8.559			ND		
89 cis-1,4-Dichloro-2-butene	53		8.615			ND		U
90 Cyclohexanone	55		8.657			ND		
91 1,1,2,2-Tetrachloroethane	83		8.852			ND		
92 Bromobenzene	156		8.880			ND		
93 trans-1,4-Dichloro-2-butene	53		8.880			ND		
94 1,2,3-Trichloropropane	110		8.908			ND		
95 N-Propylbenzene	120		8.964			ND		
96 2-Chlorotoluene	126		9.062			ND		
97 1,3,5-Trimethylbenzene	105		9.132			ND		
98 4-Chlorotoluene	126		9.174			ND		
99 tert-Butylbenzene	119		9.439			ND		
100 1,2,4-Trimethylbenzene	105		9.509			ND		
101 sec-Butylbenzene	134		9.662			ND		
102 1,3-Dichlorobenzene	146		9.788			ND		
103 4-Isopropyltoluene	119		9.816			ND		
104 1,4-Dichlorobenzene	146		9.886			ND		U
105 1,2,3-Trimethylbenzene	105		9.914			ND		
106 n-Butylbenzene	91		10.221			ND		
107 1,2-Dichlorobenzene	146		10.249			ND		
108 1,2-Dibromo-3-Chloropropane	157		11.031			ND		
109 1,3,5-Trichlorobenzene	180		11.213			ND		
110 1,2,4-Trichlorobenzene	180		11.855			ND		
111 Hexachlorobutadiene	225		11.995			ND		
112 Naphthalene	128		12.121			ND		
113 1,2,3-Trichlorobenzene	180		12.344			ND		
114 Methyl cyclohexane TIC	1		0.000			ND		
115 Ethylene oxide TIC	1		0.000			ND		
116 1-Chlorohexane TIC	1		0.000			ND		
117 1-Chloro-1-fluoroethane TIC	1		0.000			ND		
118 Pentachloroethane	167		0.000			ND		
119 t-Amyl alcohol	1		0.000			ND		
120 Ethyl acrylate	55		0.000			ND		
121 Tetrahydrothiophene TIC	1		0.000			ND		
S 122 Xylenes, Total	106		0.000			ND		7
S 123 1,2-Dichloroethene, Total	1		0.000			ND		7
S 124 1,3-Dichloropropene, Total	1		0.000			ND		7
S 125 Trihalomethanes, Total	1		0.000			ND		7
S 126 TAH	1				0		0	7
S 127 Total BTEX	1		0.000			ND		7
T 129 Propene TIC	1		1.369			ND		
T 128 Propene oxide TIC	1		1.369			ND		
T 130 1,3-Butadiene TIC	1		1.985			ND		
T 131 2,3-Dichloro-1-propene TIC	1		6.150			ND		
T 132 4-Ethyltoluene TIC	1		9.345			ND		
T 133 Dicyclopentadiene TIC	1		9.670			ND		
T 134 Dichloroacetonitrile TIC	1		0.000			ND		

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

mv-IS_SS_00079 Amount Added: 5.00 Units: uL Run Reagent

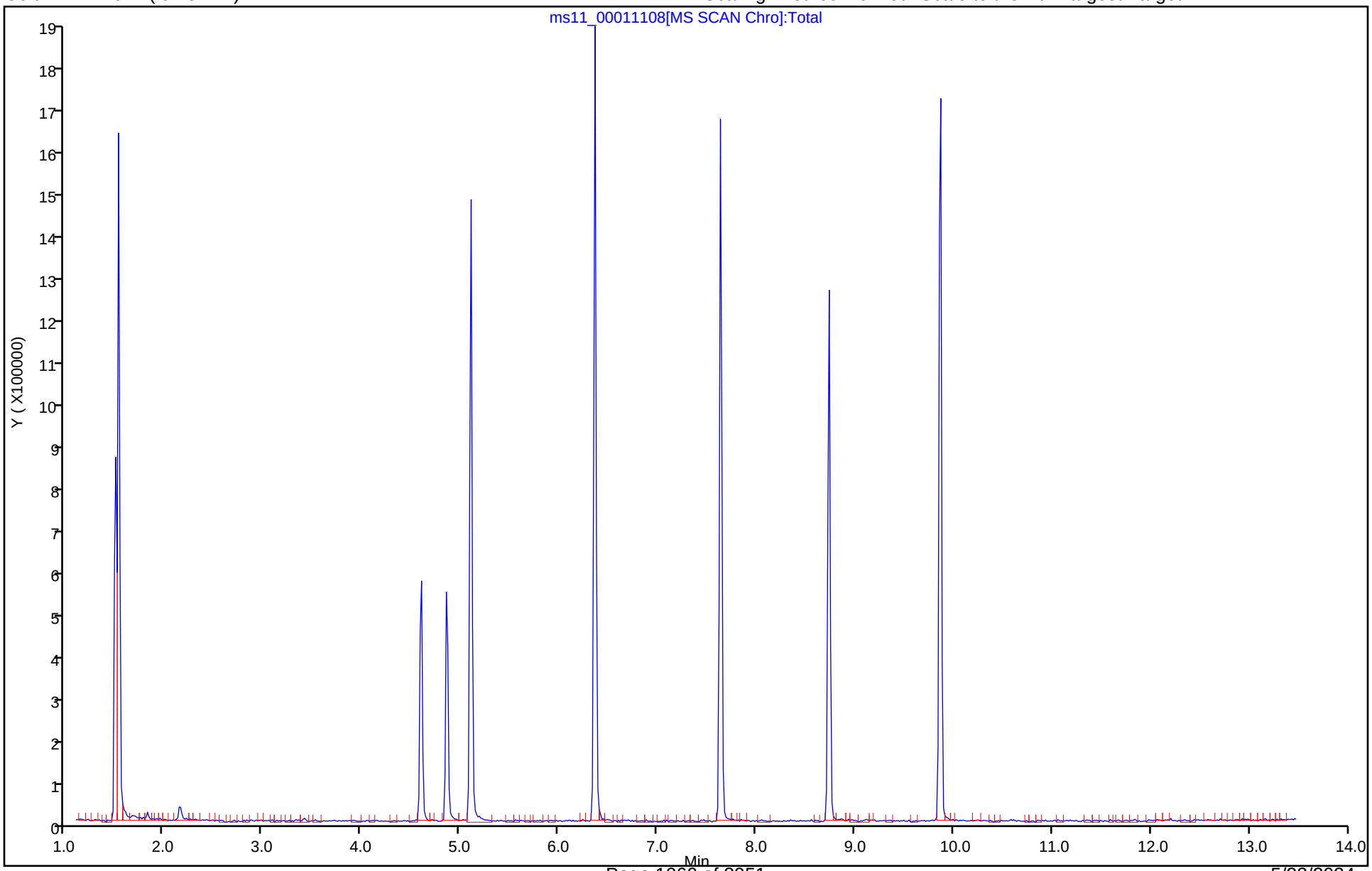
Report Date: 20-May-2024 09:35:54 Chrom Revision: 2.3 15-May-2024 08:18:50

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011108.D

Injection Date:	18-May-2024 10:39:30	Instrument ID:	VMS_MS11	Operator ID:	MED
Lims ID:	280-191098-L-5	Lab Sample ID:	280-191098-5	Worklist Smp#:	22
Client ID:	DET-004-240401-GW				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011108.D
Lims ID: 280-191098-L-5
Client ID: DET-004-240401-GW
Sample Type: Client
Inject. Date: 18-May-2024 10:39:30 ALS Bottle#: 10 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-191098-L-5
Operator ID: MED Instrument ID: VMS_MS11

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-May-2024 09:35:39 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1675

First Level Reviewer: BX8N Date: 20-May-2024 09:35:39

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	50.0	54.1	108.15
$ 5 1,2-Dichloroethane-d4 (Surr)	50.0	51.9	103.88
$ 6 Toluene-d8 (Surr)	50.0	49.0	98.05
$ 7 4-Bromofluorobenzene (Surr)	50.0	50.6	101.11

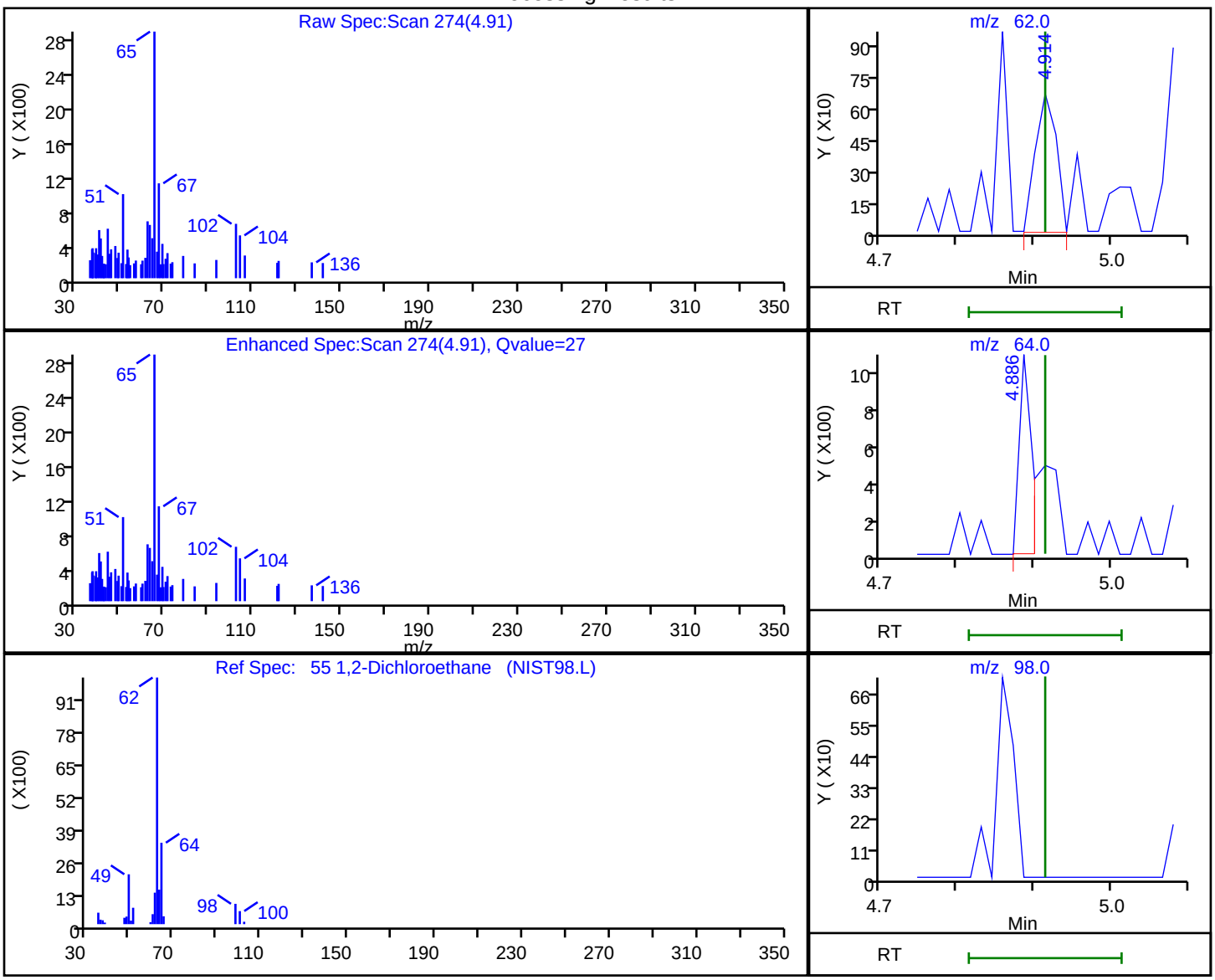
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011108.D				
Injection Date:	18-May-2024 10:39:30	Instrument ID:	VMS_MS11		
Lims ID:	280-191098-L-5	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	MED	ALS Bottle#:	10	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (0.25 mm)	Detector	MS SCAN		

55 1,2-Dichloroethane, CAS: 107-06-2

Processing Results



RT	Mass	Response	Amount
4.91	62.00	1263	0.210183
4.89	64.00	1211	
4.91	98.00	0	

Reviewer: BX8N, 20-May-2024 09:35:26 -06:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

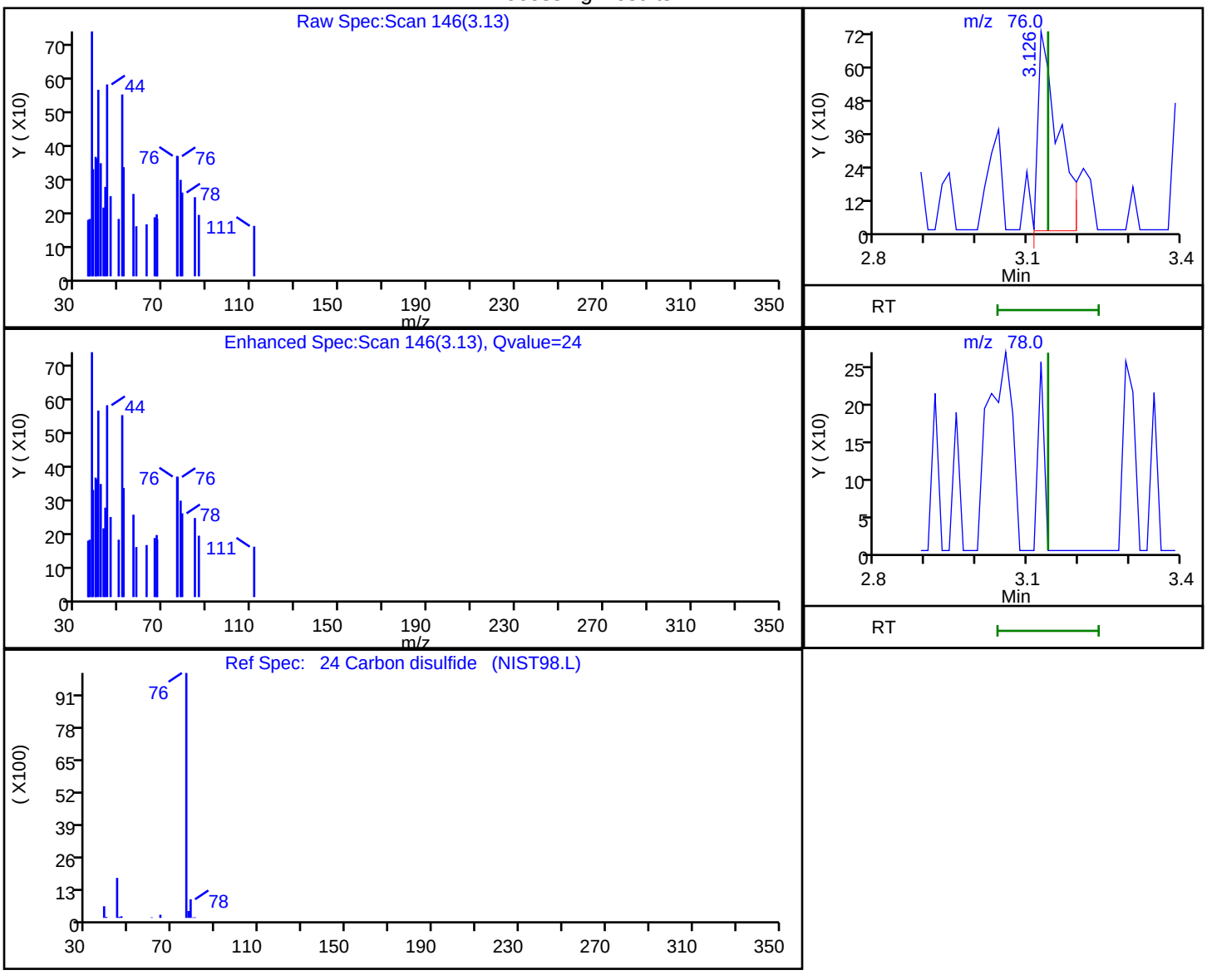
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011108.D				
Injection Date:	18-May-2024 10:39:30	Instrument ID:	VMS_MS11		
Lims ID:	280-191098-L-5	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	MED	ALS Bottle#:	10	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (0.25 mm)	Detector	MS SCAN		

24 Carbon disulfide, CAS: 75-15-0

Processing Results



RT	Mass	Response	Amount
3.13	76.00	1995	0.181048
3.14	78.00	0	

Reviewer: BX8N, 20-May-2024 09:35:31 -06:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653788

SDG No.:

Instrument ID: VMS_MS11 GC Column: RXI-624SilM ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/17/2024 09:24 Calibration End Date: 05/17/2024 12:18 Calibration ID: 93529

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-653788/13	ms11_00011040.D
Level 2	IC 280-653788/14	ms11_00011041.D
Level 3	IC 280-653788/15	ms11_00011042.D
Level 4	IC 280-653788/16	ms11_00011043.D
Level 5	IC 280-653788/17	ms11_00011044.D
Level 6	ICIS 280-653788/18	ms11_00011045.D
Level 7	IC 280-653788/19	ms11_00011046.D
Level 8	IC 280-653788/20	ms11_00011047.D
Level 9	IC 280-653788/21	ms11_00011048.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 0.1535	+++++ 0.1504	0.1352 0.1521	0.1253 0.1417	0.1717	Ave		0.1471				10.1		15.0			
Chloromethane	+++++ 0.1678	+++++ 0.1739	0.1789 0.1722	0.1622 0.1641	0.1913	Ave		0.1729			0.1000	5.8		15.0			
Vinyl chloride	0.2037 0.1828	0.2386 0.1889	0.1996 0.1925	0.1674 0.1838	0.2037	Ave		0.1957				10.1		30.0			
Bromomethane	+++++ 0.0930	+++++ 0.1043	+++++ 0.1182	0.1216 0.1247	0.1243	Ave		0.1143				11.3		15.0			
Chloroethane	+++++ 0.1174	+++++ 0.1282	0.1187 0.1230	0.1444 0.1173	0.1343	Ave		0.1262				8.1		15.0			
Dichlorofluoromethane	+++++ 0.3679	+++++ 0.3625	0.4285 0.3629	0.3930 0.3616	0.3805	Ave		0.3796				6.5		15.0			
Trichlorofluoromethane	+++++ 0.2502	0.2792 0.2440	0.2781 0.2526	0.2536 0.2510	0.2731	Ave		0.2602				5.4		15.0			
Ethyl ether	+++++ 0.1220	+++++ 0.1297	0.1676 0.1316	0.1188 0.1300	0.1319	Ave		0.1331				12.0		15.0			
Acrolein	+++++ 0.0114	0.0135 0.0120	0.0108 0.0122	0.0142 0.0121	0.0110	Ave		0.0122				9.7		15.0			
1,1-Dichloroethene	0.1781 0.1435	0.1658 0.1428	0.1419 0.1450	0.1518 0.1478	0.1512	Ave		0.1520				8.1		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 0.1004	+++++ 0.1018	0.1304 0.1019	0.1149 0.1058	0.1072	Ave		0.1089				9.8		15.0			
Acetone	+++++ 0.0412	+++++ 0.0431	0.0741 0.0446	0.0533 0.0445	0.0469	Lin2	0.2490	0.0421							0.9980		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653788

SDG No.:

Instrument ID: VMS_MS11 GC Column: RXI-624SilM ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/17/2024 09:24 Calibration End Date: 05/17/2024 12:18 Calibration ID: 93529

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Iodomethane	+++++ 0.1688	+++++ 0.1904	+++++ 0.2036	0.0593 0.2144	0.0916	Qua	-1.013	0.1963	0.0001179						0.9990		0.9900
Carbon disulfide	+++++ 0.4307	0.5388 0.4576	0.4963 0.4560	0.4870 0.4515	0.4478	Ave		0.4707				7.4		15.0			
Methyl acetate	+++++ 0.0992	0.1346 0.1050	0.0929 0.1074	0.0948 0.1094	0.1018	Ave		0.1057				12.3		15.0			
3-Chloro-1-propene	+++++ 0.1841	0.3274 0.1941	0.2875 0.1930	0.2240 0.1860	0.1762	Lin2	0.1525	0.1863							0.9920		0.9900
Methylene Chloride	+++++ 0.1720	+++++ 0.1826	0.2269 0.1831	0.2032 0.1840	0.1797	Ave		0.1902				9.8		15.0			
2-Methyl-2-propanol	+++++ 0.0126	0.0145 0.0140	0.0123 0.0149	0.0111 0.0166	0.0114	Ave		0.0134				14.1		15.0			
Acrylonitrile	0.0615 0.0577	0.0627 0.0606	0.0607 0.0626	0.0599 0.0631	0.0586	Ave		0.0608				3.1		15.0			
Methyl tert-butyl ether	+++++ 0.4637	0.5083 0.4952	0.4633 0.5116	0.4678 0.5193	0.4549	Ave		0.4855				5.3		15.0			
trans-1,2-Dichloroethene	+++++ 0.1644	0.2014 0.1684	0.1788 0.1755	0.1766 0.1771	0.1693	Ave		0.1764				6.4		15.0			
Hexane	+++++ 0.6606	+++++ 0.6769	0.6527 0.6625	0.6215 0.6253	0.6666	Ave		0.6523				3.2		15.0			
Vinyl acetate	0.2628 0.2565	0.2867 0.2907	0.2570 0.2953	0.2724 0.2660	0.2413	Ave		0.2698				6.7		15.0			
1,1-Dichloroethane	+++++ 0.2898	0.3730 0.3113	0.2992 0.3068	0.2949 0.3087	0.2933	Ave		0.3096			0.1000	8.6		15.0			
2-Butanone (MEK)	+++++ 0.0660	0.0643 0.0700	0.0967 0.0718	0.0724 0.0739	0.0686	Ave		0.0730				13.9		15.0			
cis-1,2-Dichloroethene	0.1767 0.1936	0.2547 0.2056	0.2268 0.2058	0.1816 0.2091	0.1954	Ave		0.2055				11.6		15.0			
2,2-Dichloropropane	+++++ 0.2254	0.2956 0.2377	0.2394 0.2400	0.2399 0.2480	0.2283	Ave		0.2443				9.0		15.0			
sec-Butyl Alcohol	+++++ 0.0096	+++++ 0.0110	0.0072 0.0122	0.0075 +++++	0.0084	Lin1	-0.345	0.0113							0.9900		0.9900
Bromochloromethane	+++++ 0.0950	0.1216 0.0984	0.0833 0.1027	0.1048 0.1015	0.0990	Ave		0.1008				10.6		15.0			
Tetrahydrofuran	+++++ 0.0451	+++++ 0.0451	0.0544 0.0473	0.0463 0.0478	0.0427	Ave		0.0470				7.9		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653788

SDG No.:

Instrument ID: VMS_MS11 GC Column: RXI-624SilM ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/17/2024 09:24 Calibration End Date: 05/17/2024 12:18 Calibration ID: 93529

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Chloroform	+++++ 0.3117	0.4034 0.3188	0.3208 0.3214	0.3227 0.3248	0.3281	Ave		0.3315				8.9		30.0			
1,1,1-Trichloroethane	0.3058 0.2474	0.3044 0.2608	0.2652 0.2660	0.2768 0.2682	0.2584	Ave		0.2726				7.4		15.0			
Cyclohexane	+++++ 0.2155	0.3031 0.2216	0.2451 0.2319	0.2213 0.2397	0.2174	Ave		0.2370				12.1		15.0			
1,1-Dichloropropene	+++++ 0.2325	0.2732 0.2437	0.2668 0.2413	0.2581 0.2509	0.2283	Ave		0.2494				6.4		15.0			
Carbon tetrachloride	+++++ 0.2049	0.2645 0.2197	0.2570 0.2266	0.2304 0.2363	0.2169	Ave		0.2320				8.7		15.0			
Isobutyl alcohol	+++++ 0.0056	0.0048 0.0061	0.0048 +++++	0.0050 +++++	0.0051	Ave		0.0053				9.9		15.0			
Benzene	0.8724 0.6882	0.8296 0.7208	0.7185 0.7174	0.6855 0.7182	0.6968	Ave		0.7386				8.9		15.0			
1,2-Dichloroethane	+++++ 0.2353	0.3126 0.2403	0.2578 0.2421	0.2697 0.2476	0.2482	Ave		0.2567				9.8		15.0			
n-Heptane	+++++ 0.1137	0.2257 0.1178	0.1964 0.1186	0.1405 0.1200	0.1157	Lin2	0.1190	0.1161							0.9900		0.9900
Trichloroethene	+++++ 0.1885	0.2107 0.1947	0.2178 0.1963	0.1890 0.2034	0.1917	Ave		0.1990				5.4		15.0			
2-Pentanone	+++++ 0.1004	0.1222 0.1076	0.0858 0.1137	0.1012 0.1166	0.0978	Ave		0.1057				11.1		15.0			
Methylcyclohexane	+++++ 0.1529	0.2575 0.1567	0.1627 0.1657	0.1797 0.1642	0.1449	Lin1	0.0521	0.1610							0.9980		0.9900
1,2-Dichloropropane	+++++ 0.1783	0.2042 0.1848	0.2026 0.1893	0.2003 0.1955	0.1882	Ave		0.1929				4.8		30.0			
1,4-Dioxane	+++++ 0.0025	+++++ 0.0026	0.0032 0.0029	0.0022 0.0029	0.0024	Ave		0.0027				13.1		15.0			
Dibromomethane	+++++ 0.1217	0.1302 0.1252	0.1263 0.1286	0.1231 0.1303	0.1356	Ave		0.1276				3.5		15.0			
Bromodichloromethane	0.2903 0.2323	0.2981 0.2485	0.2723 0.2544	0.2472 0.2563	0.2304	Ave		0.2589				9.2		15.0			
2-Chloroethyl vinyl ether	+++++ 0.1015	0.1251 0.1026	0.1109 0.1135	0.0901 0.1120	0.0796	Ave		0.1044				13.8		15.0			
cis-1,3-Dichloropropene	1.1552 1.1322	1.2431 1.2268	1.0682 1.2692	1.0533 1.1882	1.1297	Ave		1.1629				6.5		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653788

SDG No.:

Instrument ID: VMS_MS11 GC Column: RXI-624SilM ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/17/2024 09:24 Calibration End Date: 05/17/2024 12:18 Calibration ID: 93529

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Methyl-2-pentanone (MIBK)	0.1361 0.1384	0.1637 0.1486	0.1243 0.1526	0.1269 0.1559	0.1366	Ave		0.1426				9.4		15.0			
Toluene	+++++ 0.7629	0.9129 0.7872	0.9427 0.7986	0.8350 0.8069	0.8002	Ave		0.8308				7.7		30.0			
trans-1,3-Dichloropropene	0.3248 0.2578	0.2358 0.2761	0.2129 0.2849	0.2479 0.2929	0.2287	Ave		0.2624				13.5		15.0			
Ethyl methacrylate	0.9874 0.8553	1.2043 0.9168	0.8671 0.9685	0.8915 0.9438	0.8223	Ave		0.9397				12.0		15.0			
1,1,2-Trichloroethane	+++++ 0.1686	0.2552 0.1776	0.1890 0.1803	0.1696 0.1850	0.1815	Ave		0.1884				14.8		15.0			
Tetrachloroethene	0.6639 0.5452	0.6619 0.5727	0.6073 0.5841	0.6233 0.5718	0.5295	Ave		0.5955				8.0		15.0			
1,3-Dichloropropane	1.3095 1.2235	1.2770 1.2527	1.1437 1.2825	1.2024 1.2148	1.2346	Ave		1.2379				4.0		15.0			
2-Hexanone	+++++ 0.4004	0.3711 0.4267	0.3418 0.4360	0.3727 0.4196	0.3890	Ave		0.3946				8.2		15.0			
Dibromochloromethane	0.8835 0.7585	0.8306 0.8054	0.7847 0.8451	0.7676 0.8145	0.7541	Ave		0.8049				5.4		15.0			
1,2-Dibromoethane	0.9697 0.7375	0.7657 0.7433	0.8080 0.7714	0.6687 0.7351	0.6921	Ave		0.7657				11.4		15.0			
1-Chlorohexane	2.3669 0.8518	1.5624 0.9559	1.1855 0.9820	0.9856 0.9589	0.9213	Lin2	0.5728	0.8905							0.9940		0.9900
Chlorobenzene	+++++ 2.0994	2.6755 2.1860	2.3244 2.1804	2.2634 2.1373	2.1285	Ave		2.2494			0.3000	8.3		15.0			
1,1,1,2-Tetrachloroethane	0.7574 0.6994	0.8845 0.7440	0.6554 0.7657	0.6655 0.7867	0.6530	Ave		0.7346				10.3		15.0			
Ethylbenzene	1.1948 1.1208	1.4255 1.1960	1.1740 1.2223	1.1920 1.1976	1.1235	Ave		1.2052				7.4		30.0			
m-Xylene & p-Xylene	3.2829 2.7547	3.2700 2.8295	2.6349 2.8505	2.7439 2.7085	2.6859	Ave		2.8623				8.5		15.0			
o-Xylene	1.7393 1.3973	1.3328 1.4863	1.3515 1.5177	1.3255 1.4723	1.3742	Ave		1.4441				9.1		15.0			
Styrene	2.3952 2.3535	2.0499 2.4412	2.2910 2.5062	2.1398 2.4507	2.1213	Ave		2.3054				7.1		15.0			
Bromoform	0.6097 0.4861	0.5610 0.5325	0.4485 0.5585	0.4404 0.5574	0.3942	Ave		0.5098			0.1000	13.9		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653788

SDG No.:

Instrument ID: VMS_MS11 GC Column: RXI-624SilM ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/17/2024 09:24 Calibration End Date: 05/17/2024 12:18 Calibration ID: 93529

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Isopropylbenzene	2.3391 1.7971	1.7808 1.8895	1.9270 1.8659	1.7633 1.9463	1.7427	Ave		1.8946				9.6		15.0			
Cyclohexanone	0.0396 0.0381	0.0353 0.0391	0.0336 0.0422	0.0329 0.0448	0.0326	Ave		0.0376				11.4		15.0			
1,1,2,2-Tetrachloroethane	0.7212 0.5252	0.7052 0.5452	0.6110 0.5471	0.5516 0.5537	0.5491	Ave		0.5899			0.3000	12.5		15.0			
Bromobenzene	+++++ 0.4844	0.5473 0.5118	0.5383 0.5156	0.5269 0.5324	0.5181	Ave		0.5218				3.7		15.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1193	+++++ 0.1320	0.0756 0.1319	0.1251 0.1415	0.1105	Lin2	-0.107	0.1324							0.9930		0.9900
1,2,3-Trichloropropane	+++++ 0.1578	+++++ 0.1698	0.2016 0.1609	0.1727 0.1711	0.1776	Ave		0.1731				8.3		15.0			
N-Propylbenzene	0.6345 0.5364	0.5672 0.5768	0.5151 0.5693	0.5563 0.5932	0.5454	Ave		0.5660				6.1		15.0			
2-Chlorotoluene	0.6331 0.4856	0.5884 0.5048	0.4743 0.5137	0.5129 0.5215	0.4742	Ave		0.5232				10.3		15.0			
1,3,5-Trimethylbenzene	+++++ 1.6712	1.6735 1.7183	1.5534 1.6879	1.5515 1.7405	1.5752	Ave		1.6464				4.6		15.0			
4-Chlorotoluene	+++++ 0.5167	0.6551 0.5532	0.5132 0.5400	0.5029 0.5599	0.5298	Ave		0.5463				8.8		15.0			
tert-Butylbenzene	1.5295 1.3345	1.4270 1.4145	1.3687 1.3850	1.2634 1.4468	1.2912	Ave		1.3845				5.9		15.0			
1,2,4-Trimethylbenzene	2.2003 1.7629	1.8989 1.8494	1.6351 1.8274	1.5975 1.8608	1.6661	Ave		1.8109				10.0		15.0			
sec-Butylbenzene	0.5142 0.3983	0.4803 0.4181	0.4404 0.4220	0.3882 0.4365	0.3776	Ave		0.4306				10.2		15.0			
1,3-Dichlorobenzene	1.2243 0.9569	1.1164 1.0234	1.0500 1.0039	0.9925 1.0523	0.9752	Ave		1.0439				7.9		15.0			
4-Isopropyltoluene	1.7911 1.6764	1.7442 1.8053	1.5676 1.7698	1.5647 1.8498	1.5820	Ave		1.7057				6.5		15.0			
1,4-Dichlorobenzene	+++++ 1.0110	1.3436 1.0406	1.1679 1.0321	1.1137 1.0577	1.0450	Ave		1.1015				10.0		15.0			
n-Butylbenzene	+++++ 1.4932	1.4790 1.5812	1.4381 1.5473	1.3808 1.6065	1.4119	Ave		1.4923				5.4		15.0			
1,2-Dichlorobenzene	+++++ 0.9645	1.0101 0.9979	0.9524 0.9895	1.0370 1.0077	0.9754	Ave		0.9918				2.8		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653788

SDG No.:

Instrument ID: VMS_MS11 GC Column: RXI-624SilM ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/17/2024 09:24 Calibration End Date: 05/17/2024 12:18 Calibration ID: 93529

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,2-Dibromo-3-Chloropropane	+++++ 0.1009	0.1289 0.1168	0.1141 0.1144	0.0945 0.1284	0.0987	Ave		0.1121				11.7		15.0			
1,2,4-Trichlorobenzene	+++++ 0.5279	0.6052 0.5692	0.6055 0.5770	0.5009 0.6097	0.5173	Ave		0.5641				7.7		15.0			
Hexachlorobutadiene	+++++ 0.2045	+++++ 0.2148	0.2040 0.2173	0.2053 0.2197	0.1779	Ave		0.2062				6.8		15.0			
Naphthalene	+++++ 1.3496	1.7625 1.5110	1.2498 1.5299	1.2596 1.5469	1.2972	Ave		1.4383				12.5		15.0			
1,2,3-Trichlorobenzene	+++++ 0.4267	0.5691 0.4735	0.4528 0.4712	0.4296 0.4721	0.4015	Ave		0.4621				10.9		15.0			
Dibromofluoromethane (Surr)	0.2605 0.2621	0.2626 0.2528	0.2586 0.2527	0.2585 0.2585	0.2493	Ave		0.2573				1.8		15.0			
1,2-Dichloroethane-d4 (Surr)	0.2833 0.2781	0.2805 0.2801	0.2885 0.2838	0.2859 0.2625	0.2802	Ave		0.2803				2.7		15.0			
Toluene-d8 (Surr)	3.8913 3.9908	3.9120 4.0328	3.9613 4.0054	3.9465 3.7134	3.9267	Ave		3.9311				2.4		15.0			
4-Bromofluorobenzene (Surr)	0.8051 0.8172	0.7954 0.8018	0.8027 0.7950	0.8177 0.8025	0.8177	Ave		0.8061				1.1		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 653788

SDG No.:

Instrument ID: VMS_MS11 | GC Column: RXI-624Sil ID: 0.25(mm) | Heated Purge: (Y/N) Y

Calibration Start Date: 05/17/2024 09:24 | Calibration End Date: 05/17/2024 12:18 | Calibration ID: 93529

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-653788/13	ms11_00011040.D
Level 2	IC 280-653788/14	ms11_00011041.D
Level 3	IC 280-653788/15	ms11_00011042.D
Level 4	IC 280-653788/16	ms11_00011043.D
Level 5	IC 280-653788/17	ms11_00011044.D
Level 6	ICIS 280-653788/18	ms11_00011045.D
Level 7	IC 280-653788/19	ms11_00011046.D
Level 8	IC 280-653788/20	ms11_00011047.D
Level 9	IC 280-653788/21	ms11_00011048.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Dichlorodifluoromethane	FB	Ave	+++++ 187319	+++++ 287688	6298 395631	14569 776980	41191	+++++ 50.0	+++++ 75.0	2.00 100	5.00 200	10.0
Chloromethane	FB	Ave	+++++ 204775	+++++ 332479	8337 447687	18858 899803	45888	+++++ 50.0	+++++ 75.0	2.00 100	5.00 200	10.0
Vinyl chloride	FB	Ave	2335 223026	5516 361240	9298 500657	19463 1007545	48846	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
Bromomethane	FB	Ave	+++++ 113438	+++++ 199397	+++++ 307371	14140 683500	29811	+++++ 50.0	+++++ 75.0	+++++ 100	5.00 200	10.0
Chloroethane	FB	Ave	+++++ 143245	+++++ 245137	5530 319910	16789 643266	32210	+++++ 50.0	+++++ 75.0	2.00 100	5.00 200	10.0
Dichlorofluoromethane	FB	Ave	+++++ 448958	+++++ 693258	19966 943730	45679 1982431	91271	+++++ 50.0	+++++ 75.0	2.00 100	5.00 200	10.0
Trichlorofluoromethane	FB	Ave	+++++ 305392	6455 466549	12957 656886	29473 1375923	65492	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
Ethyl ether	FB	Ave	+++++ 148870	+++++ 248106	7808 342231	13808 712871	31643	+++++ 50.0	+++++ 75.0	2.00 100	5.00 200	10.0
Acrolein	FB	Ave	+++++ 137507	3086 226708	4984 313959	16318 656907	25995	+++++ 494	9.88 741	19.8 988	49.4 1975	98.8
1,1-Dichloroethene	FB	Ave	2042 175083	3832 273152	6614 377020	17650 810293	36263	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	+++++ 122532	+++++ 194707	6076 265037	13361 579971	25721	+++++ 50.0	+++++ 75.0	2.00 100	5.00 200	10.0
Acetone	FB	Lin2	+++++ 201079	+++++ 330012	13808 463662	24772 976866	44952	+++++ 200	+++++ 300	8.00 400	20.0 800	40.0
Iodomethane	FB	Qua	+++++ 206024	+++++ 364072	+++++ 529499	6888 1175596	21970	+++++ 50.0	+++++ 75.0	+++++ 100	5.00 200	10.0
Carbon disulfide	FB	Ave	+++++ 525629	12457 875147	23125 1185801	56606 2475568	107396	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 653788

SDG No.:

Instrument ID: VMS_MS11 | GC Column: RXI-624Sil ID: 0.25(mm) | Heated Purge: (Y/N) Y

Calibration Start Date: 05/17/2024 09:24 | Calibration End Date: 05/17/2024 12:18 | Calibration ID: 93529

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Methyl acetate	FB	Ave	+++++ 242226	6223 401798	8660 558443	22039 1199393	48857	+++++ 100	2.00 150	4.00 200	10.0 400	20.0
3-Chloro-1-propene	FB	Lin2	+++++ 224692	7570 371266	13396 501819	26037 1019843	42263	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
Methylene Chloride	FB	Ave	+++++ 209876	+++++ 349252	10574 476286	23614 1008962	43096	+++++ 50.0	+++++ 75.0	2.00 100	5.00 200	10.0
2-Methyl-2-propanol	FB	Ave	+++++ 154062	3360 267200	5730 386411	12893 909121	27227	+++++ 500	10.0 750	20.0 1000	50.0 2000	100
Acrylonitrile	FB	Ave	7048 704292	14506 1158358	28301 1626885	69659 3460623	140636	5.00 500	10.0 750	20.0 1000	50.0 2000	100
Methyl tert-butyl ether	FB	Ave	+++++ 565900	11751 946947	21588 1330431	54372 2846964	109110	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
trans-1,2-Dichloroethene	FB	Ave	+++++ 200624	4656 321964	8331 456316	20530 970797	40614	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
Hexane	CBNZd5	Ave	+++++ 196974	+++++ 315944	7536 424577	18040 902830	39621	+++++ 50.0	+++++ 75.0	2.00 100	5.00 200	10.0
Vinyl acetate	FB	Ave	6025 625948	13256 1111969	23949 1535687	63318 2916214	115757	1.00 100	2.00 150	4.00 200	10.0 400	20.0
1,1-Dichloroethane	FB	Ave	+++++ 353701	8624 595280	13940 797884	34274 1692624	70337	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
2-Butanone (MEK)	FB	Ave	+++++ 322306	5944 535513	18024 746926	33660 1620256	65775	+++++ 200	4.00 300	8.00 400	20.0 800	40.0
cis-1,2-Dichloroethene	FB	Ave	2025 236220	5889 393222	10566 535131	21108 1146321	46872	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
2,2-Dichloropropane	FB	Ave	+++++ 275064	6835 454626	11157 624173	27889 1359575	54768	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
sec-Butyl Alcohol	FB	Lin1	+++++ 280545	+++++ 502935	8068 761045	20922 +++++	48585	+++++ 1200	+++++ 1800	48.0 2400	120 +++++	240
Bromochloromethane	FB	Ave	+++++ 115920	2811 188226	3882 266985	12185 556355	23749	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
Tetrahydrofuran	FB	Ave	+++++ 110060	+++++ 172627	5072 246229	10762 523801	20480	+++++ 100	+++++ 150	4.00 200	10.0 400	20.0
Chloroform	FB	Ave	+++++ 380429	9326 609687	14947 835729	37511 1780805	78694	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
1,1,1-Trichloroethane	FB	Ave	3506 301924	7038 498768	12357 691695	32172 1470132	61987	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
Cyclohexane	FB	Ave	+++++ 263047	7007 423886	11418 602964	25729 1314054	52152	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
1,1-Dichloropropene	FB	Ave	+++++ 283750	6317 466040	12432 627624	30002 1375452	54756	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 653788

SDG No.:

Instrument ID: VMS_MS11 | GC Column: RXI-624Sil ID: 0.25(mm) | Heated Purge: (Y/N) Y

Calibration Start Date: 05/17/2024 09:24 | Calibration End Date: 05/17/2024 12:18 | Calibration ID: 93529

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Carbon tetrachloride	FB	Ave	+++++ 250046	6116 420231	11975 589184	26783 1295402	52023	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
Isobutyl alcohol	FB	Ave	+++++ 170358	2792 293831	5615 +++++	14615 +++++	30680	+++++ 1250	25.0 1875	50.0 +++++	125 +++++	250
Benzene	FB	Ave	10001 839903	19180 1378408	33476 1865741	79680 3937555	167119	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
1,2-Dichloroethane	FB	Ave	+++++ 287122	7228 459480	12011 629619	31346 1357563	59529	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
n-Heptane	FB	Lin2	+++++ 138788	5219 225342	9153 308354	16331 657803	27740	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
Trichloroethene	FB	Ave	+++++ 230051	4872 372416	10148 510523	21972 1115262	45970	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
2-Pentanone	FB	Ave	+++++ 392205	9041 658407	12795 946353	37626 2045493	75064	+++++ 160	3.20 240	6.40 320	16.0 640	32.0
Methylcyclohexane	FB	Lin1	+++++ 186642	5954 299596	7581 430837	20887 900493	34760	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
1,2-Dichloropropane	FB	Ave	+++++ 217622	4722 353473	9439 492305	23288 1071840	45130	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
1,4-Dioxane	FB	Ave	+++++ 59948	+++++ 97924	2951 150596	5036 322725	11732	+++++ 1000	+++++ 1500	40.0 2000	100 4000	200
Dibromomethane	FB	Ave	+++++ 148556	3011 239429	5883 334453	14305 714623	32519	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
Bromodichloromethane	FB	Ave	3328 283450	6892 475237	12686 661691	28740 1405408	55269	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
2-Chloroethyl vinyl ether	FB	Ave	+++++ 123822	2893 196283	5166 295101	10472 614111	19084	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
cis-1,3-Dichloropropene	CBNZd 5	Ave	3325 337599	7215 572595	12334 813336	30575 1715472	67140	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	6242 675710	15142 1137086	23162 1587619	59020 3419055	131007	2.00 200	4.00 300	8.00 400	20.0 800	40.0
Toluene	FB	Ave	+++++ 931022	21104 1505417	43924 2076700	97057 4423861	191917	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
trans-1,3-Dichloropropene	FB	Ave	3723 314625	5452 527940	9920 740966	28819 1605945	54862	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
Ethyl methacrylate	CBNZd 5	Ave	2842 255037	6990 427896	10012 620671	25880 1362616	48870	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
1,1,2-Trichloroethane	FB	Ave	+++++ 205786	5901 339709	8806 468776	19709 1014325	43527	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
Tetrachloroethene	CBNZd 5	Ave	1911	3842	7012	18094	31472	0.500	1.00	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 653788

SDG No.:

Instrument ID: VMS_MS11 | GC Column: RXI-624Sil ID: 0.25(mm) | Heated Purge: (Y/N) Y

Calibration Start Date: 05/17/2024 09:24 | Calibration End Date: 05/17/2024 12:18 | Calibration ID: 93529

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
			162571	267284	374294	825484		50.0	75.0	100	200	
1,3-Dichloropropane	CBNZd5	Ave	3769 364841	7412 584686	13206 821868	34905 1753832	73374	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
2-Hexanone	CBNZd5	Ave	+++++ 477548	8615 796638	15784 1117483	43275 2422944	92474	+++++ 200	4.00 300	8.00 400	20.0 800	40.0
Dibromochloromethane	CBNZd5	Ave	2543 226183	4821 375908	9061 541568	22282 1175917	44821	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
1,2-Dibromoethane	CBNZd5	Ave	2791 219925	4444 346919	9330 494305	19411 1061298	41134	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
1-Chlorohexane	CBNZd5	Lin2	5450 203208	7255 356941	10951 503422	22888 1107540	43806	0.400 40.0	0.800 60.0	1.60 80.0	4.00 160	8.00
Chlorobenzene	CBNZd5	Ave	+++++ 626024	15529 1020335	26838 1397258	65705 3085709	126503	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
1,1,1,2-Tetrachloroethane	CBNZd5	Ave	2180 208551	5134 347278	7567 490704	19320 1135762	38812	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
Ethylbenzene	CBNZd5	Ave	3439 334220	8274 558234	13556 783313	34601 1728932	66773	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
m-Xylene & p-Xylene	CBNZd5	Ave	9449 821436	18980 1320647	30424 1826657	79651 3910319	159631	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
o-Xylene	CBNZd5	Ave	5006 416659	7736 693722	15605 972575	38477 2125522	81671	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
Styrene	CBNZd5	Ave	6894 701784	11898 1139424	26453 1606068	62117 3538074	126076	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
Bromoform	CBNZd5	Ave	1755 144947	3256 248528	5178 357910	12785 804700	23429	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
Isopropylbenzene	DCBd4	Ave	12033 998816	18165 1647086	39529 2281126	91063 5069814	183873	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
Cyclohexanone	CBNZd5	Ave	3422 340482	6148 547080	11655 812012	28687 1941602	58150	15.0 1500	30.0 2250	60.0 3000	150 6000	300
1,1,2,2-Tetrachloroethane	DCBd4	Ave	3710	7193	12533	28485	57934	0.500	1.00	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 653788

SDG No.:

Instrument ID: VMS_MS11 | GC Column: RXI-624Sil ID: 0.25(mm) | Heated Purge: (Y/N) Y

Calibration Start Date: 05/17/2024 09:24 | Calibration End Date: 05/17/2024 12:18 | Calibration ID: 93529

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
			291874	475226	668791	1442208		50.0	75.0	100	200	
Bromobenzene	DCBd4	Ave	+++++ 269197	5583 446172	11042 630333	27209 1386695	54671	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
trans-1,4-Dichloro-2-butene	DCBd4	Lin2	+++++ 66303	+++++ 115041	1551 161271	6460 368661	11664	+++++ 50.0	+++++ 75.0	2.00 100	5.00 200	10.0
1,2,3-Trichloropropane	DCBd4	Ave	+++++ 87717	+++++ 148045	4136 196643	8917 445652	18744	+++++ 50.0	+++++ 75.0	2.00 100	5.00 200	10.0
N-Propylbenzene	DCBd4	Ave	3264 298146	5786 502825	10566 696012	28731 1545175	57545	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
2-Chlorotoluene	DCBd4	Ave	3257 269899	6002 440078	9729 628023	26488 1358376	50037	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
1,3,5-Trimethylbenzene	DCBd4	Ave	+++++ 928818	17071 1497901	31865 2063526	80123 4533583	166206	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
4-Chlorotoluene	DCBd4	Ave	+++++ 287154	6682 482247	10527 660150	25972 1458492	55896	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
tert-Butylbenzene	DCBd4	Ave	7868 741694	14556 1233093	28077 1693164	65247 3768599	136236	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
1,2,4-Trimethylbenzene	DCBd4	Ave	11319 979781	19370 1612122	33542 2234090	82499 4847046	175798	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
sec-Butylbenzene	DCBd4	Ave	2645 221370	4899 364470	9035 515860	20047 1137087	39837	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
1,3-Dichlorobenzene	DCBd4	Ave	6298 531822	11388 892115	21539 1227322	51258 2741126	102896	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
4-Isopropyltoluene	DCBd4	Ave	9214 931732	17792 1573692	32157 2163577	80805 4818415	166919	0.500 50.0	1.00 75.0	2.00 100	5.00 200	10.0
1,4-Dichlorobenzene	DCBd4	Ave	+++++ 561882	13706 907155	23958 1261806	57516 2755089	110260	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
n-Butylbenzene	DCBd4	Ave	+++++ 829908	15087 1378365	29500 1891665	71310 4184544	148975	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
1,2-Dichlorobenzene	DCBd4	Ave	+++++ 536050	10304 869862	19538 1209729	53552 2624905	102918	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
1,2-Dibromo-3-Chloropropane	DCBd4	Ave	+++++ 56084	1315 101782	2341 139852	4880 334484	10409	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
1,2,4-Trichlorobenzene	DCBd4	Ave	+++++ 293403	6173 496185	12421 705365	25867 1588157	54583	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
Hexachlorobutadiene	DCBd4	Ave	+++++ 113673	+++++ 187265	4185 265690	10604 572194	18774	+++++ 50.0	+++++ 75.0	2.00 100	5.00 200	10.0
Naphthalene	DCBd4	Ave	+++++ 750061	17979 1317145	25639 1870383	65048 4029394	136871	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0
1,2,3-Trichlorobenzene	DCBd4	Ave	+++++ 237158	5805 412785	9288 576025	22188 1229642	42363	+++++ 50.0	1.00 75.0	2.00 100	5.00 200	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653788

SDG No.:

Instrument ID: VMS_MS11 GC Column: RXI-624Sil ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/17/2024 09:24 Calibration End Date: 05/17/2024 12:18 Calibration ID: 93529

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Dibromofluoromethane (Surr)	FB	Ave	298658 319907	303512 322334	301235 328537	300535 354259	298919	50.0 50.0	50.0 50.0	50.0 50.0	50.0 50.0	50.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	324801 339429	324293 357157	336047 369033	332381 359733	336082	50.0 50.0	50.0 50.0	50.0 50.0	50.0 50.0	50.0
Toluene-d8 (Surr)	CBNZd5	Ave	1120021 1190029	1135315 1254860	1143476 1283374	1145631 1340265	1166906	50.0 50.0	50.0 50.0	50.0 50.0	50.0 50.0	50.0
4-Bromofluorobenzene (Surr)	DCBd4	Ave	414157 454193	405667 465937	411642 485925	422295 522622	431374	50.0 50.0	50.0 50.0	50.0 50.0	50.0 50.0	50.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011040.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 17-May-2024 09:24:30 ALS Bottle#: 5 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: MED Instrument ID: VMS_MS11
Sublist: chrom-AQ_VMS11_8260*sub1

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 17-May-2024 17:51:18 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1621

First Level Reviewer: BX8N Date: 17-May-2024 10:52:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.110	5.110	0.000	99	1146321	50.0	50.0	
* 2 Chlorobenzene-d5	119	7.637	7.637	0.000	84	287825	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	9.872	9.872	0.000	94	514422	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	111	4.607	4.607	0.000	92	298658	50.0	50.6	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.858	4.858	0.000	0	324801	50.0	50.5	
$ 6 Toluene-d8 (Surr)	98	6.366	6.366	0.000	93	1120021	50.0	49.5	
$ 7 4-Bromofluorobenzene (Surr)	95	8.741	8.741	0.000	90	414157	50.0	49.9	
9 Dichlorodifluoromethane	85		1.702				ND	ND	
10 Chloromethane	50		1.869				ND	ND	
11 Vinyl chloride	62	1.967	1.967	0.000	30	2335	0.5000	0.5206	
12 Bromomethane	94	2.246	2.246	0.000	85	7470	0.5000	2.85	
13 Chloroethane	64		2.344				ND	ND	
14 Dichlorofluoromethane	67	2.512	2.512	0.000	97	5992	0.5000	0.6886	
15 Trichlorofluoromethane	101	2.554	2.554	0.000	93	4361	0.5000	0.7310	
17 Ethyl ether	59	2.763	2.763	0.000	87	2344	0.5000	0.7682	
18 Acrolein	56		2.875				ND	ND	
19 1,1-Dichloroethene	96	2.945	2.945	0.000	87	2042	0.5000	0.5860	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151		2.959				ND	ND	
21 Acetone	43		2.973				ND	ND	
23 Iodomethane	142		3.084				ND	ND	
24 Carbon disulfide	76	3.140	3.140	0.000	99	9386	0.5000	0.8697	
26 Methyl acetate	43		3.196				ND	ND	
27 3-Chloro-1-propene	41	3.224	3.224	0.000	71	2849	0.5000	-0.1516	
28 Methylene Chloride	84	3.308	3.308	0.000	80	4534	0.5000	1.04	
29 2-Methyl-2-propanol	59	3.364	3.364	0.000	71	2129	5.00	6.92	
30 Acrylonitrile	53	3.489	3.489	0.000	97	7048	5.00	5.05	
31 Methyl tert-butyl ether	73	3.503	3.503	0.000	90	7561	0.5000	0.6793	
32 trans-1,2-Dichloroethene	96	3.517	3.517	0.000	81	2896	0.5000	0.7160	
33 Hexane	57	3.713	3.713	0.000	87	4739	0.5000	1.26	
34 Vinyl acetate	43	3.811	3.811	0.000	96	6025	1.00	0.9739	
35 1,1-Dichloroethane	63	3.839	3.839	0.000	90	4642	0.5000	0.6539	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 2-Butanone (MEK)	43	4.230	4.230	0.000	98	24727	2.00	14.8	
41 cis-1,2-Dichloroethene	96	4.244	4.244	0.000	88	2025	0.5000	0.4299	
42 2,2-Dichloropropane	77	4.258	4.258	0.000	67	3717	0.5000	0.6636	
44 sec-Butyl Alcohol	45		4.341				ND	ND	
46 Chlorobromomethane	128	4.425	4.425	0.000	65	1901	0.5000	0.8227	
47 Tetrahydrofuran	42		4.439				ND	ND	U
48 Chloroform	83	4.481	4.481	0.000	91	5172	0.5000	0.6806	
49 1,1,1-Trichloroethane	97	4.635	4.635	0.000	90	3506	0.5000	0.5611	
50 Cyclohexane	56	4.691	4.691	0.000	81	4668	0.5000	0.8593	
51 1,1-Dichloropropene	75	4.732	4.732	0.000	87	3706	0.5000	0.6482	
52 Carbon tetrachloride	117	4.746	4.746	0.000	87	3489	0.5000	0.6558	
53 Isobutyl alcohol	43		4.760				ND	ND	
54 Benzene	78	4.886	4.886	0.000	92	10001	0.5000	0.5906	
55 1,2-Dichloroethane	62	4.914	4.914	0.000	64	4895	0.5000	0.8318	
57 n-Heptane	43		5.082				ND	ND	
59 Trichloroethene	130	5.389	5.389	0.000	88	3086	0.5000	0.6763	
60 2-Pentanone	43	5.487	5.487	0.000	96	6428	1.60	2.65	
61 Methylcyclohexane	55	5.584	5.584	0.000	80	3899	0.5000	0.7327	
62 1,2-Dichloropropane	63	5.598	5.598	0.000	77	3156	0.5000	0.7136	
64 1,4-Dioxane	88		5.640				ND	ND	
65 Dibromomethane	93	5.668	5.668	0.000	67	2002	0.5000	0.6842	
66 Dichlorobromomethane	83	5.780	5.780	0.000	92	3328	0.5000	0.5607	
68 2-Chloroethyl vinyl ether	63	5.975	5.975	0.000	35	2507	0.5000	1.05	
69 cis-1,3-Dichloropropene	75	6.129	6.129	0.000	88	3325	0.5000	0.4967	
70 4-Methyl-2-pentanone (MIBK)	43	6.227	6.227	0.000	90	6242	2.00	1.91	
71 Toluene	91	6.422	6.422	0.000	97	20348	0.5000	1.07	
72 trans-1,3-Dichloropropene	75	6.590	6.590	0.000	79	3723	0.5000	0.6188	
73 Ethyl methacrylate	69	6.632	6.632	0.000	51	2842	0.5000	0.5254	
74 1,1,2-Trichloroethane	97	6.772	6.772	0.000	80	2840	0.5000	0.6577	
75 Tetrachloroethene	164	6.869	6.869	0.000	82	1911	0.5000	0.5574	
76 1,3-Dichloropropane	76	6.925	6.925	0.000	84	3769	0.5000	0.5289	
77 2-Hexanone	43		6.939				ND	ND	
78 Chlorodibromomethane	129	7.107	7.107	0.000	87	2543	0.5000	0.5488	
79 Ethylene Dibromide	107	7.232	7.232	0.000	87	2791	0.5000	0.6332	
80 1-Chlorohexane	91	7.637	7.637	0.000	33	5450	0.4000	0.4199	
81 Chlorobenzene	112	7.665	7.665	0.000	93	8688	0.5000	0.6710	
82 1,1,1,2-Tetrachloroethane	131	7.735	7.735	0.000	42	2180	0.5000	0.5155	
83 Ethylbenzene	106	7.749	7.749	0.000	96	3439	0.5000	0.4957	
84 m-Xylene & p-Xylene	91	7.861	7.861	0.000	0	9449	0.5000	0.5735	
85 o-Xylene	106	8.224	8.224	0.000	94	5006	0.5000	0.6022	
86 Styrene	104	8.238	8.238	0.000	89	6894	0.5000	0.5195	
87 Bromoform	173	8.433	8.433	0.000	38	1755	0.5000	0.5980	a
88 Isopropylbenzene	105	8.559	8.559	0.000	93	12033	0.5000	0.6173	
90 Cyclohexanone	55	8.671	8.671	0.000	82	3422	15.0	15.8	
91 1,1,2,2-Tetrachloroethane	83	8.852	8.852	0.000	90	3710	0.5000	0.6113	
92 Bromobenzene	156	8.894	8.894	0.000	92	3908	0.5000	0.7279	
93 trans-1,4-Dichloro-2-butene	53		8.894				ND	ND	
94 1,2,3-Trichloropropane	110		8.908				ND	ND	
95 N-Propylbenzene	120	8.964	8.964	0.000	95	3264	0.5000	0.5605	
96 2-Chlorotoluene	126	9.062	9.062	0.000	93	3257	0.5000	0.6051	a
97 1,3,5-Trimethylbenzene	105	9.132	9.132	0.000	90	10822	0.5000	0.6389	
98 4-Chlorotoluene	126	9.188	9.188	0.000	93	3915	0.5000	0.6965	a

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
99 tert-Butylbenzene	119	9.439	9.439	0.000	92	7868	0.5000	0.5524	
100 1,2,4-Trimethylbenzene	105	9.509	9.509	0.000	93	11319	0.5000	0.6075	
101 sec-Butylbenzene	134	9.663	9.663	0.000	94	2645	0.5000	0.5970	
102 1,3-Dichlorobenzene	146	9.802	9.802	0.000	90	6298	0.5000	0.5864	
103 4-Isopropyltoluene	119	9.816	9.816	0.000	92	9214	0.5000	0.5251	
104 1,4-Dichlorobenzene	146	9.900	9.900	0.000	53	10883	0.5000	0.9603	
106 n-Butylbenzene	91	10.221	10.221	0.000	96	11731	0.5000	0.7641	
107 1,2-Dichlorobenzene	146	10.249	10.249	0.000	94	7791	0.5000	0.7635	
108 1,2-Dibromo-3-Chloropropane	157		11.031				ND	ND	
110 1,2,4-Trichlorobenzene	180	11.855	11.855	0.000	91	5809	0.5000	1.00	
111 Hexachlorobutadiene	225	11.995	11.995	0.000	87	2431	0.5000	1.15	
112 Naphthalene	128	12.121	12.121	0.000	95	17730	0.5000	1.20	
113 1,2,3-Trichlorobenzene	180	12.358	12.358	0.000	85	6303	0.5000	1.33	
S 122 Xylenes, Total	106				0		1.00	1.18	
S 123 1,2-Dichloroethene, Total	1				0		1.00	1.15	
S 124 1,3-Dichloropropene, Total	1				0		1.00	1.12	
S 125 Trihalomethanes, Total	1				0		2.00	2.39	
S 127 Total BTEX	1				0			3.33	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

U - Marked Undetected

a - User Assigned ID

Reagents:

Cal Dil Std_00352	Amount Added:	5.00	Units: uL	
mv-IS_SS_00079	Amount Added:	5.00	Units: uL	Run Reagent

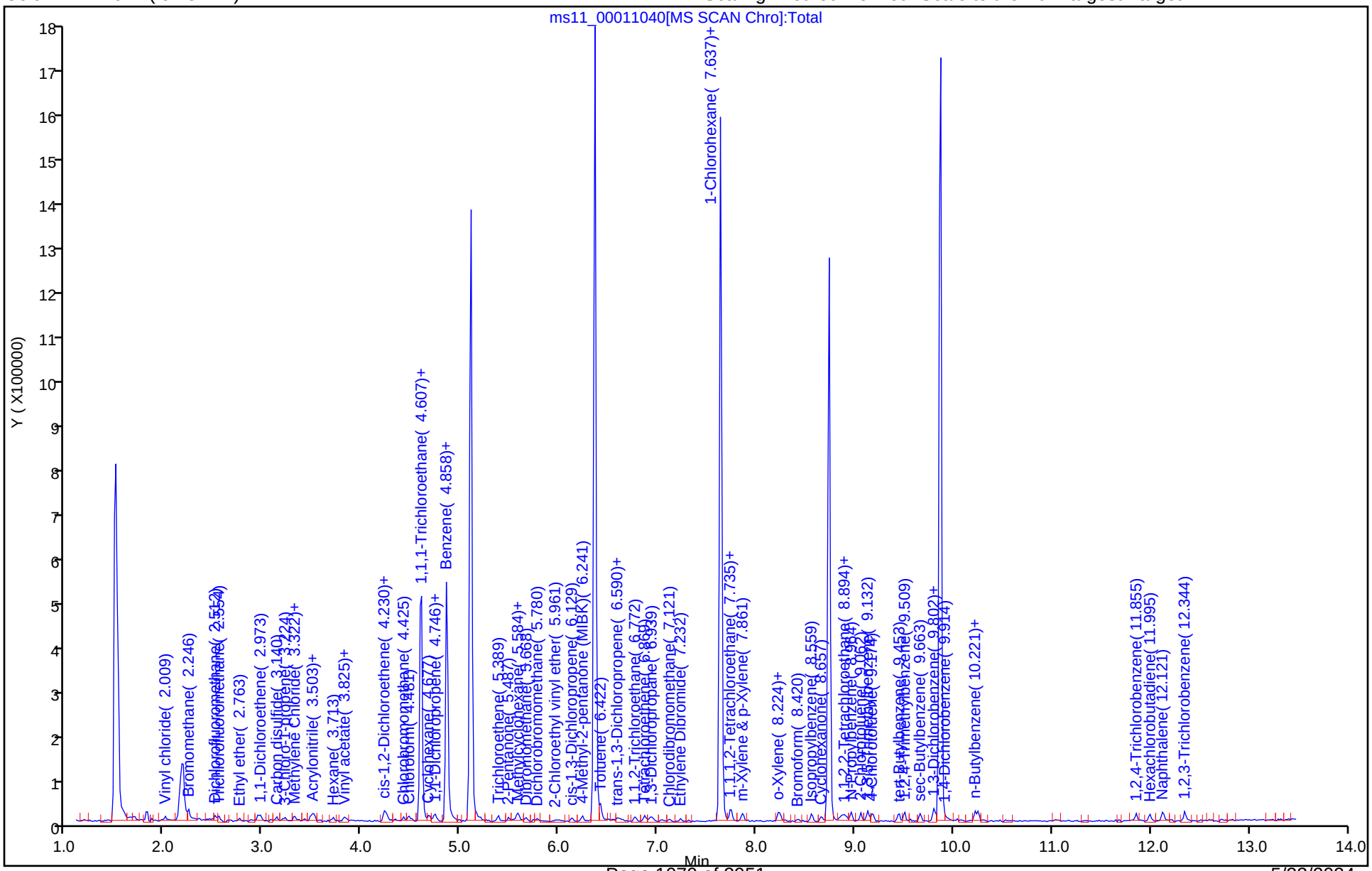
Report Date: 17-May-2024 17:51:18 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011040.D

Injection Date:	17-May-2024 09:24:30	Instrument ID:	VMS_MS11	Operator ID:	MED
Lims ID:	IC			Worklist Smp#:	13
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

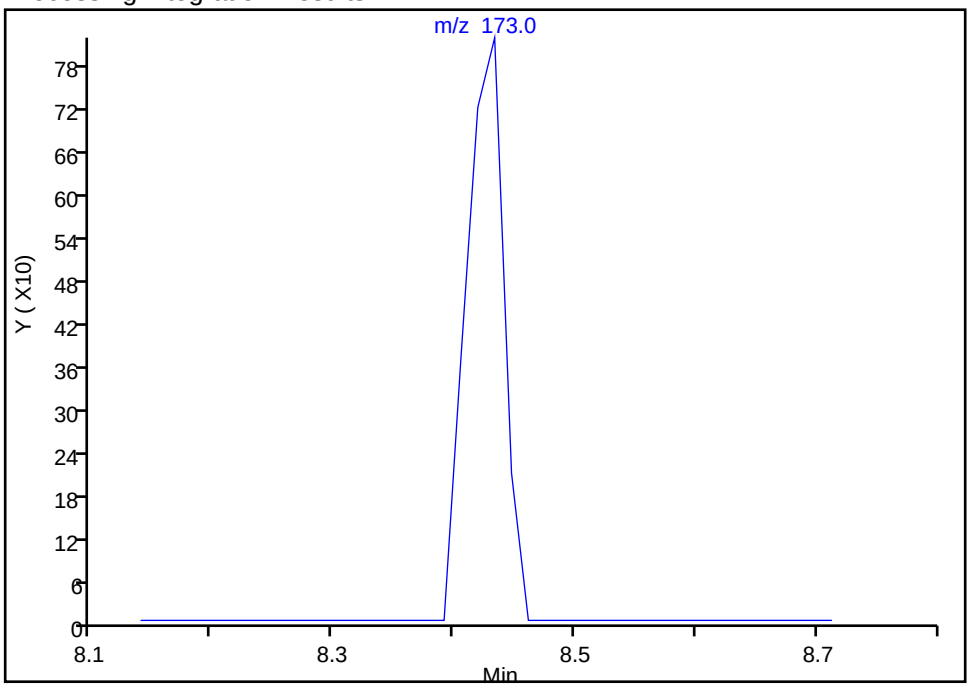
Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011040.D
Injection Date: 17-May-2024 09:24:30 Instrument ID: VMS_MS11
Lims ID: IC
Client ID:
Operator ID: MED ALS Bottle#: 5 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMS11_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (0.25 mm) Detector MS SCAN

87 Bromoform, CAS: 75-25-2

Signal: 1

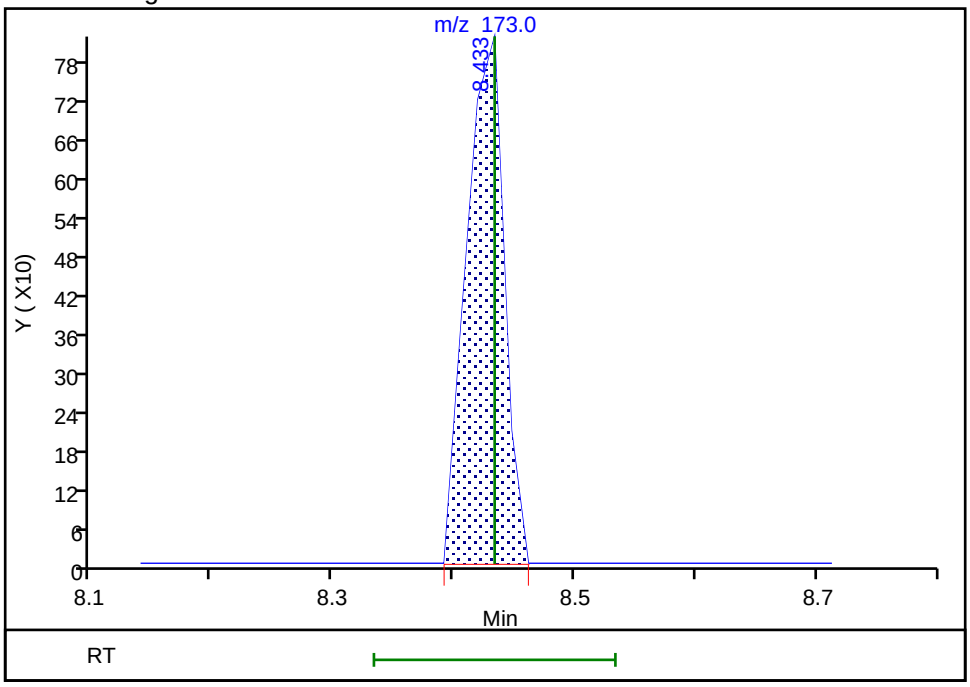
Not Detected
Expected RT: 8.43

Processing Integration Results



Manual Integration Results

RT: 8.43
Area: 1755
Amount: 0.598018
Amount Units: ug/l



Reviewer: LP8K, 17-May-2024 17:19:35 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

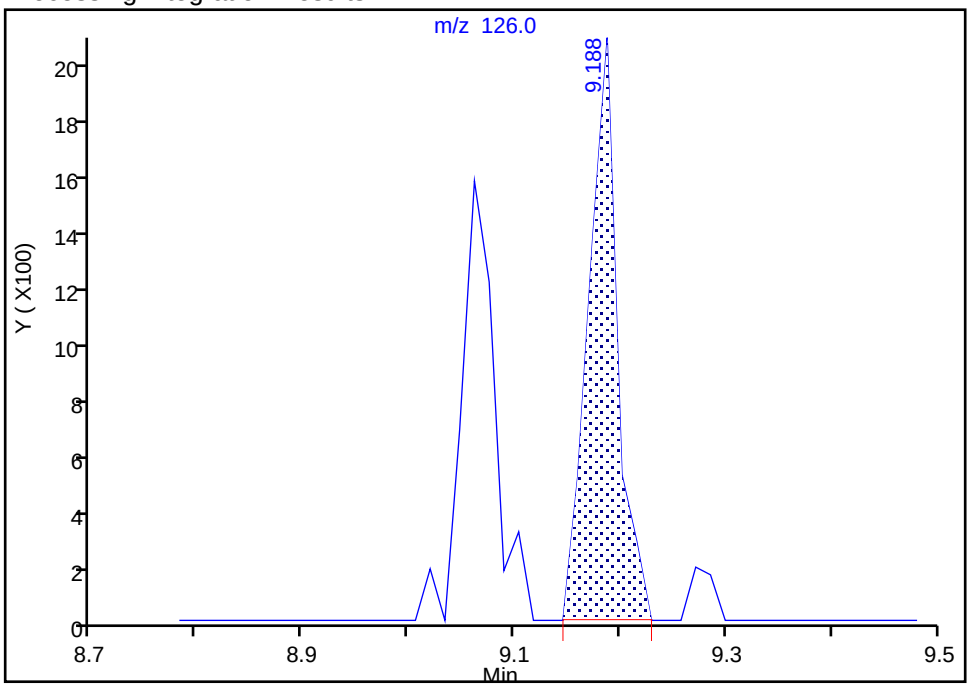
Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011040.D
Injection Date: 17-May-2024 09:24:30 Instrument ID: VMS_MS11
Lims ID: IC
Client ID:
Operator ID: MED ALS Bottle#: 5 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMS11_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (0.25 mm) Detector MS SCAN

96 2-Chlorotoluene, CAS: 95-49-8

Signal: 1

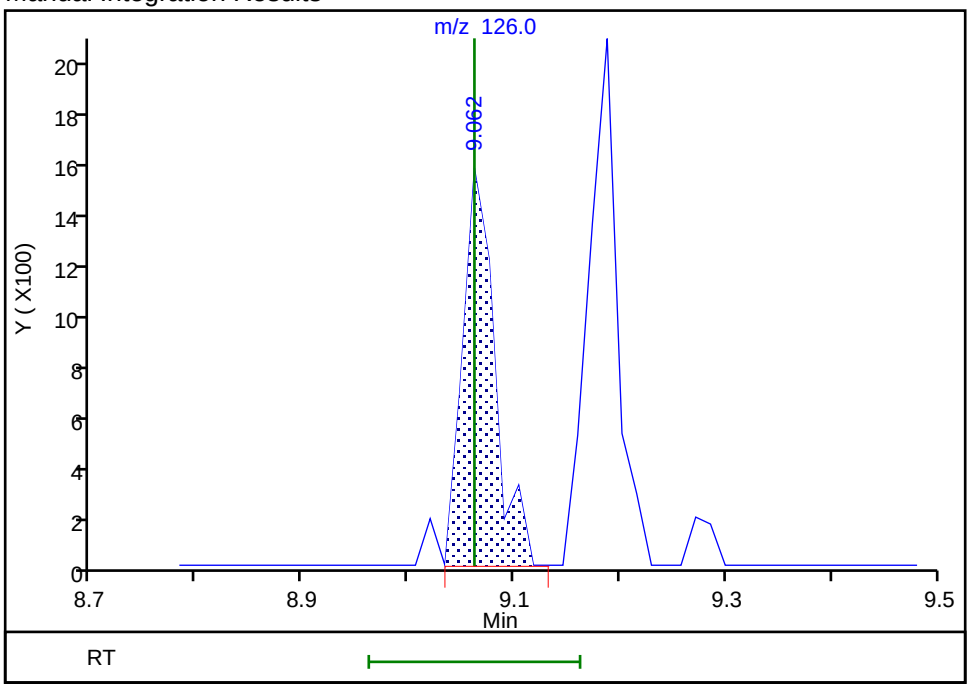
Processing Integration Results

RT: 9.19
Area: 3915
Amount: 0.545233
Amount Units: ug/l



Manual Integration Results

RT: 9.06
Area: 3257
Amount: 0.605090
Amount Units: ug/l



Reviewer: BX8N, 17-May-2024 10:52:01 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Wrong peak

Manual Integration/User Assign Peak Report

Eurofins Denver

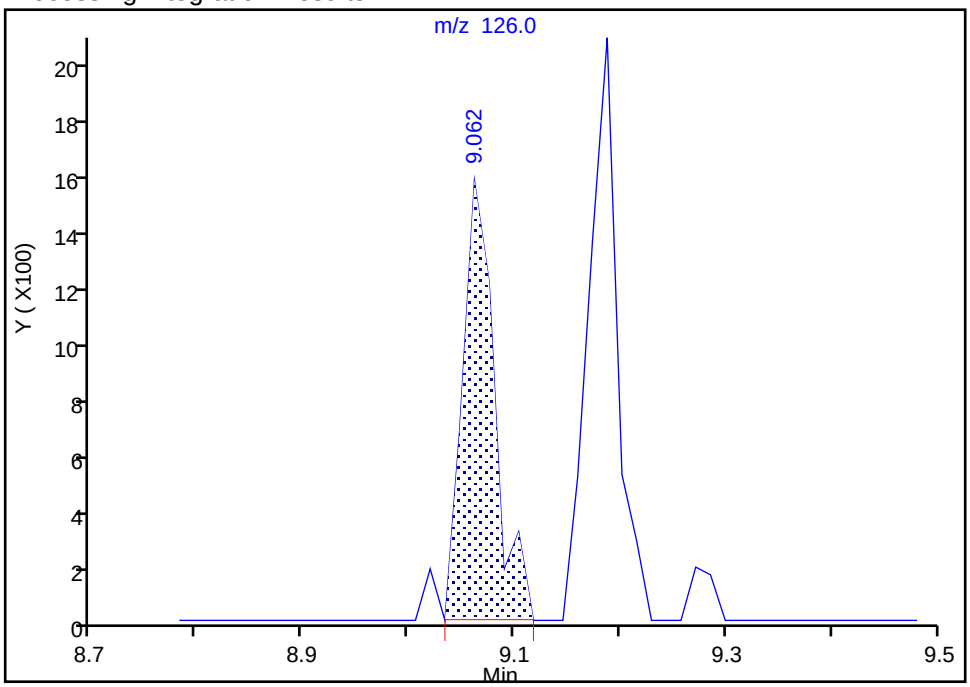
Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011040.D
Injection Date: 17-May-2024 09:24:30 Instrument ID: VMS_MS11
Lims ID: IC
Client ID:
Operator ID: MED ALS Bottle#: 5 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMS11_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (0.25 mm) Detector MS SCAN

98 4-Chlorotoluene, CAS: 106-43-4

Signal: 1

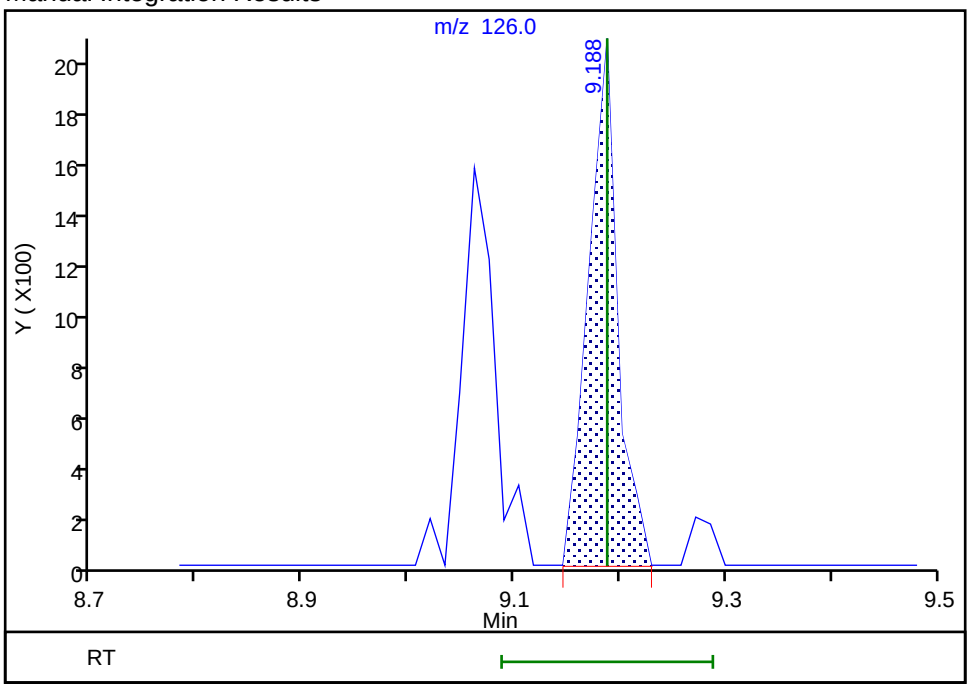
Processing Integration Results

RT: 9.06
Area: 3257
Amount: 0.549531
Amount Units: ug/l



Manual Integration Results

RT: 9.19
Area: 3915
Amount: 0.696502
Amount Units: ug/l



Reviewer: BX8N, 17-May-2024 10:52:10 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Wrong peak

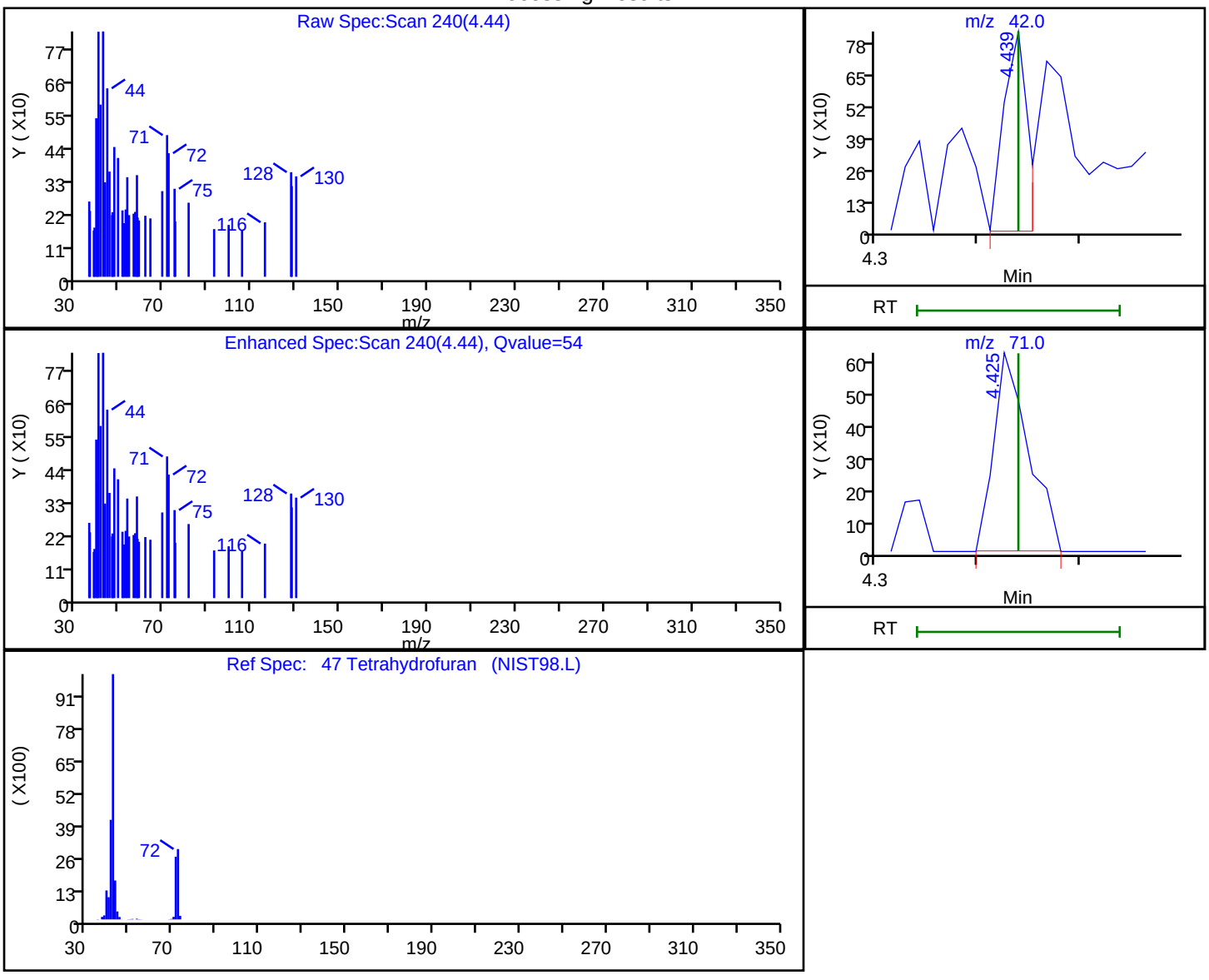
User Disabled Compound Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011040.D
Injection Date: 17-May-2024 09:24:30 Instrument ID: VMS_MS11
Lims ID: IC
Client ID:
Operator ID: MED ALS Bottle#: 5 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMS11_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (0.25 mm) Detector MS SCAN

47 Tetrahydrofuran, CAS: 109-99-9

Processing Results



RT	Mass	Response	Amount
4.44	42.00	1369	1.271444
4.43	71.00	1503	

Reviewer: LP8K, 17-May-2024 17:19:12 -06:00:00 (UTC)
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011041.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 17-May-2024 09:45:30 ALS Bottle#: 6 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: MED Instrument ID: VMS_MS11
Sublist: chrom-AQ_VMS11_8260*sub1

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 17-May-2024 17:51:21 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1621

First Level Reviewer: BX8N Date: 17-May-2024 10:53:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.109	5.109	0.000	99	1155939	50.0	50.0	
* 2 Chlorobenzene-d5	119	7.637	7.637	0.000	86	290210	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	9.872	9.872	0.000	95	510029	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	111	4.607	4.607	0.000	92	303512	50.0	51.0	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.858	4.858	0.000	0	324293	50.0	50.0	
$ 6 Toluene-d8 (Surr)	98	6.366	6.366	0.000	93	1135315	50.0	49.8	
$ 7 4-Bromofluorobenzene (Surr)	95	8.741	8.741	0.000	89	405667	50.0	49.3	
9 Dichlorodifluoromethane	85	1.702	1.702	0.000	98	4756	1.00	1.40	
10 Chloromethane	50	1.869	1.869	0.000	97	6615	1.00	1.65	
11 Vinyl chloride	62	1.981	1.981	0.000	97	5516	1.00	1.22	
12 Bromomethane	94	2.260	2.260	0.000	83	5222	1.00	1.98	
13 Chloroethane	64	2.344	2.344	0.000	96	4011	1.00	1.37	
14 Dichlorofluoromethane	67	2.526	2.526	0.000	96	10308	1.00	1.17	
15 Trichlorofluoromethane	101	2.554	2.554	0.000	84	6455	1.00	1.07	
17 Ethyl ether	59	2.763	2.763	0.000	79	4693	1.00	1.53	
18 Acrolein	56	2.875	2.875	0.000	75	3086	9.88	11.0	Ma
19 1,1-Dichloroethene	96	2.959	2.959	0.000	94	3832	1.00	1.09	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151	2.959	2.959	0.000	67	3519	1.00	1.40	
21 Acetone	43	2.973	2.973	0.000	21	7830	4.00	2.13	Ma
23 Iodomethane	142	3.084	3.084	0.000	53	1761	1.00	5.53	Ma
24 Carbon disulfide	76	3.140	3.140	0.000	99	12457	1.00	1.14	
26 Methyl acetate	43	3.210	3.210	0.000	63	6223	2.00	2.55	a
27 3-Chloro-1-propene	41	3.224	3.224	0.000	83	7570	1.00	0.9389	
28 Methylene Chloride	84	3.322	3.322	0.000	91	7637	1.00	1.74	
29 2-Methyl-2-propanol	59	3.364	3.364	0.000	68	3360	10.0	10.8	
30 Acrylonitrile	53	3.489	3.489	0.000	98	14506	10.0	10.3	
31 Methyl tert-butyl ether	73	3.503	3.503	0.000	89	11751	1.00	1.05	
32 trans-1,2-Dichloroethene	96	3.517	3.517	0.000	95	4656	1.00	1.14	
33 Hexane	57	3.713	3.713	0.000	90	4791	1.00	1.27	
34 Vinyl acetate	43	3.811	3.811	0.000	98	13256	2.00	2.12	
35 1,1-Dichloroethane	63	3.839	3.839	0.000	94	8624	1.00	1.20	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 2-Butanone (MEK)	43	4.230	4.230	0.000	99	5944	4.00	3.52	Ma
41 cis-1,2-Dichloroethene	96	4.244	4.244	0.000	76	5889	1.00	1.24	
42 2,2-Dichloropropane	77	4.258	4.258	0.000	73	6835	1.00	1.21	
44 sec-Butyl Alcohol	45	4.327	4.327	0.000	90	5119	24.0	50.0	
46 Chlorobromomethane	128	4.425	4.425	0.000	88	2811	1.00	1.21	
47 Tetrahydrofuran	42	4.439	4.439	0.000	79	3138	2.00	2.89	
48 Chloroform	83	4.481	4.481	0.000	89	9326	1.00	1.22	
49 1,1,1-Trichloroethane	97	4.635	4.635	0.000	94	7038	1.00	1.12	
50 Cyclohexane	56	4.690	4.690	0.000	89	7007	1.00	1.28	
51 1,1-Dichloropropene	75	4.746	4.746	0.000	85	6317	1.00	1.10	
52 Carbon tetrachloride	117	4.746	4.746	0.000	91	6116	1.00	1.14	
53 Isobutyl alcohol	43	4.760	4.760	0.000	45	2792	25.0	23.0	a
54 Benzene	78	4.900	4.900	0.000	94	19180	1.00	1.12	
55 1,2-Dichloroethane	62	4.928	4.928	0.000	88	7228	1.00	1.22	
57 n-Heptane	43	5.082	5.082	0.000	79	5219	1.00	0.9201	
59 Trichloroethene	130	5.389	5.389	0.000	90	4872	1.00	1.06	
60 2-Pentanone	43	5.487	5.487	0.000	95	9041	3.20	3.70	
61 Methylcyclohexane	55	5.584	5.584	0.000	90	5954	1.00	1.28	
62 1,2-Dichloropropane	63	5.598	5.598	0.000	78	4722	1.00	1.06	
64 1,4-Dioxane	88	5.640	5.640	0.000	59	1723	20.0	28.0	
65 Dibromomethane	93	5.668	5.668	0.000	90	3011	1.00	1.02	
66 Dichlorobromomethane	83	5.780	5.780	0.000	95	6892	1.00	1.15	
68 2-Chloroethyl vinyl ether	63	5.989	5.989	0.000	88	2893	1.00	1.20	
69 cis-1,3-Dichloropropene	75	6.129	6.129	0.000	95	7215	1.00	1.07	
70 4-Methyl-2-pentanone (MIBK)	43	6.241	6.241	0.000	91	15142	4.00	4.59	
71 Toluene	91	6.422	6.422	0.000	96	21104	1.00	1.10	
72 trans-1,3-Dichloropropene	75	6.604	6.604	0.000	86	5452	1.00	0.8986	
73 Ethyl methacrylate	69	6.618	6.618	0.000	78	6990	1.00	1.28	
74 1,1,2-Trichloroethane	97	6.771	6.771	0.000	84	5901	1.00	1.36	
75 Tetrachloroethene	164	6.869	6.869	0.000	88	3842	1.00	1.11	
76 1,3-Dichloropropane	76	6.925	6.925	0.000	91	7412	1.00	1.03	
77 2-Hexanone	43	6.939	6.939	0.000	96	8615	4.00	3.76	
78 Chlorodibromomethane	129	7.121	7.121	0.000	92	4821	1.00	1.03	
79 Ethylene Dibromide	107	7.232	7.232	0.000	93	4444	1.00	1.00	
80 1-Chlorohexane	91	7.637	7.637	0.000	33	7255	0.8000	0.7603	
81 Chlorobenzene	112	7.665	7.665	0.000	93	15529	1.00	1.19	
82 1,1,1,2-Tetrachloroethane	131	7.749	7.749	0.000	44	5134	1.00	1.20	
83 Ethylbenzene	106	7.749	7.749	0.000	97	8274	1.00	1.18	
84 m-Xylene & p-Xylene	91	7.861	7.861	0.000	0	18980	1.00	1.14	
85 o-Xylene	106	8.224	8.224	0.000	96	7736	1.00	0.9230	
86 Styrene	104	8.238	8.238	0.000	93	11898	1.00	0.8892	
87 Bromoform	173	8.419	8.419	0.000	91	3256	1.00	1.10	
88 Isopropylbenzene	105	8.559	8.559	0.000	95	18165	1.00	0.9399	
90 Cyclohexanone	55	8.657	8.657	0.000	91	6148	30.0	28.2	
91 1,1,2,2-Tetrachloroethane	83	8.852	8.852	0.000	91	7193	1.00	1.20	
93 trans-1,4-Dichloro-2-butene	53	8.866	8.866	0.000	60	2787	1.00	2.87	
92 Bromobenzene	156	8.880	8.880	0.000	90	5583	1.00	1.05	
94 1,2,3-Trichloropropane	110	8.922	8.922	0.000	76	2556	1.00	1.45	
95 N-Propylbenzene	120	8.964	8.964	0.000	98	5786	1.00	1.00	
96 2-Chlorotoluene	126	9.062	9.062	0.000	96	6002	1.00	1.12	
97 1,3,5-Trimethylbenzene	105	9.132	9.132	0.000	96	17071	1.00	1.02	
98 4-Chlorotoluene	126	9.174	9.174	0.000	95	6682	1.00	1.20	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
99 tert-Butylbenzene	119	9.453	9.453	0.000	89	14556	1.00	1.03	
100 1,2,4-Trimethylbenzene	105	9.509	9.509	0.000	95	19370	1.00	1.05	
101 sec-Butylbenzene	134	9.676	9.676	0.000	93	4899	1.00	1.12	
102 1,3-Dichlorobenzene	146	9.788	9.788	0.000	95	11388	1.00	1.07	
103 4-Isopropyltoluene	119	9.816	9.816	0.000	95	17792	1.00	1.02	
104 1,4-Dichlorobenzene	146	9.886	9.886	0.000	90	13706	1.00	1.22	
106 n-Butylbenzene	91	10.221	10.221	0.000	96	15087	1.00	0.99	
107 1,2-Dichlorobenzene	146	10.249	10.249	0.000	94	10304	1.00	1.02	
108 1,2-Dibromo-3-Chloropropane	157	11.031	11.031	0.000	79	1315	1.00	1.15	
110 1,2,4-Trichlorobenzene	180	11.855	11.855	0.000	89	6173	1.00	1.07	
111 Hexachlorobutadiene	225	11.995	11.995	0.000	83	3267	1.00	1.55	
112 Naphthalene	128	12.121	12.121	0.000	96	17979	1.00	1.23	
113 1,2,3-Trichlorobenzene	180	12.344	12.344	0.000	90	5805	1.00	1.23	
S 122 Xylenes, Total	106				0		2.00	2.07	
S 123 1,2-Dichloroethene, Total	1				0		2.00	2.38	
S 124 1,3-Dichloropropene, Total	1				0		2.00	1.97	
S 125 Trihalomethanes, Total	1				0		4.00	4.50	
S 127 Total BTEX	1				0			5.47	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

Cal Dil Std_00352	Amount Added: 10.00	Units: uL	
mv-IS_SS_00079	Amount Added: 5.00	Units: uL	Run Reagent

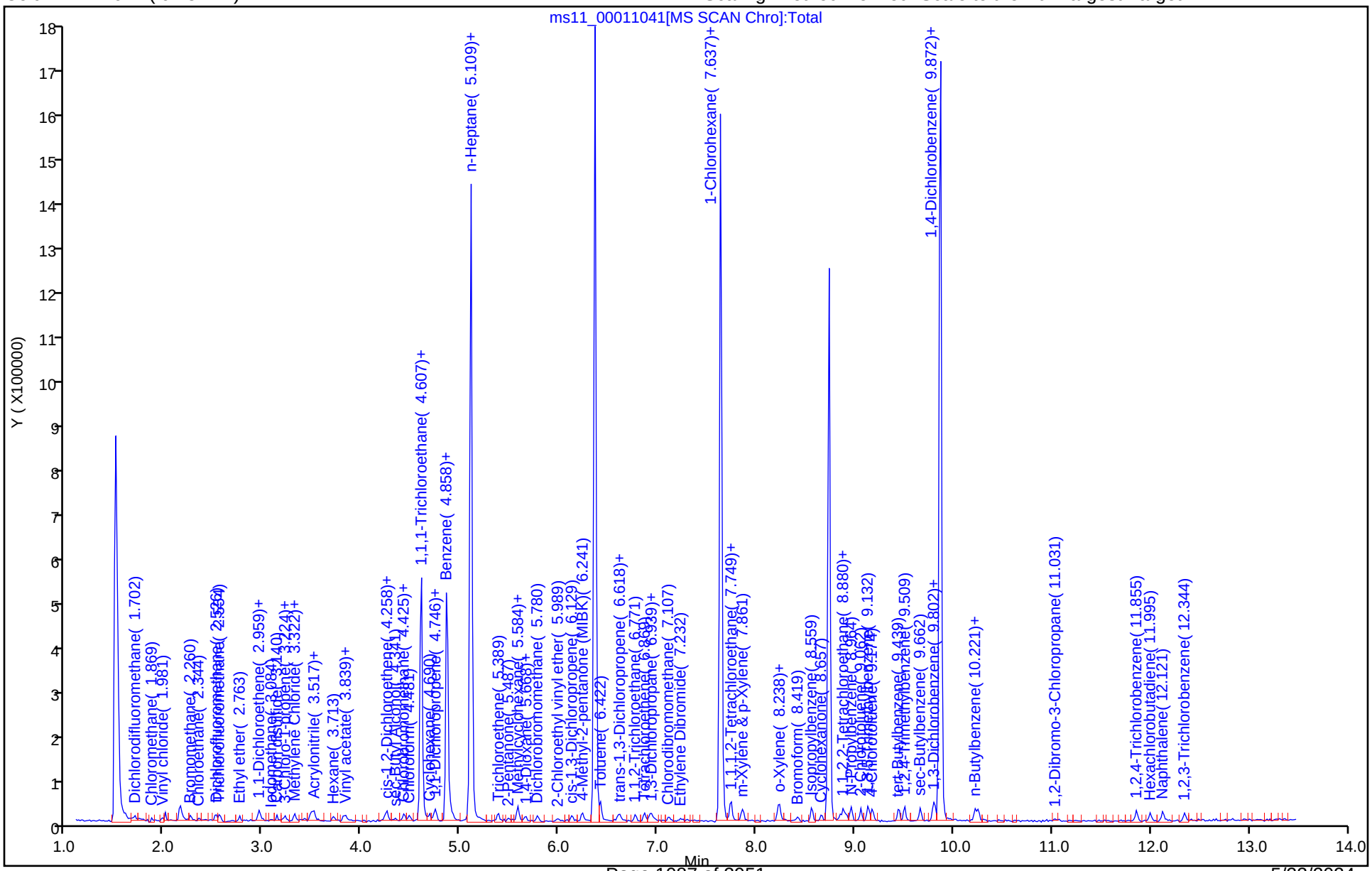
Report Date: 17-May-2024 17:51:21 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011041.D

Injection Date:	17-May-2024 09:45:30	Instrument ID:	VMS_MS11	Operator ID:	MED
Lims ID:	IC			Worklist Smp#:	14
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

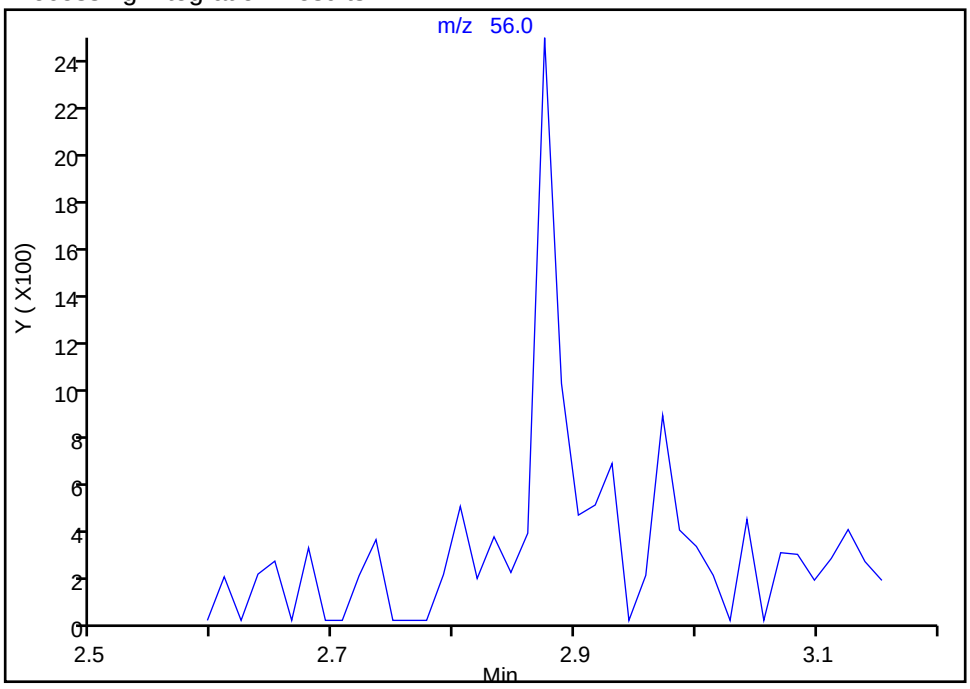
Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011041.D
Injection Date: 17-May-2024 09:45:30 Instrument ID: VMS_MS11
Lims ID: IC
Client ID:
Operator ID: MED ALS Bottle#: 6 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMS11_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (0.25 mm) Detector MS SCAN

18 Acrolein, CAS: 107-02-8

Signal: 1

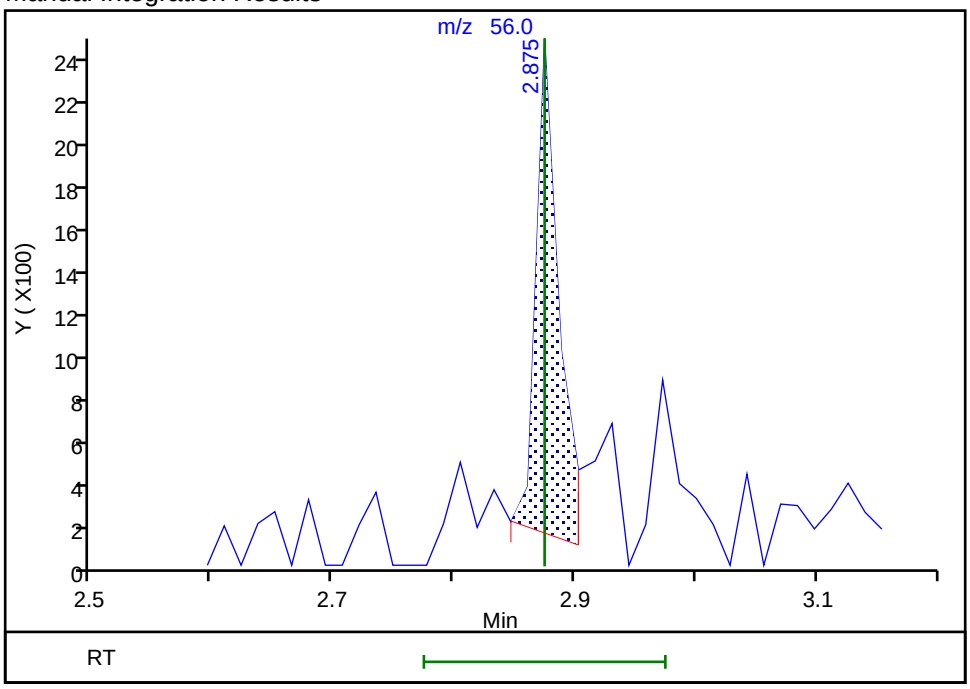
Not Detected
Expected RT: 2.87

Processing Integration Results



Manual Integration Results

RT: 2.87
Area: 3086
Amount: 10.973424
Amount Units: ug/l



Reviewer: BX8N, 17-May-2024 10:55:09 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

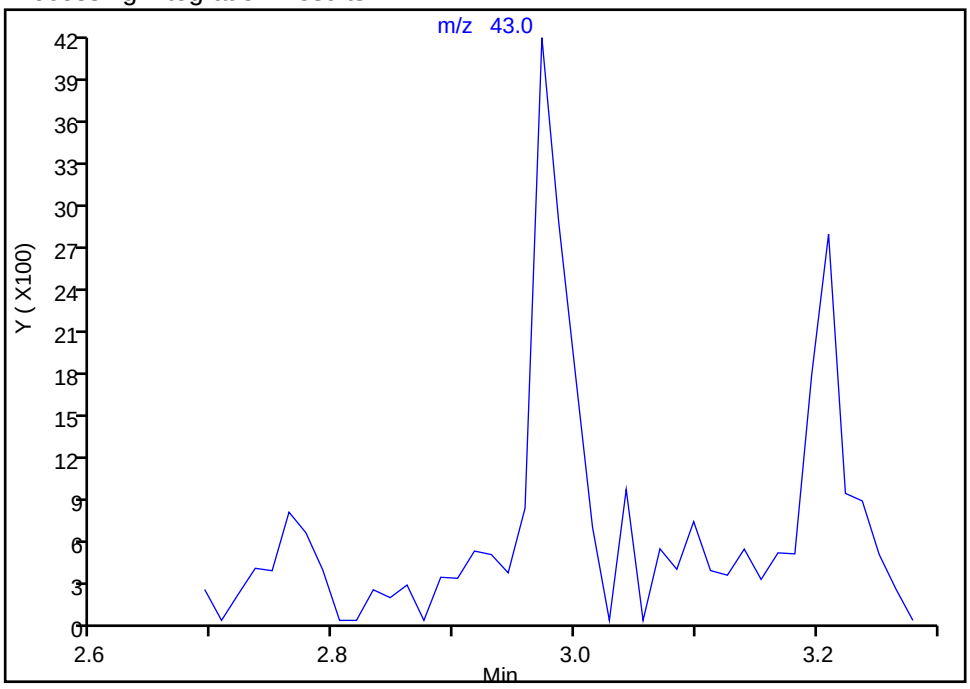
Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011041.D
Injection Date: 17-May-2024 09:45:30 Instrument ID: VMS_MS11
Lims ID: IC
Client ID:
Operator ID: MED ALS Bottle#: 6 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMS11_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (0.25 mm) Detector MS SCAN

21 Acetone, CAS: 67-64-1

Signal: 1

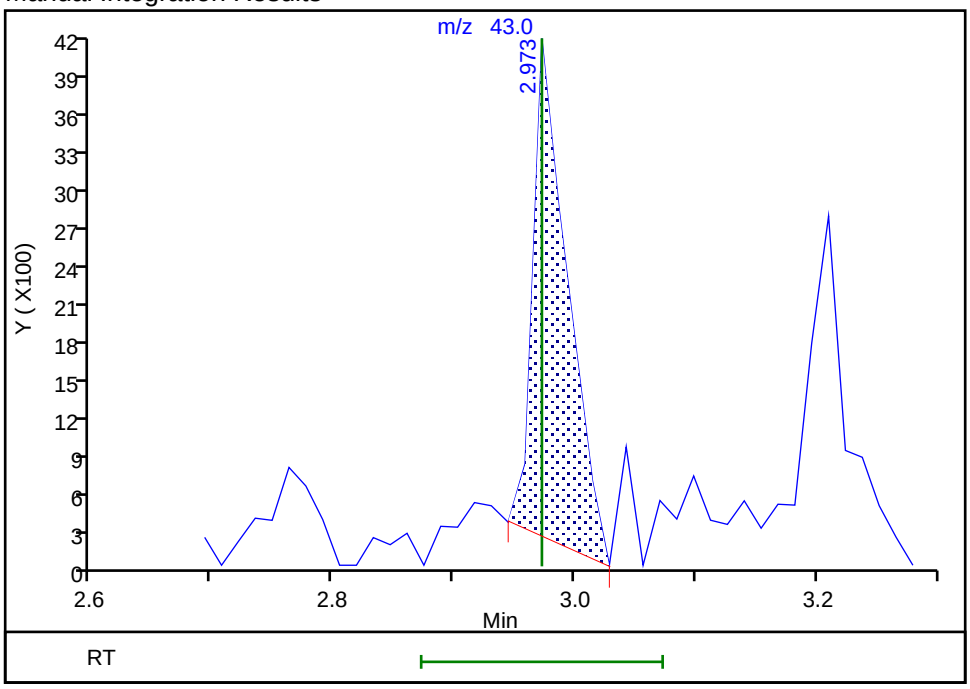
Not Detected
Expected RT: 2.97

Processing Integration Results



Manual Integration Results

RT: 2.97
Area: 7830
Amount: 2.129776
Amount Units: ug/l



Reviewer: BX8N, 17-May-2024 10:55:42 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

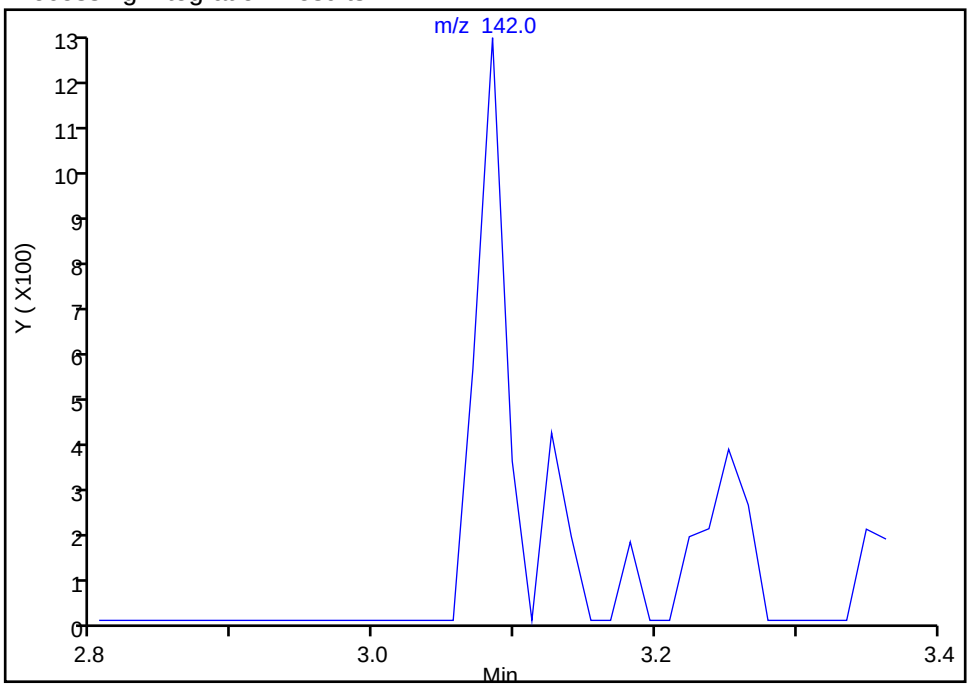
Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011041.D
Injection Date: 17-May-2024 09:45:30 Instrument ID: VMS_MS11
Lims ID: IC
Client ID:
Operator ID: MED ALS Bottle#: 6 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMS11_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (0.25 mm) Detector MS SCAN

23 Iodomethane, CAS: 74-88-4

Signal: 1

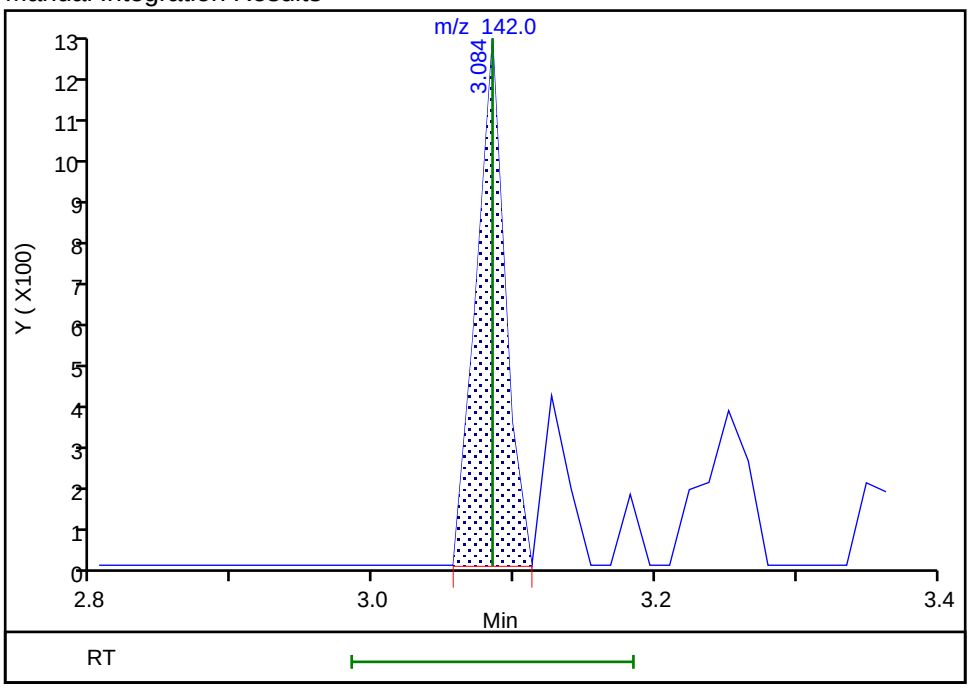
Not Detected
Expected RT: 3.08

Processing Integration Results



Manual Integration Results

RT: 3.08
Area: 1761
Amount: 5.530405
Amount Units: ug/l



Reviewer: BX8N, 17-May-2024 11:09:38 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

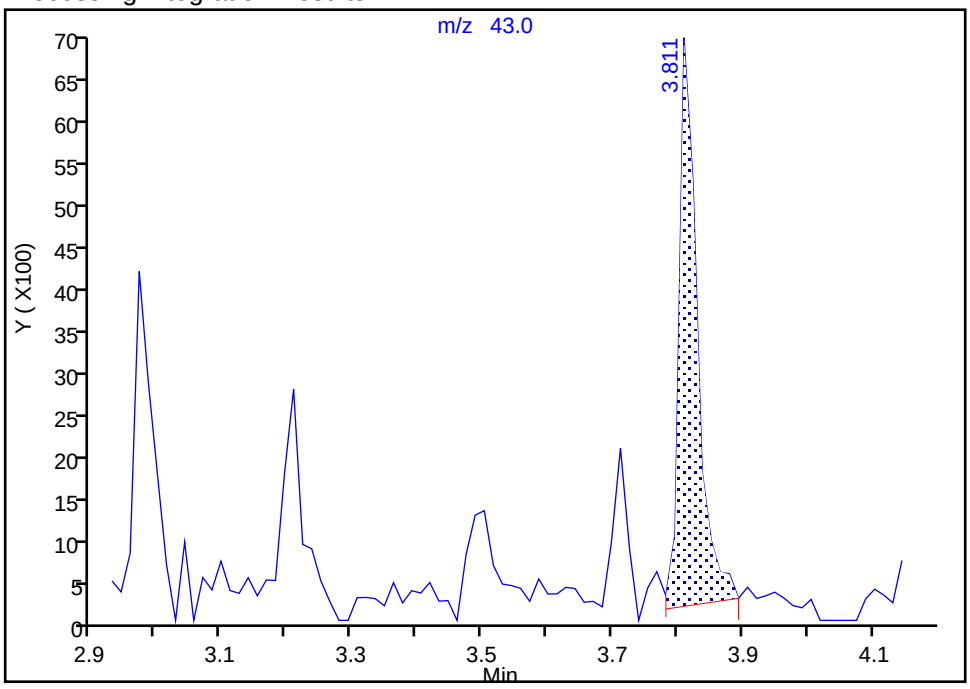
Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011041.D
Injection Date: 17-May-2024 09:45:30 Instrument ID: VMS_MS11
Lims ID: IC
Client ID:
Operator ID: MED ALS Bottle#: 6 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMS11_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (0.25 mm) Detector MS SCAN

26 Methyl acetate, CAS: 79-20-9

Signal: 1

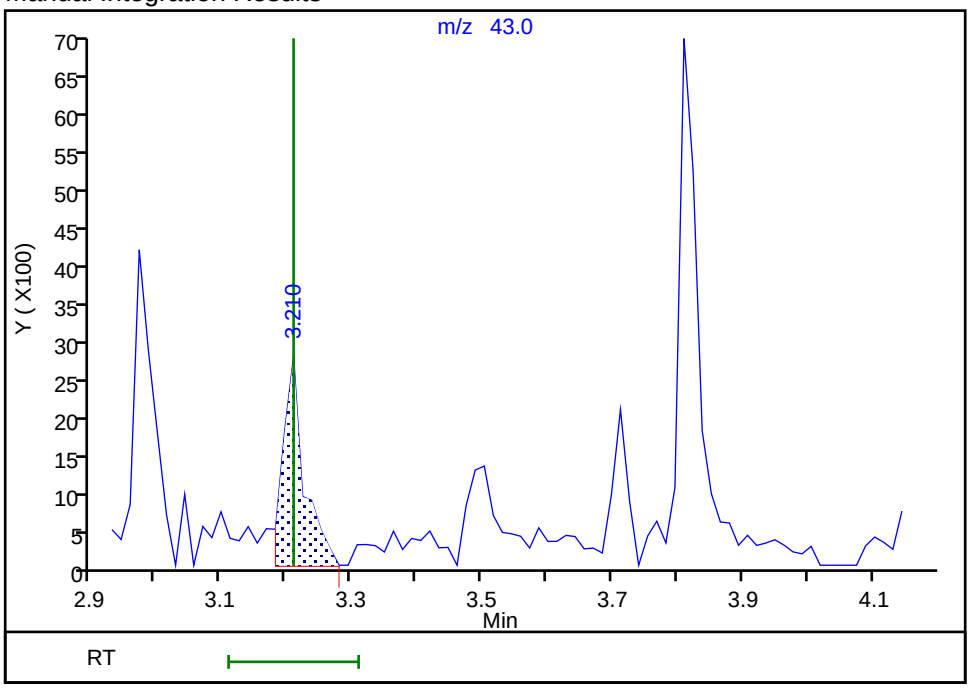
Processing Integration Results

RT: 3.81
Area: 13256
Amount: 3.625789
Amount Units: ug/l



Manual Integration Results

RT: 3.21
Area: 6223
Amount: 2.547757
Amount Units: ug/l



Reviewer: BX8N, 17-May-2024 10:53:57 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Wrong peak

Manual Integration/User Assign Peak Report

Eurofins Denver

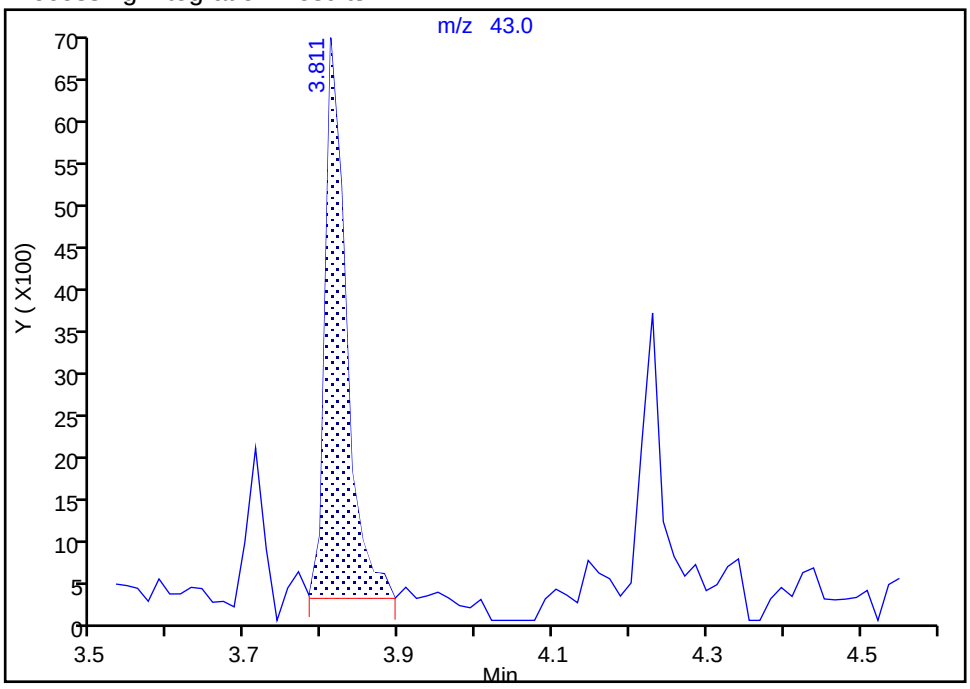
Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011041.D
Injection Date: 17-May-2024 09:45:30 Instrument ID: VMS_MS11
Lims ID: IC
Client ID:
Operator ID: MED ALS Bottle#: 6 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMS11_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (0.25 mm) Detector MS SCAN

39 2-Butanone (MEK), CAS: 78-93-3

Signal: 1

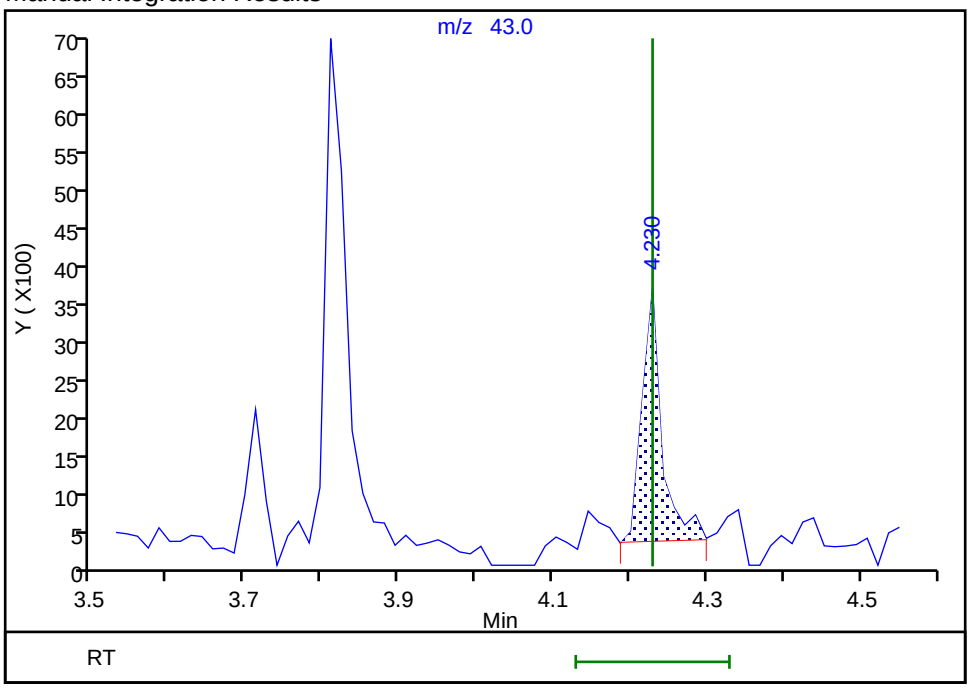
Processing Integration Results

RT: 3.81
Area: 12724
Amount: 2.203685
Amount Units: ug/l



Manual Integration Results

RT: 4.23
Area: 5944
Amount: 3.524092
Amount Units: ug/l



Reviewer: BX8N, 17-May-2024 10:52:55 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Wrong peak

Manual Integration/User Assign Peak Report

Eurofins Denver

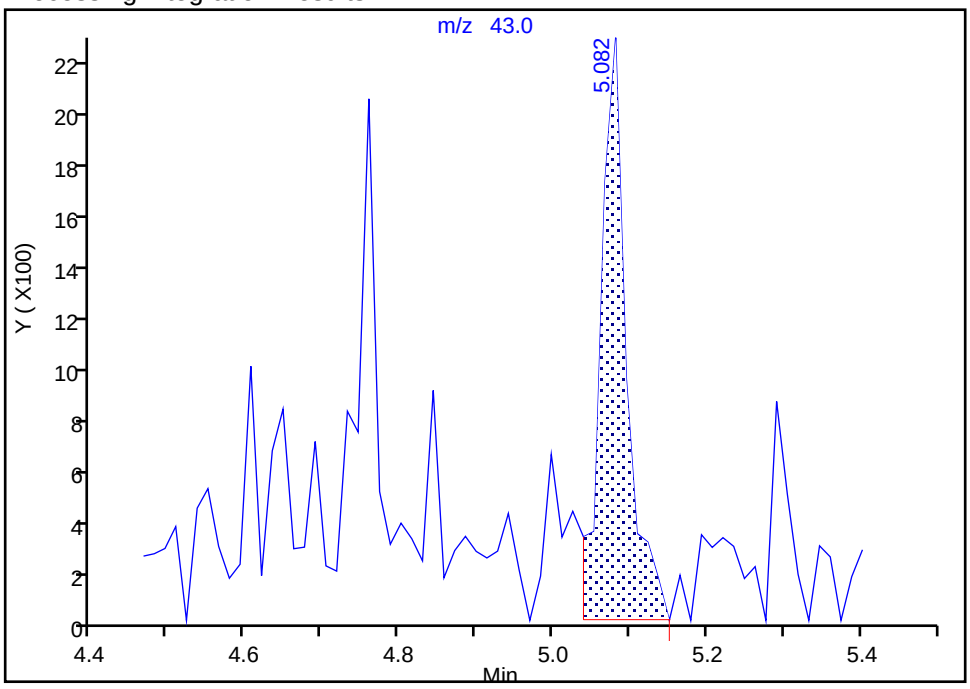
Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011041.D
Injection Date: 17-May-2024 09:45:30 Instrument ID: VMS_MS11
Lims ID: IC
Client ID:
Operator ID: MED ALS Bottle#: 6 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMS11_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (0.25 mm) Detector MS SCAN

53 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

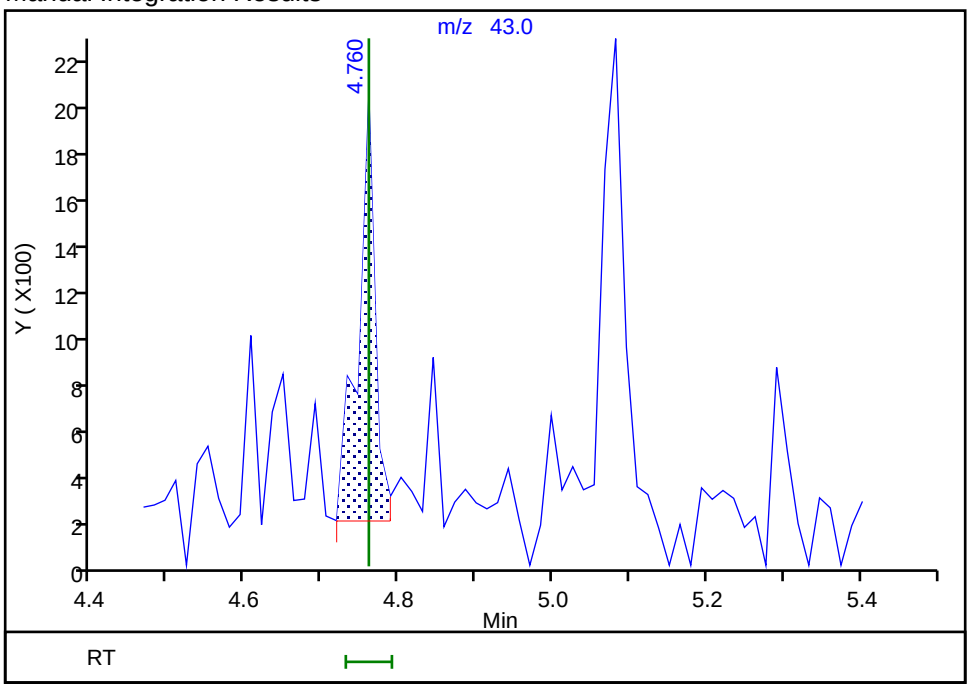
Processing Integration Results

RT: 5.08
Area: 5219
Amount: 36.599547
Amount Units: ug/l



Manual Integration Results

RT: 4.76
Area: 2792
Amount: 22.984055
Amount Units: ug/l



Reviewer: BX8N, 17-May-2024 10:56:13 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Wrong peak

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011042.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 17-May-2024 10:07:30 ALS Bottle#: 7 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: MED Instrument ID: VMS_MS11
Sublist: chrom-AQ_VMS11_8260*sub1

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 17-May-2024 17:51:24 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1621

First Level Reviewer: BX8N Date: 17-May-2024 10:57:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.110	5.110	0.000	99	1164858	50.0	50.0	
* 2 Chlorobenzene-d5	119	7.637	7.637	0.000	85	288659	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	9.872	9.872	0.000	95	512843	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	111	4.607	4.607	0.000	92	301235	50.0	50.3	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.858	4.858	0.000	0	336047	50.0	51.5	
$ 6 Toluene-d8 (Surr)	98	6.366	6.366	0.000	93	1143476	50.0	50.4	
$ 7 4-Bromofluorobenzene (Surr)	95	8.741	8.741	0.000	90	411642	50.0	49.8	
9 Dichlorodifluoromethane	85	1.702	1.702	0.000	96	6298	2.00	1.84	
10 Chloromethane	50	1.869	1.869	0.000	95	8337	2.00	2.07	
11 Vinyl chloride	62	1.967	1.967	0.000	97	9298	2.00	2.04	
12 Bromomethane	94	2.260	2.260	0.000	84	9694	2.00	3.64	
13 Chloroethane	64	2.344	2.344	0.000	98	5530	2.00	1.88	
14 Dichlorofluoromethane	67	2.512	2.512	0.000	96	19966	2.00	2.26	
15 Trichlorofluoromethane	101	2.554	2.554	0.000	98	12957	2.00	2.14	
17 Ethyl ether	59	2.763	2.763	0.000	90	7808	2.00	2.52	
18 Acrolein	56	2.875	2.875	0.000	92	4984	19.8	17.6	
19 1,1-Dichloroethene	96	2.959	2.959	0.000	95	6614	2.00	1.87	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151	2.959	2.959	0.000	75	6076	2.00	2.39	
21 Acetone	43	2.973	2.973	0.000	98	13808	8.00	8.16	Ma
23 Iodomethane	142	3.070	3.070	0.000	96	4123	2.00	6.04	
24 Carbon disulfide	76	3.140	3.140	0.000	98	23125	2.00	2.11	
26 Methyl acetate	43	3.210	3.210	0.000	92	8660	4.00	3.52	
27 3-Chloro-1-propene	41	3.224	3.224	0.000	89	13396	2.00	2.27	
28 Methylene Chloride	84	3.322	3.322	0.000	89	10574	2.00	2.39	
29 2-Methyl-2-propanol	59	3.364	3.364	0.000	98	5730	20.0	18.3	
30 Acrylonitrile	53	3.475	3.475	0.000	100	28301	20.0	20.0	
31 Methyl tert-butyl ether	73	3.503	3.503	0.000	95	21588	2.00	1.91	
32 trans-1,2-Dichloroethene	96	3.517	3.517	0.000	94	8331	2.00	2.03	
33 Hexane	57	3.713	3.713	0.000	88	7536	2.00	2.00	
34 Vinyl acetate	43	3.811	3.811	0.000	97	23949	4.00	3.81	
35 1,1-Dichloroethane	63	3.839	3.839	0.000	96	13940	2.00	1.93	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 2-Butanone (MEK)	43	4.230	4.230	0.000	97	18024	8.00	10.6	
41 cis-1,2-Dichloroethene	96	4.258	4.258	0.000	77	10566	2.00	2.21	
42 2,2-Dichloropropane	77	4.258	4.258	0.000	82	11157	2.00	1.96	
44 sec-Butyl Alcohol	45	4.327	4.327	0.000	94	8068	48.0	61.0	
46 Chlorobromomethane	128	4.425	4.425	0.000	84	3882	2.00	1.65	
47 Tetrahydrofuran	42	4.439	4.439	0.000	86	5072	4.00	4.64	
48 Chloroform	83	4.481	4.481	0.000	93	14947	2.00	1.94	
49 1,1,1-Trichloroethane	97	4.621	4.621	0.000	93	12357	2.00	1.95	
50 Cyclohexane	56	4.691	4.691	0.000	86	11418	2.00	2.07	
51 1,1-Dichloropropene	75	4.746	4.746	0.000	88	12432	2.00	2.14	
52 Carbon tetrachloride	117	4.746	4.746	0.000	95	11975	2.00	2.22	
53 Isobutyl alcohol	43	4.760	4.760	0.000	73	5615	50.0	45.9	
54 Benzene	78	4.900	4.900	0.000	96	33476	2.00	1.95	
55 1,2-Dichloroethane	62	4.914	4.914	0.000	95	12011	2.00	2.01	
57 n-Heptane	43	5.082	5.082	0.000	79	9153	2.00	2.36	
59 Trichloroethene	130	5.389	5.389	0.000	94	10148	2.00	2.19	
60 2-Pentanone	43	5.487	5.487	0.000	95	12795	6.40	5.20	
61 Methylcyclohexane	55	5.570	5.570	0.000	85	7581	2.00	1.70	
62 1,2-Dichloropropane	63	5.584	5.584	0.000	89	9439	2.00	2.10	
64 1,4-Dioxane	88	5.640	5.640	0.000	66	2951	40.0	47.6	
65 Dibromomethane	93	5.654	5.654	0.000	91	5883	2.00	1.98	
66 Dichlorobromomethane	83	5.780	5.780	0.000	96	12686	2.00	2.10	
68 2-Chloroethyl vinyl ether	63	5.989	5.989	0.000	83	5166	2.00	2.12	
69 cis-1,3-Dichloropropene	75	6.129	6.129	0.000	92	12334	2.00	1.84	
70 4-Methyl-2-pentanone (MIBK)	43	6.241	6.241	0.000	94	23162	8.00	6.97	
71 Toluene	91	6.422	6.422	0.000	96	43924	2.00	2.27	
72 trans-1,3-Dichloropropene	75	6.604	6.604	0.000	94	9920	2.00	1.62	
73 Ethyl methacrylate	69	6.618	6.618	0.000	82	10012	2.00	1.85	
74 1,1,2-Trichloroethane	97	6.771	6.771	0.000	92	8806	2.00	2.01	
75 Tetrachloroethene	164	6.869	6.869	0.000	90	7012	2.00	2.04	
76 1,3-Dichloropropane	76	6.925	6.925	0.000	86	13206	2.00	1.85	
77 2-Hexanone	43	6.939	6.939	0.000	94	15784	8.00	6.93	
78 Chlorodibromomethane	129	7.121	7.121	0.000	88	9061	2.00	1.95	
79 Ethylene Dibromide	107	7.232	7.232	0.000	90	9330	2.00	2.11	
80 1-Chlorohexane	91	7.623	7.623	0.000	35	10951	1.60	1.49	
81 Chlorobenzene	112	7.665	7.665	0.000	93	26838	2.00	2.07	
82 1,1,1,2-Tetrachloroethane	131	7.749	7.749	0.000	67	7567	2.00	1.78	
83 Ethylbenzene	106	7.749	7.749	0.000	98	13556	2.00	1.95	
84 m-Xylene & p-Xylene	91	7.861	7.861	0.000	0	30424	2.00	1.84	
85 o-Xylene	106	8.224	8.224	0.000	94	15605	2.00	1.87	
86 Styrene	104	8.238	8.238	0.000	95	26453	2.00	1.99	
87 Bromoform	173	8.420	8.420	0.000	86	5178	2.00	1.76	
88 Isopropylbenzene	105	8.559	8.559	0.000	93	39529	2.00	2.03	
90 Cyclohexanone	55	8.657	8.657	0.000	90	11655	60.0	53.7	
91 1,1,2,2-Tetrachloroethane	83	8.852	8.852	0.000	95	12533	2.00	2.07	
93 trans-1,4-Dichloro-2-butene	53	8.894	8.894	0.000	49	1551	2.00	1.95	
92 Bromobenzene	156	8.894	8.894	0.000	95	11042	2.00	2.06	
94 1,2,3-Trichloropropane	110	8.908	8.908	0.000	80	4136	2.00	2.33	
95 N-Propylbenzene	120	8.964	8.964	0.000	99	10566	2.00	1.82	
96 2-Chlorotoluene	126	9.062	9.062	0.000	95	9729	2.00	1.81	
97 1,3,5-Trimethylbenzene	105	9.132	9.132	0.000	93	31865	2.00	1.89	
98 4-Chlorotoluene	126	9.174	9.174	0.000	97	10527	2.00	1.88	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
99 tert-Butylbenzene	119	9.453	9.453	0.000	91	28077	2.00	1.98	
100 1,2,4-Trimethylbenzene	105	9.509	9.509	0.000	95	33542	2.00	1.81	
101 sec-Butylbenzene	134	9.663	9.663	0.000	93	9035	2.00	2.05	
102 1,3-Dichlorobenzene	146	9.802	9.802	0.000	97	21539	2.00	2.01	
103 4-Isopropyltoluene	119	9.816	9.816	0.000	96	32157	2.00	1.84	
104 1,4-Dichlorobenzene	146	9.886	9.886	0.000	93	23958	2.00	2.12	
106 n-Butylbenzene	91	10.221	10.221	0.000	95	29500	2.00	1.93	
107 1,2-Dichlorobenzene	146	10.249	10.249	0.000	92	19538	2.00	1.92	
108 1,2-Dibromo-3-Chloropropane	157	11.031	11.031	0.000	77	2341	2.00	2.04	
110 1,2,4-Trichlorobenzene	180	11.855	11.855	0.000	91	12421	2.00	2.15	
111 Hexachlorobutadiene	225	11.995	11.995	0.000	87	4185	2.00	1.98	
112 Naphthalene	128	12.121	12.121	0.000	97	25639	2.00	1.74	
113 1,2,3-Trichlorobenzene	180	12.344	12.344	0.000	93	9288	2.00	1.96	
S 122 Xylenes, Total	106				0		4.00	3.71	
S 123 1,2-Dichloroethene, Total	1				0		4.00	4.23	
S 124 1,3-Dichloropropene, Total	1				0		4.00	3.46	
S 125 Trihalomethanes, Total	1				0		8.00	7.75	
S 127 Total BTEX	1				0			9.88	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

Cal Dil Std_00352	Amount Added: 20.00	Units: uL	
mv-IS_SS_00079	Amount Added: 5.00	Units: uL	Run Reagent

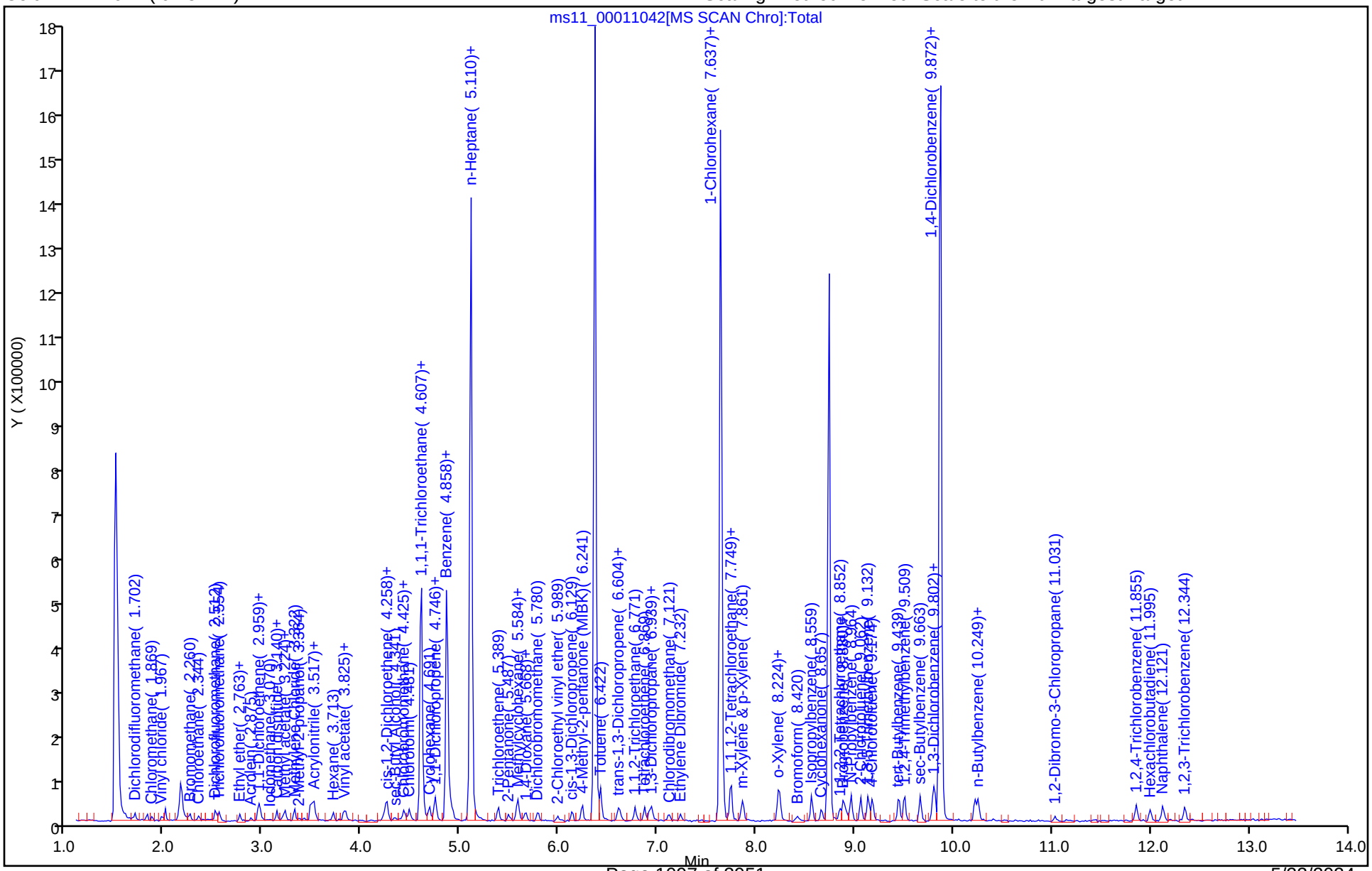
Report Date: 17-May-2024 17:51:24 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011042.D

Injection Date:	17-May-2024 10:07:30	Instrument ID:	VMS_MS11	Operator ID:	MED
Lims ID:	IC			Worklist Smp#:	15
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

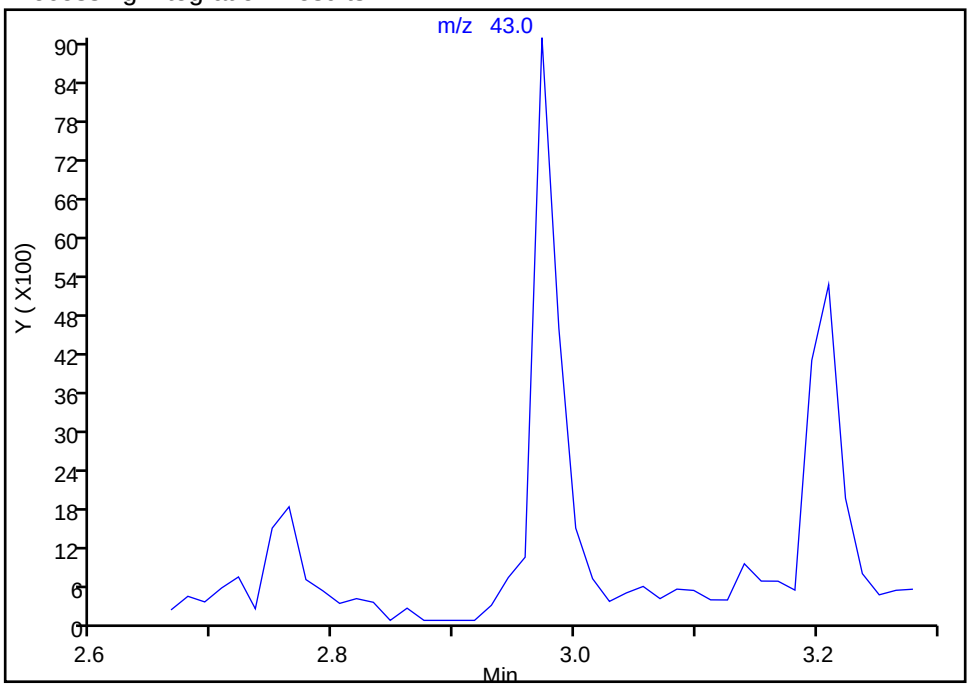
Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011042.D
Injection Date: 17-May-2024 10:07:30 Instrument ID: VMS_MS11
Lims ID: IC
Client ID:
Operator ID: MED ALS Bottle#: 7 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMS11_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (0.25 mm) Detector MS SCAN

21 Acetone, CAS: 67-64-1

Signal: 1

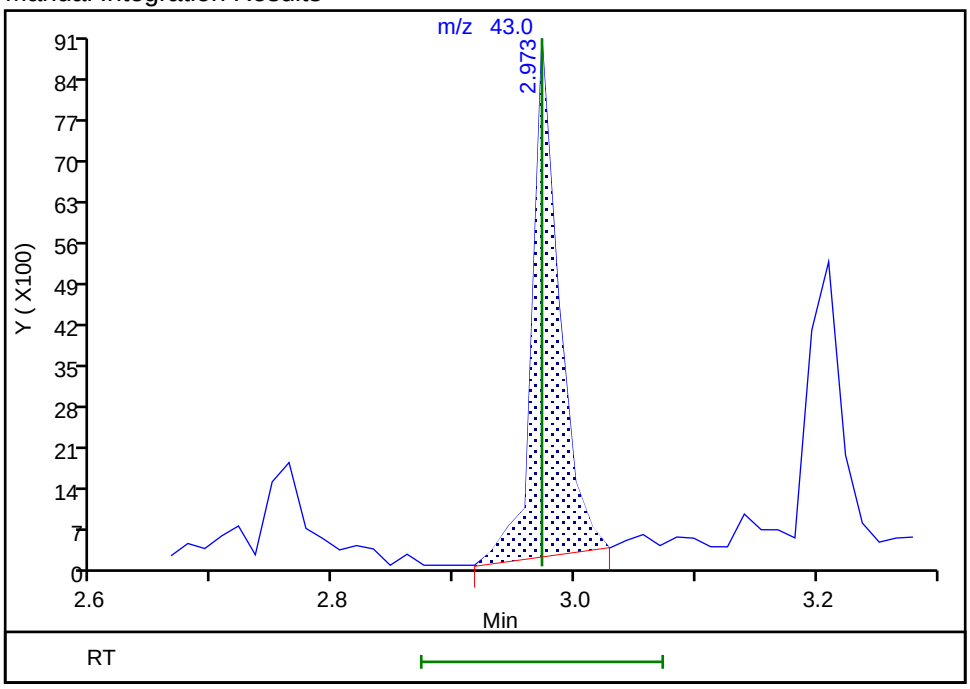
Not Detected
Expected RT: 2.97

Processing Integration Results



Manual Integration Results

RT: 2.97
Area: 13808
Amount: 8.159709
Amount Units: ug/l



Reviewer: BX8N, 17-May-2024 10:57:31 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Assign Peak

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011043.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 17-May-2024 10:29:30 ALS Bottle#: 8 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: MED Instrument ID: VMS_MS11
Sublist: chrom-AQ_VMS11_8260*sub1

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 17-May-2024 17:51:27 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1621

First Level Reviewer: BX8N Date: 17-May-2024 11:06:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.109	5.109	0.000	99	1162388	50.0	50.0	
* 2 Chlorobenzene-d5	119	7.637	7.637	0.000	85	290288	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	9.872	9.872	0.000	95	516429	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	111	4.607	4.607	0.000	92	300535	50.0	50.2	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.858	4.858	0.000	0	332381	50.0	51.0	
$ 6 Toluene-d8 (Surr)	98	6.366	6.366	0.000	93	1145631	50.0	50.2	
$ 7 4-Bromofluorobenzene (Surr)	95	8.741	8.741	0.000	90	422295	50.0	50.7	
9 Dichlorodifluoromethane	85	1.702	1.702	0.000	98	14569	5.00	4.26	
10 Chloromethane	50	1.869	1.869	0.000	99	18858	5.00	4.69	
11 Vinyl chloride	62	1.967	1.967	0.000	97	19463	5.00	4.28	
12 Bromomethane	94	2.260	2.260	0.000	90	14140	5.00	5.32	
13 Chloroethane	64	2.344	2.344	0.000	95	16789	5.00	5.72	
14 Dichlorofluoromethane	67	2.512	2.512	0.000	97	45679	5.00	5.18	
15 Trichlorofluoromethane	101	2.554	2.554	0.000	94	29473	5.00	4.87	
17 Ethyl ether	59	2.763	2.763	0.000	90	13808	5.00	4.46	
18 Acrolein	56	2.875	2.875	0.000	97	16318	49.4	57.7	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151	2.959	2.959	0.000	78	13361	5.00	5.28	
19 1,1-Dichloroethene	96	2.959	2.959	0.000	93	17650	5.00	5.00	
21 Acetone	43	2.973	2.973	0.000	100	24772	20.0	19.4	
23 Iodomethane	142	3.084	3.084	0.000	98	6888	5.00	6.64	
24 Carbon disulfide	76	3.140	3.140	0.000	99	56606	5.00	5.17	
26 Methyl acetate	43	3.210	3.210	0.000	95	22039	10.0	8.97	
27 3-Chloro-1-propene	41	3.224	3.224	0.000	90	26037	5.00	5.19	
28 Methylene Chloride	84	3.322	3.322	0.000	90	23614	5.00	5.34	
29 2-Methyl-2-propanol	59	3.364	3.364	0.000	99	12893	50.0	41.3	
30 Acrylonitrile	53	3.475	3.475	0.000	98	69659	50.0	49.3	
31 Methyl tert-butyl ether	73	3.503	3.503	0.000	94	54372	5.00	4.82	
32 trans-1,2-Dichloroethene	96	3.517	3.517	0.000	97	20530	5.00	5.01	
33 Hexane	57	3.713	3.713	0.000	87	18040	5.00	4.76	
34 Vinyl acetate	43	3.811	3.811	0.000	97	63318	10.0	10.1	
35 1,1-Dichloroethane	63	3.839	3.839	0.000	95	34274	5.00	4.76	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 2-Butanone (MEK)	43	4.230	4.230	0.000	99	33660	20.0	19.8	
41 cis-1,2-Dichloroethene	96	4.244	4.244	0.000	86	21108	5.00	4.42	
42 2,2-Dichloropropane	77	4.257	4.257	0.000	87	27889	5.00	4.91	
44 sec-Butyl Alcohol	45	4.327	4.327	0.000	96	20922	120.0	109.8	
46 Chlorobromomethane	128	4.425	4.425	0.000	95	12185	5.00	5.20	
47 Tetrahydrofuran	42	4.439	4.439	0.000	80	10762	10.0	9.86	
48 Chloroform	83	4.481	4.481	0.000	92	37511	5.00	4.87	
49 1,1,1-Trichloroethane	97	4.635	4.635	0.000	95	32172	5.00	5.08	
50 Cyclohexane	56	4.690	4.690	0.000	87	25729	5.00	4.67	
51 1,1-Dichloropropene	75	4.732	4.732	0.000	96	30002	5.00	5.18	
52 Carbon tetrachloride	117	4.746	4.746	0.000	94	26783	5.00	4.96	
53 Isobutyl alcohol	43	4.760	4.760	0.000	90	14615	125.0	119.6	
54 Benzene	78	4.900	4.900	0.000	97	79680	5.00	4.64	
55 1,2-Dichloroethane	62	4.928	4.928	0.000	94	31346	5.00	5.25	
57 n-Heptane	43	5.081	5.081	0.000	87	16331	5.00	5.03	
59 Trichloroethene	130	5.389	5.389	0.000	94	21972	5.00	4.75	
60 2-Pentanone	43	5.487	5.487	0.000	98	37626	16.0	15.3	
61 Methylcyclohexane	55	5.570	5.570	0.000	86	20887	5.00	5.26	
62 1,2-Dichloropropane	63	5.584	5.584	0.000	92	23288	5.00	5.19	
64 1,4-Dioxane	88	5.626	5.626	0.000	85	5036	100.0	81.4	
65 Dibromomethane	93	5.654	5.654	0.000	91	14305	5.00	4.82	
66 Dichlorobromomethane	83	5.780	5.780	0.000	98	28740	5.00	4.78	
68 2-Chloroethyl vinyl ether	63	5.989	5.989	0.000	91	10472	5.00	4.31	
69 cis-1,3-Dichloropropene	75	6.129	6.129	0.000	96	30575	5.00	4.53	
70 4-Methyl-2-pentanone (MIBK)	43	6.241	6.241	0.000	95	59020	20.0	17.8	
71 Toluene	91	6.422	6.422	0.000	99	97057	5.00	5.03	
72 trans-1,3-Dichloropropene	75	6.604	6.604	0.000	95	28819	5.00	4.72	
73 Ethyl methacrylate	69	6.618	6.618	0.000	85	25880	5.00	4.74	
74 1,1,2-Trichloroethane	97	6.771	6.771	0.000	91	19709	5.00	4.50	
75 Tetrachloroethene	164	6.869	6.869	0.000	92	18094	5.00	5.23	
76 1,3-Dichloropropane	76	6.925	6.925	0.000	88	34905	5.00	4.86	
77 2-Hexanone	43	6.939	6.939	0.000	96	43275	20.0	18.9	
78 Chlorodibromomethane	129	7.107	7.107	0.000	85	22282	5.00	4.77	
79 Ethylene Dibromide	107	7.232	7.232	0.000	98	19411	5.00	4.37	
80 1-Chlorohexane	91	7.623	7.623	0.000	94	22888	4.00	3.78	
81 Chlorobenzene	112	7.665	7.665	0.000	97	65705	5.00	5.03	
82 1,1,1,2-Tetrachloroethane	131	7.735	7.735	0.000	81	19320	5.00	4.53	
83 Ethylbenzene	106	7.749	7.749	0.000	98	34601	5.00	4.95	
84 m-Xylene & p-Xylene	91	7.861	7.861	0.000	0	79651	5.00	4.79	
85 o-Xylene	106	8.224	8.224	0.000	95	38477	5.00	4.59	
86 Styrene	104	8.238	8.238	0.000	93	62117	5.00	4.64	
87 Bromoform	173	8.419	8.419	0.000	92	12785	5.00	4.32	
88 Isopropylbenzene	105	8.559	8.559	0.000	96	91063	5.00	4.65	
90 Cyclohexanone	55	8.657	8.657	0.000	93	28687	150.0	131.4	
91 1,1,2,2-Tetrachloroethane	83	8.852	8.852	0.000	95	28485	5.00	4.68	
93 trans-1,4-Dichloro-2-butene	53	8.894	8.894	0.000	55	6460	5.00	5.53	
92 Bromobenzene	156	8.894	8.894	0.000	95	27209	5.00	5.05	
94 1,2,3-Trichloropropane	110	8.908	8.908	0.000	83	8917	5.00	4.99	
95 N-Propylbenzene	120	8.964	8.964	0.000	99	28731	5.00	4.91	
96 2-Chlorotoluene	126	9.062	9.062	0.000	96	26488	5.00	4.90	
97 1,3,5-Trimethylbenzene	105	9.132	9.132	0.000	93	80123	5.00	4.71	
98 4-Chlorotoluene	126	9.174	9.174	0.000	98	25972	5.00	4.60	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
99 tert-Butylbenzene	119	9.439	9.439	0.000	93	65247	5.00	4.56	
100 1,2,4-Trimethylbenzene	105	9.509	9.509	0.000	96	82499	5.00	4.41	
101 sec-Butylbenzene	134	9.662	9.662	0.000	94	20047	5.00	4.51	
102 1,3-Dichlorobenzene	146	9.788	9.788	0.000	97	51258	5.00	4.75	
103 4-Isopropyltoluene	119	9.816	9.816	0.000	96	80805	5.00	4.59	
104 1,4-Dichlorobenzene	146	9.900	9.900	0.000	94	57516	5.00	5.06	
106 n-Butylbenzene	91	10.221	10.221	0.000	97	71310	5.00	4.63	
107 1,2-Dichlorobenzene	146	10.249	10.249	0.000	98	53552	5.00	5.23	
108 1,2-Dibromo-3-Chloropropane	157	11.031	11.031	0.000	81	4880	5.00	4.22	
110 1,2,4-Trichlorobenzene	180	11.855	11.855	0.000	93	25867	5.00	4.44	
111 Hexachlorobutadiene	225	11.995	11.995	0.000	95	10604	5.00	4.98	
112 Naphthalene	128	12.120	12.120	0.000	97	65048	5.00	4.38	
113 1,2,3-Trichlorobenzene	180	12.344	12.344	0.000	95	22188	5.00	4.65	
S 122 Xylenes, Total	106				0		10.0	9.38	
S 123 1,2-Dichloroethene, Total	1				0		10.0	9.42	
S 124 1,3-Dichloropropene, Total	1				0		10.0	9.25	
S 125 Trihalomethanes, Total	1				0		20.0	18.7	
S 127 Total BTEX	1				0			24.0	

QC Flag Legend

Processing Flags

Reagents:

Cal Dil Std_00352	Amount Added: 50.00	Units: uL	
mv-IS_SS_00079	Amount Added: 5.00	Units: uL	Run Reagent

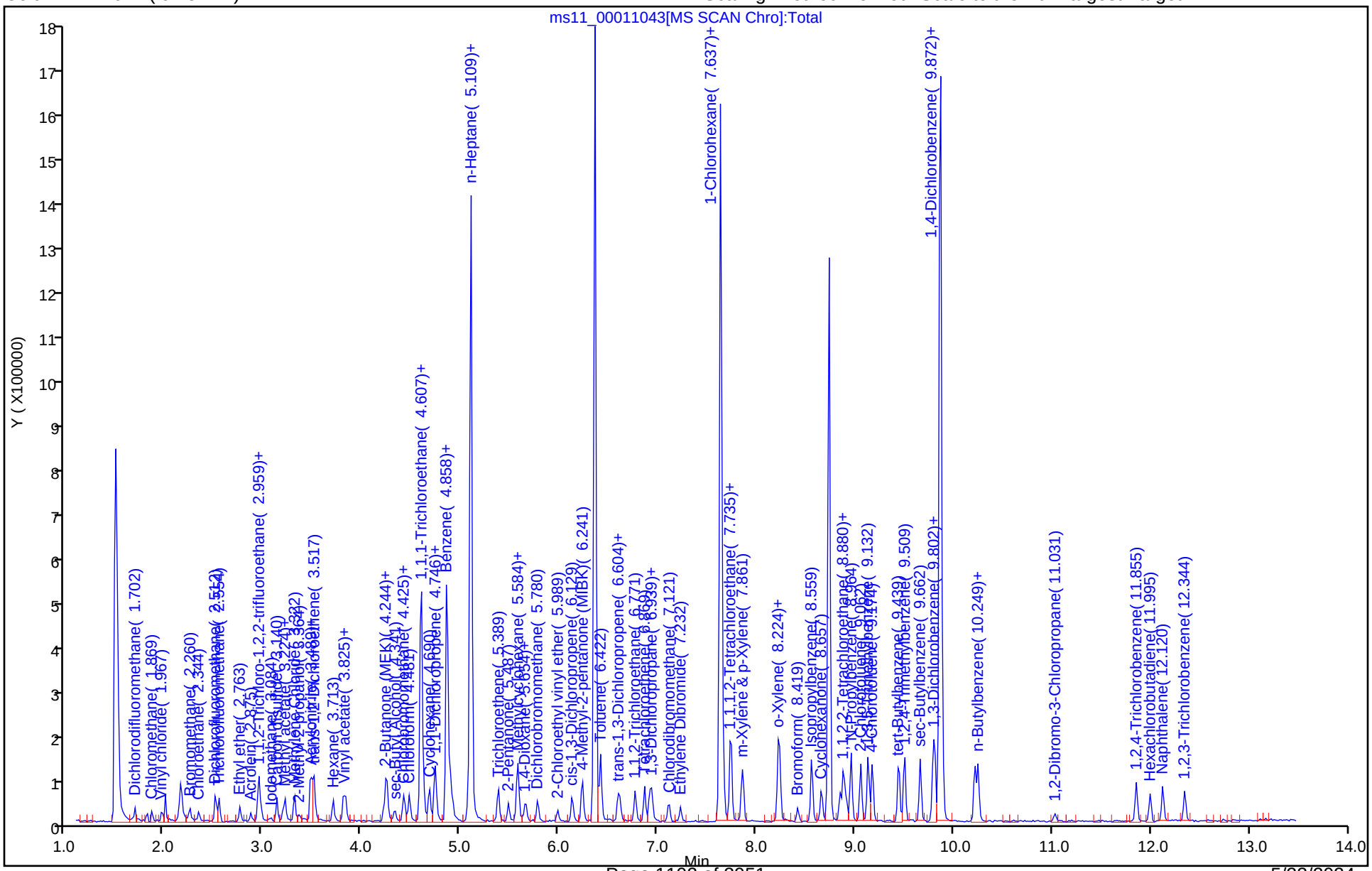
Report Date: 17-May-2024 17:51:28 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011043.D

Injection Date:	17-May-2024 10:29:30	Instrument ID:	VMS_MS11	Operator ID:	MED
Lims ID:	IC			Worklist Smp#:	16
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011044.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 17-May-2024 10:51:30 ALS Bottle#: 9 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: MED Instrument ID: VMS_MS11
Sublist: chrom-AQ_VMS11_8260*sub1

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 17-May-2024 17:51:30 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1621

First Level Reviewer: BX8N Date: 17-May-2024 11:08:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.109	5.109	0.000	100	1199253	50.0	50.0	
* 2 Chlorobenzene-d5	119	7.637	7.637	0.000	85	297169	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	9.872	9.872	0.000	95	527567	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	111	4.607	4.607	0.000	92	298919	50.0	48.4	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.858	4.858	0.000	0	336082	50.0	50.0	
$ 6 Toluene-d8 (Surr)	98	6.366	6.366	0.000	93	1166906	50.0	49.9	
$ 7 4-Bromofluorobenzene (Surr)	95	8.741	8.741	0.000	91	431374	50.0	50.7	
9 Dichlorodifluoromethane	85	1.702	1.702	0.000	99	41191	10.0	11.7	
10 Chloromethane	50	1.869	1.869	0.000	98	45888	10.0	11.1	
11 Vinyl chloride	62	1.967	1.967	0.000	98	48846	10.0	10.4	
12 Bromomethane	94	2.260	2.260	0.000	90	29811	10.0	10.9	
13 Chloroethane	64	2.344	2.344	0.000	99	32210	10.0	10.6	
14 Dichlorofluoromethane	67	2.512	2.512	0.000	97	91271	10.0	10.0	
15 Trichlorofluoromethane	101	2.554	2.554	0.000	96	65492	10.0	10.5	
17 Ethyl ether	59	2.763	2.763	0.000	88	31643	10.0	9.91	
18 Acrolein	56	2.875	2.875	0.000	99	25995	98.8	89.1	
19 1,1-Dichloroethene	96	2.959	2.959	0.000	95	36263	10.0	9.95	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151	2.959	2.959	0.000	74	25721	10.0	9.84	
21 Acetone	43	2.973	2.973	0.000	100	44952	40.0	38.6	
23 Iodomethane	142	3.084	3.084	0.000	99	21970	10.0	9.77	
24 Carbon disulfide	76	3.140	3.140	0.000	99	107396	10.0	9.51	
26 Methyl acetate	43	3.210	3.210	0.000	96	48857	20.0	19.3	
27 3-Chloro-1-propene	41	3.224	3.224	0.000	88	42263	10.0	8.64	
28 Methylene Chloride	84	3.322	3.322	0.000	84	43096	10.0	9.45	
29 2-Methyl-2-propanol	59	3.364	3.364	0.000	96	27227	100.0	84.6	
30 Acrylonitrile	53	3.475	3.475	0.000	97	140636	100.0	96.4	
31 Methyl tert-butyl ether	73	3.503	3.503	0.000	94	109110	10.0	9.37	
32 trans-1,2-Dichloroethene	96	3.517	3.517	0.000	95	40614	10.0	9.60	
33 Hexane	57	3.713	3.713	0.000	91	39621	10.0	10.2	
34 Vinyl acetate	43	3.811	3.811	0.000	97	115757	20.0	17.9	
35 1,1-Dichloroethane	63	3.839	3.839	0.000	97	70337	10.0	9.47	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 2-Butanone (MEK)	43	4.230	4.230	0.000	98	65775	40.0	37.6	
41 cis-1,2-Dichloroethene	96	4.244	4.244	0.000	81	46872	10.0	9.51	
42 2,2-Dichloropropane	77	4.257	4.257	0.000	92	54768	10.0	9.35	
44 sec-Butyl Alcohol	45	4.327	4.327	0.000	97	48585	240.0	209.2	
46 Chlorobromomethane	128	4.425	4.425	0.000	82	23749	10.0	9.82	
47 Tetrahydrofuran	42	4.439	4.439	0.000	79	20480	20.0	18.2	
48 Chloroform	83	4.481	4.481	0.000	92	78694	10.0	9.90	
49 1,1,1-Trichloroethane	97	4.621	4.621	0.000	97	61987	10.0	9.48	
50 Cyclohexane	56	4.690	4.690	0.000	86	52152	10.0	9.18	
51 1,1-Dichloropropene	75	4.746	4.746	0.000	97	54756	10.0	9.16	
52 Carbon tetrachloride	117	4.746	4.746	0.000	90	52023	10.0	9.35	
53 Isobutyl alcohol	43	4.760	4.760	0.000	93	30680	250.0	243.4	
54 Benzene	78	4.900	4.900	0.000	96	167119	10.0	9.43	
55 1,2-Dichloroethane	62	4.914	4.914	0.000	98	59529	10.0	9.67	
57 n-Heptane	43	5.082	5.082	0.000	88	27740	10.0	8.94	
59 Trichloroethene	130	5.389	5.389	0.000	97	45970	10.0	9.63	
60 2-Pentanone	43	5.487	5.487	0.000	98	75064	32.0	29.6	
61 Methylcyclohexane	55	5.570	5.570	0.000	90	34760	10.0	8.68	
62 1,2-Dichloropropane	63	5.584	5.584	0.000	91	45130	10.0	9.75	
64 1,4-Dioxane	88	5.640	5.640	0.000	86	11732	200.0	183.8	
65 Dibromomethane	93	5.654	5.654	0.000	88	32519	10.0	10.6	
66 Dichlorobromomethane	83	5.780	5.780	0.000	97	55269	10.0	8.90	
68 2-Chloroethyl vinyl ether	63	5.989	5.989	0.000	91	19084	10.0	7.62	
69 cis-1,3-Dichloropropene	75	6.129	6.129	0.000	96	67140	10.0	9.71	
70 4-Methyl-2-pentanone (MIBK)	43	6.241	6.241	0.000	95	131007	40.0	38.3	
71 Toluene	91	6.422	6.422	0.000	97	191917	10.0	9.63	
72 trans-1,3-Dichloropropene	75	6.604	6.604	0.000	96	54862	10.0	8.72	
73 Ethyl methacrylate	69	6.618	6.618	0.000	86	48870	10.0	8.75	
74 1,1,2-Trichloroethane	97	6.771	6.771	0.000	90	43527	10.0	9.63	
75 Tetrachloroethene	164	6.869	6.869	0.000	95	31472	10.0	8.89	
76 1,3-Dichloropropane	76	6.925	6.925	0.000	88	73374	10.0	9.97	
77 2-Hexanone	43	6.939	6.939	0.000	96	92474	40.0	39.4	
78 Chlorodibromomethane	129	7.121	7.121	0.000	89	44821	10.0	9.37	
79 Ethylene Dibromide	107	7.232	7.232	0.000	98	41134	10.0	9.04	
80 1-Chlorohexane	91	7.623	7.623	0.000	93	43806	8.00	7.63	
81 Chlorobenzene	112	7.665	7.665	0.000	96	126503	10.0	9.46	
82 1,1,1,2-Tetrachloroethane	131	7.735	7.735	0.000	87	38812	10.0	8.89	
83 Ethylbenzene	106	7.749	7.749	0.000	98	66773	10.0	9.32	
84 m-Xylene & p-Xylene	91	7.861	7.861	0.000	0	159631	10.0	9.38	
85 o-Xylene	106	8.224	8.224	0.000	95	81671	10.0	9.52	
86 Styrene	104	8.238	8.238	0.000	94	126076	10.0	9.20	
87 Bromoform	173	8.419	8.419	0.000	90	23429	10.0	7.73	
88 Isopropylbenzene	105	8.559	8.559	0.000	95	183873	10.0	9.20	
90 Cyclohexanone	55	8.657	8.657	0.000	90	58150	300.0	260.3	
91 1,1,2,2-Tetrachloroethane	83	8.852	8.852	0.000	93	57934	10.0	9.31	
93 trans-1,4-Dichloro-2-butene	53	8.894	8.894	0.000	54	11664	10.0	9.16	
92 Bromobenzene	156	8.880	8.880	0.000	96	54671	10.0	9.93	
94 1,2,3-Trichloropropane	110	8.908	8.908	0.000	84	18744	10.0	10.3	
95 N-Propylbenzene	120	8.964	8.964	0.000	99	57545	10.0	9.64	
96 2-Chlorotoluene	126	9.062	9.062	0.000	97	50037	10.0	9.06	
97 1,3,5-Trimethylbenzene	105	9.132	9.132	0.000	95	166206	10.0	9.57	
98 4-Chlorotoluene	126	9.174	9.174	0.000	97	55896	10.0	9.70	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
99 tert-Butylbenzene	119	9.439	9.439	0.000	92	136236	10.0	9.33	
100 1,2,4-Trimethylbenzene	105	9.509	9.509	0.000	97	175798	10.0	9.20	
101 sec-Butylbenzene	134	9.662	9.662	0.000	94	39837	10.0	8.77	
102 1,3-Dichlorobenzene	146	9.788	9.788	0.000	98	102896	10.0	9.34	
103 4-Isopropyltoluene	119	9.816	9.816	0.000	96	166919	10.0	9.27	
104 1,4-Dichlorobenzene	146	9.900	9.900	0.000	95	110260	10.0	9.49	
106 n-Butylbenzene	91	10.221	10.221	0.000	97	148975	10.0	9.46	
107 1,2-Dichlorobenzene	146	10.249	10.249	0.000	97	102918	10.0	9.83	
108 1,2-Dibromo-3-Chloropropane	157	11.031	11.031	0.000	79	10409	10.0	8.80	
110 1,2,4-Trichlorobenzene	180	11.855	11.855	0.000	93	54583	10.0	9.17	
111 Hexachlorobutadiene	225	11.995	11.995	0.000	92	18774	10.0	8.63	
112 Naphthalene	128	12.120	12.120	0.000	97	136871	10.0	9.02	
113 1,2,3-Trichlorobenzene	180	12.344	12.344	0.000	95	42363	10.0	8.69	
S 122 Xylenes, Total	106				0		20.0	18.9	
S 123 1,2-Dichloroethene, Total	1				0		20.0	19.1	
S 124 1,3-Dichloropropene, Total	1				0		20.0	18.4	
S 125 Trihalomethanes, Total	1				0		40.0	35.9	
S 127 Total BTEX	1				0			47.3	

QC Flag Legend

Processing Flags

Reagents:

MV-MegaMainA_00108	Amount Added:	5.00	Units: uL	
MV-Gas A_00187	Amount Added:	2.00	Units: uL	
mv-IS_SS_00079	Amount Added:	5.00	Units: uL	Run Reagent

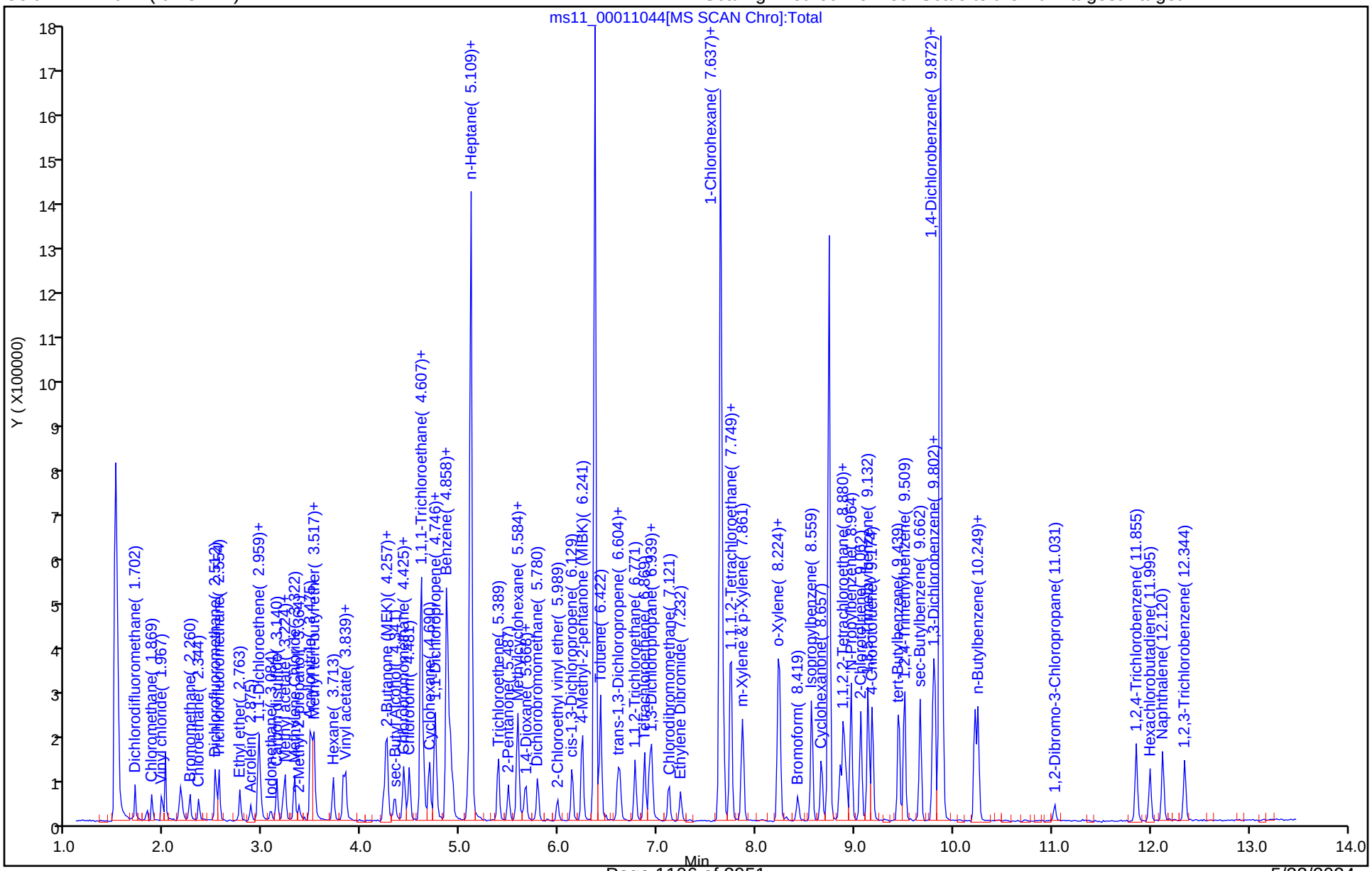
Report Date: 17-May-2024 17:51:31 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011044.D

Injection Date:	17-May-2024 10:51:30	Instrument ID:	VMS_MS11	Operator ID:	MED
Lims ID:	IC			Worklist Smp#:	17
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011045.D
Lims ID: ICIS
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 17-May-2024 11:13:30 ALS Bottle#: 10 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS
Operator ID: MED Instrument ID: VMS_MS11
Sublist: chrom-AQ_VMS11_8260*sub1

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 17-May-2024 17:51:34 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1621

First Level Reviewer: BX8N Date: 17-May-2024 12:27:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.110	5.110	0.000	99	1220363	50.0	50.0	
* 2 Chlorobenzene-d5	119	7.637	7.637	0.000	85	298191	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	9.872	9.872	0.000	94	555778	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	111	4.607	4.607	0.000	91	319907	50.0	50.9	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.858	4.858	0.000	0	339429	50.0	49.6	
$ 6 Toluene-d8 (Surr)	98	6.366	6.366	0.000	93	1190029	50.0	50.8	
$ 7 4-Bromofluorobenzene (Surr)	95	8.741	8.741	0.000	90	454193	50.0	50.7	
9 Dichlorodifluoromethane	85	1.702	1.702	0.000	99	187319	50.0	52.2	
10 Chloromethane	50	1.869	1.869	0.000	99	204775	50.0	48.5	
11 Vinyl chloride	62	1.967	1.967	0.000	97	223026	50.0	46.7	
12 Bromomethane	94	2.260	2.260	0.000	89	113438	50.0	40.6	
13 Chloroethane	64	2.344	2.344	0.000	100	143245	50.0	46.5	
14 Dichlorofluoromethane	67	2.512	2.512	0.000	97	448958	50.0	48.5	
15 Trichlorofluoromethane	101	2.554	2.554	0.000	99	305392	50.0	48.1	
17 Ethyl ether	59	2.763	2.763	0.000	89	148870	50.0	45.8	
18 Acrolein	56	2.875	2.875	0.000	100	137507	493.8	463.1	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151	2.959	2.959	0.000	73	122532	50.0	46.1	
19 1,1-Dichloroethene	96	2.959	2.959	0.000	97	175083	50.0	47.2	
21 Acetone	43	2.973	2.973	0.000	100	201079	200.0	189.7	
23 Iodomethane	142	3.084	3.084	0.000	99	206024	50.0	46.8	
24 Carbon disulfide	76	3.140	3.140	0.000	99	525629	50.0	45.8	
26 Methyl acetate	43	3.196	3.196	0.000	97	242226	100.0	93.9	
27 3-Chloro-1-propene	41	3.224	3.224	0.000	87	224692	50.0	48.6	
28 Methylene Chloride	84	3.322	3.322	0.000	88	209876	50.0	45.2	
29 2-Methyl-2-propanol	59	3.364	3.364	0.000	98	154062	500.0	470.6	
30 Acrylonitrile	53	3.475	3.475	0.000	98	704292	500.0	474.3	
31 Methyl tert-butyl ether	73	3.503	3.503	0.000	94	565900	50.0	47.8	
32 trans-1,2-Dichloroethene	96	3.517	3.517	0.000	98	200624	50.0	46.6	
33 Hexane	57	3.713	3.713	0.000	89	196974	50.0	50.6	
34 Vinyl acetate	43	3.811	3.811	0.000	98	625948	100.0	95.0	
35 1,1-Dichloroethane	63	3.839	3.839	0.000	97	353701	50.0	46.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 2-Butanone (MEK)	43	4.230	4.230	0.000	98	322306	200.0	181.0	
41 cis-1,2-Dichloroethene	96	4.244	4.244	0.000	81	236220	50.0	47.1	
42 2,2-Dichloropropane	77	4.258	4.258	0.000	88	275064	50.0	46.1	
44 sec-Butyl Alcohol	45	4.327	4.327	0.000	97	280545	1200.0	1044.6	
46 Chlorobromomethane	128	4.425	4.425	0.000	90	115920	50.0	47.1	
47 Tetrahydrofuran	42	4.439	4.439	0.000	84	110060	100.0	96.0	
48 Chloroform	83	4.481	4.481	0.000	92	380429	50.0	47.0	
49 1,1,1-Trichloroethane	97	4.635	4.635	0.000	98	301924	50.0	45.4	
50 Cyclohexane	56	4.691	4.691	0.000	87	263047	50.0	45.5	
51 1,1-Dichloropropene	75	4.746	4.746	0.000	97	283750	50.0	46.6	
52 Carbon tetrachloride	117	4.746	4.746	0.000	94	250046	50.0	44.2	
53 Isobutyl alcohol	43	4.760	4.760	0.000	94	170358	1250.0	1328.4	
54 Benzene	78	4.900	4.900	0.000	95	839903	50.0	46.6	
55 1,2-Dichloroethane	62	4.914	4.914	0.000	98	287122	50.0	45.8	
57 n-Heptane	43	5.082	5.082	0.000	88	138788	50.0	48.0	
59 Trichloroethene	130	5.389	5.389	0.000	96	230051	50.0	47.4	
60 2-Pentanone	43	5.487	5.487	0.000	97	392205	160.0	152.1	
61 Methylcyclohexane	55	5.570	5.570	0.000	91	186642	50.0	47.2	
62 1,2-Dichloropropane	63	5.584	5.584	0.000	96	217622	50.0	46.2	
64 1,4-Dioxane	88	5.626	5.626	0.000	96	59948	1000.0	922.7	
65 Dibromomethane	93	5.654	5.654	0.000	94	148556	50.0	47.7	
66 Dichlorobromomethane	83	5.780	5.780	0.000	99	283450	50.0	44.9	
68 2-Chloroethyl vinyl ether	63	5.989	5.989	0.000	91	123822	50.0	48.6	
69 cis-1,3-Dichloropropene	75	6.129	6.129	0.000	97	337599	50.0	48.7	
70 4-Methyl-2-pentanone (MIBK)	43	6.241	6.241	0.000	95	675710	200.0	194.2	
71 Toluene	91	6.422	6.422	0.000	98	931022	50.0	45.9	
72 trans-1,3-Dichloropropene	75	6.604	6.604	0.000	90	314625	50.0	49.1	
73 Ethyl methacrylate	69	6.618	6.618	0.000	86	255037	50.0	45.5	
74 1,1,2-Trichloroethane	97	6.772	6.772	0.000	91	205786	50.0	44.8	
75 Tetrachloroethene	164	6.869	6.869	0.000	95	162571	50.0	45.8	
76 1,3-Dichloropropane	76	6.925	6.925	0.000	91	364841	50.0	49.4	
77 2-Hexanone	43	6.939	6.939	0.000	95	477548	200.0	202.9	
78 Chlorodibromomethane	129	7.121	7.121	0.000	89	226183	50.0	47.1	
79 Ethylene Dibromide	107	7.232	7.232	0.000	99	219925	50.0	48.2	
80 1-Chlorohexane	91	7.623	7.623	0.000	95	203208	40.0	37.6	
81 Chlorobenzene	112	7.665	7.665	0.000	96	626024	50.0	46.7	
82 1,1,1,2-Tetrachloroethane	131	7.735	7.735	0.000	91	208551	50.0	47.6	
83 Ethylbenzene	106	7.749	7.749	0.000	98	334220	50.0	46.5	
84 m-Xylene & p-Xylene	91	7.861	7.861	0.000	0	821436	50.0	48.1	
85 o-Xylene	106	8.224	8.224	0.000	95	416659	50.0	48.4	
86 Styrene	104	8.238	8.238	0.000	94	701784	50.0	51.0	
87 Bromoform	173	8.420	8.420	0.000	95	144947	50.0	47.7	
88 Isopropylbenzene	105	8.559	8.559	0.000	96	998816	50.0	47.4	
90 Cyclohexanone	55	8.657	8.657	0.000	90	340482	1500.0	1518.7	
91 1,1,2,2-Tetrachloroethane	83	8.852	8.852	0.000	94	291874	50.0	44.5	
92 Bromobenzene	156	8.880	8.880	0.000	96	269197	50.0	46.4	
93 trans-1,4-Dichloro-2-butene	53	8.880	8.880	0.000	78	66303	50.0	45.8	
94 1,2,3-Trichloropropane	110	8.922	8.922	0.000	82	87717	50.0	45.6	
95 N-Propylbenzene	120	8.964	8.964	0.000	99	298146	50.0	47.4	
96 2-Chlorotoluene	126	9.062	9.062	0.000	97	269899	50.0	46.4	
97 1,3,5-Trimethylbenzene	105	9.132	9.132	0.000	93	928818	50.0	50.8	
98 4-Chlorotoluene	126	9.174	9.174	0.000	98	287154	50.0	47.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
99 tert-Butylbenzene	119	9.439	9.439	0.000	92	741694	50.0	48.2	
100 1,2,4-Trimethylbenzene	105	9.509	9.509	0.000	97	979781	50.0	48.7	
101 sec-Butylbenzene	134	9.663	9.663	0.000	94	221370	50.0	46.2	
102 1,3-Dichlorobenzene	146	9.788	9.788	0.000	97	531822	50.0	45.8	
103 4-Isopropyltoluene	119	9.816	9.816	0.000	97	931732	50.0	49.1	
104 1,4-Dichlorobenzene	146	9.886	9.886	0.000	95	561882	50.0	45.9	
106 n-Butylbenzene	91	10.221	10.221	0.000	97	829908	50.0	50.0	
107 1,2-Dichlorobenzene	146	10.249	10.249	0.000	97	536050	50.0	48.6	
108 1,2-Dibromo-3-Chloropropane	157	11.031	11.031	0.000	83	56084	50.0	45.0	
110 1,2,4-Trichlorobenzene	180	11.855	11.855	0.000	94	293403	50.0	46.8	
111 Hexachlorobutadiene	225	11.995	11.995	0.000	97	113673	50.0	49.6	
112 Naphthalene	128	12.121	12.121	0.000	97	750061	50.0	46.9	
113 1,2,3-Trichlorobenzene	180	12.344	12.344	0.000	96	237158	50.0	46.2	
S 122 Xylenes, Total	106				0		100.0	96.5	
S 123 1,2-Dichloroethene, Total	1				0		100.0	93.7	
S 124 1,3-Dichloropropene, Total	1				0		100.0	97.8	
S 125 Trihalomethanes, Total	1				0		200.0	186.7	

QC Flag Legend

Processing Flags

Reagents:

MV-MegaMainA_00108	Amount Added: 25.00	Units: uL	
MV-Gas A_00187	Amount Added: 10.00	Units: uL	
mv-IS_SS_00079	Amount Added: 5.00	Units: uL	Run Reagent

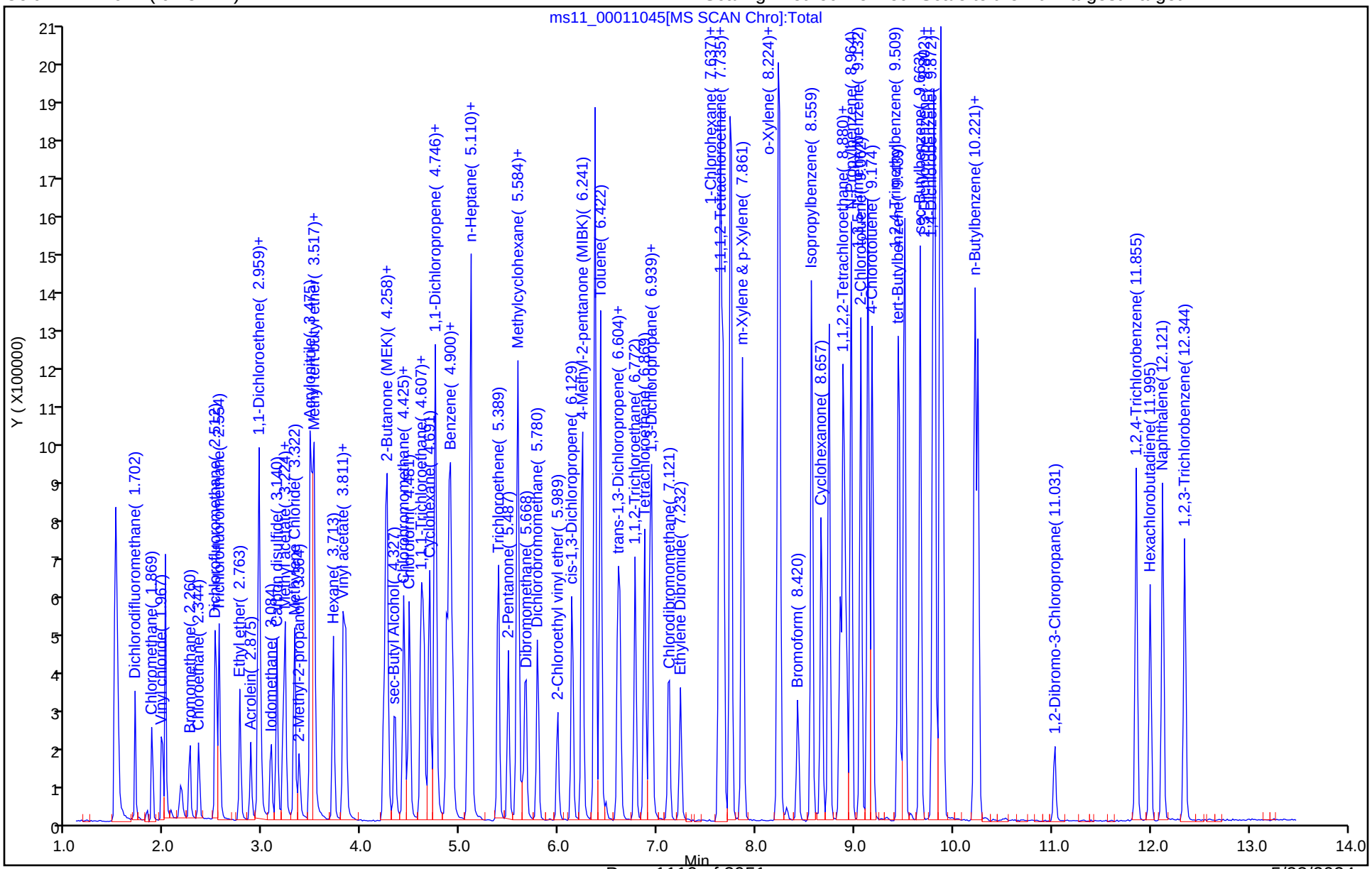
Report Date: 17-May-2024 17:51:34 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011045.D

Injection Date:	17-May-2024 11:13:30	Instrument ID:	VMS_MS11	Operator ID:	MED
Lims ID:	ICIS			Worklist Smp#:	18
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011046.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 17-May-2024 11:35:30 ALS Bottle#: 11 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: MED Instrument ID: VMS_MS11
Sublist: chrom-AQ_VMS11_8260*sub1

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 17-May-2024 17:51:37 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1621

First Level Reviewer: BX8N Date: 17-May-2024 12:27:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.110	5.110	0.000	99	1274945	50.0	50.0	
* 2 Chlorobenzene-d5	119	7.638	7.638	0.000	86	311166	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	9.872	9.872	0.000	93	581149	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	111	4.607	4.607	0.000	92	322334	50.0	49.1	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.858	4.858	0.000	0	357157	50.0	50.0	
$ 6 Toluene-d8 (Surr)	98	6.367	6.367	0.000	93	1254860	50.0	51.3	
$ 7 4-Bromofluorobenzene (Surr)	95	8.741	8.741	0.000	90	465937	50.0	49.7	
9 Dichlorodifluoromethane	85	1.702	1.702	0.000	99	287688	75.0	76.7	
10 Chloromethane	50	1.870	1.870	0.000	99	332479	75.0	75.4	
11 Vinyl chloride	62	1.967	1.967	0.000	97	361240	75.0	72.4	
12 Bromomethane	94	2.261	2.261	0.000	91	199397	75.0	68.4	
13 Chloroethane	64	2.344	2.344	0.000	99	245137	75.0	76.2	
14 Dichlorofluoromethane	67	2.512	2.512	0.000	97	693258	75.0	71.6	
15 Trichlorofluoromethane	101	2.554	2.554	0.000	98	466549	75.0	70.3	
17 Ethyl ether	59	2.763	2.763	0.000	89	248106	75.0	73.1	
18 Acrolein	56	2.875	2.875	0.000	100	226708	740.6	730.9	
19 1,1-Dichloroethene	96	2.959	2.959	0.000	97	273152	75.0	70.5	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151	2.959	2.959	0.000	72	194707	75.0	70.1	
21 Acetone	43	2.973	2.973	0.000	100	330012	300.0	301.3	
23 Iodomethane	142	3.085	3.085	0.000	100	364072	75.0	74.5	
24 Carbon disulfide	76	3.140	3.140	0.000	99	875147	75.0	72.9	
26 Methyl acetate	43	3.196	3.196	0.000	97	401798	150.0	149.1	
27 3-Chloro-1-propene	41	3.224	3.224	0.000	88	371266	75.0	77.3	
28 Methylene Chloride	84	3.322	3.322	0.000	85	349252	75.0	72.0	
29 2-Methyl-2-propanol	59	3.364	3.364	0.000	99	267200	750.0	781.2	
30 Acrylonitrile	53	3.476	3.476	0.000	99	1158358	750.0	746.8	
31 Methyl tert-butyl ether	73	3.504	3.504	0.000	93	946947	75.0	76.5	
32 trans-1,2-Dichloroethene	96	3.518	3.518	0.000	96	321964	75.0	71.6	
33 Hexane	57	3.713	3.713	0.000	87	315944	75.0	77.8	
34 Vinyl acetate	43	3.811	3.811	0.000	97	1111969	150.0	161.6	
35 1,1-Dichloroethane	63	3.839	3.839	0.000	96	595280	75.0	75.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 2-Butanone (MEK)	43	4.216	4.216	0.000	98	535513	300.0	287.9	
41 cis-1,2-Dichloroethene	96	4.244	4.244	0.000	81	393222	75.0	75.1	
42 2,2-Dichloropropane	77	4.258	4.258	0.000	87	454626	75.0	73.0	
44 sec-Butyl Alcohol	45	4.328	4.328	0.000	98	502935	1800.0	1770.8	
46 Chlorobromomethane	128	4.425	4.425	0.000	87	188226	75.0	73.2	
47 Tetrahydrofuran	42	4.439	4.439	0.000	83	172627	150.0	144.2	
48 Chloroform	83	4.481	4.481	0.000	93	609687	75.0	72.1	
49 1,1,1-Trichloroethane	97	4.621	4.621	0.000	98	498768	75.0	71.8	
50 Cyclohexane	56	4.691	4.691	0.000	86	423886	75.0	70.2	
51 1,1-Dichloropropene	75	4.747	4.747	0.000	97	466040	75.0	73.3	
52 Carbon tetrachloride	117	4.747	4.747	0.000	97	420231	75.0	71.0	
53 Isobutyl alcohol	43	4.761	4.761	0.000	94	293831	1875.0	2193.1	
54 Benzene	78	4.900	4.900	0.000	95	1378408	75.0	73.2	
55 1,2-Dichloroethane	62	4.914	4.914	0.000	97	459480	75.0	70.2	
57 n-Heptane	43	5.082	5.082	0.000	88	225342	75.0	75.1	
59 Trichloroethene	130	5.389	5.389	0.000	97	372416	75.0	73.4	
60 2-Pentanone	43	5.487	5.487	0.000	97	658407	240.0	244.4	
61 Methylcyclohexane	55	5.571	5.571	0.000	91	299596	75.0	72.6	
62 1,2-Dichloropropane	63	5.585	5.585	0.000	96	353473	75.0	71.9	
64 1,4-Dioxane	88	5.626	5.626	0.000	96	97924	1500.0	1442.7	
65 Dibromomethane	93	5.654	5.654	0.000	95	239429	75.0	73.6	
66 Dichlorobromomethane	83	5.780	5.780	0.000	99	475237	75.0	72.0	
68 2-Chloroethyl vinyl ether	63	5.990	5.990	0.000	92	196283	75.0	73.7	
69 cis-1,3-Dichloropropene	75	6.129	6.129	0.000	97	572595	75.0	79.1	
70 4-Methyl-2-pentanone (MIBK)	43	6.241	6.241	0.000	95	1137086	300.0	312.8	
71 Toluene	91	6.423	6.423	0.000	98	1505417	75.0	71.1	
72 trans-1,3-Dichloropropene	75	6.604	6.604	0.000	97	527940	75.0	78.9	
73 Ethyl methacrylate	69	6.618	6.618	0.000	87	427896	75.0	73.2	
74 1,1,2-Trichloroethane	97	6.772	6.772	0.000	90	339709	75.0	70.7	
75 Tetrachloroethene	164	6.869	6.869	0.000	93	267284	75.0	72.1	
76 1,3-Dichloropropane	76	6.925	6.925	0.000	93	584686	75.0	75.9	
77 2-Hexanone	43	6.939	6.939	0.000	93	796638	300.0	324.4	
78 Chlorodibromomethane	129	7.121	7.121	0.000	89	375908	75.0	75.0	
79 Ethylene Dibromide	107	7.233	7.233	0.000	99	346919	75.0	72.8	
80 1-Chlorohexane	91	7.624	7.624	0.000	93	356941	60.0	63.8	
81 Chlorobenzene	112	7.666	7.666	0.000	96	1020335	75.0	72.9	
82 1,1,1,2-Tetrachloroethane	131	7.735	7.735	0.000	94	347278	75.0	76.0	
83 Ethylbenzene	106	7.749	7.749	0.000	98	558234	75.0	74.4	
84 m-Xylene & p-Xylene	91	7.861	7.861	0.000	0	1320647	75.0	74.1	
85 o-Xylene	106	8.224	8.224	0.000	95	693722	75.0	77.2	
86 Styrene	104	8.238	8.238	0.000	94	1139424	75.0	79.4	
87 Bromoform	173	8.420	8.420	0.000	94	248528	75.0	78.3	
88 Isopropylbenzene	105	8.559	8.559	0.000	96	1647086	75.0	74.8	
90 Cyclohexanone	55	8.657	8.657	0.000	91	547080	2250.0	2338.4	
91 1,1,2,2-Tetrachloroethane	83	8.853	8.853	0.000	94	475226	75.0	69.3	
92 Bromobenzene	156	8.881	8.881	0.000	95	446172	75.0	73.6	
93 trans-1,4-Dichloro-2-butene	53	8.895	8.895	0.000	75	115041	75.0	75.5	
94 1,2,3-Trichloropropane	110	8.909	8.909	0.000	84	148045	75.0	73.6	
95 N-Propylbenzene	120	8.964	8.964	0.000	98	502825	75.0	76.4	
96 2-Chlorotoluene	126	9.062	9.062	0.000	97	440078	75.0	72.4	
97 1,3,5-Trimethylbenzene	105	9.132	9.132	0.000	94	1497901	75.0	78.3	
98 4-Chlorotoluene	126	9.174	9.174	0.000	98	482247	75.0	75.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
99 tert-Butylbenzene	119	9.439	9.439	0.000	92	1233093	75.0	76.6	
100 1,2,4-Trimethylbenzene	105	9.509	9.509	0.000	97	1612122	75.0	76.6	
101 sec-Butylbenzene	134	9.663	9.663	0.000	94	364470	75.0	72.8	
102 1,3-Dichlorobenzene	146	9.788	9.788	0.000	98	892115	75.0	73.5	
103 4-Isopropyltoluene	119	9.816	9.816	0.000	97	1573692	75.0	79.4	
104 1,4-Dichlorobenzene	146	9.886	9.886	0.000	95	907155	75.0	70.9	
106 n-Butylbenzene	91	10.221	10.221	0.000	97	1378365	75.0	79.5	
107 1,2-Dichlorobenzene	146	10.249	10.249	0.000	98	869862	75.0	75.5	
108 1,2-Dibromo-3-Chloropropane	157	11.031	11.031	0.000	87	101782	75.0	78.1	
110 1,2,4-Trichlorobenzene	180	11.855	11.855	0.000	94	496185	75.0	75.7	
111 Hexachlorobutadiene	225	11.995	11.995	0.000	97	187265	75.0	78.1	
112 Naphthalene	128	12.121	12.121	0.000	97	1317145	75.0	78.8	
113 1,2,3-Trichlorobenzene	180	12.344	12.344	0.000	96	412785	75.0	76.9	
S 122 Xylenes, Total	106				0		150.0	151.3	
S 123 1,2-Dichloroethene, Total	1				0		150.0	146.6	
S 124 1,3-Dichloropropene, Total	1				0		150.0	158.0	
S 125 Trihalomethanes, Total	1				0		300.0	297.5	
S 127 Total BTEX	1				0			370.0	

QC Flag Legend

Processing Flags

Reagents:

MV-MegaMainA_00108	Amount Added:	37.50	Units: uL	
MV-Gas A_00187	Amount Added:	15.00	Units: uL	
mv-IS_SS_00079	Amount Added:	5.00	Units: uL	Run Reagent

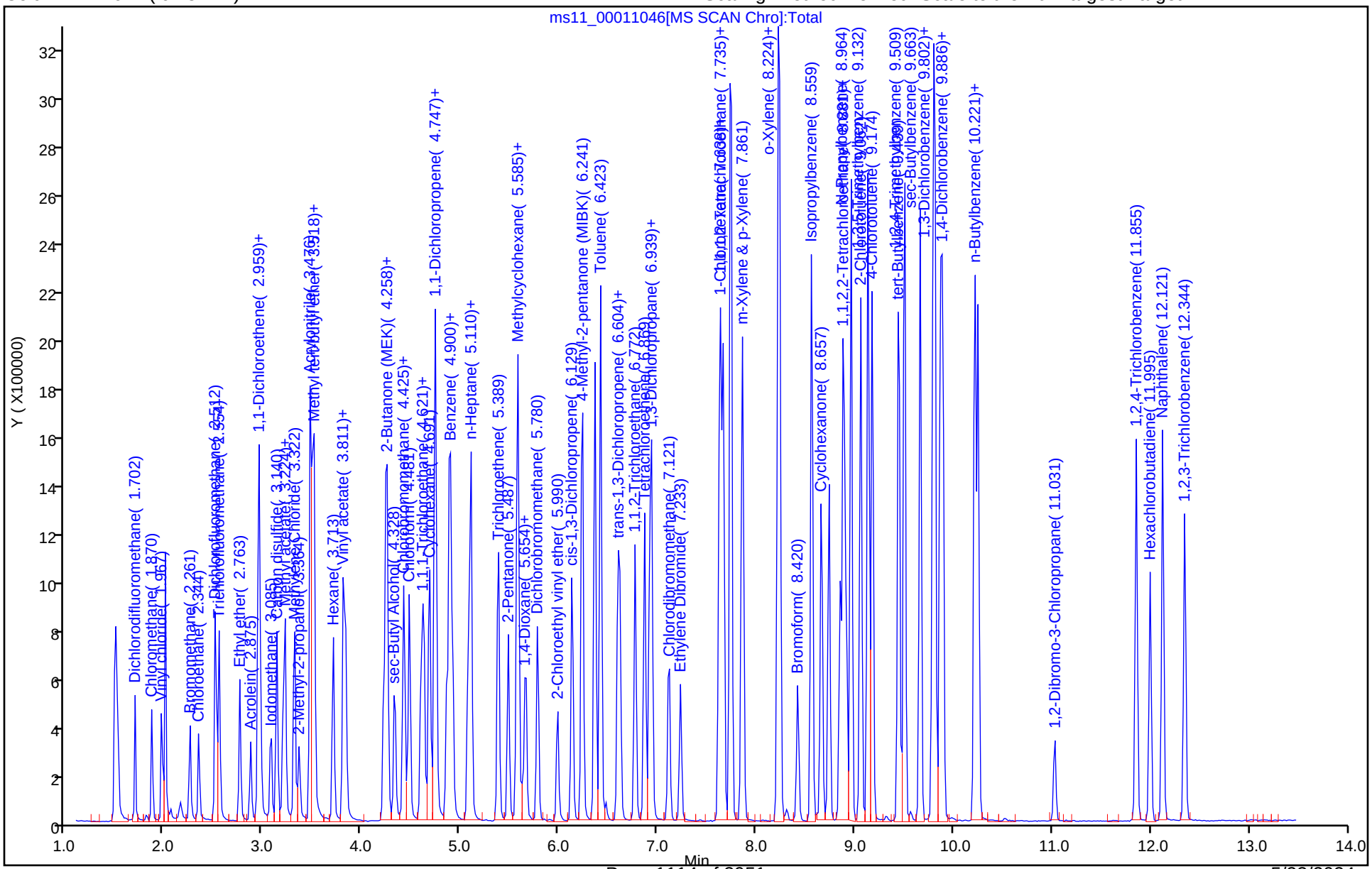
Report Date: 17-May-2024 17:51:38 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011046.D

Injection Date:	17-May-2024 11:35:30	Instrument ID:	VMS_MS11	Operator ID:	MED
Lims ID:	IC			Worklist Smp#:	19
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011047.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 17-May-2024 11:56:30 ALS Bottle#: 12 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: MED Instrument ID: VMS_MS11
Sublist: chrom-AQ_VMS11_8260*sub1

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 17-May-2024 17:51:41 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1621

First Level Reviewer: BX8N Date: 17-May-2024 12:51:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.109	5.109	0.000	99	1300279	50.0	50.0	
* 2 Chlorobenzene-d5	119	7.637	7.637	0.000	87	320413	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	9.872	9.872	0.000	94	611260	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	111	4.607	4.607	0.000	92	328537	50.0	49.1	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.858	4.858	0.000	0	369033	50.0	50.6	
$ 6 Toluene-d8 (Surr)	98	6.366	6.366	0.000	92	1283374	50.0	50.9	
$ 7 4-Bromofluorobenzene (Surr)	95	8.741	8.741	0.000	90	485925	50.0	49.3	
9 Dichlorodifluoromethane	85	1.702	1.702	0.000	100	395631	100.0	103.4	
10 Chloromethane	50	1.869	1.869	0.000	98	447687	100.0	99.6	
11 Vinyl chloride	62	1.967	1.967	0.000	98	500657	100.0	98.4	
12 Bromomethane	94	2.260	2.260	0.000	90	307371	100.0	103.4	
13 Chloroethane	64	2.344	2.344	0.000	100	319910	100.0	97.5	
14 Dichlorofluoromethane	67	2.512	2.512	0.000	97	943730	100.0	95.6	
15 Trichlorofluoromethane	101	2.554	2.554	0.000	97	656886	100.0	97.1	
17 Ethyl ether	59	2.763	2.763	0.000	88	342231	100.0	98.9	
18 Acrolein	56	2.875	2.875	0.000	98	313959	987.5	992.5	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151	2.959	2.959	0.000	73	265037	100.0	93.6	
19 1,1-Dichloroethene	96	2.959	2.959	0.000	97	377020	100.0	95.4	
21 Acetone	43	2.973	2.973	0.000	100	463662	400.0	417.3	
23 Iodomethane	142	3.084	3.084	0.000	99	529499	100.0	102.5	
24 Carbon disulfide	76	3.140	3.140	0.000	99	1185801	100.0	96.9	
26 Methyl acetate	43	3.196	3.196	0.000	97	558443	200.0	203.3	
27 3-Chloro-1-propene	41	3.224	3.224	0.000	87	501819	100.0	102.8	
28 Methylene Chloride	84	3.322	3.322	0.000	87	476286	100.0	96.3	
29 2-Methyl-2-propanol	59	3.364	3.364	0.000	99	386411	1000.0	1107.7	
30 Acrylonitrile	53	3.475	3.475	0.000	99	1626885	1000.0	1028.4	
31 Methyl tert-butyl ether	73	3.503	3.503	0.000	94	1330431	100.0	105.4	
32 trans-1,2-Dichloroethene	96	3.517	3.517	0.000	97	456316	100.0	99.5	
33 Hexane	57	3.713	3.713	0.000	89	424577	100.0	101.6	
34 Vinyl acetate	43	3.811	3.811	0.000	97	1535687	200.0	218.8	
35 1,1-Dichloroethane	63	3.839	3.839	0.000	96	797884	100.0	99.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 2-Butanone (MEK)	43	4.216	4.216	0.000	99	746926	400.0	393.7	
41 cis-1,2-Dichloroethene	96	4.244	4.244	0.000	80	535131	100.0	100.2	
42 2,2-Dichloropropane	77	4.258	4.258	0.000	87	624173	100.0	98.2	
44 sec-Butyl Alcohol	45	4.327	4.327	0.000	99	761045	2400.0	2612.6	
46 Chlorobromomethane	128	4.425	4.425	0.000	90	266985	100.0	101.9	
47 Tetrahydrofuran	42	4.439	4.439	0.000	82	246229	200.0	201.6	
48 Chloroform	83	4.481	4.481	0.000	93	835729	100.0	97.0	
49 1,1,1-Trichloroethane	97	4.635	4.635	0.000	98	691695	100.0	97.6	
50 Cyclohexane	56	4.691	4.691	0.000	86	602964	100.0	97.8	
51 1,1-Dichloropropene	75	4.746	4.746	0.000	95	627624	100.0	96.8	
52 Carbon tetrachloride	117	4.746	4.746	0.000	95	589184	100.0	97.6	
53 Isobutyl alcohol	43	4.760	4.760	0.000	95	462907	2500.0	3387.7	
54 Benzene	78	4.900	4.900	0.000	95	1865741	100.0	97.1	
55 1,2-Dichloroethane	62	4.928	4.928	0.000	97	629619	100.0	94.3	
57 n-Heptane	43	5.082	5.082	0.000	85	308354	100.0	101.1	
59 Trichloroethene	130	5.389	5.389	0.000	97	510523	100.0	98.6	
60 2-Pentanone	43	5.487	5.487	0.000	97	946353	320.0	344.4	
61 Methylcyclohexane	55	5.570	5.570	0.000	91	430837	100.0	102.6	
62 1,2-Dichloropropane	63	5.584	5.584	0.000	96	492305	100.0	98.1	
64 1,4-Dioxane	88	5.626	5.626	0.000	91	150596	2000.0	2175.4	
65 Dibromomethane	93	5.654	5.654	0.000	94	334453	100.0	100.8	
66 Dichlorobromomethane	83	5.780	5.780	0.000	99	661691	100.0	98.3	
68 2-Chloroethyl vinyl ether	63	5.989	5.989	0.000	90	295101	100.0	108.7	
69 cis-1,3-Dichloropropene	75	6.129	6.129	0.000	97	813336	100.0	109.1	
70 4-Methyl-2-pentanone (MIBK)	43	6.241	6.241	0.000	94	1587619	400.0	428.2	
71 Toluene	91	6.422	6.422	0.000	99	2076700	100.0	96.1	
72 trans-1,3-Dichloropropene	75	6.604	6.604	0.000	95	740966	100.0	108.6	
73 Ethyl methacrylate	69	6.618	6.618	0.000	86	620671	100.0	103.1	
74 1,1,2-Trichloroethane	97	6.771	6.771	0.000	90	468776	100.0	95.7	
75 Tetrachloroethene	164	6.869	6.869	0.000	94	374294	100.0	98.1	
76 1,3-Dichloropropane	76	6.925	6.925	0.000	89	821868	100.0	103.6	
77 2-Hexanone	43	6.939	6.939	0.000	94	1117483	400.0	441.9	
78 Chlorodibromomethane	129	7.121	7.121	0.000	88	541568	100.0	105.0	
79 Ethylene Dibromide	107	7.232	7.232	0.000	99	494305	100.0	100.7	
80 1-Chlorohexane	91	7.623	7.623	0.000	92	503422	80.0	87.6	
81 Chlorobenzene	112	7.665	7.665	0.000	95	1397258	100.0	96.9	
82 1,1,1,2-Tetrachloroethane	131	7.735	7.735	0.000	94	490704	100.0	104.2	
83 Ethylbenzene	106	7.749	7.749	0.000	98	783313	100.0	101.4	
84 m-Xylene & p-Xylene	91	7.861	7.861	0.000	0	1826657	100.0	99.6	
85 o-Xylene	106	8.224	8.224	0.000	95	972575	100.0	105.1	
86 Styrene	104	8.238	8.238	0.000	94	1606068	100.0	108.7	
87 Bromoform	173	8.419	8.419	0.000	94	357910	100.0	109.6	
88 Isopropylbenzene	105	8.559	8.559	0.000	96	2281126	100.0	98.5	
90 Cyclohexanone	55	8.657	8.657	0.000	91	812012	3000.0	3370.7	
91 1,1,2,2-Tetrachloroethane	83	8.852	8.852	0.000	94	668791	100.0	92.7	
92 Bromobenzene	156	8.880	8.880	0.000	96	630333	100.0	98.8	
93 trans-1,4-Dichloro-2-butene	53	8.880	8.880	0.000	84	161271	100.0	100.4	
94 1,2,3-Trichloropropane	110	8.908	8.908	0.000	83	196643	100.0	92.9	
95 N-Propylbenzene	120	8.964	8.964	0.000	99	696012	100.0	100.6	
96 2-Chlorotoluene	126	9.062	9.062	0.000	97	628023	100.0	98.2	
97 1,3,5-Trimethylbenzene	105	9.132	9.132	0.000	94	2063526	100.0	102.5	
98 4-Chlorotoluene	126	9.174	9.174	0.000	98	660150	100.0	98.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
99 tert-Butylbenzene	119	9.439	9.439	0.000	92	1693164	100.0	100.0	
100 1,2,4-Trimethylbenzene	105	9.509	9.509	0.000	97	2234090	100.0	100.9	
101 sec-Butylbenzene	134	9.662	9.662	0.000	94	515860	100.0	98.0	
102 1,3-Dichlorobenzene	146	9.788	9.788	0.000	98	1227322	100.0	96.2	
103 4-Isopropyltoluene	119	9.816	9.816	0.000	97	2163577	100.0	103.8	
104 1,4-Dichlorobenzene	146	9.886	9.886	0.000	94	1261806	100.0	93.7	
106 n-Butylbenzene	91	10.221	10.221	0.000	97	1891665	100.0	103.7	
107 1,2-Dichlorobenzene	146	10.249	10.249	0.000	98	1209729	100.0	99.8	
108 1,2-Dibromo-3-Chloropropane	157	11.031	11.031	0.000	88	139852	100.0	102.1	
110 1,2,4-Trichlorobenzene	180	11.855	11.855	0.000	94	705365	100.0	102.3	
111 Hexachlorobutadiene	225	11.995	11.995	0.000	97	265690	100.0	105.4	
112 Naphthalene	128	12.121	12.121	0.000	97	1870383	100.0	106.4	
113 1,2,3-Trichlorobenzene	180	12.344	12.344	0.000	94	576025	100.0	102.0	
S 122 Xylenes, Total	106				0		200.0	204.7	
S 123 1,2-Dichloroethene, Total	1				0		200.0	199.6	
S 124 1,3-Dichloropropene, Total	1				0		200.0	217.7	
S 125 Trihalomethanes, Total	1				0		400.0	409.8	
S 127 Total BTEX	1				0			499.4	

QC Flag Legend

Processing Flags

Reagents:

MV-MegaMainA_00108	Amount Added:	50.00	Units: uL	
MV-Gas A_00187	Amount Added:	20.00	Units: uL	
mv-IS_SS_00079	Amount Added:	5.00	Units: uL	Run Reagent

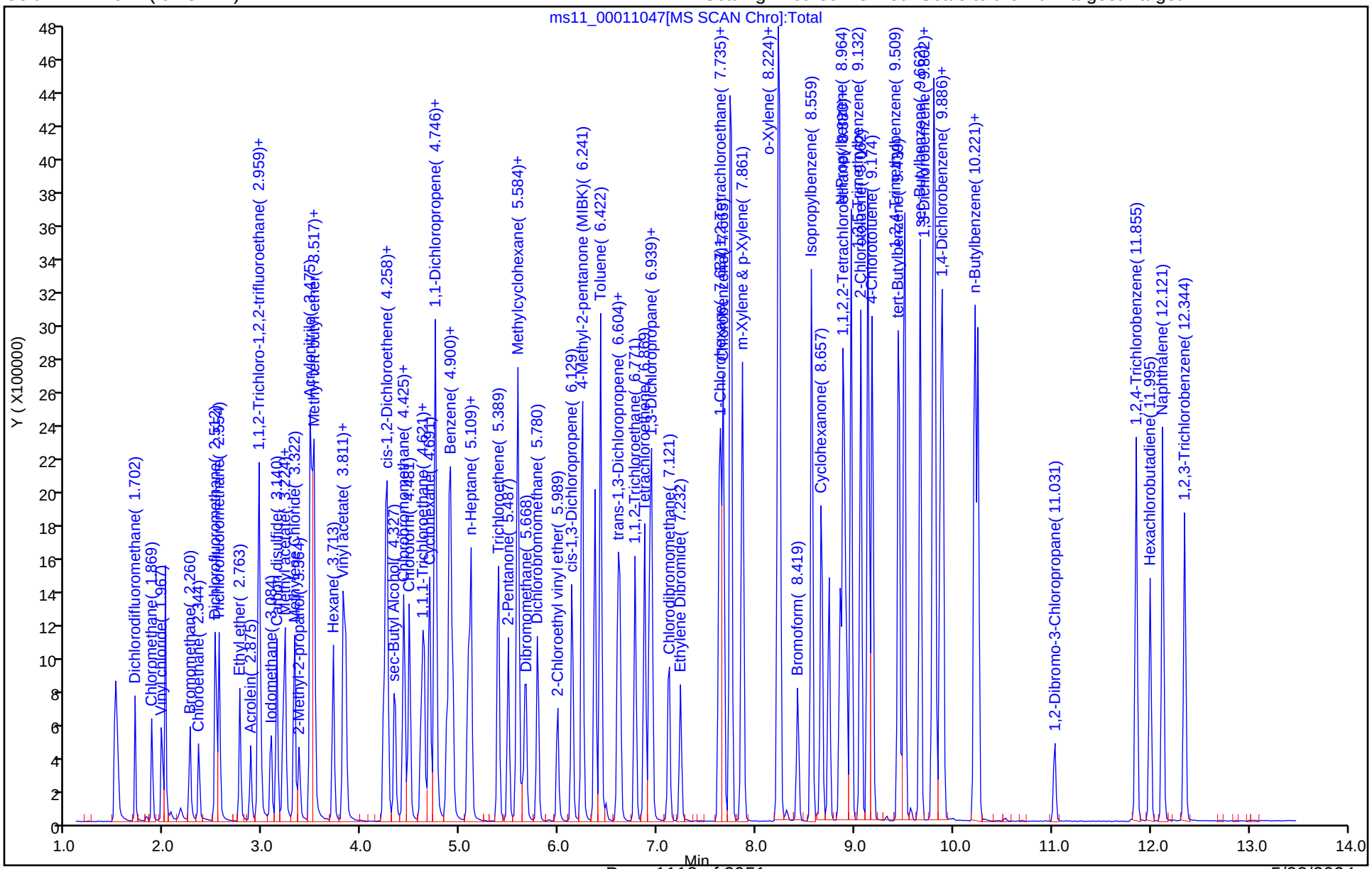
Report Date: 17-May-2024 17:51:41 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011047.D

Injection Date:	17-May-2024 11:56:30	Instrument ID:	VMS_MS11	Operator ID:	MED
Lims ID:	IC			Worklist Smp#:	20
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011048.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 17-May-2024 12:18:30 ALS Bottle#: 13 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: MED Instrument ID: VMS_MS11
Sublist: chrom-AQ_VMS11_8260*sub1

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 17-May-2024 17:51:44 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1621

First Level Reviewer: BX8N Date: 17-May-2024 12:52:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.109	5.109	0.000	99	1370614	50.0	50.0	
* 2 Chlorobenzene-d5	119	7.637	7.637	0.000	85	360930	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	9.872	9.872	0.000	94	651206	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	111	4.607	4.607	0.000	91	354259	50.0	50.2	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.858	4.858	0.000	0	359733	50.0	46.8	
$ 6 Toluene-d8 (Surr)	98	6.366	6.366	0.000	93	1340265	50.0	47.2	
$ 7 4-Bromofluorobenzene (Surr)	95	8.741	8.741	0.000	91	522622	50.0	49.8	
9 Dichlorodifluoromethane	85	1.702	1.702	0.000	100	776980	200.0	192.6	
10 Chloromethane	50	1.869	1.869	0.000	99	899803	200.0	189.8	
11 Vinyl chloride	62	1.967	1.967	0.000	98	1007545	200.0	187.9	
12 Bromomethane	94	2.246	2.246	0.000	90	683500	200.0	218.1	
13 Chloroethane	64	2.344	2.344	0.000	99	643266	200.0	186.0	
14 Dichlorofluoromethane	67	2.512	2.512	0.000	96	1982431	200.0	190.5	
15 Trichlorofluoromethane	101	2.554	2.554	0.000	98	1375923	200.0	192.9	
17 Ethyl ether	59	2.763	2.763	0.000	89	712871	200.0	195.4	
18 Acrolein	56	2.875	2.875	0.000	99	656907	1975.0	1970.0	
19 1,1-Dichloroethene	96	2.959	2.959	0.000	97	810293	200.0	194.5	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151	2.959	2.959	0.000	73	579971	200.0	194.2	
21 Acetone	43	2.973	2.973	0.000	100	976866	800.0	840.1	
23 Iodomethane	142	3.084	3.084	0.000	99	1175596	200.0	199.6	
24 Carbon disulfide	76	3.140	3.140	0.000	99	2475568	200.0	191.9	
26 Methyl acetate	43	3.196	3.196	0.000	97	1199393	400.0	414.1	
27 3-Chloro-1-propene	41	3.224	3.224	0.000	88	1019843	200.0	198.9	
28 Methylene Chloride	84	3.322	3.322	0.000	86	1008962	200.0	193.5	
29 2-Methyl-2-propanol	59	3.364	3.364	0.000	99	909121	2000.0	2472.4	
30 Acrylonitrile	53	3.475	3.475	0.000	98	3460623	2000.0	2075.3	
31 Methyl tert-butyl ether	73	3.503	3.503	0.000	93	2846964	200.0	213.9	
32 trans-1,2-Dichloroethene	96	3.517	3.517	0.000	96	970797	200.0	200.7	
33 Hexane	57	3.713	3.713	0.000	89	902830	200.0	191.7	
34 Vinyl acetate	43	3.811	3.811	0.000	97	2916214	400.0	394.2	
35 1,1-Dichloroethane	63	3.839	3.839	0.000	96	1692624	200.0	199.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 2-Butanone (MEK)	43	4.216	4.216	0.000	99	1620256	800.0	810.2	
41 cis-1,2-Dichloroethene	96	4.244	4.244	0.000	80	1146321	200.0	203.5	
42 2,2-Dichloropropane	77	4.258	4.258	0.000	86	1359575	200.0	203.0	
44 sec-Butyl Alcohol	45	4.341	4.341	0.000	98	1755152	4800.0	5680.0	
46 Chlorobromomethane	128	4.425	4.425	0.000	89	556355	200.0	201.4	
47 Tetrahydrofuran	42	4.439	4.439	0.000	84	523801	400.0	406.9	
48 Chloroform	83	4.481	4.481	0.000	93	1780805	200.0	196.0	
49 1,1,1-Trichloroethane	97	4.621	4.621	0.000	98	1470132	200.0	196.8	
50 Cyclohexane	56	4.690	4.690	0.000	86	1314054	200.0	202.3	
51 1,1-Dichloropropene	75	4.746	4.746	0.000	98	1375452	200.0	201.2	
52 Carbon tetrachloride	117	4.746	4.746	0.000	96	1295402	200.0	203.7	
53 Isobutyl alcohol	43	4.760	4.760	0.000	94	1073356	5000.0	7452.0	
54 Benzene	78	4.900	4.900	0.000	95	3937555	200.0	194.5	
55 1,2-Dichloroethane	62	4.914	4.914	0.000	97	1357563	200.0	192.9	
57 n-Heptane	43	5.082	5.082	0.000	87	657803	200.0	205.7	
59 Trichloroethene	130	5.389	5.389	0.000	98	1115262	200.0	204.4	
60 2-Pentanone	43	5.487	5.487	0.000	97	2045493	640.0	706.2	
61 Methylcyclohexane	55	5.570	5.570	0.000	91	900493	200.0	203.7	
62 1,2-Dichloropropane	63	5.584	5.584	0.000	96	1071840	200.0	202.7	
64 1,4-Dioxane	88	5.640	5.640	0.000	88	322725	4000.0	4422.7	
65 Dibromomethane	93	5.654	5.654	0.000	96	714623	200.0	204.3	
66 Dichlorobromomethane	83	5.780	5.780	0.000	99	1405408	200.0	198.0	
68 2-Chloroethyl vinyl ether	63	5.989	5.989	0.000	91	614111	200.0	214.6	
69 cis-1,3-Dichloropropene	75	6.129	6.129	0.000	98	1715472	200.0	204.4	
70 4-Methyl-2-pentanone (MIBK)	43	6.241	6.241	0.000	94	3419055	800.0	874.8	
71 Toluene	91	6.422	6.422	0.000	98	4423861	200.0	194.3	
72 trans-1,3-Dichloropropene	75	6.604	6.604	0.000	97	1605945	200.0	223.2	
73 Ethyl methacrylate	69	6.618	6.618	0.000	87	1362616	200.0	200.9	
74 1,1,2-Trichloroethane	97	6.771	6.771	0.000	90	1014325	200.0	196.5	
75 Tetrachloroethene	164	6.869	6.869	0.000	96	825484	200.0	192.0	
76 1,3-Dichloropropane	76	6.925	6.925	0.000	93	1753832	200.0	196.3	
77 2-Hexanone	43	6.939	6.939	0.000	93	2422944	800.0	850.5	
78 Chlorodibromomethane	129	7.121	7.121	0.000	89	1175917	200.0	202.4	
79 Ethylene Dibromide	107	7.232	7.232	0.000	98	1061298	200.0	192.0	
80 1-Chlorohexane	91	7.623	7.623	0.000	92	1107540	160.0	171.6	
81 Chlorobenzene	112	7.665	7.665	0.000	95	3085709	200.0	190.0	
82 1,1,1,2-Tetrachloroethane	131	7.735	7.735	0.000	95	1135762	200.0	214.2	
83 Ethylbenzene	106	7.749	7.749	0.000	98	1728932	200.0	198.7	
84 m-Xylene & p-Xylene	91	7.861	7.861	0.000	0	3910319	200.0	189.3	
85 o-Xylene	106	8.224	8.224	0.000	94	2125522	200.0	203.9	
86 Styrene	104	8.238	8.238	0.000	93	3538074	200.0	212.6	
87 Bromoform	173	8.419	8.419	0.000	95	804700	200.0	218.7	
88 Isopropylbenzene	105	8.559	8.559	0.000	96	5069814	200.0	205.5	
90 Cyclohexanone	55	8.657	8.657	0.000	91	1941602	6000.0	7154.8	
91 1,1,2,2-Tetrachloroethane	83	8.852	8.852	0.000	94	1442208	200.0	187.7	
92 Bromobenzene	156	8.880	8.880	0.000	96	1386695	200.0	204.0	
93 trans-1,4-Dichloro-2-butene	53	8.894	8.894	0.000	86	368661	200.0	214.5	
94 1,2,3-Trichloropropane	110	8.908	8.908	0.000	83	445652	200.0	197.7	
95 N-Propylbenzene	120	8.964	8.964	0.000	98	1545175	200.0	209.6	
96 2-Chlorotoluene	126	9.062	9.062	0.000	97	1358376	200.0	199.4	
97 1,3,5-Trimethylbenzene	105	9.132	9.132	0.000	94	4533583	200.0	211.4	
98 4-Chlorotoluene	126	9.174	9.174	0.000	98	1458492	200.0	205.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
99 tert-Butylbenzene	119	9.439	9.439	0.000	92	3768599	200.0	209.0	
100 1,2,4-Trimethylbenzene	105	9.509	9.509	0.000	97	4847046	200.0	205.5	
101 sec-Butylbenzene	134	9.662	9.662	0.000	94	1137087	200.0	202.7	
102 1,3-Dichlorobenzene	146	9.788	9.788	0.000	98	2741126	200.0	201.6	
103 4-Isopropyltoluene	119	9.816	9.816	0.000	96	4818415	200.0	216.9	
104 1,4-Dichlorobenzene	146	9.900	9.900	0.000	96	2755089	200.0	192.1	
106 n-Butylbenzene	91	10.221	10.221	0.000	97	4184544	200.0	215.3	
107 1,2-Dichlorobenzene	146	10.249	10.249	0.000	98	2624905	200.0	203.2	
108 1,2-Dibromo-3-Chloropropane	157	11.031	11.031	0.000	90	334484	200.0	229.1	
110 1,2,4-Trichlorobenzene	180	11.855	11.855	0.000	94	1588157	200.0	216.2	
111 Hexachlorobutadiene	225	11.995	11.995	0.000	98	572194	200.0	213.0	
112 Naphthalene	128	12.121	12.121	0.000	97	4029394	200.0	215.1	
113 1,2,3-Trichlorobenzene	180	12.344	12.344	0.000	95	1229642	200.0	204.3	
S 122 Xylenes, Total	106				0		400.0	393.2	
S 123 1,2-Dichloroethene, Total	1				0		400.0	404.3	
S 124 1,3-Dichloropropene, Total	1				0		400.0	427.6	
S 125 Trihalomethanes, Total	1				0		800.0	815.1	
S 127 Total BTEX	1				0			980.6	

QC Flag Legend

Processing Flags

Reagents:

MV-MegaMainA_00108	Amount Added: 100.00	Units: uL	
MV-Gas A_00187	Amount Added: 40.00	Units: uL	
mv-IS_SS_00079	Amount Added: 5.00	Units: uL	Run Reagent

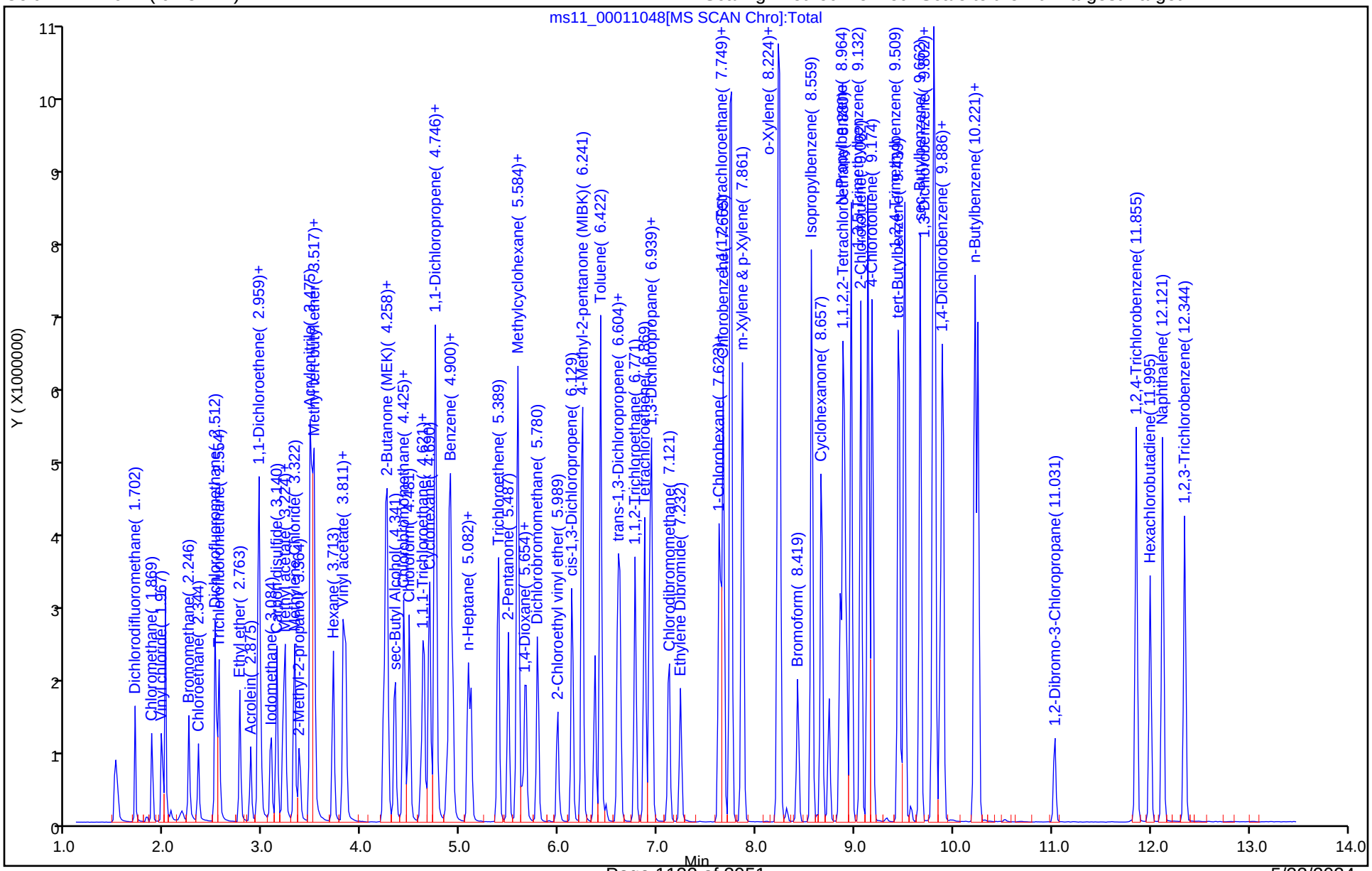
Report Date: 17-May-2024 17:51:44 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011048.D

Injection Date:	17-May-2024 12:18:30	Instrument ID:	VMS_MS11	Operator ID:	MED
Lims ID:	IC			Worklist Smp#:	21
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICV 280-653788/33 | Calibration Date: 05/17/2024 17:27

Instrument ID: VMS_MS11 | Calib Start Date: 05/17/2024 09:24

GC Column: RXI-624SilMS ID: 0.25(mm) | Calib End Date: 05/17/2024 12:18

Lab File ID: ms11_00011062.D | Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1471	0.2247	0.1000	76.4	50.0	52.7*	20.0
Chloromethane	Ave	0.1729	0.2020	0.1000	58.4	50.0	16.8	20.0
Vinyl chloride	Ave	0.1957	0.2098	0.0100	53.6	50.0	7.2	20.0
Bromomethane	Ave	0.1143	0.1046	0.0100	45.7	50.0	-8.5	20.0
Chloroethane	Ave	0.1262	0.1398	0.0100	55.4	50.0	10.8	20.0
Dichlorofluoromethane	Ave	0.3796	0.3682	0.0100	48.5	50.0	-3.0	20.0
Trichlorofluoromethane	Ave	0.2602	0.2920	0.0100	56.1	50.0	12.2	20.0
Ethyl ether	Ave	0.1331	0.1260	0.0100	47.3	50.0	-5.3	20.0
Acrolein	Ave	0.0122	0.0249	0.0010	1010	494	105.0*	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1089	0.1286	0.0500	59.0	50.0	18.1	20.0
1,1-Dichloroethene	Ave	0.1520	0.1650	0.0600	54.3	50.0	8.6	20.0
Acetone	Lin2		0.0480	0.0100	222	200	11.1	20.0
Iodomethane	Qua		0.1633	0.0100	45.5	50.0	-9.0	20.0
Carbon disulfide	Ave	0.4707	0.4904	0.1000	52.1	50.0	4.2	20.0
Methyl acetate	Ave	0.1057	0.1088	0.0100	103	100	3.0	20.0
3-Chloro-1-propene	Lin2		0.2049	0.0100	54.2	50.0	8.3	20.0
Methylene Chloride	Ave	0.1902	0.1868	0.0100	49.1	50.0	-1.8	20.0
2-Methyl-2-propanol	Ave	0.0134	0.0142	0.0010	529	500	5.7	20.0
Acrylonitrile	Ave	0.0608	0.0629	0.0100	517	500	3.4	20.0
Methyl tert-butyl ether	Ave	0.4855	0.5005	0.1000	51.5	50.0	3.1	20.0
trans-1,2-Dichloroethene	Ave	0.1764	0.1807	0.1000	51.2	50.0	2.4	20.0
Hexane	Ave	0.6523	0.8235	0.0100	63.1	50.0	26.2*	20.0
Vinyl acetate	Ave	0.2698	0.3008	0.0100	111	100	11.5	20.0
1,1-Dichloroethane	Ave	0.3096	0.3021	0.1000	48.8	50.0	-2.4	20.0
2-Butanone (MEK)	Ave	0.0730	0.0674	0.0100	185	200	-7.6	20.0
cis-1,2-Dichloroethene	Ave	0.2055	0.2069	0.1000	50.3	50.0	0.7	20.0
2,2-Dichloropropane	Ave	0.2443	0.2424	0.0100	49.6	50.0	-0.8	20.0
sec-Butyl Alcohol	Lin1		0.0109	0.0100	1180	1200	-1.4	20.0
Bromochloromethane	Ave	0.1008	0.0972	0.0500	48.2	50.0	-3.5	20.0
Tetrahydrofuran	Ave	0.0470	0.0458	0.0010	97.5	100	-2.5	20.0
Chloroform	Ave	0.3315	0.3246	0.2000	49.0	50.0	-2.1	20.0
1,1,1-Trichloroethane	Ave	0.2726	0.2714	0.0500	49.8	50.0	-0.4	20.0
Cyclohexane	Ave	0.2370	0.2779	0.0100	58.6	50.0	17.3	20.0
1,1-Dichloropropene	Ave	0.2494	0.2556	0.0100	51.3	50.0	2.5	20.0
Carbon tetrachloride	Ave	0.2320	0.2286	0.1000	49.2	50.0	-1.5	20.0
Isobutyl alcohol	Ave	0.0053	0.0062	0.0010	1480	1250	18.5	20.0
Benzene	Ave	0.7386	0.7477	0.2000	50.6	50.0	1.2	20.0
1,2-Dichloroethane	Ave	0.2567	0.2410	0.0700	46.9	50.0	-6.1	20.0
n-Heptane	Lin2		0.1503		63.7	50.0	27.5*	20.0
Trichloroethene	Ave	0.1990	0.1999*	0.2000	50.2	50.0	0.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICV 280-653788/33 Calibration Date: 05/17/2024 17:27

Instrument ID: VMS_MS11 Calib Start Date: 05/17/2024 09:24

GC Column: RXI-624SilMS ID: 0.25(mm) Calib End Date: 05/17/2024 12:18

Lab File ID: ms11_00011062.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Pentanone	Ave	0.1057	0.1105	0.0010	167	160	4.6	20.0
Methylcyclohexane	Lin1		0.1805	0.0500	55.7	50.0	11.4	20.0
1,2-Dichloropropane	Ave	0.1929	0.1883	0.1000	48.8	50.0	-2.4	20.0
1,4-Dioxane	Ave	0.0027	0.0027	0.0010	1030	1000	2.8	20.0
Dibromomethane	Ave	0.1276	0.1294	0.0100	50.7	50.0	1.4	20.0
Bromodichloromethane	Ave	0.2589	0.2477	0.2000	47.8	50.0	-4.3	20.0
2-Chloroethyl vinyl ether	Ave	0.1044	0.0972	0.0100	46.6	50.0	-6.9	20.0
cis-1,3-Dichloropropene	Ave	1.163	1.140	0.2000	49.0	50.0	-2.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1426	0.1453	0.0300	204	200	1.9	20.0
Toluene	Ave	0.8308	0.7906	0.3000	47.6	50.0	-4.8	20.0
trans-1,3-Dichloropropene	Ave	0.2624	0.2671	0.2000	50.9	50.0	1.8	20.0
Ethyl methacrylate	Ave	0.9397	0.9010	0.0100	47.9	50.0	-4.1	20.0
1,1,2-Trichloroethane	Ave	0.1884	0.1777	0.1000	47.2	50.0	-5.7	20.0
Tetrachloroethene	Ave	0.5955	0.6008	0.1000	50.4	50.0	0.9	20.0
1,3-Dichloropropane	Ave	1.238	1.206	0.0100	48.7	50.0	-2.6	20.0
2-Hexanone	Ave	0.3946	0.4107	0.0100	208	200	4.1	20.0
Dibromochloromethane	Ave	0.8049	0.7470	0.1000	46.4	50.0	-7.2	20.0
1,2-Dibromoethane	Ave	0.7657	0.7276	0.1000	47.5	50.0	-5.0	20.0
1-Chlorohexane	Lin2		0.9389	0.0100	41.5	40.0	3.8	20.0
Chlorobenzene	Ave	2.249	2.183	0.3000	48.5	50.0	-2.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.7346	0.7011	0.0100	47.7	50.0	-4.6	20.0
Ethylbenzene	Ave	1.205	1.182	0.3000	49.0	50.0	-1.9	20.0
m-Xylene & p-Xylene	Ave	2.862	2.785	0.1000	48.6	50.0	-2.7	20.0
o-Xylene	Ave	1.444	1.408	0.2000	48.7	50.0	-2.5	20.0
Styrene	Ave	2.305	2.397	0.2000	52.0	50.0	4.0	20.0
Bromoform	Ave	0.5098	0.4804	0.1000	47.1	50.0	-5.8	20.0
Isopropylbenzene	Ave	1.895	1.955	0.3000	51.6	50.0	3.2	20.0
Cyclohexanone	Ave	0.0376	0.0328	0.0010	1310	1500	-12.7	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5899	0.5658	0.3000	48.0	50.0	-4.1	20.0
Bromobenzene	Ave	0.5218	0.5147	0.0100	49.3	50.0	-1.4	20.0
trans-1,4-Dichloro-2-butene	Lin2		0.1252	0.0100	48.1	50.0	-3.8	20.0
1,2,3-Trichloropropane	Ave	0.1731	0.1694	0.0100	48.9	50.0	-2.1	20.0
N-Propylbenzene	Ave	0.5660	0.5952	0.0100	52.6	50.0	5.2	20.0
2-Chlorotoluene	Ave	0.5232	0.5100	0.0100	48.7	50.0	-2.5	20.0
1,3,5-Trimethylbenzene	Ave	1.646	1.737	0.0100	52.8	50.0	5.5	20.0
4-Chlorotoluene	Ave	0.5463	0.5548	0.0100	50.8	50.0	1.5	20.0
tert-Butylbenzene	Ave	1.385	1.417	0.0100	51.2	50.0	2.3	20.0
1,2,4-Trimethylbenzene	Ave	1.811	1.829	0.3000	50.5	50.0	1.0	20.0
sec-Butylbenzene	Ave	0.4306	0.4218	0.0100	49.0	50.0	-2.0	20.0
1,3-Dichlorobenzene	Ave	1.044	1.023	0.5000	49.0	50.0	-2.0	20.0
4-Isopropyltoluene	Ave	1.706	1.796	0.0100	52.7	50.0	5.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICV 280-653788/33 Calibration Date: 05/17/2024 17:27

Instrument ID: VMS_MS11 Calib Start Date: 05/17/2024 09:24

GC Column: RXI-624SilMS ID: 0.25(mm) Calib End Date: 05/17/2024 12:18

Lab File ID: ms11_00011062.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dichlorobenzene	Ave	1.101	1.056	0.5000	47.9	50.0	-4.1	20.0
n-Butylbenzene	Ave	1.492	1.600	0.0100	53.6	50.0	7.2	20.0
1,2-Dichlorobenzene	Ave	0.9918	1.013	0.5000	51.1	50.0	2.1	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1121	0.1063	0.0100	47.4	50.0	-5.1	20.0
1,2,4-Trichlorobenzene	Ave	0.5641	0.5674	0.2000	50.3	50.0	0.6	20.0
Hexachlorobutadiene	Ave	0.2062	0.2373	0.0100	57.5	50.0	15.1	20.0
Naphthalene	Ave	1.438	1.448	0.0100	50.3	50.0	0.7	20.0
1,2,3-Trichlorobenzene	Ave	0.4621	0.4642	0.3000	50.2	50.0	0.5	20.0
Dibromofluoromethane (Surr)	Ave	0.2573	0.2565	0.0100	49.8	50.0	-0.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2803	0.2782	0.0100	49.6	50.0	-0.8	20.0
Toluene-d8 (Surr)	Ave	3.931	3.901	0.0100	49.6	50.0	-0.8	20.0
4-Bromofluorobenzene (Surr)	Ave	0.8061	0.7994	0.0100	49.6	50.0	-0.8	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011062.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 17-May-2024 17:27:30 ALS Bottle#: 27 Worklist Smp#: 33
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: icv
Misc. Info.: new main b standard
Operator ID: MED Instrument ID: VMS_MS11
Sublist:

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 17-May-2024 18:09:59 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1621

First Level Reviewer: LP8K Date: 17-May-2024 17:44:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.110	5.110	0.000	99	1301550	50.0	50.0	
* 2 Chlorobenzene-d5	119	7.638	7.637	0.001	86	327220	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	9.872	9.872	0.000	94	584034	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	111	4.607	4.607	0.000	92	333823	50.0	49.8	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.858	4.858	0.000	0	362094	50.0	49.6	
$ 6 Toluene-d8 (Surr)	98	6.367	6.366	0.001	92	1276377	50.0	49.6	
$ 7 4-Bromofluorobenzene (Surr)	95	8.741	8.741	0.000	91	466890	50.0	49.6	
9 Dichlorodifluoromethane	85	1.702	1.702	0.000	100	292505	50.0	76.4	
10 Chloromethane	50	1.870	1.869	0.001	99	262859	50.0	58.4	
11 Vinyl chloride	62	1.967	1.967	0.000	97	273037	50.0	53.6	
12 Bromomethane	94	2.261	2.246	0.015	90	136146	50.0	45.7	
13 Chloroethane	64	2.344	2.344	0.000	99	181996	50.0	55.4	
14 Dichlorofluoromethane	67	2.512	2.512	0.000	97	479209	50.0	48.5	
15 Trichlorofluoromethane	101	2.554	2.554	0.000	98	380108	50.0	56.1	
17 Ethyl ether	59	2.763	2.763	0.000	87	163959	50.0	47.3	
18 Acrolein	56	2.875	2.875	0.000	99	320546	493.8	1012.3	
19 1,1-Dichloroethene	96	2.959	2.959	0.000	97	214799	50.0	54.3	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151	2.959	2.959	0.000	77	167420	50.0	59.0	
21 Acetone	43	2.973	2.973	0.000	100	250134	200.0	222.2	
23 Iodomethane	142	3.085	3.084	0.001	99	212569	50.0	45.5	
24 Carbon disulfide	76	3.140	3.140	0.000	99	638218	50.0	52.1	
26 Methyl acetate	43	3.196	3.196	0.000	97	283216	100.0	103.0	
27 3-Chloro-1-propene	41	3.224	3.224	0.000	86	266641	50.0	54.2	
28 Methylene Chloride	84	3.322	3.322	0.000	88	243162	50.0	49.1	
29 2-Methyl-2-propanol	59	3.364	3.364	0.000	99	184576	500.0	528.6	
30 Acrylonitrile	53	3.476	3.475	0.001	99	818867	500.0	517.1	
31 Methyl tert-butyl ether	73	3.504	3.503	0.001	93	651408	50.0	51.5	
32 trans-1,2-Dichloroethene	96	3.518	3.517	0.001	96	235211	50.0	51.2	
33 Hexane	57	3.713	3.713	0.000	89	269471	50.0	63.1	
34 Vinyl acetate	43	3.811	3.811	0.000	97	783129	100.0	111.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 1,1-Dichloroethane	63	3.839	3.839	0.000	96	393212	50.0	48.8	
39 2-Butanone (MEK)	43	4.230	4.216	0.014	97	351026	200.0	184.8	
41 cis-1,2-Dichloroethene	96	4.244	4.244	0.000	79	269236	50.0	50.3	
42 2,2-Dichloropropane	77	4.258	4.258	0.000	88	315507	50.0	49.6	
44 sec-Butyl Alcohol	45	4.328	4.341	-0.013	98	339971	1200.0	1182.8	
46 Chlorobromomethane	128	4.425	4.425	0.000	86	126540	50.0	48.2	
47 Tetrahydrofuran	42	4.439	4.439	0.000	83	119215	100.0	97.5	
48 Chloroform	83	4.481	4.481	0.000	93	422432	50.0	49.0	
49 1,1,1-Trichloroethane	97	4.635	4.621	0.014	97	353284	50.0	49.8	
50 Cyclohexane	56	4.691	4.690	0.001	86	361693	50.0	58.6	
51 1,1-Dichloropropene	75	4.747	4.746	0.001	95	332685	50.0	51.3	
52 Carbon tetrachloride	117	4.747	4.746	0.001	94	297475	50.0	49.2	
53 Isobutyl alcohol	43	4.761	4.760	0.001	94	202547	1250.0	1480.9	
54 Benzene	78	4.900	4.900	0.000	95	973202	50.0	50.6	
55 1,2-Dichloroethane	62	4.914	4.914	0.000	97	313617	50.0	46.9	
57 n-Heptane	43	5.082	5.082	0.000	87	195687	50.0	63.7	
59 Trichloroethene	130	5.389	5.389	0.000	97	260218	50.0	50.2	
60 2-Pentanone	43	5.487	5.487	0.000	98	460370	160.0	167.4	
61 Methylcyclohexane	55	5.571	5.570	0.001	91	234898	50.0	55.7	
62 1,2-Dichloropropane	63	5.585	5.584	0.001	87	245036	50.0	48.8	
64 1,4-Dioxane	88	5.626	5.640	-0.014	95	71212	1000.0	1027.7	
65 Dibromomethane	93	5.654	5.654	0.000	95	168446	50.0	50.7	
66 Dichlorobromomethane	83	5.780	5.780	0.000	99	322416	50.0	47.8	
68 2-Chloroethyl vinyl ether	63	5.990	5.989	0.001	91	126530	50.0	46.6	
69 cis-1,3-Dichloropropene	75	6.129	6.129	0.000	97	372879	50.0	49.0	
70 4-Methyl-2-pentanone (MIBK)	43	6.241	6.241	0.000	94	756623	200.0	203.9	
71 Toluene	91	6.423	6.422	0.000	98	1028960	50.0	47.6	
72 trans-1,3-Dichloropropene	75	6.604	6.604	0.000	97	347653	50.0	50.9	
73 Ethyl methacrylate	69	6.618	6.618	0.000	86	294809	50.0	47.9	
74 1,1,2-Trichloroethane	97	6.772	6.771	0.001	91	231222	50.0	47.2	
75 Tetrachloroethene	164	6.869	6.869	0.000	94	196600	50.0	50.4	
76 1,3-Dichloropropane	76	6.925	6.925	0.000	93	394654	50.0	48.7	
77 2-Hexanone	43	6.939	6.939	0.000	93	537492	200.0	208.1	
78 Chlorodibromomethane	129	7.121	7.121	0.000	90	244417	50.0	46.4	
79 Ethylene Dibromide	107	7.233	7.232	0.001	99	238070	50.0	47.5	
80 1-Chlorohexane	91	7.624	7.623	0.001	95	245780	40.0	41.5	
81 Chlorobenzene	112	7.665	7.665	0.000	96	714394	50.0	48.5	
82 1,1,1,2-Tetrachloroethane	131	7.735	7.735	0.000	93	229408	50.0	47.7	
83 Ethylbenzene	106	7.749	7.749	0.000	98	386673	50.0	49.0	
84 m-Xylene & p-Xylene	91	7.861	7.861	0.000	0	911224	50.0	48.6	
85 o-Xylene	106	8.224	8.224	0.000	95	460674	50.0	48.7	
86 Styrene	104	8.238	8.238	0.000	94	784405	50.0	52.0	
87 Bromoform	173	8.420	8.419	0.001	94	157196	50.0	47.1	
88 Isopropylbenzene	105	8.559	8.559	0.000	96	1142030	50.0	51.6	
90 Cyclohexanone	55	8.657	8.657	0.000	92	322123	1500.0	1309.3	
91 1,1,2,2-Tetrachloroethane	83	8.853	8.852	0.001	94	330446	50.0	48.0	
92 Bromobenzene	156	8.881	8.880	0.001	96	300588	50.0	49.3	
93 trans-1,4-Dichloro-2-butene	53	8.895	8.894	0.001	80	73147	50.0	48.1	
94 1,2,3-Trichloropropane	110	8.922	8.908	0.014	83	98937	50.0	48.9	
95 N-Propylbenzene	120	8.964	8.964	0.000	98	347643	50.0	52.6	
96 2-Chlorotoluene	126	9.062	9.062	0.000	97	297834	50.0	48.7	
97 1,3,5-Trimethylbenzene	105	9.132	9.132	0.000	94	1014746	50.0	52.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
98 4-Chlorotoluene	126	9.174	9.174	0.000	98	324000	50.0	50.8	
99 tert-Butylbenzene	119	9.439	9.439	0.000	92	827301	50.0	51.2	
100 1,2,4-Trimethylbenzene	105	9.509	9.509	0.000	97	1068104	50.0	50.5	
101 sec-Butylbenzene	134	9.663	9.662	0.001	94	246361	50.0	49.0	
102 1,3-Dichlorobenzene	146	9.788	9.788	0.000	98	597499	50.0	49.0	
103 4-Isopropyltoluene	119	9.816	9.816	0.000	97	1048965	50.0	52.7	
104 1,4-Dichlorobenzene	146	9.900	9.900	0.000	96	616863	50.0	47.9	
106 n-Butylbenzene	91	10.221	10.221	0.000	97	934184	50.0	53.6	
107 1,2-Dichlorobenzene	146	10.249	10.249	0.000	97	591662	50.0	51.1	
108 1,2-Dibromo-3-Chloropropane	157	11.031	11.031	0.000	86	62109	50.0	47.4	
110 1,2,4-Trichlorobenzene	180	11.855	11.855	0.000	94	331386	50.0	50.3	
111 Hexachlorobutadiene	225	11.995	11.995	0.000	98	138592	50.0	57.5	
112 Naphthalene	128	12.121	12.121	0.000	97	845744	50.0	50.3	
113 1,2,3-Trichlorobenzene	180	12.344	12.344	0.000	96	271105	50.0	50.2	
S 122 Xylenes, Total	106				0		100.0	97.4	
S 123 1,2-Dichloroethene, Total	1				0		100.0	101.6	
S 124 1,3-Dichloropropene, Total	1				0		100.0	99.9	
S 125 Trihalomethanes, Total	1				0		200.0	190.3	

QC Flag Legend

Processing Flags

Reagents:

MV-MegaMain B_00104	Amount Added:	25.00	Units: uL	
MV-Gas B_00162	Amount Added:	10.00	Units: uL	
mv-IS_SS_00079	Amount Added:	5.00	Units: uL	Run Reagent

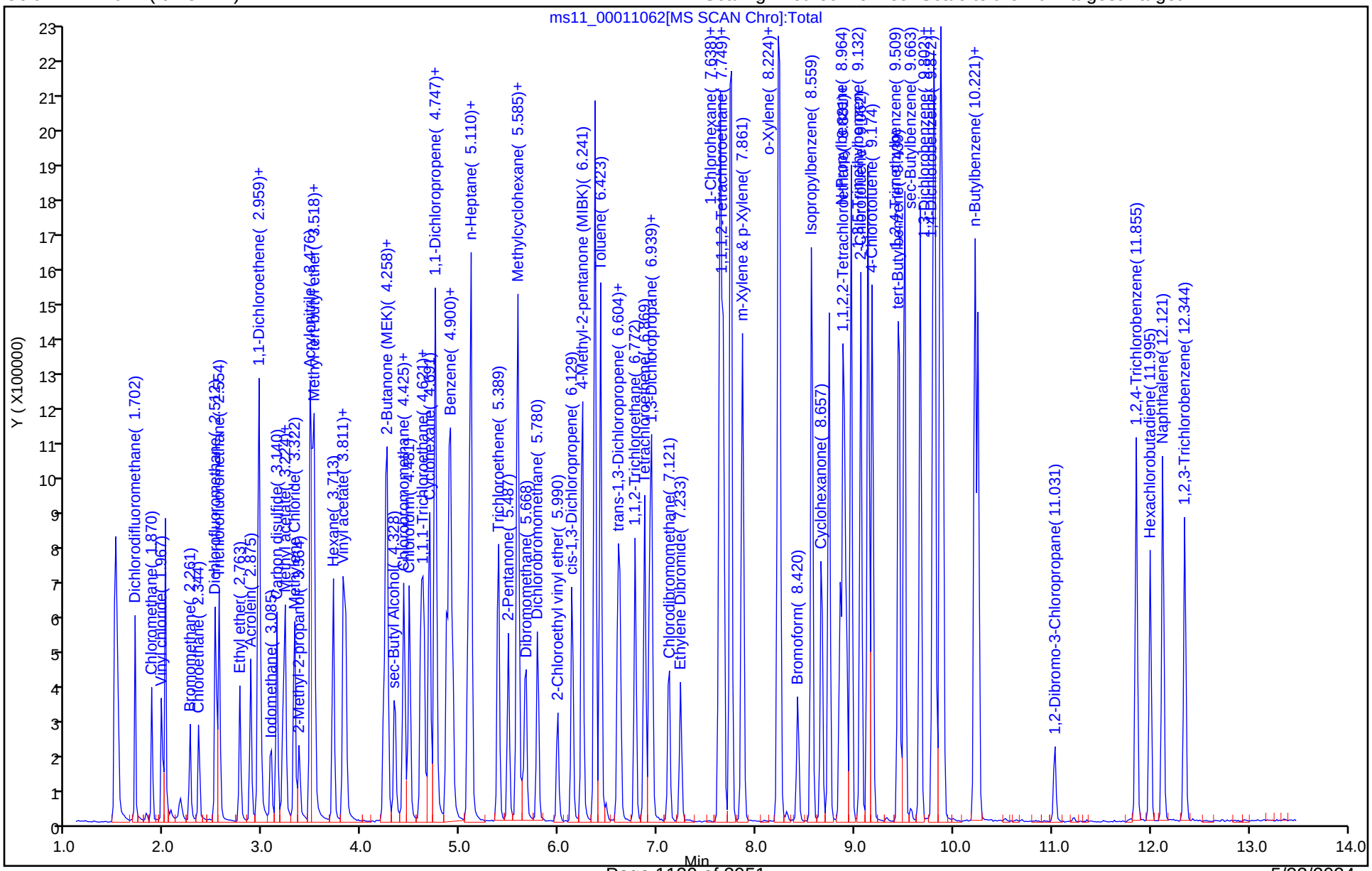
Report Date: 17-May-2024 18:10:01 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011062.D

Injection Date:	17-May-2024 17:27:30	Instrument ID:	VMS_MS11	Operator ID:	MED
Lims ID:	icv			Worklist Smp#:	33
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653926/2 | Calibration Date: 05/18/2024 05:39

Instrument ID: VMS_MS11 | Calib Start Date: 05/17/2024 09:24

GC Column: RXI-624SilMS ID: 0.25(mm) | Calib End Date: 05/17/2024 12:18

Lab File ID: ms11_00011094.D | Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1471	0.1917	0.1000	65.1	50.0	30.3*	20.0
Chloromethane	Ave	0.1729	0.1890	0.1000	54.6	50.0	9.3	20.0
Vinyl chloride	Ave	0.1957	0.1923	0.0100	49.1	50.0	-1.7	20.0
Bromomethane	Ave	0.1143	0.1194	0.0100	52.2	50.0	4.4	20.0
Chloroethane	Ave	0.1262	0.1298	0.0100	51.4	50.0	2.8	20.0
Dichlorofluoromethane	Ave	0.3796	0.3825	0.0100	50.4	50.0	0.8	20.0
Trichlorofluoromethane	Ave	0.2602	0.2850	0.0100	54.8	50.0	9.5	20.0
Ethyl ether	Ave	0.1331	0.1325	0.0100	49.8	50.0	-0.4	20.0
Acrolein	Ave	0.0122	0.0116	0.0010	470	494	-4.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1089	0.1163	0.0500	53.4	50.0	6.8	20.0
1,1-Dichloroethene	Ave	0.1520	0.1564	0.0600	51.4	50.0	2.9	20.0
Acetone	Lin2		0.0434	0.0100	200	200	0.0	20.0
Iodomethane	Qua		0.1864	0.0100	51.1	50.0	2.1	20.0
Carbon disulfide	Ave	0.4707	0.4900	0.1000	52.0	50.0	4.1	20.0
Methyl acetate	Ave	0.1057	0.1042	0.0100	98.6	100	-1.4	20.0
3-Chloro-1-propene	Lin2		0.2020	0.0100	53.4	50.0	6.8	20.0
Methylene Chloride	Ave	0.1902	0.1914	0.0100	50.3	50.0	0.6	20.0
2-Methyl-2-propanol	Ave	0.0134	0.0130	0.0010	485	500	-3.0	20.0
Acrylonitrile	Ave	0.0608	0.0592	0.0100	486	500	-2.7	20.0
Methyl tert-butyl ether	Ave	0.4855	0.4807	0.1000	49.5	50.0	-1.0	20.0
trans-1,2-Dichloroethene	Ave	0.1764	0.1781	0.1000	50.5	50.0	0.9	20.0
Hexane	Ave	0.6523	0.7389	0.0100	56.6	50.0	13.3	20.0
Vinyl acetate	Ave	0.2698	0.2900	0.0100	107	100	7.5	20.0
1,1-Dichloroethane	Ave	0.3096	0.3122	0.1000	50.4	50.0	0.8	20.0
2-Butanone (MEK)	Ave	0.0730	0.0706	0.0100	194	200	-3.2	20.0
cis-1,2-Dichloroethene	Ave	0.2055	0.2093	0.1000	50.9	50.0	1.9	20.0
2,2-Dichloropropane	Ave	0.2443	0.2593	0.0100	53.1	50.0	6.1	20.0
sec-Butyl Alcohol	Lin1		0.0102	0.0100	1110	1200	-7.3	20.0
Bromochloromethane	Ave	0.1008	0.1023	0.0500	50.8	50.0	1.5	20.0
Tetrahydrofuran	Ave	0.0470	0.0439	0.0010	93.5	100	-6.5	20.0
Chloroform	Ave	0.3315	0.3319	0.2000	50.1	50.0	0.1	20.0
1,1,1-Trichloroethane	Ave	0.2726	0.2694	0.0500	49.4	50.0	-1.2	20.0
Cyclohexane	Ave	0.2370	0.2373	0.0100	50.1	50.0	0.1	20.0
1,1-Dichloropropene	Ave	0.2494	0.2581	0.0100	51.8	50.0	3.5	20.0
Carbon tetrachloride	Ave	0.2320	0.2311	0.1000	49.8	50.0	-0.4	20.0
Isobutyl alcohol	Ave	0.0053	0.0058	0.0010	1390	1250	11.2	20.0
Benzene	Ave	0.7386	0.7501	0.2000	50.8	50.0	1.6	20.0
1,2-Dichloroethane	Ave	0.2567	0.2476	0.0700	48.2	50.0	-3.5	20.0
n-Heptane	Lin2		0.1318		55.7	50.0	11.5	
Trichloroethene	Ave	0.1990	0.1945*	0.2000	48.9	50.0	-2.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653926/2 | Calibration Date: 05/18/2024 05:39

Instrument ID: VMS_MS11 | Calib Start Date: 05/17/2024 09:24

GC Column: RXI-624SilMS ID: 0.25(mm) | Calib End Date: 05/17/2024 12:18

Lab File ID: ms11_00011094.D | Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Pentanone	Ave	0.1057	0.0992	0.0010	150	160	-6.1	20.0
Methylcyclohexane	Lin1		0.1704	0.0500	52.6	50.0	5.2	20.0
1,2-Dichloropropane	Ave	0.1929	0.1933	0.1000	50.1	50.0	0.2	20.0
1,4-Dioxane	Ave	0.0027	0.0028	0.0010	1060	1000	5.8	20.0
Dibromomethane	Ave	0.1276	0.1268	0.0100	49.7	50.0	-0.6	20.0
Bromodichloromethane	Ave	0.2589	0.2596	0.2000	50.1	50.0	0.3	20.0
2-Chloroethyl vinyl ether	Ave	0.1044	0.1126	0.0100	53.9	50.0	7.9	20.0
cis-1,3-Dichloropropene	Ave	1.163	1.190	0.2000	51.2	50.0	2.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1426	0.1364	0.0300	191	200	-4.3	20.0
Toluene	Ave	0.8308	0.8351	0.3000	50.3	50.0	0.5	20.0
trans-1,3-Dichloropropene	Ave	0.2624	0.2744	0.2000	52.3	50.0	4.5	20.0
Ethyl methacrylate	Ave	0.9397	0.8735	0.0100	46.5	50.0	-7.0	20.0
1,1,2-Trichloroethane	Ave	0.1884	0.1807	0.1000	48.0	50.0	-4.1	20.0
Tetrachloroethene	Ave	0.5955	0.5866	0.1000	49.3	50.0	-1.5	20.0
1,3-Dichloropropane	Ave	1.238	1.239	0.0100	50.0	50.0	0.1	20.0
2-Hexanone	Ave	0.3946	0.3840	0.0100	195	200	-2.7	20.0
Dibromochloromethane	Ave	0.8049	0.7620	0.1000	47.3	50.0	-5.3	20.0
1,2-Dibromoethane	Ave	0.7657	0.7316	0.1000	47.8	50.0	-4.5	20.0
1-Chlorohexane	Lin2		0.9237	0.0100	40.8	40.0	2.1	20.0
Chlorobenzene	Ave	2.249	2.249	0.3000	50.0	50.0	0.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.7346	0.7067	0.0100	48.1	50.0	-3.8	20.0
Ethylbenzene	Ave	1.205	1.199	0.3000	49.8	50.0	-0.5	20.0
m-Xylene & p-Xylene	Ave	2.862	2.887	0.1000	50.4	50.0	0.9	20.0
o-Xylene	Ave	1.444	1.508	0.2000	52.2	50.0	4.5	20.0
Styrene	Ave	2.305	2.472	0.2000	53.6	50.0	7.2	20.0
Bromoform	Ave	0.5098	0.4932	0.1000	48.4	50.0	-3.3	20.0
Isopropylbenzene	Ave	1.895	1.845	0.3000	48.7	50.0	-2.6	20.0
Cyclohexanone	Ave	0.0376	0.0381	0.0010	1520	1500	1.2	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5899	0.5386	0.3000	45.7	50.0	-8.7	20.0
Bromobenzene	Ave	0.5218	0.5159	0.0100	49.4	50.0	-1.1	20.0
trans-1,4-Dichloro-2-butene	Lin2		0.1217	0.0100	46.8	50.0	-6.5	20.0
1,2,3-Trichloropropane	Ave	0.1731	0.1526	0.0100	44.1	50.0	-11.8	20.0
N-Propylbenzene	Ave	0.5660	0.5651	0.0100	49.9	50.0	-0.2	20.0
2-Chlorotoluene	Ave	0.5232	0.5170	0.0100	49.4	50.0	-1.2	20.0
1,3,5-Trimethylbenzene	Ave	1.646	1.723	0.0100	52.3	50.0	4.7	20.0
4-Chlorotoluene	Ave	0.5463	0.5545	0.0100	50.7	50.0	1.5	20.0
tert-Butylbenzene	Ave	1.385	1.393	0.0100	50.3	50.0	0.6	20.0
1,2,4-Trimethylbenzene	Ave	1.811	1.842	0.3000	50.9	50.0	1.7	20.0
sec-Butylbenzene	Ave	0.4306	0.4347	0.0100	50.5	50.0	1.0	20.0
1,3-Dichlorobenzene	Ave	1.044	1.056	0.5000	50.6	50.0	1.2	20.0
4-Isopropyltoluene	Ave	1.706	1.808	0.0100	53.0	50.0	6.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653926/2 Calibration Date: 05/18/2024 05:39

Instrument ID: VMS_MS11 Calib Start Date: 05/17/2024 09:24

GC Column: RXI-624SilMS ID: 0.25(mm) Calib End Date: 05/17/2024 12:18

Lab File ID: ms11_00011094.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dichlorobenzene	Ave	1.101	1.069	0.5000	48.5	50.0	-3.0	20.0
n-Butylbenzene	Ave	1.492	1.576	0.0100	52.8	50.0	5.6	20.0
1,2-Dichlorobenzene	Ave	0.9918	1.001	0.5000	50.5	50.0	0.9	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1121	0.1008	0.0100	44.9	50.0	-10.1	20.0
1,2,4-Trichlorobenzene	Ave	0.5641	0.5357	0.2000	47.5	50.0	-5.0	20.0
Hexachlorobutadiene	Ave	0.2062	0.2251	0.0100	54.6	50.0	9.1	20.0
Naphthalene	Ave	1.438	1.247	0.0100	43.4	50.0	-13.3	20.0
1,2,3-Trichlorobenzene	Ave	0.4621	0.4203	0.3000	45.5	50.0	-9.0	20.0
Dibromofluoromethane (Surr)	Ave	0.2573	0.2596	0.0100	50.5	50.0	0.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2803	0.2799	0.0100	49.9	50.0	-0.2	20.0
Toluene-d8 (Surr)	Ave	3.931	3.952	0.0100	50.3	50.0	0.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.8061	0.7826	0.0100	48.5	50.0	-2.9	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011094.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 18-May-2024 05:39:30 ALS Bottle#: 31 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ccvc m
Operator ID: bustillose Instrument ID: VMS_MS11
Sublist: chrom-AQ_VMS11_8260*sub1

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 18-May-2024 08:35:58 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1671

First Level Reviewer: BX8N Date: 18-May-2024 05:58:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.109	5.109	0.000	99	1224196	50.0	50.0	
* 2 Chlorobenzene-d5	119	7.637	7.637	0.000	85	311436	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	9.872	9.872	0.000	93	594870	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	111	4.607	4.607	0.000	93	317859	50.0	50.5	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.858	4.858	0.000	0	342604	50.0	49.9	
$ 6 Toluene-d8 (Surr)	98	6.366	6.366	0.000	93	1230708	50.0	50.3	
$ 7 4-Bromofluorobenzene (Surr)	95	8.741	8.741	0.000	91	465562	50.0	48.5	
9 Dichlorodifluoromethane	85	1.702	1.702	0.000	100	234689	50.0	65.1	
10 Chloromethane	50	1.869	1.869	0.000	99	231332	50.0	54.6	
11 Vinyl chloride	62	1.967	1.967	0.000	97	235420	50.0	49.1	
12 Bromomethane	94	2.232	2.232	0.000	89	146147	50.0	52.2	
13 Chloroethane	64	2.330	2.330	0.000	99	158866	50.0	51.4	
14 Dichlorofluoromethane	67	2.512	2.512	0.000	97	468279	50.0	50.4	
15 Trichlorofluoromethane	101	2.554	2.554	0.000	98	348951	50.0	54.8	
17 Ethyl ether	59	2.763	2.763	0.000	87	162228	50.0	49.8	
18 Acrolein	56	2.875	2.875	0.000	98	139921	493.8	469.8	
19 1,1-Dichloroethene	96	2.959	2.959	0.000	97	191417	50.0	51.4	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151	2.959	2.959	0.000	76	142355	50.0	53.4	
21 Acetone	43	2.973	2.973	0.000	100	212527	200.0	200.2	
23 Iodomethane	142	3.070	3.070	0.000	100	228198	50.0	51.1	
24 Carbon disulfide	76	3.140	3.140	0.000	99	599850	50.0	52.0	
26 Methyl acetate	43	3.196	3.196	0.000	96	255080	100.0	98.6	
27 3-Chloro-1-propene	41	3.224	3.224	0.000	87	247347	50.0	53.4	
28 Methylene Chloride	84	3.322	3.322	0.000	88	234325	50.0	50.3	
29 2-Methyl-2-propanol	59	3.364	3.364	0.000	99	159298	500.0	485.0	
30 Acrylonitrile	53	3.475	3.475	0.000	98	724464	500.0	486.4	
31 Methyl tert-butyl ether	73	3.503	3.503	0.000	94	588496	50.0	49.5	
32 trans-1,2-Dichloroethene	96	3.517	3.517	0.000	96	218015	50.0	50.5	
33 Hexane	57	3.713	3.713	0.000	88	230108	50.0	56.6	
34 Vinyl acetate	43	3.811	3.811	0.000	97	710114	100.0	107.5	
35 1,1-Dichloroethane	63	3.839	3.839	0.000	96	382207	50.0	50.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 2-Butanone (MEK)	43	4.216	4.216	0.000	100	345867	200.0	193.6	
41 cis-1,2-Dichloroethene	96	4.244	4.244	0.000	81	256217	50.0	50.9	
42 2,2-Dichloropropane	77	4.258	4.258	0.000	87	317425	50.0	53.1	
44 sec-Butyl Alcohol	45	4.341	4.341	0.000	98	300075	1200.0	1111.8	
46 Chlorobromomethane	128	4.425	4.425	0.000	86	125281	50.0	50.8	
47 Tetrahydrofuran	42	4.439	4.439	0.000	83	107523	100.0	93.5	
48 Chloroform	83	4.481	4.481	0.000	93	406307	50.0	50.1	
49 1,1,1-Trichloroethane	97	4.621	4.621	0.000	98	329758	50.0	49.4	
50 Cyclohexane	56	4.691	4.691	0.000	85	290502	50.0	50.1	
51 1,1-Dichloropropene	75	4.732	4.732	0.000	96	315981	50.0	51.8	
52 Carbon tetrachloride	117	4.746	4.746	0.000	95	282907	50.0	49.8	
53 Isobutyl alcohol	43	4.760	4.760	0.000	95	178791	1250.0	1389.8	
54 Benzene	78	4.886	4.886	0.000	96	918236	50.0	50.8	
55 1,2-Dichloroethane	62	4.914	4.914	0.000	97	303136	50.0	48.2	
57 n-Heptane	43	5.082	5.082	0.000	85	161316	50.0	55.7	
59 Trichloroethene	130	5.389	5.389	0.000	98	238114	50.0	48.9	
60 2-Pentanone	43	5.487	5.487	0.000	97	388795	160.0	150.3	
61 Methylcyclohexane	55	5.570	5.570	0.000	91	208609	50.0	52.6	
62 1,2-Dichloropropane	63	5.584	5.584	0.000	96	236592	50.0	50.1	
64 1,4-Dioxane	88	5.640	5.640	0.000	86	68977	1000.0	1058.3	
65 Dibromomethane	93	5.654	5.654	0.000	96	155282	50.0	49.7	
66 Dichlorobromomethane	83	5.780	5.780	0.000	99	317799	50.0	50.1	
68 2-Chloroethyl vinyl ether	63	5.989	5.989	0.000	91	137851	50.0	53.9	
69 cis-1,3-Dichloropropene	75	6.129	6.129	0.000	97	370631	50.0	51.2	
70 4-Methyl-2-pentanone (MIBK)	43	6.241	6.241	0.000	94	668076	200.0	191.4	
71 Toluene	91	6.422	6.422	0.000	98	1022380	50.0	50.3	
72 trans-1,3-Dichloropropene	75	6.604	6.604	0.000	96	335882	50.0	52.3	
73 Ethyl methacrylate	69	6.618	6.618	0.000	87	272052	50.0	46.5	
74 1,1,2-Trichloroethane	97	6.771	6.771	0.000	90	221159	50.0	48.0	
75 Tetrachloroethene	164	6.869	6.869	0.000	94	182699	50.0	49.3	
76 1,3-Dichloropropane	76	6.925	6.925	0.000	92	385894	50.0	50.0	
77 2-Hexanone	43	6.939	6.939	0.000	93	478366	200.0	194.6	
78 Chlorodibromomethane	129	7.121	7.121	0.000	90	237317	50.0	47.3	
79 Ethylene Dibromide	107	7.232	7.232	0.000	99	227855	50.0	47.8	
80 1-Chlorohexane	91	7.623	7.623	0.000	93	230142	40.0	40.8	
81 Chlorobenzene	112	7.665	7.665	0.000	96	700507	50.0	50.0	
82 1,1,1,2-Tetrachloroethane	131	7.735	7.735	0.000	94	220104	50.0	48.1	
83 Ethylbenzene	106	7.749	7.749	0.000	98	373501	50.0	49.8	
84 m-Xylene & p-Xylene	91	7.861	7.861	0.000	0	899259	50.0	50.4	
85 o-Xylene	106	8.224	8.224	0.000	95	469797	50.0	52.2	
86 Styrene	104	8.238	8.238	0.000	93	769866	50.0	53.6	
87 Bromoform	173	8.419	8.419	0.000	94	153609	50.0	48.4	
88 Isopropylbenzene	105	8.559	8.559	0.000	96	1097589	50.0	48.7	
90 Cyclohexanone	55	8.657	8.657	0.000	91	355562	1500.0	1518.5	
91 1,1,2,2-Tetrachloroethane	83	8.852	8.852	0.000	94	320404	50.0	45.7	
92 Bromobenzene	156	8.880	8.880	0.000	96	306866	50.0	49.4	
93 trans-1,4-Dichloro-2-butene	53	8.880	8.880	0.000	87	72412	50.0	46.8	
94 1,2,3-Trichloropropane	110	8.908	8.908	0.000	83	90804	50.0	44.1	
95 N-Propylbenzene	120	8.964	8.964	0.000	98	336166	50.0	49.9	
96 2-Chlorotoluene	126	9.062	9.062	0.000	97	307534	50.0	49.4	
97 1,3,5-Trimethylbenzene	105	9.132	9.132	0.000	93	1025195	50.0	52.3	
98 4-Chlorotoluene	126	9.174	9.174	0.000	98	329829	50.0	50.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
99 tert-Butylbenzene	119	9.439	9.439	0.000	92	828872	50.0	50.3	
100 1,2,4-Trimethylbenzene	105	9.509	9.509	0.000	97	1096045	50.0	50.9	
101 sec-Butylbenzene	134	9.662	9.662	0.000	94	258603	50.0	50.5	
102 1,3-Dichlorobenzene	146	9.788	9.788	0.000	97	628174	50.0	50.6	
103 4-Isopropyltoluene	119	9.816	9.816	0.000	96	1075409	50.0	53.0	
104 1,4-Dichlorobenzene	146	9.886	9.886	0.000	95	635733	50.0	48.5	
106 n-Butylbenzene	91	10.221	10.221	0.000	97	937807	50.0	52.8	
107 1,2-Dichlorobenzene	146	10.249	10.249	0.000	97	595438	50.0	50.5	
108 1,2-Dibromo-3-Chloropropane	157	11.031	11.031	0.000	88	59940	50.0	44.9	
110 1,2,4-Trichlorobenzene	180	11.855	11.855	0.000	95	318689	50.0	47.5	
111 Hexachlorobutadiene	225	11.995	11.995	0.000	98	133906	50.0	54.6	
112 Naphthalene	128	12.121	12.121	0.000	97	741824	50.0	43.4	
113 1,2,3-Trichlorobenzene	180	12.344	12.344	0.000	95	250021	50.0	45.5	
S 122 Xylenes, Total	106				0		100.0	102.7	
S 123 1,2-Dichloroethene, Total	1				0		100.0	101.4	
S 124 1,3-Dichloropropene, Total	1				0		100.0	103.4	
S 125 Trihalomethanes, Total	1				0		200.0	195.9	

QC Flag Legend

Processing Flags

Reagents:

MV-Gas A_00187	Amount Added: 10.00	Units: uL	
MV-MegaMainA_00108	Amount Added: 25.00	Units: uL	
mv-IS_SS_00079	Amount Added: 5.00	Units: uL	Run Reagent

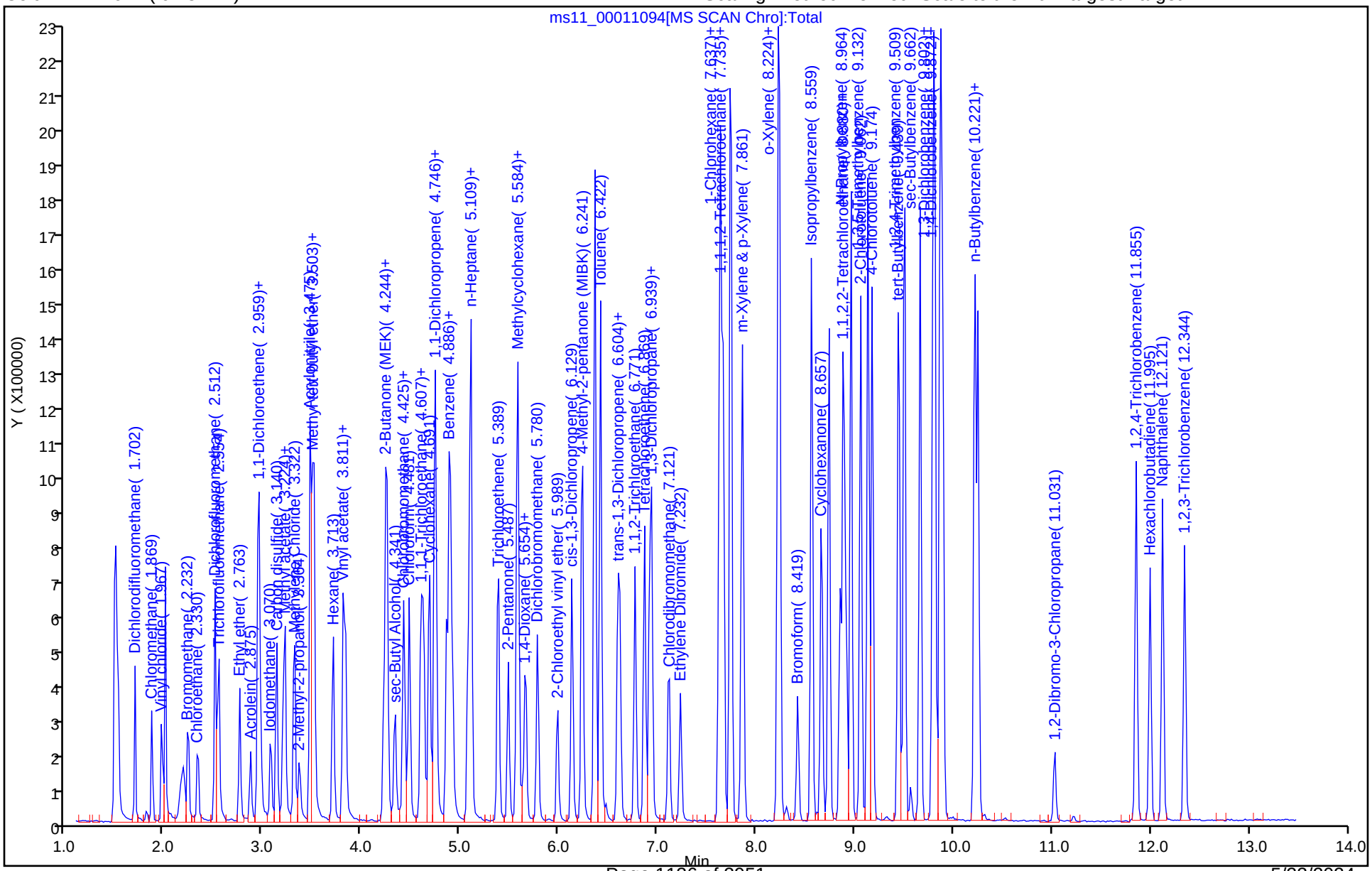
Report Date: 18-May-2024 08:35:59 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011094.D

Injection Date:	18-May-2024 05:39:30	Instrument ID:	VMS_MS11	Operator ID:	bustillose
Lims ID:	CCV			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	31
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVC 280-653926/39 | Calibration Date: 05/18/2024 16:25

Instrument ID: VMS_MS11 | Calib Start Date: 05/17/2024 09:24

GC Column: RXI-624SilMS ID: 0.25(mm) | Calib End Date: 05/17/2024 12:18

Lab File ID: ms11_00011124.D | Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1471	0.1901	0.1000	64.6	50.0	29.2	50.0
Chloromethane	Ave	0.1729	0.1762	0.1000	51.0	50.0	1.9	50.0
Vinyl chloride	Ave	0.1957	0.1803	0.0100	46.1	50.0	-7.9	50.0
Bromomethane	Ave	0.1143	0.0995	0.0100	43.5	50.0	-12.9	50.0
Chloroethane	Ave	0.1262	0.1112	0.0100	44.0	50.0	-11.9	50.0
Dichlorofluoromethane	Ave	0.3796	0.3374	0.0100	44.4	50.0	-11.1	50.0
Trichlorofluoromethane	Ave	0.2602	0.2346	0.0100	45.1	50.0	-9.9	50.0
Ethyl ether	Ave	0.1331	0.1365	0.0100	51.3	50.0	2.5	50.0
Acrolein	Ave	0.0122	0.0106	0.0010	431	494	-12.6	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1089	0.1022	0.0500	46.9	50.0	-6.2	50.0
1,1-Dichloroethene	Ave	0.1520	0.1386	0.0600	45.6	50.0	-8.8	50.0
Acetone	Lin2		0.0407	0.0100	187	200	-6.3	50.0
Iodomethane	Qua		0.1793	0.0100	49.4	50.0	-1.3	50.0
Carbon disulfide	Ave	0.4707	0.4308	0.1000	45.8	50.0	-8.5	50.0
Methyl acetate	Ave	0.1057	0.0994	0.0100	94.1	100	-5.9	50.0
3-Chloro-1-propene	Lin2		0.1742	0.0100	45.9	50.0	-8.1	50.0
Methylene Chloride	Ave	0.1902	0.1770	0.0100	46.5	50.0	-6.9	50.0
2-Methyl-2-propanol	Ave	0.0134	0.0126	0.0010	471	500	-5.8	50.0
Acrylonitrile	Ave	0.0608	0.0586	0.0100	482	500	-3.7	50.0
Methyl tert-butyl ether	Ave	0.4855	0.4776	0.1000	49.2	50.0	-1.6	50.0
trans-1,2-Dichloroethene	Ave	0.1764	0.1733	0.1000	49.1	50.0	-1.8	50.0
Hexane	Ave	0.6523	0.5736	0.0100	44.0	50.0	-12.1	50.0
Vinyl acetate	Ave	0.2698	0.1573	0.0100	58.3	100	-41.7	50.0
1,1-Dichloroethane	Ave	0.3096	0.2941	0.1000	47.5	50.0	-5.0	50.0
2-Butanone (MEK)	Ave	0.0730	0.0648	0.0100	178	200	-11.1	50.0
cis-1,2-Dichloroethene	Ave	0.2055	0.1936	0.1000	47.1	50.0	-5.8	50.0
2,2-Dichloropropane	Ave	0.2443	0.2043	0.0100	41.8	50.0	-16.4	50.0
sec-Butyl Alcohol	Lin1		0.0098*	0.0100	1070	1200	-11.2	50.0
Bromochloromethane	Ave	0.1008	0.0922	0.0500	45.7	50.0	-8.5	50.0
Tetrahydrofuran	Ave	0.0470	0.0410	0.0010	87.4	100	-12.6	50.0
Chloroform	Ave	0.3315	0.3054	0.2000	46.1	50.0	-7.9	50.0
1,1,1-Trichloroethane	Ave	0.2726	0.2507	0.0500	46.0	50.0	-8.0	50.0
Cyclohexane	Ave	0.2370	0.2103	0.0100	44.4	50.0	-11.2	50.0
1,1-Dichloropropene	Ave	0.2494	0.2292	0.0100	46.0	50.0	-8.1	50.0
Carbon tetrachloride	Ave	0.2320	0.2074	0.1000	44.7	50.0	-10.6	50.0
Isobutyl alcohol	Ave	0.0053	0.0058	0.0010	1380	1250	10.4	50.0
Benzene	Ave	0.7386	0.6824	0.2000	46.2	50.0	-7.6	50.0
1,2-Dichloroethane	Ave	0.2567	0.2391	0.0700	46.6	50.0	-6.9	50.0
n-Heptane	Lin2		0.1061		44.7	50.0	-10.7	
Trichloroethene	Ave	0.1990	0.2022	0.2000	50.8	50.0	1.6	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVC 280-653926/39 | Calibration Date: 05/18/2024 16:25

Instrument ID: VMS_MS11 | Calib Start Date: 05/17/2024 09:24

GC Column: RXI-624SilMS ID: 0.25(mm) | Calib End Date: 05/17/2024 12:18

Lab File ID: ms11_00011124.D | Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Pentanone	Ave	0.1057	0.1021	0.0010	155	160	-3.4	50.0
Methylcyclohexane	Lin1		0.1442	0.0500	44.5	50.0	-11.1	50.0
1,2-Dichloropropane	Ave	0.1929	0.1766	0.1000	45.8	50.0	-8.4	50.0
1,4-Dioxane	Ave	0.0027	0.0027	0.0010	1000	1000	0.0	50.0
Dibromomethane	Ave	0.1276	0.1234	0.0100	48.3	50.0	-3.3	50.0
Bromodichloromethane	Ave	0.2589	0.2394	0.2000	46.2	50.0	-7.5	50.0
2-Chloroethyl vinyl ether	Ave	0.1044	0.1090	0.0100	52.2	50.0	4.4	50.0
cis-1,3-Dichloropropene	Ave	1.163	1.095	0.2000	47.1	50.0	-5.9	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1426	0.1354	0.0300	190	200	-5.1	50.0
Toluene	Ave	0.8308	0.7562	0.3000	45.5	50.0	-9.0	50.0
trans-1,3-Dichloropropene	Ave	0.2624	0.2539	0.2000	48.4	50.0	-3.3	50.0
Ethyl methacrylate	Ave	0.9397	0.8383	0.0100	44.6	50.0	-10.8	50.0
1,1,2-Trichloroethane	Ave	0.1884	0.1756	0.1000	46.6	50.0	-6.7	50.0
Tetrachloroethene	Ave	0.5955	0.5278	0.1000	44.3	50.0	-11.4	50.0
1,3-Dichloropropane	Ave	1.238	1.156	0.0100	46.7	50.0	-6.6	50.0
2-Hexanone	Ave	0.3946	0.3795	0.0100	192	200	-3.8	50.0
Dibromochloromethane	Ave	0.8049	0.7534	0.1000	46.8	50.0	-6.4	50.0
1,2-Dibromoethane	Ave	0.7657	0.7063	0.1000	46.1	50.0	-7.8	50.0
1-Chlorohexane	Lin2		0.8669	0.0100	38.3	40.0	-4.3	50.0
Chlorobenzene	Ave	2.249	2.062	0.3000	45.8	50.0	-8.3	50.0
1,1,1,2-Tetrachloroethane	Ave	0.7346	0.7064	0.0100	48.1	50.0	-3.8	50.0
Ethylbenzene	Ave	1.205	1.110	0.3000	46.1	50.0	-7.9	50.0
m-Xylene & p-Xylene	Ave	2.862	2.627	0.1000	45.9	50.0	-8.2	50.0
o-Xylene	Ave	1.444	1.392	0.2000	48.2	50.0	-3.6	50.0
Styrene	Ave	2.305	2.293	0.2000	49.7	50.0	-0.5	50.0
Bromoform	Ave	0.5098	0.4589	0.1000	45.0	50.0	-10.0	50.0
Isopropylbenzene	Ave	1.895	1.802	0.3000	47.6	50.0	-4.9	50.0
Cyclohexanone	Ave	0.0376	0.0248	0.0010	991	1500	-33.9	50.0
1,1,2,2-Tetrachloroethane	Ave	0.5899	0.4805	0.3000	40.7	50.0	-18.5	50.0
Bromobenzene	Ave	0.5218	0.4954	0.0100	47.5	50.0	-5.1	50.0
trans-1,4-Dichloro-2-butene	Lin2		0.1022	0.0100	39.4	50.0	-21.2	50.0
1,2,3-Trichloropropane	Ave	0.1731	0.1536	0.0100	44.4	50.0	-11.2	50.0
N-Propylbenzene	Ave	0.5660	0.5287	0.0100	46.7	50.0	-6.6	50.0
2-Chlorotoluene	Ave	0.5232	0.4911	0.0100	46.9	50.0	-6.1	50.0
1,3,5-Trimethylbenzene	Ave	1.646	1.624	0.0100	49.3	50.0	-1.3	50.0
4-Chlorotoluene	Ave	0.5463	0.5231	0.0100	47.9	50.0	-4.2	50.0
tert-Butylbenzene	Ave	1.385	1.314	0.0100	47.4	50.0	-5.1	50.0
1,2,4-Trimethylbenzene	Ave	1.811	1.776	0.3000	49.0	50.0	-1.9	50.0
sec-Butylbenzene	Ave	0.4306	0.3945	0.0100	45.8	50.0	-8.4	50.0
1,3-Dichlorobenzene	Ave	1.044	0.9837	0.5000	47.1	50.0	-5.8	50.0
4-Isopropyltoluene	Ave	1.706	1.712	0.0100	50.2	50.0	0.4	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVC 280-653926/39 Calibration Date: 05/18/2024 16:25

Instrument ID: VMS_MS11 Calib Start Date: 05/17/2024 09:24

GC Column: RXI-624SilMS ID: 0.25(mm) Calib End Date: 05/17/2024 12:18

Lab File ID: ms11_00011124.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dichlorobenzene	Ave	1.101	1.030	0.5000	46.8	50.0	-6.5	50.0
n-Butylbenzene	Ave	1.492	1.438	0.0100	48.2	50.0	-3.6	50.0
1,2-Dichlorobenzene	Ave	0.9918	0.9811	0.5000	49.5	50.0	-1.1	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1121	0.1084	0.0100	48.4	50.0	-3.3	50.0
1,2,4-Trichlorobenzene	Ave	0.5641	0.5311	0.2000	47.1	50.0	-5.8	50.0
Hexachlorobutadiene	Ave	0.2062	0.1994	0.0100	48.3	50.0	-3.3	50.0
Naphthalene	Ave	1.438	1.386	0.0100	48.2	50.0	-3.6	50.0
1,2,3-Trichlorobenzene	Ave	0.4621	0.4468	0.3000	48.3	50.0	-3.3	50.0
Dibromofluoromethane (Surr)	Ave	0.2573	0.2543	0.0100	49.4	50.0	-1.2	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2803	0.2785	0.0100	49.7	50.0	-0.6	50.0
Toluene-d8 (Surr)	Ave	3.931	3.840	0.0100	48.8	50.0	-2.3	50.0
4-Bromofluorobenzene (Surr)	Ave	0.8061	0.8050	0.0100	49.9	50.0	-0.1	50.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011124.D
Lims ID: CCVC
Client ID:
Sample Type: CCVC
Inject. Date: 18-May-2024 16:25:30 ALS Bottle#: 26 Worklist Smp#: 39
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ccvc m
Operator ID: MED Instrument ID: VMS_MS11
Sublist: chrom-AQ_VMS11_8260*sub1

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-May-2024 15:06:17 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: BX8N Date: 19-May-2024 15:03:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.110	5.109	0.001	99	1281448	50.0	50.0	
* 2 Chlorobenzene-d5	119	7.637	7.637	0.000	85	326585	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	9.872	9.872	0.000	94	588117	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	111	4.607	4.607	0.000	93	325847	50.0	49.4	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.858	4.858	0.000	0	356923	50.0	49.7	
$ 6 Toluene-d8 (Surr)	98	6.366	6.366	0.000	92	1254002	50.0	48.8	
$ 7 4-Bromofluorobenzene (Surr)	95	8.741	8.741	0.000	91	473423	50.0	49.9	
9 Dichlorodifluoromethane	85	1.702	1.702	0.000	99	243645	50.0	64.6	
10 Chloromethane	50	1.869	1.869	0.000	99	225828	50.0	51.0	
11 Vinyl chloride	62	1.967	1.967	0.000	98	231003	50.0	46.1	
12 Bromomethane	94	2.260	2.232	0.028	90	127551	50.0	43.5	
13 Chloroethane	64	2.344	2.330	0.014	99	142453	50.0	44.0	
14 Dichlorofluoromethane	67	2.512	2.512	0.000	97	432321	50.0	44.4	
15 Trichlorofluoromethane	101	2.554	2.554	0.000	97	300595	50.0	45.1	
17 Ethyl ether	59	2.763	2.763	0.000	87	174873	50.0	51.3	
18 Acrolein	56	2.875	2.875	0.000	99	134519	493.8	431.5	
19 1,1-Dichloroethene	96	2.959	2.959	0.000	98	177644	50.0	45.6	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151	2.959	2.959	0.000	72	130906	50.0	46.9	
21 Acetone	43	2.973	2.973	0.000	100	208641	200.0	187.3	
23 Iodomethane	142	3.084	3.070	0.014	99	229818	50.0	49.4	
24 Carbon disulfide	76	3.140	3.140	0.000	99	552022	50.0	45.8	
26 Methyl acetate	43	3.196	3.196	0.000	97	254791	100.0	94.1	
27 3-Chloro-1-propene	41	3.224	3.224	0.000	88	223225	50.0	45.9	
28 Methylene Chloride	84	3.322	3.322	0.000	86	226839	50.0	46.5	
29 2-Methyl-2-propanol	59	3.364	3.364	0.000	99	161953	500.0	471.1	
30 Acrylonitrile	53	3.475	3.475	0.000	100	750746	500.0	481.5	
31 Methyl tert-butyl ether	73	3.503	3.503	0.000	93	612017	50.0	49.2	
32 trans-1,2-Dichloroethene	96	3.517	3.517	0.000	95	222058	50.0	49.1	
33 Hexane	57	3.713	3.713	0.000	89	187343	50.0	44.0	
34 Vinyl acetate	43	3.811	3.811	0.000	97	403196	100.0	58.3	
35 1,1-Dichloroethane	63	3.839	3.839	0.000	96	376936	50.0	47.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 2-Butanone (MEK)	43	4.230	4.216	0.014	97	332352	200.0	177.7	
41 cis-1,2-Dichloroethene	96	4.244	4.244	0.000	80	248083	50.0	47.1	
42 2,2-Dichloropropane	77	4.258	4.258	0.000	87	261763	50.0	41.8	
44 sec-Butyl Alcohol	45	4.327	4.341	-0.014	98	300612	1200.0	1065.4	
46 Chlorobromomethane	128	4.425	4.425	0.000	90	118152	50.0	45.7	
47 Tetrahydrofuran	42	4.439	4.439	0.000	81	105183	100.0	87.4	
48 Chloroform	83	4.481	4.481	0.000	93	391296	50.0	46.1	
49 1,1,1-Trichloroethane	97	4.635	4.621	0.014	97	321222	50.0	46.0	
50 Cyclohexane	56	4.691	4.691	0.001	86	269502	50.0	44.4	
51 1,1-Dichloropropene	75	4.746	4.732	0.014	97	293689	50.0	46.0	
52 Carbon tetrachloride	117	4.746	4.746	0.000	94	265778	50.0	44.7	
53 Isobutyl alcohol	43	4.760	4.760	0.000	95	185847	1250.0	1380.1	
54 Benzene	78	4.900	4.886	0.014	95	874431	50.0	46.2	
55 1,2-Dichloroethane	62	4.928	4.914	0.014	97	306343	50.0	46.6	
57 n-Heptane	43	5.082	5.082	0.000	87	135947	50.0	44.7	
59 Trichloroethene	130	5.389	5.389	0.000	96	259157	50.0	50.8	
60 2-Pentanone	43	5.487	5.487	0.000	98	418565	160.0	154.6	
61 Methylcyclohexane	55	5.570	5.570	0.000	90	184789	50.0	44.5	
62 1,2-Dichloropropane	63	5.584	5.584	0.000	92	226323	50.0	45.8	
64 1,4-Dioxane	88	5.626	5.640	-0.014	90	68269	1000.0	1000.7	
65 Dibromomethane	93	5.654	5.654	0.000	95	158081	50.0	48.3	
66 Dichlorobromomethane	83	5.780	5.780	0.000	99	306719	50.0	46.2	
68 2-Chloroethyl vinyl ether	63	5.989	5.989	0.000	90	139630	50.0	52.2	
69 cis-1,3-Dichloropropene	75	6.129	6.129	0.000	97	357508	50.0	47.1	
70 4-Methyl-2-pentanone (MIBK)	43	6.241	6.241	0.000	94	693896	200.0	189.9	
71 Toluene	91	6.422	6.422	0.000	98	969043	50.0	45.5	
72 trans-1,3-Dichloropropene	75	6.604	6.604	0.000	97	325362	50.0	48.4	
73 Ethyl methacrylate	69	6.618	6.618	0.000	87	273792	50.0	44.6	
74 1,1,2-Trichloroethane	97	6.772	6.771	0.001	89	225073	50.0	46.6	
75 Tetrachloroethene	164	6.869	6.869	0.000	95	172386	50.0	44.3	
76 1,3-Dichloropropane	76	6.925	6.925	0.000	88	377449	50.0	46.7	
77 2-Hexanone	43	6.939	6.939	0.000	93	495755	200.0	192.3	
78 Chlorodibromomethane	129	7.121	7.121	0.000	89	246064	50.0	46.8	
79 Ethylene Dibromide	107	7.232	7.232	0.000	99	230678	50.0	46.1	
80 1-Chlorohexane	91	7.623	7.623	0.000	91	226486	40.0	38.3	
81 Chlorobenzene	112	7.665	7.665	0.000	96	673458	50.0	45.8	
82 1,1,1,2-Tetrachloroethane	131	7.735	7.735	0.000	92	230711	50.0	48.1	
83 Ethylbenzene	106	7.749	7.749	0.000	98	362644	50.0	46.1	
84 m-Xylene & p-Xylene	91	7.861	7.861	0.000	0	857934	50.0	45.9	
85 o-Xylene	106	8.224	8.224	0.000	94	454764	50.0	48.2	
86 Styrene	104	8.238	8.238	0.000	94	748838	50.0	49.7	
87 Bromoform	173	8.420	8.419	0.001	94	149872	50.0	45.0	
88 Isopropylbenzene	105	8.559	8.559	0.000	96	1059830	50.0	47.6	
90 Cyclohexanone	55	8.657	8.657	0.000	91	243386	1500.0	991.2	
91 1,1,2,2-Tetrachloroethane	83	8.852	8.852	0.000	95	282600	50.0	40.7	
92 Bromobenzene	156	8.880	8.880	0.000	96	291353	50.0	47.5	
93 trans-1,4-Dichloro-2-butene	53	8.880	8.880	0.000	73	60089	50.0	39.4	
94 1,2,3-Trichloropropane	110	8.908	8.908	0.000	83	90340	50.0	44.4	
95 N-Propylbenzene	120	8.964	8.964	0.000	99	310964	50.0	46.7	
96 2-Chlorotoluene	126	9.062	9.062	0.000	97	288797	50.0	46.9	
97 1,3,5-Trimethylbenzene	105	9.132	9.132	0.000	95	955330	50.0	49.3	
98 4-Chlorotoluene	126	9.174	9.174	0.000	98	307672	50.0	47.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
99 tert-Butylbenzene	119	9.439	9.439	0.000	92	772697	50.0	47.4	
100 1,2,4-Trimethylbenzene	105	9.509	9.509	0.000	97	1044631	50.0	49.0	
101 sec-Butylbenzene	134	9.663	9.662	0.001	94	231994	50.0	45.8	
102 1,3-Dichlorobenzene	146	9.788	9.788	0.000	97	578549	50.0	47.1	
103 4-Isopropyltoluene	119	9.816	9.816	0.000	97	1006884	50.0	50.2	
104 1,4-Dichlorobenzene	146	9.886	9.886	0.000	96	605989	50.0	46.8	
106 n-Butylbenzene	91	10.221	10.221	0.000	97	845907	50.0	48.2	
107 1,2-Dichlorobenzene	146	10.249	10.249	0.000	98	576989	50.0	49.5	
108 1,2-Dibromo-3-Chloropropane	157	11.031	11.031	0.000	88	63759	50.0	48.4	
110 1,2,4-Trichlorobenzene	180	11.855	11.855	0.000	95	312339	50.0	47.1	
111 Hexachlorobutadiene	225	11.995	11.995	0.000	97	117252	50.0	48.3	
112 Naphthalene	128	12.121	12.121	0.000	97	815392	50.0	48.2	
113 1,2,3-Trichlorobenzene	180	12.344	12.344	0.000	95	262760	50.0	48.3	
S 122 Xylenes, Total	106				0		100.0	94.1	
S 123 1,2-Dichloroethene, Total	1				0		100.0	96.2	
S 124 1,3-Dichloropropene, Total	1				0		100.0	95.4	
S 125 Trihalomethanes, Total	1				0		200.0	184.1	
S 127 Total BTEX	1				0			231.9	

QC Flag Legend

Processing Flags

Reagents:

MV-Gas A_00187	Amount Added:	10.00	Units: uL	
MV-MegaMainA_00108	Amount Added:	25.00	Units: uL	
mv-IS_SS_00079	Amount Added:	5.00	Units: uL	Run Reagent

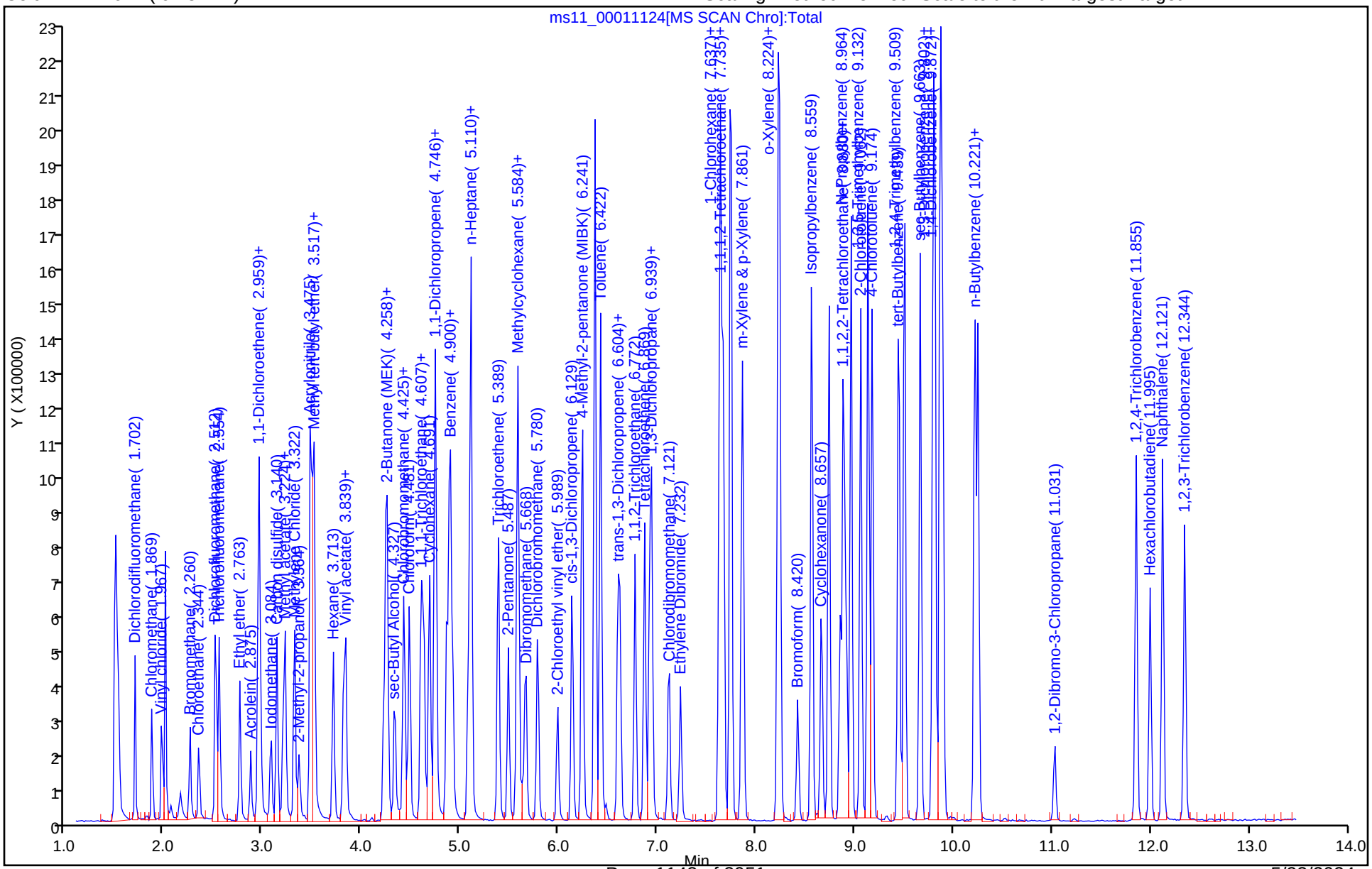
Report Date: 19-May-2024 15:06:18 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011124.D

Injection Date:	18-May-2024 16:25:30	Instrument ID:	VMS_MS11	Operator ID:	MED
Lims ID:	CCVC			Worklist Smp#:	39
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011035.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	17-May-2024 07:14:30	ALS Bottle#:	100	Worklist Smp#:	1
Injection Vol:	2.0 uL	Dil. Factor:	1.0000		
Sample Info:	ccvc m				
Operator ID:	MED	Instrument ID:	VMS_MS11		
Method:	\\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\AQ_VMS11_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	17-May-2024 18:09:59	Calib Date:	17-May-2024 15:59:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D				
Column 1 :	DB-624 (0.25 mm)		Det: MS SCAN		
Process Host:	CTX1621				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 8 BFB	95	8.741	8.741	0.000	88	400796	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

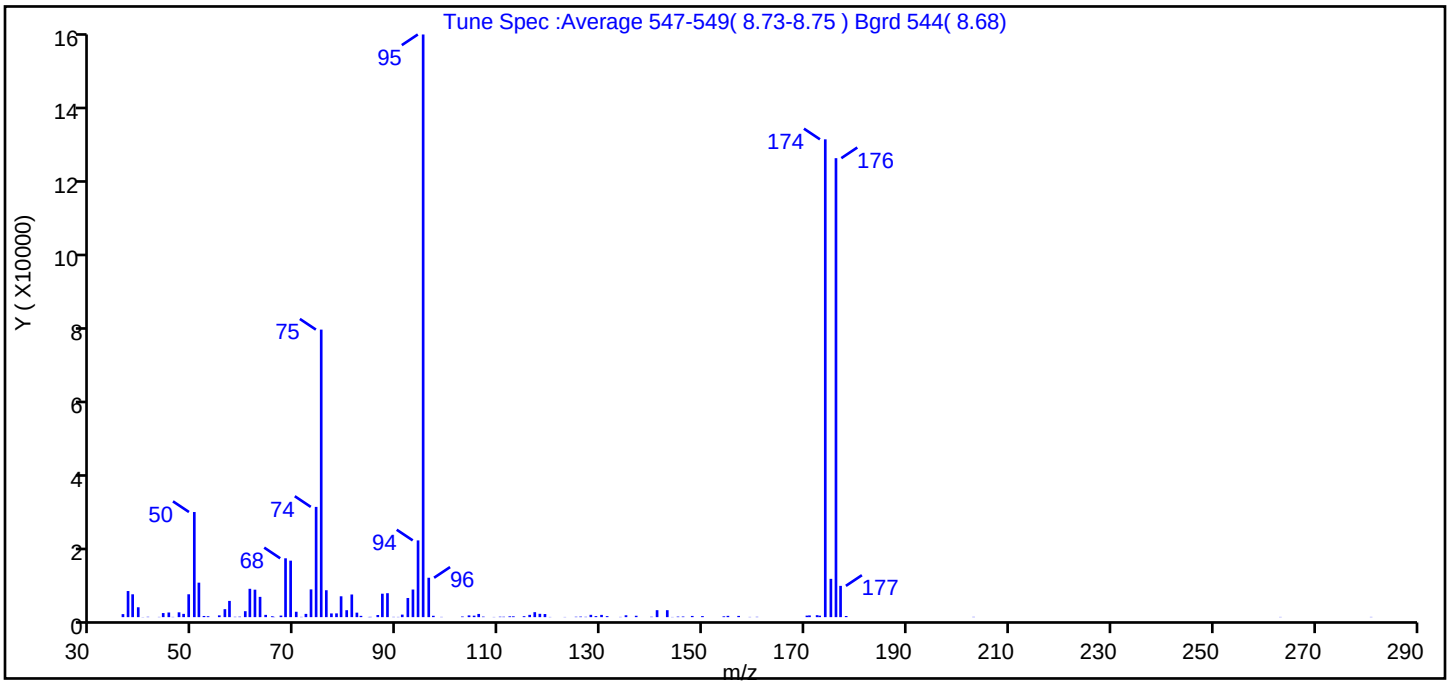
mv-Cent BFB_00007 Amount Added: 5.00 Units: uL

MS Tune Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011035.D
Injection Date: 17-May-2024 07:14:30 Instrument ID: VMS_MS11
Lims ID: BFB
Client ID:
Operator ID: MED ALS Bottle#: 100 Worklist Smp#: 1
Injection Vol: 2.0 uL Dil. Factor: 1.0000
Method: AQ_VMS11_8260 Limit Group: MSV - 8260B Water and Solid
Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.0
75	30 to 60% of m/z 95	49.3
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.3 (0.3)
174	50 to 120% of m/z 95	82.0
175	5 to 9% of m/z 174	6.6 (8.0)
176	Greater than 95% but less than 101% of m/z 174	78.8 (96.1)
177	5 to 9% of m/z 176	5.4 (6.8)

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011035.D\AQ_VMS11_8260.rslt\
Injection Date: 17-May-2024 07:14:30
Spectrum: Tune Spec :Average 547-549(8.73-8.75) Bgrd 544(8.68)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 113

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	801	67.00	410	96.00	10385	137.00	368
37.00	6882	68.00	15513	97.00	358	140.00	110
38.00	6026	69.00	14890	99.00	64	141.00	1835
39.00	2602	70.00	1423	103.00	168	143.00	1835
40.00	39	71.00	70	104.00	460	144.00	50
41.00	92	72.00	863	105.00	391	145.00	145
43.00	62	73.00	7318	106.00	845	146.00	163
44.00	1078	74.00	29064	107.00	143	148.00	317
45.00	1222	75.00	75800	109.00	52	150.00	273
46.00	61	76.00	7095	110.00	119	154.00	218
47.00	1265	77.00	980	111.00	108	155.00	339
48.00	863	78.00	991	112.00	218	157.00	325
49.00	6028	79.00	5499	113.00	217	159.00	59
50.00	27712	80.00	1830	115.00	251	160.00	85
51.00	9089	81.00	5973	116.00	600	170.00	400
52.00	306	82.00	1183	117.00	1313	171.00	452
53.00	242	83.00	341	118.00	877	172.00	511
55.00	466	84.00	56	119.00	825	173.00	389
56.00	2102	85.00	70	120.00	53	174.00	125960
57.00	4280	86.00	560	123.00	50	175.00	10096
58.00	93	87.00	6182	125.00	106	176.00	120992
59.00	127	88.00	6310	126.00	149	177.00	8246
60.00	1568	89.00	72	127.00	88	178.00	302
61.00	7472	90.00	61	128.00	610	203.00	72
62.00	7237	91.00	668	129.00	274	263.00	55
63.00	5347	92.00	5052	130.00	593	281.00	59
64.00	600	93.00	7281	131.00	264		
65.00	226	94.00	20232	134.00	62		
66.00	70	95.00	153600	135.00	488		

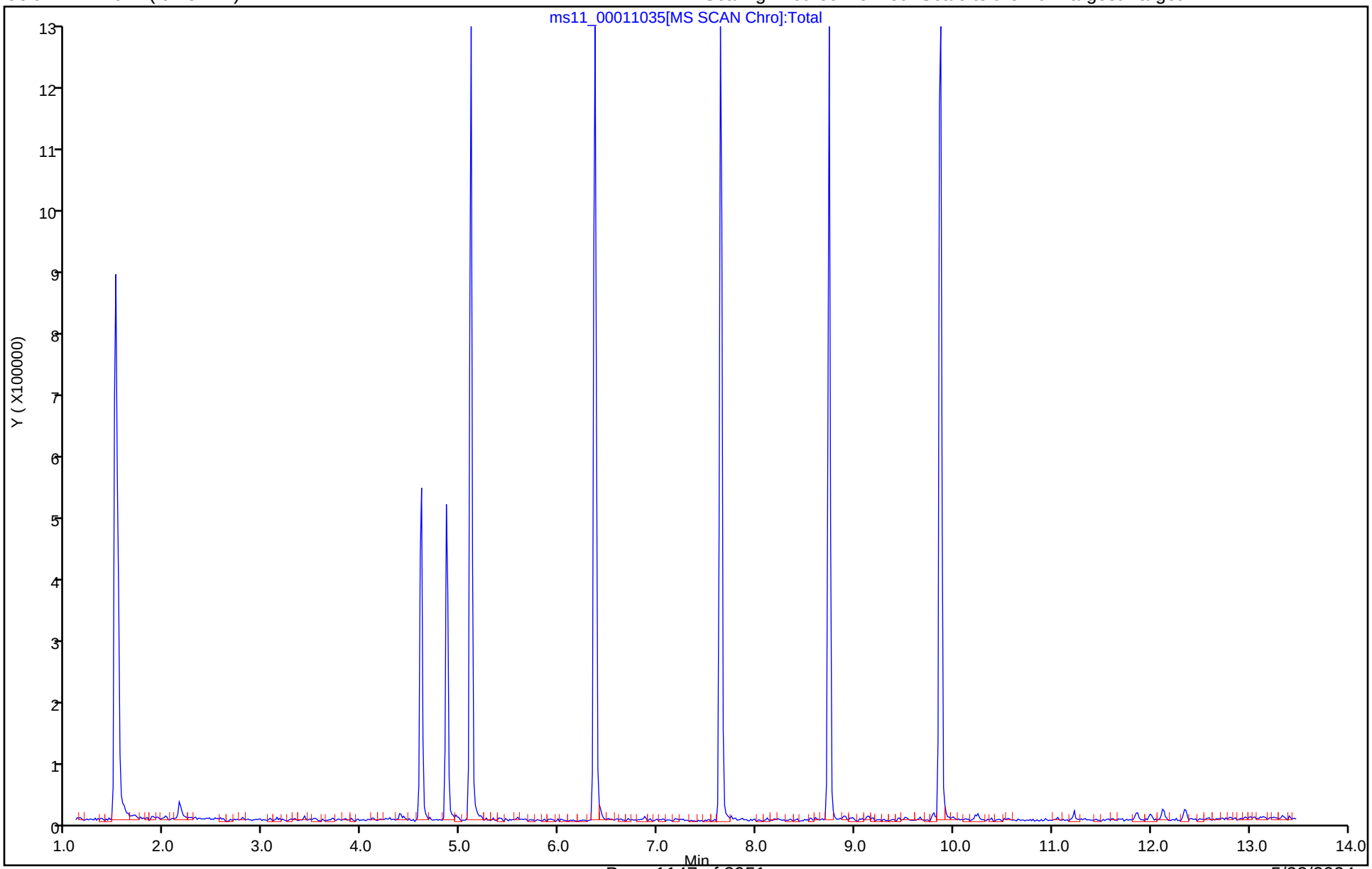
Report Date: 17-May-2024 18:09:59 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011035.D

Injection Date:	17-May-2024 07:14:30	Instrument ID:	VMS_MS11	Operator ID:	MED
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	2.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	100
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011093A.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	18-May-2024 05:17:30	ALS Bottle#:	30	Worklist Smp#:	1
Injection Vol:	2.0 uL	Dil. Factor:	1.0000		
Sample Info:	ccvc m				
Operator ID:	bustillose	Instrument ID:	VMS_MS11		
Method:	\\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\AQ_VMS11_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	18-May-2024 08:35:57	Calib Date:	17-May-2024 15:59:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D				
Column 1 :	DB-624 (0.25 mm)		Det: MS SCAN		
Process Host:	CTX1671				
First Level Reviewer: BX8N		Date:	18-May-2024 05:59:12		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 8 BFB	95	8.741	8.741	0.000	90	452004	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

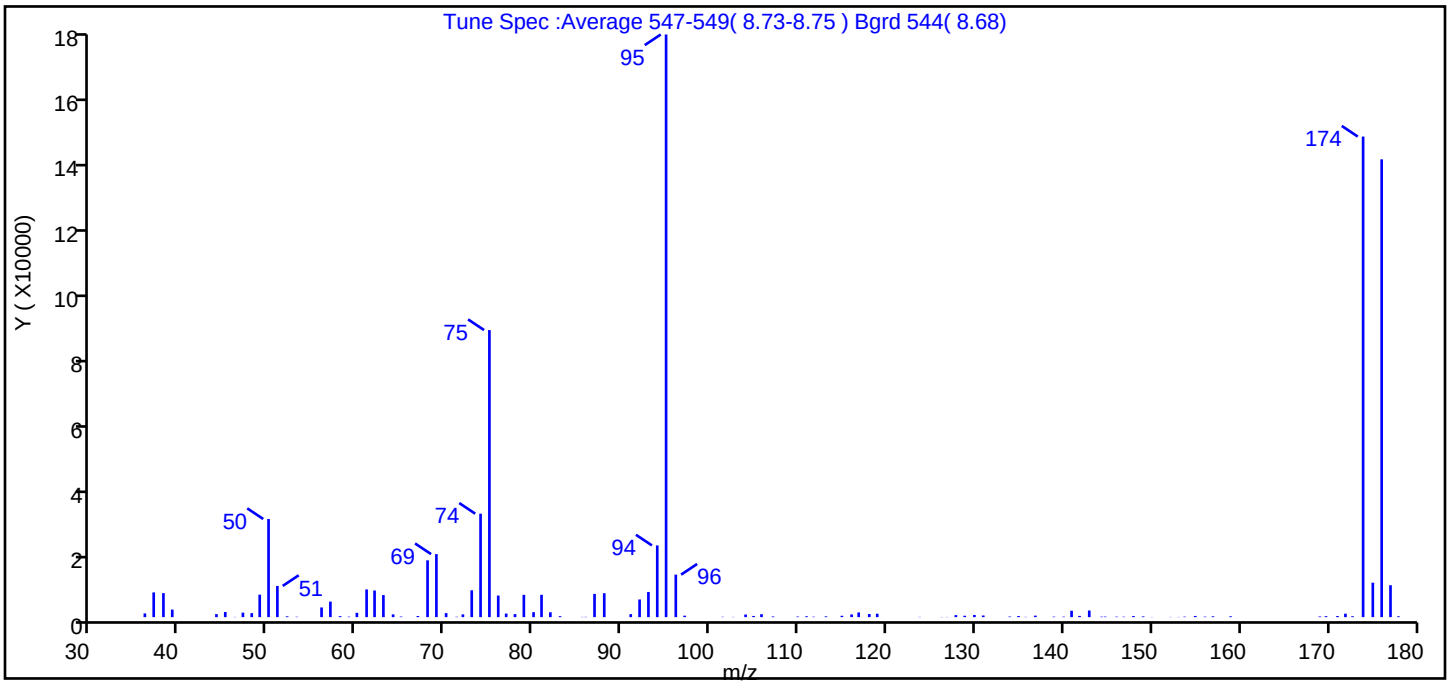
mv-Cent BFB_00007 Amount Added: 5.00 Units: uL

MS Tune Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011093A.D
Injection Date: 18-May-2024 05:17:30 Instrument ID: VMS_MS11
Lims ID: BFB
Client ID:
Operator ID: bustillose ALS Bottle#: 30 Worklist Smp#: 1
Injection Vol: 2.0 uL Dil. Factor: 1.0000
Method: AQ_VMS11_8260 Limit Group: MSV - 8260B Water and Solid
Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.8
75	30 to 60% of m/z 95	49.3
96	5 to 9% of m/z 95	7.3
173	Less than 2% of m/z 174	0.2 (0.2)
174	50 to 120% of m/z 95	82.5
175	5 to 9% of m/z 174	5.9 (7.2)
176	Greater than 95% but less than 101% of m/z 174	78.6 (95.3)
177	5 to 9% of m/z 176	5.5 (7.0)

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011093A.D\AQ_VMS11_8260.rsl
Injection Date: 18-May-2024 05:17:30
Spectrum: Tune Spec :Average 547-549(8.73-8.75) Bgrd 544(8.68)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 107

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1097	70.00	1192	104.00	773	142.00	361
37.00	7301	71.00	112	105.00	354	143.00	1960
38.00	7091	72.00	822	106.00	868	144.00	141
39.00	2237	73.00	7931	107.00	196	145.00	157
44.00	891	74.00	30544	110.00	175	146.00	141
45.00	1519	75.00	84760	111.00	258	147.00	126
46.00	66	76.00	6371	112.00	132	148.00	317
47.00	1327	77.00	1054	113.00	236	149.00	215
48.00	1189	78.00	893	115.00	405	150.00	51
49.00	6640	79.00	6584	116.00	798	152.00	59
50.00	28976	80.00	1477	117.00	1381	153.00	51
51.00	9215	81.00	6601	118.00	929	154.00	144
52.00	245	82.00	1436	119.00	1010	155.00	354
53.00	111	83.00	282	124.00	70	156.00	149
56.00	2866	86.00	69	126.00	51	157.00	246
57.00	4586	86.00	85	127.00	58	159.00	249
58.00	283	87.00	6866	128.00	600	169.00	200
59.00	136	88.00	7059	129.00	415	170.00	285
60.00	1277	91.00	885	130.00	641	171.00	325
61.00	8182	92.00	5216	131.00	486	172.00	1019
62.00	7869	93.00	7436	134.00	174	173.00	266
63.00	6513	94.00	21176	135.00	332	174.00	141888
64.00	819	95.00	172032	136.00	78	175.00	10173
65.00	170	96.00	12549	137.00	444	176.00	135168
67.00	328	97.00	433	139.00	150	177.00	9427
68.00	16776	101.00	95	140.00	142	178.00	245
69.00	18608	103.00	66	141.00	1887		

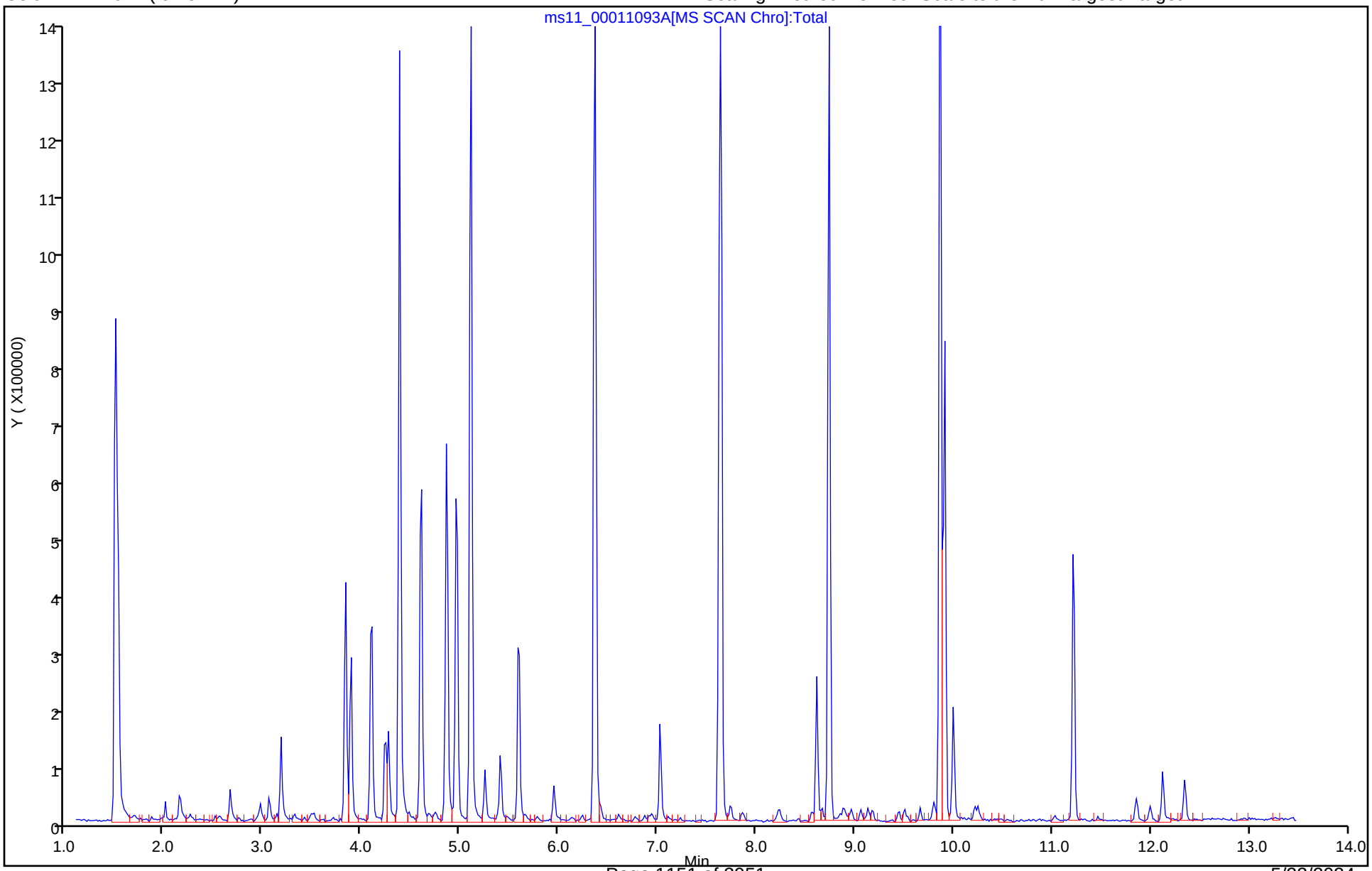
Report Date: 18-May-2024 08:35:58 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011093A.D

Injection Date:	18-May-2024 05:17:30	Instrument ID:	VMS_MS11	Operator ID:	bustillose
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	2.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	30
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



5/23/2024
4:40:30 AM

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-653926/9

Matrix: Water | Lab File ID: ms11_00011098.D

Analysis Method: 8260D | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2024 07:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RXI-624SilMS ID: 0.25(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) Y pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 653926 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
71-55-6	1,1,1-Trichloroethane	0.50	U	1.0	0.50	0.39
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.21
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.27
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.22
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.23
106-93-4	1,2-Dibromoethane	0.80	U	1.0	0.80	0.18
107-06-2	1,2-Dichloroethane	0.50	U M	1.0	0.50	0.28
540-59-0	1,2-Dichloroethene, Total	0.40	U	1.0	0.40	0.32
78-87-5	1,2-Dichloropropane	0.80	U	1.0	0.80	0.24
78-93-3	2-Butanone (MEK)	8.0	U	10	8.0	4.6
591-78-6	2-Hexanone	4.0	U	5.0	4.0	0.81
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	0.98
67-64-1	Acetone	8.0	U	15	8.0	6.6
71-43-2	Benzene	0.80	U	1.0	0.80	0.14
74-97-5	Bromochloromethane	0.80	U	1.0	0.80	0.40
75-27-4	Bromodichloromethane	0.50	U	1.0	0.50	0.19
75-25-2	Bromoform	1.8	U	2.0	1.8	0.25
74-83-9	Bromomethane	4.0	U M	5.0	4.0	2.4
75-15-0	Carbon disulfide	0.80	U M	2.0	0.80	0.26
56-23-5	Carbon tetrachloride	0.50	U	1.0	0.50	0.23
108-90-7	Chlorobenzene	0.80	U	1.0	0.80	0.092
75-00-3	Chloroethane	1.0	U	2.0	1.0	0.64
67-66-3	Chloroform	0.80	U	1.0	0.80	0.36
74-87-3	Chloromethane	1.0	U	2.0	1.0	0.23
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
124-48-1	Dibromochloromethane	0.50	U	1.0	0.50	0.28
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.14
75-09-2	Methylene Chloride	1.8	U	2.0	1.8	0.94
100-42-5	Styrene	0.80	U	1.0	0.80	0.13
127-18-4	Tetrachloroethene	0.80	U	1.0	0.80	0.40
108-88-3	Toluene	0.40	U	1.0	0.40	0.32
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.14
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.30
75-01-4	Vinyl chloride	0.40	U	1.0	0.40	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-653926/9

Matrix: Water | Lab File ID: ms11_00011098.D

Analysis Method: 8260D | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2024 07:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RXI-624SilMS ID: 0.25(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) Y pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 653926 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1330-20-7	Xylenes, Total	0.80	U	1.0	0.80	0.11

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		81-118
460-00-4	4-Bromofluorobenzene (Surr)	102		85-114
1868-53-7	Dibromofluoromethane (Surr)	101		80-119
2037-26-5	Toluene-d8 (Surr)	99		89-112

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011098.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 18-May-2024 07:06:30 ALS Bottle#: 5 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: mb
Operator ID: MED Instrument ID: VMS_MS11

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 18-May-2024 08:37:48 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1671

First Level Reviewer: BX8N Date: 18-May-2024 08:37:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.110	5.109	0.001	99	1231391	50.0	50.0	
* 2 Chlorobenzene-d5	119	7.637	7.637	0.000	85	308506	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	9.872	9.872	0.000	95	524726	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	111	4.607	4.607	0.000	93	321448	50.0	50.7	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.858	4.858	0.000	0	346403	50.0	50.2	
$ 6 Toluene-d8 (Surr)	98	6.366	6.366	0.000	92	1203312	50.0	49.6	
$ 7 4-Bromofluorobenzene (Surr)	95	8.741	8.741	0.000	91	432220	50.0	51.1	
$ 8 BFB	95	8.741	8.741	0.000	90	432220		NR	
9 Dichlorodifluoromethane	85		1.702					ND	
10 Chloromethane	50		1.869					ND	
11 Vinyl chloride	62		1.967					ND	
12 Bromomethane	94		2.232					ND	U
13 Chloroethane	64		2.330					ND	
14 Dichlorofluoromethane	67		2.512					ND	
15 Trichlorofluoromethane	101		2.554					ND	
16 Ethanol	45		2.666					ND	
17 Ethyl ether	59		2.763					ND	
18 Acrolein	56		2.875					ND	
19 1,1-Dichloroethene	96		2.959					ND	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151		2.959					ND	
21 Acetone	43		2.973					ND	
22 Isopropyl alcohol	45		3.057					ND	U
23 Iodomethane	142		3.070					ND	
24 Carbon disulfide	76		3.140					ND	U
25 Acetonitrile	41		3.182					ND	7
26 Methyl acetate	43		3.196					ND	
27 3-Chloro-1-propene	41		3.224					ND	U
28 Methylene Chloride	84		3.322					ND	
29 2-Methyl-2-propanol	59		3.364					ND	
30 Acrylonitrile	53		3.475					ND	
31 Methyl tert-butyl ether	73		3.503					ND	
32 trans-1,2-Dichloroethene	96		3.517					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
33 Hexane	57		3.713					ND	
34 Vinyl acetate	43		3.811					ND	
35 1,1-Dichloroethane	63		3.839					ND	
36 Isopropyl ether	87		3.839					ND	
37 2-Chloro-1,3-butadiene	53		3.895					ND	
38 Tert-butyl ethyl ether	59		4.104					ND	
39 2-Butanone (MEK)	43		4.216					ND	
40 Ethyl acetate	43		4.230					ND	U
41 cis-1,2-Dichloroethene	96		4.244					ND	
42 2,2-Dichloropropane	77		4.258					ND	
43 Propionitrile	54		4.272					ND	
44 sec-Butyl Alcohol	45		4.341					ND	
45 Methacrylonitrile	41		4.383					ND	
46 Chlorobromomethane	128		4.425					ND	
47 Tetrahydrofuran	42		4.439					ND	
48 Chloroform	83		4.481					ND	
49 1,1,1-Trichloroethane	97		4.621					ND	
50 Cyclohexane	56		4.691					ND	
51 1,1-Dichloropropene	75		4.732					ND	
52 Carbon tetrachloride	117		4.746					ND	
53 Isobutyl alcohol	43		4.760					ND	
54 Benzene	78		4.886					ND	
55 1,2-Dichloroethane	62		4.914					ND	U
56 Tert-amyl methyl ether	73		4.956					ND	
57 n-Heptane	43		5.082					ND	
58 n-Butanol	56		5.249					ND	
59 Trichloroethene	130		5.389					ND	
60 2-Pentanone	43		5.487					ND	
61 Methylcyclohexane	55		5.570					ND	
62 1,2-Dichloropropane	63		5.584					ND	
63 Methyl methacrylate	100		5.598					ND	
64 1,4-Dioxane	88		5.640					ND	
65 Dibromomethane	93		5.654					ND	
66 Dichlorobromomethane	83		5.780					ND	
67 2-Nitropropane	41		5.948					ND	U
68 2-Chloroethyl vinyl ether	63		5.989					ND	
69 cis-1,3-Dichloropropene	75		6.129					ND	
70 4-Methyl-2-pentanone (MIBK)	43		6.241					ND	
71 Toluene	91		6.422					ND	
72 trans-1,3-Dichloropropene	75		6.604					ND	
73 Ethyl methacrylate	69		6.618					ND	
74 1,1,2-Trichloroethane	97		6.771					ND	
75 Tetrachloroethene	164		6.869					ND	
76 1,3-Dichloropropane	76		6.925					ND	
77 2-Hexanone	43		6.939					ND	
78 Chlorodibromomethane	129		7.121					ND	
79 Ethylene Dibromide	107		7.232					ND	
80 1-Chlorohexane	91		7.623					ND	7
81 Chlorobenzene	112		7.665					ND	
82 1,1,1,2-Tetrachloroethane	131		7.735					ND	
83 Ethylbenzene	106		7.749					ND	
84 m-Xylene & p-Xylene	91		7.861					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 o-Xylene	106		8.224					ND	
86 Styrene	104		8.238					ND	
87 Bromoform	173		8.419					ND	
88 Isopropylbenzene	105		8.559					ND	
89 cis-1,4-Dichloro-2-butene	53		8.615					ND	U
90 Cyclohexanone	55		8.657					ND	
91 1,1,2,2-Tetrachloroethane	83		8.852					ND	
92 Bromobenzene	156		8.880					ND	
93 trans-1,4-Dichloro-2-butene	53		8.880					ND	
94 1,2,3-Trichloropropane	110		8.908					ND	
95 N-Propylbenzene	120		8.964					ND	
96 2-Chlorotoluene	126		9.062					ND	
97 1,3,5-Trimethylbenzene	105		9.132					ND	
98 4-Chlorotoluene	126		9.174					ND	
99 tert-Butylbenzene	119		9.439					ND	
100 1,2,4-Trimethylbenzene	105		9.509					ND	
101 sec-Butylbenzene	134		9.662					ND	
102 1,3-Dichlorobenzene	146		9.788					ND	
103 4-Isopropyltoluene	119		9.816					ND	
104 1,4-Dichlorobenzene	146		9.886					ND	U
105 1,2,3-Trimethylbenzene	105		9.914					ND	
106 n-Butylbenzene	91		10.221					ND	
107 1,2-Dichlorobenzene	146		10.249					ND	
108 1,2-Dibromo-3-Chloropropane	157		11.031					ND	
109 1,3,5-Trichlorobenzene	180		11.213					ND	
110 1,2,4-Trichlorobenzene	180	11.869	11.855	0.014	5	1352		0.2284	
111 Hexachlorobutadiene	225		11.995					ND	
112 Naphthalene	128		12.121					ND	
113 1,2,3-Trichlorobenzene	180	12.358	12.344	0.014	76	1280		0.2640	
114 Methyl cyclohexane TIC	1		0.000					ND	
115 Ethylene oxide TIC	1		0.000					ND	
116 1-Chlorohexane TIC	1		0.000					ND	
117 1-Chloro-1-fluoroethane TIC	1		0.000					ND	
118 Pentachloroethane	167		0.000					ND	
119 t-Amyl alcohol	1		0.000					ND	
120 Ethyl acrylate	55		0.000					ND	
121 Tetrahydrothiophene TIC	1		0.000					ND	
S 122 Xylenes, Total	106		0.000					ND	7
S 123 1,2-Dichloroethene, Total	1		0.000					ND	7
S 124 1,3-Dichloropropene, Total	1		0.000					ND	7
S 125 Trihalomethanes, Total	1		0.000					ND	7
S 126 TAH	1				0			0	7
S 127 Total BTEX	1		0.000					ND	7

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

Review Flags
U - Marked Undetected

Reagents:

mv-IS_SS_00079 Amount Added: 5.00 Units: uL Run Reagent

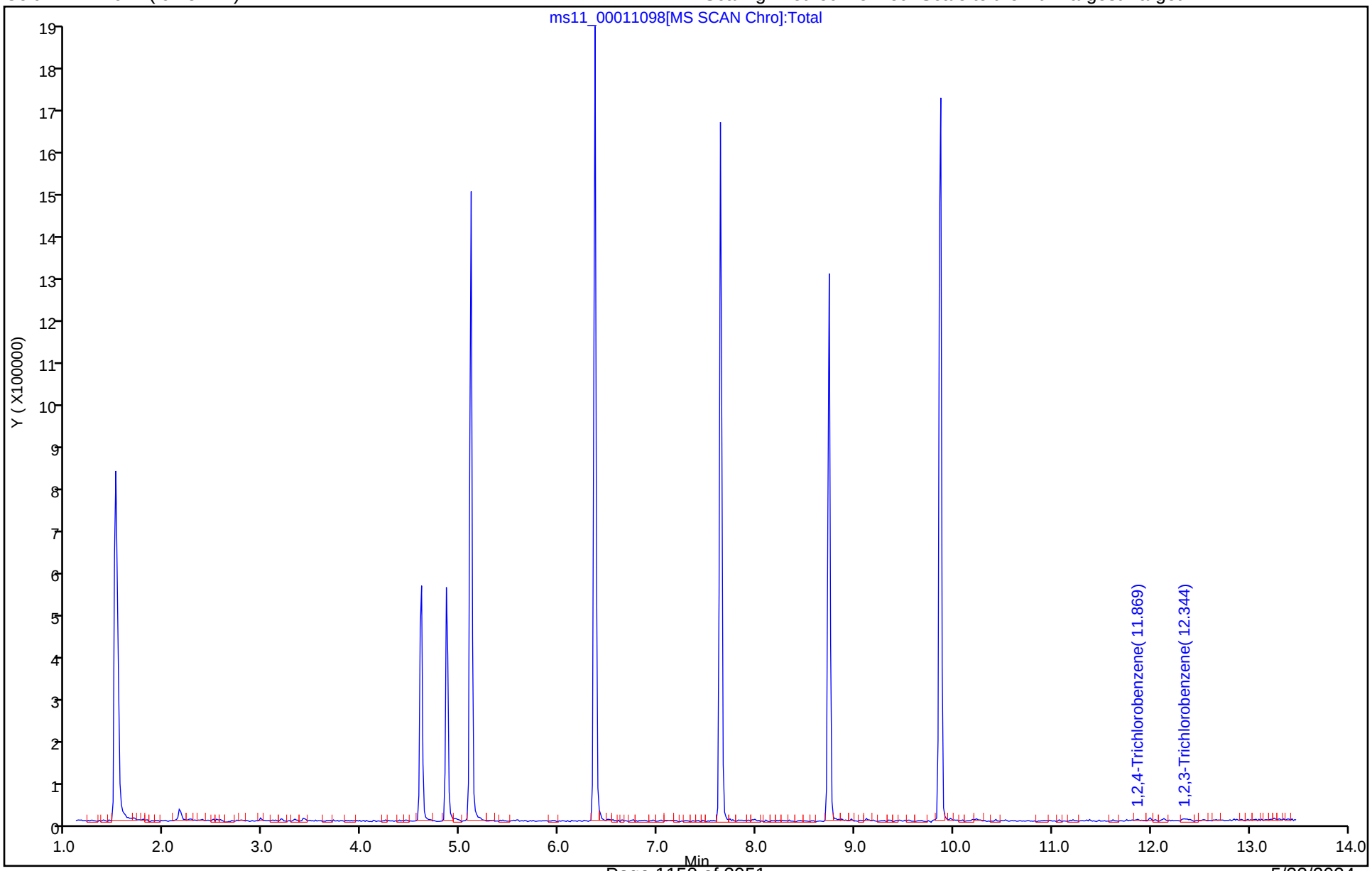
Report Date: 18-May-2024 08:38:44 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011098.D

Injection Date:	18-May-2024 07:06:30	Instrument ID:	VMS_MS11	Operator ID:	MED
Lims ID:	MB			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011098.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 18-May-2024 07:06:30 ALS Bottle#: 5 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: mb
Operator ID: MED Instrument ID: VMS_MS11

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 18-May-2024 08:37:48 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1671

First Level Reviewer: BX8N Date: 18-May-2024 08:37:48

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	50.0	50.7	101.46
$ 5 1,2-Dichloroethane-d4 (Surr)	50.0	50.2	100.34
$ 6 Toluene-d8 (Surr)	50.0	49.6	99.22
$ 7 4-Bromofluorobenzene (Surr)	50.0	51.1	102.18

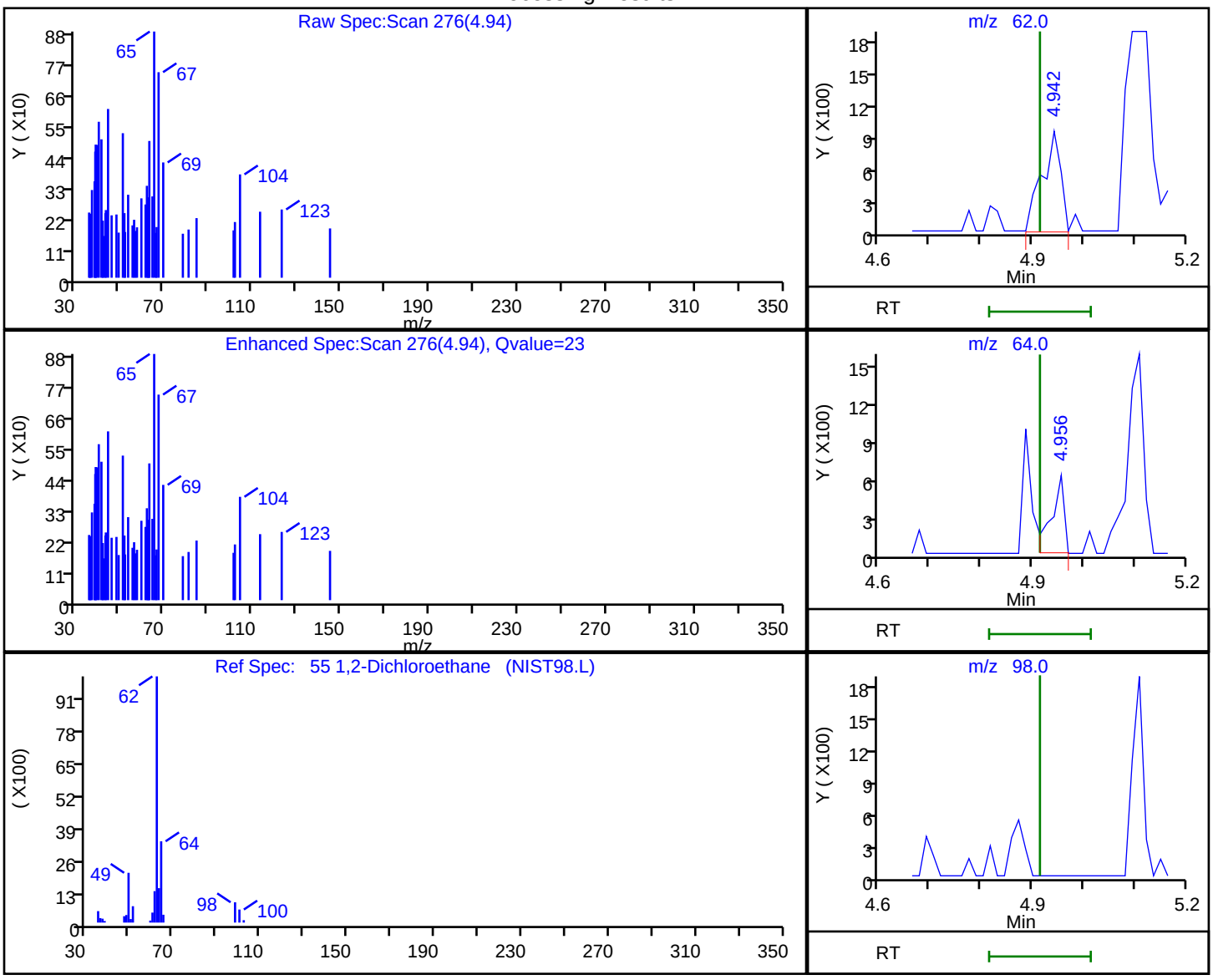
User Disabled Compound Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011098.D
Injection Date: 18-May-2024 07:06:30 Instrument ID: VMS_MS11
Lims ID: MB
Client ID:
Operator ID: MED ALS Bottle#: 5 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMS11_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (0.25 mm) Detector MS SCAN

55 1,2-Dichloroethane, CAS: 107-06-2

Processing Results



RT	Mass	Response	Amount
4.94	62.00	2307	0.364927
4.96	64.00	1092	
4.91	98.00	0	

Reviewer: BX8N, 18-May-2024 08:37:18 -06:00:00 (UTC)
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

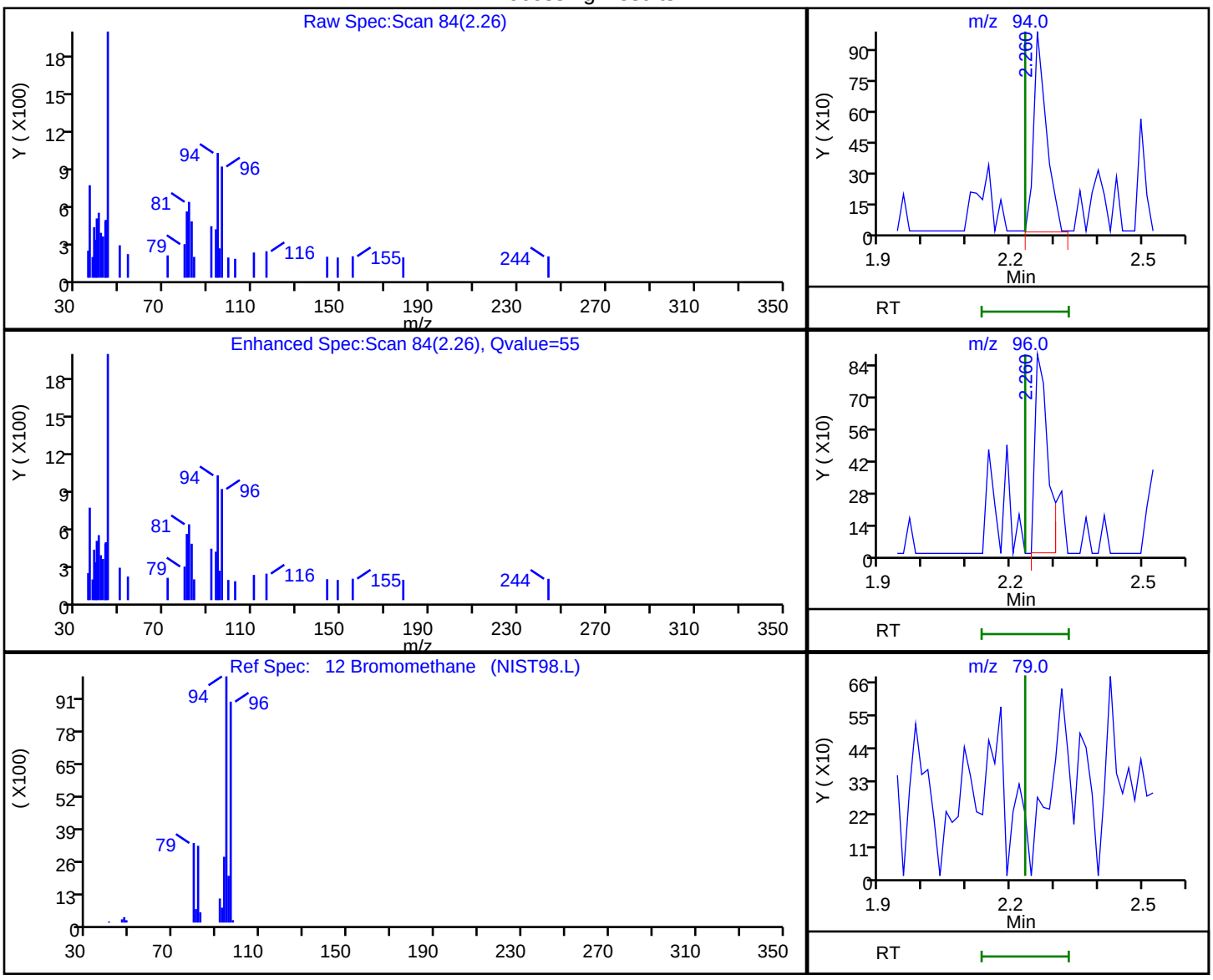
User Disabled Compound Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011098.D
Injection Date: 18-May-2024 07:06:30 Instrument ID: VMS_MS11
Lims ID: MB
Client ID:
Operator ID: MED ALS Bottle#: 5 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: AQ_VMS11_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (0.25 mm) Detector MS SCAN

12 Bromomethane, CAS: 74-83-9

Processing Results



RT	Mass	Response	Amount
2.26	94.00	1980	0.703160
2.26	96.00	1805	
2.23	79.00	0	

Reviewer: BX8N, 18-May-2024 08:37:06 -06:00:00 (UTC)
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

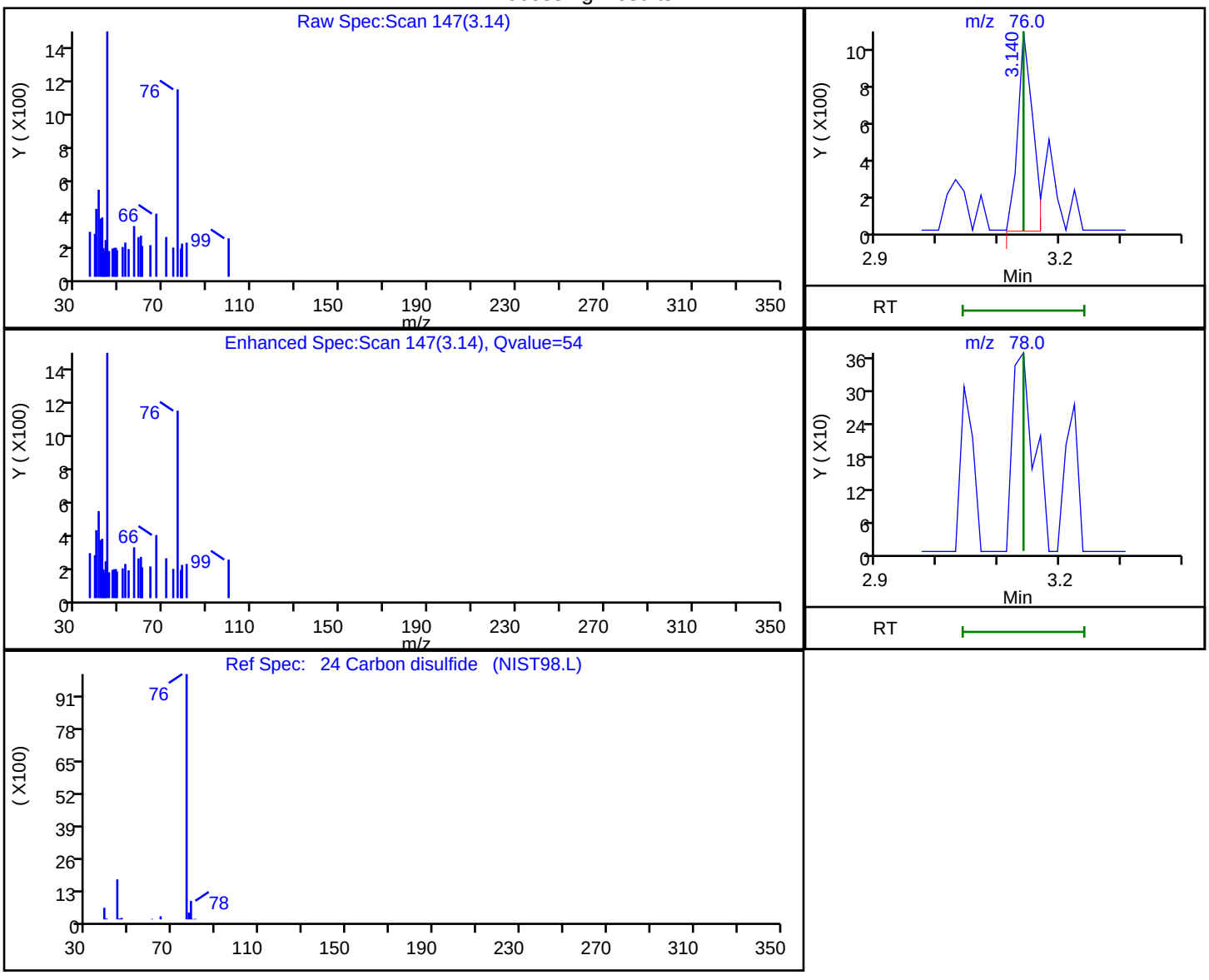
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011098.D				
Injection Date:	18-May-2024 07:06:30	Instrument ID:	VMS_MS11		
Lims ID:	MB				
Client ID:					
Operator ID:	MED	ALS Bottle#:	5	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (0.25 mm)	Detector	MS SCAN		

24 Carbon disulfide, CAS: 75-15-0

Processing Results



RT	Mass	Response	Amount
3.14	76.00	1870	0.161308
3.14	78.00	0	

Reviewer: BX8N, 18-May-2024 08:37:10 -06:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-653926/4

Matrix: Water | Lab File ID: ms11_00011094A.D

Analysis Method: 8260D | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2024 05:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RXI-624SilMS ID: 0.25(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) Y pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 653926 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
71-55-6	1,1,1-Trichloroethane	49.4		1.0	0.50	0.39
79-34-5	1,1,2,2-Tetrachloroethane	45.7		1.0	0.80	0.21
79-00-5	1,1,2-Trichloroethane	48.0		1.0	0.80	0.27
75-34-3	1,1-Dichloroethane	50.4		1.0	0.80	0.22
75-35-4	1,1-Dichloroethene	51.4		1.0	0.80	0.23
106-93-4	1,2-Dibromoethane	47.8		1.0	0.80	0.18
107-06-2	1,2-Dichloroethane	48.2		1.0	0.50	0.28
540-59-0	1,2-Dichloroethene, Total	101		1.0	0.40	0.32
78-87-5	1,2-Dichloropropane	50.1		1.0	0.80	0.24
78-93-3	2-Butanone (MEK)	194		10	8.0	4.6
591-78-6	2-Hexanone	195		5.0	4.0	0.81
108-10-1	4-Methyl-2-pentanone (MIBK)	191		5.0	3.2	0.98
67-64-1	Acetone	200		15	8.0	6.6
71-43-2	Benzene	50.8		1.0	0.80	0.14
74-97-5	Bromochloromethane	50.8		1.0	0.80	0.40
75-27-4	Bromodichloromethane	50.1		1.0	0.50	0.19
75-25-2	Bromoform	48.4		2.0	1.8	0.25
74-83-9	Bromomethane	52.2		5.0	4.0	2.4
75-15-0	Carbon disulfide	52.0		2.0	0.80	0.26
56-23-5	Carbon tetrachloride	49.8		1.0	0.50	0.23
108-90-7	Chlorobenzene	50.0		1.0	0.80	0.092
75-00-3	Chloroethane	51.4		2.0	1.0	0.64
67-66-3	Chloroform	50.1		1.0	0.80	0.36
74-87-3	Chloromethane	54.6		2.0	1.0	0.23
10061-01-5	cis-1,3-Dichloropropene	51.2		1.0	0.40	0.16
124-48-1	Dibromochloromethane	47.3		1.0	0.50	0.28
100-41-4	Ethylbenzene	49.8		1.0	0.40	0.14
75-09-2	Methylene Chloride	50.3		2.0	1.8	0.94
100-42-5	Styrene	53.6		1.0	0.80	0.13
127-18-4	Tetrachloroethene	49.3		1.0	0.80	0.40
108-88-3	Toluene	50.3		1.0	0.40	0.32
10061-02-6	trans-1,3-Dichloropropene	52.3		1.0	0.40	0.14
79-01-6	Trichloroethene	48.9		1.0	0.40	0.30
75-01-4	Vinyl chloride	49.1		1.0	0.40	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-653926/4

Matrix: Water | Lab File ID: ms11_00011094A.D

Analysis Method: 8260D | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2024 05:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RXI-624SilMS ID: 0.25(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) Y pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 653926 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1330-20-7	Xylenes, Total	103		1.0	0.80	0.11

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		81-118
460-00-4	4-Bromofluorobenzene (Surr)	97		85-114
1868-53-7	Dibromofluoromethane (Surr)	101		80-119
2037-26-5	Toluene-d8 (Surr)	101		89-112

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011094A.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 18-May-2024 05:39:30 ALS Bottle#: 31 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ccv m
Operator ID: bustillose Instrument ID: VMS_MS11

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 18-May-2024 08:36:51 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1671

First Level Reviewer: BX8N Date: 18-May-2024 06:37:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.109	5.110	-0.001	99	1224196	50.0	50.0	
* 2 Chlorobenzene-d5	119	7.637	7.638	-0.001	85	311436	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	9.872	9.872	0.000	93	594870	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	111	4.607	4.607	0.000	93	317859	50.0	50.5	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.858	4.858	0.000	0	342604	50.0	49.9	
$ 6 Toluene-d8 (Surr)	98	6.366	6.367	-0.001	93	1230708	50.0	50.3	
$ 7 4-Bromofluorobenzene (Surr)	95	8.741	8.741	0.000	91	465562	50.0	48.5	
9 Dichlorodifluoromethane	85	1.702	1.702	0.000	100	234689	50.0	65.1	
10 Chloromethane	50	1.869	1.869	0.000	99	231332	50.0	54.6	
11 Vinyl chloride	62	1.967	1.967	0.000	97	235420	50.0	49.1	
12 Bromomethane	94	2.232	2.232	0.000	89	146147	50.0	52.2	
13 Chloroethane	64	2.330	2.330	0.000	99	158866	50.0	51.4	
14 Dichlorofluoromethane	67	2.512	2.512	0.000	97	468279	50.0	50.4	
15 Trichlorofluoromethane	101	2.554	2.554	0.000	98	348951	50.0	54.8	
17 Ethyl ether	59	2.763	2.763	0.000	87	162228	50.0	49.8	
18 Acrolein	56	2.875	2.875	0.000	98	139921	493.8	469.8	
19 1,1-Dichloroethene	96	2.959	2.959	0.000	97	191417	50.0	51.4	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151	2.959	2.959	0.000	76	142355	50.0	53.4	
21 Acetone	43	2.973	2.973	0.000	100	212527	200.0	200.2	
23 Iodomethane	142	3.070	3.070	0.000	100	228198	50.0	51.1	
24 Carbon disulfide	76	3.140	3.140	0.000	99	599850	50.0	52.0	
26 Methyl acetate	43	3.196	3.196	0.000	96	255080	100.0	98.6	
27 3-Chloro-1-propene	41	3.224	3.224	0.000	87	247347	50.0	53.4	
28 Methylene Chloride	84	3.322	3.322	0.000	88	234325	50.0	50.3	
29 2-Methyl-2-propanol	59	3.364	3.364	0.000	99	159298	500.0	485.0	
30 Acrylonitrile	53	3.475	3.475	0.000	98	724464	500.0	486.4	
31 Methyl tert-butyl ether	73	3.503	3.503	0.000	94	588496	50.0	49.5	
32 trans-1,2-Dichloroethene	96	3.517	3.517	0.000	96	218015	50.0	50.5	
33 Hexane	57	3.713	3.713	0.000	88	230108	50.0	56.6	
34 Vinyl acetate	43	3.811	3.811	0.000	97	710114	100.0	107.5	
35 1,1-Dichloroethane	63	3.839	3.839	0.000	96	382207	50.0	50.4	
39 2-Butanone (MEK)	43	4.216	4.216	0.000	100	345867	200.0	193.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 cis-1,2-Dichloroethene	96	4.244	4.244	0.000	81	256217	50.0	50.9	
42 2,2-Dichloropropane	77	4.258	4.258	0.000	87	317425	50.0	53.1	
44 sec-Butyl Alcohol	45	4.341	4.341	0.000	98	300075	1200.0	1111.8	
46 Chlorobromomethane	128	4.425	4.425	0.000	86	125281	50.0	50.8	
47 Tetrahydrofuran	42	4.439	4.439	0.000	83	107523	100.0	93.5	
48 Chloroform	83	4.481	4.481	0.000	93	406307	50.0	50.1	
49 1,1,1-Trichloroethane	97	4.621	4.621	0.000	98	329758	50.0	49.4	
50 Cyclohexane	56	4.691	4.691	0.000	85	290502	50.0	50.1	
51 1,1-Dichloropropene	75	4.732	4.732	0.000	96	315981	50.0	51.8	
52 Carbon tetrachloride	117	4.746	4.746	0.000	95	282907	50.0	49.8	
53 Isobutyl alcohol	43	4.760	4.760	0.000	95	178791	1250.0	1389.8	
54 Benzene	78	4.886	4.886	0.000	96	918236	50.0	50.8	
55 1,2-Dichloroethane	62	4.914	4.914	0.000	97	303136	50.0	48.2	
57 n-Heptane	43	5.082	5.082	0.000	85	161316	50.0	55.7	
59 Trichloroethene	130	5.389	5.389	0.000	98	238114	50.0	48.9	
60 2-Pentanone	43	5.487	5.487	0.000	97	388795	160.0	150.3	
61 Methylcyclohexane	55	5.570	5.570	0.000	91	208609	50.0	52.6	
62 1,2-Dichloropropane	63	5.584	5.584	0.000	96	236592	50.0	50.1	
64 1,4-Dioxane	88	5.640	5.640	0.000	86	68977	1000.0	1058.3	
65 Dibromomethane	93	5.654	5.654	0.000	96	155282	50.0	49.7	
66 Dichlorobromomethane	83	5.780	5.780	0.000	99	317799	50.0	50.1	
68 2-Chloroethyl vinyl ether	63	5.989	5.989	0.000	91	137851	50.0	53.9	
69 cis-1,3-Dichloropropene	75	6.129	6.129	0.000	97	370631	50.0	51.2	
70 4-Methyl-2-pentanone (MIBK)	43	6.241	6.241	0.000	94	668076	200.0	191.4	
71 Toluene	91	6.422	6.422	0.000	98	1022380	50.0	50.3	
72 trans-1,3-Dichloropropene	75	6.604	6.604	0.000	96	335882	50.0	52.3	
73 Ethyl methacrylate	69	6.618	6.618	0.000	87	272052	50.0	46.5	
74 1,1,2-Trichloroethane	97	6.771	6.771	0.000	90	221159	50.0	48.0	
75 Tetrachloroethene	164	6.869	6.869	0.000	94	182699	50.0	49.3	
76 1,3-Dichloropropane	76	6.925	6.925	0.000	92	385894	50.0	50.0	
77 2-Hexanone	43	6.939	6.939	0.000	93	478366	200.0	194.6	
78 Chlorodibromomethane	129	7.121	7.121	0.000	90	237317	50.0	47.3	
79 Ethylene Dibromide	107	7.232	7.232	0.000	99	227855	50.0	47.8	
80 1-Chlorohexane	91	7.623	7.623	0.000	93	230142	40.0	40.8	
81 Chlorobenzene	112	7.665	7.665	0.000	96	700507	50.0	50.0	
82 1,1,1,2-Tetrachloroethane	131	7.735	7.735	0.000	94	220104	50.0	48.1	
83 Ethylbenzene	106	7.749	7.749	0.000	98	373501	50.0	49.8	
84 m-Xylene & p-Xylene	91	7.861	7.861	0.000	0	899259	50.0	50.4	
85 o-Xylene	106	8.224	8.224	0.000	95	469797	50.0	52.2	
86 Styrene	104	8.238	8.238	0.000	93	769866	50.0	53.6	
87 Bromoform	173	8.419	8.419	0.000	94	153609	50.0	48.4	
88 Isopropylbenzene	105	8.559	8.559	0.000	96	1097589	50.0	48.7	
90 Cyclohexanone	55	8.657	8.657	0.000	91	355562	1500.0	1518.5	
91 1,1,2,2-Tetrachloroethane	83	8.852	8.852	0.000	94	320404	50.0	45.7	
92 Bromobenzene	156	8.880	8.880	0.000	96	306866	50.0	49.4	
93 trans-1,4-Dichloro-2-butene	53	8.880	8.880	0.000	87	72412	50.0	46.8	
94 1,2,3-Trichloropropane	110	8.908	8.908	0.000	83	90804	50.0	44.1	
95 N-Propylbenzene	120	8.964	8.964	0.000	98	336166	50.0	49.9	
96 2-Chlorotoluene	126	9.062	9.062	0.000	97	307534	50.0	49.4	
97 1,3,5-Trimethylbenzene	105	9.132	9.132	0.000	93	1025195	50.0	52.3	
98 4-Chlorotoluene	126	9.174	9.174	0.000	98	329829	50.0	50.7	
99 tert-Butylbenzene	119	9.439	9.439	0.000	92	828872	50.0	50.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 1,2,4-Trimethylbenzene	105	9.509	9.509	0.000	97	1096045	50.0	50.9	
101 sec-Butylbenzene	134	9.662	9.662	0.000	94	258603	50.0	50.5	
102 1,3-Dichlorobenzene	146	9.788	9.788	0.000	97	628174	50.0	50.6	
103 4-Isopropyltoluene	119	9.816	9.816	0.000	96	1075409	50.0	53.0	
104 1,4-Dichlorobenzene	146	9.886	9.886	0.000	95	635733	50.0	48.5	
106 n-Butylbenzene	91	10.221	10.221	0.000	97	937807	50.0	52.8	
107 1,2-Dichlorobenzene	146	10.249	10.249	0.000	97	595438	50.0	50.5	
108 1,2-Dibromo-3-Chloropropane	157	11.031	11.031	0.000	88	59940	50.0	44.9	
110 1,2,4-Trichlorobenzene	180	11.855	11.855	0.000	95	318689	50.0	47.5	
111 Hexachlorobutadiene	225	11.995	11.995	0.000	98	133906	50.0	54.6	
112 Naphthalene	128	12.121	12.121	0.000	97	741824	50.0	43.4	
113 1,2,3-Trichlorobenzene	180	12.344	12.344	0.000	95	250021	50.0	45.5	
S 122 Xylenes, Total	106				0		100.0	102.7	
S 123 1,2-Dichloroethene, Total	1				0		100.0	101.4	
S 124 1,3-Dichloropropene, Total	1				0		100.0	103.4	
S 125 Trihalomethanes, Total	1				0		200.0	195.9	

QC Flag Legend

Processing Flags

Reagents:

MV-Gas A_00187	Amount Added: 10.00	Units: uL	
MV-MegaMainA_00108	Amount Added: 25.00	Units: uL	
mv-IS_SS_00079	Amount Added: 5.00	Units: uL	Run Reagent

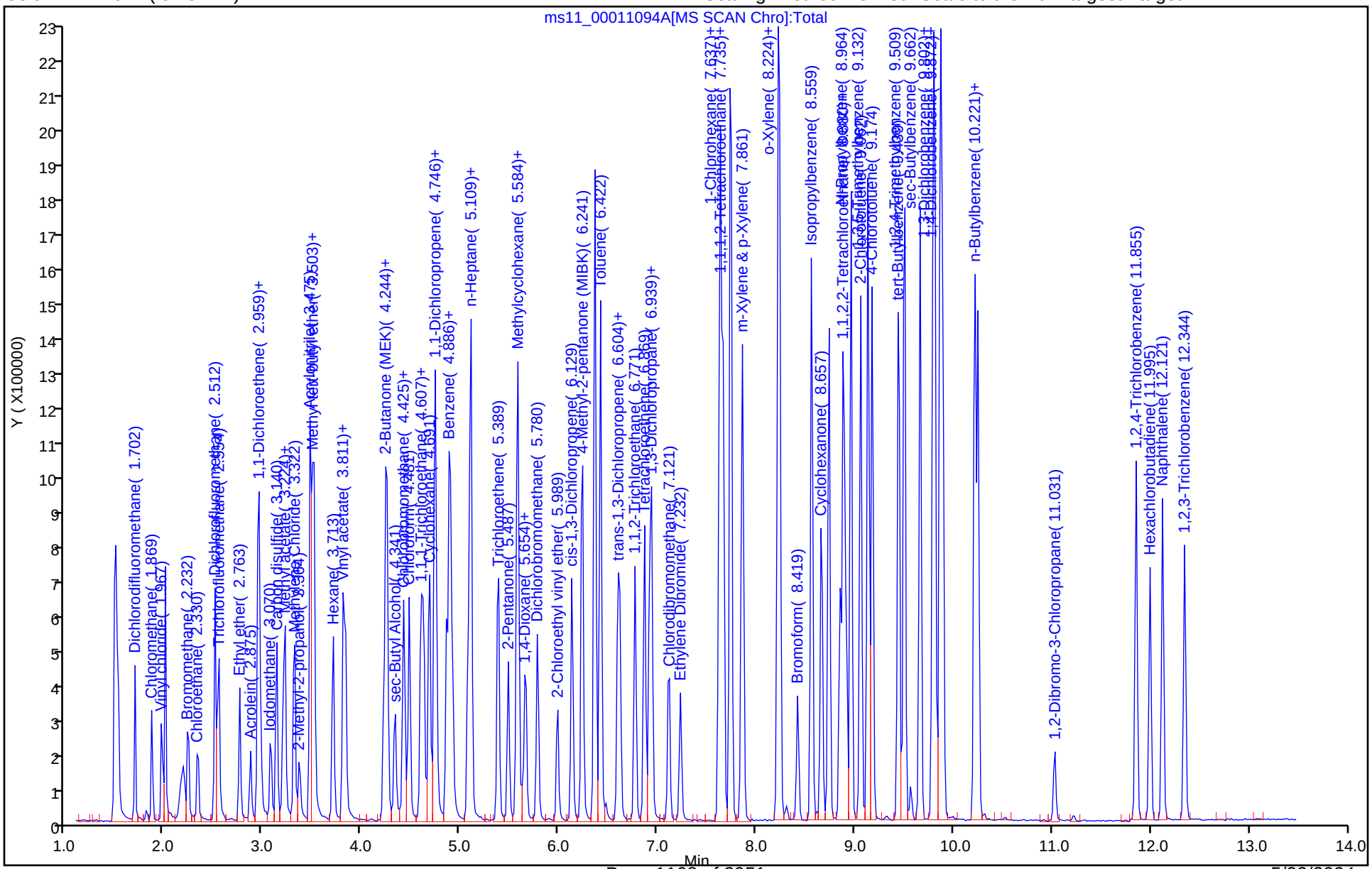
Report Date: 18-May-2024 08:36:53 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011094A.D

Injection Date:	18-May-2024 05:39:30	Instrument ID:	VMS_MS11	Operator ID:	bustillose
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	31
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011094A.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 18-May-2024 05:39:30 ALS Bottle#: 31 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ccv m
Operator ID: bustillose Instrument ID: VMS_MS11

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 18-May-2024 08:36:51 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1671

First Level Reviewer: BX8N Date: 18-May-2024 06:37:11

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	50.0	50.5	100.92
$ 5 1,2-Dichloroethane-d4 (Surr)	50.0	49.9	99.83
$ 6 Toluene-d8 (Surr)	50.0	50.3	100.52
$ 7 4-Bromofluorobenzene (Surr)	50.0	48.5	97.09

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-653926/5

Matrix: Water | Lab File ID: ms11_00011095.D

Analysis Method: 8260D | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2024 06:01

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RXI-624SilMS ID: 0.25(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) Y pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 653926 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
71-55-6	1,1,1-Trichloroethane	49.8		1.0	0.50	0.39
79-34-5	1,1,2,2-Tetrachloroethane	45.1		1.0	0.80	0.21
79-00-5	1,1,2-Trichloroethane	47.2		1.0	0.80	0.27
75-34-3	1,1-Dichloroethane	50.9		1.0	0.80	0.22
75-35-4	1,1-Dichloroethene	50.9		1.0	0.80	0.23
106-93-4	1,2-Dibromoethane	47.6		1.0	0.80	0.18
107-06-2	1,2-Dichloroethane	48.9		1.0	0.50	0.28
540-59-0	1,2-Dichloroethene, Total	102		1.0	0.40	0.32
78-87-5	1,2-Dichloropropane	51.2		1.0	0.80	0.24
78-93-3	2-Butanone (MEK)	182		10	8.0	4.6
591-78-6	2-Hexanone	188		5.0	4.0	0.81
108-10-1	4-Methyl-2-pentanone (MIBK)	187		5.0	3.2	0.98
67-64-1	Acetone	196		15	8.0	6.6
71-43-2	Benzene	50.4		1.0	0.80	0.14
74-97-5	Bromochloromethane	51.3		1.0	0.80	0.40
75-27-4	Bromodichloromethane	49.0		1.0	0.50	0.19
75-25-2	Bromoform	47.0		2.0	1.8	0.25
74-83-9	Bromomethane	56.1		5.0	4.0	2.4
75-15-0	Carbon disulfide	51.5		2.0	0.80	0.26
56-23-5	Carbon tetrachloride	49.6		1.0	0.50	0.23
108-90-7	Chlorobenzene	48.4		1.0	0.80	0.092
75-00-3	Chloroethane	53.9		2.0	1.0	0.64
67-66-3	Chloroform	50.6		1.0	0.80	0.36
74-87-3	Chloromethane	57.5		2.0	1.0	0.23
10061-01-5	cis-1,3-Dichloropropene	50.4		1.0	0.40	0.16
124-48-1	Dibromochloromethane	48.3		1.0	0.50	0.28
100-41-4	Ethylbenzene	48.1		1.0	0.40	0.14
75-09-2	Methylene Chloride	51.3		2.0	1.8	0.94
100-42-5	Styrene	53.4		1.0	0.80	0.13
127-18-4	Tetrachloroethene	50.1		1.0	0.80	0.40
108-88-3	Toluene	49.3		1.0	0.40	0.32
10061-02-6	trans-1,3-Dichloropropene	51.2		1.0	0.40	0.14
79-01-6	Trichloroethene	50.3		1.0	0.40	0.30
75-01-4	Vinyl chloride	51.2		1.0	0.40	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-653926/5

Matrix: Water | Lab File ID: ms11_00011095.D

Analysis Method: 8260D | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2024 06:01

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RXI-624SilMS ID: 0.25(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) Y pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 653926 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1330-20-7	Xylenes, Total	102		1.0	0.80	0.11

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		81-118
460-00-4	4-Bromofluorobenzene (Surr)	99		85-114
1868-53-7	Dibromofluoromethane (Surr)	103		80-119
2037-26-5	Toluene-d8 (Surr)	98		89-112

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011095.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 18-May-2024 06:01:30 ALS Bottle#: 2 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: lcsd m
Operator ID: MED Instrument ID: VMS_MS11

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 18-May-2024 08:36:51 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1671

First Level Reviewer: BX8N Date: 18-May-2024 07:09:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.109	5.110	-0.001	99	1288969	50.0	50.0	
* 2 Chlorobenzene-d5	119	7.637	7.638	-0.001	85	331326	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	9.872	9.872	0.000	94	604525	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	111	4.607	4.607	0.000	92	341130	50.0	51.4	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.858	4.858	0.000	0	353116	50.0	48.9	
$ 6 Toluene-d8 (Surr)	98	6.366	6.367	-0.001	93	1271428	50.0	48.8	
$ 7 4-Bromofluorobenzene (Surr)	95	8.741	8.741	0.000	92	483441	50.0	49.6	
9 Dichlorodifluoromethane	85	1.702	1.702	0.000	100	232004	50.0	61.2	
10 Chloromethane	50	1.869	1.869	0.000	99	256379	50.0	57.5	
11 Vinyl chloride	62	1.967	1.967	0.000	98	258385	50.0	51.2	
12 Bromomethane	94	2.246	2.232	0.014	90	165415	50.0	56.1	
13 Chloroethane	64	2.344	2.330	0.014	100	175476	50.0	53.9	
14 Dichlorofluoromethane	67	2.512	2.512	0.000	97	470506	50.0	48.1	
15 Trichlorofluoromethane	101	2.554	2.554	0.000	98	310231	50.0	46.2	
17 Ethyl ether	59	2.763	2.763	0.000	88	172902	50.0	50.4	
18 Acrolein	56	2.875	2.875	0.000	99	148739	493.8	474.3	
19 1,1-Dichloroethene	96	2.959	2.959	0.000	97	199401	50.0	50.9	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151	2.959	2.959	0.000	73	145557	50.0	51.8	
21 Acetone	43	2.973	2.973	0.000	99	219338	200.0	196.1	
23 Iodomethane	142	3.084	3.070	0.014	99	246642	50.0	52.3	
24 Carbon disulfide	76	3.140	3.140	0.000	99	624942	50.0	51.5	
26 Methyl acetate	43	3.196	3.196	0.000	97	257277	100.0	94.5	
27 3-Chloro-1-propene	41	3.224	3.224	0.000	86	254818	50.0	52.2	
28 Methylene Chloride	84	3.322	3.322	0.000	88	251464	50.0	51.3	
29 2-Methyl-2-propanol	59	3.364	3.364	0.000	99	159428	500.0	461.0	
30 Acrylonitrile	53	3.475	3.475	0.000	99	754601	500.0	481.2	
31 Methyl tert-butyl ether	73	3.503	3.503	0.000	93	630245	50.0	50.4	
32 trans-1,2-Dichloroethene	96	3.517	3.517	0.000	97	226759	50.0	49.9	
33 Hexane	57	3.713	3.713	0.000	90	212237	50.0	49.1	
34 Vinyl acetate	43	3.811	3.811	0.000	97	750763	100.0	107.9	
35 1,1-Dichloroethane	63	3.839	3.839	-0.001	96	406413	50.0	50.9	
39 2-Butanone (MEK)	43	4.216	4.216	0.000	99	342896	200.0	182.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 cis-1,2-Dichloroethene	96	4.244	4.244	0.000	81	274152	50.0	51.8	
42 2,2-Dichloropropane	77	4.258	4.258	0.000	87	330903	50.0	52.5	
44 sec-Butyl Alcohol	45	4.341	4.341	0.000	98	298642	1200.0	1052.6	
46 Chlorobromomethane	128	4.425	4.425	0.000	92	133338	50.0	51.3	
47 Tetrahydrofuran	42	4.439	4.439	0.000	84	113727	100.0	93.9	
48 Chloroform	83	4.481	4.481	0.000	93	432755	50.0	50.6	
49 1,1,1-Trichloroethane	97	4.621	4.621	0.000	98	349765	50.0	49.8	
50 Cyclohexane	56	4.690	4.691	0.000	87	300358	50.0	49.2	
51 1,1-Dichloropropene	75	4.746	4.732	0.014	97	332367	50.0	51.7	
52 Carbon tetrachloride	117	4.746	4.746	0.000	92	296586	50.0	49.6	
53 Isobutyl alcohol	43	4.760	4.760	0.000	96	185534	1250.0	1369.7	
54 Benzene	78	4.900	4.886	0.014	94	960531	50.0	50.4	
55 1,2-Dichloroethane	62	4.914	4.914	0.000	97	323662	50.0	48.9	
57 n-Heptane	43	5.082	5.082	0.000	87	151566	50.0	49.6	
59 Trichloroethene	130	5.389	5.389	0.000	97	258153	50.0	50.3	
60 2-Pentanone	43	5.487	5.487	0.000	97	406470	160.0	149.2	
61 Methylcyclohexane	55	5.570	5.570	0.000	90	202418	50.0	48.4	
62 1,2-Dichloropropane	63	5.584	5.584	0.000	96	254722	50.0	51.2	
64 1,4-Dioxane	88	5.626	5.640	-0.014	94	69595	1000.0	1014.2	
65 Dibromomethane	93	5.654	5.654	0.000	96	163487	50.0	49.7	
66 Dichlorobromomethane	83	5.780	5.780	0.000	99	326859	50.0	49.0	
68 2-Chloroethyl vinyl ether	63	5.989	5.989	0.000	91	141907	50.0	52.7	
69 cis-1,3-Dichloropropene	75	6.129	6.129	0.000	97	388008	50.0	50.4	
70 4-Methyl-2-pentanone (MIBK)	43	6.241	6.241	0.000	94	688404	200.0	187.3	
71 Toluene	91	6.422	6.422	0.000	98	1054857	50.0	49.3	
72 trans-1,3-Dichloropropene	75	6.604	6.604	0.000	97	346573	50.0	51.2	
73 Ethyl methacrylate	69	6.618	6.618	0.000	87	279201	50.0	44.8	
74 1,1,2-Trichloroethane	97	6.771	6.771	0.000	91	229239	50.0	47.2	
75 Tetrachloroethene	164	6.869	6.869	0.000	95	197543	50.0	50.1	
76 1,3-Dichloropropane	76	6.925	6.925	0.000	89	404523	50.0	49.3	
77 2-Hexanone	43	6.939	6.939	0.000	93	491482	200.0	187.9	
78 Chlorodibromomethane	129	7.121	7.121	0.000	90	257412	50.0	48.3	
79 Ethylene Dibromide	107	7.232	7.232	0.000	99	241550	50.0	47.6	
80 1-Chlorohexane	91	7.623	7.623	0.000	93	244763	40.0	40.8	
81 Chlorobenzene	112	7.665	7.665	0.000	96	722010	50.0	48.4	
82 1,1,1,2-Tetrachloroethane	131	7.735	7.735	0.000	93	240733	50.0	49.5	
83 Ethylbenzene	106	7.749	7.749	0.000	98	384259	50.0	48.1	
84 m-Xylene & p-Xylene	91	7.861	7.861	0.000	0	940372	50.0	49.6	
85 o-Xylene	106	8.224	8.224	0.000	95	500228	50.0	52.3	
86 Styrene	104	8.238	8.238	0.000	94	815283	50.0	53.4	
87 Bromoform	173	8.419	8.419	0.000	94	158669	50.0	47.0	
88 Isopropylbenzene	105	8.559	8.559	0.000	96	1173135	50.0	51.2	
90 Cyclohexanone	55	8.657	8.657	0.000	91	347122	1500.0	1393.4	
91 1,1,2,2-Tetrachloroethane	83	8.852	8.852	0.000	95	321376	50.0	45.1	
92 Bromobenzene	156	8.880	8.880	0.000	96	320463	50.0	50.8	
93 trans-1,4-Dichloro-2-butene	53	8.894	8.880	0.014	83	75551	50.0	48.0	
94 1,2,3-Trichloropropane	110	8.908	8.908	0.000	83	93919	50.0	44.9	
95 N-Propylbenzene	120	8.964	8.964	0.000	99	357503	50.0	52.2	
96 2-Chlorotoluene	126	9.062	9.062	0.000	97	324521	50.0	51.3	
97 1,3,5-Trimethylbenzene	105	9.132	9.132	0.000	94	1051791	50.0	52.8	
98 4-Chlorotoluene	126	9.174	9.174	0.000	98	343081	50.0	51.9	
99 tert-Butylbenzene	119	9.439	9.439	0.000	92	868538	50.0	51.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 1,2,4-Trimethylbenzene	105	9.509	9.509	0.000	97	1147285	50.0	52.4	
101 sec-Butylbenzene	134	9.662	9.662	0.000	94	261507	50.0	50.2	
102 1,3-Dichlorobenzene	146	9.788	9.788	0.000	97	633528	50.0	50.2	
103 4-Isopropyltoluene	119	9.816	9.816	0.000	97	1124351	50.0	54.5	
104 1,4-Dichlorobenzene	146	9.900	9.886	0.014	96	667439	50.0	50.1	
106 n-Butylbenzene	91	10.221	10.221	0.000	97	984782	50.0	54.6	
107 1,2-Dichlorobenzene	146	10.249	10.249	0.000	97	627877	50.0	52.4	
108 1,2-Dibromo-3-Chloropropane	157	11.031	11.031	0.000	88	63894	50.0	47.1	
110 1,2,4-Trichlorobenzene	180	11.855	11.855	0.000	94	336932	50.0	49.4	
111 Hexachlorobutadiene	225	11.995	11.995	0.000	95	131694	50.0	52.8	
112 Naphthalene	128	12.120	12.121	-0.001	97	855810	50.0	49.2	
113 1,2,3-Trichlorobenzene	180	12.344	12.344	0.000	95	267528	50.0	47.9	
S 122 Xylenes, Total	106				0		100.0	101.9	
S 123 1,2-Dichloroethene, Total	1				0		100.0	101.6	
S 124 1,3-Dichloropropene, Total	1				0		100.0	101.6	
S 125 Trihalomethanes, Total	1				0		200.0	194.9	

QC Flag Legend

Processing Flags

Reagents:

MV-Gas A_00187	Amount Added: 10.00	Units: uL	
MV-MegaMainA_00108	Amount Added: 25.00	Units: uL	
mv-IS_SS_00079	Amount Added: 5.00	Units: uL	Run Reagent

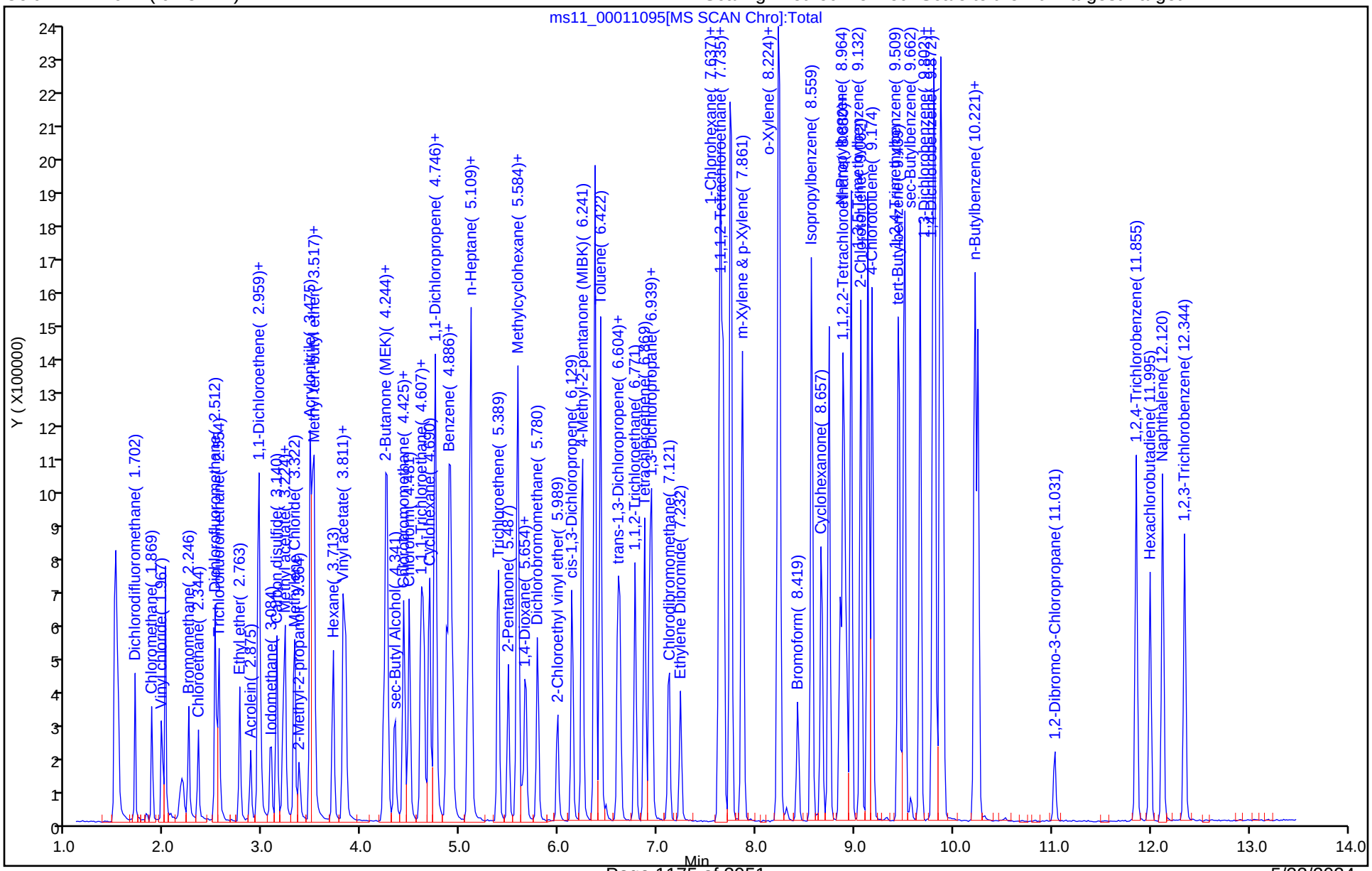
Report Date: 18-May-2024 08:36:57 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011095.D

Injection Date:	18-May-2024 06:01:30	Instrument ID:	VMS_MS11	Operator ID:	MED
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011095.D				
Lims ID:	LCSD				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	18-May-2024 06:01:30	ALS Bottle#:	2	Worklist Smp#:	5
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	lcsd m				
Operator ID:	MED	Instrument ID:	VMS_MS11		
Method:	\\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\AQ_VMS11_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	18-May-2024 08:36:51	Calib Date:	17-May-2024 15:59:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D				
Column 1 :	DB-624 (0.25 mm)		Det: MS SCAN		
Process Host:	CTX1671				

First Level Reviewer: BX8N Date: 18-May-2024 07:09:46

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	50.0	51.4	102.86
$ 5 1,2-Dichloroethane-d4 (Surr)	50.0	48.9	97.72
$ 6 Toluene-d8 (Surr)	50.0	48.8	97.62
$ 7 4-Bromofluorobenzene (Surr)	50.0	49.6	99.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MS | Lab Sample ID: 280-191098-1 MS

Matrix: Water | Lab File ID: ms11_00011120.D

Analysis Method: 8260D | Date Collected: 05/06/2024 10:16

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2024 14:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RXI-624SilMS ID: 0.25(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) Y pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 653926 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
71-55-6	1,1,1-Trichloroethane	22.7		1.0	0.50	0.39
79-34-5	1,1,2,2-Tetrachloroethane	22.0		1.0	0.80	0.21
79-00-5	1,1,2-Trichloroethane	22.6		1.0	0.80	0.27
75-34-3	1,1-Dichloroethane	24.2		1.0	0.80	0.22
75-35-4	1,1-Dichloroethene	20.9		1.0	0.80	0.23
106-93-4	1,2-Dibromoethane	22.8		1.0	0.80	0.18
107-06-2	1,2-Dichloroethane	24.5		1.0	0.50	0.28
540-59-0	1,2-Dichloroethene, Total	47.9		1.0	0.40	0.32
78-87-5	1,2-Dichloropropane	22.8		1.0	0.80	0.24
78-93-3	2-Butanone (MEK)	102		10	8.0	4.6
591-78-6	2-Hexanone	93.4		5.0	4.0	0.81
108-10-1	4-Methyl-2-pentanone (MIBK)	96.8		5.0	3.2	0.98
67-64-1	Acetone	101		15	8.0	6.6
71-43-2	Benzene	23.4		1.0	0.80	0.14
74-97-5	Bromochloromethane	26.1		1.0	0.80	0.40
75-27-4	Bromodichloromethane	22.5		1.0	0.50	0.19
75-25-2	Bromoform	21.4		2.0	1.8	0.25
74-83-9	Bromomethane	27.7		5.0	4.0	2.4
75-15-0	Carbon disulfide	22.1		2.0	0.80	0.26
56-23-5	Carbon tetrachloride	21.7		1.0	0.50	0.23
108-90-7	Chlorobenzene	22.8		1.0	0.80	0.092
75-00-3	Chloroethane	42.7		2.0	1.0	0.64
67-66-3	Chloroform	23.9		1.0	0.80	0.36
74-87-3	Chloromethane	39.4		2.0	1.0	0.23
10061-01-5	cis-1,3-Dichloropropene	22.2		1.0	0.40	0.16
124-48-1	Dibromochloromethane	21.4		1.0	0.50	0.28
100-41-4	Ethylbenzene	22.2		1.0	0.40	0.14
75-09-2	Methylene Chloride	24.5		2.0	1.8	0.94
100-42-5	Styrene	24.5		1.0	0.80	0.13
127-18-4	Tetrachloroethene	21.9		1.0	0.80	0.40
108-88-3	Toluene	23.0		1.0	0.40	0.32
10061-02-6	trans-1,3-Dichloropropene	23.1		1.0	0.40	0.14
79-01-6	Trichloroethene	22.4		1.0	0.40	0.30
75-01-4	Vinyl chloride	38.9		1.0	0.40	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MS | Lab Sample ID: 280-191098-1 MS

Matrix: Water | Lab File ID: ms11_00011120.D

Analysis Method: 8260D | Date Collected: 05/06/2024 10:16

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2024 14:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RXI-624SilMS ID: 0.25(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) Y pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 653926 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1330-20-7	Xylenes, Total	46.1		1.0	0.80	0.11

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		81-118
460-00-4	4-Bromofluorobenzene (Surr)	98		85-114
1868-53-7	Dibromofluoromethane (Surr)	101		80-119
2037-26-5	Toluene-d8 (Surr)	97		89-112

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011120.D
Lims ID: 280-191098-L-1 MS
Client ID: DET-003-240401-GW
Sample Type: MS
Inject. Date: 18-May-2024 14:58:30 ALS Bottle#: 22 Worklist Smp#: 34
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-191098-L-1MS
Operator ID: MED Instrument ID: VMS_MS11

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-May-2024 15:05:23 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: BX8N Date: 19-May-2024 15:00:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.110	5.109	0.001	99	1183635	50.0	50.0	
* 2 Chlorobenzene-d5	119	7.637	7.637	0.000	85	305307	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	9.872	9.872	0.000	94	562367	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	111	4.607	4.607	0.000	92	307699	50.0	50.5	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.858	4.858	0.000	0	336752	50.0	50.7	
$ 6 Toluene-d8 (Surr)	98	6.367	6.366	0.001	93	1160990	50.0	48.4	
$ 7 4-Bromofluorobenzene (Surr)	95	8.741	8.741	0.000	90	444775	50.0	49.1	
$ 8 BFB	95	8.741	8.741	0.000	90	444775		NR	
9 Dichlorodifluoromethane	85	1.702	1.702	0.000	100	115902		33.3	
10 Chloromethane	50	1.869	1.869	0.000	99	161267		39.4	
11 Vinyl chloride	62	1.967	1.967	0.000	98	180041		38.9	
12 Bromomethane	94	2.247	2.232	0.014	92	74971		27.7	
13 Chloroethane	64	2.344	2.330	0.014	99	127560		42.7	
14 Dichlorofluoromethane	67	2.512	2.512	0.000	97	396651		44.1	
15 Trichlorofluoromethane	101	2.554	2.554	0.000	98	266818		43.3	
16 Ethanol	45		2.666					ND	U
17 Ethyl ether	59	2.763	2.763	0.000	89	80141	25.0	25.4	
18 Acrolein	56	2.875	2.875	0.000	96	62696	246.9	217.7	
19 1,1-Dichloroethene	96	2.959	2.959	0.000	97	75047	25.0	20.9	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151	2.959	2.959	0.000	72	53833	25.0	20.9	
21 Acetone	43	2.973	2.973	0.000	100	106465	100.0	100.9	
22 Isopropyl alcohol	45		3.057					ND	U
23 Iodomethane	142	3.084	3.070	0.014	100	96129	25.0	25.5	
24 Carbon disulfide	76	3.140	3.140	0.000	99	246504	25.0	22.1	
25 Acetonitrile	41		3.182					ND	7
26 Methyl acetate	43	3.196	3.196	0.000	98	116781	50.0	46.7	
27 3-Chloro-1-propene	41	3.224	3.224	0.000	86	102822	25.0	22.5	
28 Methylene Chloride	84	3.322	3.322	0.000	85	110468	25.0	24.5	
29 2-Methyl-2-propanol	59	3.364	3.364	0.000	99	78957	250.0	248.6	
30 Acrylonitrile	53	3.476	3.475	0.001	98	352008	250.0	244.4	
31 Methyl tert-butyl ether	73	3.503	3.503	0.000	93	276341	25.0	24.0	
32 trans-1,2-Dichloroethene	96	3.517	3.517	0.000	96	99838	25.0	23.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
33 Hexane	57	3.713	3.713	0.000	91	69266	25.0	17.4	
34 Vinyl acetate	43	3.811	3.811	0.000	98	293792	50.0	46.0	
35 1,1-Dichloroethane	63	3.839	3.839	0.000	96	177589	25.0	24.2	
36 Isopropyl ether	87		3.839					ND	U
37 2-Chloro-1,3-butadiene	53		3.895					ND	
38 Tert-butyl ethyl ether	59		4.104					ND	
39 2-Butanone (MEK)	43	4.230	4.216	0.014	99	176971	100.0	102.5	
40 Ethyl acetate	43		4.230					ND	
41 cis-1,2-Dichloroethene	96	4.244	4.244	0.000	80	116834	25.0	24.0	
42 2,2-Dichloropropane	77	4.258	4.258	0.000	88	121114	25.0	20.9	
43 Propionitrile	54		4.272					ND	
44 sec-Butyl Alcohol	45	4.341	4.341	0.000	97	132903	600.0	525.8	
45 Methacrylonitrile	41		4.383					ND	
46 Chlorobromomethane	128	4.425	4.425	0.000	84	62251	25.0	26.1	
47 Tetrahydrofuran	42	4.439	4.439	0.000	85	50802	50.0	45.7	
48 Chloroform	83	4.481	4.481	0.000	93	187551	25.0	23.9	
49 1,1,1-Trichloroethane	97	4.621	4.621	0.000	98	146218	25.0	22.7	
50 Cyclohexane	56	4.691	4.691	0.001	88	117782	25.0	21.0	
51 1,1-Dichloropropene	75	4.746	4.732	0.014	95	132021	25.0	22.4	
52 Carbon tetrachloride	117	4.746	4.746	0.000	91	119308	25.0	21.7	
53 Isobutyl alcohol	43	4.760	4.760	0.000	93	89506	625.0	719.6	
54 Benzene	78	4.900	4.886	0.014	95	409989	25.0	23.4	
55 1,2-Dichloroethane	62	4.914	4.914	0.000	97	148884	25.0	24.5	
56 Tert-amyl methyl ether	73		4.956					ND	
57 n-Heptane	43	5.082	5.082	0.000	89	55312	25.0	19.1	
58 n-Butanol	56		5.249					ND	
59 Trichloroethene	130	5.389	5.389	0.000	97	105525	25.0	22.4	
60 2-Pentanone	43	5.487	5.487	0.000	96	187557	80.0	75.0	
61 Methylcyclohexane	55	5.570	5.570	0.000	90	77105	25.0	19.9	
62 1,2-Dichloropropane	63	5.584	5.584	0.000	94	103978	25.0	22.8	
63 Methyl methacrylate	100		5.598					ND	U
64 1,4-Dioxane	88	5.626	5.640	-0.014	93	33813	500.0	536.6	
65 Dibromomethane	93	5.654	5.654	0.000	95	72778	25.0	24.1	
66 Dichlorobromomethane	83	5.780	5.780	0.000	99	138000	25.0	22.5	
67 2-Nitropropane	41		5.948					ND	U
68 2-Chloroethyl vinyl ether	63		5.989					ND	
69 cis-1,3-Dichloropropene	75	6.129	6.129	0.000	97	157327	25.0	22.2	
70 4-Methyl-2-pentanone (MIBK)	43	6.241	6.241	0.000	95	326809	100.0	96.8	
71 Toluene	91	6.422	6.422	0.000	98	451548	25.0	23.0	
72 trans-1,3-Dichloropropene	75	6.604	6.604	0.000	91	143749	25.0	23.1	
73 Ethyl methacrylate	69	6.618	6.618	0.000	85	123049	25.0	21.4	
74 1,1,2-Trichloroethane	97	6.772	6.771	0.001	90	100883	25.0	22.6	
75 Tetrachloroethene	164	6.869	6.869	0.000	96	79673	25.0	21.9	
76 1,3-Dichloropropane	76	6.925	6.925	0.000	90	175990	25.0	23.3	
77 2-Hexanone	43	6.939	6.939	0.000	94	225000	100.0	93.4	
78 Chlorodibromomethane	129	7.121	7.121	0.000	89	105102	25.0	21.4	
79 Ethylene Dibromide	107	7.232	7.232	0.000	95	106723	25.0	22.8	
80 1-Chlorohexane	91	7.624	7.623	0.001	95	96146	20.0	17.0	
81 Chlorobenzene	112	7.665	7.665	0.000	96	312576	25.0	22.8	
82 1,1,1,2-Tetrachloroethane	131	7.735	7.735	0.000	90	99817	25.0	22.3	
83 Ethylbenzene	106	7.749	7.749	0.000	98	163637	25.0	22.2	
84 m-Xylene & p-Xylene	91	7.861	7.861	0.000	0	399411	25.0	22.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 o-Xylene	106	8.224	8.224	0.000	95	204342	25.0	23.2	
86 Styrene	104	8.238	8.238	0.000	93	345049	25.0	24.5	
87 Bromoform	173	8.420	8.419	0.001	93	66534	25.0	21.4	
88 Isopropylbenzene	105	8.559	8.559	0.000	96	488312	25.0	22.9	
89 cis-1,4-Dichloro-2-butene	53	8.615	8.615	0.000	0	1615		1.12	
90 Cyclohexanone	55	8.657	8.657	0.000	92	122246	750.0	532.6	
91 1,1,2,2-Tetrachloroethane	83	8.853	8.852	0.001	95	146214	25.0	22.0	
92 Bromobenzene	156	8.880	8.880	0.000	96	140913	25.0	24.0	
93 trans-1,4-Dichloro-2-butene	53	8.880	8.880	0.000	77	28100	25.0	19.7	
94 1,2,3-Trichloropropane	110	8.908	8.908	0.000	85	45714	25.0	23.5	
95 N-Propylbenzene	120	8.964	8.964	0.000	98	148151	25.0	23.3	
96 2-Chlorotoluene	126	9.062	9.062	0.000	97	128816	25.0	21.9	
97 1,3,5-Trimethylbenzene	105	9.132	9.132	0.000	94	441749	25.0	23.9	
98 4-Chlorotoluene	126	9.174	9.174	0.000	98	143211	25.0	23.3	
99 tert-Butylbenzene	119	9.439	9.439	0.000	92	354328	25.0	22.8	
100 1,2,4-Trimethylbenzene	105	9.509	9.509	0.000	97	491794	25.0	24.1	
101 sec-Butylbenzene	134	9.663	9.662	0.001	94	101586	25.0	21.0	
102 1,3-Dichlorobenzene	146	9.788	9.788	0.000	97	258353	25.0	22.0	
103 4-Isopropyltoluene	119	9.816	9.816	0.000	97	445305	25.0	23.2	
104 1,4-Dichlorobenzene	146	9.886	9.886	0.000	95	280296	25.0	22.6	
105 1,2,3-Trimethylbenzene	105		9.914					ND	U
106 n-Butylbenzene	91	10.221	10.221	0.000	96	404631	25.0	24.1	
107 1,2-Dichlorobenzene	146	10.249	10.249	0.000	97	265184	25.0	23.8	
108 1,2-Dibromo-3-Chloropropane	157	11.031	11.031	0.000	86	28844	25.0	22.9	
109 1,3,5-Trichlorobenzene	180		11.213					ND	
110 1,2,4-Trichlorobenzene	180	11.855	11.855	0.000	94	147739	25.0	23.3	
111 Hexachlorobutadiene	225	11.995	11.995	0.000	94	63385	25.0	27.3	
112 Naphthalene	128	12.121	12.121	0.000	97	388029	25.0	24.0	
113 1,2,3-Trichlorobenzene	180	12.344	12.344	0.000	96	129064	25.0	24.8	
114 Methyl cyclohexane TIC	1		0.000					ND	
115 Ethylene oxide TIC	1		0.000					ND	
116 1-Chlorohexane TIC	1		0.000					ND	
117 1-Chloro-1-fluoroethane TIC	1		0.000					ND	
118 Pentachloroethane	167		0.000					ND	
119 t-Amyl alcohol	1		0.000					ND	
120 Ethyl acrylate	55		0.000					ND	
121 Tetrahydrothiophene TIC	1		0.000					ND	
S 122 Xylenes, Total	106				0		50.0	46.0	
S 123 1,2-Dichloroethene, Total	1				0		50.0	47.9	
S 124 1,3-Dichloropropene, Total	1				0		50.0	45.3	
S 125 Trihalomethanes, Total	1				0		100.0	89.2	
S 126 TAH	1				0			0	7
S 127 Total BTEX	1				0			114.7	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

Review Flags
U - Marked Undetected

Reagents:

MV-MegaMainA_00108	Amount Added:	12.50	Units: uL	
mv-IS_SS_00079	Amount Added:	5.00	Units: uL	Run Reagent

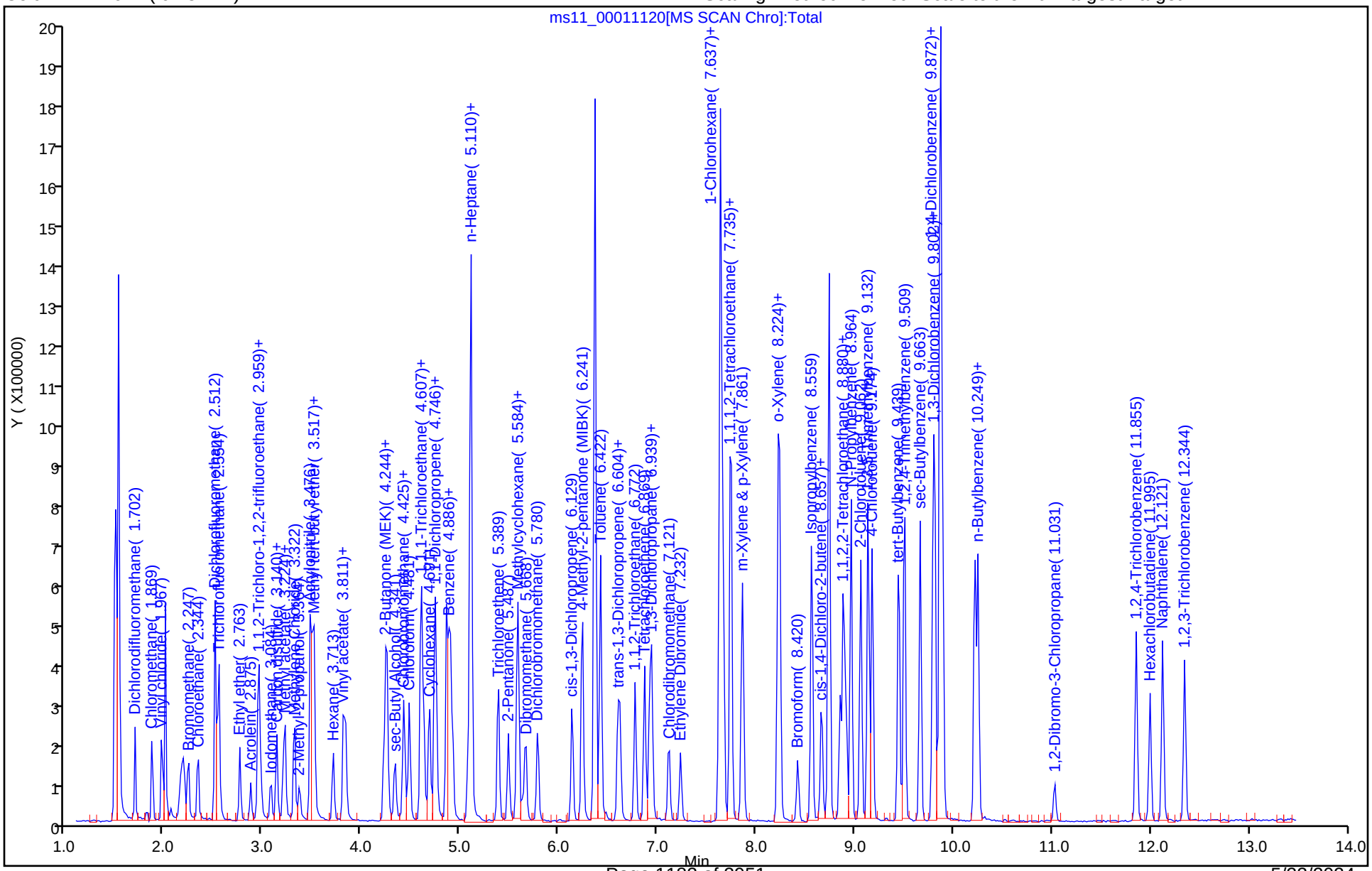
Report Date: 19-May-2024 15:06:00 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011120.D

Injection Date:	18-May-2024 14:58:30	Instrument ID:	VMS_MS11	Operator ID:	MED
Lims ID:	280-191098-L-1 MS			Worklist Smp#:	34
Client ID:	DET-003-240401-GW				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011120.D
Lims ID: 280-191098-L-1 MS
Client ID: DET-003-240401-GW
Sample Type: MS
Inject. Date: 18-May-2024 14:58:30 ALS Bottle#: 22 Worklist Smp#: 34
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-191098-L-1MS
Operator ID: MED Instrument ID: VMS_MS11

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-May-2024 15:05:23 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: BX8N Date: 19-May-2024 15:00:00

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	50.0	50.5	101.04
$ 5 1,2-Dichloroethane-d4 (Surr)	50.0	50.7	101.48
$ 6 Toluene-d8 (Surr)	50.0	48.4	96.73
$ 7 4-Bromofluorobenzene (Surr)	50.0	49.1	98.11

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MSD | Lab Sample ID: 280-191098-1 MSD

Matrix: Water | Lab File ID: ms11_00011121.D

Analysis Method: 8260D | Date Collected: 05/06/2024 10:16

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2024 15:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RXI-624SilMS ID: 0.25(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) Y pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 653926 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
71-55-6	1,1,1-Trichloroethane	23.7		1.0	0.50	0.39
79-34-5	1,1,2,2-Tetrachloroethane	23.4		1.0	0.80	0.21
79-00-5	1,1,2-Trichloroethane	23.4		1.0	0.80	0.27
75-34-3	1,1-Dichloroethane	24.4		1.0	0.80	0.22
75-35-4	1,1-Dichloroethene	23.3		1.0	0.80	0.23
106-93-4	1,2-Dibromoethane	23.5		1.0	0.80	0.18
107-06-2	1,2-Dichloroethane	23.4		1.0	0.50	0.28
540-59-0	1,2-Dichloroethene, Total	51.9		1.0	0.40	0.32
78-87-5	1,2-Dichloropropane	23.5		1.0	0.80	0.24
78-93-3	2-Butanone (MEK)	101		10	8.0	4.6
591-78-6	2-Hexanone	96.0		5.0	4.0	0.81
108-10-1	4-Methyl-2-pentanone (MIBK)	92.4		5.0	3.2	0.98
67-64-1	Acetone	96.3		15	8.0	6.6
71-43-2	Benzene	24.1		1.0	0.80	0.14
74-97-5	Bromochloromethane	25.7		1.0	0.80	0.40
75-27-4	Bromodichloromethane	23.3		1.0	0.50	0.19
75-25-2	Bromoform	22.1		2.0	1.8	0.25
74-83-9	Bromomethane	36.3		5.0	4.0	2.4
75-15-0	Carbon disulfide	23.1		2.0	0.80	0.26
56-23-5	Carbon tetrachloride	21.6		1.0	0.50	0.23
108-90-7	Chlorobenzene	24.4		1.0	0.80	0.092
75-00-3	Chloroethane	42.4		2.0	1.0	0.64
67-66-3	Chloroform	25.1		1.0	0.80	0.36
74-87-3	Chloromethane	41.8		2.0	1.0	0.23
10061-01-5	cis-1,3-Dichloropropene	23.2		1.0	0.40	0.16
124-48-1	Dibromochloromethane	21.9		1.0	0.50	0.28
100-41-4	Ethylbenzene	24.5		1.0	0.40	0.14
75-09-2	Methylene Chloride	24.1		2.0	1.8	0.94
100-42-5	Styrene	25.3		1.0	0.80	0.13
127-18-4	Tetrachloroethene	23.1		1.0	0.80	0.40
108-88-3	Toluene	24.4		1.0	0.40	0.32
10061-02-6	trans-1,3-Dichloropropene	22.8		1.0	0.40	0.14
79-01-6	Trichloroethene	23.7		1.0	0.40	0.30
75-01-4	Vinyl chloride	40.3		1.0	0.40	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MSD | Lab Sample ID: 280-191098-1 MSD

Matrix: Water | Lab File ID: ms11_00011121.D

Analysis Method: 8260D | Date Collected: 05/06/2024 10:16

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2024 15:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RXI-624SilMS ID: 0.25(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) Y pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 653926 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1330-20-7	Xylenes, Total	48.6		1.0	0.80	0.11

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		81-118
460-00-4	4-Bromofluorobenzene (Surr)	97		85-114
1868-53-7	Dibromofluoromethane (Surr)	101		80-119
2037-26-5	Toluene-d8 (Surr)	100		89-112

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011121.D
Lims ID: 280-191098-L-1 MSD
Client ID: DET-003-240401-GW
Sample Type: MSD
Inject. Date: 18-May-2024 15:20:30 ALS Bottle#: 23 Worklist Smp#: 35
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-191098-L-1MSD
Operator ID: MED Instrument ID: VMS_MS11

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-May-2024 15:05:23 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: BX8N Date: 19-May-2024 15:00:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.110	5.109	0.001	100	1212200	50.0	50.0	
* 2 Chlorobenzene-d5	119	7.638	7.637	0.001	85	305671	50.0	50.0	
* 3 1,4-Dichlorobenzene-d4	152	9.872	9.872	0.000	95	571840	50.0	50.0	
$ 4 Dibromofluoromethane (Surr)	111	4.607	4.607	0.000	92	315211	50.0	50.5	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.858	4.858	0.000	0	346024	50.0	50.9	
$ 6 Toluene-d8 (Surr)	98	6.367	6.366	0.001	93	1197778	50.0	49.8	
$ 7 4-Bromofluorobenzene (Surr)	95	8.741	8.741	0.000	91	447293	50.0	48.5	
$ 8 BFB	95	8.741	8.741	0.000	91	447293		NR	
9 Dichlorodifluoromethane	85	1.702	1.702	0.000	100	121357		34.0	
10 Chloromethane	50	1.870	1.869	0.001	98	175218		41.8	
11 Vinyl chloride	62	1.967	1.967	0.000	98	191010		40.3	
12 Bromomethane	94	2.247	2.232	0.015	90	100592		36.3	
13 Chloroethane	64	2.344	2.330	0.014	99	129749		42.4	
14 Dichlorofluoromethane	67	2.512	2.512	0.000	97	425569		46.2	
15 Trichlorofluoromethane	101	2.554	2.554	0.000	97	269256		42.7	
16 Ethanol	45		2.666					ND	U
17 Ethyl ether	59	2.763	2.763	0.000	87	83955	25.0	26.0	
18 Acrolein	56	2.875	2.875	0.000	100	69639	246.9	236.1	
19 1,1-Dichloroethene	96	2.959	2.959	0.000	98	86032	25.0	23.3	
20 1,1,2-Trichloro-1,2,2-trifluoroe	151	2.959	2.959	0.000	69	58169	25.0	22.0	
21 Acetone	43	2.973	2.973	0.000	99	104418	100.0	96.3	
22 Isopropyl alcohol	45		3.057					ND	U
23 Iodomethane	142	3.085	3.070	0.015	99	95433	25.0	24.8	
24 Carbon disulfide	76	3.140	3.140	0.000	99	263681	25.0	23.1	
25 Acetonitrile	41		3.182					ND	
26 Methyl acetate	43	3.196	3.196	0.000	95	106703	50.0	41.7	
27 3-Chloro-1-propene	41	3.224	3.224	0.000	87	115499	25.0	24.8	
28 Methylene Chloride	84	3.322	3.322	0.000	88	111079	25.0	24.1	
29 2-Methyl-2-propanol	59	3.364	3.364	0.000	99	84692	250.0	260.4	
30 Acrylonitrile	53	3.476	3.475	0.001	99	356614	250.0	241.8	
31 Methyl tert-butyl ether	73	3.504	3.503	0.001	94	292925	25.0	24.9	
32 trans-1,2-Dichloroethene	96	3.518	3.517	0.001	93	108664	25.0	25.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
33 Hexane	57	3.713	3.713	0.000	91	71383	25.0	17.9	
34 Vinyl acetate	43	3.811	3.811	0.000	97	297409	50.0	45.5	
35 1,1-Dichloroethane	63	3.839	3.839	0.000	95	182970	25.0	24.4	
36 Isopropyl ether	87		3.839					ND	U
37 2-Chloro-1,3-butadiene	53		3.895					ND	
38 Tert-butyl ethyl ether	59		4.104					ND	
39 2-Butanone (MEK)	43	4.230	4.216	0.014	99	178106	100.0	100.7	
40 Ethyl acetate	43		4.230					ND	U
41 cis-1,2-Dichloroethene	96	4.244	4.244	0.000	80	131948	25.0	26.5	
42 2,2-Dichloropropane	77	4.258	4.258	0.000	87	126671	25.0	21.4	
43 Propionitrile	54		4.272					ND	
44 sec-Butyl Alcohol	45	4.342	4.341	0.001	97	137577	600.0	531.1	
45 Methacrylonitrile	41		4.383					ND	
46 Chlorobromomethane	128	4.425	4.425	0.000	89	62701	25.0	25.7	
47 Tetrahydrofuran	42	4.439	4.439	0.000	85	51932	50.0	45.6	
48 Chloroform	83	4.481	4.481	0.000	93	201831	25.0	25.1	
49 1,1,1-Trichloroethane	97	4.635	4.621	0.014	98	156374	25.0	23.7	
50 Cyclohexane	56	4.691	4.691	0.001	83	118578	25.0	20.6	
51 1,1-Dichloropropene	75	4.747	4.732	0.015	95	137929	25.0	22.8	
52 Carbon tetrachloride	117	4.747	4.746	0.001	91	121363	25.0	21.6	
53 Isobutyl alcohol	43	4.761	4.760	0.001	90	81361	625.0	638.7	
54 Benzene	78	4.900	4.886	0.014	95	432203	25.0	24.1	
55 1,2-Dichloroethane	62	4.914	4.914	0.000	97	145691	25.0	23.4	
56 Tert-amyl methyl ether	73		4.956					ND	U
57 n-Heptane	43	5.082	5.082	0.000	90	59995	25.0	20.3	
58 n-Butanol	56		5.249					ND	
59 Trichloroethene	130	5.389	5.389	0.000	98	114533	25.0	23.7	
60 2-Pentanone	43	5.487	5.487	0.000	97	192817	80.0	75.3	
61 Methylcyclohexane	55	5.571	5.570	0.001	89	84158	25.0	21.2	
62 1,2-Dichloropropane	63	5.585	5.584	0.001	94	109772	25.0	23.5	
63 Methyl methacrylate	100		5.598					ND	U
64 1,4-Dioxane	88	5.640	5.640	0.000	87	35372	500.0	548.1	
65 Dibromomethane	93	5.654	5.654	0.000	93	78679	25.0	25.4	
66 Dichlorobromomethane	83	5.780	5.780	0.000	99	146083	25.0	23.3	
67 2-Nitropropane	41		5.948					ND	
68 2-Chloroethyl vinyl ether	63		5.989					ND	
69 cis-1,3-Dichloropropene	75	6.129	6.129	0.000	96	165118	25.0	23.2	
70 4-Methyl-2-pentanone (MIBK)	43	6.241	6.241	0.000	94	319306	100.0	92.4	
71 Toluene	91	6.423	6.422	0.000	98	490549	25.0	24.4	
72 trans-1,3-Dichloropropene	75	6.604	6.604	0.000	91	144819	25.0	22.8	
73 Ethyl methacrylate	69	6.618	6.618	0.000	86	126732	25.0	22.1	
74 1,1,2-Trichloroethane	97	6.772	6.771	0.001	90	107029	25.0	23.4	
75 Tetrachloroethene	164	6.869	6.869	0.000	96	84048	25.0	23.1	
76 1,3-Dichloropropane	76	6.925	6.925	0.000	88	187085	25.0	24.7	
77 2-Hexanone	43	6.939	6.939	0.000	94	231661	100.0	96.0	
78 Chlorodibromomethane	129	7.121	7.121	0.000	91	107848	25.0	21.9	
79 Ethylene Dibromide	107	7.233	7.232	0.001	98	109877	25.0	23.5	
80 1-Chlorohexane	91	7.624	7.623	0.001	93	104043	20.0	18.5	
81 Chlorobenzene	112	7.665	7.665	0.000	96	335703	25.0	24.4	
82 1,1,1,2-Tetrachloroethane	131	7.735	7.735	0.000	92	105016	25.0	23.4	
83 Ethylbenzene	106	7.749	7.749	0.000	98	180808	25.0	24.5	
84 m-Xylene & p-Xylene	91	7.861	7.861	0.000	0	406546	25.0	23.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 o-Xylene	106	8.224	8.224	0.000	95	223886	25.0	25.4	
86 Styrene	104	8.238	8.238	0.000	93	357208	25.0	25.3	
87 Bromoform	173	8.420	8.419	0.001	92	68961	25.0	22.1	
88 Isopropylbenzene	105	8.559	8.559	0.000	96	513417	25.0	23.7	
89 cis-1,4-Dichloro-2-butene	53	8.615	8.615	0.000	0	1415		0.9608	
90 Cyclohexanone	55	8.657	8.657	0.000	91	120769	750.0	525.5	
91 1,1,2,2-Tetrachloroethane	83	8.853	8.852	0.001	94	157836	25.0	23.4	
92 Bromobenzene	156	8.881	8.880	0.001	96	143933	25.0	24.1	
93 trans-1,4-Dichloro-2-butene	53	8.895	8.880	0.015	72	26198	25.0	18.1	
94 1,2,3-Trichloropropane	110	8.908	8.908	0.000	84	48769	25.0	24.6	
95 N-Propylbenzene	120	8.964	8.964	0.000	99	157702	25.0	24.4	
96 2-Chlorotoluene	126	9.062	9.062	0.000	97	144284	25.0	24.1	
97 1,3,5-Trimethylbenzene	105	9.132	9.132	0.000	94	476592	25.0	25.3	
98 4-Chlorotoluene	126	9.174	9.174	0.000	98	154620	25.0	24.7	
99 tert-Butylbenzene	119	9.439	9.439	0.000	93	372205	25.0	23.5	
100 1,2,4-Trimethylbenzene	105	9.509	9.509	0.000	97	503681	25.0	24.3	
101 sec-Butylbenzene	134	9.663	9.662	0.001	94	114066	25.0	23.2	
102 1,3-Dichlorobenzene	146	9.788	9.788	0.000	98	291214	25.0	24.4	
103 4-Isopropyltoluene	119	9.816	9.816	0.000	97	476168	25.0	24.4	
104 1,4-Dichlorobenzene	146	9.900	9.886	0.014	96	305136	25.0	24.2	
105 1,2,3-Trimethylbenzene	105		9.914					ND	U
106 n-Butylbenzene	91	10.221	10.221	0.000	97	422367	25.0	24.7	
107 1,2-Dichlorobenzene	146	10.249	10.249	0.000	97	289635	25.0	25.5	
108 1,2-Dibromo-3-Chloropropane	157	11.031	11.031	0.000	87	28998	25.0	22.6	
109 1,3,5-Trichlorobenzene	180		11.213					ND	
110 1,2,4-Trichlorobenzene	180	11.855	11.855	0.000	93	154974	25.0	24.0	
111 Hexachlorobutadiene	225	11.995	11.995	0.000	96	60689	25.0	25.7	
112 Naphthalene	128	12.121	12.121	0.000	97	387718	25.0	23.6	
113 1,2,3-Trichlorobenzene	180	12.344	12.344	0.000	95	129737	25.0	24.6	
114 Methyl cyclohexane TIC	1		0.000					ND	
115 Ethylene oxide TIC	1		0.000					ND	
116 1-Chlorohexane TIC	1		0.000					ND	
117 1-Chloro-1-fluoroethane TIC	1		0.000					ND	
118 Pentachloroethane	167		0.000					ND	
119 t-Amyl alcohol	1		0.000					ND	
120 Ethyl acrylate	55		0.000					ND	
121 Tetrahydrothiophene TIC	1		0.000					ND	
S 122 Xylenes, Total	106				0		50.0	48.6	
S 123 1,2-Dichloroethene, Total	1				0		50.0	51.9	
S 124 1,3-Dichloropropene, Total	1				0		50.0	46.0	
S 125 Trihalomethanes, Total	1				0		100.0	92.4	
S 126 TAH	1				0			0	7
S 127 Total BTEX	1				0			121.6	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

Review Flags
U - Marked Undetected

Reagents:

MV-MegaMainA_00108	Amount Added:	12.50	Units: uL	
mv-IS_SS_00079	Amount Added:	5.00	Units: uL	Run Reagent

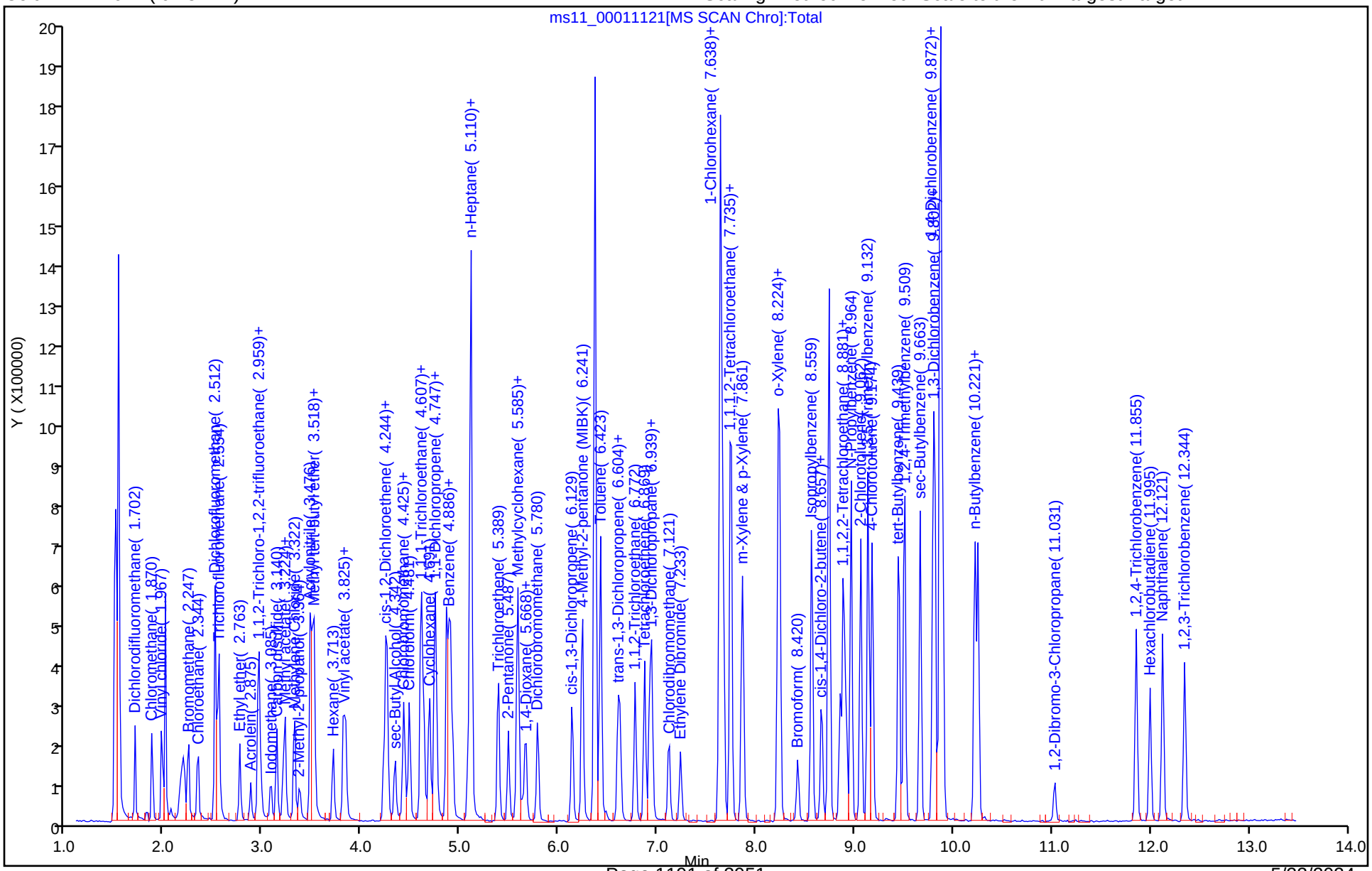
Report Date: 19-May-2024 15:06:05 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011121.D

Injection Date:	18-May-2024 15:20:30	Instrument ID:	VMS_MS11	Operator ID:	MED
Lims ID:	280-191098-L-1 MSD			Worklist Smp#:	35
Client ID:	DET-003-240401-GW				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	AQ_VMS11_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\ms11_00011121.D
Lims ID: 280-191098-L-1 MSD
Client ID: DET-003-240401-GW
Sample Type: MSD
Inject. Date: 18-May-2024 15:20:30 ALS Bottle#: 23 Worklist Smp#: 35
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 280-191098-L-1MSD
Operator ID: MED Instrument ID: VMS_MS11

Method: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133537.b\AQ_VMS11_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-May-2024 15:05:23 Calib Date: 17-May-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VMS_MS11\20240517-133492.b\ms11_00011058.D

Column 1 : DB-624 (0.25 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: BX8N Date: 19-May-2024 15:00:43

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	50.0	50.5	101.07
$ 5 1,2-Dichloroethane-d4 (Surr)	50.0	50.9	101.82
$ 6 Toluene-d8 (Surr)	50.0	49.8	99.68
$ 7 4-Bromofluorobenzene (Surr)	50.0	48.5	97.03

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: VMS_MS11 Start Date: 05/17/2024 07:14

Analysis Batch Number: 653788 End Date: 05/17/2024 17:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-653788/1		05/17/2024 07:14	1	ms11_00011035.D	RXI-624SilMS 0.25(mm)
IC 280-653788/13		05/17/2024 09:24	1	ms11_00011040.D	RXI-624SilMS 0.25(mm)
ZZZZZ		05/17/2024 09:24	1		RXI-624SilMS 0.25(mm)
IC 280-653788/14		05/17/2024 09:45	1	ms11_00011041.D	RXI-624SilMS 0.25(mm)
ZZZZZ		05/17/2024 09:45	1		RXI-624SilMS 0.25(mm)
IC 280-653788/15		05/17/2024 10:07	1	ms11_00011042.D	RXI-624SilMS 0.25(mm)
ZZZZZ		05/17/2024 10:07	1		RXI-624SilMS 0.25(mm)
IC 280-653788/16		05/17/2024 10:29	1	ms11_00011043.D	RXI-624SilMS 0.25(mm)
ZZZZZ		05/17/2024 10:29	1		RXI-624SilMS 0.25(mm)
IC 280-653788/17		05/17/2024 10:51	1	ms11_00011044.D	RXI-624SilMS 0.25(mm)
ZZZZZ		05/17/2024 10:51	1		RXI-624SilMS 0.25(mm)
ICIS 280-653788/18		05/17/2024 11:13	1	ms11_00011045.D	RXI-624SilMS 0.25(mm)
IC 280-653788/19		05/17/2024 11:35	1	ms11_00011046.D	RXI-624SilMS 0.25(mm)
IC 280-653788/20		05/17/2024 11:56	1	ms11_00011047.D	RXI-624SilMS 0.25(mm)
IC 280-653788/21		05/17/2024 12:18	1	ms11_00011048.D	RXI-624SilMS 0.25(mm)
IC 280-653788/23		05/17/2024 13:24	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/17/2024 13:24	1		RXI-624SilMS 0.25(mm)
IC 280-653788/24		05/17/2024 13:46	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/17/2024 13:46	1		RXI-624SilMS 0.25(mm)
IC 280-653788/25		05/17/2024 14:08	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/17/2024 14:08	1		RXI-624SilMS 0.25(mm)
IC 280-653788/26		05/17/2024 14:30	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/17/2024 14:30	1		RXI-624SilMS 0.25(mm)
IC 280-653788/27		05/17/2024 14:53	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/17/2024 14:53	1		RXI-624SilMS 0.25(mm)
IC 280-653788/28		05/17/2024 15:15	1		RXI-624SilMS 0.25(mm)
IC 280-653788/29		05/17/2024 15:37	1		RXI-624SilMS 0.25(mm)
IC 280-653788/30		05/17/2024 15:59	1		RXI-624SilMS 0.25(mm)
ICV 280-653788/31		05/17/2024 16:43	1	ms11_00011060.D	RXI-624SilMS 0.25(mm)
ICV 280-653788/33		05/17/2024 17:27	1	ms11_00011062.D	RXI-624SilMS 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: VMS_MS11 Start Date: 05/18/2024 05:17

Analysis Batch Number: 653926 End Date: 05/18/2024 18:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-653926/1		05/18/2024 05:17	1	ms11_00011093A.D	RXI-624SilMS 0.25(mm)
CCV 280-653926/3		05/18/2024 05:17	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 05:17	1		RXI-624SilMS 0.25(mm)
CCV 280-653926/2		05/18/2024 05:39	1	ms11_00011094.D	RXI-624SilMS 0.25(mm)
LCS 280-653926/4		05/18/2024 05:39	1	ms11_00011094A.D	RXI-624SilMS 0.25(mm)
LCSD 280-653926/5		05/18/2024 06:01	1	ms11_00011095.D	RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 06:23	1		RXI-624SilMS 0.25(mm)
MB 280-653926/9		05/18/2024 07:06	1	ms11_00011098.D	RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 07:28	1		RXI-624SilMS 0.25(mm)
280-191098-3	FWGTB-240401-TB001	05/18/2024 07:49	1	ms11_00011100.D	RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 08:10	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 08:31	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 08:53	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 09:14	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 09:35	1		RXI-624SilMS 0.25(mm)
280-191098-1	DET-003-240401-GW	05/18/2024 09:57	1	ms11_00011106.D	RXI-624SilMS 0.25(mm)
280-191098-2	DET-003-240402-GW	05/18/2024 10:18	1	ms11_00011107.D	RXI-624SilMS 0.25(mm)
280-191098-5	DET-004-240401-GW	05/18/2024 10:39	1	ms11_00011108.D	RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 11:01	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 11:22	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 11:44	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 12:05	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 12:27	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 12:48	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 13:10	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 13:31	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 13:53	4		RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 14:15	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 14:36	1		RXI-624SilMS 0.25(mm)
280-191098-1 MS	DET-003-240401-GW MS	05/18/2024 14:58	1	ms11_00011120.D	RXI-624SilMS 0.25(mm)
280-191098-1 MSD	DET-003-240401-GW MSD	05/18/2024 15:20	1	ms11_00011121.D	RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 15:41	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 16:03	1		RXI-624SilMS 0.25(mm)
CCVC 280-653926/39		05/18/2024 16:25	1	ms11_00011124.D	RXI-624SilMS 0.25(mm)
CCVC 280-653926/40		05/18/2024 16:47	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 17:30	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 17:51	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 18:13	1		RXI-624SilMS 0.25(mm)
ZZZZZ		05/18/2024 18:35	1		RXI-624SilMS 0.25(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 653788 Batch Start Date: 05/17/24 07:14 Batch Analyst: Dobransky, Michael E

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	Cal Dil Std 00352	mv-Cent BFB 00007	mv-Cent IS 00008	MV-Gas A 00187
BFB 280-653788/1		8260D			2 uL	2 uL		5 uL		
IC 280-653788/13		8260D			5 mL	5 mL	5 uL			
IC 280-653788/14		8260D			5 mL	5 mL	10 uL			
IC 280-653788/15		8260D			5 mL	5 mL	20 uL			
IC 280-653788/16		8260D			5 mL	5 mL	50 uL			
IC 280-653788/17		8260D			5 mL	5 mL				2 uL
ICIS 280-653788/18		8260D			5 mL	5 mL				10 uL
IC 280-653788/19		8260D			5 mL	5 mL				15 uL
IC 280-653788/20		8260D			5 mL	5 mL				20 uL
IC 280-653788/21		8260D			5 mL	5 mL				40 uL
ICV 280-653788/31		8260D			5 mL	5 mL			5 uL	
ICV 280-653788/33		8260D			5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	MV-Gas B 00162	mv-IS_SS 00079	MV-MegaMain B 00104	MV-MegaMainA 00108	MV-Supp B 00071	
BFB 280-653788/1		8260D								
IC 280-653788/13		8260D				5 uL				
IC 280-653788/14		8260D				5 uL				
IC 280-653788/15		8260D				5 uL				
IC 280-653788/16		8260D				5 uL				
IC 280-653788/17		8260D				5 uL		5 uL		
ICIS 280-653788/18		8260D				5 uL		25 uL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 653788 Batch Start Date: 05/17/24 07:14 Batch Analyst: Dobransky, Michael E

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	MV-Gas B 00162	mv-IS_SS 00079	MV-MegaMain B 00104	MV-MegaMainA 00108	MV-Supp B 00071	
IC 280-653788/19		8260D				5 uL		37.5 uL		
IC 280-653788/20		8260D				5 uL		50 uL		
IC 280-653788/21		8260D				5 uL		100 uL		
ICV 280-653788/31		8260D							25 uL	
ICV 280-653788/33		8260D			10 uL	5 uL	25 uL			

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 653926 Batch Start Date: 05/18/24 05:17 Batch Analyst: Dobransky, Michael E

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	Initial pH	Headspace	mv-Cent BFB 00007	MV-Gas A 00187
BFB 280-653926/1		8260D			2 uL	2 uL			5 uL	
CCV 280-653926/2		8260D			5 mL	5 mL				10 uL
LCS 280-653926/4		8260D			5 mL	5 mL				10 uL
LCSD 280-653926/5		8260D			5 mL	5 mL				10 uL
MB 280-653926/9		8260D			5 mL	5 mL				
280-191098-A-3	FWGTB-240401-TB 001	8260D	Water	T	5 mL	5 mL	<2 SU	No		
280-191098-L-1	DET-003-240401-GW	8260D	Water	T	5 mL	5 mL	<2 SU	No		
280-191098-K-2	DET-003-240402-GW	8260D	Water	T	5 mL	5 mL	<2 SU	No		
280-191098-L-5	DET-004-240401-GW	8260D	Water	T	5 mL	5 mL	<2 SU	No		
280-191098-L-1 MS	DET-003-240401-GW	8260D	Water	T	5 mL	5 mL	<2 SU	No		
280-191098-L-1 MSD	DET-003-240401-GW	8260D	Water	T	5 mL	5 mL	<2 SU	No		
CCVC 280-653926/39		8260D			5 mL	5 mL				10 uL

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	mv-IS_SS 00079	MV-MegaMainA 00108				
BFB 280-653926/1		8260D								
CCV 280-653926/2		8260D			5 uL	25 uL				
LCS 280-653926/4		8260D			5 uL	25 uL				
LCSD 280-653926/5		8260D			5 uL	25 uL				
MB 280-653926/9		8260D			5 uL					
280-191098-A-3	FWGTB-240401-TB 001	8260D	Water	T	5 uL					
280-191098-L-1	DET-003-240401-GW	8260D	Water	T	5 uL					
280-191098-K-2	DET-003-240402-GW	8260D	Water	T	5 uL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 653926 Batch Start Date: 05/18/24 05:17 Batch Analyst: Dobransky, Michael E

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	mv-IS_SS 00079	MV-MegaMainA 00108				
280-191098-L-5	DET-004-240401-GW	8260D	Water	T	5 uL					
280-191098-L-1 MS	DET-003-240401-GW	8260D	Water	T	5 uL	12.5 uL				
280-191098-L-1 MSD	DET-003-240401-GW	8260D	Water	T	5 uL	12.5 uL				
CCVC 280-653926/39		8260D			5 uL	25 uL				

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8270E_DOD5

Semivolatile Organic Compounds (GC/MS)

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-5MS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPHL #
DET-003-240401-GW	280-191098-1	44	31	65	65	76	85
DET-003-240402-GW	280-191098-2	37	26	56	56	70	86
DET-004-240401-GW	280-191098-5	50	36	72	74	91	113
	MB 280-653130/1-A	45	31	78	72	88	120
	LCS 280-653130/2-A	47	34	77	84	92	106
	LCSD 280-653130/3-A	45	31	70	75	86	90
DET-003-240401-GW MS	280-191098-1 MS	56	41	82	88	97	99
DET-003-240401-GW MSD	280-191098-1 MSD	59	44	89	100	112	113

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	19-119
PHL = Phenol-d5 (Surr)	10-115
NBZ = Nitrobenzene-d5 (Surr)	44-120
FBP = 2-Fluorobiphenyl	44-119
TBP = 2,4,6-Tribromophenol (Surr)	43-140
TPHL = Terphenyl-d14 (Surr)	50-134

Column to be used to flag recovery values

FORM II 8270E

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: SMS_3-051424008a.D

Lab ID: LCS 280-653130/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
2,4,5-Trichlorophenol	80.0	68.0	85	53-123	
2,4,6-Trichlorophenol	80.0	68.3	85	50-125	
2,4-Dichlorophenol	80.0	59.2	74	47-121	
2,4-Dimethylphenol	80.0	52.6	66	31-124	
2,4-Dinitrophenol	160	123	77	23-143	
2,4-Dinitrotoluene	80.0	67.1	84	57-128	
2,6-Dinitrotoluene	80.0	71.1	89	57-124	
2-Chlorophenol	80.0	52.8	66	38-117	
2-Methylphenol	80.0	51.6	65	30-117	
2-Nitrophenol	80.0	58.5	73	47-123	
3 & 4 Methylphenol	80.0	53.9	67	29-110	M
4,6-Dinitro-2-methylphenol	160	137	86	44-137	
4-Chloro-3-methylphenol	80.0	59.3	74	52-119	
4-Nitrophenol	160	75.5	47	31-120	
Bis(2-ethylhexyl) phthalate	80.0	73.1	91	55-135	
Butyl benzyl phthalate	80.0	71.5	89	53-134	
Diethyl phthalate	80.0	66.7	83	56-125	
Dimethyl phthalate	80.0	64.0	80	45-127	
Di-n-butyl phthalate	80.0	78.8	99	59-127	
Di-n-octyl phthalate	80.0	68.2	85	51-140	
Nitrobenzene	80.0	57.9	72	45-121	
Pentachlorophenol	160	133	83	35-138	
Phenol	80.0	27.5	34	28-120	

Column to be used to flag recovery and RPD values

FORM III 8270E

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: SMS_3-051424009a.D

Lab ID: LCSD 280-653130/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2,4,5-Trichlorophenol	80.0	63.3	79	7	20	53-123	
2,4,6-Trichlorophenol	80.0	63.5	79	7	20	50-125	
2,4-Dichlorophenol	80.0	57.0	71	4	20	47-121	
2,4-Dimethylphenol	80.0	46.9	59	12	20	31-124	
2,4-Dinitrophenol	160	113	71	9	20	23-143	
2,4-Dinitrotoluene	80.0	57.4	72	16	20	57-128	
2,6-Dinitrotoluene	80.0	60.7	76	16	20	57-124	
2-Chlorophenol	80.0	52.5	66	1	20	38-117	
2-Methylphenol	80.0	49.0	61	5	20	30-117	
2-Nitrophenol	80.0	56.7	71	3	20	47-123	
3 & 4 Methylphenol	80.0	50.7	63	6	20	29-110	M
4,6-Dinitro-2-methylphenol	160	124	77	10	20	44-137	
4-Chloro-3-methylphenol	80.0	53.2	66	11	20	52-119	
4-Nitrophenol	160	57.4	36	27	20	31-120	Q
Bis(2-ethylhexyl) phthalate	80.0	64.9	81	12	20	55-135	
Butyl benzyl phthalate	80.0	62.7	78	13	20	53-134	
Diethyl phthalate	80.0	57.1	71	16	20	56-125	
Dimethyl phthalate	80.0	56.2	70	13	20	45-127	
Di-n-butyl phthalate	80.0	62.0	77	24	20	59-127	Q
Di-n-octyl phthalate	80.0	65.3	82	4	20	51-140	
Nitrobenzene	80.0	52.8	66	9	20	45-121	
Pentachlorophenol	160	123	77	8	20	35-138	
Phenol	80.0	25.5	32	8	20	28-120	

Column to be used to flag recovery and RPD values

FORM III 8270E

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: SMS_3-051424015a.D

Lab ID: 280-191098-1 MS Client ID: DET-003-240401-GW MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
2,4,5-Trichlorophenol	81.2	8.1 U	73.9	91	53-123	
2,4,6-Trichlorophenol	81.2	8.1 U	75.0	92	50-125	
2,4-Dichlorophenol	81.2	8.1 U	67.8	83	47-121	
2,4-Dimethylphenol	81.2	8.1 U	53.5	66	31-124	
2,4-Dinitrophenol	162	20 U	138	85	23-143	
2,4-Dinitrotoluene	81.2	8.1 U	71.6	88	57-128	
2,6-Dinitrotoluene	81.2	8.1 U	74.1	91	57-124	
2-Chlorophenol	81.2	8.1 U	62.4	77	38-117	
2-Methylphenol	81.2	8.1 U	60.0	74	30-117	
2-Nitrophenol	81.2	8.1 U	68.0	84	47-123	
3 & 4 Methylphenol	81.2	8.1 U	62.4	77	29-110	M
4,6-Dinitro-2-methylphenol	162	30 U	154	95	44-137	
4-Chloro-3-methylphenol	81.2	8.1 U	62.8	77	52-119	
4-Nitrophenol	162	13 U	74.3	46	31-120	
Bis(2-ethylhexyl) phthalate	81.2	8.1 U	78.3	96	55-135	
Butyl benzyl phthalate	81.2	3.2 U	76.4	94	53-134	
Diethyl phthalate	81.2	3.2 U	69.4	85	56-125	
Dimethyl phthalate	81.2	3.2 U	66.6	82	45-127	
Di-n-butyl phthalate	81.2	3.2 U	74.5	92	59-127	
Di-n-octyl phthalate	81.2	8.1 U	79.3	98	51-140	
Nitrobenzene	81.2	8.1 U	61.8	76	45-121	
Pentachlorophenol	162	48 U	141	87	35-138	
Phenol	81.2	8.1 U	33.0	41	28-120	

Column to be used to flag recovery and RPD values

FORM III 8270E

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: SMS_3-051424016a.D

Lab ID: 280-191098-1 MSD Client ID: DET-003-240401-GW MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2,4,5-Trichlorophenol	83.0	83.8	101	13	20	53-123	
2,4,6-Trichlorophenol	83.0	82.9	100	10	20	50-125	
2,4-Dichlorophenol	83.0	76.3	92	12	20	47-121	
2,4-Dimethylphenol	83.0	64.6	78	19	20	31-124	
2,4-Dinitrophenol	166	167	101	19	20	23-143	
2,4-Dinitrotoluene	83.0	75.7	91	6	20	57-128	
2,6-Dinitrotoluene	83.0	81.8	99	10	20	57-124	
2-Chlorophenol	83.0	68.1	82	9	20	38-117	
2-Methylphenol	83.0	64.7	78	8	20	30-117	
2-Nitrophenol	83.0	77.2	93	13	20	47-123	
3 & 4 Methylphenol	83.0	68.7	83	10	20	29-110	M
4,6-Dinitro-2-methylphenol	166	161	97	4	20	44-137	
4-Chloro-3-methylphenol	83.0	70.9	86	12	20	52-119	
4-Nitrophenol	166	76.3	46	3	20	31-120	
Bis(2-ethylhexyl) phthalate	83.0	89.7	108	14	20	55-135	
Butyl benzyl phthalate	83.0	86.2	104	12	20	53-134	
Diethyl phthalate	83.0	75.2	91	8	20	56-125	
Dimethyl phthalate	83.0	74.8	90	12	20	45-127	
Di-n-butyl phthalate	83.0	79.5	96	6	20	59-127	
Di-n-octyl phthalate	83.0	86.7	104	9	20	51-140	
Nitrobenzene	83.0	68.0	82	9	20	45-121	
Pentachlorophenol	166	160	97	13	20	35-138	
Phenol	83.0	34.9	42	5	20	28-120	

Column to be used to flag recovery and RPD values

FORM III 8270E

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab File ID: SMS_3-051424007a.D Lab Sample ID: MB 280-653130/1-A

Matrix: Water Date Extracted: 05/13/2024 11:32

Instrument ID: SMS_3 Date Analyzed: 05/14/2024 13:11

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-653130/2-A	SMS_3-051424008a.D	05/14/2024 13:34
	LCSD 280-653130/3-A	SMS_3-051424009a.D	05/14/2024 13:57
DET-003-240401-GW	280-191098-1	SMS_3-051424014a.D	05/14/2024 15:49
DET-003-240401-GW MS	280-191098-1 MS	SMS_3-051424015a.D	05/14/2024 16:12
DET-003-240401-GW MSD	280-191098-1 MSD	SMS_3-051424016a.D	05/14/2024 16:34
DET-003-240402-GW	280-191098-2	SMS_3-051424017a.D	05/14/2024 16:57
DET-004-240401-GW	280-191098-5	SMS_3-051424018a.D	05/14/2024 17:19

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab File ID: SMS_3-031324001.D DFTPP Injection Date: 03/13/2024

Instrument ID: SMS_3 DFTPP Injection Time: 10:04

Analysis Batch No.: 645672

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0 % of mass 198	45.4
68	Less than 2.0 % of mass 69	0.7 (1.5) 1
69	Mass 69 relative abundance	45.6
70	Less than 2.0 % of mass 69	0.2 (0.5) 1
127	40.0 - 60.0 % of mass 198	50.0
197	Less than 1.0 % of mass 198	0.6
198	Base Peak, 100 % relative abundance	100.0
199	5.0- 9.0 % of mass 198	6.6
275	10.0 - 30.0 % of mass 198	19.8
365	Greater than 1.0 % of mass 198	2.4
441	Present but less than mass 443	8.3 (76.0) 3
442	Greater than 40.0 % of mass 198	53.4
443	17.0 - 23.0 % of mass 442	10.9 (20.4) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICV 280-645672/9	SMS_3-0313240	03/13/2024	13:07
	ICV2	SMS_3-0313240	03/13/2024	14:16

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab File ID: SMS_3-031424001.D DFTPP Injection Date: 03/14/2024

Instrument ID: SMS_3 DFTPP Injection Time: 08:53

Analysis Batch No.: 645747

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	48.2	
68	Less than 2.0 % of mass 69	0.6	(1.3) 1
69	Mass 69 relative abundance	46.7	
70	Less than 2.0 % of mass 69	0.2	(0.5) 1
127	40.0 - 60.0 % of mass 198	48.7	
197	Less than 1.0 % of mass 198	0.4	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.6	
275	10.0 - 30.0 % of mass 198	18.4	
365	Greater than 1.0 % of mass 198	2.2	
441	Present but less than mass 443	7.9	(82.1) 3
442	Greater than 40.0 % of mass 198	49.2	
443	17.0 - 23.0 % of mass 442	9.6	(19.5) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICV 280-645747/10	SMS_3-0314240	03/14/2024	9:04

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab File ID: SMS_3-040524001.D DFTPP Injection Date: 04/05/2024

Instrument ID: SMS_3 DFTPP Injection Time: 10:11

Analysis Batch No.: 648459

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	46.1	
68	Less than 2.0 % of mass 69	0.7	(1.5) 1
69	Mass 69 relative abundance	47.2	
70	Less than 2.0 % of mass 69	0.2	(0.4) 1
127	40.0 - 60.0 % of mass 198	46.2	
197	Less than 1.0 % of mass 198	0.3	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.9	
275	10.0 - 30.0 % of mass 198	19.8	
365	Greater than 1.0 % of mass 198	2.5	
441	Present but less than mass 443	9.0	(85.0) 3
442	Greater than 40.0 % of mass 198	52.5	
443	17.0 - 23.0 % of mass 442	10.6	(20.2) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICIS 280-648459/2	SMS_3-0405240	04/05/2024	11:38
	STD500 280-648459/3	SMS_3-0405240	04/05/2024	12:00
	STD400 280-648459/4	SMS_3-0405240	04/05/2024	12:23
	STD300 280-648459/5	SMS_3-0405240	04/05/2024	12:45
	STD125 280-648459/6	SMS_3-0405240	04/05/2024	13:08
	STD050 280-648459/7	SMS_3-0405240	04/05/2024	13:30
	STD025 280-648459/8	SMS_3-0405240	04/05/2024	13:53
	STD010 280-648459/9	SMS_3-0405240	04/05/2024	14:15
	ICV 280-648459/10	SMS_3-0405240	04/05/2024	14:38

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab File ID: SMS_3-051424001b.D DFTPP Injection Date: 05/14/2024

Instrument ID: SMS_3 DFTPP Injection Time: 11:08

Analysis Batch No.: 653283

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	43.7	
68	Less than 2.0 % of mass 69	0.8	(1.6) 1
69	Mass 69 relative abundance	47.4	
70	Less than 2.0 % of mass 69	0.2	(0.5) 1
127	40.0 - 60.0 % of mass 198	47.5	
197	Less than 1.0 % of mass 198	0.4	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	7.1	
275	10.0 - 30.0 % of mass 198	21.4	
365	Greater than 1.0 % of mass 198	2.8	
441	Present but less than mass 443	9.7	(94.2) 3
442	Greater than 40.0 % of mass 198	57.4	
443	17.0 - 23.0 % of mass 442	10.3	(17.9) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 280-653283/4	SMS_3-0514240	05/14/2024	11:41
	CCVIS 280-653283/3	SMS_3-0514240	05/14/2024	12:04
	CCV 280-653283/5	SMS_3-0514240	05/14/2024	12:26
	MB 280-653130/1-A	SMS_3-0514240	05/14/2024	13:11
	LCS 280-653130/2-A	SMS_3-0514240	05/14/2024	13:34
	LCSD 280-653130/3-A	SMS_3-0514240	05/14/2024	13:57
DET-003-240401-GW	280-191098-1	SMS_3-0514240	05/14/2024	15:49
DET-003-240401-GW MS	280-191098-1 MS	SMS_3-0514240	05/14/2024	16:12
DET-003-240401-GW MSD	280-191098-1 MSD	SMS_3-0514240	05/14/2024	16:34
DET-003-240402-GW	280-191098-2	SMS_3-0514240	05/14/2024	16:57
DET-004-240401-GW	280-191098-5	SMS_3-0514240	05/14/2024	17:19
	CCVC 280-653283/31	SMS_3-0514240	05/14/2024	21:49
	CCVC 280-653283/32	SMS_3-0514240	05/14/2024	22:11
	CCVC 280-653283/33	SMS_3-0514240	05/14/2024	22:34

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Sample No.: ICIS 280-648459/2 Date Analyzed: 04/05/2024 11:38

Instrument ID: SMS_3 GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): SMS_3-040524006.D Heated Purge: (Y/N) N

Calibration ID: 91940

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		242760	4.02	1385333	5.20	779332	6.89
UPPER LIMIT		485520	4.19	2770666	5.36	1558664	7.06
LOWER LIMIT		121380	3.86	692667	5.03	389666	6.73
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-648459/10		249838	4.02	1420857	5.20	803031	6.89
CCVIS 280-653283/3		219821	3.99	1173133	5.16	622444	6.85

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.1666 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Sample No.: ICIS 280-648459/2 Date Analyzed: 04/05/2024 11:38

Instrument ID: SMS_3 GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): SMS_3-040524006.D Heated Purge: (Y/N) N

Calibration ID: 91940

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1300177	8.34	1005319	11.13	990218	13.39
UPPER LIMIT		2600354	8.51	2010638	11.30	1980436	13.56
LOWER LIMIT		650089	8.18	502660	10.96	495109	13.22
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-648459/10		1370674	8.34	1072714	11.12	1014897	13.39
CCVIS 280-653283/3		953278	8.30	685082	11.06	677914	13.29

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.1666 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Sample No.: CCVIS 280-653283/3 Date Analyzed: 05/14/2024 12:04

Instrument ID: SMS_3 GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): SMS_3-051424004a.D Heated Purge: (Y/N) N

Calibration ID: 91940

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		219821	3.99	1173133	5.16	622444	6.85
UPPER LIMIT		439642	4.16	2346266	5.32	1244888	7.01
LOWER LIMIT		109911	3.82	586567	4.99	311222	6.68
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 280-653130/1-A		187162	3.99	1025788	5.15	537845	6.85
LCS 280-653130/2-A		184258	3.99	1004632	5.16	497943	6.85
LCSD 280-653130/3-A		242782	3.99	1331727	5.16	670187	6.85
280-191098-1	DET-003-240401-GW	210871	3.99	1192781	5.15	632896	6.85
280-191098-1 MS	DET-003-240401-GW MS	203475	3.99	1147490	5.16	590533	6.85
280-191098-1 MSD	DET-003-240401-GW MSD	248748	3.99	1373677	5.16	697829	6.85
280-191098-2	DET-003-240402-GW	240507	3.99	1337728	5.15	696577	6.85
280-191098-5	DET-004-240401-GW	279409	3.99	1635970	5.16	880847	6.85
CCVC 280-653283/31		290918	3.99	1597351	5.16	812689	6.85

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.1666 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Sample No.: CCVIS 280-653283/3 Date Analyzed: 05/14/2024 12:04

Instrument ID: SMS_3 GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): SMS_3-051424004a.D Heated Purge: (Y/N) N

Calibration ID: 91940

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		953278	8.30	685082	11.06	677914	13.29
UPPER LIMIT		1906556	8.47	1370164	11.23	1355828	13.46
LOWER LIMIT		476639	8.13	342541	10.89	338957	13.13
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 280-653130/1-A		915213	8.30	569647	11.06	567767	13.29
LCS 280-653130/2-A		795991	8.30	624459	11.06	546419	13.29
LCSD 280-653130/3-A		1037924	8.30	709380	11.06	584096	13.29
280-191098-1	DET-003-240401-GW	1052500	8.30	677924	11.05	634611	13.29
280-191098-1 MS	DET-003-240401-GW MS	980850	8.30	714581	11.06	616434	13.29
280-191098-1 MSD	DET-003-240401-GW MSD	1079730	8.30	698461	11.06	615652	13.29
280-191098-2	DET-003-240402-GW	1175481	8.30	731300	11.06	644820	13.29
280-191098-5	DET-004-240401-GW	1454055	8.30	758662	11.06	632801	13.29
CCVC 280-653283/31		1316128	8.30	885944	11.06	794596	13.29

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.1666 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW | Lab Sample ID: 280-191098-1

Matrix: Water | Lab File ID: SMS_3-051424014a.D

Analysis Method: 8270E | Date Collected: 05/06/2024 10:16

Extract. Method: 3510C | Date Extracted: 05/13/2024 11:32

Sample wt/vol: 248.3(mL) | Date Analyzed: 05/14/2024 15:49

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: DB-5MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 653283 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-95-4	2,4,5-Trichlorophenol	8.1	U	10	8.1	2.6
88-06-2	2,4,6-Trichlorophenol	8.1	U	10	8.1	2.3
120-83-2	2,4-Dichlorophenol	8.1	U	10	8.1	3.0
105-67-9	2,4-Dimethylphenol	8.1	U	10	8.1	1.4
51-28-5	2,4-Dinitrophenol	20	U	30	20	13
121-14-2	2,4-Dinitrotoluene	8.1	U	10	8.1	1.4
606-20-2	2,6-Dinitrotoluene	8.1	U M	10	8.1	1.4
95-57-8	2-Chlorophenol	8.1	U	10	8.1	2.6
95-48-7	2-Methylphenol	8.1	U	10	8.1	0.78
88-75-5	2-Nitrophenol	8.1	U	10	8.1	3.5
15831-10-4	3 & 4 Methylphenol	8.1	U	10	8.1	2.2
534-52-1	4,6-Dinitro-2-methylphenol	30	U M	50	30	4.1
59-50-7	4-Chloro-3-methylphenol	8.1	U	10	8.1	1.7
100-02-7	4-Nitrophenol	13	U Q	25	13	9.1
117-81-7	Bis(2-ethylhexyl) phthalate	8.1	U M	10	8.1	3.3
85-68-7	Butyl benzyl phthalate	3.2	U	4.0	3.2	1.5
84-66-2	Diethyl phthalate	3.2	U	4.0	3.2	1.4
131-11-3	Dimethyl phthalate	3.2	U	4.0	3.2	0.76
84-74-2	Di-n-butyl phthalate	3.2	U Q	4.0	3.2	2.1
117-84-0	Di-n-octyl phthalate	8.1	U	10	8.1	3.6
98-95-3	Nitrobenzene	8.1	U	10	8.1	1.3
87-86-5	Pentachlorophenol	48	U	50	48	20
108-95-2	Phenol	8.1	U	10	8.1	0.93

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	76		43-140
321-60-8	2-Fluorobiphenyl	65		44-119
367-12-4	2-Fluorophenol (Surr)	44		19-119
4165-60-0	Nitrobenzene-d5 (Surr)	65		44-120
4165-62-2	Phenol-d5 (Surr)	31		10-115
1718-51-0	Terphenyl-d14 (Surr)	85		50-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424014a.D
Lims ID: 280-191098-G-1-C
Client ID: DET-003-240401-GW
Sample Type: Client
Inject. Date: 14-May-2024 15:49:52 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-G-1-C
Operator ID: DM Instrument ID: SMS_3

Method: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 15-May-2024 10:46:00 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1641

First Level Reviewer: G3YK Date: 14-May-2024 16:44:19

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	115	3.985	3.987	-0.002	98	210871	8.00	
* 2 Naphthalene-d8	136	5.153	5.155	-0.002	100	1192781	8.00	
* 3 Acenaphthene-d10	164	6.847	6.847	0.000	93	632896	8.00	
* 4 Phenanthrene-d10	188	8.297	8.299	-0.001	97	1052500	8.00	
* 5 Chrysene-d12	240	11.053	11.052	0.001	99	677924	8.00	
* 6 Perylene-d12	264	13.288	13.290	-0.002	98	634611	8.00	Ma
$ 7 2-Fluorophenol	112	2.911	2.911	0.000	94	486212	11.0	
$ 8 Phenol-d5	99	3.714	3.718	-0.004	0	458000	7.78	
$ 9 Nitrobenzene-d5	82	4.489	4.495	-0.006	89	884787	16.3	
$ 10 2-Fluorobiphenyl	172	6.210	6.212	-0.002	99	1224056	16.2	
$ 11 2,4,6-Tribromophenol	330	7.621	7.625	-0.004	91	203142	19.0	
$ 12 Terphenyl-d14	244	9.897	9.897	0.000	98	1380107	21.1	
13 N-Nitrosodimethylamine	74		1.854				ND	
14 Pyridine	79		1.874				ND	U
15 2-Picoline	93		2.417				ND	7
16 N-Nitrosomethylethylamine	88		2.515				ND	7
18 Methyl methanesulfonate	80		2.766				ND	7
17 Acrylamide	71		2.831				ND	U
19 N-Nitrosodiethylamine	102		3.078				ND	
20 Ethyl methanesulfonate	79		3.344				ND	7
21 Benzaldehyde	77		3.609				ND	7
23 Aniline	93		3.707				ND	
22 Phenol	94		3.730				ND	7
24 Pentachloroethane	117		3.738				ND	
25 Bis(2-chloroethyl)ether	93		3.773				ND	7
26 2-Chlorophenol	128		3.814				ND	7
27 n-Decane	43		3.863				ND	7
28 1,3-Dichlorobenzene	146		3.936				ND	7
29 1,4-Dichlorobenzene	146		4.003				ND	7
31 1,2-Dichlorobenzene	146		4.134				ND	7
30 Benzyl alcohol	79		4.136				ND	U

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
32 Indene	116		4.218				ND	
34 2,2'-oxybis[1-chloropropane]	45		4.248				ND	
33 2-Methylphenol	108		4.257				ND	
35 N-Nitrosopyrrolidine	100		4.346				ND	7
36 Acetophenone	105		4.363				ND	
37 N-Nitrosodi-n-propylamine	70		4.377				ND	
40 N-Nitrosomorpholine	56		4.387				ND	
42 2-Toluidine	106		4.395				ND	7
38 3-Methylphenol	108		4.401				ND	
39 3 & 4 Methylphenol	108		4.401				ND	
41 4-Methylphenol	108		4.401				ND	
43 Hexachloroethane	117		4.438				ND	
44 Nitrobenzene	77		4.514				ND	
45 N-Nitrosopiperidine	114		4.654				ND	7
46 Isophorone	82		4.742				ND	
47 2-Nitrophenol	139		4.808				ND	7
48 2,4-Dimethylphenol	107		4.883				ND	
50 o,o',o''-Triethylphosphorothioat	121		4.936				ND	
51 Bis(2-chloroethoxy)methane	93		4.963				ND	7
52 2,4-Dichlorophenol	162		5.049				ND	
49 Benzoic acid	105	4.947	5.063	-0.116	79	6331	1.42	M
53 1,2,4-Trichlorobenzene	180		5.108				ND	
54 Naphthalene	128		5.177				ND	
55 4-Chloroaniline	127		5.251				ND	
56 2,6-Dichlorophenol	162		5.255				ND	
155 Hexachloropropene	213		5.261				ND	
57 Hexachlorobutadiene	225		5.304				ND	
58 Quinoline	129		5.496				ND	
59 Caprolactam	113		5.575				ND	U
60 N-Nitrosodi-n-butylamine	84		5.585				ND	7
61 4-Chloro-3-methylphenol	107		5.749				ND	
62 Safrole, Total	162		5.777				ND	
63 2-Methylnaphthalene	141		5.845				ND	7
64 1-Methylnaphthalene	142		5.937				ND	7
65 Hexachlorocyclopentadiene	237		5.996				ND	
66 1,2,4,5-Tetrachlorobenzene	216		6.004				ND	
67 Isosafrole Peak 1	162		6.059				ND	7
68 2,4,6-Trichlorophenol	196		6.133				ND	
69 2,4,5-Trichlorophenol	196		6.173				ND	
70 Isosafrole Peak 2	162		6.279				ND	7
71 1,1'-Biphenyl	154		6.304				ND	7
72 2-Chloronaphthalene	162		6.310				ND	7
73 1-Chloronaphthalene	162		6.328				ND	7
74 2-Nitroaniline	138		6.433				ND	
75 1,4-Naphthoquinone	158		6.492				ND	
76 1,4-Dinitrobenzene	168		6.573				ND	
77 Dimethyl phthalate	163		6.631				ND	
78 1,3-Dinitrobenzene	168		6.645				ND	
79 2,6-Dinitrotoluene	165		6.680				ND	U
80 Acenaphthylene	152		6.710				ND	7
81 3-Nitroaniline	65		6.839				ND	7
82 Acenaphthene	153		6.882				ND	7

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
83 2,4-Dinitrophenol	184		6.939				ND	
84 Pentachlorobenzene	250		7.008				ND	
86 Dibenzofuran	168		7.053				ND	7
85 4-Nitrophenol	65		7.059				ND	
87 2,4-Dinitrotoluene	165		7.066				ND	
88 1-Naphthylamine	143		7.133				ND	
89 2,3,4,6-Tetrachlorophenol	232		7.186				ND	
90 2-Naphthylamine	143		7.214				ND	
91 Diethyl phthalate	149	7.321	7.329	-0.008	94	3909	0.0479	
92 Hexadecane	57		7.355				ND	7
93 Fluorene	166		7.388				ND	
94 Thionazin	97		7.396				ND	
95 4-Chlorophenyl phenyl ether	204		7.407				ND	
96 N-Nitro-o-toluidine	152		7.421				ND	
97 4-Nitroaniline	138		7.443				ND	
98 4,6-Dinitro-2-methylphenol	198		7.464				ND	U
99 Diphenylamine	169		7.531				ND	U
100 N-Nitrosodiphenylamine	168		7.531				ND	7
102 1,2-Diphenylhydrazine	77		7.562				ND	7
101 Azobenzene	77		7.562				ND	7
103 Sulfotepp	322		7.715				ND	
104 1,3,5-Trinitrobenzene	213		7.813				ND	
105 Diallate Peak 1	86		7.821				ND	
106 Phorate	121		7.829				ND	
107 Phenacetin	108		7.864				ND	
108 4-Bromophenyl phenyl ether	248		7.884				ND	
109 Diallate Peak 2	86		7.902				ND	
110 Hexachlorobenzene	284		7.915				ND	
111 Dimethoate	87		7.994				ND	
112 Atrazine	200		8.082				ND	
114 Pentachloronitrobenzene	237		8.127				ND	
113 Pentachlorophenol	266		8.127				ND	
115 4-Aminobiphenyl	169		8.143				ND	
116 Pronamide	173		8.227				ND	
156 n-Octadecane	57		8.268				ND	7
117 Phenanthrene	178		8.323				ND	7
118 Dinoseb	211		8.329				ND	
119 Disulfoton	88		8.345				ND	
120 Anthracene	178		8.374				ND	7
121 Carbazole	167		8.552				ND	
123 Methyl parathion	109		8.707				ND	
122 Alachlor	45		8.707				ND	
124 Di-n-butyl phthalate	149	8.938	8.940	-0.002	98	6905	0.0533	
157 Ethyl Parathion	97		9.099				ND	
125 4-Nitroquinoline-1-oxide	190		9.099				ND	
126 Methapyrilene	58		9.201				ND	
158 Isodrin	193		9.338				ND	
127 Fluoranthene	202		9.489				ND	
128 Benzidine	184		9.658				ND	
129 Pyrene	202		9.707				ND	7
130 Aramite Peak 1	185		9.909				ND	
131 Aramite Peak 2	185		9.991				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
132 p-Dimethylamino azobenzene	120		10.044				ND	7
133 Chlorobenzilate	251		10.103				ND	
134 Famphur	218		10.369				ND	
135 3,3'-Dimethylbenzidine	212		10.407				ND	
136 Butyl benzyl phthalate	149		10.450				ND	
137 2-Acetylaminofluorene	181		10.699				ND	
138 Benzo[a]anthracene	228		11.046				ND	
139 3,3'-Dichlorobenzidine	252		11.061				ND	
140 4,4'-Methylene bis(2-chloroanil	231		11.075				ND	
141 Chrysene	228		11.097				ND	
142 Bis(2-ethylhexyl) phthalate	149	11.216	11.222	-0.006	89	6759	0.1080	M
143 6-Methylchrysene	242		11.747				ND	
144 Di-n-octyl phthalate	149		12.243				ND	
145 Benzo[b]fluoranthene	252		12.659				ND	
146 7,12-Dimethylbenz(a)anthracene	256		12.663				ND	
147 Benzo[k]fluoranthene	252		12.706				ND	
148 Benzo[a]pyrene	252		13.196				ND	7
149 3-Methylcholanthrene	268		13.843				ND	
150 Dibenz[a,h]acridine	279		14.829				ND	
151 Dibenz[a,j]acridine	279		14.929				ND	
152 Indeno[1,2,3-cd]pyrene	276		15.201				ND	
153 Dibenz(a,h)anthracene	278		15.278				ND	
154 Benzo[g,h,i]perylene	276		15.658				ND	
209 1,4-Dioxane	88		0.000				ND	
159 Pentachlorophenol_T	266		3.526				ND	
161 Benzidine_T	184		4.667				ND	
162 4,4'-DDE	246		5.070				ND	
163 4,4'-DDD	235		5.140				ND	
164 4,4'-DDT	235		5.261				ND	
S 165 Aramite, Total	185		15.470				ND	7
S 166 Diallate	86		15.500				ND	7
S 169 Total Cresols	108		15.500				ND	7
S 167 Isosafrole	162		15.500				ND	7
S 168 Methyl Phenols,Total	108		15.500				ND	7
S 170 TPAH	1		0.000				ND	7
T 171 Triethyl amine TIC	86		2.190				ND	
T 172 2-Ethoxyethanol TIC	59		2.433				ND	7
T 173 Dimethylformamide TIC	73		2.775				ND	U
T 174 Phenylmercaptan TIC	110		3.735				ND	
T 175 Alpha Methyl Styrene TIC	118		3.794				ND	U
T 176 o-Anisidine TIC	80		4.911				ND	
T 177 alpha,alpha-Dimethyl phenethylam	58		5.168				ND	7
T 178 Benzyl dichloride TIC	125		5.295				ND	
T 179 1,3-phenylenediamine TIC	108		5.627				ND	
T 180 p-phenylenediamine TIC	108		5.627				ND	
T 181 5-Methyl-o-Anisidine TIC	122		5.631				ND	
T 182 Phthalic anhydride TIC	104		5.825				ND	
T 183 Carbofuran phenol TIC	164		6.172				ND	
T 184 Toluene diamine (2,4- + 2,6- isc	122		6.332				ND	7
T 185 2,6-Dimethylphenol TIC	122		7.524				ND	7
T 186 Phthalic acid TIC	104		7.579				ND	7
T 208 2,4-Xylidine TIC	121		7.800				ND	7

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
T 187 Tributyl phosphate TIC	99		7.967				ND	
T 188 Alpha-Terpineol TIC	59		10.053				ND	7
T 189 Hexachlorophene TIC	196		10.159				ND	
T 190 Kepone TIC	272		10.580				ND	
T 191 Tris(2,3-dibromopropyl)phosphate	201		12.766				ND	

QC Flag Legend

Processing Flags
- 7 - Failed Limit of Detection

Review Flags
- M - Manually Integrated
- U - Marked Undetected
- a - User Assigned ID

Reagents:

MS-IS-RVE_00005 Amount Added: 30.00 Units: uL Run Reagent

Report Date: 15-May-2024 10:47:01 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424014a.D

Injection Date:	14-May-2024 15:49:52	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	280-191098-G-1-C	Lab Sample ID:	280-191098-1	Worklist Smp#:	14
Client ID:	DET-003-240401-GW				
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1

5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424014a.D
Lims ID: 280-191098-G-1-C
Client ID: DET-003-240401-GW
Sample Type: Client
Inject. Date: 14-May-2024 15:49:52 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-G-1-C
Operator ID: DM Instrument ID: SMS_3

Method: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 15-May-2024 10:46:00 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1641

First Level Reviewer: G3YK Date: 14-May-2024 16:44:19

Compound	Amount Added	Amount Recovered	% Rec.
$ 7 2-Fluorophenol	25.0	11.0	44.01
$ 8 Phenol-d5	25.0	7.78	31.10
$ 9 Nitrobenzene-d5	25.0	16.3	65.12
$ 10 2-Fluorobiphenyl	25.0	16.2	64.99
$ 11 2,4,6-Tribromophenol	25.0	19.0	75.85
$ 12 Terphenyl-d14	25.0	21.1	84.54

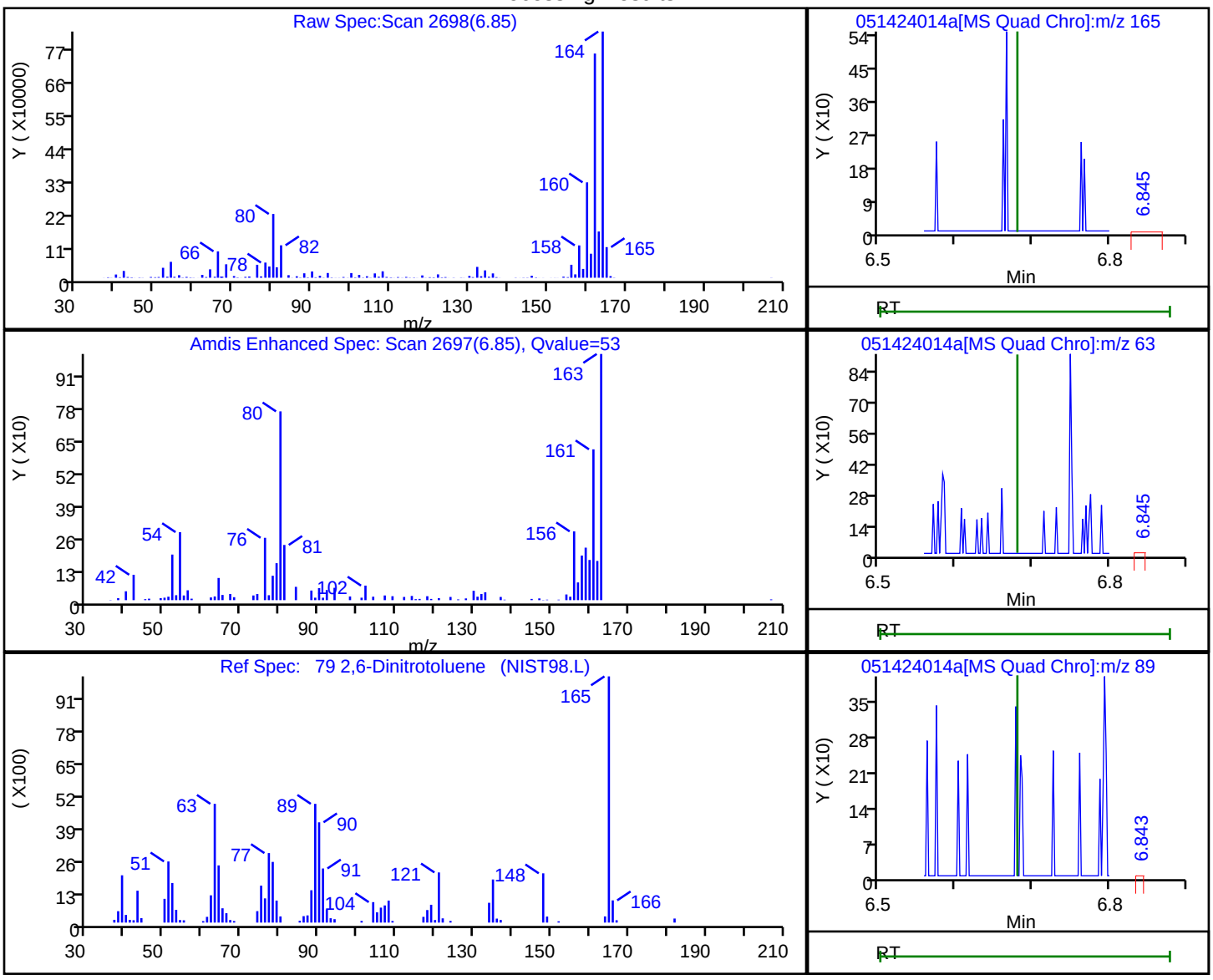
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424014a.D				
Injection Date:	14-May-2024 15:49:52	Instrument ID:	SMS_3		
Lims ID:	280-191098-G-1-C	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	14
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

79 2,6-Dinitrotoluene, CAS: 606-20-2

Processing Results



RT	Mass	Response	Amount
6.85	165.00	82142	4.509547
6.85	63.00	816	
6.84	89.00	592	

Reviewer: G3YK, 14-May-2024 16:22:54 -06:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

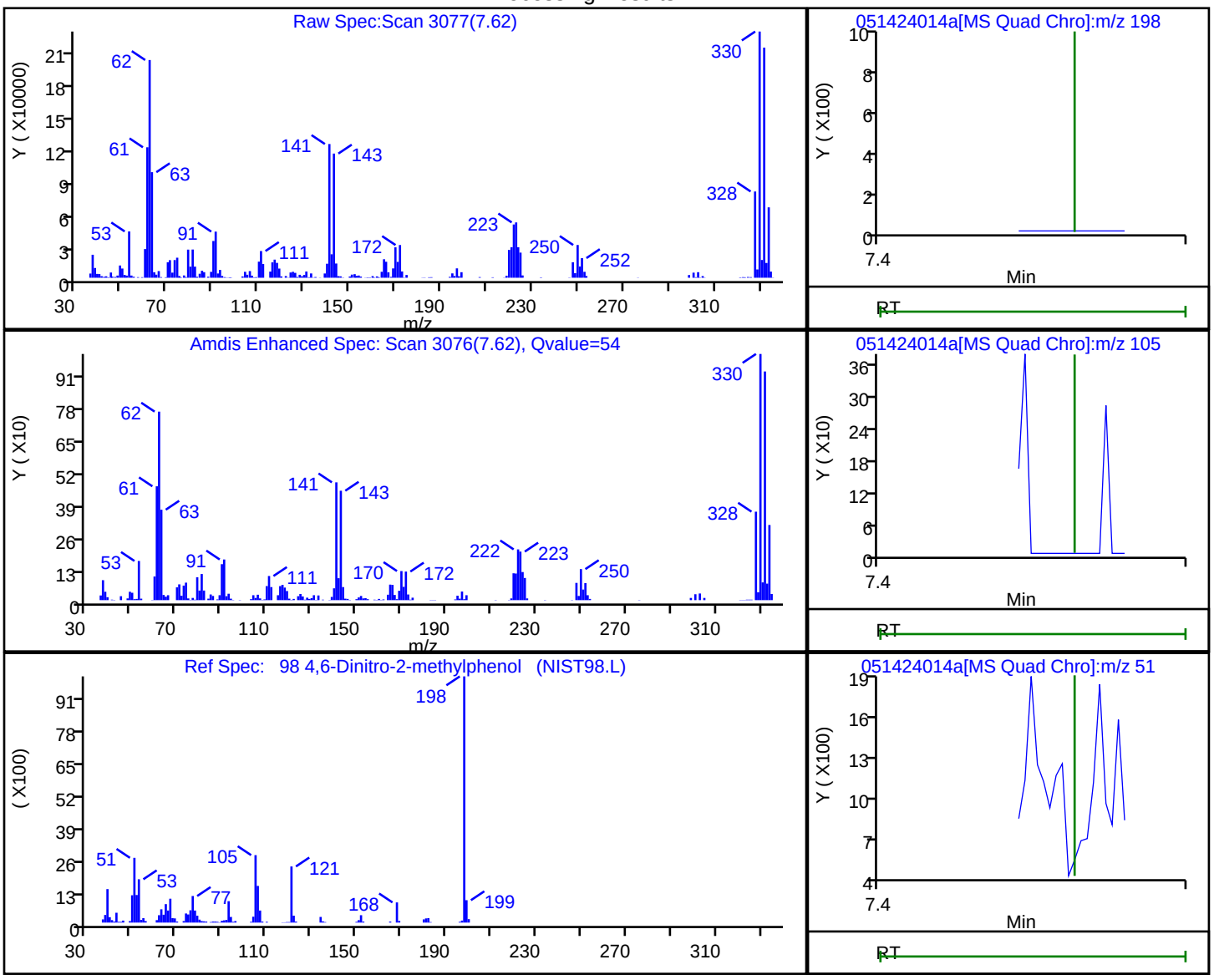
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424014a.D				
Injection Date:	14-May-2024 15:49:52	Instrument ID:	SMS_3		
Lims ID:	280-191098-G-1-C	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	14
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

98 4,6-Dinitro-2-methylphenol, CAS: 534-52-1

Processing Results



RT	Mass	Response	Amount
7.62	198.00	296	0.760835
7.62	105.00	1614	
7.62	51.00	815	

Reviewer: G3YK, 14-May-2024 16:23:00 -06:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

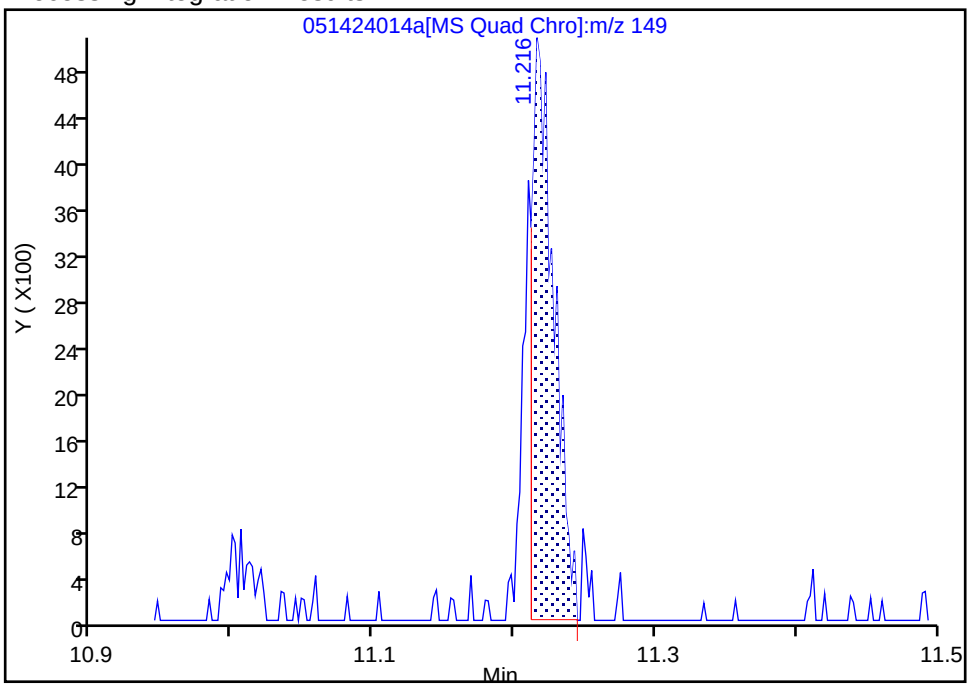
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424014a.D				
Injection Date:	14-May-2024 15:49:52	Instrument ID:	SMS_3		
Lims ID:	280-191098-G-1-C	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	14
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

142 Bis(2-ethylhexyl) phthalate, CAS: 117-81-7

Signal: 1

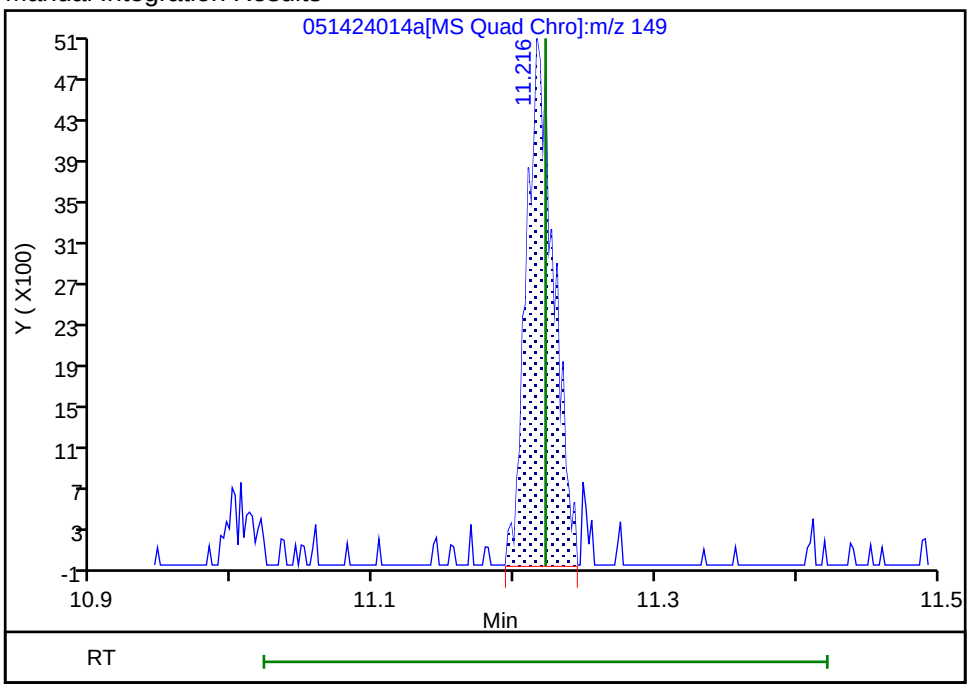
Processing Integration Results

RT: 11.22
Area: 5330
Amount: 0.085199
Amount Units: ug/ml



Manual Integration Results

RT: 11.22
Area: 6759
Amount: 0.108042
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 16:23:16 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

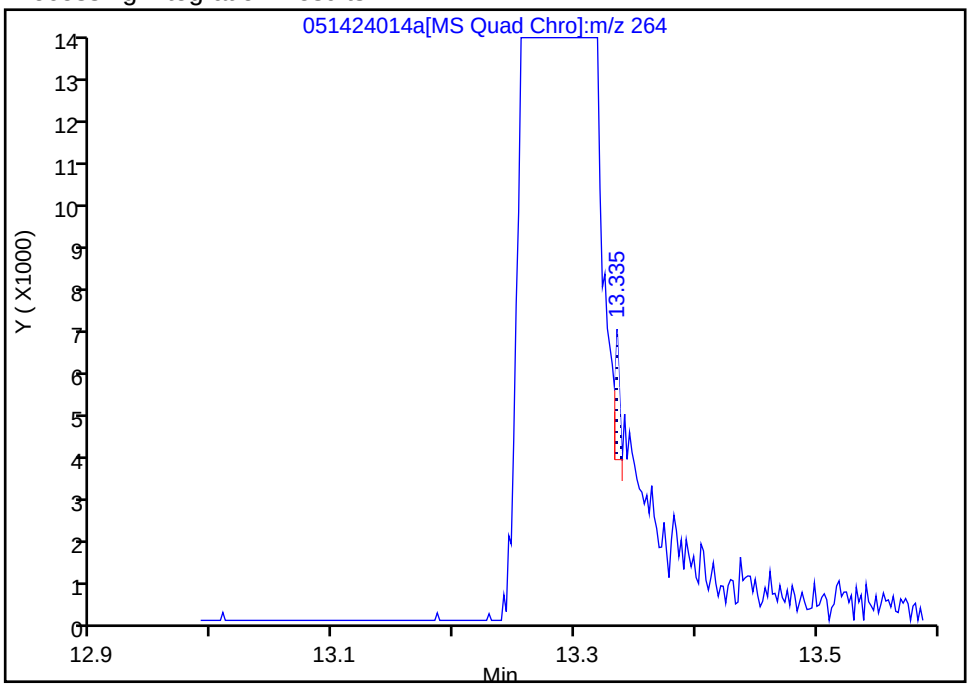
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424014a.D				
Injection Date:	14-May-2024 15:49:52	Instrument ID:	SMS_3		
Lims ID:	280-191098-G-1-C	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	14
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

* 6 Perylene-d12, CAS: 1520-96-3

Signal: 1

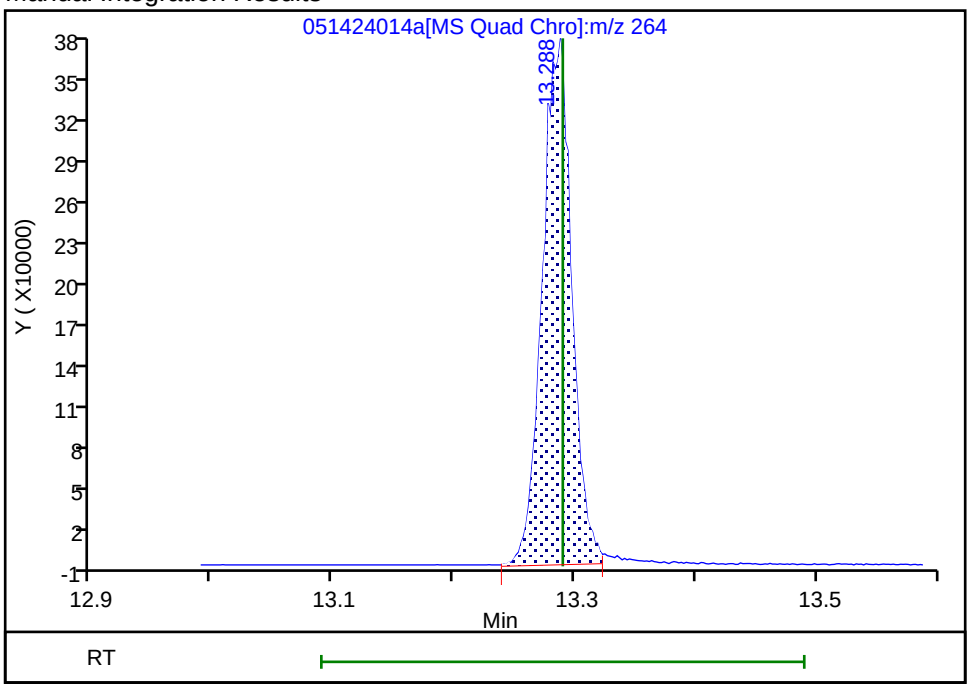
Processing Integration Results

RT: 13.33
Area: 735
Amount: 8.000000
Amount Units: ug/ml



Manual Integration Results

RT: 13.29
Area: 634611
Amount: 8.000000
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 16:22:01 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240402-GW | Lab Sample ID: 280-191098-2

Matrix: Water | Lab File ID: SMS_3-051424017a.D

Analysis Method: 8270E | Date Collected: 05/06/2024 10:16

Extract. Method: 3510C | Date Extracted: 05/13/2024 11:32

Sample wt/vol: 246(mL) | Date Analyzed: 05/14/2024 16:57

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: DB-5MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 653283 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-95-4	2,4,5-Trichlorophenol	8.1	U	10	8.1	2.6
88-06-2	2,4,6-Trichlorophenol	8.1	U	10	8.1	2.4
120-83-2	2,4-Dichlorophenol	8.1	U	10	8.1	3.1
105-67-9	2,4-Dimethylphenol	8.1	U	10	8.1	1.4
51-28-5	2,4-Dinitrophenol	20	U	30	20	13
121-14-2	2,4-Dinitrotoluene	8.1	U	10	8.1	1.5
606-20-2	2,6-Dinitrotoluene	8.1	U M	10	8.1	1.4
95-57-8	2-Chlorophenol	8.1	U	10	8.1	2.6
95-48-7	2-Methylphenol	8.1	U	10	8.1	0.78
88-75-5	2-Nitrophenol	8.1	U	10	8.1	3.5
15831-10-4	3 & 4 Methylphenol	8.1	U	10	8.1	2.2
534-52-1	4,6-Dinitro-2-methylphenol	30	U M	51	30	4.1
59-50-7	4-Chloro-3-methylphenol	8.1	U	10	8.1	1.7
100-02-7	4-Nitrophenol	13	U Q	25	13	9.2
117-81-7	Bis(2-ethylhexyl) phthalate	8.1	U M	10	8.1	3.4
85-68-7	Butyl benzyl phthalate	3.3	U	4.1	3.3	1.6
84-66-2	Diethyl phthalate	3.3	U	4.1	3.3	1.4
131-11-3	Dimethyl phthalate	3.3	U	4.1	3.3	0.76
84-74-2	Di-n-butyl phthalate	3.3	U Q	4.1	3.3	2.1
117-84-0	Di-n-octyl phthalate	8.1	U M	10	8.1	3.7
98-95-3	Nitrobenzene	8.1	U	10	8.1	1.3
87-86-5	Pentachlorophenol	49	U	51	49	20
108-95-2	Phenol	8.1	U	10	8.1	0.93

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	70		43-140
321-60-8	2-Fluorobiphenyl	56		44-119
367-12-4	2-Fluorophenol (Surr)	37		19-119
4165-60-0	Nitrobenzene-d5 (Surr)	56		44-120
4165-62-2	Phenol-d5 (Surr)	26		10-115
1718-51-0	Terphenyl-d14 (Surr)	86		50-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424017a.D
Lims ID: 280-191098-C-2-A
Client ID: DET-003-240402-GW
Sample Type: Client
Inject. Date: 14-May-2024 16:57:22 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-C-2-A
Operator ID: DM Instrument ID: SMS_3

Method: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 15-May-2024 10:46:00 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1641

First Level Reviewer: G3YK Date: 14-May-2024 17:23:44

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
*	1 1,4-Dichlorobenzene-d4	115	3.987	3.987	0.000	97	240507	8.00	
*	2 Naphthalene-d8	136	5.153	5.155	-0.002	100	1337728	8.00	
*	3 Acenaphthene-d10	164	6.847	6.847	0.000	94	696577	8.00	
*	4 Phenanthrene-d10	188	8.297	8.299	-0.001	97	1175481	8.00	
*	5 Chrysene-d12	240	11.055	11.052	0.003	99	731300	8.00	
*	6 Perylene-d12	264	13.286	13.290	-0.004	97	644820	8.00	M
$	7 2-Fluorophenol	112	2.913	2.911	0.002	94	463859	9.20	
$	8 Phenol-d5	99	3.713	3.718	-0.005	0	438295	6.52	
$	9 Nitrobenzene-d5	82	4.491	4.495	-0.004	89	860053	14.1	
$	10 2-Fluorobiphenyl	172	6.210	6.212	-0.002	99	1151004	13.9	
$	11 2,4,6-Tribromophenol	330	7.623	7.625	-0.002	92	208048	17.4	
$	12 Terphenyl-d14	244	9.899	9.897	0.002	98	1514430	21.5	
	13 N-Nitrosodimethylamine	74		1.854				ND	7
	14 Pyridine	79		1.874				ND	U
	15 2-Picoline	93		2.417				ND	7
	16 N-Nitrosomethylethylamine	88		2.515				ND	7
	18 Methyl methanesulfonate	80		2.766				ND	U
	17 Acrylamide	71		2.831				ND	U
	19 N-Nitrosodiethylamine	102		3.078				ND	
	20 Ethyl methanesulfonate	79		3.344				ND	
	21 Benzaldehyde	77		3.609				ND	7
	23 Aniline	93		3.707				ND	
	22 Phenol	94		3.730				ND	7
	24 Pentachloroethane	117		3.738				ND	
	25 Bis(2-chloroethyl)ether	93		3.773				ND	7
	26 2-Chlorophenol	128		3.814				ND	
	27 n-Decane	43		3.863				ND	U
	28 1,3-Dichlorobenzene	146		3.936				ND	7
	29 1,4-Dichlorobenzene	146		4.003				ND	7
	31 1,2-Dichlorobenzene	146		4.134				ND	7
	30 Benzyl alcohol	79		4.136				ND	U

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
32 Indene	116		4.218				ND	
34 2,2'-oxybis[1-chloropropane]	45		4.248				ND	
33 2-Methylphenol	108		4.257				ND	
35 N-Nitrosopyrrolidine	100		4.346				ND	7
36 Acetophenone	105		4.363				ND	
37 N-Nitrosodi-n-propylamine	70		4.377				ND	U
40 N-Nitrosomorpholine	56		4.387				ND	
42 2-Toluidine	106		4.395				ND	
38 3-Methylphenol	108		4.401				ND	
39 3 & 4 Methylphenol	108		4.401				ND	
41 4-Methylphenol	108		4.401				ND	
43 Hexachloroethane	117		4.438				ND	
44 Nitrobenzene	77		4.514				ND	7
45 N-Nitrosopiperidine	114		4.654				ND	7
46 Isophorone	82		4.742				ND	
47 2-Nitrophenol	139		4.808				ND	
48 2,4-Dimethylphenol	107		4.883				ND	
50 o,o',o''-Triethylphosphorothioat	121		4.936				ND	
51 Bis(2-chloroethoxy)methane	93		4.963				ND	
52 2,4-Dichlorophenol	162		5.049				ND	
49 Benzoic acid	105		5.063				ND	MU
53 1,2,4-Trichlorobenzene	180		5.108				ND	
54 Naphthalene	128		5.177				ND	
55 4-Chloroaniline	127		5.251				ND	7
56 2,6-Dichlorophenol	162		5.255				ND	
155 Hexachloropropene	213		5.261				ND	
57 Hexachlorobutadiene	225		5.304				ND	
58 Quinoline	129		5.496				ND	7
59 Caprolactam	113		5.575				ND	U
60 N-Nitrosodi-n-butylamine	84		5.585				ND	
61 4-Chloro-3-methylphenol	107		5.749				ND	
62 Safrole, Total	162		5.777				ND	
63 2-Methylnaphthalene	141		5.845				ND	7
64 1-Methylnaphthalene	142		5.937				ND	7
65 Hexachlorocyclopentadiene	237		5.996				ND	
66 1,2,4,5-Tetrachlorobenzene	216		6.004				ND	
67 Isosafrole Peak 1	162		6.059				ND	
68 2,4,6-Trichlorophenol	196		6.133				ND	
69 2,4,5-Trichlorophenol	196		6.173				ND	
70 Isosafrole Peak 2	162		6.279				ND	
71 1,1'-Biphenyl	154		6.304				ND	7
72 2-Chloronaphthalene	162		6.310				ND	
73 1-Chloronaphthalene	162		6.328				ND	
74 2-Nitroaniline	138		6.433				ND	
75 1,4-Naphthoquinone	158		6.492				ND	
76 1,4-Dinitrobenzene	168		6.573				ND	
77 Dimethyl phthalate	163		6.631				ND	
78 1,3-Dinitrobenzene	168		6.645				ND	
79 2,6-Dinitrotoluene	165		6.680				ND	U
80 Acenaphthylene	152		6.710				ND	
81 3-Nitroaniline	65		6.839				ND	U
82 Acenaphthene	153		6.882				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
83 2,4-Dinitrophenol	184		6.939				ND	
84 Pentachlorobenzene	250		7.008				ND	
86 Dibenzofuran	168		7.053				ND	
85 4-Nitrophenol	65		7.059				ND	
87 2,4-Dinitrotoluene	165		7.066				ND	
88 1-Naphthylamine	143		7.133				ND	
89 2,3,4,6-Tetrachlorophenol	232		7.186				ND	
90 2-Naphthylamine	143		7.214				ND	
91 Diethyl phthalate	149		7.329				ND	7
92 Hexadecane	57		7.355				ND	7
93 Fluorene	166		7.388				ND	
94 Thionazin	97		7.396				ND	
95 4-Chlorophenyl phenyl ether	204		7.407				ND	
96 N-Nitro-o-toluidine	152		7.421				ND	7
97 4-Nitroaniline	138		7.443				ND	
98 4,6-Dinitro-2-methylphenol	198		7.464				ND	U
99 Diphenylamine	169		7.531				ND	U
100 N-Nitrosodiphenylamine	168		7.531				ND	7
102 1,2-Diphenylhydrazine	77		7.562				ND	7
101 Azobenzene	77		7.562				ND	7
103 Sulfotepp	322		7.715				ND	
104 1,3,5-Trinitrobenzene	213		7.813				ND	
105 Diallate Peak 1	86		7.821				ND	
106 Phorate	121		7.829				ND	
107 Phenacetin	108		7.864				ND	
108 4-Bromophenyl phenyl ether	248		7.884				ND	7
109 Diallate Peak 2	86		7.902				ND	
110 Hexachlorobenzene	284		7.915				ND	
111 Dimethoate	87		7.994				ND	
112 Atrazine	200		8.082				ND	
114 Pentachloronitrobenzene	237		8.127				ND	
113 Pentachlorophenol	266		8.127				ND	
115 4-Aminobiphenyl	169		8.143				ND	7
116 Pronamide	173		8.227				ND	
156 n-Octadecane	57		8.268				ND	7
117 Phenanthrene	178		8.323				ND	7
118 Dinoseb	211		8.329				ND	
119 Disulfoton	88		8.345				ND	
120 Anthracene	178		8.374				ND	7
121 Carbazole	167		8.552				ND	
123 Methyl parathion	109		8.707				ND	
122 Alachlor	45		8.707				ND	
124 Di-n-butyl phthalate	149		8.940				ND	
157 Ethyl Parathion	97		9.099				ND	
125 4-Nitroquinoline-1-oxide	190		9.099				ND	
126 Methapyrilene	58		9.201				ND	7
158 Isodrin	193		9.338				ND	
127 Fluoranthene	202		9.489				ND	7
128 Benzidine	184		9.658				ND	
129 Pyrene	202		9.707				ND	U
130 Aramite Peak 1	185		9.909				ND	
131 Aramite Peak 2	185		9.991				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
132 p-Dimethylamino azobenzene	120		10.044				ND	U
133 Chlorobenzilate	251		10.103				ND	
134 Famphur	218		10.369				ND	
135 3,3'-Dimethylbenzidine	212		10.407				ND	
136 Butyl benzyl phthalate	149		10.450				ND	
137 2-Acetylaminofluorene	181		10.699				ND	
138 Benzo[a]anthracene	228		11.046				ND	7
139 3,3'-Dichlorobenzidine	252		11.061				ND	7
140 4,4'-Methylene bis(2-chloroanil	231		11.075				ND	U
141 Chrysene	228		11.097				ND	7
142 Bis(2-ethylhexyl) phthalate	149	11.222	11.222	0.000	93	5883	0.0872	M
143 6-Methylchrysene	242		11.747				ND	
144 Di-n-octyl phthalate	149		12.243				ND	U
145 Benzo[b]fluoranthene	252		12.659				ND	
146 7,12-Dimethylbenz(a)anthracene	256		12.663				ND	
147 Benzo[k]fluoranthene	252		12.706				ND	
148 Benzo[a]pyrene	252		13.196				ND	7
149 3-Methylcholanthrene	268		13.843				ND	
150 Dibenz[a,h]acridine	279		14.829				ND	
151 Dibenz[a,j]acridine	279		14.929				ND	
152 Indeno[1,2,3-cd]pyrene	276		15.201				ND	
153 Dibenz(a,h)anthracene	278		15.278				ND	
154 Benzo[g,h,i]perylene	276		15.658				ND	
209 1,4-Dioxane	88		0.000				ND	
159 Pentachlorophenol_T	266		3.526				ND	
160 DFTPP								
161 Benzidine_T	184		4.667				ND	
162 4,4'-DDE	246		5.070				ND	
163 4,4'-DDD	235		5.140				ND	
164 4,4'-DDT	235		5.261				ND	
S 165 Aramite, Total	185		15.470				ND	7
S 166 Diallate	86		15.500				ND	7
S 169 Total Cresols	108		15.500				ND	7
S 167 Isosafrole	162		15.500				ND	7
S 168 Methyl Phenols,Total	108		15.500				ND	7
S 170 TPAH	1		0.000				ND	7
T 171 Triethyl amine TIC	86		2.190				ND	
T 172 2-Ethoxyethanol TIC	59		2.433				ND	7
T 173 Dimethylformamide TIC	73		2.775				ND	7
T 174 Phenylmercaptan TIC	110		3.735				ND	
T 175 Alpha Methyl Styrene TIC	118		3.794				ND	U
T 176 o-Anisidine TIC	80		4.911				ND	
T 177 alpha,alpha-Dimethyl phenethylam	58		5.168				ND	7
T 178 Benzyl dichloride TIC	125		5.295				ND	
T 179 1,3-phenylenediamine TIC	108		5.627				ND	
T 180 p-phenylenediamine TIC	108		5.627				ND	
T 181 5-Methyl-o-Anisidine TIC	122		5.631				ND	
T 182 Phthalic anhydride TIC	104		5.825				ND	
T 183 Carbofuran phenol TIC	164		6.172				ND	7
T 184 Toluene diamine (2,4- + 2,6- iso	122		6.332				ND	U
T 185 2,6-Dimethylphenol TIC	122		7.524				ND	7
T 186 Phthalic acid TIC	104		7.579				ND	7

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
T 208 2,4-Xylidine TIC	121		7.800				ND	7
T 187 Tributyl phosphate TIC	99		7.967				ND	
T 188 Alpha-Terpineol TIC	59		10.053				ND	7
T 189 Hexachlorophene TIC	196		10.159				ND	
T 190 Kepone TIC	272		10.580				ND	
T 191 Tris(2,3-dibromopropyl)phosphate	201		12.766				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

Reagents:

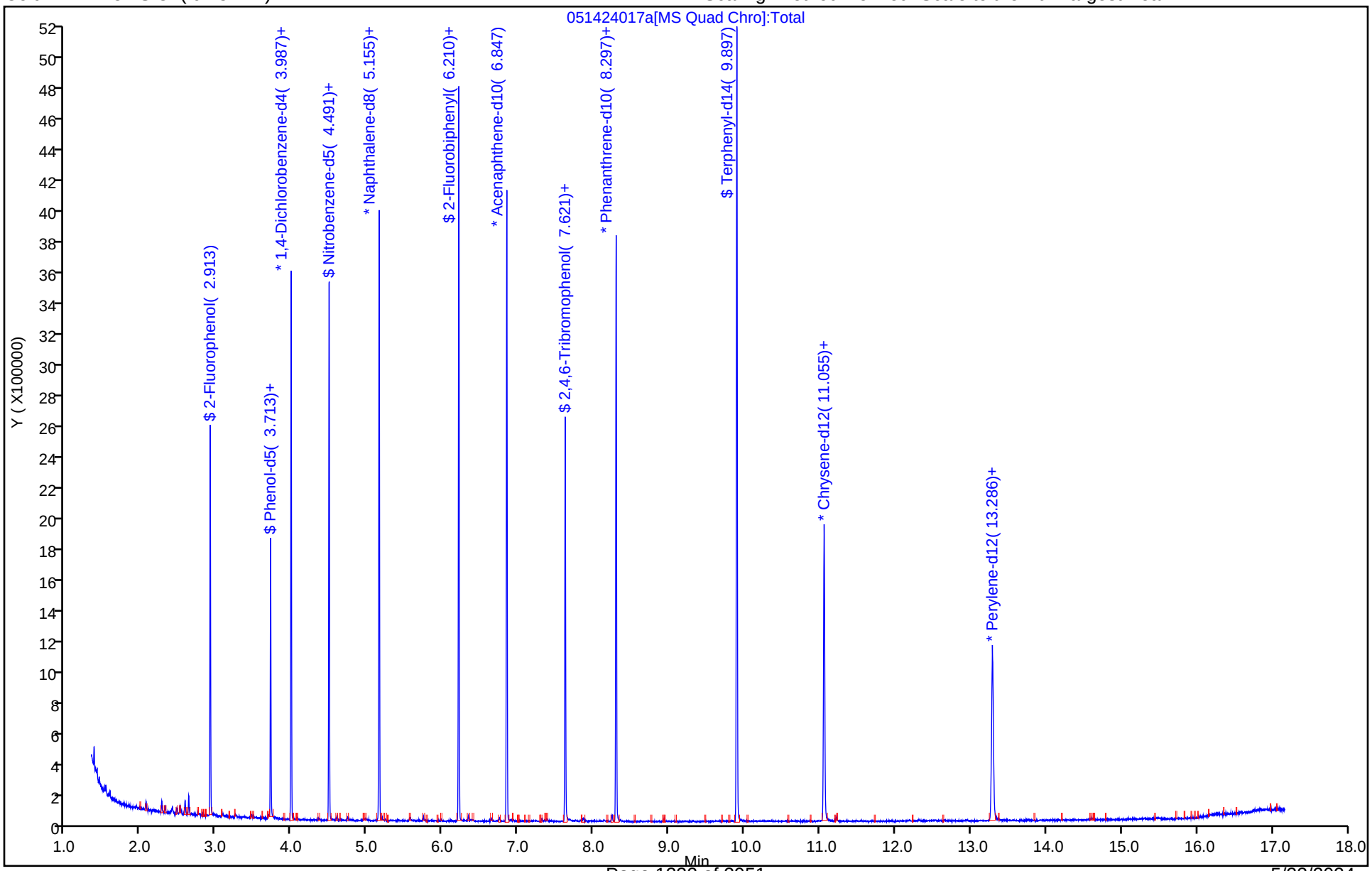
MS-IS-RVE_00005 Amount Added: 30.00 Units: uL Run Reagent

Report Date: 15-May-2024 10:47:23 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424017a.D				
Injection Date:	14-May-2024 16:57:22	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	280-191098-C-2-A	Lab Sample ID:	280-191098-2	Worklist Smp#:	17
Client ID:	DET-003-240402-GW				
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424017a.D
Lims ID: 280-191098-C-2-A
Client ID: DET-003-240402-GW
Sample Type: Client
Inject. Date: 14-May-2024 16:57:22 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-C-2-A
Operator ID: DM Instrument ID: SMS_3

Method: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 15-May-2024 10:46:00 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1641

First Level Reviewer: G3YK Date: 14-May-2024 17:23:44

Compound	Amount Added	Amount Recovered	% Rec.
$ 7 2-Fluorophenol	25.0	9.20	36.81
$ 8 Phenol-d5	25.0	6.52	26.10
$ 9 Nitrobenzene-d5	25.0	14.1	56.44
$ 10 2-Fluorobiphenyl	25.0	13.9	55.53
$ 11 2,4,6-Tribromophenol	25.0	17.4	69.56
$ 12 Terphenyl-d14	25.0	21.5	85.99

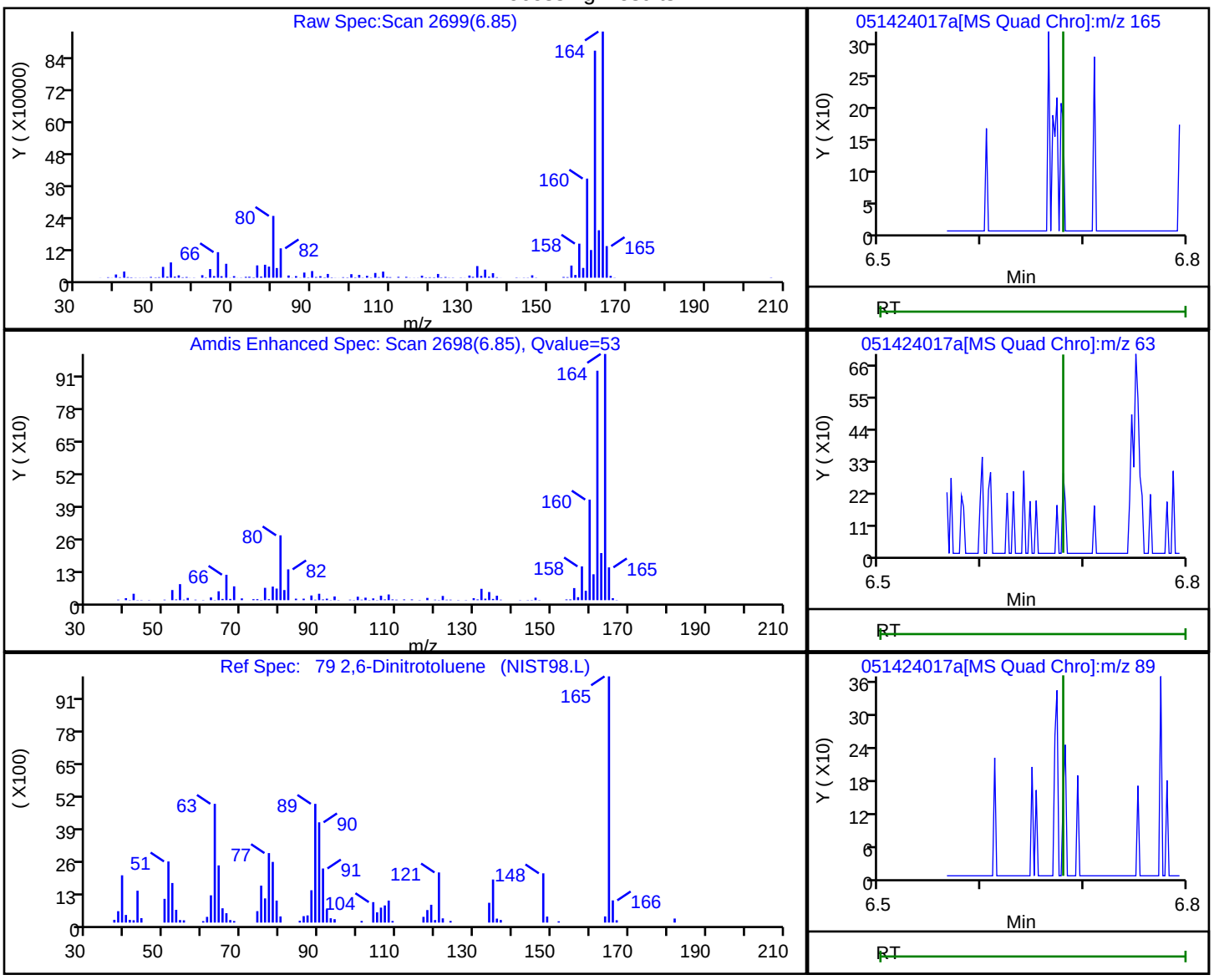
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424017a.D				
Injection Date:	14-May-2024 16:57:22	Instrument ID:	SMS_3		
Lims ID:	280-191098-C-2-A	Lab Sample ID:	280-191098-2		
Client ID:	DET-003-240402-GW				
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

79 2,6-Dinitrotoluene, CAS: 606-20-2

Processing Results



RT	Mass	Response	Amount
6.85	165.00	92621	4.619983
6.85	63.00	971	
6.84	89.00	949	

Reviewer: G3YK, 14-May-2024 17:22:57 -06:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

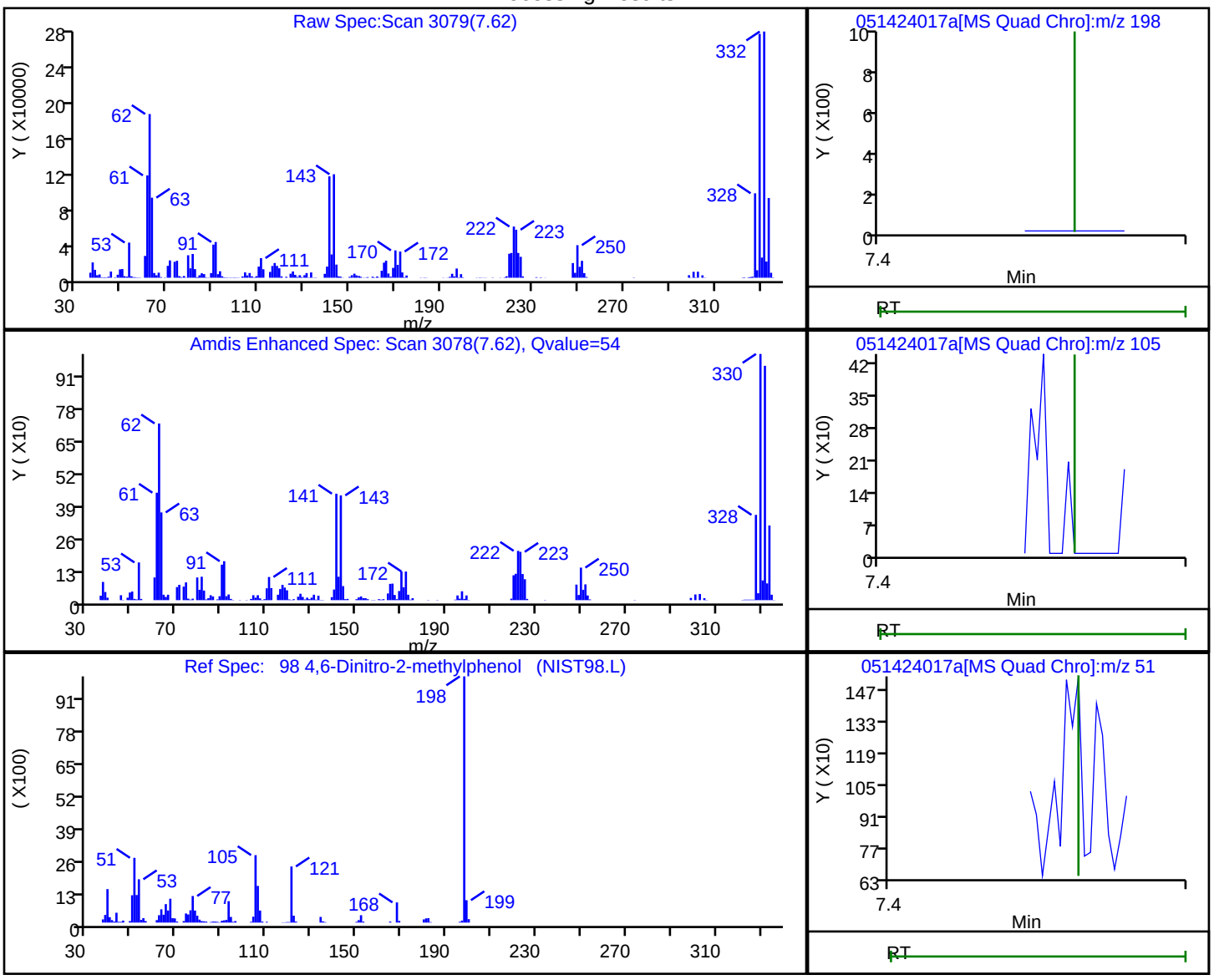
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424017a.D				
Injection Date:	14-May-2024 16:57:22	Instrument ID:	SMS_3		
Lims ID:	280-191098-C-2-A	Lab Sample ID:	280-191098-2		
Client ID:	DET-003-240402-GW				
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

98 4,6-Dinitro-2-methylphenol, CAS: 534-52-1

Processing Results



RT	Mass	Response	Amount
7.62	198.00	712	0.786766
7.62	105.00	2143	
7.62	51.00	772	

Reviewer: G3YK, 14-May-2024 17:23:04 -06:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

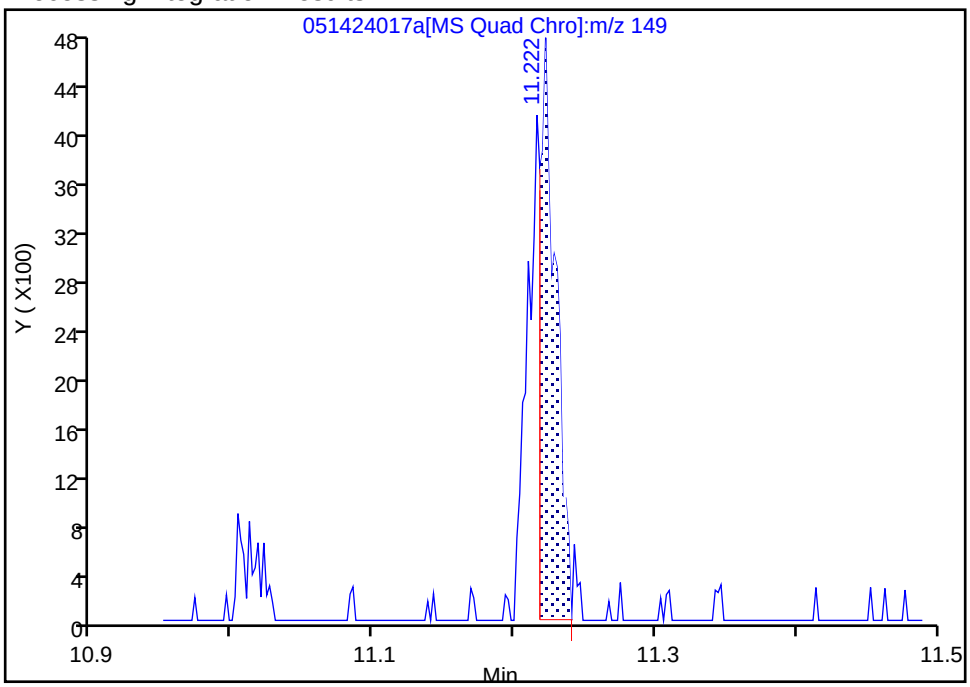
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424017a.D				
Injection Date:	14-May-2024 16:57:22	Instrument ID:	SMS_3		
Lims ID:	280-191098-C-2-A	Lab Sample ID:	280-191098-2		
Client ID:	DET-003-240402-GW				
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

142 Bis(2-ethylhexyl) phthalate, CAS: 117-81-7

Signal: 1

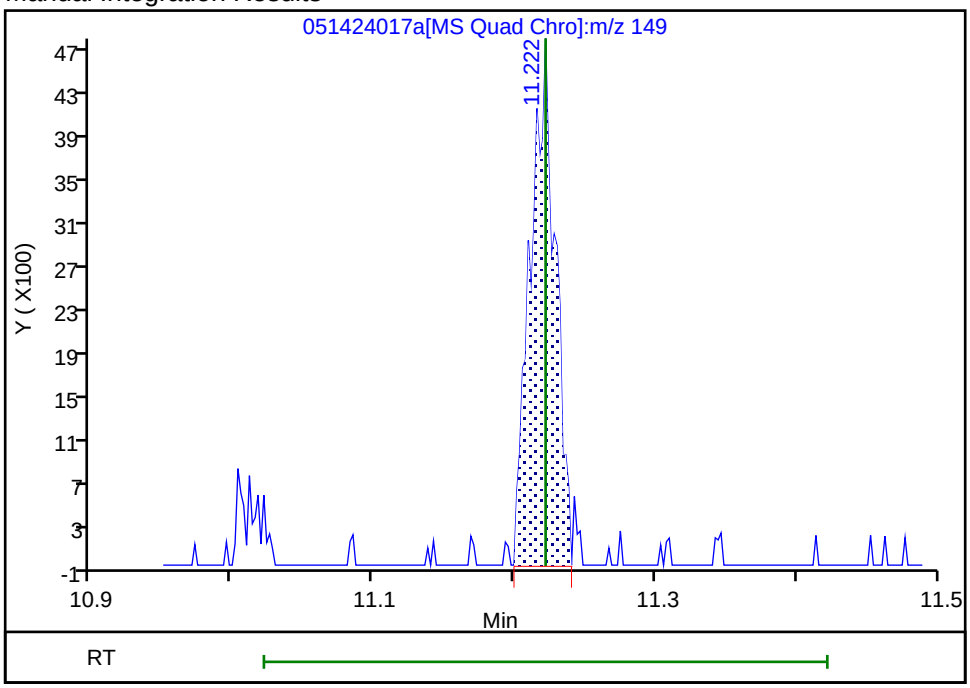
Processing Integration Results

RT: 11.22
Area: 3659
Amount: 0.054220
Amount Units: ug/ml



Manual Integration Results

RT: 11.22
Area: 5883
Amount: 0.087175
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 17:23:27 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

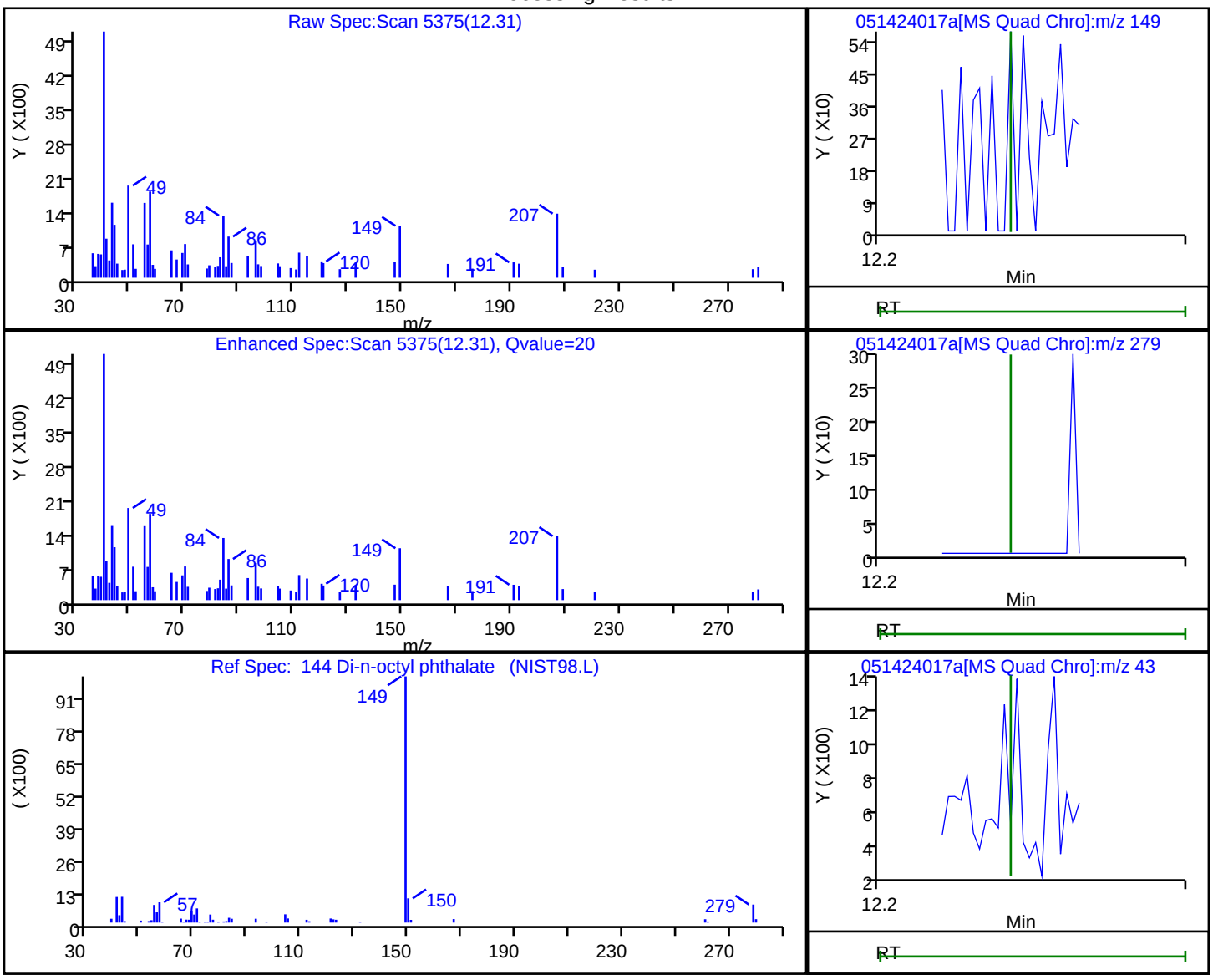
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424017a.D				
Injection Date:	14-May-2024 16:57:22	Instrument ID:	SMS_3		
Lims ID:	280-191098-C-2-A	Lab Sample ID:	280-191098-2		
Client ID:	DET-003-240402-GW				
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

144 Di-n-octyl phthalate, CAS: 117-84-0

Processing Results



RT	Mass	Response	Amount
12.31	149.00	414	0.503352
12.31	279.00	52	
12.31	43.00	420	

Reviewer: G3YK, 14-May-2024 17:23:30 -06:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

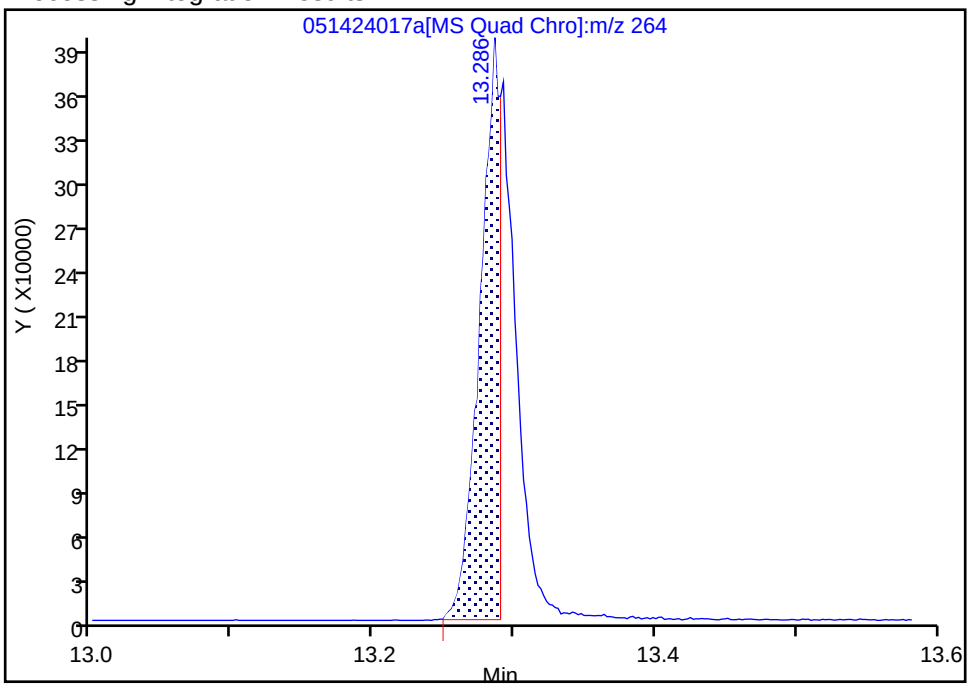
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424017a.D				
Injection Date:	14-May-2024 16:57:22	Instrument ID:	SMS_3		
Lims ID:	280-191098-C-2-A	Lab Sample ID:	280-191098-2		
Client ID:	DET-003-240402-GW				
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

* 6 Perylene-d12, CAS: 1520-96-3

Signal: 1

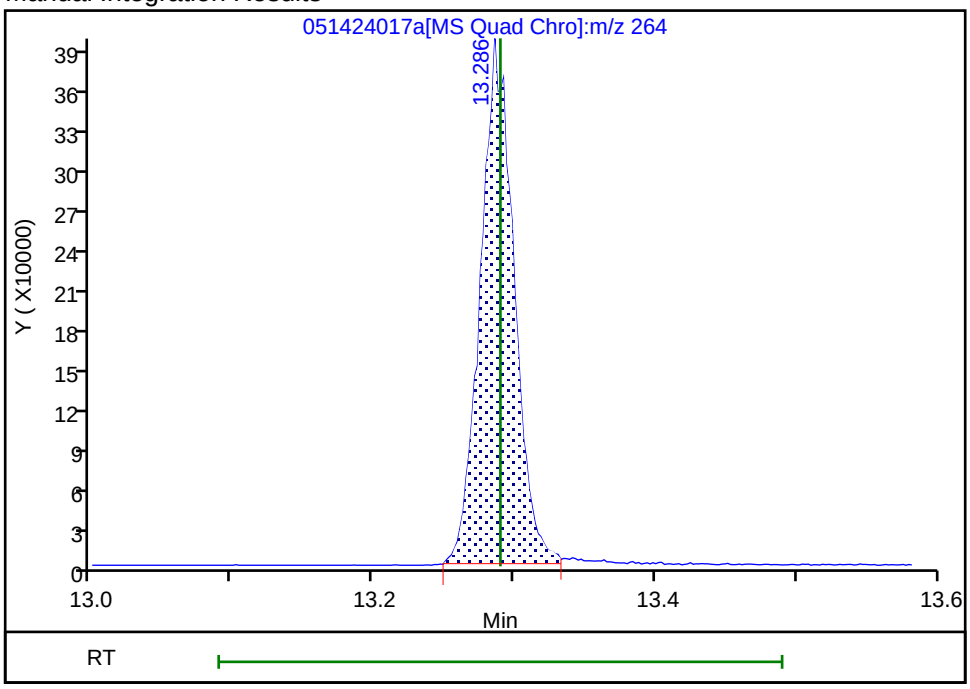
Processing Integration Results

RT: 13.29
Area: 387586
Amount: 8.000000
Amount Units: ug/ml



Manual Integration Results

RT: 13.29
Area: 644820
Amount: 8.000000
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 17:21:55 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-004-240401-GW | Lab Sample ID: 280-191098-5

Matrix: Water | Lab File ID: SMS_3-051424018a.D

Analysis Method: 8270E | Date Collected: 05/06/2024 10:35

Extract. Method: 3510C | Date Extracted: 05/13/2024 11:32

Sample wt/vol: 233.7(mL) | Date Analyzed: 05/14/2024 17:19

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: DB-5MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 653283 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-95-4	2,4,5-Trichlorophenol	8.6	U	11	8.6	2.7
88-06-2	2,4,6-Trichlorophenol	8.6	U	11	8.6	2.5
120-83-2	2,4-Dichlorophenol	8.6	U	11	8.6	3.2
105-67-9	2,4-Dimethylphenol	8.6	U	11	8.6	1.5
51-28-5	2,4-Dinitrophenol	21	U	32	21	14
121-14-2	2,4-Dinitrotoluene	8.6	U	11	8.6	1.5
606-20-2	2,6-Dinitrotoluene	8.6	U M	11	8.6	1.5
95-57-8	2-Chlorophenol	8.6	U	11	8.6	2.7
95-48-7	2-Methylphenol	8.6	U	11	8.6	0.82
88-75-5	2-Nitrophenol	8.6	U	11	8.6	3.7
15831-10-4	3 & 4 Methylphenol	8.6	U	11	8.6	2.3
534-52-1	4,6-Dinitro-2-methylphenol	32	U M	53	32	4.3
59-50-7	4-Chloro-3-methylphenol	8.6	U	11	8.6	1.8
100-02-7	4-Nitrophenol	14	U M Q	27	14	9.7
117-81-7	Bis(2-ethylhexyl) phthalate	8.6	U	11	8.6	3.6
85-68-7	Butyl benzyl phthalate	3.4	U	4.3	3.4	1.6
84-66-2	Diethyl phthalate	3.4	U	4.3	3.4	1.5
131-11-3	Dimethyl phthalate	3.4	U	4.3	3.4	0.80
84-74-2	Di-n-butyl phthalate	3.4	U Q	4.3	3.4	2.2
117-84-0	Di-n-octyl phthalate	8.6	U M	11	8.6	3.9
98-95-3	Nitrobenzene	8.6	U	11	8.6	1.3
87-86-5	Pentachlorophenol	51	U	53	51	21
108-95-2	Phenol	8.6	U	11	8.6	0.98

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	91		43-140
321-60-8	2-Fluorobiphenyl	74		44-119
367-12-4	2-Fluorophenol (Surr)	50		19-119
4165-60-0	Nitrobenzene-d5 (Surr)	72		44-120
4165-62-2	Phenol-d5 (Surr)	36		10-115
1718-51-0	Terphenyl-d14 (Surr)	113		50-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424018a.D
Lims ID: 280-191098-E-5-A
Client ID: DET-004-240401-GW
Sample Type: Client
Inject. Date: 14-May-2024 17:19:52 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-E-5-A
Operator ID: DM Instrument ID: SMS_3

Method: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 15-May-2024 10:46:00 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1641

First Level Reviewer: G3YK Date: 15-May-2024 09:44:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	115	3.987	3.987	0.000	97	279409	8.00	
* 2 Naphthalene-d8	136	5.155	5.155	0.000	100	1635970	8.00	
* 3 Acenaphthene-d10	164	6.847	6.847	0.000	94	880847	8.00	
* 4 Phenanthrene-d10	188	8.299	8.299	0.001	97	1454055	8.00	
* 5 Chrysene-d12	240	11.055	11.052	0.003	99	758662	8.00	
* 6 Perylene-d12	264	13.286	13.290	-0.004	97	632801	8.00	
$ 7 2-Fluorophenol	112	2.915	2.911	0.004	94	736348	12.6	
$ 8 Phenol-d5	99	3.716	3.718	-0.002	0	701203	8.98	
$ 9 Nitrobenzene-d5	82	4.491	4.495	-0.004	89	1350893	18.1	
$ 10 2-Fluorobiphenyl	172	6.210	6.212	-0.002	100	1929103	18.4	
$ 11 2,4,6-Tribromophenol	330	7.623	7.625	-0.002	93	337517	22.8	
$ 12 Terphenyl-d14	244	9.899	9.897	0.002	98	2058109	28.2	
13 N-Nitrosodimethylamine	74		1.854				ND	7
14 Pyridine	79		1.874				ND	MU
15 2-Picoline	93		2.417				ND	7
16 N-Nitrosomethylethylamine	88		2.515				ND	7
18 Methyl methanesulfonate	80		2.766				ND	U
17 Acrylamide	71		2.831				ND	U
19 N-Nitrosodiethylamine	102		3.078				ND	
20 Ethyl methanesulfonate	79		3.344				ND	
21 Benzaldehyde	77		3.609				ND	7
23 Aniline	93		3.707				ND	
22 Phenol	94		3.730				ND	7
24 Pentachloroethane	117		3.738				ND	
25 Bis(2-chloroethyl)ether	93		3.773				ND	7
26 2-Chlorophenol	128		3.814				ND	
27 n-Decane	43		3.863				ND	7
28 1,3-Dichlorobenzene	146		3.936				ND	7
29 1,4-Dichlorobenzene	146		4.003				ND	7
31 1,2-Dichlorobenzene	146		4.134				ND	7
30 Benzyl alcohol	79		4.136				ND	U

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
32 Indene	116		4.218				ND	
34 2,2'-oxybis[1-chloropropane]	45		4.248				ND	
33 2-Methylphenol	108		4.257				ND	
35 N-Nitrosopyrrolidine	100		4.346				ND	7
36 Acetophenone	105		4.363				ND	7
37 N-Nitrosodi-n-propylamine	70		4.377				ND	U
40 N-Nitrosomorpholine	56		4.387				ND	
42 2-Toluidine	106		4.395				ND	
38 3-Methylphenol	108		4.401				ND	7
39 3 & 4 Methylphenol	108		4.401				ND	
41 4-Methylphenol	108		4.401				ND	
43 Hexachloroethane	117		4.438				ND	
44 Nitrobenzene	77		4.514				ND	
45 N-Nitrosopiperidine	114		4.654				ND	
46 Isophorone	82		4.742				ND	
47 2-Nitrophenol	139		4.808				ND	
48 2,4-Dimethylphenol	107		4.883				ND	
50 o,o',o''-Triethylphosphorothioat	121		4.936				ND	
51 Bis(2-chloroethoxy)methane	93		4.963				ND	7
52 2,4-Dichlorophenol	162		5.049				ND	
49 Benzoic acid	105	4.949	5.063	-0.114	89	8820	1.43	M
53 1,2,4-Trichlorobenzene	180		5.108				ND	
54 Naphthalene	128		5.177				ND	
55 4-Chloroaniline	127		5.251				ND	
56 2,6-Dichlorophenol	162		5.255				ND	
155 Hexachloropropene	213		5.261				ND	
57 Hexachlorobutadiene	225		5.304				ND	
58 Quinoline	129		5.496				ND	7
59 Caprolactam	113		5.575				ND	U
60 N-Nitrosodi-n-butylamine	84		5.585				ND	7
61 4-Chloro-3-methylphenol	107		5.749				ND	
62 Safrole, Total	162		5.777				ND	
63 2-Methylnaphthalene	141		5.845				ND	7
64 1-Methylnaphthalene	142		5.937				ND	7
65 Hexachlorocyclopentadiene	237		5.996				ND	
66 1,2,4,5-Tetrachlorobenzene	216		6.004				ND	
67 Isosafrole Peak 1	162		6.059				ND	
68 2,4,6-Trichlorophenol	196		6.133				ND	
69 2,4,5-Trichlorophenol	196		6.173				ND	
70 Isosafrole Peak 2	162		6.279				ND	
71 1,1'-Biphenyl	154		6.304				ND	7
72 2-Chloronaphthalene	162		6.310				ND	
73 1-Chloronaphthalene	162		6.328				ND	
74 2-Nitroaniline	138		6.433				ND	
75 1,4-Naphthoquinone	158		6.492				ND	
76 1,4-Dinitrobenzene	168		6.573				ND	
77 Dimethyl phthalate	163		6.631				ND	
78 1,3-Dinitrobenzene	168		6.645				ND	
79 2,6-Dinitrotoluene	165		6.680				ND	U
80 Acenaphthylene	152		6.710				ND	
81 3-Nitroaniline	65		6.839				ND	
82 Acenaphthene	153		6.882				ND	7

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
83 2,4-Dinitrophenol	184		6.939				ND	
84 Pentachlorobenzene	250		7.008				ND	
86 Dibenzofuran	168		7.053				ND	7
85 4-Nitrophenol	65		7.059				ND	U
87 2,4-Dinitrotoluene	165		7.066				ND	7
88 1-Naphthylamine	143		7.133				ND	7
89 2,3,4,6-Tetrachlorophenol	232		7.186				ND	
90 2-Naphthylamine	143		7.214				ND	
91 Diethyl phthalate	149		7.329				ND	7
92 Hexadecane	57		7.355				ND	7
93 Fluorene	166		7.388				ND	
94 Thionazin	97		7.396				ND	
95 4-Chlorophenyl phenyl ether	204		7.407				ND	
96 N-Nitro-o-toluidine	152		7.421				ND	7
97 4-Nitroaniline	138		7.443				ND	
98 4,6-Dinitro-2-methylphenol	198		7.464				ND	U
99 Diphenylamine	169		7.531				ND	U
100 N-Nitrosodiphenylamine	168		7.531				ND	7
102 1,2-Diphenylhydrazine	77		7.562				ND	7
101 Azobenzene	77		7.562				ND	7
103 Sulfotepp	322		7.715				ND	
104 1,3,5-Trinitrobenzene	213		7.813				ND	
105 Diallate Peak 1	86		7.821				ND	
106 Phorate	121		7.829				ND	
107 Phenacetin	108		7.864				ND	
108 4-Bromophenyl phenyl ether	248		7.884				ND	
109 Diallate Peak 2	86		7.902				ND	
110 Hexachlorobenzene	284		7.915				ND	
111 Dimethoate	87		7.994				ND	
112 Atrazine	200		8.082				ND	
114 Pentachloronitrobenzene	237		8.127				ND	
113 Pentachlorophenol	266		8.127				ND	
115 4-Aminobiphenyl	169		8.143				ND	7
116 Pronamide	173		8.227				ND	
156 n-Octadecane	57		8.268				ND	7
117 Phenanthrene	178		8.323				ND	
118 Dinoseb	211		8.329				ND	
119 Disulfoton	88		8.345				ND	
120 Anthracene	178		8.374				ND	
121 Carbazole	167		8.552				ND	
123 Methyl parathion	109		8.707				ND	
122 Alachlor	45		8.707				ND	
124 Di-n-butyl phthalate	149		8.940				ND	7
157 Ethyl Parathion	97		9.099				ND	
125 4-Nitroquinoline-1-oxide	190		9.099				ND	
126 Methapyrilene	58		9.201				ND	
158 Isodrin	193		9.338				ND	
127 Fluoranthene	202		9.489				ND	
128 Benzidine	184		9.658				ND	
129 Pyrene	202		9.707				ND	U
130 Aramite Peak 1	185		9.909				ND	
131 Aramite Peak 2	185		9.991				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
132 p-Dimethylamino azobenzene	120		10.044				ND	U
133 Chlorobenzilate	251		10.103				ND	
134 Famphur	218		10.369				ND	
135 3,3'-Dimethylbenzidine	212		10.407				ND	
136 Butyl benzyl phthalate	149		10.450				ND	
137 2-Acetylaminofluorene	181		10.699				ND	
138 Benzo[a]anthracene	228		11.046				ND	7
139 3,3'-Dichlorobenzidine	252		11.061				ND	7
140 4,4'-Methylene bis(2-chloroanil	231		11.075				ND	
141 Chrysene	228		11.097				ND	7
142 Bis(2-ethylhexyl) phthalate	149	11.222	11.222	0.000	93	6564	0.0938	
143 6-Methylchrysene	242		11.747				ND	
144 Di-n-octyl phthalate	149		12.243				ND	U
145 Benzo[b]fluoranthene	252		12.659				ND	
146 7,12-Dimethylbenz(a)anthracene	256		12.663				ND	
147 Benzo[k]fluoranthene	252		12.706				ND	
148 Benzo[a]pyrene	252		13.196				ND	7
149 3-Methylcholanthrene	268		13.843				ND	
150 Dibenz[a,h]acridine	279		14.829				ND	
151 Dibenz[a,j]acridine	279		14.929				ND	
152 Indeno[1,2,3-cd]pyrene	276		15.201				ND	
153 Dibenz(a,h)anthracene	278		15.278				ND	
154 Benzo[g,h,i]perylene	276		15.658				ND	
209 1,4-Dioxane	88		0.000				ND	
159 Pentachlorophenol_T	266		3.526				ND	
160 DFTPP								
161 Benzidine_T	184		4.667				ND	
162 4,4'-DDE	246		5.070				ND	
163 4,4'-DDD	235		5.140				ND	
164 4,4'-DDT	235		5.261				ND	
S 165 Aramite, Total	185		15.470				ND	7
S 166 Diallate	86		15.500				ND	7
S 169 Total Cresols	108		15.500				ND	7
S 167 Isosafrole	162		15.500				ND	7
S 168 Methyl Phenols,Total	108		15.500				ND	7
S 170 TPAH	1		0.000				ND	7
T 171 Triethyl amine TIC	86		2.190				ND	
T 172 2-Ethoxyethanol TIC	59		2.433				ND	7
T 173 Dimethylformamide TIC	73		2.775				ND	7
T 174 Phenylmercaptan TIC	110		3.735				ND	
T 175 Alpha Methyl Styrene TIC	118		3.794				ND	U
T 176 o-Anisidine TIC	80		4.911				ND	
T 177 alpha,alpha-Dimethyl phenethylam	58		5.168				ND	7
T 178 Benzyl dichloride TIC	125		5.295				ND	
T 179 1,3-phenylenediamine TIC	108		5.627				ND	
T 180 p-phenylenediamine TIC	108		5.627				ND	
T 181 5-Methyl-o-Anisidine TIC	122		5.631				ND	
T 182 Phthalic anhydride TIC	104		5.825				ND	
T 183 Carbofuran phenol TIC	164		6.172				ND	7
T 184 Toluene diamine (2,4- + 2,6- iso	122		6.332				ND	7
T 185 2,6-Dimethylphenol TIC	122		7.524				ND	7
T 186 Phthalic acid TIC	104		7.579				ND	U

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
T 208 2,4-Xylidine TIC	121		7.800				ND	7
T 187 Tributyl phosphate TIC	99		7.967				ND	
T 188 Alpha-Terpineol TIC	59		10.053				ND	
T 189 Hexachlorophene TIC	196		10.159				ND	
T 190 Kepone TIC	272		10.580				ND	
T 191 Tris(2,3-dibromopropyl)phosphate	201		12.766				ND	

QC Flag Legend

Processing Flags
- 7 - Failed Limit of Detection

Review Flags
- M - Manually Integrated
- U - Marked Undetected

Reagents:

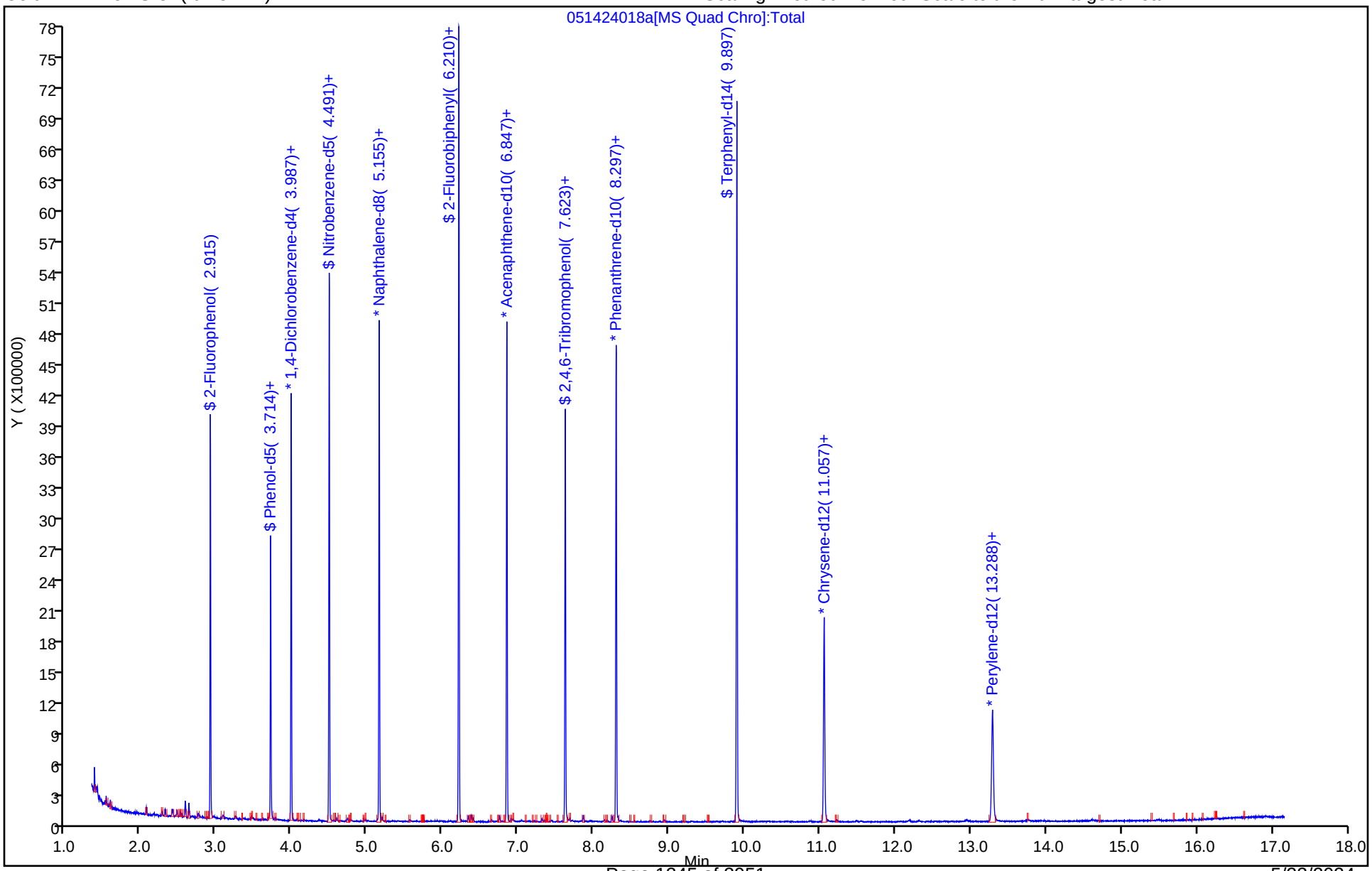
MS-IS-RVE_00005 Amount Added: 30.00 Units: uL Run Reagent

Report Date: 15-May-2024 10:47:27 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424018a.D				
Injection Date:	14-May-2024 17:19:52	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	280-191098-E-5-A	Lab Sample ID:	280-191098-5	Worklist Smp#:	18
Client ID:	DET-004-240401-GW				
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424018a.D
Lims ID: 280-191098-E-5-A
Client ID: DET-004-240401-GW
Sample Type: Client
Inject. Date: 14-May-2024 17:19:52 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-E-5-A
Operator ID: DM Instrument ID: SMS_3

Method: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 15-May-2024 10:46:00 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1641

First Level Reviewer: G3YK Date: 15-May-2024 09:44:43

Compound	Amount Added	Amount Recovered	% Rec.
$ 7 2-Fluorophenol	25.0	12.6	50.30
$ 8 Phenol-d5	25.0	8.98	35.94
$ 9 Nitrobenzene-d5	25.0	18.1	72.49
$ 10 2-Fluorobiphenyl	25.0	18.4	73.60
$ 11 2,4,6-Tribromophenol	25.0	22.8	91.22
$ 12 Terphenyl-d14	25.0	28.2	112.65

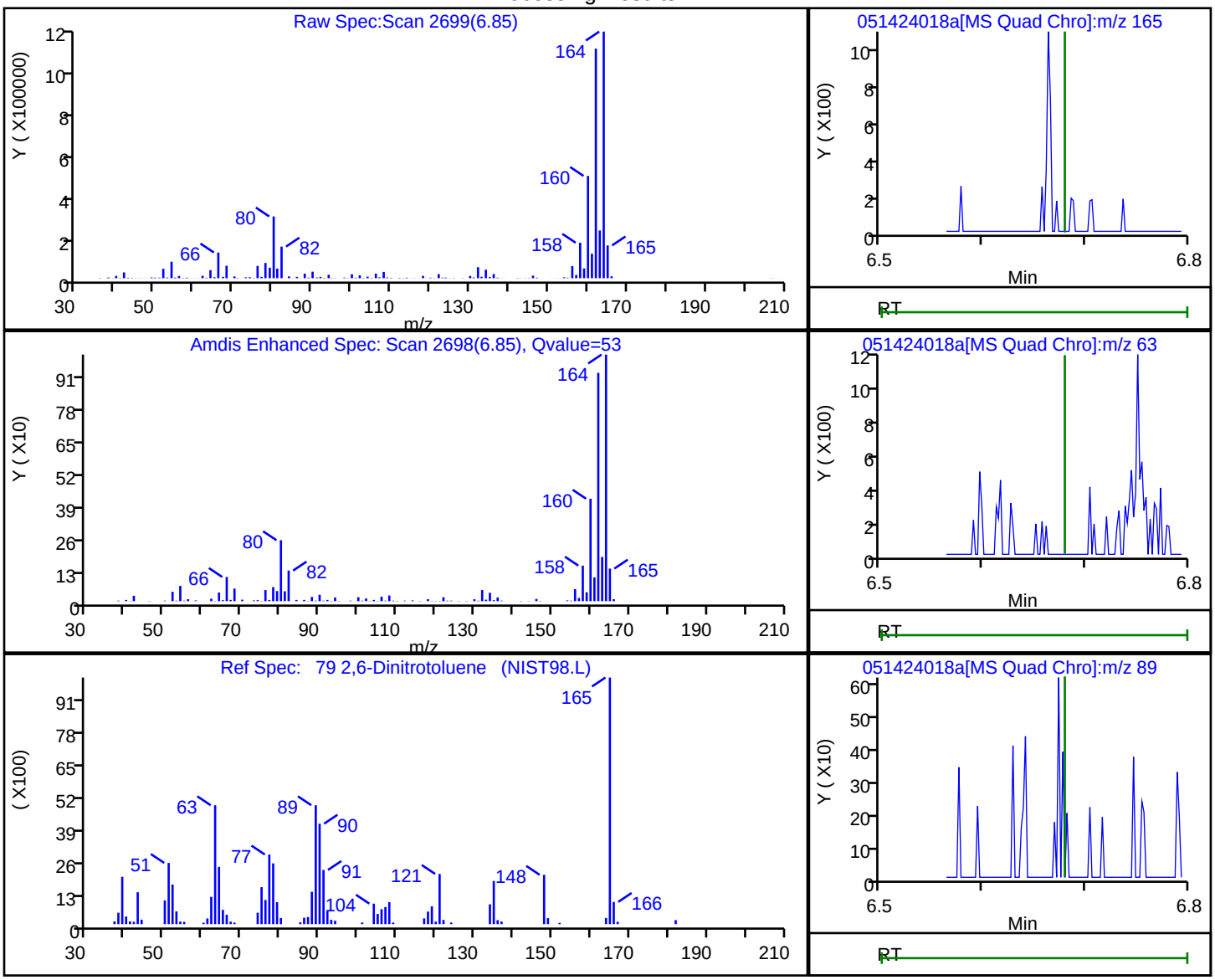
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424018a.D				
Injection Date:	14-May-2024 17:19:52	Instrument ID:	SMS_3		
Lims ID:	280-191098-E-5-A	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

79 2,6-Dinitrotoluene, CAS: 606-20-2

Processing Results



RT	Mass	Response	Amount
6.85	165.00	117539	4.636407
6.85	63.00	1038	
6.85	89.00	1836	

Reviewer: G3YK, 15-May-2024 09:43:28 -06:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

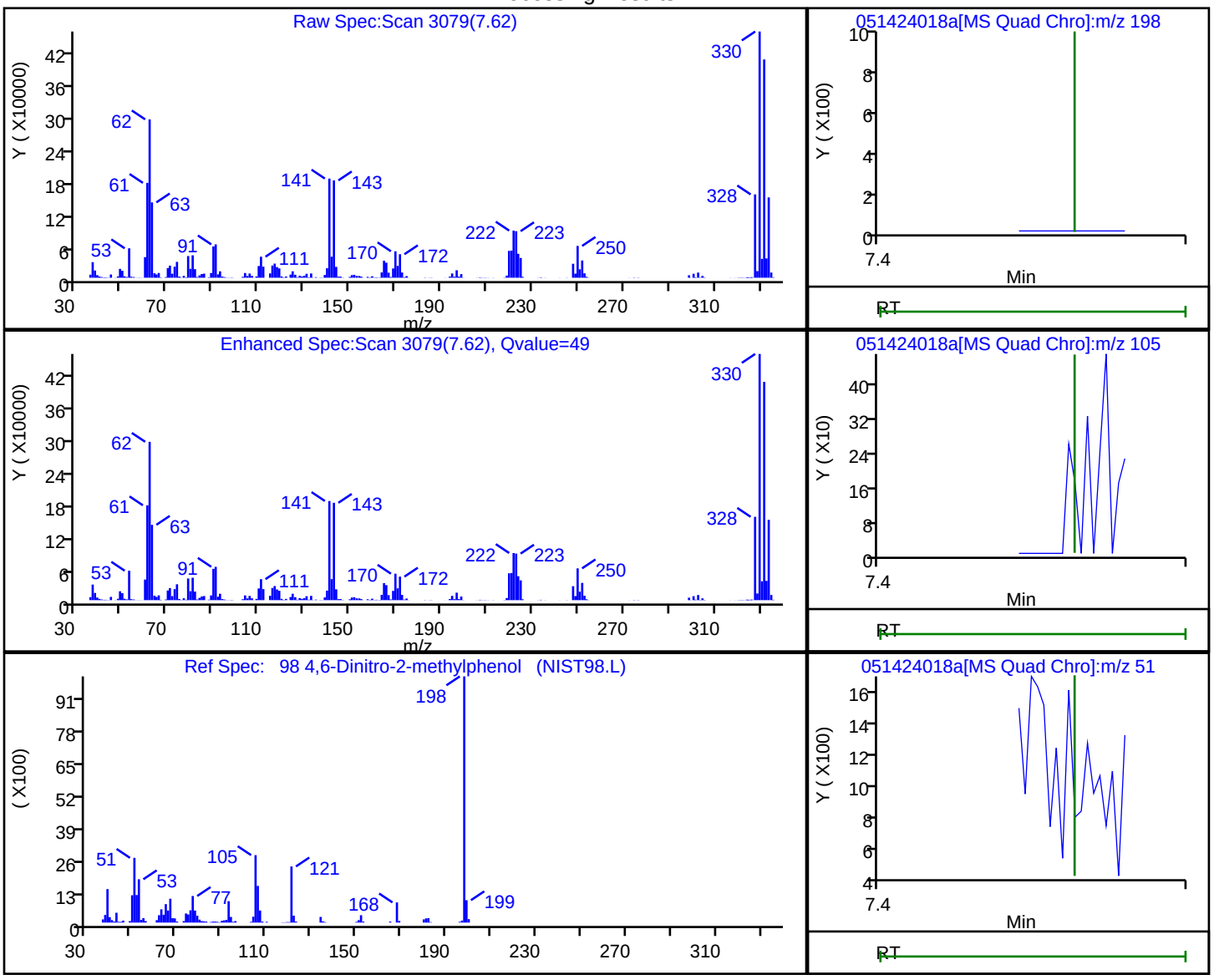
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424018a.D				
Injection Date:	14-May-2024 17:19:52	Instrument ID:	SMS_3		
Lims ID:	280-191098-E-5-A	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

98 4,6-Dinitro-2-methylphenol, CAS: 534-52-1

Processing Results



RT	Mass	Response	Amount
7.62	198.00	418	0.761155
7.62	105.00	2417	
7.62	51.00	1400	

Reviewer: G3YK, 15-May-2024 09:43:39 -06:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

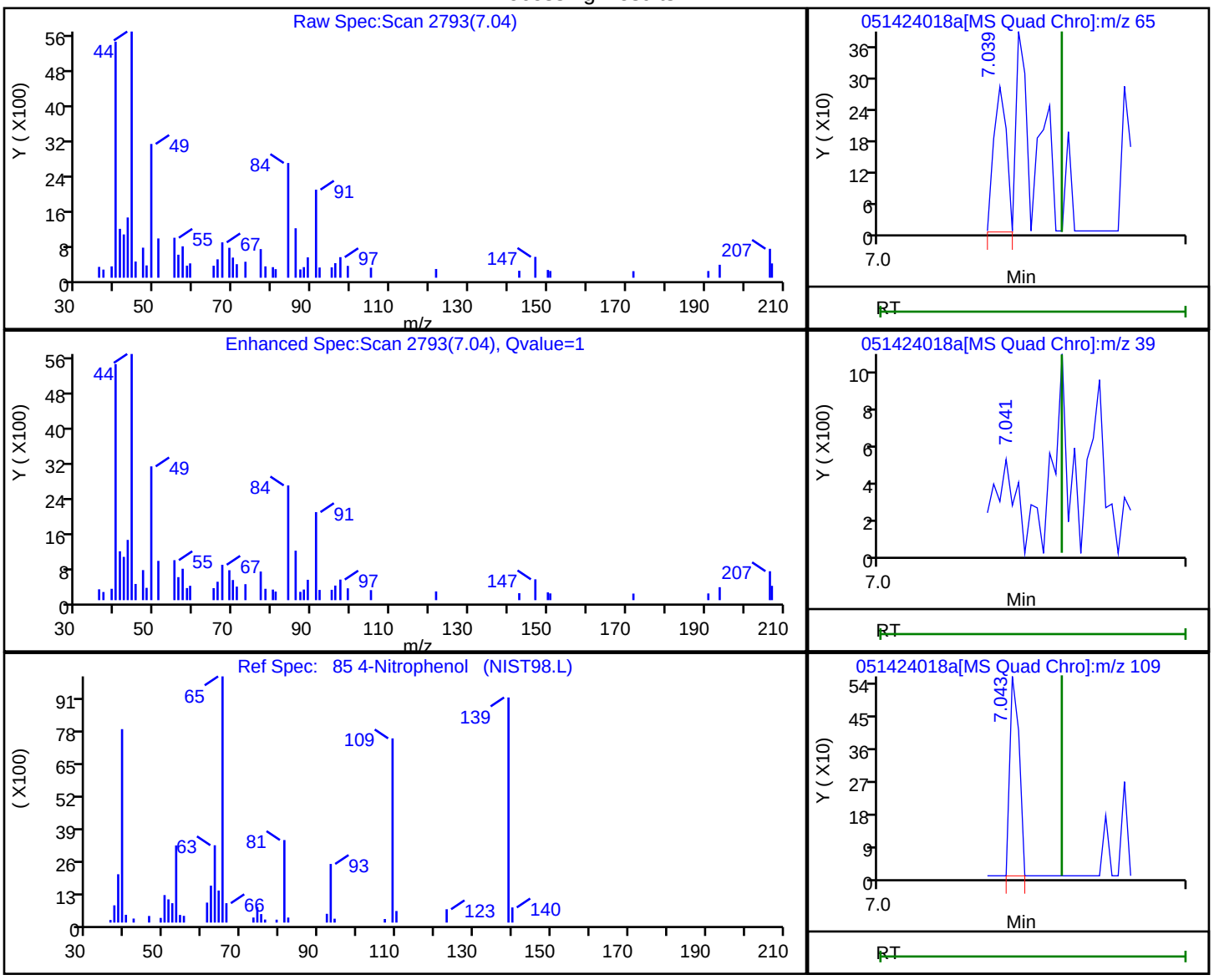
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424018a.D				
Injection Date:	14-May-2024 17:19:52	Instrument ID:	SMS_3		
Lims ID:	280-191098-E-5-A	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

85 4-Nitrophenol, CAS: 100-02-7

Processing Results



RT	Mass	Response	Amount
7.04	65.00	80	0.815277
7.04	39.00	251	
7.04	109.00	117	

Reviewer: G3YK, 15-May-2024 09:43:33 -06:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

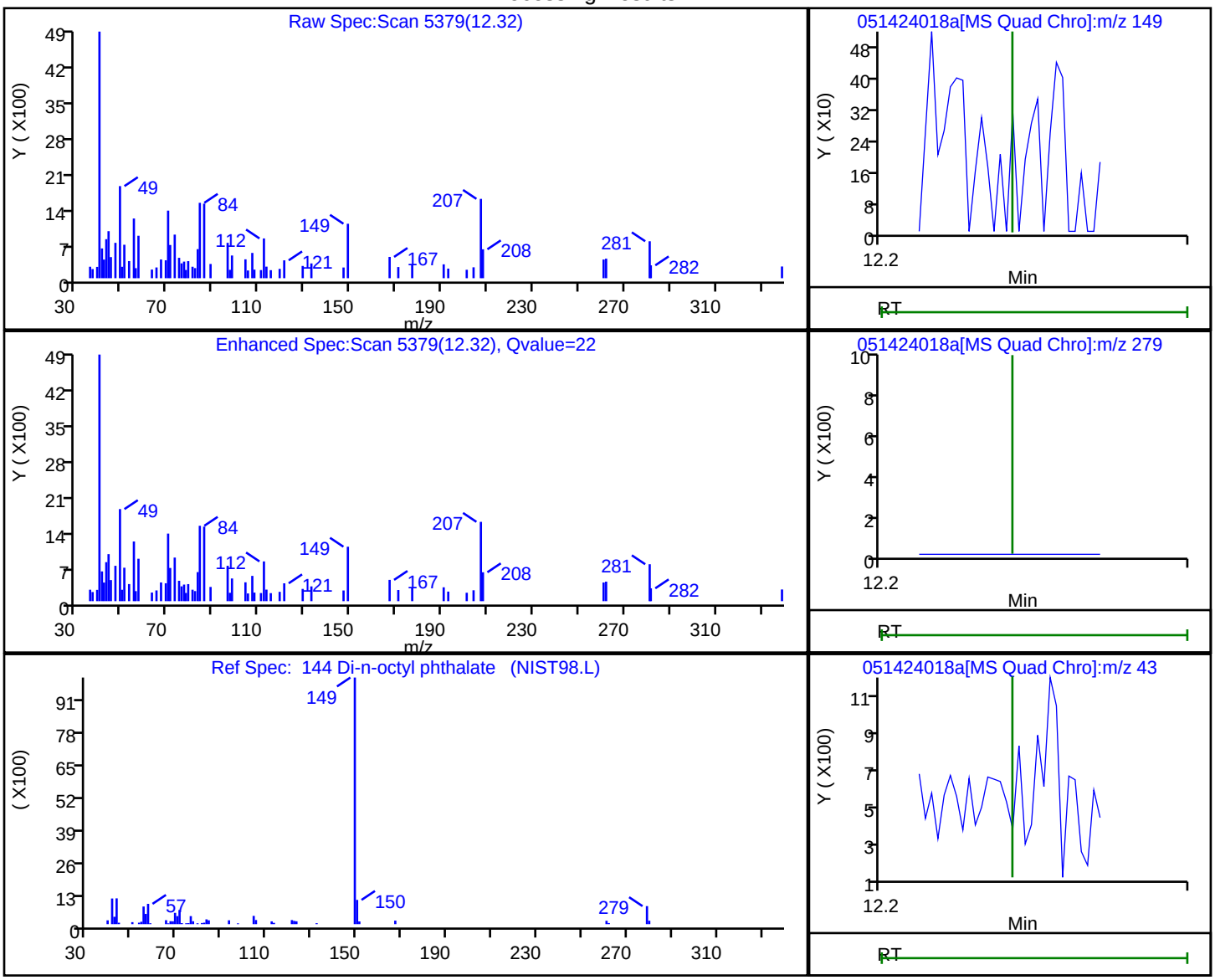
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424018a.D				
Injection Date:	14-May-2024 17:19:52	Instrument ID:	SMS_3		
Lims ID:	280-191098-E-5-A	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

144 Di-n-octyl phthalate, CAS: 117-84-0

Processing Results



RT	Mass	Response	Amount
12.32	149.00	475	0.503977
12.32	279.00	75	
12.32	43.00	358	

Reviewer: G3YK, 15-May-2024 09:44:29 -06:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 648459

SDG No.:

Instrument ID: SMS_3 GC Column: DB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/05/2024 11:38 Calibration End Date: 04/05/2024 14:15 Calibration ID: 91940

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD010 280-648459/9	SMS_3-040524013.D
Level 2	STD025 280-648459/8	SMS_3-040524012.D
Level 3	STD050 280-648459/7	SMS_3-040524011.D
Level 4	STD125 280-648459/6	SMS_3-040524010.D
Level 5	ICIS 280-648459/2	SMS_3-040524006.D
Level 6	STD300 280-648459/5	SMS_3-040524009.D
Level 7	STD400 280-648459/4	SMS_3-040524008.D
Level 8	STD500 280-648459/3	SMS_3-040524007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
N-Nitrosodimethylamine	1.0006 1.3266	1.0964 1.3412	1.1900 1.3326	1.3642	1.3759	Ave		1.2534				11.3		20.0			
Pyridine	1.1671 1.5696	1.1914 1.6895	1.3961 1.6449	1.3744	1.6460	Lin2	-0.991	1.5718							0.9920		0.9900
Phenol	2.3753 2.6304	2.4588 2.5876	2.6252 2.5281	2.7729	2.7825	Ave		2.5951			0.8000	5.5		20.0			
Aniline	2.4932 2.6530	2.5000 2.6137	2.6031 2.5392	2.7758	2.7726	Ave		2.6188				4.2		20.0			
Bis(2-chloroethyl)ether	1.8871 1.9826	1.8840 1.9946	2.0200 1.9299	2.0932	2.0795	Ave		1.9839			0.7000	4.0		20.0			
2-Chlorophenol	1.5337 1.7009	1.5736 1.7002	1.6556 1.6540	1.7277	1.7510	Ave		1.6621			0.8000	4.5		20.0			
1,3-Dichlorobenzene	1.7706 1.7787	1.6915 1.7857	1.7333 1.7381	1.8353	1.8302	Ave		1.7704				2.8		20.0			
1,4-Dichlorobenzene	1.8727 1.8479	1.8082 1.8338	1.8376 1.7748	1.8857	1.8912	Ave		1.8440				2.2		20.0			
Benzyl alcohol	1.3696 1.7318	1.5315 1.6991	1.6614 1.6263	1.7941	1.7496	Ave		1.6454				8.4		20.0			
1,2-Dichlorobenzene	1.7407 1.7000	1.6519 1.6989	1.7284 1.6418	1.7594	1.7623	Ave		1.7104				2.7		20.0			
2-Methylphenol	1.5017 1.5956	1.5422 1.5770	1.5568 1.5300	1.6575	1.6551	Ave		1.5770			0.7000	3.6		20.0			
2,2'-oxybis[1-chloropropane]	3.6780 3.2510	3.4618 3.0836	3.5624 2.9460	3.5111	3.5343	Ave		3.3785			0.0100	7.6		20.0			
Acetophenone	2.4092 2.4784	2.3820 2.4888	2.5090 2.3892	2.5919	2.5727	Ave		2.4776			0.0100	3.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 648459

SDG No.:

Instrument ID: SMS_3 GC Column: DB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/05/2024 11:38 Calibration End Date: 04/05/2024 14:15 Calibration ID: 91940

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
N-Nitrosodi-n-propylamine	1.4560 1.4625	1.4147 1.4250	1.5280 1.3648	1.5058	1.5301	Ave		1.4609			0.5000	4.0		20.0			
3 & 4 Methylphenol	1.5198 1.6716	1.5361 1.6596	1.6790 1.6049	1.7787	1.7317	Ave		1.6477				5.5		20.0			
Hexachloroethane	0.8370 0.8900	0.8173 0.8815	0.8561 0.8586	0.9073	0.8984	Ave		0.8683			0.3000	3.6		20.0			
Nitrobenzene	0.3593 0.3865	0.3784 0.3832	0.3887 0.3748	0.3986	0.3969	Ave		0.3833			0.2000	3.3		20.0			
Isophorone	0.6294 0.6998	0.6570 0.6987	0.6921 0.6865	0.7247	0.7150	Ave		0.6879			0.4000	4.5		20.0			
2-Nitrophenol	0.1244 0.1616	0.1376 0.1621	0.1488 0.1576	0.1600	0.1573	Ave		0.1512			0.1000	9.0		20.0			
2,4-Dimethylphenol	0.2420 0.2666	0.2393 0.2648	0.2579 0.2640	0.2677	0.2644	Ave		0.2583			0.2000	4.4		20.0			
Bis(2-chloroethoxy)methane	0.4205 0.4239	0.4077 0.4290	0.4360 0.4167	0.4408	0.4338	Ave		0.4261			0.3000	2.6		20.0			
Benzoic acid	0.1159 0.2737	0.1655 0.2818	0.2174 0.2710	0.2725	0.2598	Lin2	-0.344	0.2711							0.9930		0.9900
2,4-Dichlorophenol	0.1993 0.2422	0.2187 0.2447	0.2314 0.2379	0.2500	0.2434	Ave		0.2335			0.2000	7.2		20.0			
1,2,4-Trichlorobenzene	0.2558 0.2623	0.2527 0.2638	0.2620 0.2621	0.2673	0.2620	Ave		0.2610				1.8		20.0			
Naphthalene	0.7986 0.7879	0.7736 0.7864	0.8117 0.7492	0.8267	0.7993	Ave		0.7917			0.7000	3.0		20.0			
4-Chloroaniline	0.3167 0.3393	0.3231 0.3403	0.3424 0.3224	0.3506	0.3491	Ave		0.3355			0.0100	3.9		20.0			
2,6-Dichlorophenol	0.2163 0.2372	0.2219 0.2368	0.2373 0.2310	0.2445	0.2390	Ave		0.2330				4.1		20.0			
Hexachlorobutadiene	0.1583 0.1638	0.1400 0.1642	0.1539 0.1623	0.1635	0.1571	Ave		0.1579			0.0100	5.1		20.0			
4-Chloro-3-methylphenol	0.2222 0.2768	0.2479 0.2809	0.2728 0.2767	0.2837	0.2757	Ave		0.2671			0.2000	7.9		20.0			
2-Methylnaphthalene	0.4007 0.4382	0.4151 0.4395	0.4295 0.4301	0.4485	0.4391	Ave		0.4301			0.4000	3.6		20.0			
1-Methylnaphthalene	0.4482 0.4724	0.4524 0.4785	0.4684 0.4603	0.4892	0.4742	Ave		0.4680				2.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 648459

SDG No.:

Instrument ID: SMS_3 GC Column: DB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/05/2024 11:38 Calibration End Date: 04/05/2024 14:15 Calibration ID: 91940

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Hexachlorocyclopentadiene	0.1740 0.2550	0.1749 0.2706	0.2034 0.2654	0.2322	0.2420	Lin1	-0.160	0.2633			0.0500				0.9970		0.9900
1,2,4,5-Tetrachlorobenzene	0.4657 0.4791	0.4578 0.5088	0.4412 0.4924	0.4818	0.4759	Ave		0.4753			0.0100	4.4		20.0			
2,4,6-Trichlorophenol	0.2703 0.3266	0.2809 0.3376	0.2909 0.3289	0.3177	0.3157	Ave		0.3086			0.2000	8.0		20.0			
2,4,5-Trichlorophenol	0.2664 0.3462	0.3032 0.3560	0.3140 0.3511	0.3385	0.3388	Ave		0.3268			0.2000	9.3		20.0			
1,1'-Biphenyl	1.0197 1.0710	1.0577 1.1076	1.0329 1.0566	1.1099	1.0891	Ave		1.0681			0.0100	3.1		20.0			
2-Chloronaphthalene	0.8783 0.8856	0.8604 0.9222	0.8435 0.8805	0.9073	0.8913	Ave		0.8836			0.8000	2.8		20.0			
2-Nitroaniline	0.2673 0.3365	0.2846 0.3511	0.3033 0.3360	0.3367	0.3341	Ave		0.3187			0.0100	9.4		20.0			
Dimethyl phthalate	0.9563 1.0129	0.9697 1.0423	0.9442 1.0160	1.0257	0.9926	Ave		0.9950			0.0100	3.5		20.0			
1,3-Dinitrobenzene	0.1117 0.1767	0.1467 0.1845	0.1523 0.1760	0.1744	0.1736	Lin2	-0.069	0.1776							0.9990		0.9900
2,6-Dinitrotoluene	0.2021 0.2382	0.2158 0.2453	0.2210 0.2416	0.2403	0.2375	Ave		0.2302			0.2000	6.7		20.0			
Acenaphthylene	1.2568 1.3396	1.2741 1.3800	1.3013 1.3307	1.3951	1.3660	Ave		1.3304			0.9000	3.8		20.0			
3-Nitroaniline	0.4080 0.4724	0.4274 0.4889	0.4638 0.4724	0.4920	0.4879	Ave		0.4641			0.0100	6.6		20.0			
Acenaphthene	0.8523 0.8501	0.8334 0.8969	0.8405 0.8506	0.8730	0.8573	Ave		0.8568		*	0.9000	2.3		20.0			
2,4-Dinitrophenol	0.0530 0.1270	0.0762 0.1328	0.0912 0.1360	0.1169	0.1181	Lin1	-0.233	0.1328			0.0100				0.9970		0.9900
4-Nitrophenol	0.1777 0.2810	0.2260 0.2922	0.2494 0.2835	0.2882	0.2867	Lin2	-0.233	0.2869			0.0100				0.9980		0.9900
Dibenzofuran	1.2066 1.2315	1.1836 1.2600	1.2079 1.2030	1.2664	1.2389	Ave		1.2247			0.8000	2.4		20.0			
2,4-Dinitrotoluene	0.2784 0.3207	0.2981 0.3280	0.3083 0.3224	0.3357	0.3223	Ave		0.3142			0.2000	5.9		20.0			
2,3,4,6-Tetrachlorophenol	0.2168 0.2632	0.2182 0.2791	0.2359 0.2683	0.2615	0.2584	Ave		0.2502			0.0100	9.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 648459

SDG No.:

Instrument ID: SMS_3 GC Column: DB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/05/2024 11:38 Calibration End Date: 04/05/2024 14:15 Calibration ID: 91940

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Diethyl phthalate	0.9986 1.0386	0.9779 1.0892	0.9856 1.0541	1.0647	1.0466	Ave		1.0319			0.0100	3.9		20.0			
Fluorene	0.9561 0.9499	0.9357 0.9942	0.9328 0.9425	0.9886	0.9507	Ave		0.9563			0.9000	2.4		20.0			
4-Chlorophenyl phenyl ether	0.4466 0.4554	0.4558 0.4817	0.4428 0.4614	0.4732	0.4559	Ave		0.4591			0.4000	2.8		20.0			
4-Nitroaniline	0.2369 0.2572	0.2590 0.2738	0.2571 0.2612	0.2708	0.2654	Ave		0.2602			0.0100	4.3		20.0			
4,6-Dinitro-2-methylphenol	0.1160 0.1719	0.1308 0.1801	0.1446 0.1788	0.1701	0.1617	Lin2	-0.126	0.1711			0.0100				0.9950		0.9900
Diphenylamine	0.7863 0.8019	0.7969 0.8248	0.7660 0.8015	0.8276	0.7874	Ave		0.7991				2.5		20.0			
N-Nitrosodiphenylamine	0.4102 0.4295	0.4277 0.4529	0.4262 0.4329	0.4526	0.4375	Ave		0.4337			0.0100	3.3		20.0			
1,2-Diphenylhydrazine	0.7609 0.8252	0.7621 0.8339	0.8124 0.8060	0.8566	0.8591	Ave		0.8145				4.6		20.0			
Azobenzene	0.7693 0.8343	0.7704 0.8430	0.8213 0.8148	0.8649	0.8686	Ave		0.8233				4.6		20.0			
4-Bromophenyl phenyl ether	0.1424 0.1595	0.1460 0.1670	0.1483 0.1650	0.1611	0.1608	Ave		0.1563			0.1000	6.0		20.0			
Hexachlorobenzene	0.1741 0.1839	0.1734 0.1954	0.1800 0.1873	0.1776	0.1739	Ave		0.1807			0.1000	4.3		20.0			
Pentachlorophenol	0.0671 0.1184	0.0795 0.1201	0.0960 0.1184	0.1147	0.1119	Lin2	-0.111	0.1158			0.0500				0.9940		0.9900
Phenanthrene	0.7747 0.7920	0.7434 0.7994	0.7678 0.7927	0.8168	0.8019	Ave		0.7861			0.7000	2.9		20.0			
Anthracene	0.7237 0.7946	0.7385 0.8213	0.7880 0.8022	0.8215	0.8203	Ave		0.7887			0.7000	4.8		20.0			
Carbazole	0.7106 0.7657	0.7007 0.7763	0.7418 0.7635	0.7919	0.7941	Ave		0.7556			0.0100	4.6		20.0			
Alachlor	0.2878 0.3127	0.2955 0.3162	0.3171 0.3037	0.3392	0.3439	Ave		0.3145				6.2		20.0			
Di-n-butyl phthalate	0.8373 1.0319	0.8980 1.0616	0.9508 1.0051	1.0537	1.0438	Ave		0.9853			0.0100	8.3		20.0			
Fluoranthene	0.7733 0.8862	0.7671 0.9216	0.8100 0.8868	0.8895	0.8985	Ave		0.8541			0.6000	7.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 648459

SDG No.:

Instrument ID: SMS_3 GC Column: DB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/05/2024 11:38 Calibration End Date: 04/05/2024 14:15 Calibration ID: 91940

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Pyrene	1.1546 1.1851	1.0998 1.2616	1.1510 1.1563	1.2239	1.2226	Ave		1.1819			0.6000	4.4		20.0			
Butyl benzyl phthalate	0.4437 0.5990	0.4807 0.6371	0.5231 0.5887	0.5858	0.5952	Ave		0.5566			0.0100	12.0		20.0			
Benzo[a]anthracene	0.9467 1.0349	0.9231 1.1052	0.9604 1.0389	1.0393	1.0317	Ave		1.0100			0.8000	6.0		20.0			
Chrysene	0.9526 0.9783	0.9320 1.0163	0.9503 0.9800	1.0057	0.9890	Ave		0.9755			0.7000	3.0		20.0			
Bis(2-ethylhexyl) phthalate	0.5723 0.7985	0.6147 0.8477	0.6985 0.7832	0.8024	0.7886	Ave		0.7382			0.0100	13.4		20.0			
Di-n-octyl phthalate	0.7848 1.4342	0.9503 1.4838	1.1078 1.4213	1.3344	1.3596	Lin2	-0.695	1.3917			0.0100				0.9930		0.9900
Benzo[b]fluoranthene	0.8116 0.9458	0.7934 0.9666	0.8212 0.9395	0.9172	0.8985	Ave		0.8867			0.7000	7.7		20.0			
Benzo[k]fluoranthene	0.8185 0.9520	0.8907 0.9813	0.9114 0.9457	0.9591	0.9566	Ave		0.9269			0.7000	5.6		20.0			
Benzo[a]pyrene	0.6985 0.8802	0.6833 0.9156	0.7916 0.8900	0.8499	0.8611	Ave		0.8213			0.7000	10.7		20.0			
Indeno[1,2,3-cd]pyrene	0.6553 0.8563	0.6590 0.9096	0.7163 0.8749	0.8010	0.8187	Ave		0.7864			0.5000	12.5		20.0			
Dibenz(a,h)anthracene	0.6163 0.7744	0.6143 0.8282	0.6694 0.7818	0.7509	0.7474	Ave		0.7229			0.4000	11.0		20.0			
Benzo[g,h,i]perylene	0.6897 0.7955	0.6881 0.8413	0.7295 0.8238	0.7588	0.7659	Ave		0.7616			0.5000	7.5		20.0			
2-Fluorophenol (Surr)	1.4327 1.7338	1.5656 1.7751	1.6310 1.7145	1.7678	1.7927	Ave		1.6766				7.5		20.0			
Phenol-d5 (Surr)	2.0081 2.3232	2.0701 2.3072	2.1927 2.2733	2.3508	2.3524	Ave		2.2347				5.9		20.0			
Nitrobenzene-d5 (Surr)	0.3397 0.3698	0.3444 0.3743	0.3635 0.3665	0.3836	0.3747	Ave		0.3645				4.2		20.0			
2-Fluorobiphenyl	0.9129 0.9696	0.9017 1.0103	0.9061 0.9730	0.9788	0.9655	Ave		0.9522				4.2		20.0			
2,4,6-Tribromophenol (Surr)	0.0744 0.0859	0.0673 0.0883	0.0765 0.0872	0.0873	0.0845	Ave		0.0814				9.5		20.0			
Terphenyl-d14 (Surr)	0.7314 0.7850	0.7176 0.8471	0.7242 0.7775	0.7891	0.7929	Ave		0.7706				5.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 648459

SDG No.:

Instrument ID: SMS_3 | GC Column: DB-5MS | ID: 0.25(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 04/05/2024 11:38 | Calibration End Date: 04/05/2024 14:15 | Calibration ID: 91940

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD010 280-648459/9	SMS_3-040524013.D
Level 2	STD025 280-648459/8	SMS_3-040524012.D
Level 3	STD050 280-648459/7	SMS_3-040524011.D
Level 4	STD125 280-648459/6	SMS_3-040524010.D
Level 5	ICIS 280-648459/2	SMS_3-040524006.D
Level 6	STD300 280-648459/5	SMS_3-040524009.D
Level 7	STD400 280-648459/4	SMS_3-040524008.D
Level 8	STD500 280-648459/3	SMS_3-040524007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
N-Nitrosodimethylamine	DCBd4	Ave	33829 1156364	91659 1576605	184874 1945961	512152	835048	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Pyridine	DCBd4	Lin2	78917 2736488	199206 3972047	433799 4804116	1031967	1997967	2.00 60.0	5.00 80.0	10.0 100	25.0	40.0
Phenol	DCBd4	Ave	80303 2292935	205556 3041662	407847 3691733	1041049	1688704	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Aniline	DCBd4	Ave	84291 2312635	209002 3072359	404419 3707978	1042130	1682717	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Bis(2-chloroethyl)ether	DCBd4	Ave	63797 1728201	157509 2344592	313824 2818193	785878	1262070	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
2-Chlorophenol	DCBd4	Ave	51852 1482720	131559 1998576	257216 2415222	648643	1062667	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
1,3-Dichlorobenzene	DCBd4	Ave	59860 1550489	141408 2099073	269289 2538034	689044	1110759	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
1,4-Dichlorobenzene	DCBd4	Ave	63313 1610810	151169 2155564	285491 2591682	707946	1147767	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Benzyl alcohol	DCBd4	Ave	46304 1509616	128037 1997240	258109 2374907	673575	1061846	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
1,2-Dichlorobenzene	DCBd4	Ave	58850 1481897	138099 1996970	268526 2397505	660546	1069524	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
2-Methylphenol	DCBd4	Ave	50769 1390897	128930 1853705	241865 2234216	622291	1004477	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
2,2'-oxybis[1-chloropropane]	DCBd4	Ave	124345 2833865	289409 3624659	553447 4302037	1318204	2144938	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Acetophenone	DCBd4	Ave	81449 2160398	199135 2925465	389794 3488937	973107	1561396	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
N-Nitrosodi-n-propylamine	DCBd4	Ave	49225 1274872	118270 1675074	237391 1992934	565325	928612	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
3 & 4 Methylphenol	DCBd4	Ave	51381 1457171	128421 1950767	260842 2343567	667798	1050995	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 648459

SDG No.:

Instrument ID: SMS_3 | GC Column: DB-5MS | ID: 0.25(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 04/05/2024 11:38 | Calibration End Date: 04/05/2024 14:15 | Calibration ID: 91940

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Hexachloroethane	DCBd4	Ave	28298 775774	68326 1036208	132997 1253850	340630	545249	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Nitrobenzene	NPT	Ave	69197 1908352	178617 2526326	340895 3055949	853453	1374692	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Isophorone	NPT	Ave	121213 3454888	310121 4606741	606957 5596764	1551963	2476132	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
2-Nitrophenol	NPT	Ave	23966 797629	64936 1068992	130505 1285093	342592	544627	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
2,4-Dimethylphenol	NPT	Ave	46595 1316518	112959 1745701	226209 2152184	573270	915696	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Bis(2-chloroethoxy)methane	NPT	Ave	80986 2092995	192468 2828555	382391 3396834	943930	1502343	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Benzoic acid	NPT	Lin2	44647 2702969	156282 3716197	381304 4418155	1166948	1799294	2.00 60.0	5.00 80.0	10.0 100	25.0	40.0
2,4-Dichlorophenol	NPT	Ave	38389 1195966	103235 1613215	202929 1939325	535361	842916	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
1,2,4-Trichlorobenzene	NPT	Ave	49265 1295211	119298 1739175	229792 2136475	572349	907297	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Naphthalene	NPT	Ave	153801 3890059	365149 5184512	711845 6107698	1770236	2768189	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
4-Chloroaniline	NPT	Ave	60980 1675080	152510 2243687	300313 2628138	750781	1209028	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
2,6-Dichlorophenol	NPT	Ave	41658 1171168	104742 1561057	208144 1883521	523660	827671	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Hexachlorobutadiene	NPT	Ave	30484 808968	66094 1082874	134986 1323028	350114	544072	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
4-Chloro-3-methylphenol	NPT	Ave	42795 1366699	117025 1852097	239268 2255817	607542	954726	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
2-Methylnaphthalene	NPT	Ave	77170 2163597	195965 2897579	376635 3506507	960344	1520787	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
1-Methylnaphthalene	NPT	Ave	86316 2332267	213573 3154851	410794 3752356	1047532	1642417	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Hexachlorocyclopentadiene	ANT	Lin1	19097 712040	46944 969670	107344 1193260	284972	471509	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
1,2,4,5-Tetrachlorobenzene	ANT	Ave	51107 1338127	122903 1823310	232792 2213633	591352	927225	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
2,4,6-Trichlorophenol	ANT	Ave	29661 912169	75407 1209967	153476 1478366	389986	615036	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
2,4,5-Trichlorophenol	ANT	Ave	29235 966783	81408 1275790	165682 1578529	415442	660176	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
1,1'-Biphenyl	ANT	Ave	111902	283936	544972	1362216	2121978	1.00	2.50	5.00	12.5	20.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 648459

SDG No.:

Instrument ID: SMS_3 GC Column: DB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/05/2024 11:38 Calibration End Date: 04/05/2024 14:15 Calibration ID: 91940

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
			2991122	3969325	4749645			30.0	40.0	50.0		
2-Chloronaphthalene	ANT	Ave	96391 2473258	230968 3304835	445079 3958381	1113548	1736479	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
2-Nitroaniline	ANT	Ave	29337 939738	76396 1258368	160010 1510566	413304	650950	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Dimethyl phthalate	ANT	Ave	104950 2828672	260307 3735281	498194 4567459	1258887	1933900	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
1,3-Dinitrobenzene	ANT	Lin2	12259 493489	39386 661193	80344 791274	214092	338210	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
2,6-Dinitrotoluene	ANT	Ave	22182 665290	57936 879003	116613 1086131	294985	462822	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Acenaphthylene	ANT	Ave	137924 3741143	342038 4945202	686608 5981835	1712328	2661340	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
3-Nitroaniline	ANT	Ave	44772 1319362	114739 1751858	244718 2123550	603900	950643	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Acenaphthene	ANT	Ave	93537 2374152	223725 3214125	443469 3823832	1071538	1670343	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
2,4-Dinitrophenol	ANT	Lin1	11637 709629	40900 951611	96225 1222790	286948	460211	2.00 60.0	5.00 80.0	10.0 100	25.0	40.0
4-Nitrophenol	ANT	Lin2	38997 1569570	121332 2094517	263181 2549064	707573	1117001	2.00 60.0	5.00 80.0	10.0 100	25.0	40.0
Dibenzofuran	ANT	Ave	132411 3439145	317731 4515248	637337 5408194	1554349	2413782	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
2,4-Dinitrotoluene	ANT	Ave	30548 895729	80020 1175344	162646 1449255	412016	627942	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
2,3,4,6-Tetrachlorophenol	ANT	Ave	23787 735016	58569 1000270	124451 1206183	320939	503429	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Diethyl phthalate	ANT	Ave	109595 2900443	262513 3903405	520023 4738753	1306719	2039194	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Fluorene	ANT	Ave	104921 2652890	251198 3562842	492187 4237011	1213384	1852184	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
4-Chlorophenyl phenyl ether	ANT	Ave	49007 1271881	122359 1726387	233616 2074268	580832	888323	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
4-Nitroaniline	ANT	Ave	25999 718251	69523 981160	135632 1174163	332321	517171	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
4,6-Dinitro-2-methylphenol	ANT	Lin2	25466 960132	70240 1291041	152590 1607614	417652	630076	2.00 60.0	5.00 80.0	10.0 100	25.0	40.0
Diphenylamine	ANT	Ave	73348 1903579	181844 2512399	343551 3062546	863428	1303973	0.850 25.5	2.13 34.0	4.25 42.5	10.6	17.0
N-Nitrosodiphenylamine	ANT	Ave	45021 1199568	114816 1622902	224863 1946090	555443	852474	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 648459

SDG No.:

Instrument ID: SMS_3 | GC Column: DB-5MS | ID: 0.25(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 04/05/2024 11:38 | Calibration End Date: 04/05/2024 14:15 | Calibration ID: 91940

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2-Diphenylhydrazine	PHN	Ave	151655 3931752	372881 5111991	749447 6136178	1812838	2823217	1.01 30.3	2.53 40.4	5.05 50.5	12.6	20.2
Azobenzene	PHN	Ave	151655 3931752	372881 5111991	749446 6136178	1810449	2823217	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
4-Bromophenyl phenyl ether	PHN	Ave	28074 751782	70667 1012429	135351 1242942	337157	522791	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Hexachlorobenzene	PHN	Ave	34318 866653	83932 1184592	164227 1410242	371765	565273	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Pentachlorophenol	PHN	Lin2	26450 1115856	76978 1456159	175269 1783551	480038	727455	2.00 60.0	5.00 80.0	10.0 100	25.0	40.0
Phenanthrene	PHN	Ave	152724 3732606	359774 4847367	700596 5969247	1709755	2606568	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Anthracene	PHN	Ave	142660 3744538	357428 4980226	719048 6040947	1719633	2666351	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Carbazole	PHN	Ave	140080 3608337	339123 4707413	676867 5749528	1657701	2581043	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Alachlor	PHN	Ave	56736 1473550	143029 1917244	289347 2287049	710019	1117839	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Di-n-butyl phthalate	PHN	Ave	165064 4863092	434619 6437251	867584 7568974	2205754	3392940	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Fluoranthene	PHN	Ave	152448 4176623	371243 5588171	739152 6678535	1861989	2920523	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Pyrene	CRY	Ave	165254 4266144	394939 5708607	796269 6942141	1950165	3072716	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Butyl benzyl phthalate	CRY	Ave	63500 2156296	172596 2882936	361858 3534081	933418	1495949	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Benzo[a]anthracene	CRY	Ave	135505 3725375	331464 5001095	664417 6236897	1656039	2592865	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Chrysene	CRY	Ave	136338 3521773	334664 4599024	657386 5883828	1602435	2485684	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Bis(2-ethylhexyl) phthalate	CRY	Ave	81916 2874279	220737 3835951	483204 4702137	1278633	1981930	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Di-n-octyl phthalate	PRY	Lin2	109832 5018590	335560 6754807	763329 8365593	2128264	3365722	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Benzo[b]fluoranthene	PRY	Ave	113589 3309512	280168 4400341	565877 5529684	1462819	2224218	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Benzo[k]fluoranthene	PRY	Ave	114553 3331318	314529 4467386	628027 5566380	1529718	2368160	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Benzo[a]pyrene	PRY	Ave	97750 3079933	241278 4168109	545458 5238534	1355580	2131729	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Indeno[1,2,3-cd]pyrene	PRY	Ave	91710	232684	493576	1277595	2026793	1.00	2.50	5.00	12.5	20.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 648459

SDG No.:

Instrument ID: SMS_3 GC Column: DB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/05/2024 11:38 Calibration End Date: 04/05/2024 14:15 Calibration ID: 91940

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
			2996403	4140571	5149416			30.0	40.0	50.0		
Dibenz(a,h)anthracene	PRY	Ave	86244 2709838	216904 3770309	461287 4601670	1197693	1850340	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Benzo[g,h,i]perylene	PRY	Ave	96521 2783774	242981 3829942	502644 4849059	1210272	1896096	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
2-Fluorophenol (Surr)	DCBd4	Ave	48438 1511358	130883 2086593	253391 2503604	663681	1088014	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Phenol-d5 (Surr)	DCBd4	Ave	67889 2025097	173063 2712080	340661 3319611	882582	1427683	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Nitrobenzene-d5 (Surr)	NPT	Ave	65414 1825678	162548 2467580	318818 2987711	821358	1297598	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
2-Fluorobiphenyl	ANT	Ave	100183 2707929	242059 3620602	478068 4374205	1201397	1881135	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
2,4,6-Tribromophenol (Surr)	PHN	Ave	14658 404845	32563 535374	69844 656807	182717	274789	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0
Terphenyl-d14 (Surr)	CRY	Ave	104687 2825642	257697 3833125	500990 4667905	1257372	1992834	1.00 30.0	2.50 40.0	5.00 50.0	12.5	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 648459

SDG No.:

Instrument ID: SMS_3 | GC Column: DB-5MS | ID: 0.25(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 04/05/2024 11:38 | Calibration End Date: 04/05/2024 14:15 | Calibration ID: 91940

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD010 280-648459/9	SMS_3-040524013.D
Level 2	STD025 280-648459/8	SMS_3-040524012.D
Level 3	STD050 280-648459/7	SMS_3-040524011.D
Level 4	STD125 280-648459/6	SMS_3-040524010.D
Level 5	ICIS 280-648459/2	SMS_3-040524006.D
Level 6	STD300 280-648459/5	SMS_3-040524009.D
Level 7	STD400 280-648459/4	SMS_3-040524008.D
Level 8	STD500 280-648459/3	SMS_3-040524007.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3	LVL 4	LVL 5	LVL 6
N-Nitrosodimethylamine	-20.2						30					
Pyridine	5.8						30					
Phenol	-8.5						30					
Aniline	-4.8						30					
Bis(2-chloroethyl)ether	-4.9						30					
2-Chlorophenol	-7.7						30					
1,3-Dichlorobenzene	0.0						30					
1,4-Dichlorobenzene	1.6						30					
Benzyl alcohol	-16.8						30					
1,2-Dichlorobenzene	1.8						30					
2-Methylphenol	-4.8						30					
2,2'-oxybis[1-chloropropane]	8.9						30					
Acetophenone	-2.8						30					
N-Nitrosodi-n-propylamine	-0.3						30					
3 & 4 Methylphenol	-7.8						30					

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 648459

SDG No.:

Instrument ID: SMS_3 | GC Column: DB-5MS | ID: 0.25(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 04/05/2024 11:38 | Calibration End Date: 04/05/2024 14:15 | Calibration ID: 91940

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3	LVL 4	LVL 5	LVL 6
Hexachloroethane	-3.6						30					
Nitrobenzene	-6.3						30					
Isophorone	-8.5						30					
2-Nitrophenol	-17.7						30					
2,4-Dimethylphenol	-6.3						30					
Bis(2-chloroethoxy)methane	-1.3						30					
Benzoic acid	6.2						30					
2,4-Dichlorophenol	-14.6						30					
1,2,4-Trichlorobenzene	-2.0						30					
Naphthalene	0.9						30					
4-Chloroaniline	-5.6						30					
2,6-Dichlorophenol	-7.2						30					
Hexachlorobutadiene	0.2						30					
4-Chloro-3-methylphenol	-16.8						30					
2-Methylnaphthalene	-6.8						30					
1-Methylnaphthalene	-4.2						30					
Hexachlorocyclopentadiene	26.8						30					
1,2,4,5-Tetrachlorobenzene	-2.0						30					
2,4,6-Trichlorophenol	-12.4						30					
2,4,5-Trichlorophenol	-18.5						30					
1,1'-Biphenyl	-4.5						30					

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 648459

SDG No.:

Instrument ID: SMS_3 | GC Column: DB-5MS | ID: 0.25(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 04/05/2024 11:38 | Calibration End Date: 04/05/2024 14:15 | Calibration ID: 91940

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3	LVL 4	LVL 5	LVL 6
2-Chloronaphthalene	-0.6						30					
2-Nitroaniline	-16.1						30					
Dimethyl phthalate	-3.9						30					
1,3-Dinitrobenzene	1.8						30					
2,6-Dinitrotoluene	-12.2						30					
Acenaphthylene	-5.5						30					
3-Nitroaniline	-12.1						30					
Acenaphthene	-0.5						30					
2,4-Dinitrophenol	27.8						30					
4-Nitrophenol	2.6						30					
Dibenzofuran	-1.5						30					
2,4-Dinitrotoluene	-11.4						30					
2,3,4,6-Tetrachlorophenol	-13.4						30					
Diethyl phthalate	-3.2						30					
Fluorene	0.0						30					
4-Chlorophenyl phenyl ether	-2.7						30					
4-Nitroaniline	-8.9						30					
4,6-Dinitro-2-methylphenol	4.8						30					
Diphenylamine	-1.6						30					
N-Nitrosodiphenylamine	-5.4						30					
1,2-Diphenylhydrazine	-6.6						30					

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 648459

SDG No.:

Instrument ID: SMS_3 | GC Column: DB-5MS | ID: 0.25(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 04/05/2024 11:38 | Calibration End Date: 04/05/2024 14:15 | Calibration ID: 91940

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3	LVL 4	LVL 5	LVL 6
Azobenzene	-6.6						30					
4-Bromophenyl phenyl ether	-8.9						30					
Hexachlorobenzene	-3.7						30					
Pentachlorophenol	5.9						30					
Phenanthrene	-1.4						30					
Anthracene	-8.3						30					
Carbazole	-6.0						30					
Alachlor	-8.5						30					
Di-n-butyl phthalate	-15.0						30					
Fluoranthene	-9.5						30					
Pyrene	-2.3						30					
Butyl benzyl phthalate	-20.3						30					
Benzo[a]anthracene	-6.3						30					
Chrysene	-2.4						30					
Bis(2-ethylhexyl) phthalate	-22.5						30					
Di-n-octyl phthalate	6.4						30					
Benzo[b]fluoranthene	-8.5						30					
Benzo[k]fluoranthene	-11.7						30					
Benzo[a]pyrene	-15.0						30					
Indeno[1,2,3-cd]pyrene	-16.7						30					
Dibenz(a,h)anthracene	-14.7						30					

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 648459

SDG No.:

Instrument ID: SMS_3 GC Column: DB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/05/2024 11:38 Calibration End Date: 04/05/2024 14:15 Calibration ID: 91940

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3	LVL 4	LVL 5	LVL 6
Benzo[g,h,i]perylene	-9.4						30					
2-Fluorophenol (Surr)	-14.5						30					
Phenol-d5 (Surr)	-10.1						30					
Nitrobenzene-d5 (Surr)	-6.8						30					
2-Fluorobiphenyl	-4.1						30					
2,4,6-Tribromophenol (Surr)	-8.7						30					
Terphenyl-d14 (Surr)	-5.1						30					

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524006.D
Lims ID: ICIS
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 05-Apr-2024 11:38:28 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: icis std 20
Operator ID: DM Instrument ID: SMS_3
Sublist: chrom-SMS_3 8270 RVE*sub1

Method: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 08-Apr-2024 10:13:24 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1660

First Level Reviewer: G3YK Date: 05-Apr-2024 14:40:04

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	115	4.024	4.024	0.000	97	242760	8.00	8.00	
* 2 Naphthalene-d8	136	5.196	5.196	0.000	99	1385333	8.00	8.00	
* 3 Acenaphthene-d10	164	6.892	6.892	0.000	93	779332	8.00	8.00	
* 4 Phenanthrene-d10	188	8.344	8.344	0.000	97	1300177	8.00	8.00	
* 5 Chrysene-d12	240	11.130	11.130	0.000	99	1005319	8.00	8.00	
* 6 Perylene-d12	264	13.390	13.390	0.000	97	990218	8.00	8.00	
$ 7 2-Fluorophenol	112	2.915	2.915	0.000	96	1088014	20.0	21.4	
$ 8 Phenol-d5	99	3.720	3.720	0.000	0	1427683	20.0	21.1	
$ 9 Nitrobenzene-d5	82	4.528	4.528	0.000	93	1297598	20.0	20.6	
$ 10 2-Fluorobiphenyl	172	6.253	6.253	0.000	99	1881135	20.0	20.3	
$ 11 2,4,6-Tribromophenol	330	7.666	7.666	0.000	90	274789	20.0	20.8	
$ 12 Terphenyl-d14	244	9.942	9.942	0.000	97	1992834	20.0	20.6	
13 N-Nitrosodimethylamine	74	1.854	1.854	0.000	93	835048	20.0	22.0	
14 Pyridine	79	1.880	1.880	0.000	90	1997967	40.0	42.5	
22 Phenol	94	3.732	3.732	0.000	98	1688704	20.0	21.4	
23 Aniline	93	3.736	3.736	0.000	97	1682717	20.0	21.2	
25 Bis(2-chloroethyl)ether	93	3.805	3.805	0.000	93	1262070	20.0	21.0	
26 2-Chlorophenol	128	3.836	3.836	0.000	95	1062667	20.0	21.1	
27 n-Decane	43	3.897	3.897	0.000	93	1475410	20.0	21.3	
28 1,3-Dichlorobenzene	146	3.971	3.971	0.000	94	1110759	20.0	20.7	
29 1,4-Dichlorobenzene	146	4.038	4.038	0.000	90	1147767	20.0	20.5	
30 Benzyl alcohol	79	4.161	4.161	0.000	89	1061846	20.0	21.3	
31 1,2-Dichlorobenzene	146	4.171	4.171	0.000	94	1069524	20.0	20.6	
32 Indene	116	4.252	4.252	0.000	92	3784755	40.0	42.1	
33 2-Methylphenol	108	4.271	4.271	0.000	98	1004477	20.0	21.0	
34 2,2'-oxybis[1-chloropropane]	45	4.283	4.283	0.000	93	2144938	20.0	20.9	Ma
36 Acetophenone	105	4.395	4.395	0.000	92	1561396	20.0	20.8	
37 N-Nitrosodi-n-propylamine	70	4.408	4.408	0.000	90	928612	20.0	20.9	
38 3-Methylphenol	108	4.416	4.416	0.000	91	1050995	20.0	21.0	
41 4-Methylphenol	108	4.416	4.416	0.000	93	1050995	20.0	21.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
39 3 & 4 Methylphenol	108	4.416	4.416	0.000	0	1050995	20.0	21.0	
43 Hexachloroethane	117	4.475	4.475	0.000	95	545249	20.0	20.7	
44 Nitrobenzene	77	4.548	4.548	0.000	92	1374692	20.0	20.7	
46 Isophorone	82	4.777	4.777	0.000	99	2476132	20.0	20.8	
47 2-Nitrophenol	139	4.842	4.842	0.000	93	544627	20.0	20.8	
48 2,4-Dimethylphenol	107	4.908	4.908	0.000	98	915696	20.0	20.5	
51 Bis(2-chloroethoxy)methane	93	4.998	4.998	0.000	95	1502343	20.0	20.4	
49 Benzoic acid	105	5.059	5.059	0.000	92	1799294	40.0	39.6	Ma
52 2,4-Dichlorophenol	162	5.075	5.075	0.000	98	842916	20.0	20.9	
53 1,2,4-Trichlorobenzene	180	5.147	5.147	0.000	93	907297	20.0	20.1	
54 Naphthalene	128	5.216	5.216	0.000	98	2768189	20.0	20.2	
55 4-Chloroaniline	127	5.283	5.283	0.000	94	1209028	20.0	20.8	
56 2,6-Dichlorophenol	162	5.285	5.285	0.000	95	827671	20.0	20.5	
57 Hexachlorobutadiene	225	5.345	5.345	0.000	97	544072	20.0	19.9	
61 4-Chloro-3-methylphenol	107	5.767	5.767	0.000	95	954726	20.0	20.6	
63 2-Methylnaphthalene	141	5.886	5.886	0.000	92	1520787	20.0	20.4	
64 1-Methylnaphthalene	142	5.977	5.977	0.000	93	1642417	20.0	20.3	
65 Hexachlorocyclopentadiene	237	6.039	6.039	0.000	96	471509	20.0	19.0	
66 1,2,4,5-Tetrachlorobenzene	216	6.045	6.045	0.000	98	927225	20.0	20.0	
68 2,4,6-Trichlorophenol	196	6.167	6.167	0.000	93	615036	20.0	20.5	
69 2,4,5-Trichlorophenol	196	6.200	6.200	0.000	92	660176	20.0	20.7	
71 1,1'-Biphenyl	154	6.345	6.345	0.000	97	2121978	20.0	20.4	
72 2-Chloronaphthalene	162	6.353	6.353	0.000	98	1736479	20.0	20.2	
74 2-Nitroaniline	138	6.467	6.467	0.000	77	650950	20.0	21.0	
77 Dimethyl phthalate	163	6.668	6.668	0.000	97	1933900	20.0	20.0	
78 1,3-Dinitrobenzene	168	6.680	6.680	0.000	80	338210	20.0	19.9	
79 2,6-Dinitrotoluene	165	6.716	6.716	0.000	87	462822	20.0	20.6	
80 Acenaphthylene	152	6.751	6.751	0.000	99	2661340	20.0	20.5	
81 3-Nitroaniline	65	6.872	6.872	0.000	88	950643	20.0	21.0	
82 Acenaphthene	153	6.925	6.925	0.000	97	1670343	20.0	20.0	
83 2,4-Dinitrophenol	184	6.974	6.974	0.000	76	460211	40.0	37.3	
85 4-Nitrophenol	65	7.068	7.068	0.000	95	1117001	40.0	40.8	
86 Dibenzofuran	168	7.096	7.096	0.000	96	2413782	20.0	20.2	
87 2,4-Dinitrotoluene	165	7.104	7.104	0.000	85	627942	20.0	20.5	
89 2,3,4,6-Tetrachlorophenol	232	7.223	7.223	0.000	76	503429	20.0	20.7	
91 Diethyl phthalate	149	7.370	7.370	0.000	96	2039194	20.0	20.3	
92 Hexadecane	57	7.400	7.400	0.000	90	1876725	20.0	21.2	
93 Fluorene	166	7.431	7.431	0.000	94	1852184	20.0	19.9	
95 4-Chlorophenyl phenyl ether	204	7.451	7.451	0.000	96	888323	20.0	19.9	
97 4-Nitroaniline	138	7.472	7.472	0.000	81	517171	20.0	20.4	
98 4,6-Dinitro-2-methylphenol	198	7.498	7.498	0.000	83	630076	40.0	38.6	
100 N-Nitrosodiphenylamine	168	7.570	7.570	0.000	66	852474	20.0	20.2	
99 Diphenylamine	169	7.570	7.570	0.000	92	1303973	17.0	16.8	
102 1,2-Diphenylhydrazine	77	7.605	7.605	0.000	41	2823217	20.2	21.3	a
101 Azobenzene	77	7.605	7.605	0.000	98	2823217	20.0	21.1	
108 4-Bromophenyl phenyl ether	248	7.927	7.927	0.000	76	522791	20.0	20.6	
110 Hexachlorobenzene	284	7.962	7.962	0.000	92	565273	20.0	19.2	
113 Pentachlorophenol	266	8.166	8.166	0.000	90	727455	40.0	39.6	
156 n-Octadecane	57	8.313	8.313	0.000	93	1899545	20.0	21.6	
117 Phenanthrene	178	8.368	8.368	0.000	99	2606568	20.0	20.4	
120 Anthracene	178	8.419	8.419	0.000	99	2666351	20.0	20.8	
121 Carbazole	167	8.591	8.591	0.000	96	2581043	20.0	21.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
122 Alachlor	45	8.750	8.750	0.000	91	1117839	20.0	21.9	
124 Di-n-butyl phthalate	149	8.983	8.983	0.000	100	3392940	20.0	21.2	
127 Fluoranthene	202	9.536	9.536	0.000	99	2920523	20.0	21.0	
129 Pyrene	202	9.754	9.754	0.000	97	3072716	20.0	20.7	
136 Butyl benzyl phthalate	149	10.503	10.503	0.000	96	1495949	20.0	21.4	
138 Benzo[a]anthracene	228	11.118	11.118	0.000	99	2592865	20.0	20.4	
141 Chrysene	228	11.165	11.165	0.000	98	2485684	20.0	20.3	
142 Bis(2-ethylhexyl) phthalate	149	11.293	11.293	0.000	97	1981930	20.0	21.4	
144 Di-n-octyl phthalate	149	12.335	12.335	0.000	99	3365722	20.0	20.0	
145 Benzo[b]fluoranthene	252	12.753	12.753	0.000	98	2224218	20.0	20.3	
147 Benzo[k]fluoranthene	252	12.802	12.802	0.000	99	2368160	20.0	20.6	
148 Benzo[a]pyrene	252	13.298	13.298	0.000	80	2131729	20.0	21.0	a
152 Indeno[1,2,3-cd]pyrene	276	15.315	15.315	0.000	98	2026793	20.0	20.8	
153 Dibenz(a,h)anthracene	278	15.393	15.393	0.000	95	1850340	20.0	20.7	a
154 Benzo[g,h,i]perylene	276	15.770	15.770	0.000	96	1896096	20.0	20.1	
209 1,4-Dioxane	88		0.000				ND	ND	

QC Flag Legend

Processing Flags
- ND - Not Detected or Marked ND

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

MS-RVHSL-WS_00006	Amount Added: 200.00	Units: uL	
MS-IS-RVE_00005	Amount Added: 30.00	Units: uL	Run Reagent

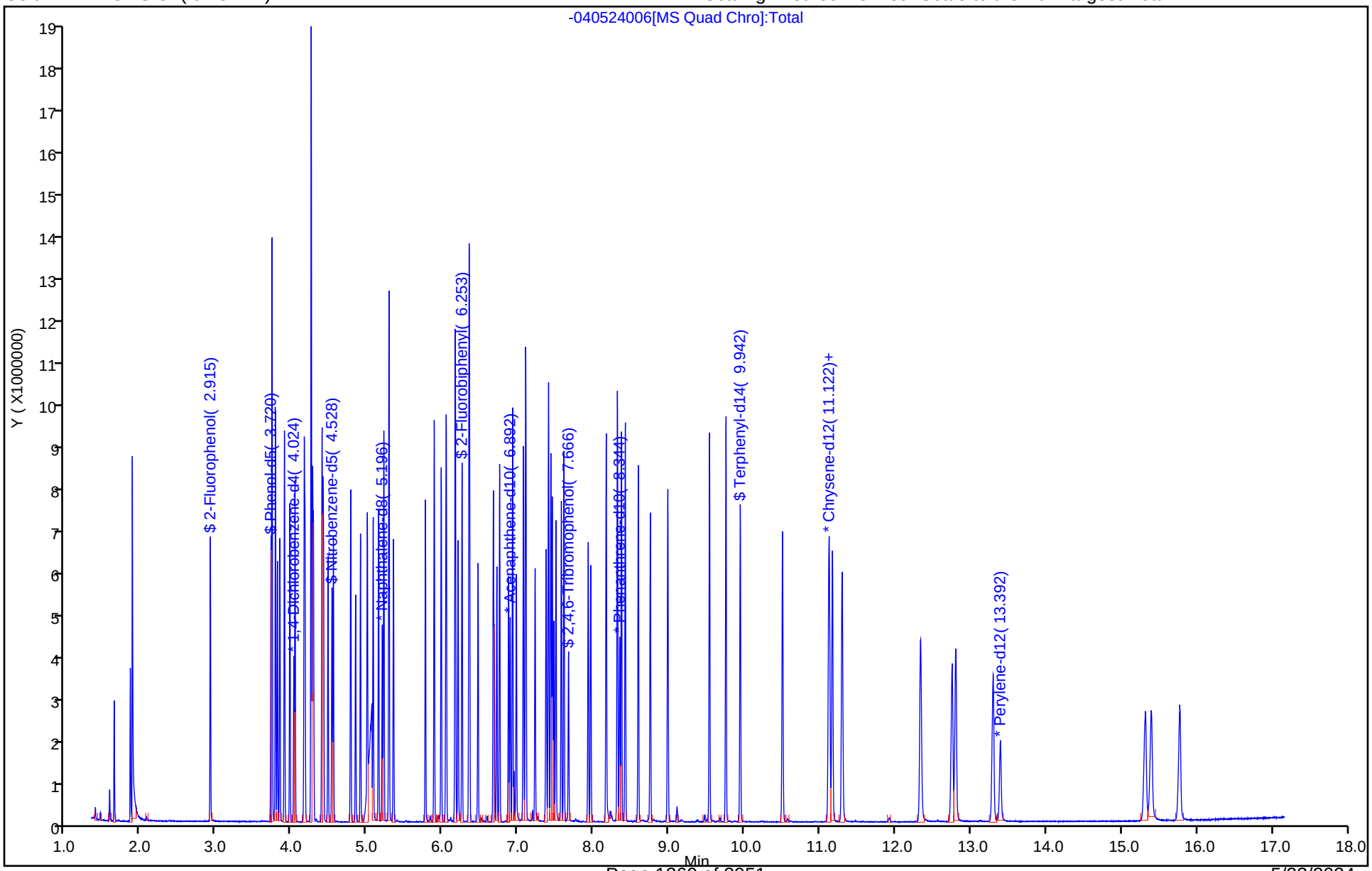
Report Date: 08-Apr-2024 10:13:24 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524006.D

Injection Date:	05-Apr-2024 11:38:28	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	ICIS			Worklist Smp#:	2
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

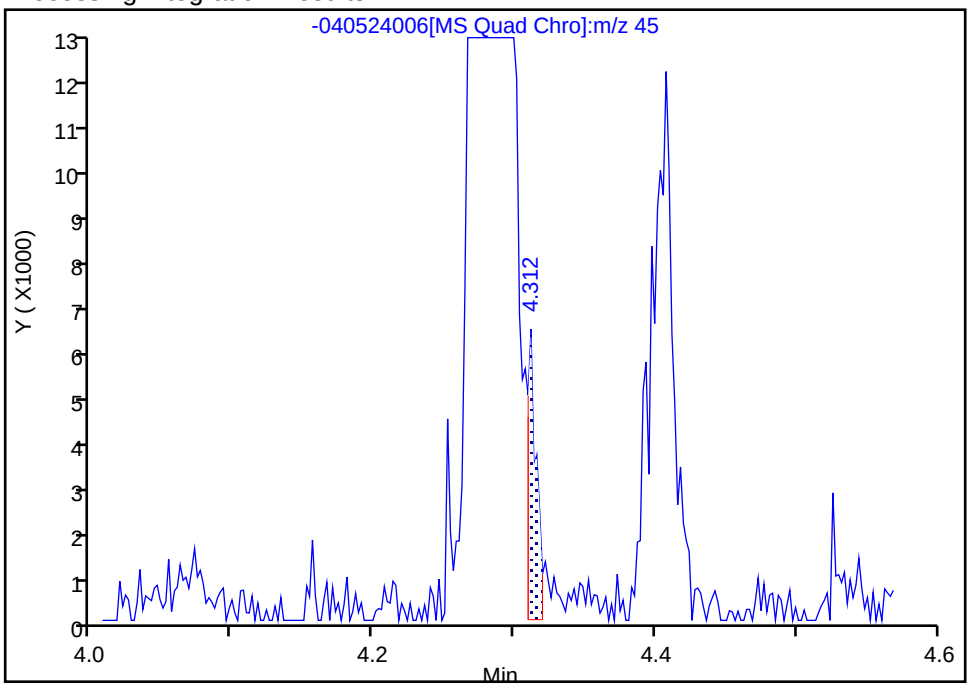
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524006.D				
Injection Date:	05-Apr-2024 11:38:28	Instrument ID:	SMS_3		
Lims ID:	ICIS				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

34 2,2'-oxybis[1-chloropropane], CAS: 108-60-1

Signal: 1

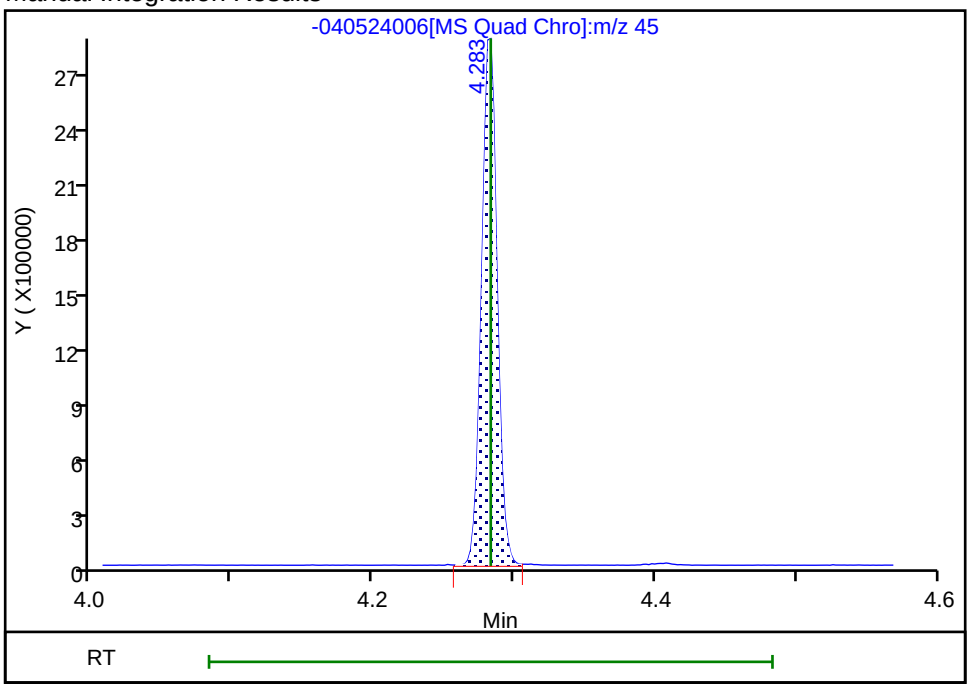
Processing Integration Results

RT: 4.31
Area: 2659
Amount: 0.146506
Amount Units: ug/ml



Manual Integration Results

RT: 4.28
Area: 2144938
Amount: 20.921956
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:37:51 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

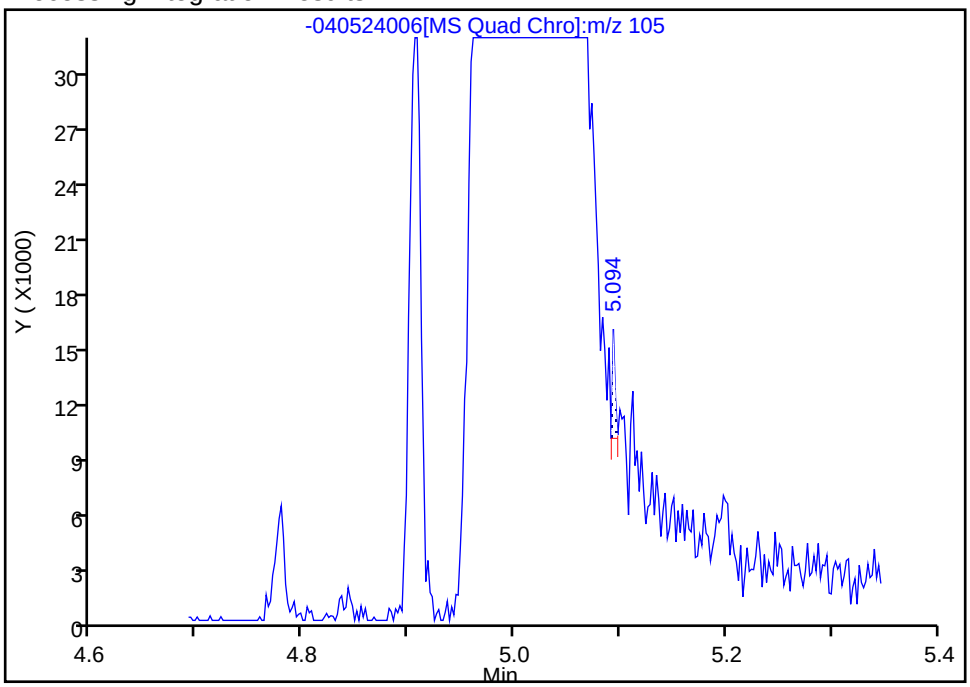
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524006.D				
Injection Date:	05-Apr-2024 11:38:28	Instrument ID:	SMS_3		
Lims ID:	ICIS				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

49 Benzoic acid, CAS: 65-85-0

Signal: 1

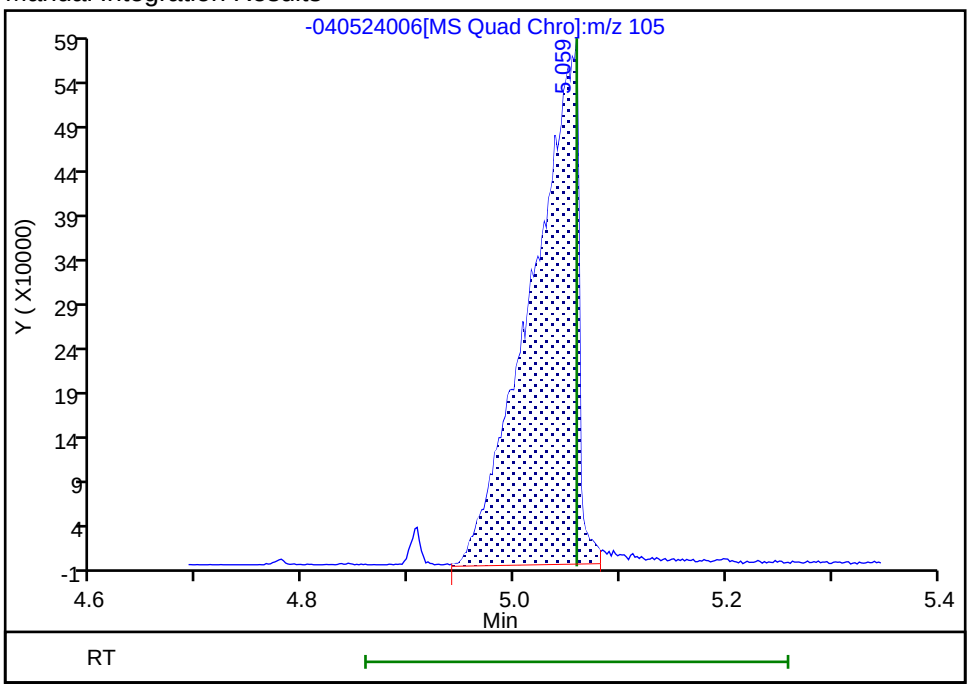
Processing Integration Results

RT: 5.09
Area: 1024
Amount: 16.194084
Amount Units: ug/ml



Manual Integration Results

RT: 5.06
Area: 1799294
Amount: 39.601684
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:38:36 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

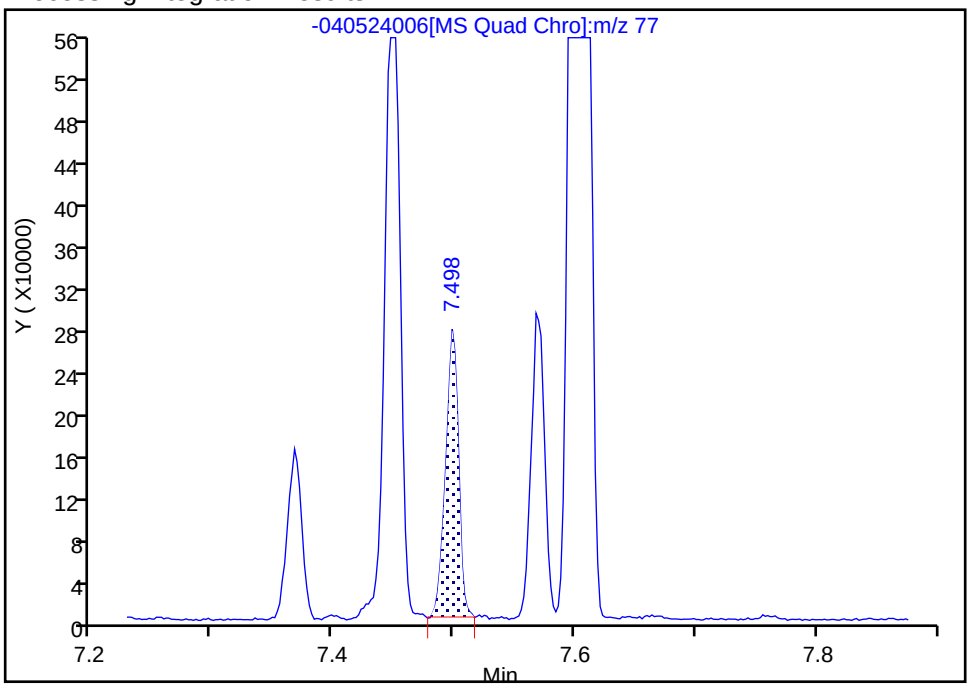
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524006.D				
Injection Date:	05-Apr-2024 11:38:28	Instrument ID:	SMS_3		
Lims ID:	ICIS				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

102 1,2-Diphenylhydrazine, CAS: 122-66-7

Signal: 1

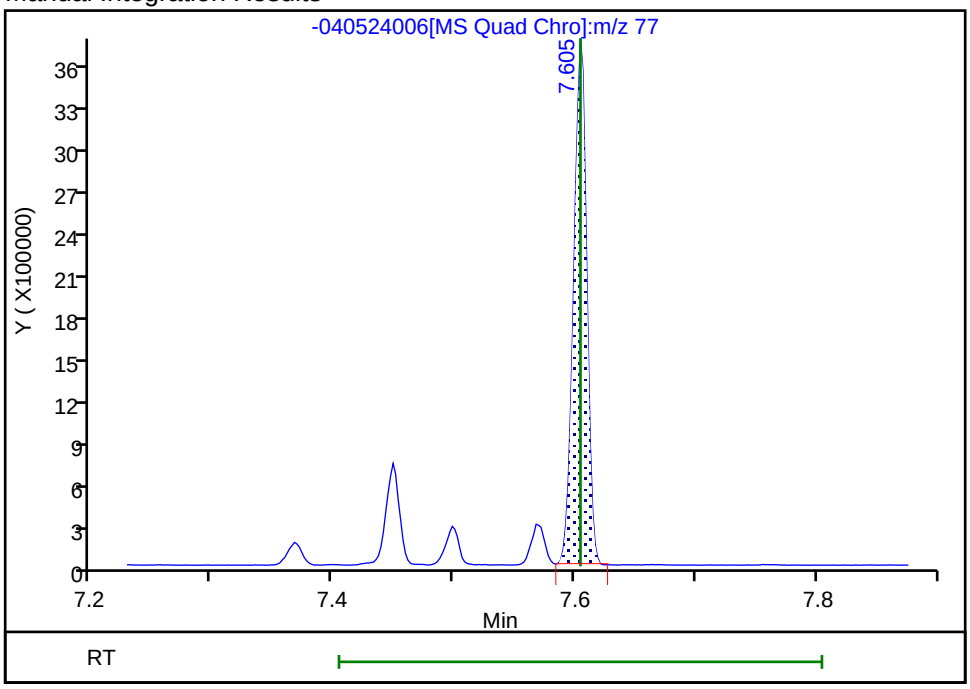
Processing Integration Results

RT: 7.50
Area: 204567
Amount: 20.180149
Amount Units: ug/ml



Manual Integration Results

RT: 7.60
Area: 2823217
Amount: 21.326746
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:39:23 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

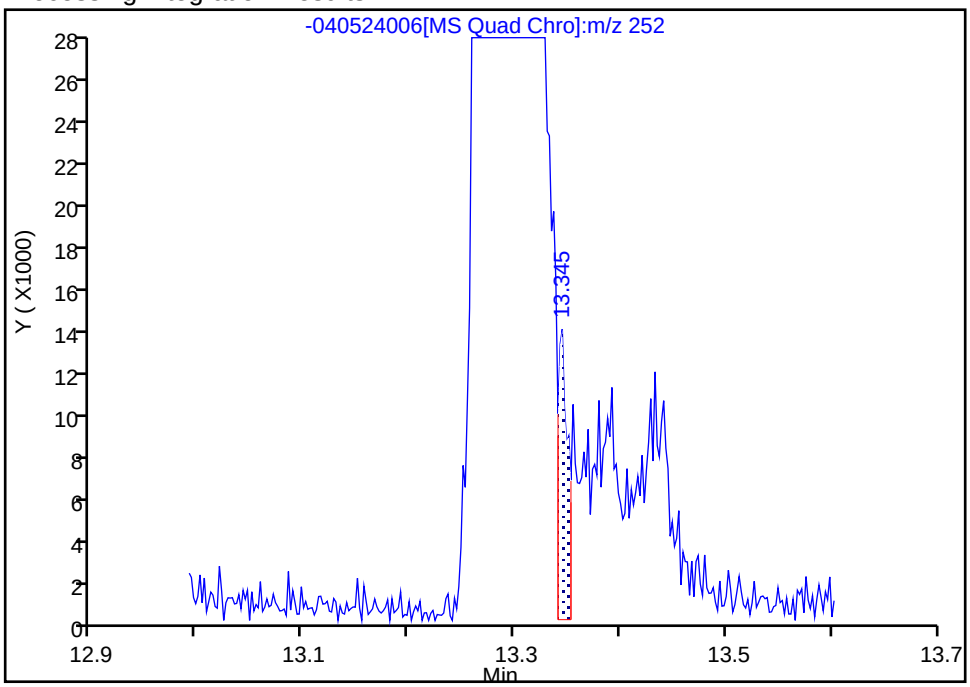
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524006.D				
Injection Date:	05-Apr-2024 11:38:28	Instrument ID:	SMS_3		
Lims ID:	ICIS				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

148 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

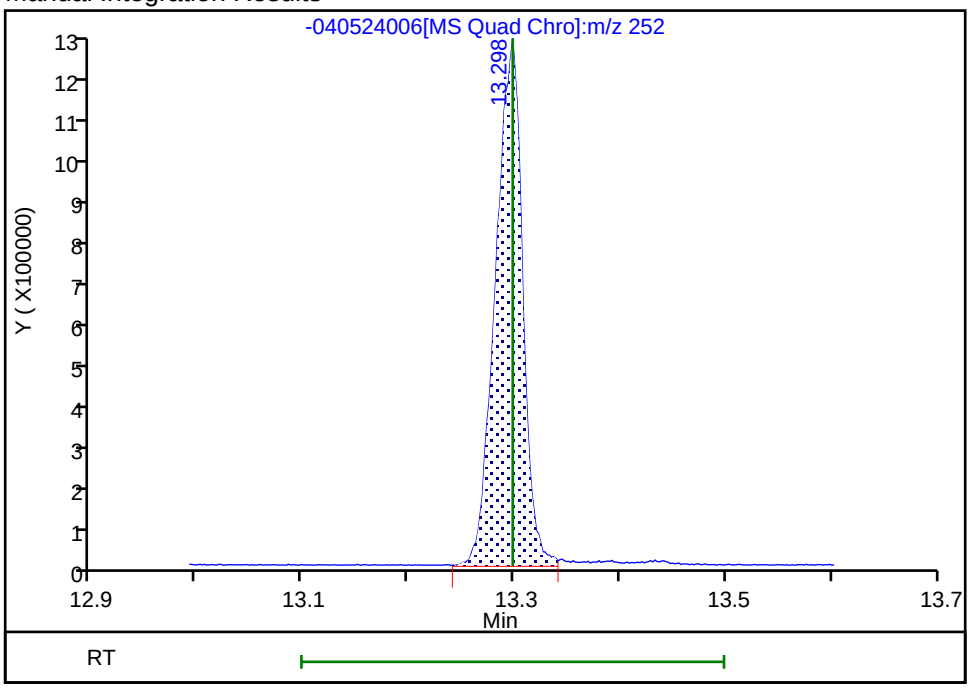
Processing Integration Results

RT: 13.35
Area: 8722
Amount: 0.150321
Amount Units: ug/ml



Manual Integration Results

RT: 13.30
Area: 2131729
Amount: 20.970164
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:39:52 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

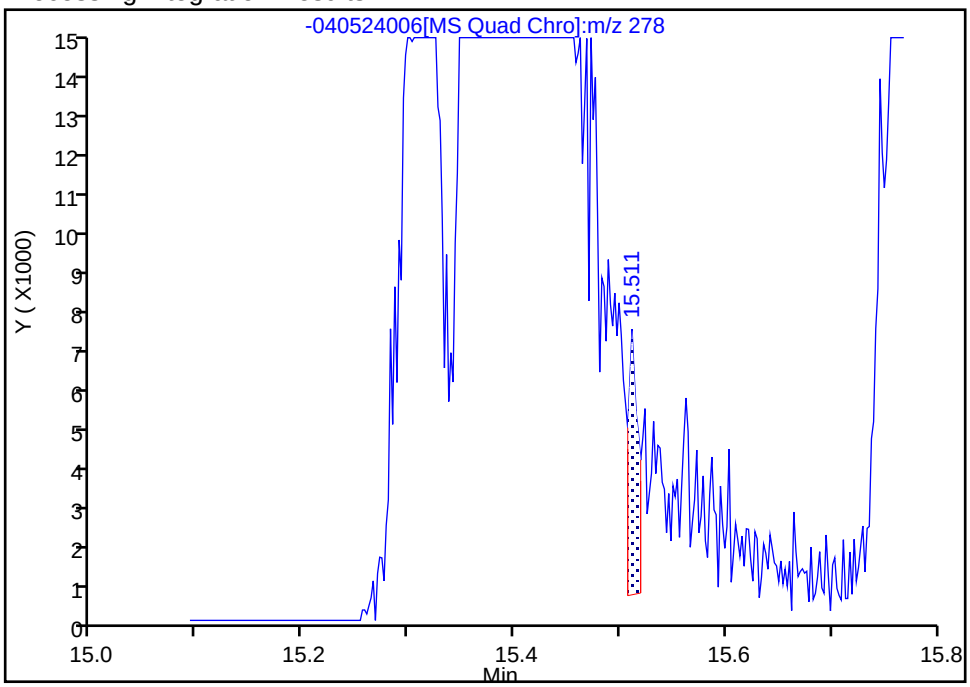
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524006.D				
Injection Date:	05-Apr-2024 11:38:28	Instrument ID:	SMS_3		
Lims ID:	ICIS				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

153 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

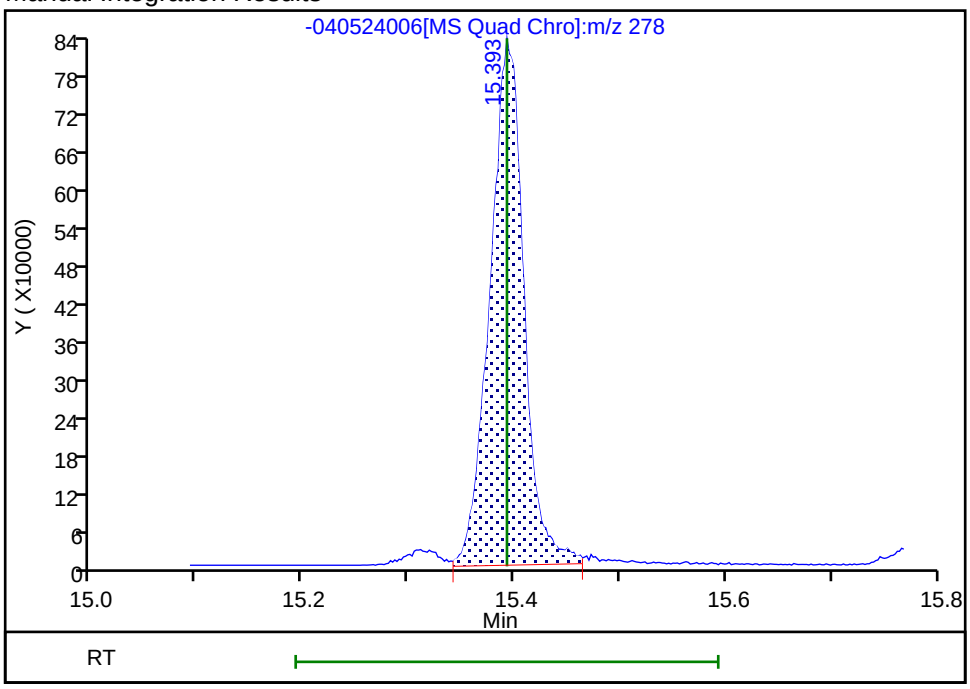
Processing Integration Results

RT: 15.51
Area: 4121
Amount: 0.476291
Amount Units: ug/ml



Manual Integration Results

RT: 15.39
Area: 1850340
Amount: 20.680560
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:39:57 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524007.D
Lims ID: STD500
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 05-Apr-2024 12:00:48 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: std 50
Operator ID: DM Instrument ID: SMS_3
Sublist: chrom-SMS_3 8270 RVE*sub1

Method: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 08-Apr-2024 10:13:27 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1660

First Level Reviewer: G3YK Date: 05-Apr-2024 14:43:44

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	115	4.024	4.024	0.000	97	233644	8.00	8.00	
* 2 Naphthalene-d8	136	5.196	5.196	0.000	99	1304422	8.00	8.00	
* 3 Acenaphthene-d10	164	6.890	6.892	-0.002	94	719265	8.00	8.00	
* 4 Phenanthrene-d10	188	8.341	8.344	-0.003	96	1204913	8.00	8.00	
* 5 Chrysene-d12	240	11.128	11.130	-0.002	99	960577	8.00	8.00	
* 6 Perylene-d12	264	13.386	13.390	-0.004	97	941737	8.00	8.00	M
$ 7 2-Fluorophenol	112	2.915	2.915	0.000	95	2503604	50.0	51.1	
$ 8 Phenol-d5	99	3.726	3.720	0.006	0	3319611	50.0	50.9	
$ 9 Nitrobenzene-d5	82	4.534	4.528	0.006	92	2987711	50.0	50.3	
$ 10 2-Fluorobiphenyl	172	6.253	6.253	0.000	99	4374205	50.0	51.1	
$ 11 2,4,6-Tribromophenol	330	7.668	7.666	0.002	92	656807	50.0	53.6	
$ 12 Terphenyl-d14	244	9.942	9.942	0.000	98	4667905	50.0	50.4	
13 N-Nitrosodimethylamine	74	1.858	1.854	0.004	93	1945961	50.0	53.2	
14 Pyridine	79	1.878	1.880	-0.002	90	4804116	100.0	105.3	
22 Phenol	94	3.738	3.732	0.006	88	3691733	50.0	48.7	
23 Aniline	93	3.740	3.736	0.004	65	3707978	50.0	48.5	
25 Bis(2-chloroethyl)ether	93	3.809	3.805	0.004	93	2818193	50.0	48.6	
26 2-Chlorophenol	128	3.840	3.836	0.004	95	2415222	50.0	49.8	
27 n-Decane	43	3.899	3.897	0.002	92	3042406	50.0	45.6	
28 1,3-Dichlorobenzene	146	3.971	3.971	0.000	94	2538034	50.0	49.1	
29 1,4-Dichlorobenzene	146	4.040	4.038	0.002	90	2591682	50.0	48.1	
30 Benzyl alcohol	79	4.167	4.161	0.006	90	2374907	50.0	49.4	
31 1,2-Dichlorobenzene	146	4.171	4.171	0.000	95	2397505	50.0	48.0	
32 Indene	116	4.254	4.252	0.002	90	7570924	100.0	87.4	e
33 2-Methylphenol	108	4.275	4.271	0.004	96	2234216	50.0	48.5	
34 2,2'-oxybis[1-chloropropane]	45	4.285	4.283	0.002	94	4302037	50.0	43.6	a
36 Acetophenone	105	4.401	4.395	0.006	93	3488937	50.0	48.2	
37 N-Nitrosodi-n-propylamine	70	4.414	4.408	0.006	89	1992934	50.0	46.7	
41 4-Methylphenol	108	4.422	4.416	0.006	92	2343567	50.0	48.7	
39 3 & 4 Methylphenol	108	4.422	4.416	0.006	0	2343567	50.0	48.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
38 3-Methylphenol	108	4.422	4.416	0.006	92	2343567	50.0	48.7	
43 Hexachloroethane	117	4.475	4.475	0.000	97	1253850	50.0	49.4	
44 Nitrobenzene	77	4.552	4.548	0.004	91	3055949	50.0	48.9	
46 Isophorone	82	4.783	4.777	0.006	99	5596764	50.0	49.9	
47 2-Nitrophenol	139	4.844	4.842	0.002	95	1285093	50.0	52.1	
48 2,4-Dimethylphenol	107	4.910	4.908	0.002	98	2152184	50.0	51.1	
51 Bis(2-chloroethoxy)methane	93	5.002	4.998	0.004	95	3396834	50.0	48.9	
49 Benzoic acid	105	5.116	5.059	0.057	92	4418155	100.0	101.2	Ma
52 2,4-Dichlorophenol	162	5.077	5.075	0.002	98	1939325	50.0	50.9	
53 1,2,4-Trichlorobenzene	180	5.147	5.147	0.000	93	2136475	50.0	50.2	
54 Naphthalene	128	5.218	5.216	0.002	99	6107698	50.0	47.3	e
55 4-Chloroaniline	127	5.287	5.283	0.004	94	2628138	50.0	48.0	
56 2,6-Dichlorophenol	162	5.289	5.285	0.004	93	1883521	50.0	49.6	
57 Hexachlorobutadiene	225	5.345	5.345	0.000	97	1323028	50.0	51.4	
61 4-Chloro-3-methylphenol	107	5.767	5.767	0.000	94	2255817	50.0	51.8	
63 2-Methylnaphthalene	141	5.886	5.886	0.000	94	3506507	50.0	50.0	
64 1-Methylnaphthalene	142	5.977	5.977	0.000	93	3752356	50.0	49.2	
65 Hexachlorocyclopentadiene	237	6.039	6.039	0.000	97	1193260	50.0	51.0	
66 1,2,4,5-Tetrachlorobenzene	216	6.045	6.045	0.000	99	2213633	50.0	51.8	
68 2,4,6-Trichlorophenol	196	6.167	6.167	0.000	95	1478366	50.0	53.3	
69 2,4,5-Trichlorophenol	196	6.200	6.200	0.000	94	1578529	50.0	53.7	
71 1,1'-Biphenyl	154	6.347	6.345	0.002	97	4749645	50.0	49.5	
72 2-Chloronaphthalene	162	6.355	6.353	0.002	98	3958381	50.0	49.8	
74 2-Nitroaniline	138	6.469	6.467	0.002	78	1510566	50.0	52.7	
77 Dimethyl phthalate	163	6.674	6.668	0.006	97	4567459	50.0	51.1	
78 1,3-Dinitrobenzene	168	6.684	6.680	0.004	79	791274	50.0	49.9	a
79 2,6-Dinitrotoluene	165	6.721	6.716	0.004	87	1086131	50.0	52.5	
80 Acenaphthylene	152	6.753	6.751	0.002	99	5981835	50.0	50.0	
81 3-Nitroaniline	65	6.876	6.872	0.004	89	2123550	50.0	50.9	
82 Acenaphthene	153	6.925	6.925	0.000	95	3823832	50.0	49.6	
83 2,4-Dinitrophenol	184	6.980	6.974	0.006	79	1222790	100.0	104.2	
85 4-Nitrophenol	65	7.076	7.068	0.008	94	2549064	100.0	99.6	
86 Dibenzofuran	168	7.098	7.096	0.002	95	5408194	50.0	49.1	
87 2,4-Dinitrotoluene	165	7.108	7.104	0.004	87	1449255	50.0	51.3	
89 2,3,4,6-Tetrachlorophenol	232	7.223	7.223	0.000	76	1206183	50.0	53.6	
91 Diethyl phthalate	149	7.372	7.370	0.002	97	4738753	50.0	51.1	
92 Hexadecane	57	7.398	7.400	-0.002	91	3941626	50.0	48.2	
93 Fluorene	166	7.431	7.431	0.000	95	4237011	50.0	49.3	
95 4-Chlorophenyl phenyl ether	204	7.449	7.451	-0.002	97	2074268	50.0	50.3	
97 4-Nitroaniline	138	7.488	7.472	0.016	80	1174163	50.0	50.2	
98 4,6-Dinitro-2-methylphenol	198	7.509	7.498	0.010	76	1607614	100.0	105.3	
100 N-Nitrosodiphenylamine	168	7.574	7.570	0.004	65	1946090	50.0	49.9	
99 Diphenylamine	169	7.574	7.570	0.004	93	3062546	42.5	42.6	
102 1,2-Diphenylhydrazine	77	7.607	7.605	0.001	41	6136178	50.5	50.0	a
101 Azobenzene	77	7.607	7.605	0.001	99	6136178	50.0	49.5	
108 4-Bromophenyl phenyl ether	248	7.925	7.927	-0.002	73	1242942	50.0	52.8	
110 Hexachlorobenzene	284	7.962	7.962	0.000	93	1410242	50.0	51.8	
113 Pentachlorophenol	266	8.166	8.166	0.000	91	1783551	100.0	103.2	
156 n-Octadecane	57	8.311	8.313	-0.002	93	4043273	50.0	49.6	
117 Phenanthrene	178	8.368	8.368	0.000	99	5969247	50.0	50.4	
120 Anthracene	178	8.419	8.419	0.000	99	6040947	50.0	50.9	
121 Carbazole	167	8.593	8.591	0.002	97	5749528	50.0	50.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
122 Alachlor	45	8.750	8.750	0.000	94	2287049	50.0	48.3	
124 Di-n-butyl phthalate	149	8.980	8.983	-0.003	100	7568974	50.0	51.0	e
127 Fluoranthene	202	9.536	9.536	0.000	99	6678535	50.0	51.9	
129 Pyrene	202	9.754	9.754	0.000	97	6942141	50.0	48.9	
136 Butyl benzyl phthalate	149	10.501	10.503	-0.002	96	3534081	50.0	52.9	
138 Benzo[a]anthracene	228	11.118	11.118	0.000	99	6236897	50.0	51.4	
141 Chrysene	228	11.167	11.165	0.002	97	5883828	50.0	50.2	
142 Bis(2-ethylhexyl) phthalate	149	11.287	11.293	-0.006	97	4702137	50.0	53.0	
144 Di-n-octyl phthalate	149	12.330	12.335	-0.005	99	8365593	50.0	51.6	
145 Benzo[b]fluoranthene	252	12.757	12.753	0.004	97	5529684	50.0	53.0	M
147 Benzo[k]fluoranthene	252	12.808	12.802	0.006	99	5566380	50.0	51.0	
148 Benzo[a]pyrene	252	13.300	13.298	0.002	82	5238534	50.0	54.2	
152 Indeno[1,2,3-cd]pyrene	276	15.325	15.315	0.010	98	5149416	50.0	55.6	a
153 Dibenz(a,h)anthracene	278	15.407	15.393	0.014	94	4601670	50.0	54.1	a
154 Benzo[g,h,i]perylene	276	15.787	15.770	0.017	97	4849059	50.0	54.1	
209 1,4-Dioxane	88		0.000				ND	ND	
S 168 Methyl Phenols,Total	108				0			97.2	
S 170 TPAH	1				0			822.0	

QC Flag Legend

Processing Flags
- ND - Not Detected or Marked ND
- e - Potential Peak Saturated

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

MS-RVHSL-WS_00006	Amount Added: 500.00	Units: uL	
MS-IS-RVE_00005	Amount Added: 30.00	Units: uL	Run Reagent

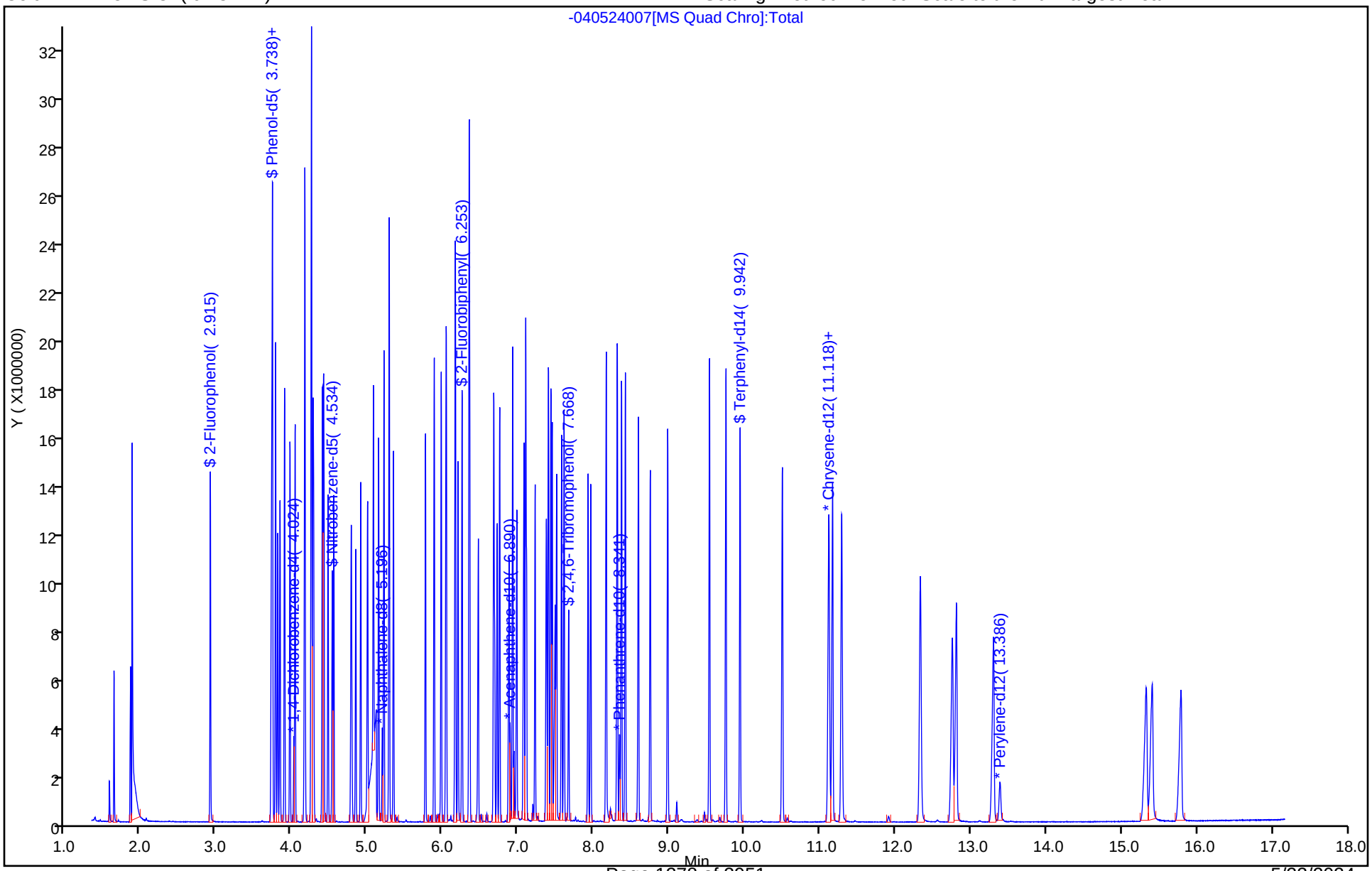
Report Date: 08-Apr-2024 10:13:27 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524007.D

Injection Date:	05-Apr-2024 12:00:48	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	STD500			Worklist Smp#:	3
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

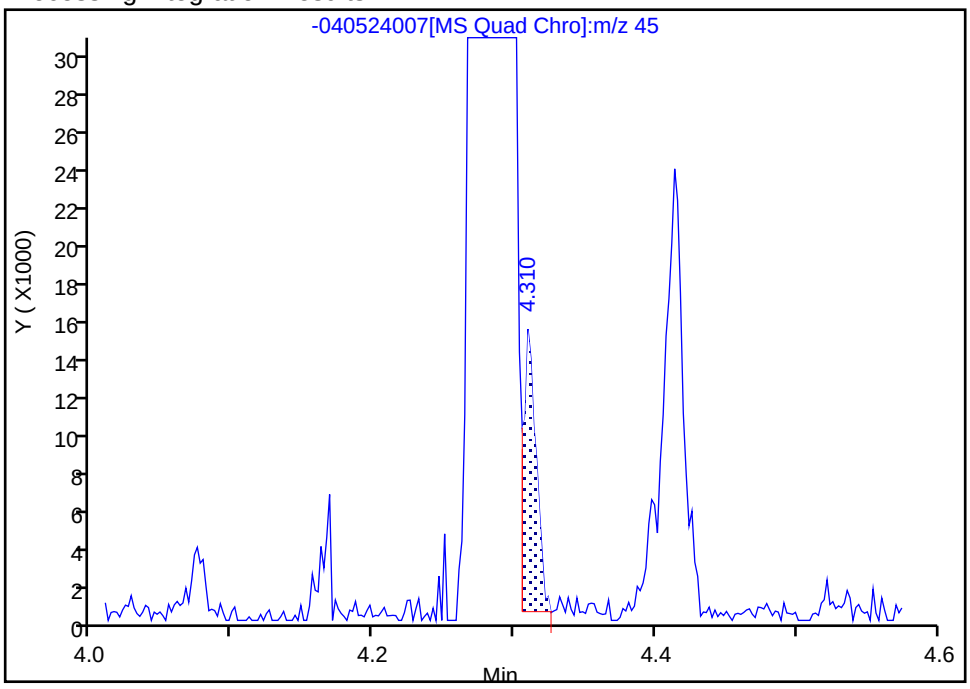
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524007.D				
Injection Date:	05-Apr-2024 12:00:48	Instrument ID:	SMS_3		
Lims ID:	STD500				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

34 2,2'-oxybis[1-chloropropane], CAS: 108-60-1

Signal: 1

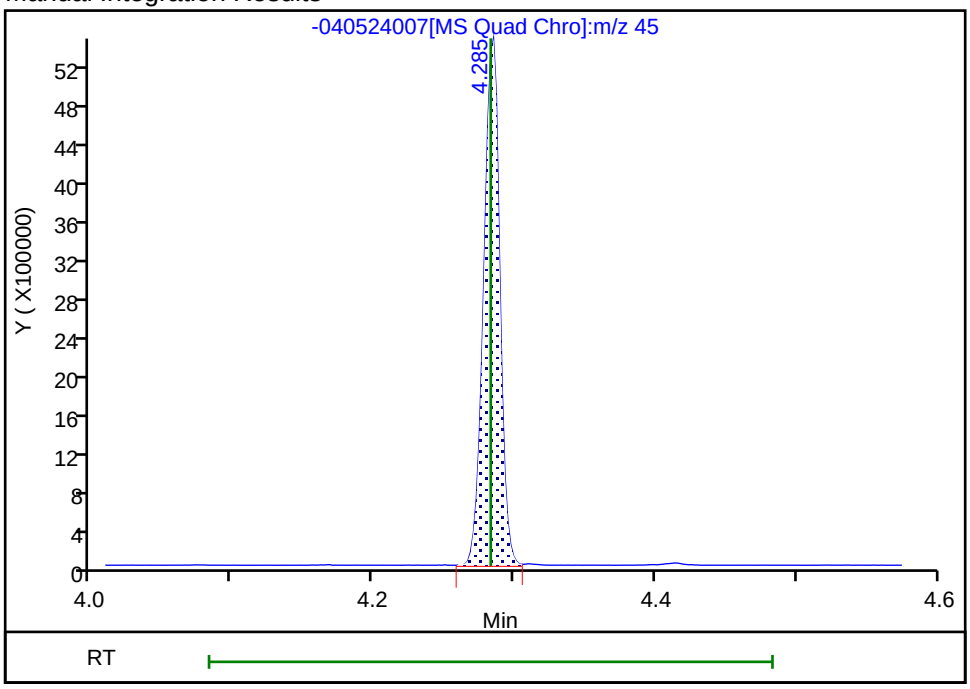
Processing Integration Results

RT: 4.31
Area: 9246
Amount: 0.266841
Amount Units: ug/ml



Manual Integration Results

RT: 4.29
Area: 4302037
Amount: 43.599769
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:41:28 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

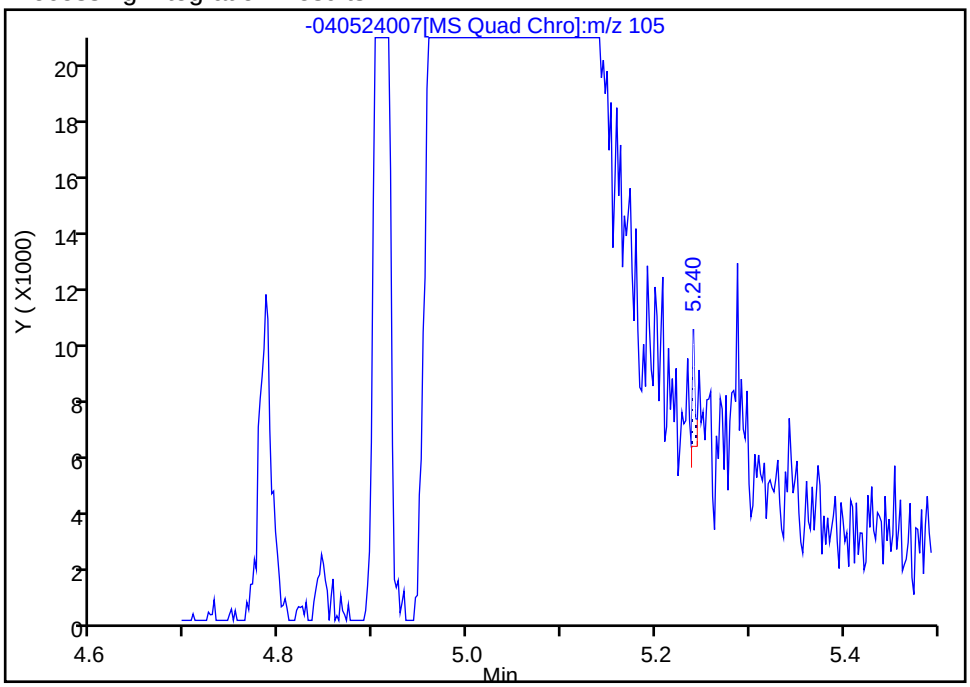
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524007.D				
Injection Date:	05-Apr-2024 12:00:48	Instrument ID:	SMS_3		
Lims ID:	STD500				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

49 Benzoic acid, CAS: 65-85-0

Signal: 1

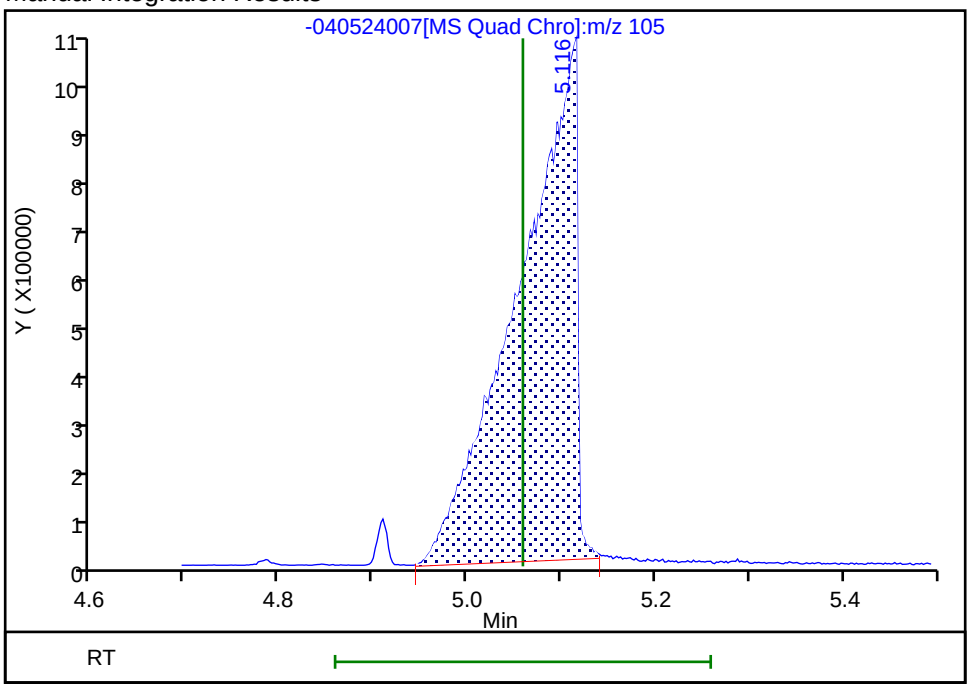
Processing Integration Results

RT: 5.24
Area: 746
Amount: 0.122158
Amount Units: ug/ml



Manual Integration Results

RT: 5.12
Area: 4418155
Amount: 101.2342
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:41:53 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

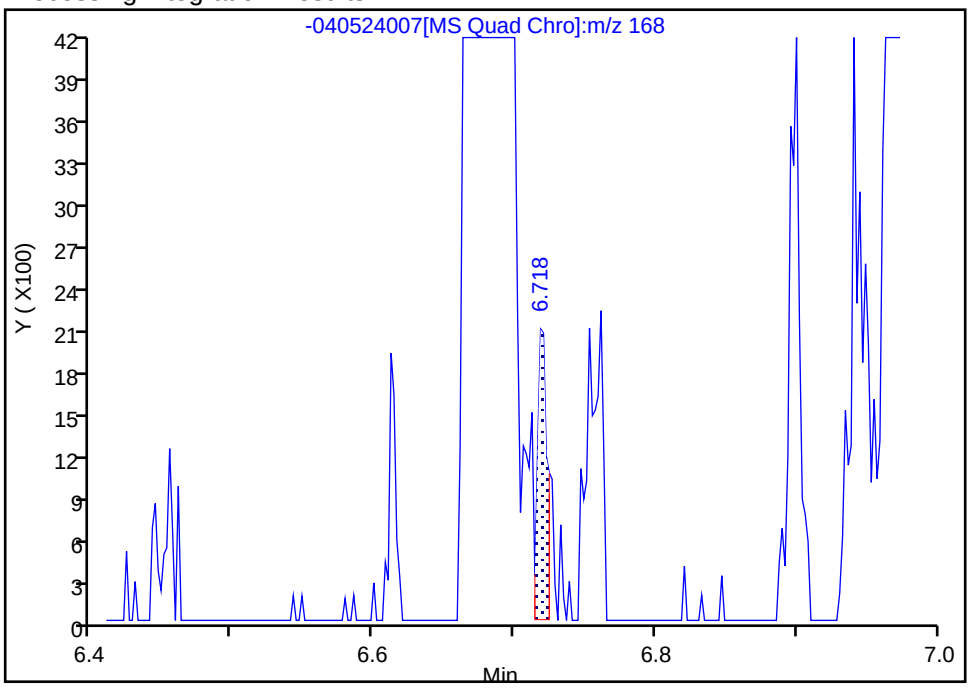
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524007.D				
Injection Date:	05-Apr-2024 12:00:48	Instrument ID:	SMS_3		
Lims ID:	STD500				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

78 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

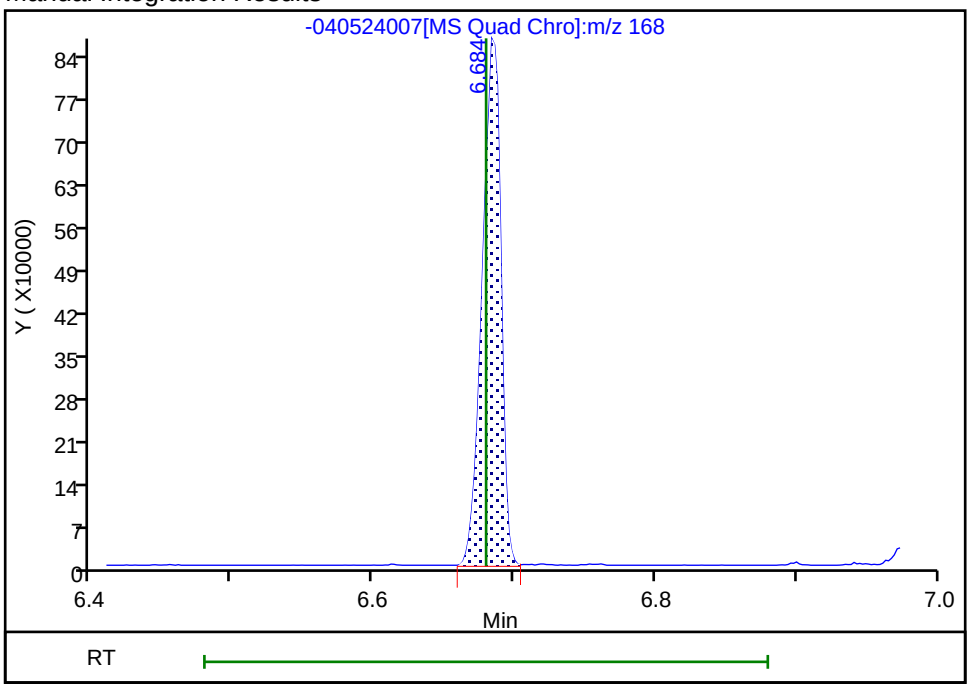
Processing Integration Results

RT: 6.72
Area: 969
Amount: 0.091527
Amount Units: ug/ml



Manual Integration Results

RT: 6.68
Area: 791274
Amount: 49.940494
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:42:17 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

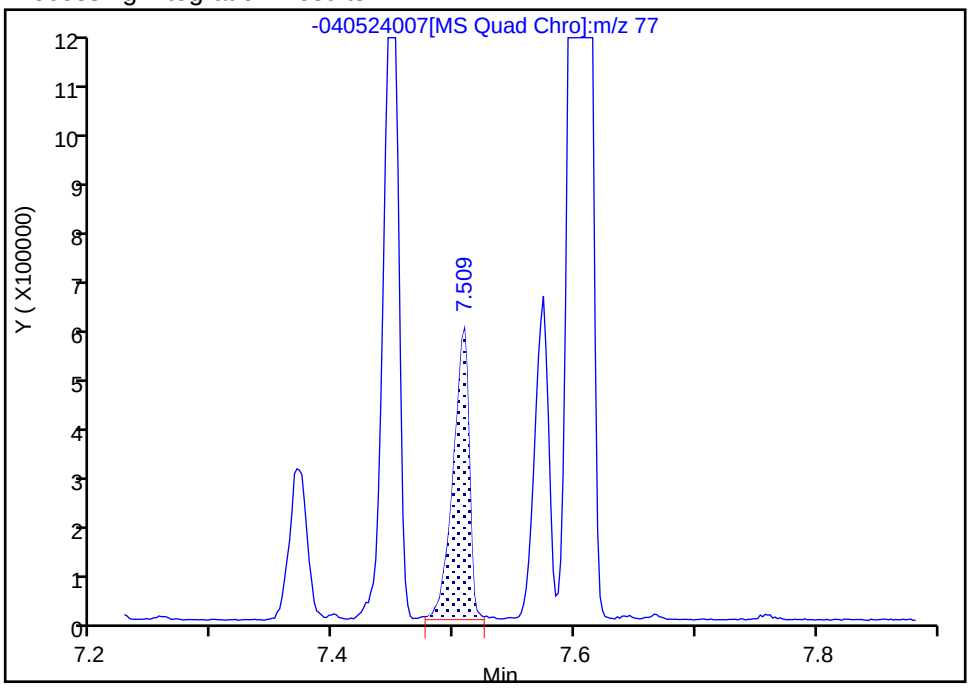
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524007.D				
Injection Date:	05-Apr-2024 12:00:48	Instrument ID:	SMS_3		
Lims ID:	STD500				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

102 1,2-Diphenylhydrazine, CAS: 122-66-7

Signal: 1

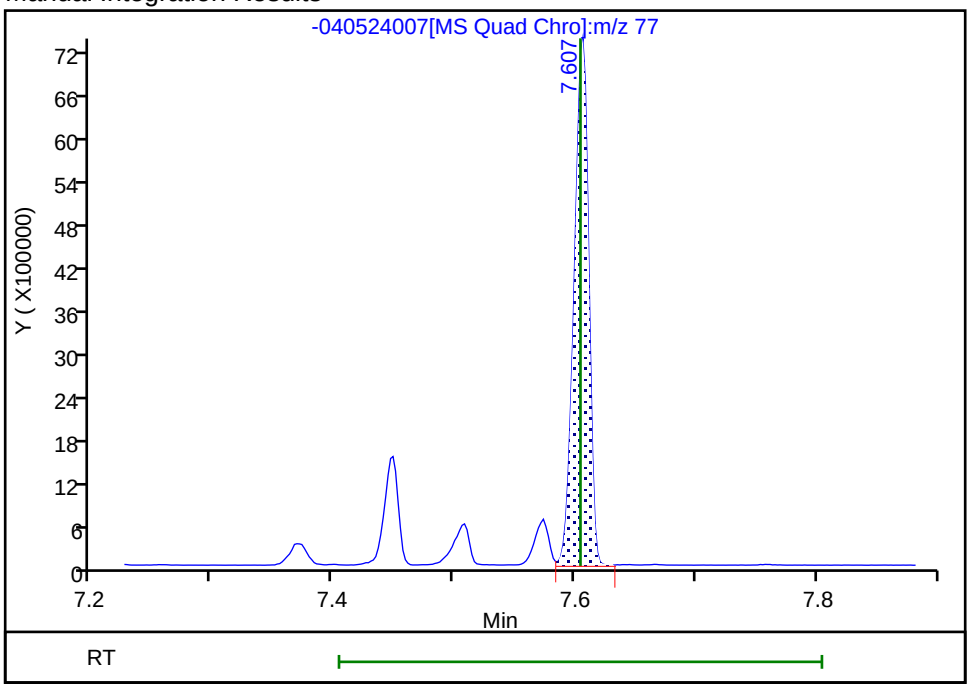
Processing Integration Results

RT: 7.51
Area: 523502
Amount: 19.724808
Amount Units: ug/ml



Manual Integration Results

RT: 7.61
Area: 6136178
Amount: 50.017856
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:42:39 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

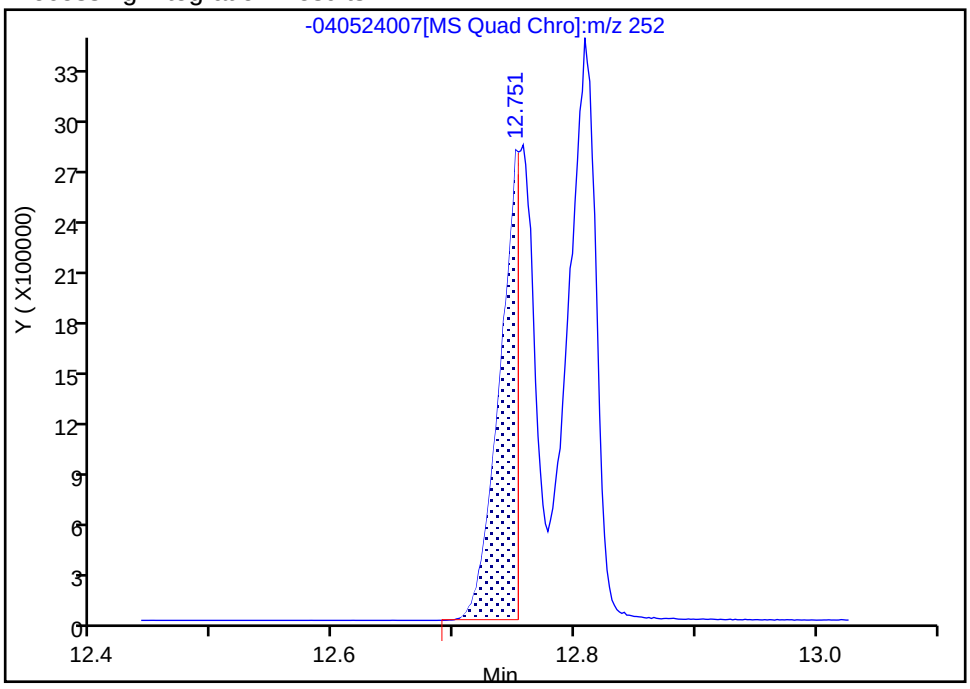
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524007.D				
Injection Date:	05-Apr-2024 12:00:48	Instrument ID:	SMS_3		
Lims ID:	STD500				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

145 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

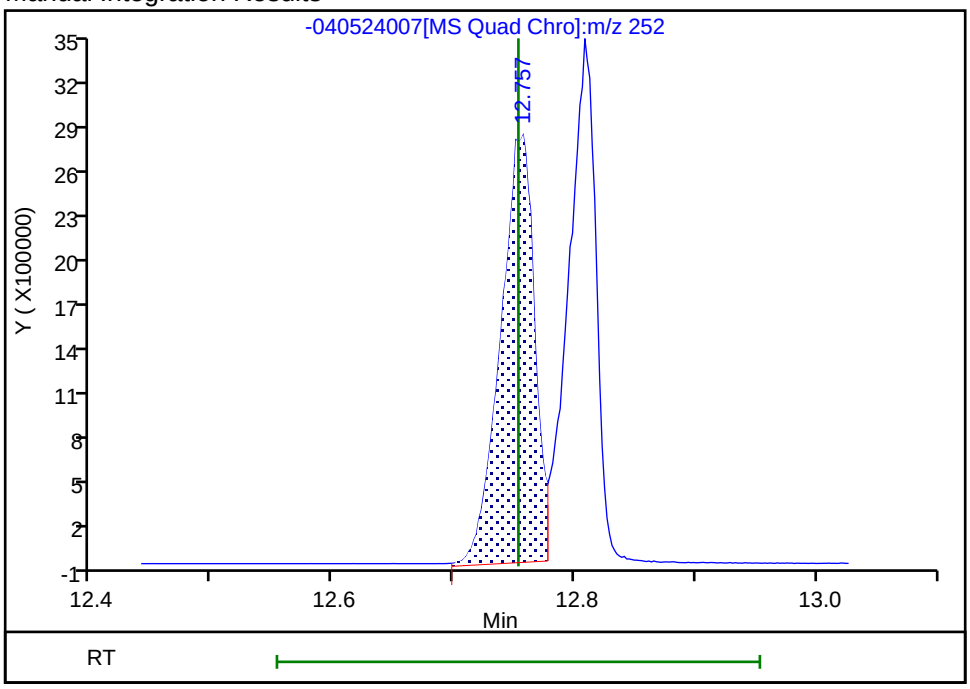
Processing Integration Results

RT: 12.75
Area: 3067064
Amount: 1.058829
Amount Units: ug/ml



Manual Integration Results

RT: 12.76
Area: 5529684
Amount: 52.974752
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:43:09 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

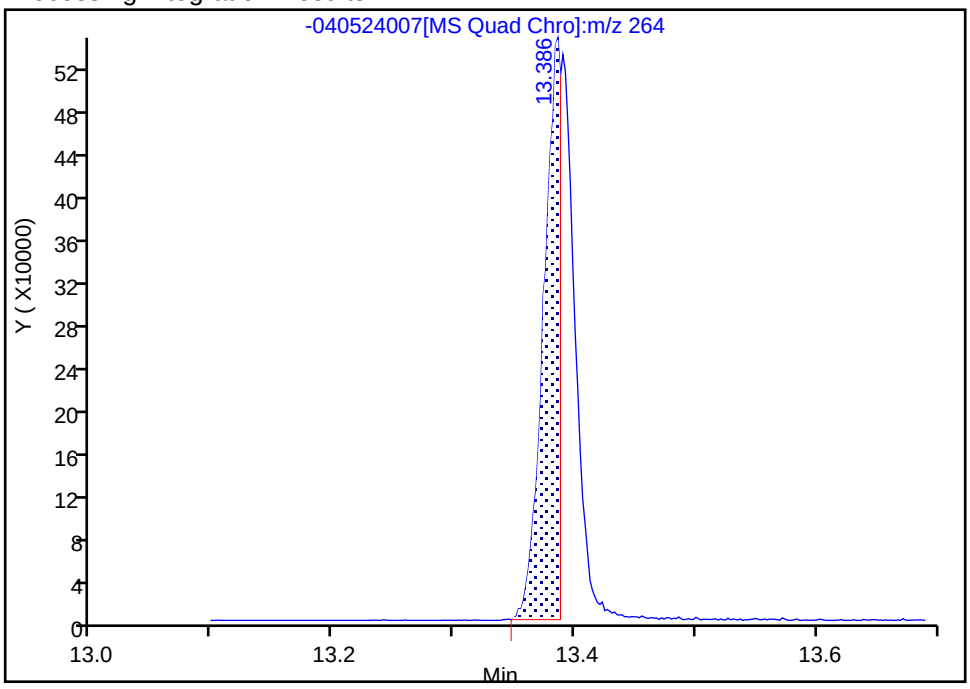
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524007.D				
Injection Date:	05-Apr-2024 12:00:48	Instrument ID:	SMS_3		
Lims ID:	STD500				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

* 6 Perylene-d12, CAS: 1520-96-3

Signal: 1

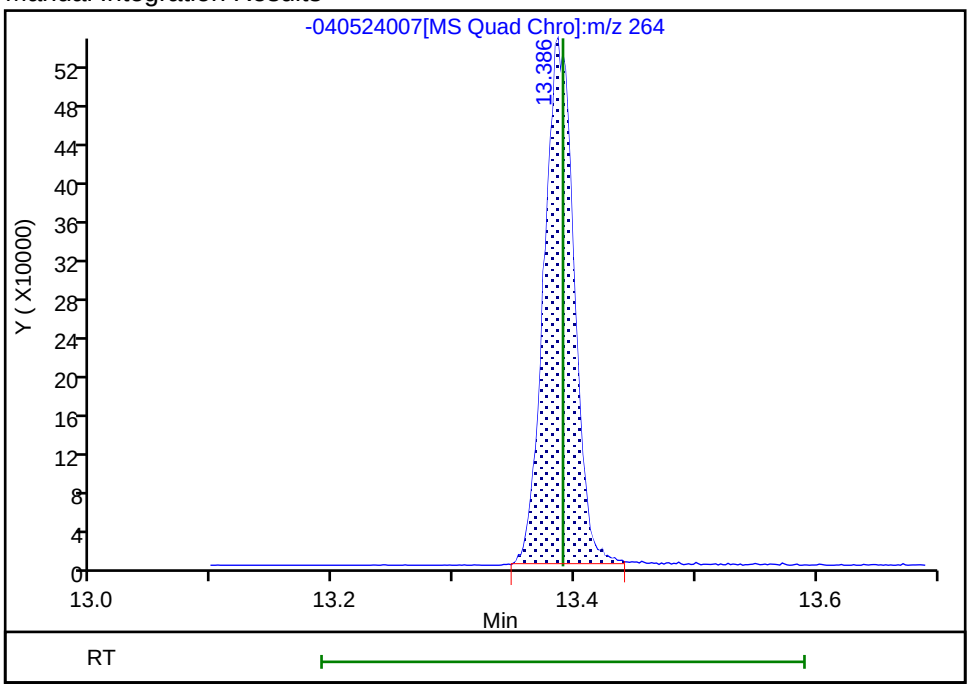
Processing Integration Results

RT: 13.39
Area: 530520
Amount: 8.000000
Amount Units: ug/ml



Manual Integration Results

RT: 13.39
Area: 941737
Amount: 8.000000
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:40:52 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

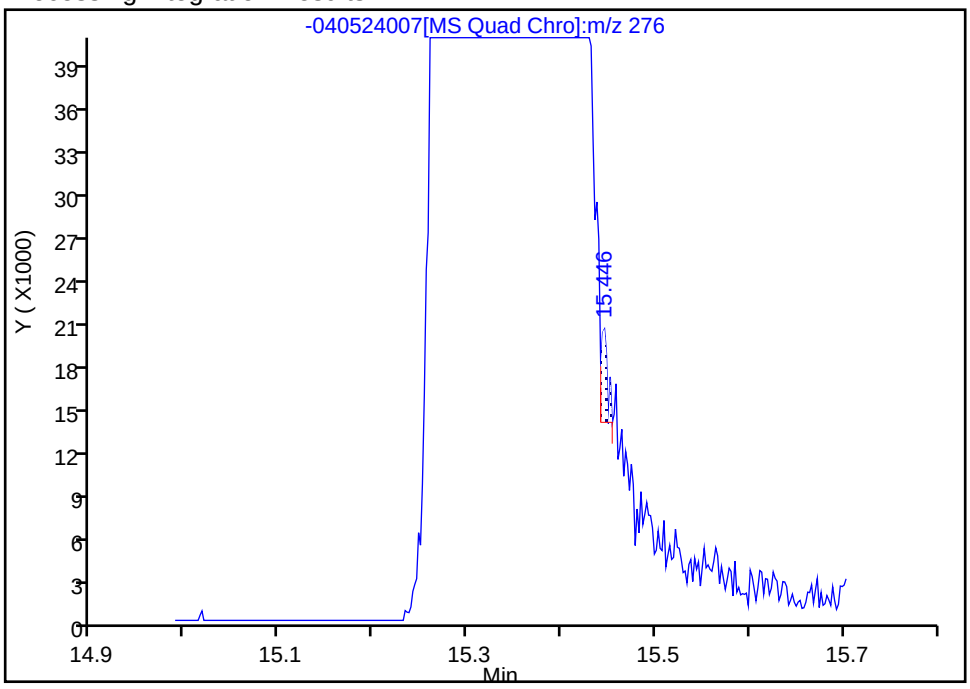
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524007.D				
Injection Date:	05-Apr-2024 12:00:48	Instrument ID:	SMS_3		
Lims ID:	STD500				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

152 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

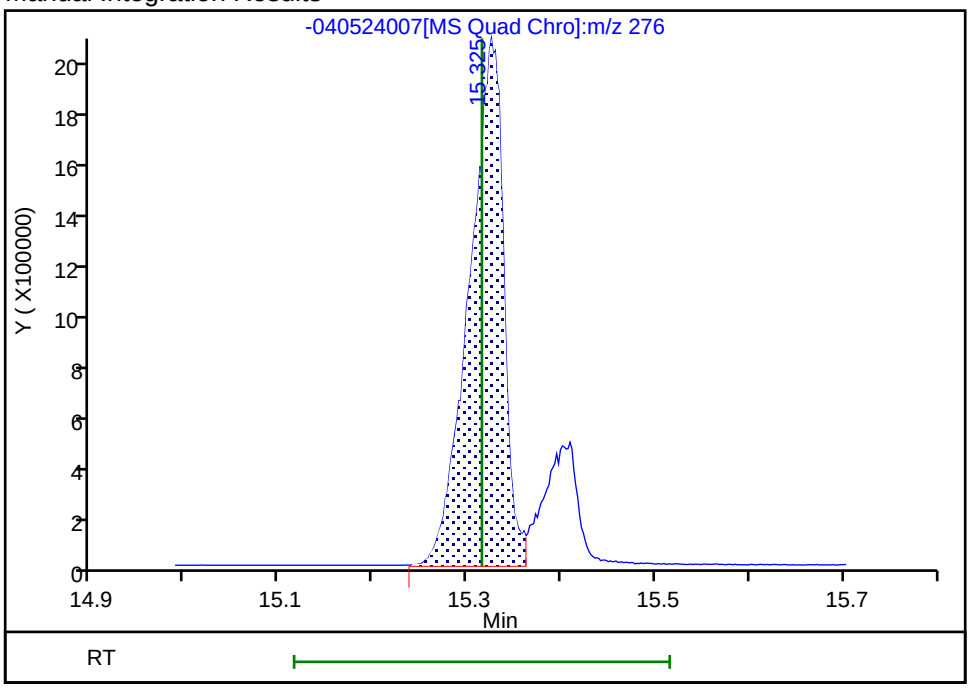
Processing Integration Results

RT: 15.45
Area: 3012
Amount: 0.001570
Amount Units: ug/ml



Manual Integration Results

RT: 15.33
Area: 5149416
Amount: 55.626724
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:43:18 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

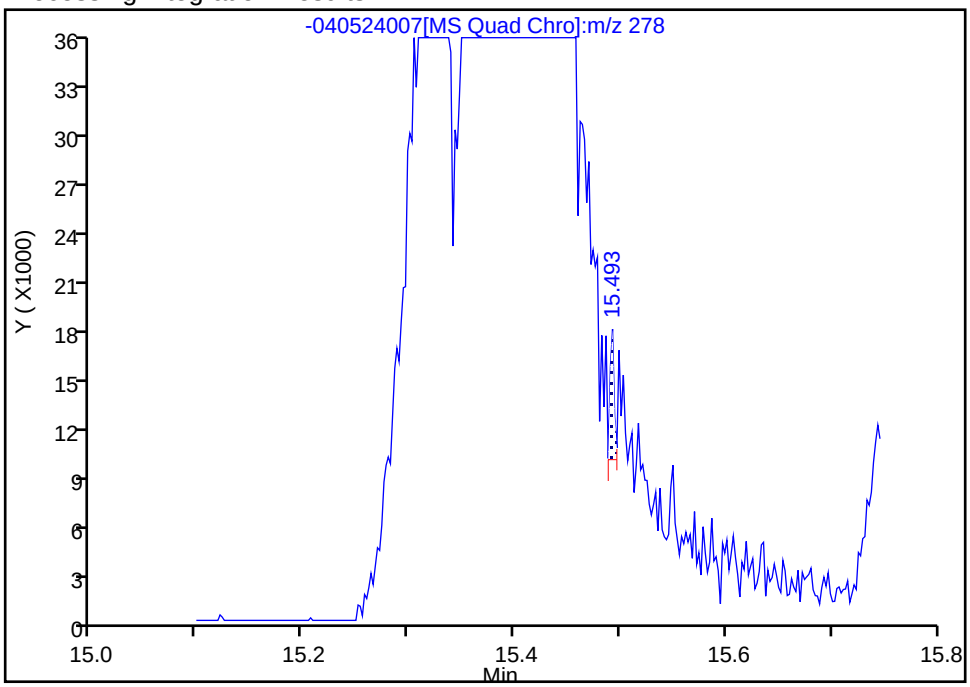
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524007.D				
Injection Date:	05-Apr-2024 12:00:48	Instrument ID:	SMS_3		
Lims ID:	STD500				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

153 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

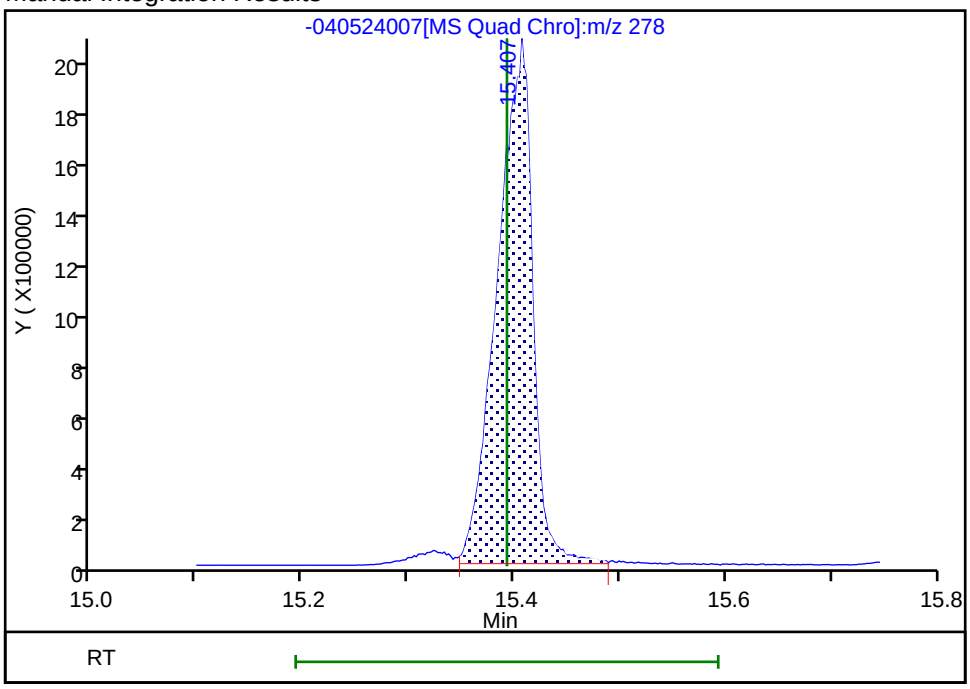
Processing Integration Results

RT: 15.49
Area: 2035
Amount: 0.097998
Amount Units: ug/ml



Manual Integration Results

RT: 15.41
Area: 4601670
Amount: 54.078846
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:43:24 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524008.D
Lims ID: STD400
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 05-Apr-2024 12:23:16 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: std 40
Operator ID: DM Instrument ID: SMS_3
Sublist: chrom-SMS_3 8270 RVE*sub1

Method: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 08-Apr-2024 10:13:30 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1660

First Level Reviewer: G3YK Date: 05-Apr-2024 14:47:50

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	115	4.024	4.024	0.000	96	235095	8.00	8.00	
* 2 Naphthalene-d8	136	5.193	5.196	-0.003	99	1318627	8.00	8.00	
* 3 Acenaphthene-d10	164	6.888	6.892	-0.004	93	716718	8.00	8.00	
* 4 Phenanthrene-d10	188	8.341	8.344	-0.003	97	1212753	8.00	8.00	
* 5 Chrysene-d12	240	11.124	11.130	-0.006	99	905014	8.00	8.00	
* 6 Perylene-d12	264	13.384	13.390	-0.006	97	910465	8.00	8.00	a
$ 7 2-Fluorophenol	112	2.915	2.915	0.000	95	2086593	40.0	42.3	
$ 8 Phenol-d5	99	3.724	3.720	0.004	0	2712080	40.0	41.3	
$ 9 Nitrobenzene-d5	82	4.532	4.528	0.004	92	2467580	40.0	41.1	
$ 10 2-Fluorobiphenyl	172	6.253	6.253	0.000	99	3620602	40.0	42.4	
$ 11 2,4,6-Tribromophenol	330	7.666	7.666	0.000	93	535374	40.0	43.4	
$ 12 Terphenyl-d14	244	9.938	9.942	-0.004	97	3833125	40.0	44.0	
13 N-Nitrosodimethylamine	74	1.858	1.854	0.004	93	1576605	40.0	42.8	
14 Pyridine	79	1.880	1.880	0.000	90	3972047	80.0	86.6	
22 Phenol	94	3.736	3.732	0.004	88	3041662	40.0	39.9	
23 Aniline	93	3.738	3.736	0.002	65	3072359	40.0	39.9	
25 Bis(2-chloroethyl)ether	93	3.809	3.805	0.004	93	2344592	40.0	40.2	
26 2-Chlorophenol	128	3.838	3.836	0.002	95	1998576	40.0	40.9	
27 n-Decane	43	3.899	3.897	0.002	92	2519563	40.0	37.6	
28 1,3-Dichlorobenzene	146	3.971	3.971	0.000	95	2099073	40.0	40.3	
29 1,4-Dichlorobenzene	146	4.038	4.038	0.000	90	2155564	40.0	39.8	
30 Benzyl alcohol	79	4.165	4.161	0.004	89	1997240	40.0	41.3	
31 1,2-Dichlorobenzene	146	4.171	4.171	0.000	95	1996970	40.0	39.7	
32 Indene	116	4.256	4.252	0.004	91	6720686	80.0	77.1	e
33 2-Methylphenol	108	4.275	4.271	0.004	96	1853705	40.0	40.0	
34 2,2'-oxybis[1-chloropropane]	45	4.283	4.283	0.000	93	3624659	40.0	36.5	a
36 Acetophenone	105	4.399	4.395	0.004	93	2925465	40.0	40.2	
37 N-Nitrosodi-n-propylamine	70	4.412	4.408	0.004	89	1675074	40.0	39.0	
39 3 & 4 Methylphenol	108	4.420	4.416	0.004	0	1950767	40.0	40.3	
38 3-Methylphenol	108	4.420	4.416	0.004	90	1950767	40.0	40.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
41 4-Methylphenol	108	4.420	4.416	0.004	91	1950767	40.0	40.3	
43 Hexachloroethane	117	4.475	4.475	0.000	97	1036208	40.0	40.6	
44 Nitrobenzene	77	4.550	4.548	0.002	92	2526326	40.0	40.0	
46 Isophorone	82	4.781	4.777	0.004	99	4606741	40.0	40.6	
47 2-Nitrophenol	139	4.842	4.842	0.000	94	1068992	40.0	42.9	
48 2,4-Dimethylphenol	107	4.908	4.908	0.000	98	1745701	40.0	41.0	
51 Bis(2-chloroethoxy)methane	93	4.999	4.998	0.001	96	2828555	40.0	40.3	
49 Benzoic acid	105	5.102	5.059	0.043	91	3716197	80.0	84.4	Ma
52 2,4-Dichlorophenol	162	5.077	5.075	0.002	97	1613215	40.0	41.9	
53 1,2,4-Trichlorobenzene	180	5.146	5.147	-0.001	93	1739175	40.0	40.4	
54 Naphthalene	128	5.216	5.216	0.000	99	5184512	40.0	39.7	
55 4-Chloroaniline	127	5.285	5.283	0.002	94	2243687	40.0	40.6	
56 2,6-Dichlorophenol	162	5.287	5.285	0.002	94	1561057	40.0	40.6	
57 Hexachlorobutadiene	225	5.344	5.345	-0.001	96	1082874	40.0	41.6	
61 4-Chloro-3-methylphenol	107	5.767	5.767	0.000	95	1852097	40.0	42.1	
63 2-Methylnaphthalene	141	5.883	5.886	-0.003	95	2897579	40.0	40.9	
64 1-Methylnaphthalene	142	5.977	5.977	0.000	93	3154851	40.0	40.9	
65 Hexachlorocyclopentadiene	237	6.037	6.039	-0.002	97	969670	40.0	41.7	
66 1,2,4,5-Tetrachlorobenzene	216	6.045	6.045	0.000	98	1823310	40.0	42.8	
68 2,4,6-Trichlorophenol	196	6.165	6.167	-0.002	95	1209967	40.0	43.8	
69 2,4,5-Trichlorophenol	196	6.198	6.200	-0.002	92	1275790	40.0	43.6	
71 1,1'-Biphenyl	154	6.345	6.345	0.000	97	3969325	40.0	41.5	
72 2-Chloronaphthalene	162	6.353	6.353	0.000	98	3304835	40.0	41.7	
74 2-Nitroaniline	138	6.467	6.467	0.000	77	1258368	40.0	44.1	
77 Dimethyl phthalate	163	6.671	6.668	0.003	97	3735281	40.0	41.9	
78 1,3-Dinitrobenzene	168	6.684	6.680	0.004	81	661193	40.0	41.9	a
79 2,6-Dinitrotoluene	165	6.718	6.716	0.002	87	879003	40.0	42.6	
80 Acenaphthylene	152	6.751	6.751	0.000	99	4945202	40.0	41.5	
81 3-Nitroaniline	65	6.874	6.872	0.002	89	1751858	40.0	42.1	
82 Acenaphthene	153	6.923	6.925	-0.002	97	3214125	40.0	41.9	
83 2,4-Dinitrophenol	184	6.978	6.974	0.004	78	951611	80.0	81.7	
85 4-Nitrophenol	65	7.072	7.068	0.004	94	2094517	80.0	82.3	
86 Dibenzofuran	168	7.096	7.096	0.000	96	4515248	40.0	41.2	
87 2,4-Dinitrotoluene	165	7.106	7.104	0.002	87	1175344	40.0	41.8	
89 2,3,4,6-Tetrachlorophenol	232	7.221	7.223	-0.002	77	1000270	40.0	44.6	
91 Diethyl phthalate	149	7.368	7.370	-0.002	96	3903405	40.0	42.2	
92 Hexadecane	57	7.398	7.400	-0.002	91	3276456	40.0	40.2	
93 Fluorene	166	7.429	7.431	-0.002	95	3562842	40.0	41.6	
95 4-Chlorophenyl phenyl ether	204	7.447	7.451	-0.004	97	1726387	40.0	42.0	
97 4-Nitroaniline	138	7.482	7.472	0.010	80	981160	40.0	42.1	
98 4,6-Dinitro-2-methylphenol	198	7.502	7.498	0.004	78	1291041	80.0	85.0	
100 N-Nitrosodiphenylamine	168	7.570	7.570	0.000	79	1622902	40.0	41.8	
99 Diphenylamine	169	7.570	7.570	0.000	92	2512399	34.0	35.1	
102 1,2-Diphenylhydrazine	77	7.604	7.605	-0.001	41	5111991	40.4	41.4	a
101 Azobenzene	77	7.604	7.605	-0.001	98	5111991	40.0	41.0	
108 4-Bromophenyl phenyl ether	248	7.923	7.927	-0.004	74	1012429	40.0	42.7	
110 Hexachlorobenzene	284	7.958	7.962	-0.004	94	1184592	40.0	43.2	
113 Pentachlorophenol	266	8.164	8.166	-0.002	89	1456159	80.0	83.9	
156 n-Octadecane	57	8.311	8.313	-0.002	93	3381977	40.0	41.2	
117 Phenanthrene	178	8.366	8.368	-0.002	99	4847367	40.0	40.7	
120 Anthracene	178	8.417	8.419	-0.002	98	4980226	40.0	41.7	
121 Carbazole	167	8.590	8.591	-0.001	97	4707413	40.0	41.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
122 Alachlor	45	8.748	8.750	-0.002	94	1917244	40.0	40.2	
124 Di-n-butyl phthalate	149	8.980	8.983	-0.003	100	6437251	40.0	43.1	
127 Fluoranthene	202	9.534	9.536	-0.002	98	5588171	40.0	43.2	
129 Pyrene	202	9.750	9.754	-0.004	96	5708607	40.0	42.7	
136 Butyl benzyl phthalate	149	10.499	10.503	-0.004	96	2882936	40.0	45.8	
138 Benzo[a]anthracene	228	11.116	11.118	-0.002	99	5001095	40.0	43.8	
141 Chrysene	228	11.163	11.165	-0.002	97	4599024	40.0	41.7	
142 Bis(2-ethylhexyl) phthalate	149	11.285	11.293	-0.008	98	3835951	40.0	45.9	
144 Di-n-octyl phthalate	149	12.330	12.335	-0.005	99	6754807	40.0	43.1	
145 Benzo[b]fluoranthene	252	12.753	12.753	0.000	97	4400341	40.0	43.6	a
147 Benzo[k]fluoranthene	252	12.806	12.802	0.004	99	4467386	40.0	42.3	a
148 Benzo[a]pyrene	252	13.296	13.298	-0.002	80	4168109	40.0	44.6	a
152 Indeno[1,2,3-cd]pyrene	276	15.321	15.315	0.006	98	4140571	40.0	46.3	M
153 Dibenz(a,h)anthracene	278	15.395	15.393	0.002	94	3770309	40.0	45.8	a
154 Benzo[g,h,i]perylene	276	15.778	15.770	0.008	97	3829942	40.0	44.2	a
209 1,4-Dioxane	88		0.000				ND	ND	
S 168 Methyl Phenols,Total	108				0			80.3	
S 170 TPAH	1				0			685.1	

QC Flag Legend

Processing Flags
- ND - Not Detected or Marked ND
- e - Potential Peak Saturated

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

MS-RVHSL-WS_00006	Amount Added: 400.00	Units: uL	
MS-IS-RVE_00005	Amount Added: 30.00	Units: uL	Run Reagent

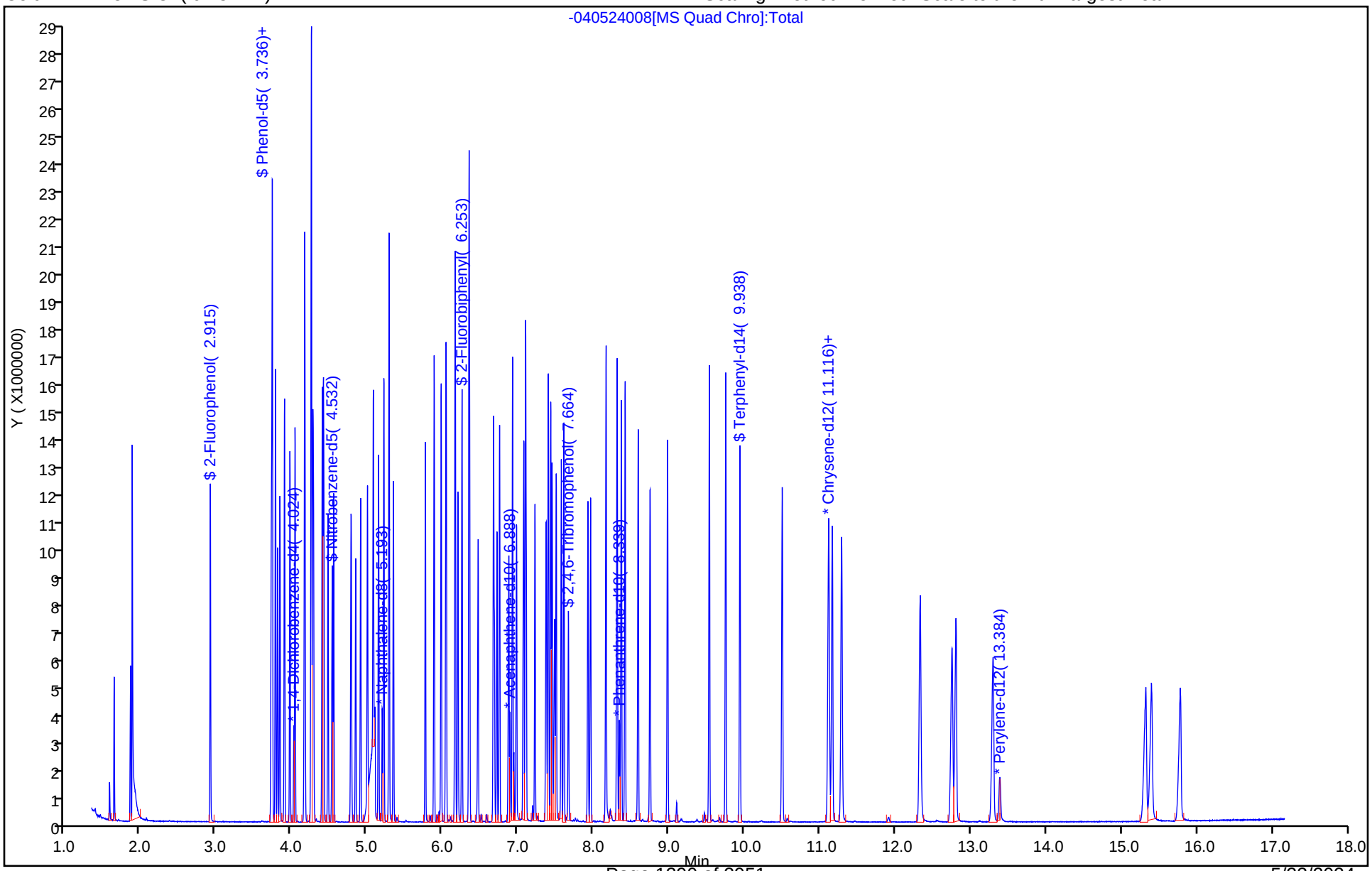
Report Date: 08-Apr-2024 10:13:31 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524008.D

Injection Date:	05-Apr-2024 12:23:16	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	STD400			Worklist Smp#:	4
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

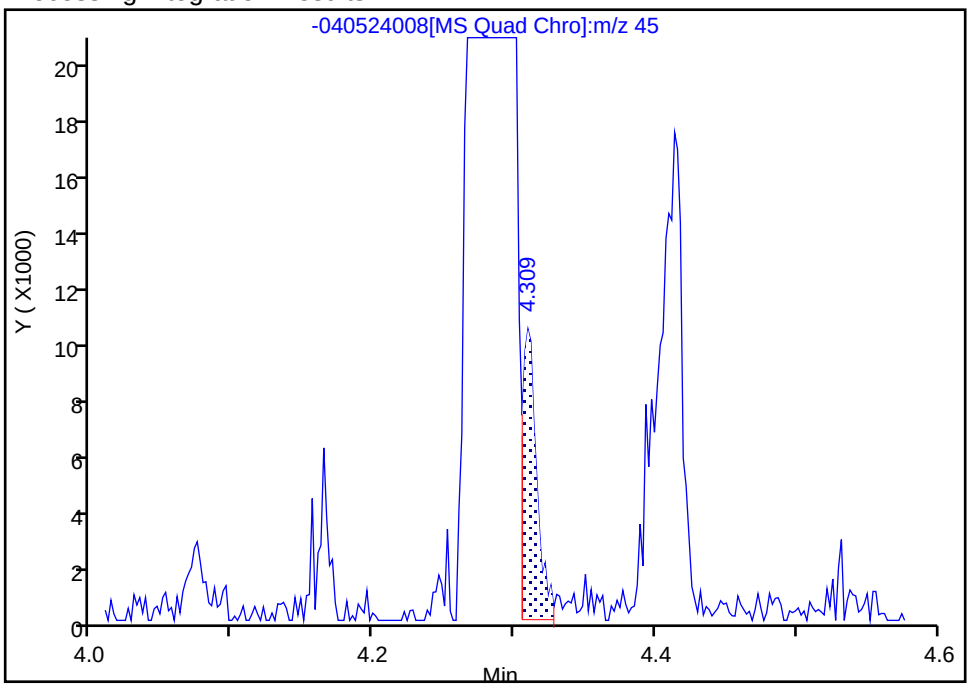
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524008.D				
Injection Date:	05-Apr-2024 12:23:16	Instrument ID:	SMS_3		
Lims ID:	STD400				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

34 2,2'-oxybis[1-chloropropane], CAS: 108-60-1

Signal: 1

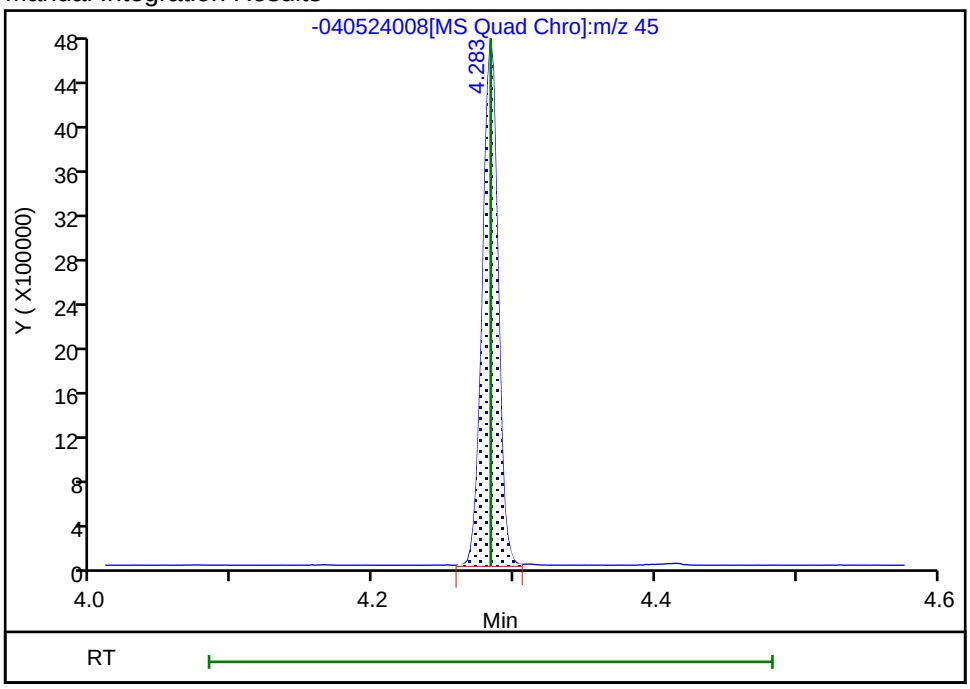
Processing Integration Results

RT: 4.31
Area: 7253
Amount: 0.147230
Amount Units: ug/ml



Manual Integration Results

RT: 4.28
Area: 3624659
Amount: 36.508033
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:44:51 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

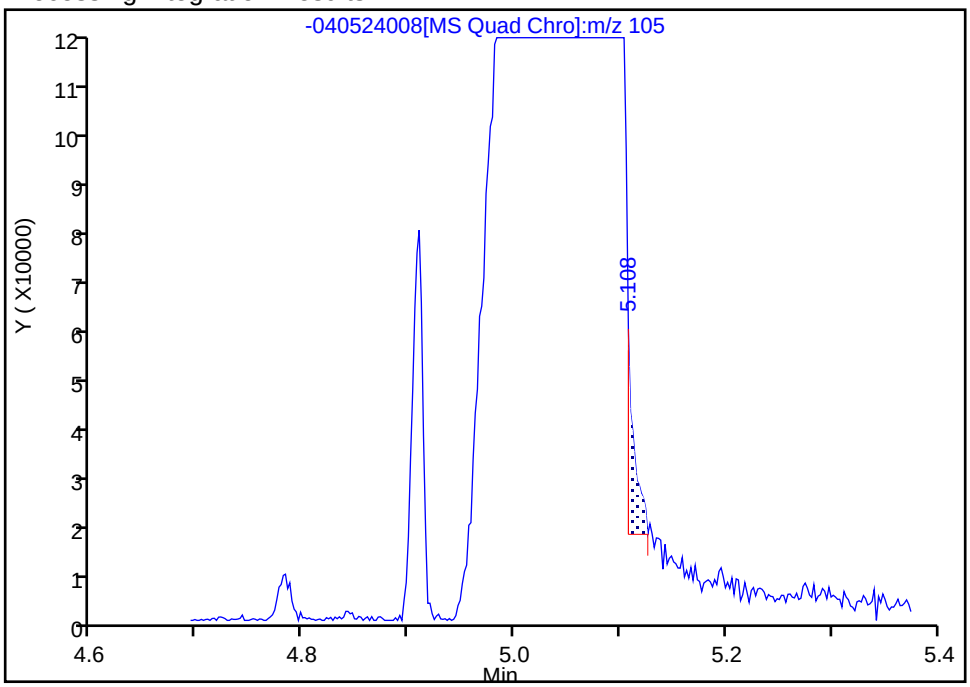
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524008.D				
Injection Date:	05-Apr-2024 12:23:16	Instrument ID:	SMS_3		
Lims ID:	STD400				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

49 Benzoic acid, CAS: 65-85-0

Signal: 1

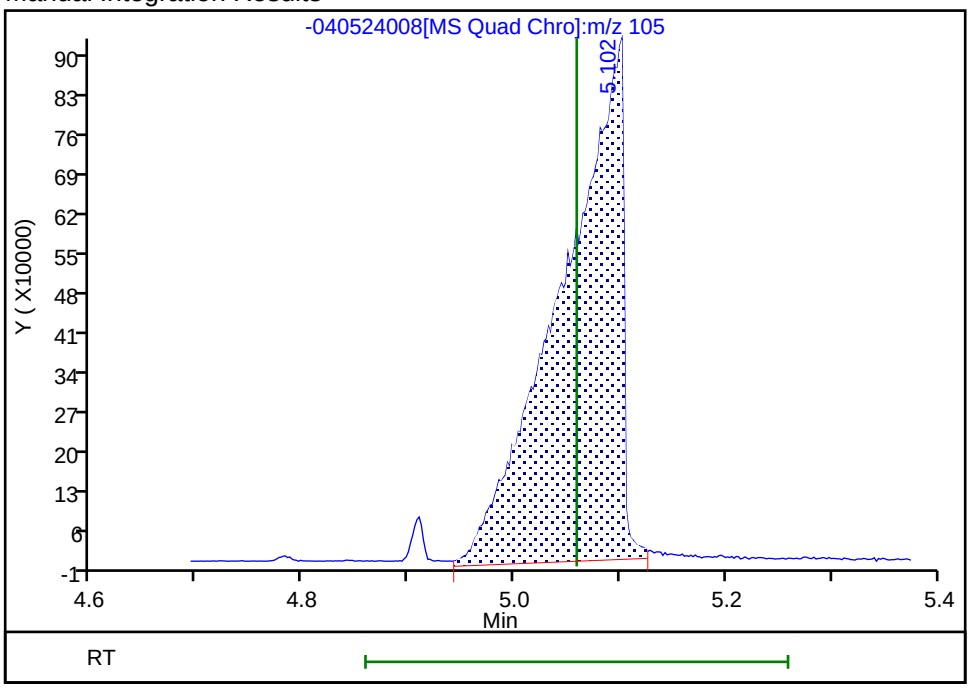
Processing Integration Results

RT: 5.11
Area: 17520
Amount: 1.395723
Amount Units: ug/ml



Manual Integration Results

RT: 5.10
Area: 3716197
Amount: 84.445779
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:45:26 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

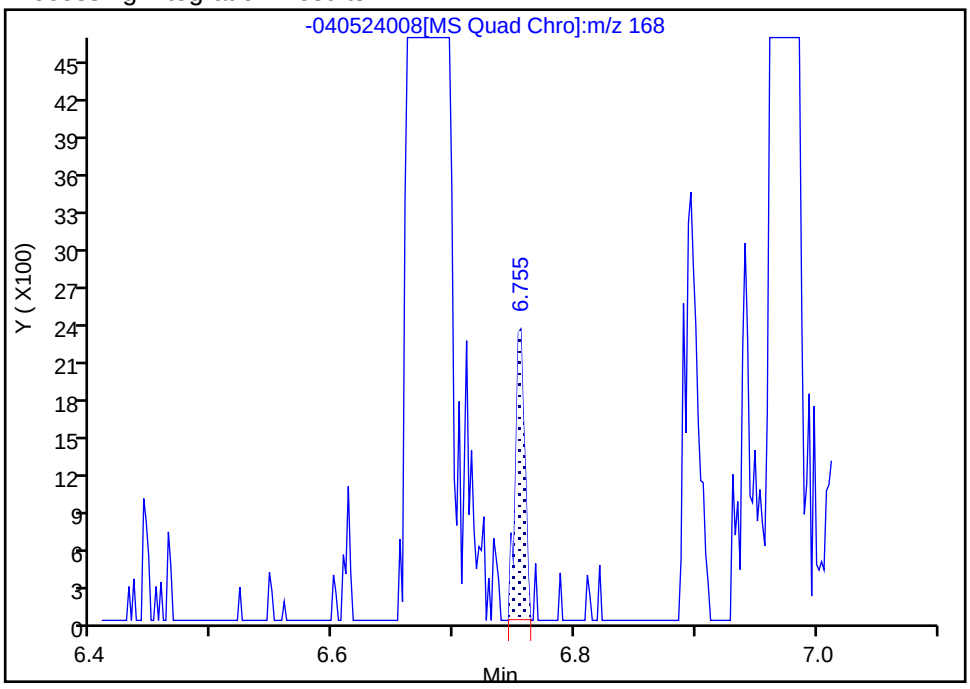
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524008.D				
Injection Date:	05-Apr-2024 12:23:16	Instrument ID:	SMS_3		
Lims ID:	STD400				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

78 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

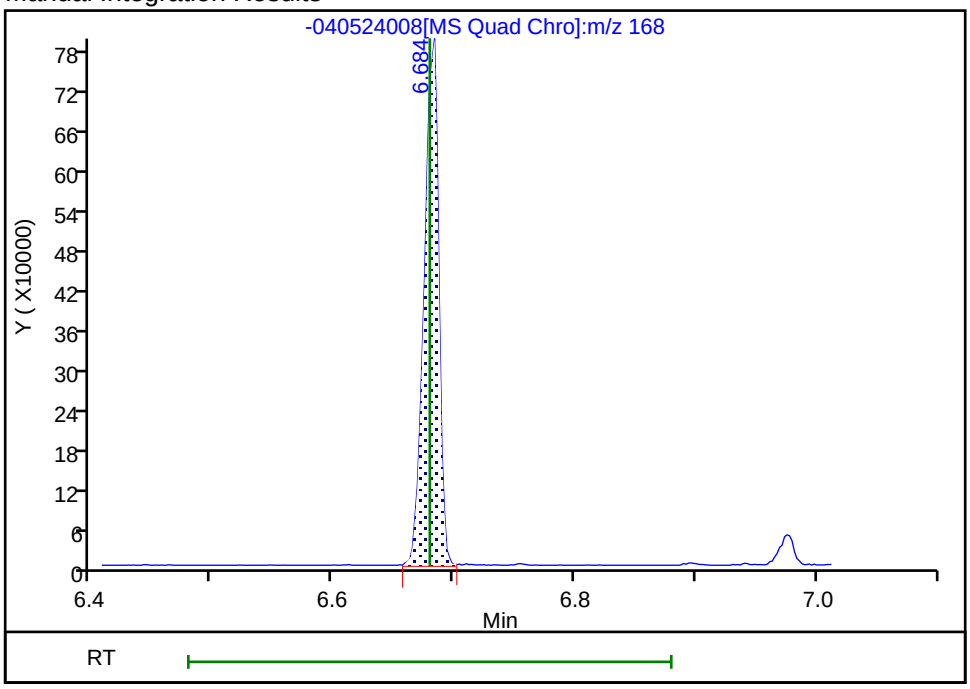
Processing Integration Results

RT: 6.76
Area: 1254
Amount: 0.097972
Amount Units: ug/ml



Manual Integration Results

RT: 6.68
Area: 661193
Amount: 41.941654
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:46:15 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

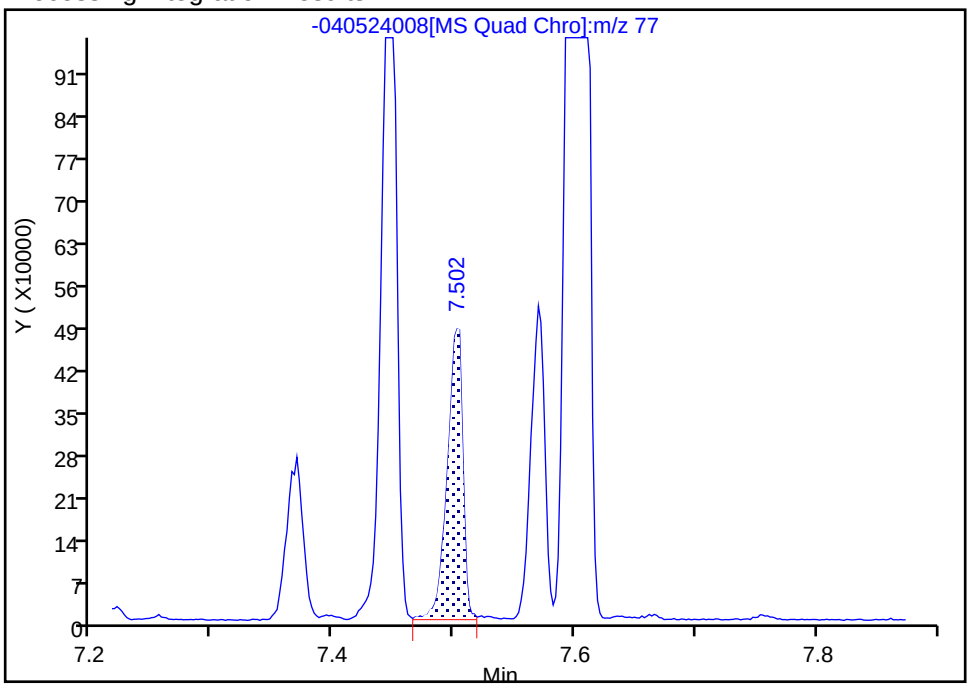
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524008.D				
Injection Date:	05-Apr-2024 12:23:16	Instrument ID:	SMS_3		
Lims ID:	STD400				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

102 1,2-Diphenylhydrazine, CAS: 122-66-7

Signal: 1

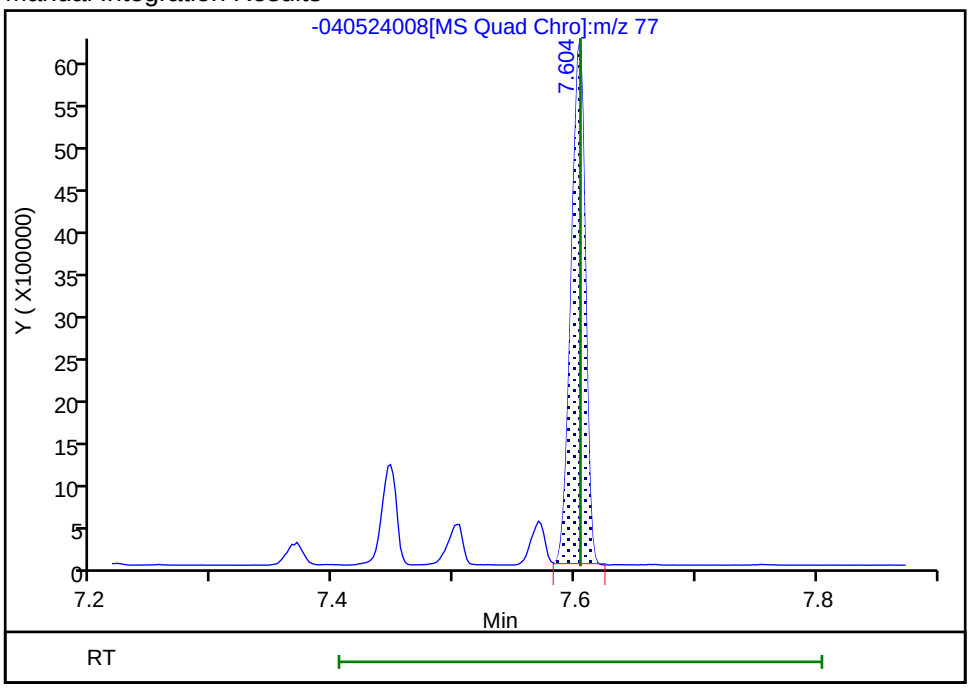
Processing Integration Results

RT: 7.50
Area: 425976
Amount: 9.981086
Amount Units: ug/ml



Manual Integration Results

RT: 7.60
Area: 5111991
Amount: 41.400019
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:46:42 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

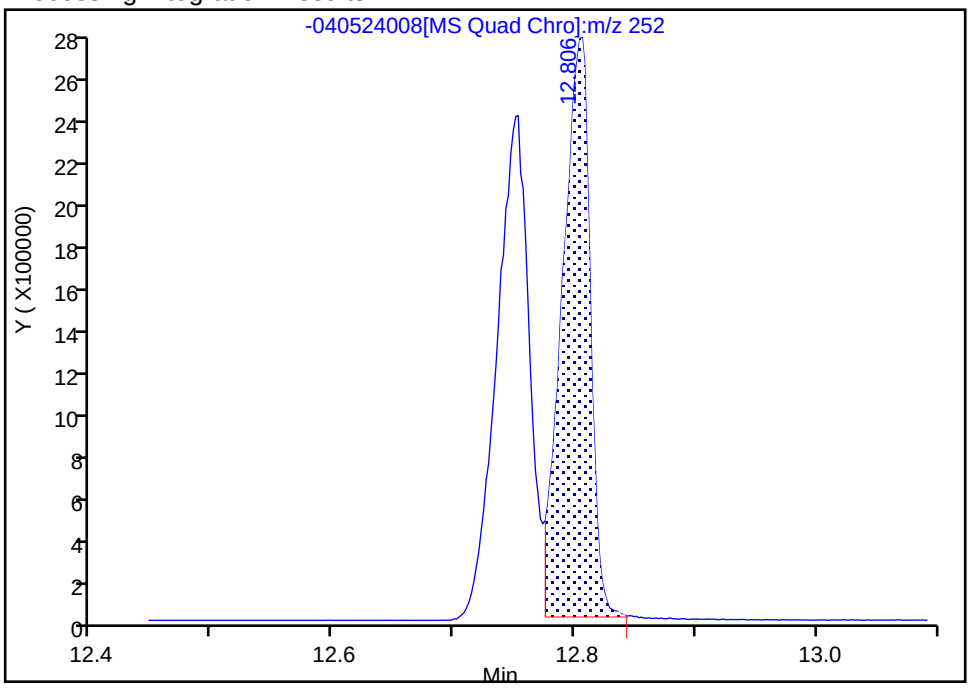
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524008.D				
Injection Date:	05-Apr-2024 12:23:16	Instrument ID:	SMS_3		
Lims ID:	STD400				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

145 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

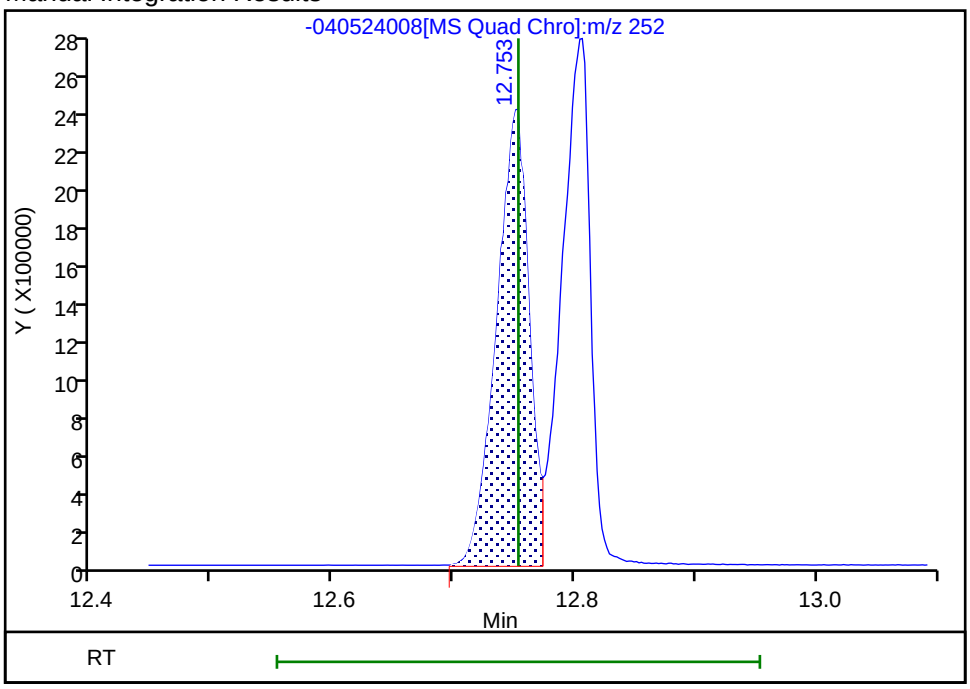
Processing Integration Results

RT: 12.81
Area: 4348329
Amount: 45.122749
Amount Units: ug/ml



Manual Integration Results

RT: 12.75
Area: 4400341
Amount: 43.603498
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:47:10 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

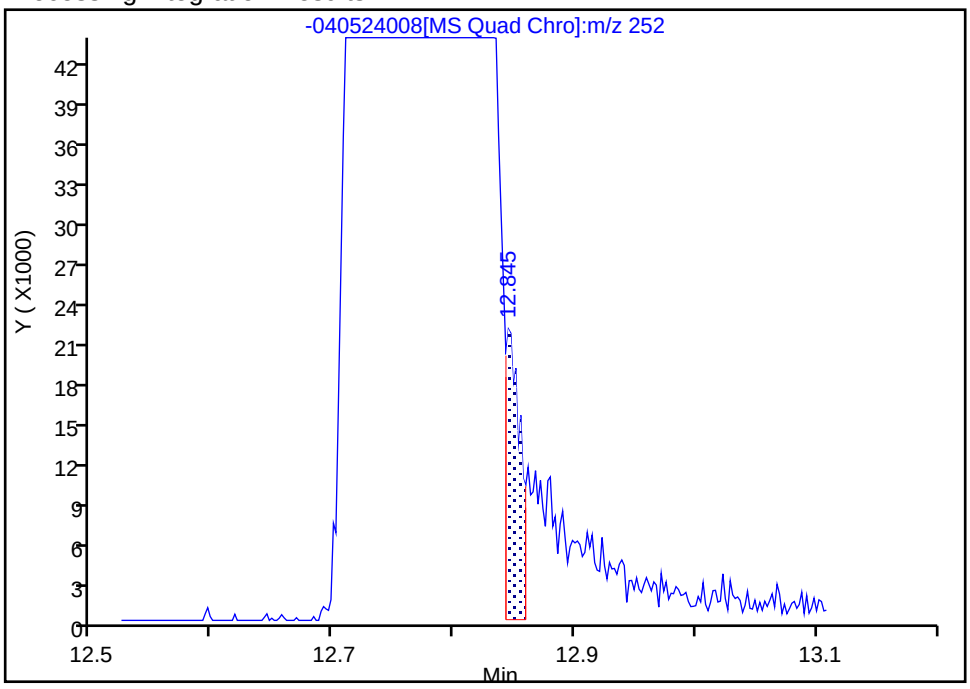
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524008.D				
Injection Date:	05-Apr-2024 12:23:16	Instrument ID:	SMS_3		
Lims ID:	STD400				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

147 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

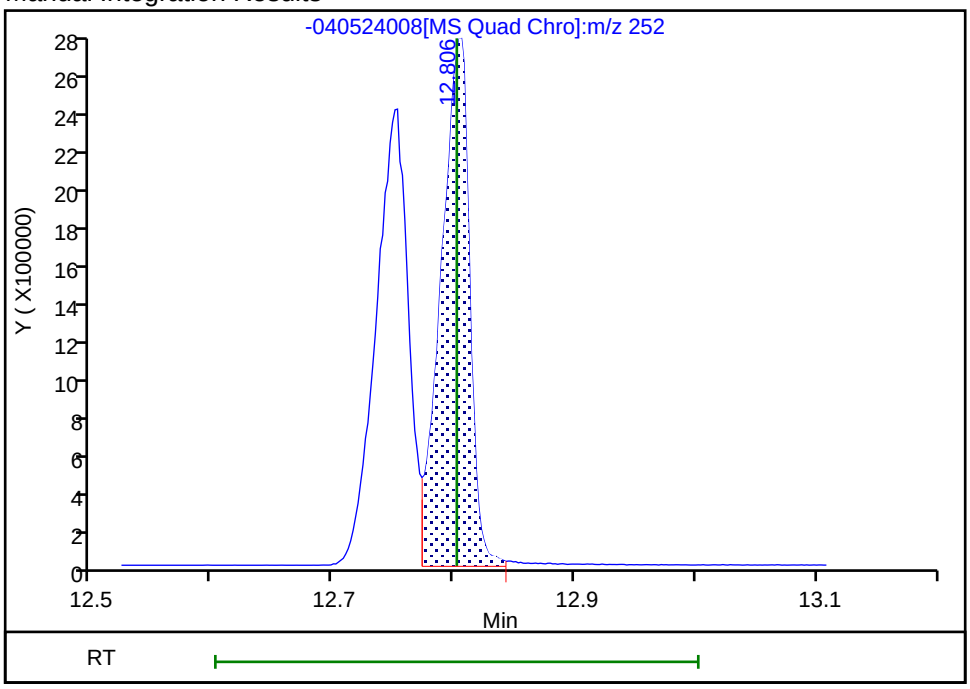
Processing Integration Results

RT: 12.84
Area: 17976
Amount: 0.196749
Amount Units: ug/ml



Manual Integration Results

RT: 12.81
Area: 4467386
Amount: 42.347560
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:47:13 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

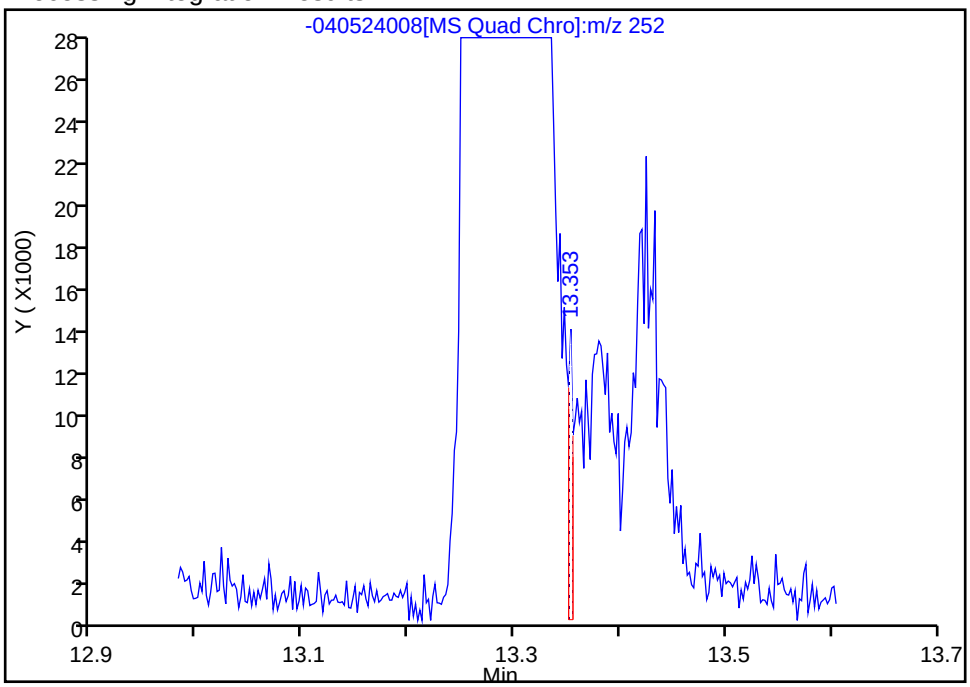
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524008.D				
Injection Date:	05-Apr-2024 12:23:16	Instrument ID:	SMS_3		
Lims ID:	STD400				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

148 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

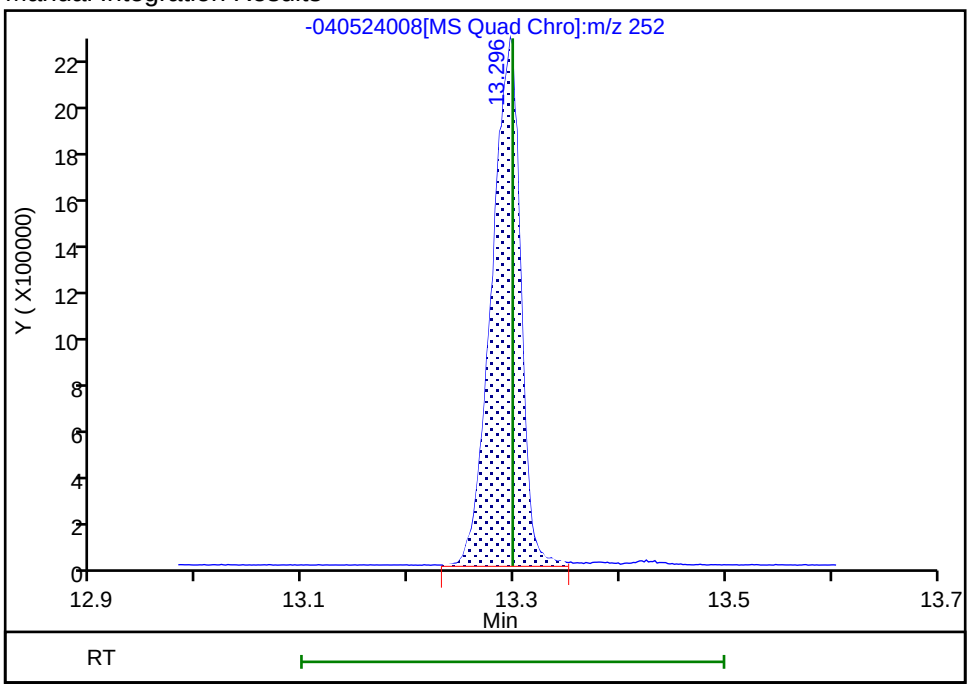
Processing Integration Results

RT: 13.35
Area: 4108
Amount: 0.076764
Amount Units: ug/ml



Manual Integration Results

RT: 13.30
Area: 4168109
Amount: 44.594002
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:47:18 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

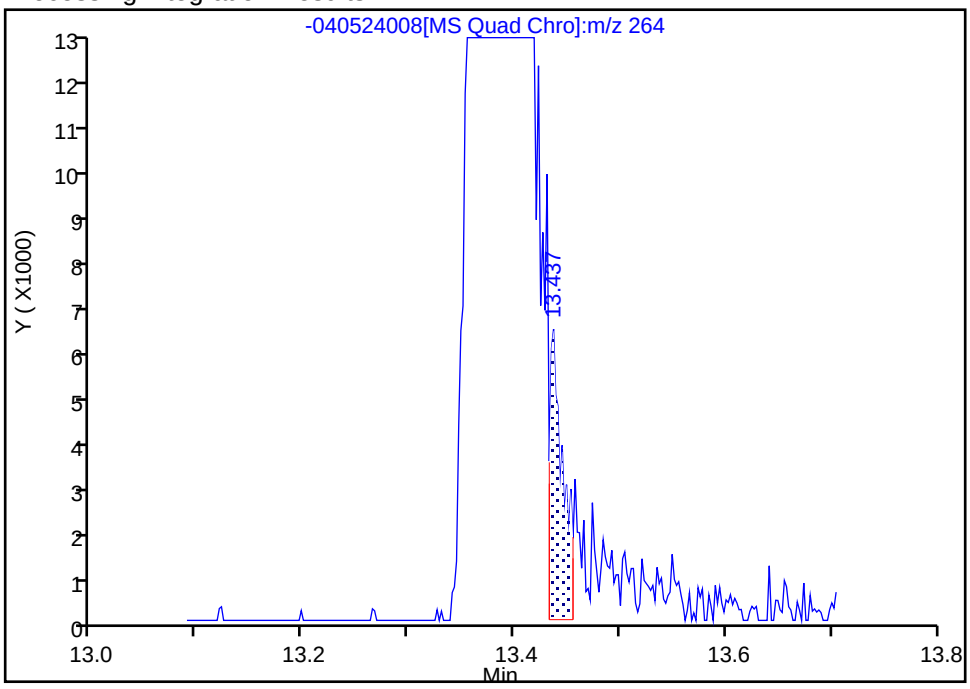
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524008.D				
Injection Date:	05-Apr-2024 12:23:16	Instrument ID:	SMS_3		
Lims ID:	STD400				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

* 6 Perylene-d12, CAS: 1520-96-3

Signal: 1

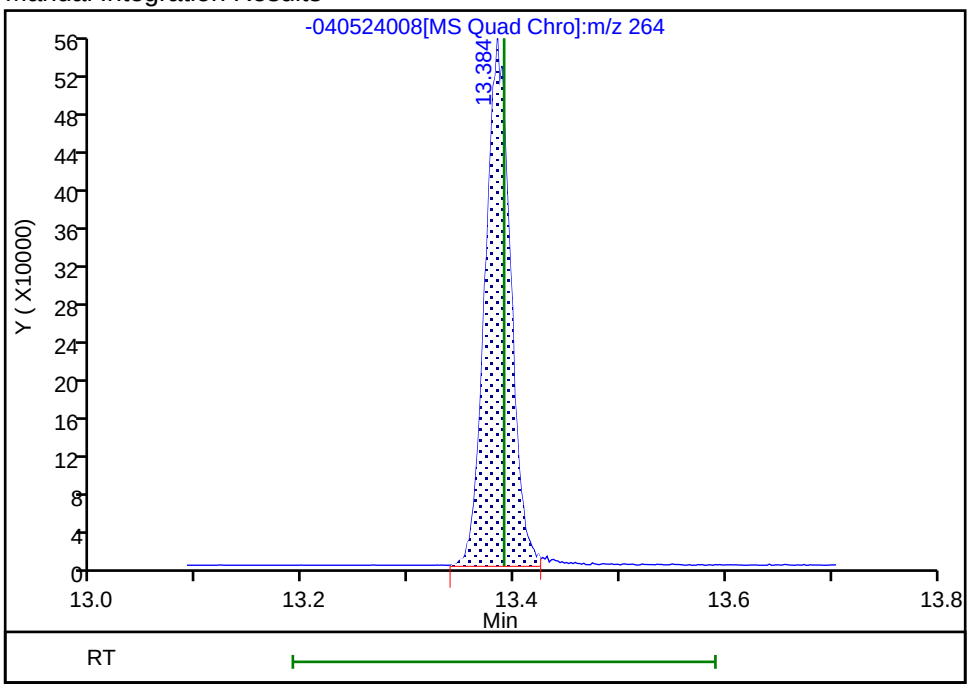
Processing Integration Results

RT: 13.44
Area: 5186
Amount: 8.000000
Amount Units: ug/ml



Manual Integration Results

RT: 13.38
Area: 910465
Amount: 8.000000
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:44:24 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

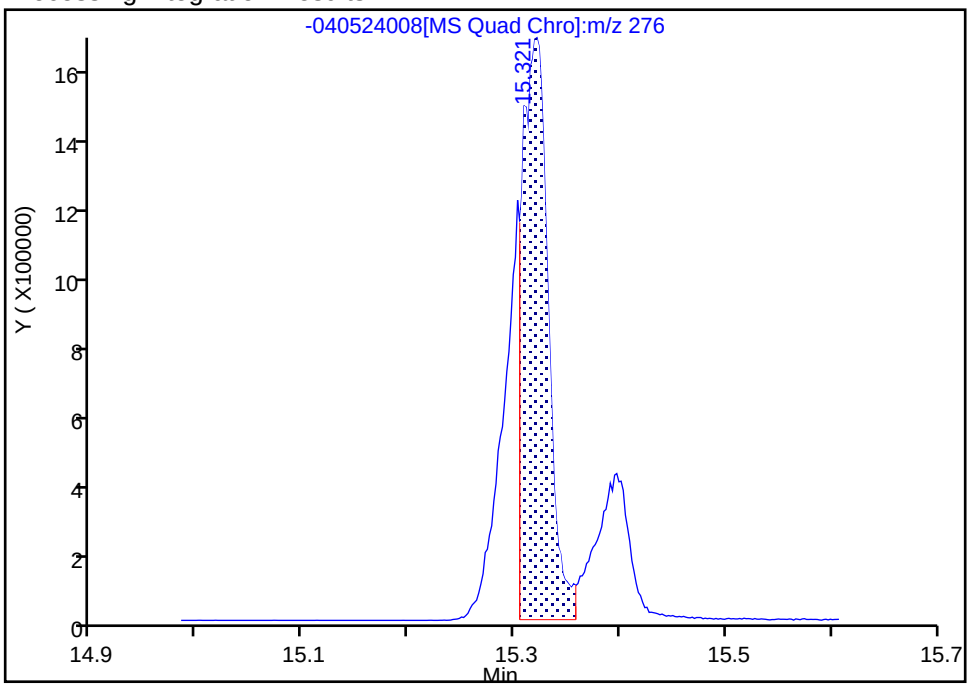
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524008.D				
Injection Date:	05-Apr-2024 12:23:16	Instrument ID:	SMS_3		
Lims ID:	STD400				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

152 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

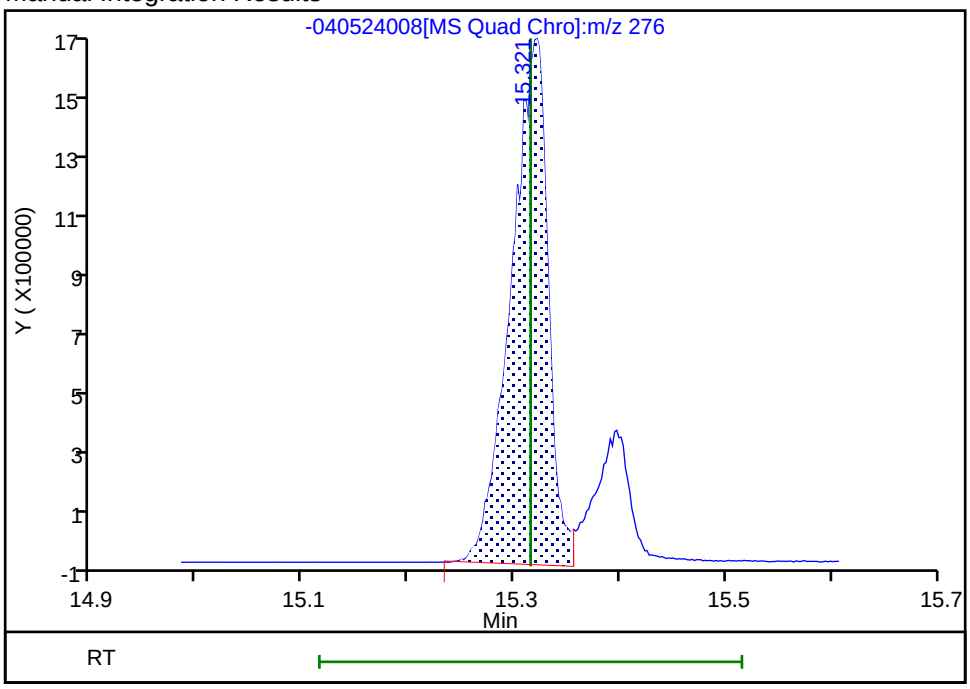
Processing Integration Results

RT: 15.32
Area: 2877671
Amount: 38.381158
Amount Units: ug/ml



Manual Integration Results

RT: 15.32
Area: 4140571
Amount: 46.264953
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:47:31 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

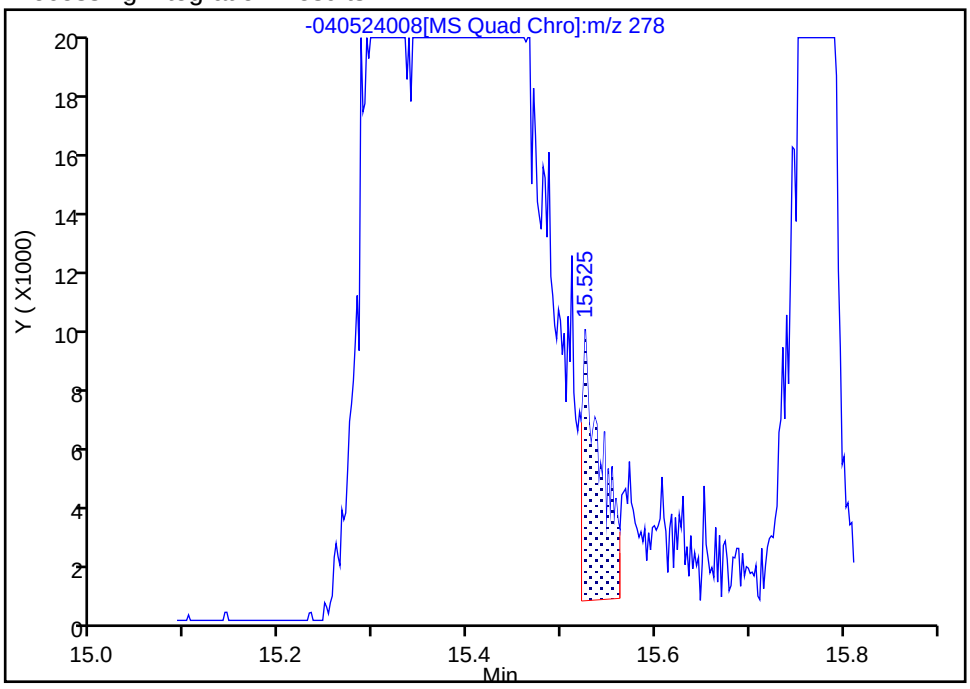
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524008.D				
Injection Date:	05-Apr-2024 12:23:16	Instrument ID:	SMS_3		
Lims ID:	STD400				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

153 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

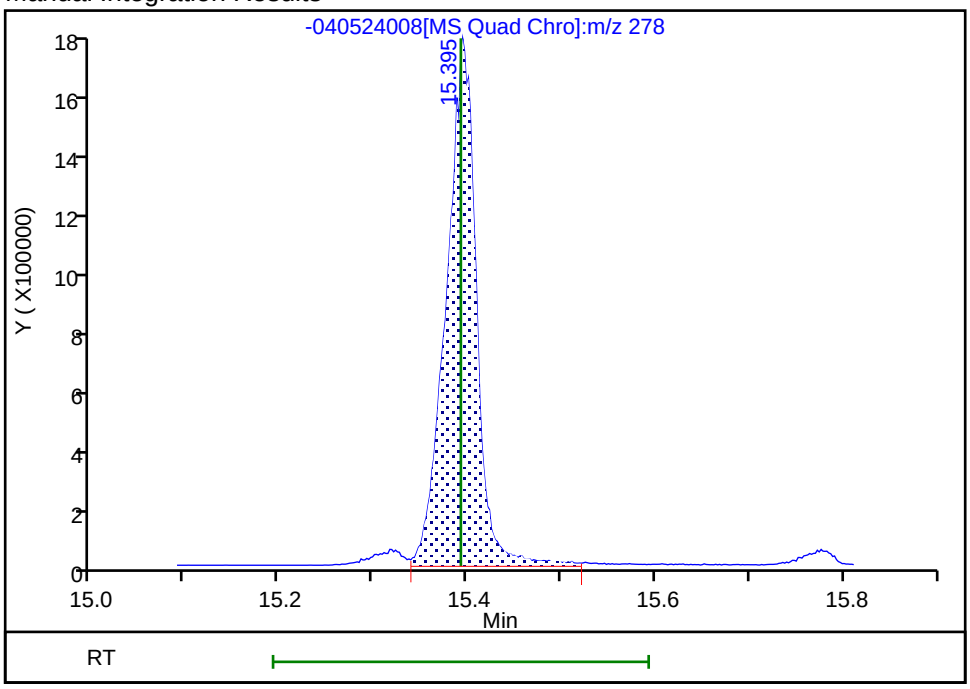
Processing Integration Results

RT: 15.53
Area: 12481
Amount: 0.499229
Amount Units: ug/ml



Manual Integration Results

RT: 15.39
Area: 3770309
Amount: 45.830571
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:47:37 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

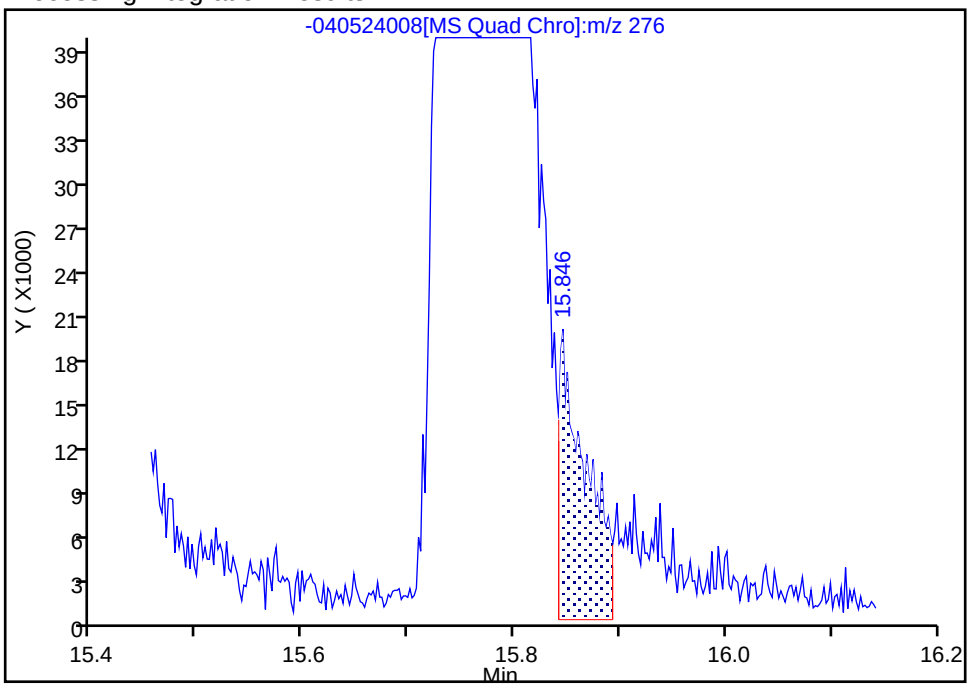
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524008.D				
Injection Date:	05-Apr-2024 12:23:16	Instrument ID:	SMS_3		
Lims ID:	STD400				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

154 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

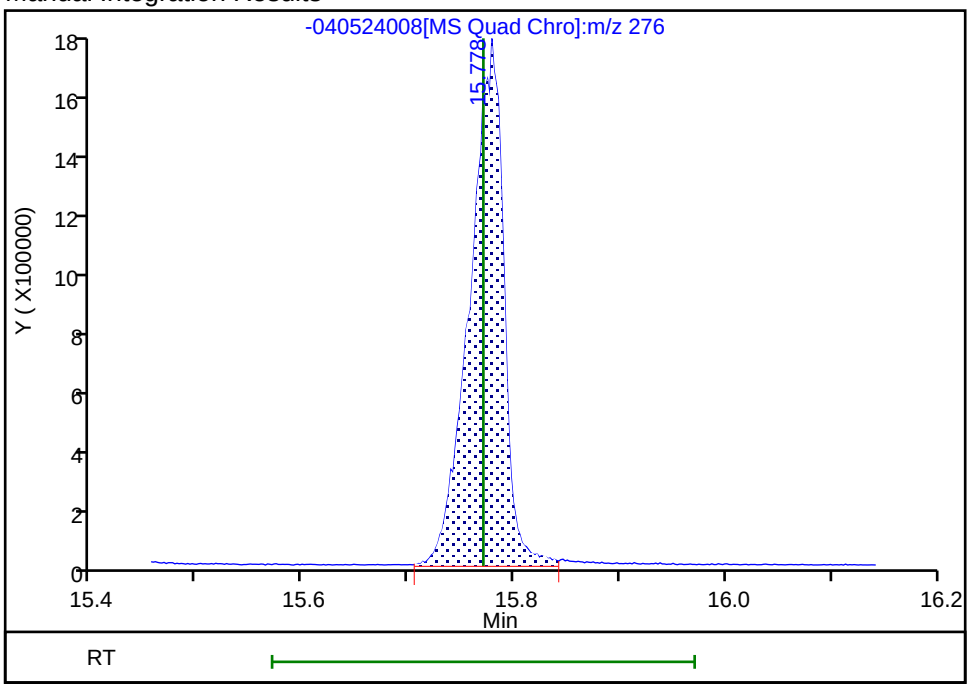
Processing Integration Results

RT: 15.85
Area: 34560
Amount: 0.546556
Amount Units: ug/ml



Manual Integration Results

RT: 15.78
Area: 3829942
Amount: 44.187206
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 14:47:42 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524009.D
Lims ID: STD300
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 05-Apr-2024 12:45:45 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: std 30
Operator ID: DM Instrument ID: SMS_3
Sublist: chrom-SMS_3 8270 RVE*sub1

Method: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 08-Apr-2024 10:13:33 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1660

First Level Reviewer: G3YK Date: 05-Apr-2024 14:52:32

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	115	4.022	4.024	-0.002	97	232454	8.00	8.00	
* 2 Naphthalene-d8	136	5.196	5.196	0.000	99	1316604	8.00	8.00	
* 3 Acenaphthene-d10	164	6.888	6.892	-0.004	92	744731	8.00	8.00	
* 4 Phenanthrene-d10	188	8.339	8.344	-0.005	97	1256728	8.00	8.00	
* 5 Chrysene-d12	240	11.124	11.130	-0.006	99	959937	8.00	8.00	
* 6 Perylene-d12	264	13.382	13.390	-0.008	97	933128	8.00	8.00	
$ 7 2-Fluorophenol	112	2.915	2.915	0.000	95	1511358	30.0	31.0	
$ 8 Phenol-d5	99	3.722	3.720	0.002	0	2025097	30.0	31.2	
$ 9 Nitrobenzene-d5	82	4.530	4.528	0.002	93	1825678	30.0	30.4	
$ 10 2-Fluorobiphenyl	172	6.251	6.253	-0.002	99	2707929	30.0	30.5	
$ 11 2,4,6-Tribromophenol	330	7.664	7.666	-0.002	91	404845	30.0	31.6	
$ 12 Terphenyl-d14	244	9.938	9.942	-0.004	97	2825642	30.0	30.6	
13 N-Nitrosodimethylamine	74	1.856	1.854	0.002	93	1156364	30.0	31.8	
14 Pyridine	79	1.880	1.880	0.000	91	2736488	60.0	60.5	M
22 Phenol	94	3.734	3.732	0.002	94	2292935	30.0	30.4	
23 Aniline	93	3.736	3.736	0.000	94	2312635	30.0	30.4	
25 Bis(2-chloroethyl)ether	93	3.805	3.805	0.000	93	1728201	30.0	30.0	
26 2-Chlorophenol	128	3.836	3.836	0.000	95	1482720	30.0	30.7	
27 n-Decane	43	3.897	3.897	0.000	92	1949595	30.0	29.4	
28 1,3-Dichlorobenzene	146	3.969	3.971	-0.002	94	1550489	30.0	30.1	
29 1,4-Dichlorobenzene	146	4.038	4.038	0.000	90	1610810	30.0	30.1	
30 Benzyl alcohol	79	4.163	4.161	0.002	89	1509616	30.0	31.6	
31 1,2-Dichlorobenzene	146	4.169	4.171	-0.002	93	1481897	30.0	29.8	
32 Indene	116	4.254	4.252	0.002	91	5188333	60.0	60.2	
33 2-Methylphenol	108	4.273	4.271	0.002	96	1390897	30.0	30.4	
34 2,2'-oxybis[1-chloropropane]	45	4.283	4.283	0.000	93	2833865	30.0	28.9	a
36 Acetophenone	105	4.397	4.395	0.002	92	2160398	30.0	30.0	
37 N-Nitrosodi-n-propylamine	70	4.408	4.408	0.000	90	1274872	30.0	30.0	
38 3-Methylphenol	108	4.418	4.416	0.002	90	1457171	30.0	30.4	a
41 4-Methylphenol	108	4.418	4.416	0.002	92	1457171	30.0	30.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
39 3 & 4 Methylphenol	108	4.418	4.416	0.002	0	1457171	30.0	30.4	
43 Hexachloroethane	117	4.475	4.475	0.000	96	775774	30.0	30.7	
44 Nitrobenzene	77	4.548	4.548	0.000	91	1908352	30.0	30.3	
46 Isophorone	82	4.779	4.777	0.002	99	3454888	30.0	30.5	
47 2-Nitrophenol	139	4.842	4.842	0.000	95	797629	30.0	32.1	
48 2,4-Dimethylphenol	107	4.908	4.908	0.000	98	1316518	30.0	31.0	
51 Bis(2-chloroethoxy)methane	93	4.997	4.998	-0.001	96	2092995	30.0	29.8	
49 Benzoic acid	105	5.081	5.059	0.022	91	2702969	60.0	61.9	Ma
52 2,4-Dichlorophenol	162	5.075	5.075	0.000	97	1195966	30.0	31.1	
53 1,2,4-Trichlorobenzene	180	5.147	5.147	0.000	93	1295211	30.0	30.2	
54 Naphthalene	128	5.216	5.216	0.000	98	3890059	30.0	29.9	
55 4-Chloroaniline	127	5.283	5.283	0.000	95	1675080	30.0	30.3	
56 2,6-Dichlorophenol	162	5.287	5.285	0.002	94	1171168	30.0	30.5	
57 Hexachlorobutadiene	225	5.342	5.345	-0.003	97	808968	30.0	31.1	
61 4-Chloro-3-methylphenol	107	5.765	5.767	-0.002	95	1366699	30.0	31.1	
63 2-Methylnaphthalene	141	5.883	5.886	-0.003	93	2163597	30.0	30.6	
64 1-Methylnaphthalene	142	5.975	5.977	-0.002	95	2332267	30.0	30.3	
65 Hexachlorocyclopentadiene	237	6.039	6.039	0.000	97	712040	30.0	29.7	
66 1,2,4,5-Tetrachlorobenzene	216	6.043	6.045	-0.002	98	1338127	30.0	30.2	
68 2,4,6-Trichlorophenol	196	6.163	6.167	-0.004	95	912169	30.0	31.8	
69 2,4,5-Trichlorophenol	196	6.198	6.200	-0.002	93	966783	30.0	31.8	
71 1,1'-Biphenyl	154	6.345	6.345	0.000	97	2991122	30.0	30.1	
72 2-Chloronaphthalene	162	6.351	6.353	-0.002	98	2473258	30.0	30.1	
74 2-Nitroaniline	138	6.465	6.467	-0.002	77	939738	30.0	31.7	
77 Dimethyl phthalate	163	6.667	6.668	-0.001	97	2828672	30.0	30.5	
78 1,3-Dinitrobenzene	168	6.680	6.680	0.000	80	493489	30.0	30.2	
79 2,6-Dinitrotoluene	165	6.714	6.716	-0.002	87	665290	30.0	31.0	
80 Acenaphthylene	152	6.749	6.751	-0.002	99	3741143	30.0	30.2	
81 3-Nitroaniline	65	6.872	6.872	0.000	88	1319362	30.0	30.5	
82 Acenaphthene	153	6.923	6.925	-0.002	96	2374152	30.0	29.8	
83 2,4-Dinitrophenol	184	6.974	6.974	0.000	78	709629	60.0	59.2	
85 4-Nitrophenol	65	7.068	7.068	0.000	95	1569570	60.0	59.6	
86 Dibenzofuran	168	7.094	7.096	-0.002	96	3439145	30.0	30.2	
87 2,4-Dinitrotoluene	165	7.102	7.104	-0.002	87	895729	30.0	30.6	
89 2,3,4,6-Tetrachlorophenol	232	7.219	7.223	-0.004	77	735016	30.0	31.6	
91 Diethyl phthalate	149	7.368	7.370	-0.002	96	2900443	30.0	30.2	
92 Hexadecane	57	7.396	7.400	-0.004	91	2523873	30.0	29.8	
93 Fluorene	166	7.427	7.431	-0.004	94	2652890	30.0	29.8	
95 4-Chlorophenyl phenyl ether	204	7.447	7.451	-0.004	96	1271881	30.0	29.8	
97 4-Nitroaniline	138	7.476	7.472	0.004	80	718251	30.0	29.7	
98 4,6-Dinitro-2-methylphenol	198	7.500	7.498	0.002	71	960132	60.0	61.0	
100 N-Nitrosodiphenylamine	168	7.568	7.570	-0.002	67	1199568	30.0	29.7	
99 Diphenylamine	169	7.568	7.570	-0.002	93	1903579	25.5	25.6	
102 1,2-Diphenylhydrazine	77	7.602	7.605	-0.003	41	3931752	30.3	30.7	a
101 Azobenzene	77	7.602	7.605	-0.003	98	3931752	30.0	30.4	
108 4-Bromophenyl phenyl ether	248	7.923	7.927	-0.004	75	751782	30.0	30.6	
110 Hexachlorobenzene	284	7.956	7.962	-0.006	93	866653	30.0	30.5	
113 Pentachlorophenol	266	8.162	8.166	-0.004	91	1115856	60.0	62.3	
156 n-Octadecane	57	8.309	8.313	-0.004	92	2598964	30.0	30.6	
117 Phenanthrene	178	8.364	8.368	-0.004	99	3732606	30.0	30.2	
120 Anthracene	178	8.415	8.419	-0.004	99	3744538	30.0	30.2	
121 Carbazole	167	8.588	8.591	-0.003	96	3608337	30.0	30.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
122 Alachlor	45	8.746	8.750	-0.004	93	1473550	30.0	29.8	
124 Di-n-butyl phthalate	149	8.978	8.983	-0.005	100	4863092	30.0	31.4	
127 Fluoranthene	202	9.534	9.536	-0.002	98	4176623	30.0	31.1	
129 Pyrene	202	9.750	9.754	-0.004	96	4266144	30.0	30.1	
136 Butyl benzyl phthalate	149	10.499	10.503	-0.004	97	2156296	30.0	32.3	
138 Benzo[a]anthracene	228	11.114	11.118	-0.004	99	3725375	30.0	30.7	
141 Chrysene	228	11.161	11.165	-0.004	97	3521773	30.0	30.1	
142 Bis(2-ethylhexyl) phthalate	149	11.285	11.293	-0.008	98	2874279	30.0	32.4	
144 Di-n-octyl phthalate	149	12.328	12.335	-0.007	99	5018590	30.0	31.4	
145 Benzo[b]fluoranthene	252	12.745	12.753	-0.008	98	3309512	30.0	32.0	
147 Benzo[k]fluoranthene	252	12.796	12.802	-0.006	99	3331318	30.0	30.8	
148 Benzo[a]pyrene	252	13.292	13.298	-0.006	80	3079933	30.0	32.2	a
152 Indeno[1,2,3-cd]pyrene	276	15.309	15.315	-0.006	98	2996403	30.0	32.7	
153 Dibenz(a,h)anthracene	278	15.391	15.393	-0.002	95	2709838	30.0	32.1	a
154 Benzo[g,h,i]perylene	276	15.774	15.770	0.004	96	2783774	30.0	31.3	
209 1,4-Dioxane	88		0.000				ND	ND	
S 168 Methyl Phenols,Total	108				0			60.8	
S 170 TPAH	1				0			493.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-RVHSL-WS_00006	Amount Added: 300.00	Units: uL	
MS-IS-RVE_00005	Amount Added: 30.00	Units: uL	Run Reagent

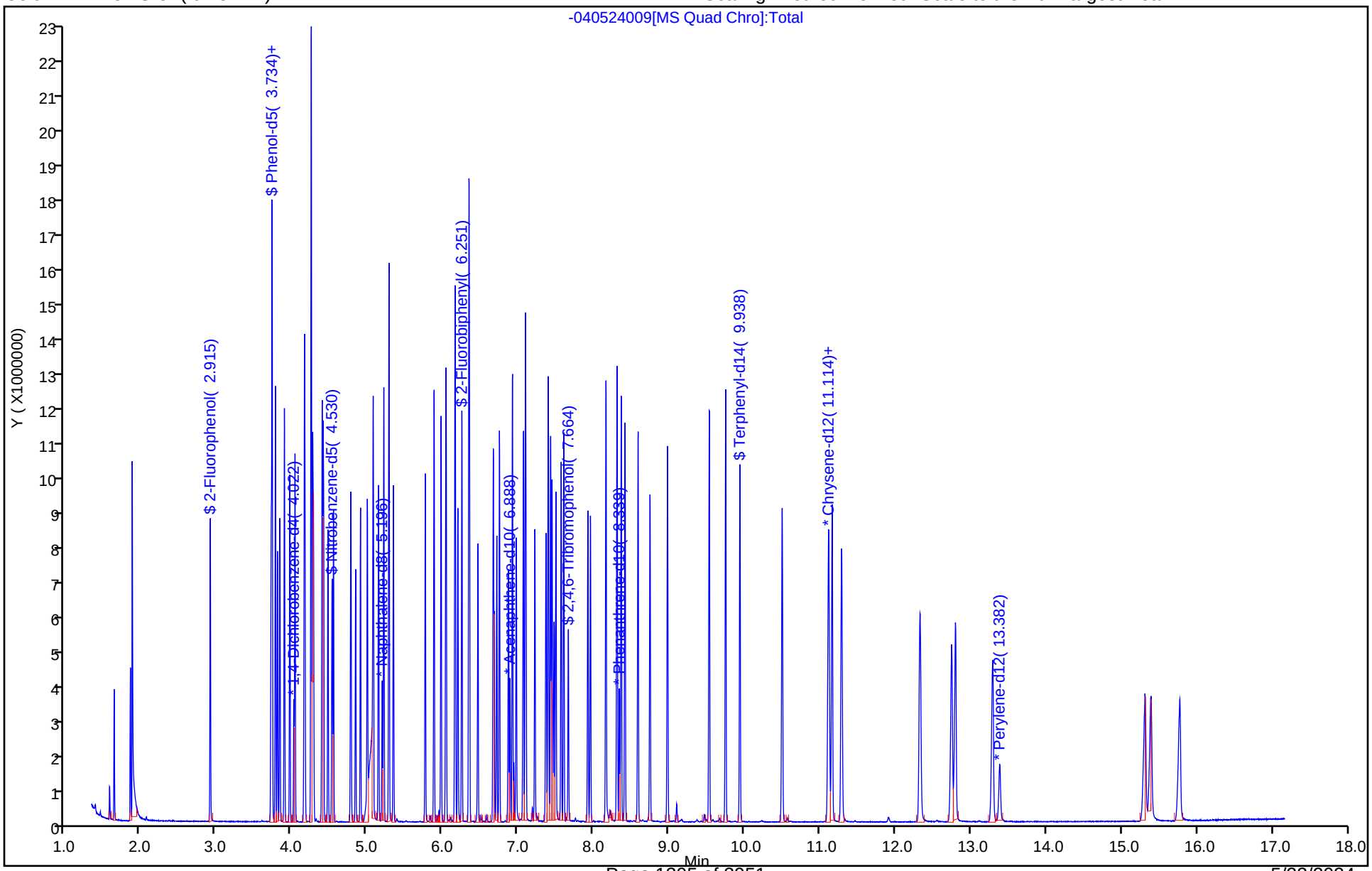
Report Date: 08-Apr-2024 10:13:34 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524009.D

Injection Date:	05-Apr-2024 12:45:45	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	STD300			Worklist Smp#:	5
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

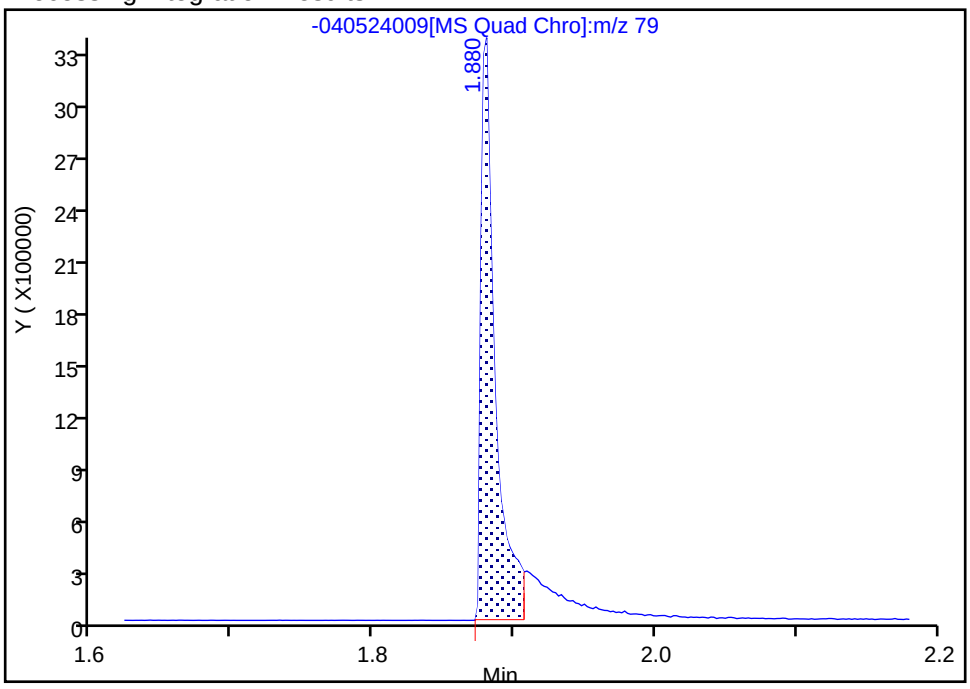
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524009.D				
Injection Date:	05-Apr-2024 12:45:45	Instrument ID:	SMS_3		
Lims ID:	STD300				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

14 Pyridine, CAS: 110-86-1

Signal: 1

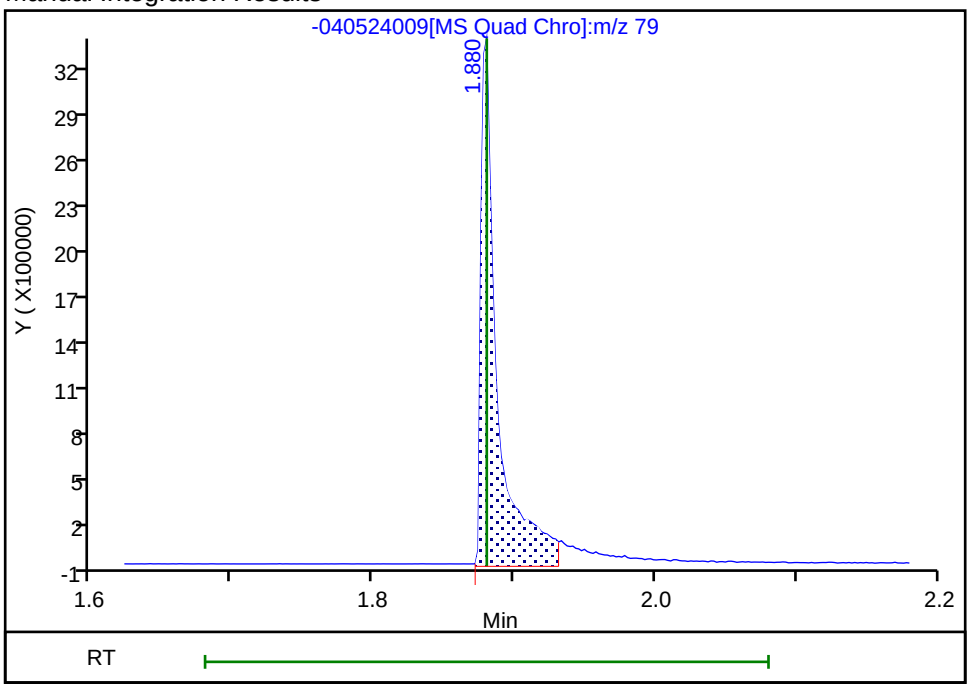
Processing Integration Results

RT: 1.88
Area: 2393286
Amount: 57.386301
Amount Units: ug/ml



Manual Integration Results

RT: 1.88
Area: 2736488
Amount: 60.545246
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:28:06 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

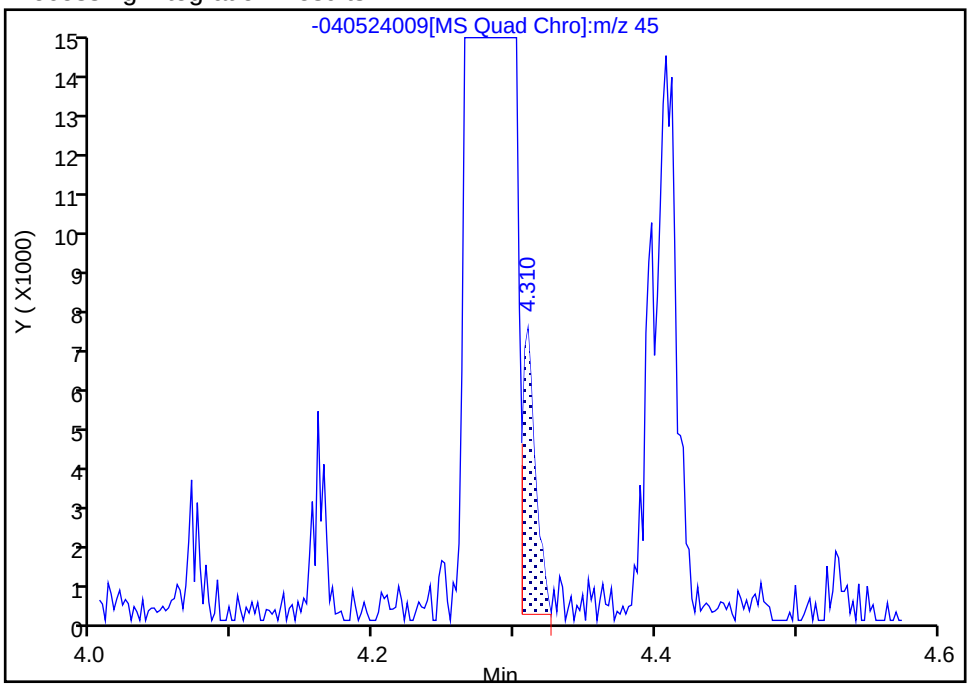
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524009.D				
Injection Date:	05-Apr-2024 12:45:45	Instrument ID:	SMS_3		
Lims ID:	STD300				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

34 2,2'-oxybis[1-chloropropane], CAS: 108-60-1

Signal: 1

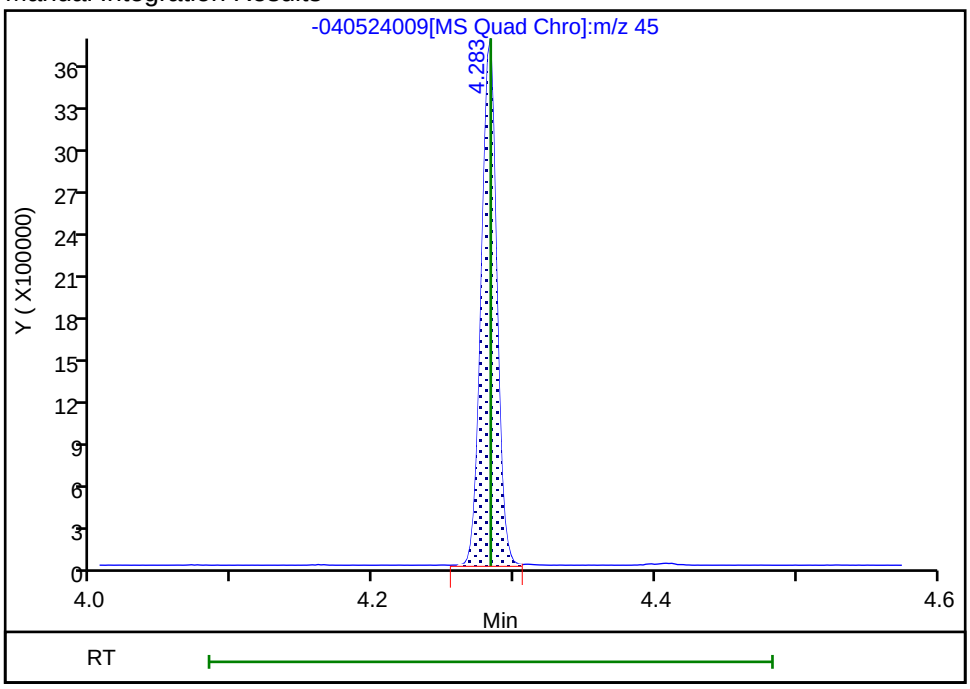
Processing Integration Results

RT: 4.31
Area: 4469
Amount: 0.070253
Amount Units: ug/ml



Manual Integration Results

RT: 4.28
Area: 2833865
Amount: 28.867343
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 15:55:56 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

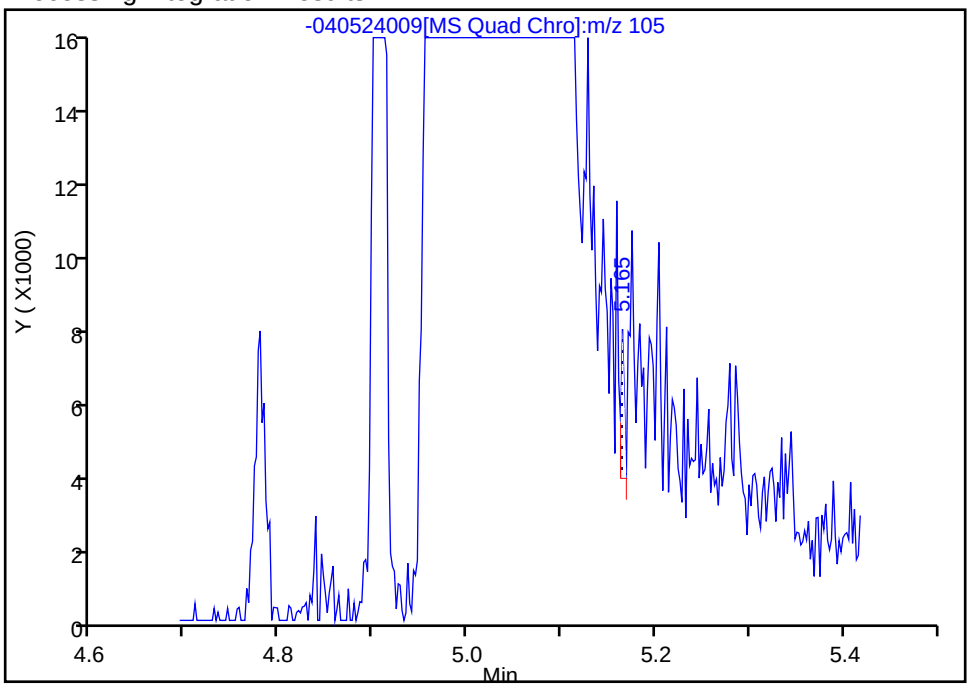
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524009.D				
Injection Date:	05-Apr-2024 12:45:45	Instrument ID:	SMS_3		
Lims ID:	STD300				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

49 Benzoic acid, CAS: 65-85-0

Signal: 1

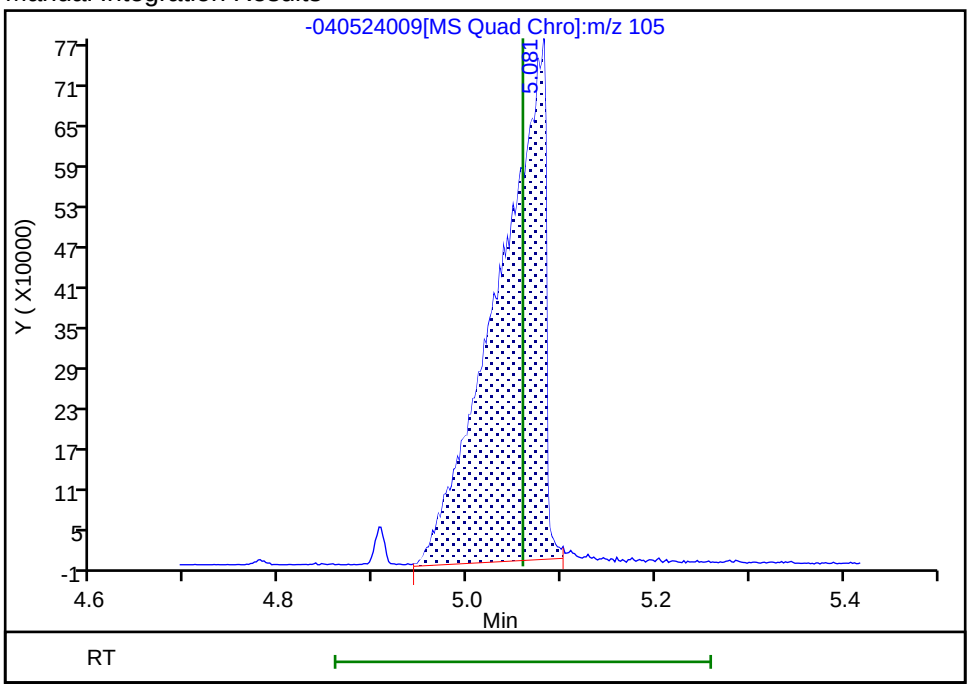
Processing Integration Results

RT: 5.16
Area: 914
Amount: 0.047783
Amount Units: ug/ml



Manual Integration Results

RT: 5.08
Area: 2702969
Amount: 61.860253
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 15:56:33 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

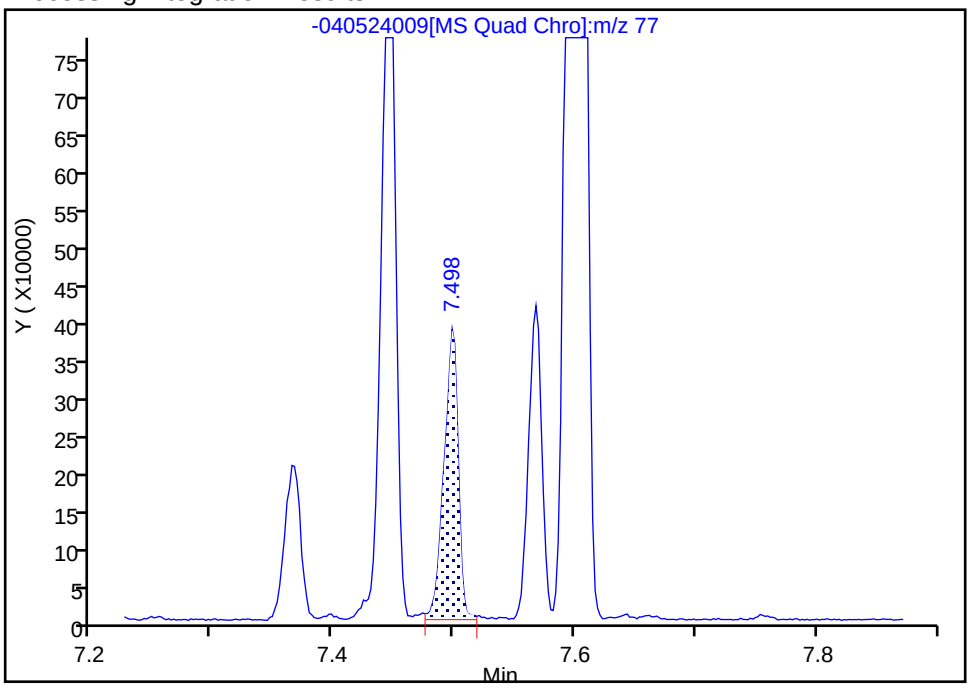
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524009.D				
Injection Date:	05-Apr-2024 12:45:45	Instrument ID:	SMS_3		
Lims ID:	STD300				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

102 1,2-Diphenylhydrazine, CAS: 122-66-7

Signal: 1

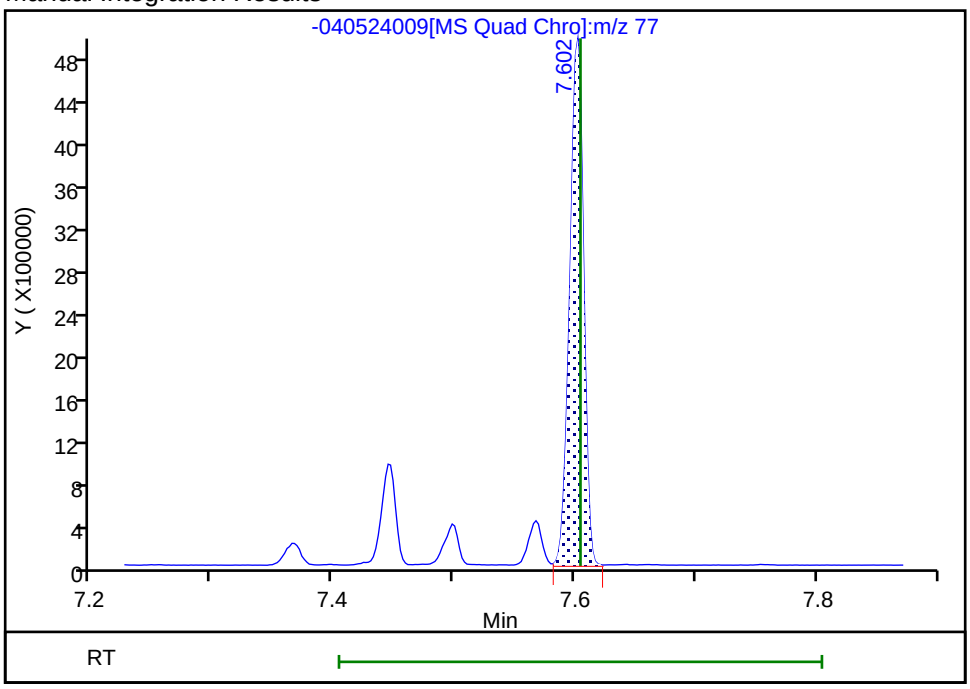
Processing Integration Results

RT: 7.50
Area: 314201
Amount: 5.118930
Amount Units: ug/ml



Manual Integration Results

RT: 7.60
Area: 3931752
Amount: 30.727529
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 15:59:53 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

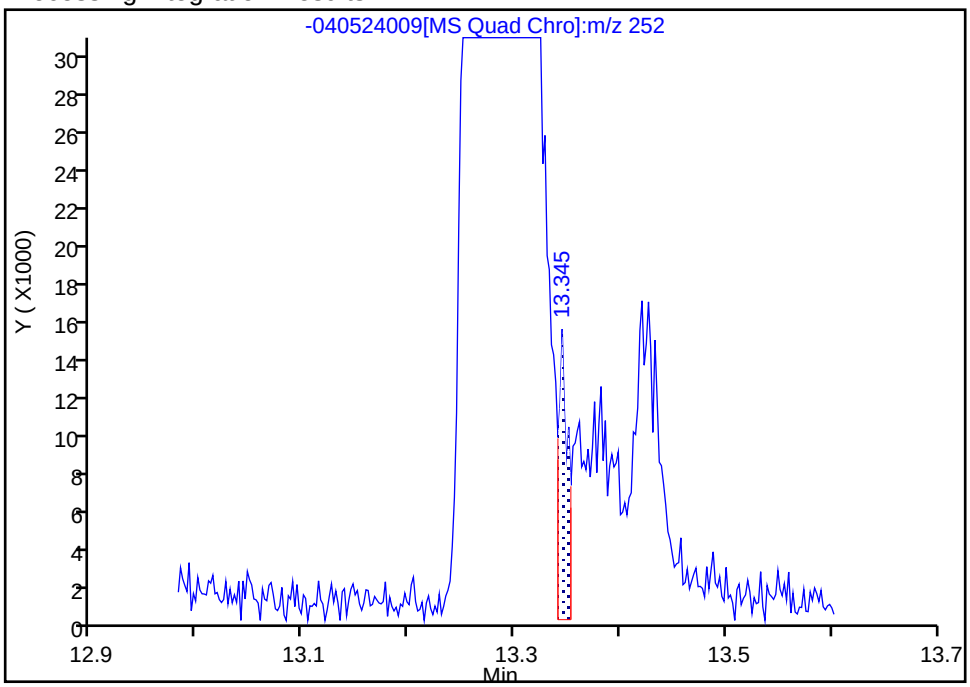
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524009.D				
Injection Date:	05-Apr-2024 12:45:45	Instrument ID:	SMS_3		
Lims ID:	STD300				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

148 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

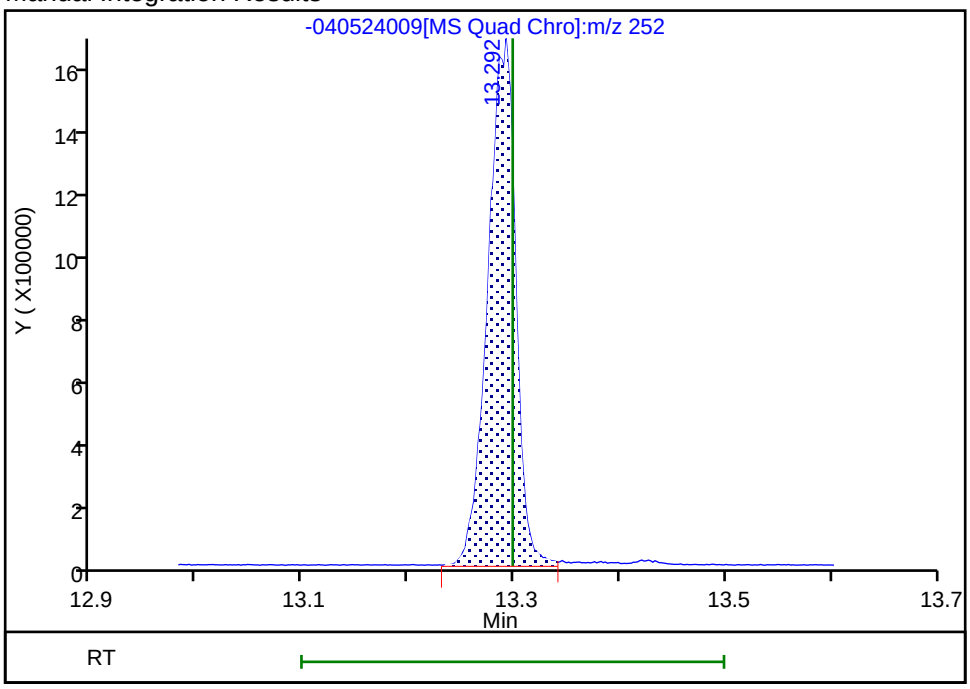
Processing Integration Results

RT: 13.35
Area: 8804
Amount: 0.125612
Amount Units: ug/ml



Manual Integration Results

RT: 13.29
Area: 3079933
Amount: 32.151459
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:00:17 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

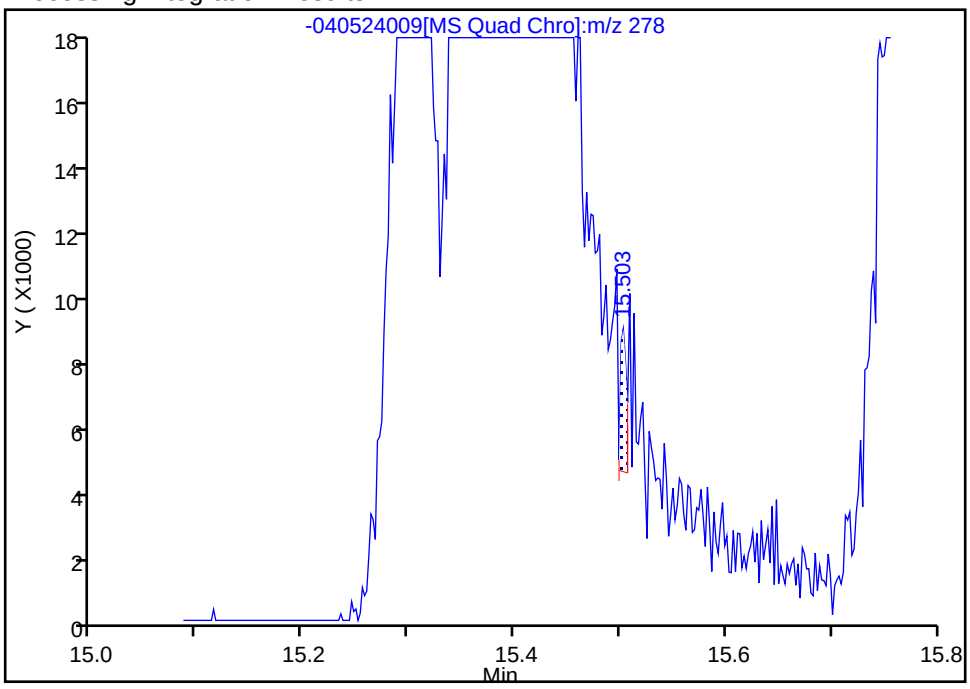
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524009.D				
Injection Date:	05-Apr-2024 12:45:45	Instrument ID:	SMS_3		
Lims ID:	STD300				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

153 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

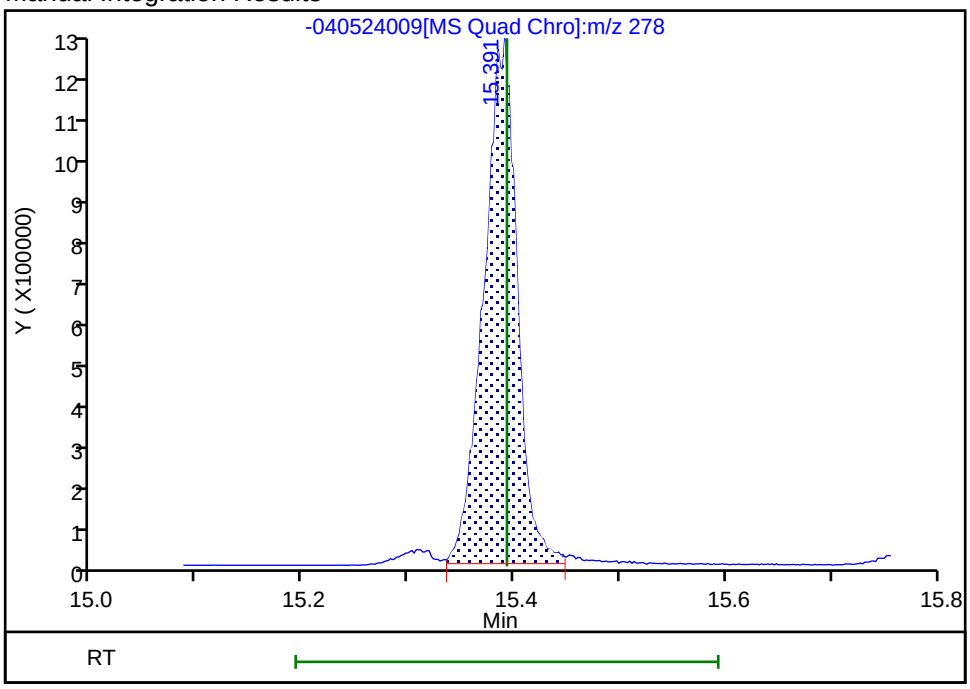
Processing Integration Results

RT: 15.50
Area: 1663
Amount: 0.042232
Amount Units: ug/ml



Manual Integration Results

RT: 15.39
Area: 2709838
Amount: 32.139838
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:00:22 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524010.D
Lims ID: STD125
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 05-Apr-2024 13:08:17 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: std 12.5
Operator ID: DM Instrument ID: SMS_3
Sublist: chrom-SMS_3 8270 RVE*sub1

Method: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 08-Apr-2024 10:13:36 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1660

First Level Reviewer: G3YK Date: 05-Apr-2024 16:03:35

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	115	4.021	4.024	-0.003	97	240278	8.00	8.00	
* 2 Naphthalene-d8	136	5.193	5.196	-0.003	99	1370491	8.00	8.00	
* 3 Acenaphthene-d10	164	6.888	6.892	-0.004	94	785511	8.00	8.00	
* 4 Phenanthrene-d10	188	8.337	8.344	-0.007	97	1339736	8.00	8.00	
* 5 Chrysene-d12	240	11.120	11.130	-0.010	99	1019792	8.00	8.00	
* 6 Perylene-d12	264	13.382	13.390	-0.008	97	1020746	8.00	8.00	
$ 7 2-Fluorophenol	112	2.913	2.915	-0.002	95	663681	12.5	13.2	
$ 8 Phenol-d5	99	3.717	3.720	-0.003	0	882582	12.5	13.1	
$ 9 Nitrobenzene-d5	82	4.526	4.528	-0.002	93	821358	12.5	13.2	
$ 10 2-Fluorobiphenyl	172	6.251	6.253	-0.002	99	1201397	12.5	12.8	
$ 11 2,4,6-Tribromophenol	330	7.659	7.666	-0.007	90	182717	12.5	13.4	
$ 12 Terphenyl-d14	244	9.938	9.942	-0.004	98	1257372	12.5	12.8	
13 N-Nitrosodimethylamine	74	1.853	1.854	-0.001	93	512152	12.5	13.6	
14 Pyridine	79	1.880	1.880	0.000	90	1031967	25.0	22.5	
22 Phenol	94	3.729	3.732	-0.003	90	1041049	12.5	13.4	
23 Aniline	93	3.734	3.736	-0.002	90	1042130	12.5	13.2	
25 Bis(2-chloroethyl)ether	93	3.801	3.805	-0.004	92	785878	12.5	13.2	
26 2-Chlorophenol	128	3.836	3.836	0.000	94	648643	12.5	13.0	
27 n-Decane	43	3.897	3.897	0.000	92	897069	12.5	13.1	
28 1,3-Dichlorobenzene	146	3.968	3.971	-0.003	94	689044	12.5	13.0	
29 1,4-Dichlorobenzene	146	4.038	4.038	0.000	91	707946	12.5	12.8	
30 Benzyl alcohol	79	4.156	4.161	-0.005	89	673575	12.5	13.6	
31 1,2-Dichlorobenzene	146	4.168	4.171	-0.003	94	660546	12.5	12.9	
32 Indene	116	4.250	4.252	-0.002	91	2381400	25.0	26.7	
33 2-Methylphenol	108	4.268	4.271	-0.003	98	622291	12.5	13.1	
34 2,2'-oxybis[1-chloropropane]	45	4.281	4.283	-0.002	92	1318204	12.5	13.0	a
36 Acetophenone	105	4.393	4.395	-0.002	92	973107	12.5	13.1	
37 N-Nitrosodi-n-propylamine	70	4.403	4.408	-0.005	92	565325	12.5	12.9	
41 4-Methylphenol	108	4.413	4.416	-0.003	96	667798	12.5	13.5	
39 3 & 4 Methylphenol	108	4.413	4.416	-0.003	0	667798	12.5	13.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
38 3-Methylphenol	108	4.413	4.416	-0.003	90	667798	12.5	13.5	a
43 Hexachloroethane	117	4.475	4.475	0.000	96	340630	12.5	13.1	
44 Nitrobenzene	77	4.544	4.548	-0.004	92	853453	12.5	13.0	
46 Isophorone	82	4.773	4.777	-0.004	99	1551963	12.5	13.2	
47 2-Nitrophenol	139	4.840	4.842	-0.002	94	342592	12.5	13.2	
48 2,4-Dimethylphenol	107	4.903	4.908	-0.005	98	573270	12.5	13.0	
51 Bis(2-chloroethoxy)methane	93	4.995	4.998	-0.003	95	943930	12.5	12.9	
49 Benzoic acid	105	5.034	5.059	-0.025	92	1166948	25.0	26.4	Ma
52 2,4-Dichlorophenol	162	5.071	5.075	-0.004	97	535361	12.5	13.4	
53 1,2,4-Trichlorobenzene	180	5.142	5.147	-0.005	93	572349	12.5	12.8	
54 Naphthalene	128	5.214	5.216	-0.002	98	1770236	12.5	13.1	
55 4-Chloroaniline	127	5.279	5.283	-0.004	93	750781	12.5	13.1	
56 2,6-Dichlorophenol	162	5.283	5.285	-0.002	93	523660	12.5	13.1	
57 Hexachlorobutadiene	225	5.342	5.345	-0.003	96	350114	12.5	12.9	
61 4-Chloro-3-methylphenol	107	5.765	5.767	-0.002	95	607542	12.5	13.3	
63 2-Methylnaphthalene	141	5.881	5.886	-0.005	92	960344	12.5	13.0	
64 1-Methylnaphthalene	142	5.973	5.977	-0.004	93	1047532	12.5	13.1	
65 Hexachlorocyclopentadiene	237	6.036	6.039	-0.003	97	284972	12.5	11.6	
66 1,2,4,5-Tetrachlorobenzene	216	6.040	6.045	-0.005	98	591352	12.5	12.7	
68 2,4,6-Trichlorophenol	196	6.163	6.167	-0.004	95	389986	12.5	12.9	
69 2,4,5-Trichlorophenol	196	6.198	6.200	-0.002	93	415442	12.5	12.9	
71 1,1'-Biphenyl	154	6.341	6.345	-0.004	97	1362216	12.5	13.0	
72 2-Chloronaphthalene	162	6.349	6.353	-0.004	98	1113548	12.5	12.8	
74 2-Nitroaniline	138	6.461	6.467	-0.006	76	413304	12.5	13.2	
77 Dimethyl phthalate	163	6.663	6.668	-0.005	96	1258887	12.5	12.9	
78 1,3-Dinitrobenzene	168	6.675	6.680	-0.005	81	214092	12.5	12.7	
79 2,6-Dinitrotoluene	165	6.710	6.716	-0.006	84	294985	12.5	13.0	
80 Acenaphthylene	152	6.747	6.751	-0.004	99	1712328	12.5	13.1	
81 3-Nitroaniline	65	6.865	6.872	-0.007	89	603900	12.5	13.3	
82 Acenaphthene	153	6.918	6.925	-0.007	96	1071538	12.5	12.7	
83 2,4-Dinitrophenol	184	6.967	6.974	-0.007	78	286948	25.0	23.8	
85 4-Nitrophenol	65	7.061	7.068	-0.007	94	707573	25.0	25.9	
86 Dibenzofuran	168	7.092	7.096	-0.004	96	1554349	12.5	12.9	
87 2,4-Dinitrotoluene	165	7.098	7.104	-0.006	86	412016	12.5	13.4	
89 2,3,4,6-Tetrachlorophenol	232	7.218	7.223	-0.005	74	320939	12.5	13.1	
91 Diethyl phthalate	149	7.361	7.370	-0.009	96	1306719	12.5	12.9	
92 Hexadecane	57	7.394	7.400	-0.006	90	1188724	12.5	13.3	
93 Fluorene	166	7.425	7.431	-0.006	95	1213384	12.5	12.9	
95 4-Chlorophenyl phenyl ether	204	7.445	7.451	-0.006	96	580832	12.5	12.9	
97 4-Nitroaniline	138	7.461	7.472	-0.011	80	332321	12.5	13.0	
98 4,6-Dinitro-2-methylphenol	198	7.490	7.498	-0.008	72	417652	25.0	25.6	
100 N-Nitrosodiphenylamine	168	7.563	7.570	-0.007	66	555443	12.5	13.0	
99 Diphenylamine	169	7.563	7.570	-0.007	92	863428	10.6	11.0	
102 1,2-Diphenylhydrazine	77	7.598	7.605	-0.007	41	1812838	12.6	13.3	a
101 Azobenzene	77	7.598	7.605	-0.007	98	1810449	12.5	13.1	
108 4-Bromophenyl phenyl ether	248	7.921	7.927	-0.006	77	337157	12.5	12.9	
110 Hexachlorobenzene	284	7.955	7.962	-0.007	92	371765	12.5	12.3	
113 Pentachlorophenol	266	8.159	8.166	-0.007	90	480038	25.0	25.7	
156 n-Octadecane	57	8.306	8.313	-0.007	92	1216126	12.5	13.4	
117 Phenanthrene	178	8.362	8.368	-0.006	99	1709755	12.5	13.0	
120 Anthracene	178	8.413	8.419	-0.006	99	1719633	12.5	13.0	
121 Carbazole	167	8.584	8.591	-0.007	96	1657701	12.5	13.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
122 Alachlor	45	8.743	8.750	-0.007	91	710019	12.5	13.5	
124 Di-n-butyl phthalate	149	8.976	8.983	-0.007	100	2205754	12.5	13.4	
127 Fluoranthene	202	9.529	9.536	-0.007	99	1861989	12.5	13.0	
129 Pyrene	202	9.746	9.754	-0.008	96	1950165	12.5	12.9	
136 Butyl benzyl phthalate	149	10.497	10.503	-0.006	96	933418	12.5	13.2	
138 Benzo[a]anthracene	228	11.109	11.118	-0.009	100	1656039	12.5	12.9	
141 Chrysene	228	11.156	11.165	-0.009	98	1602435	12.5	12.9	
142 Bis(2-ethylhexyl) phthalate	149	11.287	11.293	-0.006	98	1278633	12.5	13.6	
144 Di-n-octyl phthalate	149	12.324	12.335	-0.011	99	2128264	12.5	12.5	
145 Benzo[b]fluoranthene	252	12.736	12.753	-0.017	97	1462819	12.5	12.9	M
147 Benzo[k]fluoranthene	252	12.785	12.802	-0.017	99	1529718	12.5	12.9	
148 Benzo[a]pyrene	252	13.284	13.298	-0.014	80	1355580	12.5	12.9	
152 Indeno[1,2,3-cd]pyrene	276	15.301	15.315	-0.014	98	1277595	12.5	12.7	
153 Dibenz(a,h)anthracene	278	15.376	15.393	-0.017	94	1197693	12.5	13.0	a
154 Benzo[g,h,i]perylene	276	15.754	15.770	-0.016	97	1210272	12.5	12.5	
209 1,4-Dioxane	88		0.000				ND	ND	
S 168 Methyl Phenols,Total	108				0			26.6	
S 170 TPAH	1				0			206.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-RVHSL-WS_00006	Amount Added: 125.00	Units: uL	
MS-IS-RVE_00005	Amount Added: 30.00	Units: uL	Run Reagent

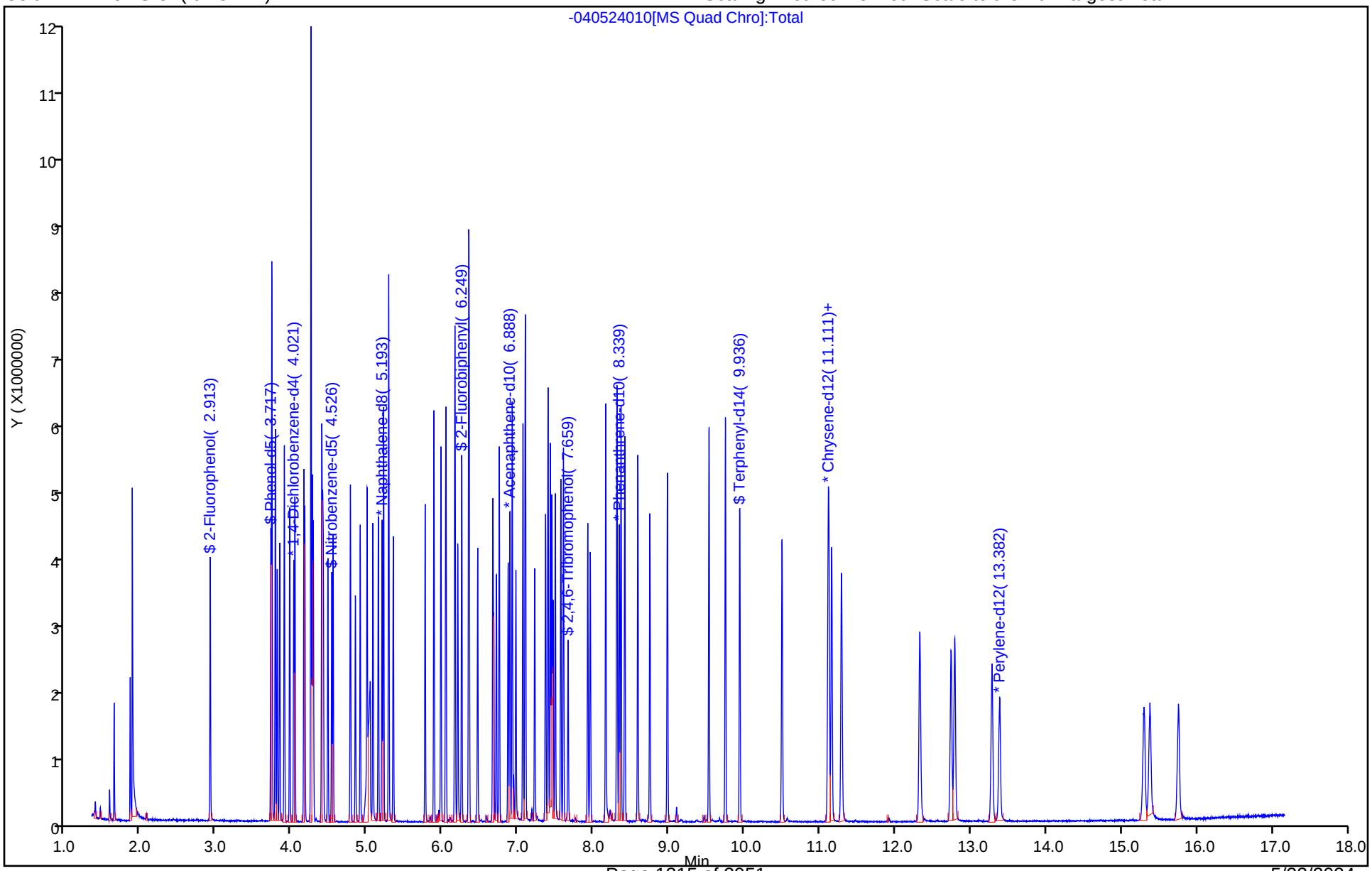
Report Date: 08-Apr-2024 10:13:37 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524010.D

Injection Date:	05-Apr-2024 13:08:17	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	STD125			Worklist Smp#:	6
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

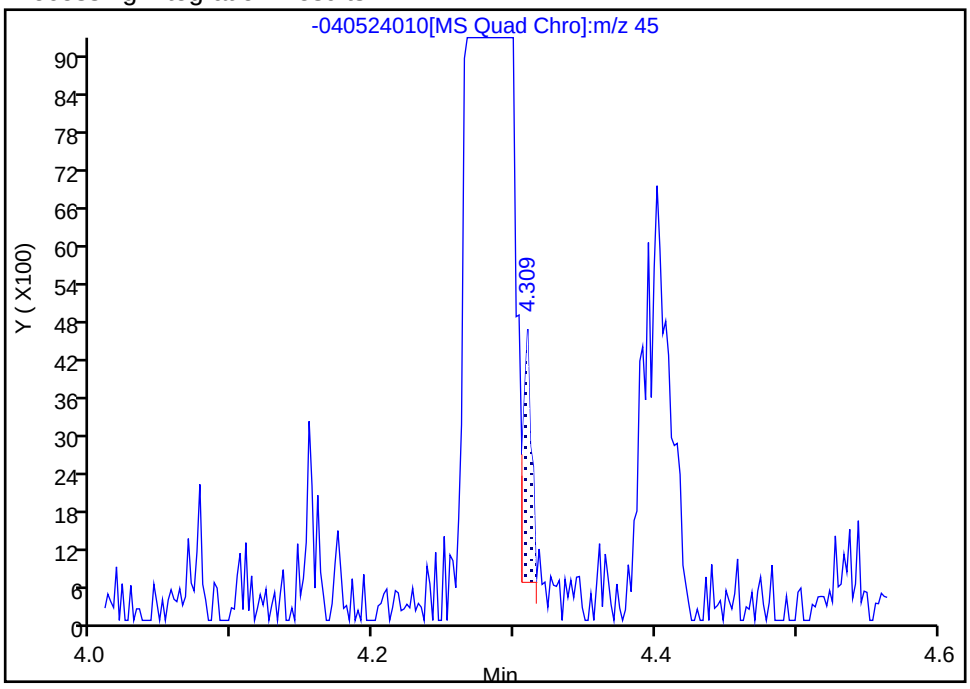
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524010.D				
Injection Date:	05-Apr-2024 13:08:17	Instrument ID:	SMS_3		
Lims ID:	STD125				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

34 2,2'-oxybis[1-chloropropane], CAS: 108-60-1

Signal: 1

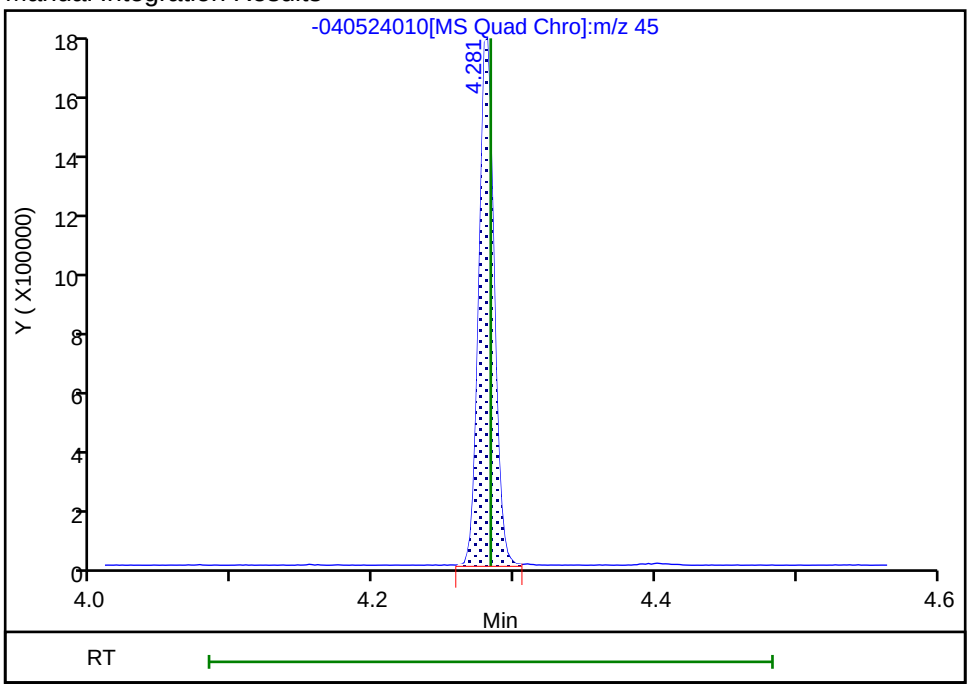
Processing Integration Results

RT: 4.31
Area: 1598
Amount: 0.019487
Amount Units: ug/ml



Manual Integration Results

RT: 4.28
Area: 1318204
Amount: 12.990722
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:01:02 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

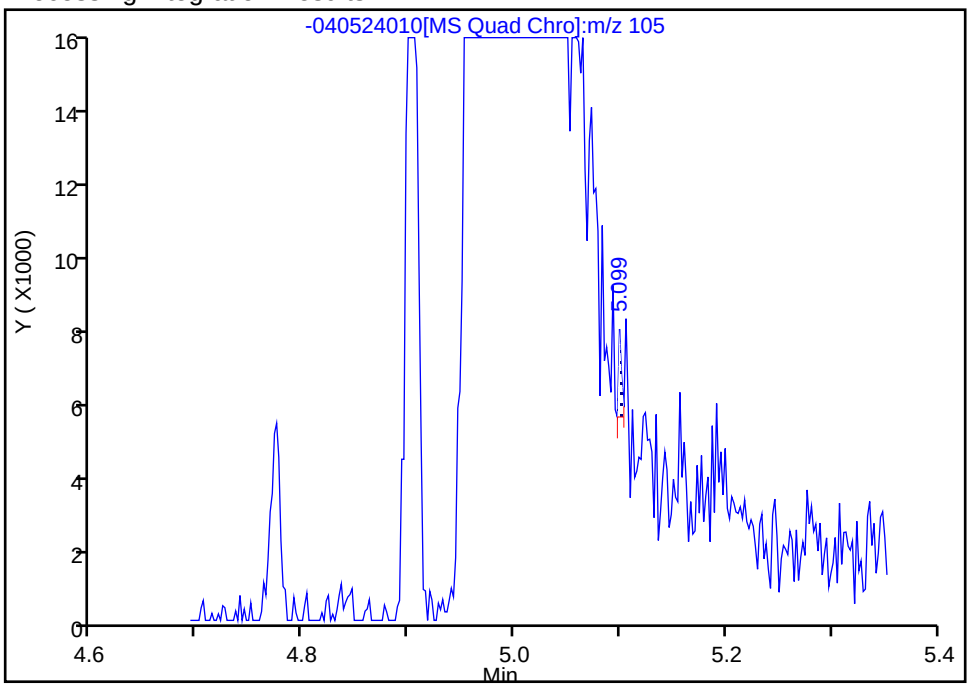
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524010.D				
Injection Date:	05-Apr-2024 13:08:17	Instrument ID:	SMS_3		
Lims ID:	STD125				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

49 Benzoic acid, CAS: 65-85-0

Signal: 1

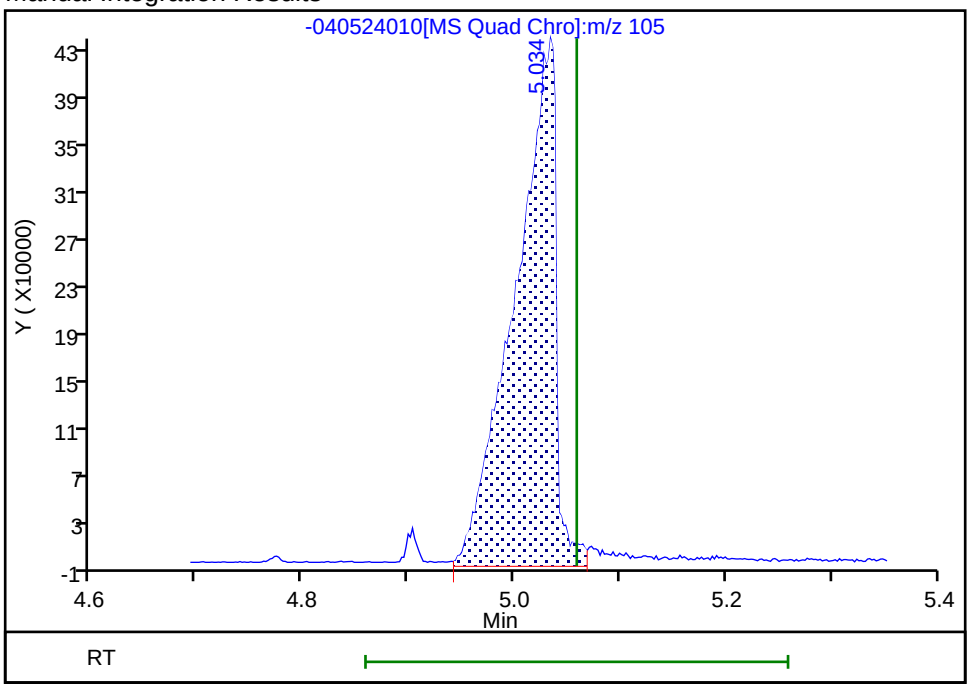
Processing Integration Results

RT: 5.10
Area: 438
Amount: 0.016461
Amount Units: ug/ml



Manual Integration Results

RT: 5.03
Area: 1166948
Amount: 26.399009
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:01:26 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

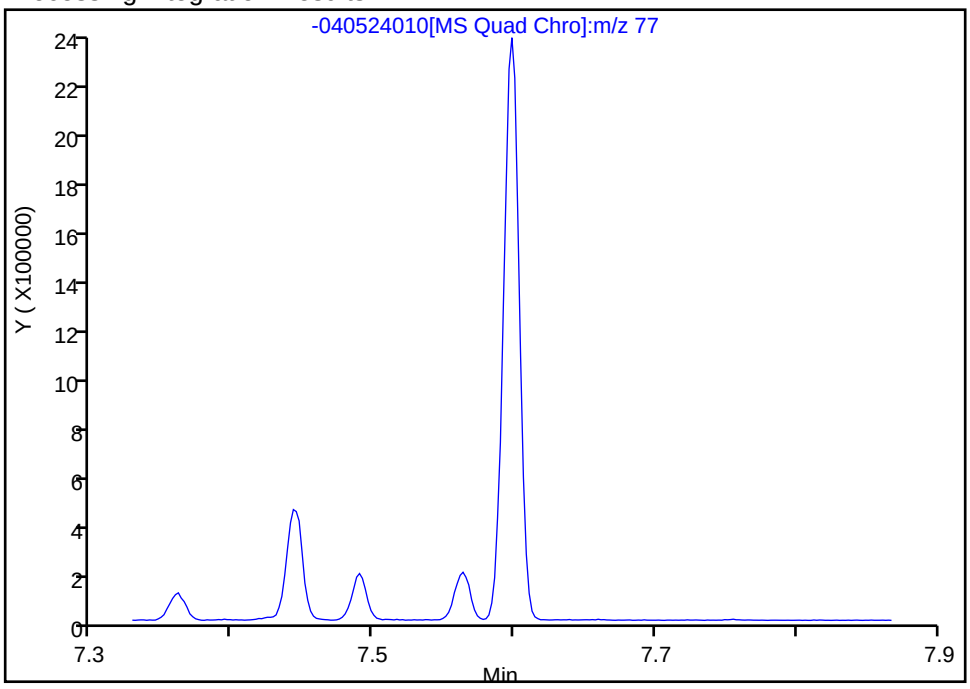
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524010.D				
Injection Date:	05-Apr-2024 13:08:17	Instrument ID:	SMS_3		
Lims ID:	STD125				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

102 1,2-Diphenylhydrazine, CAS: 122-66-7

Signal: 1

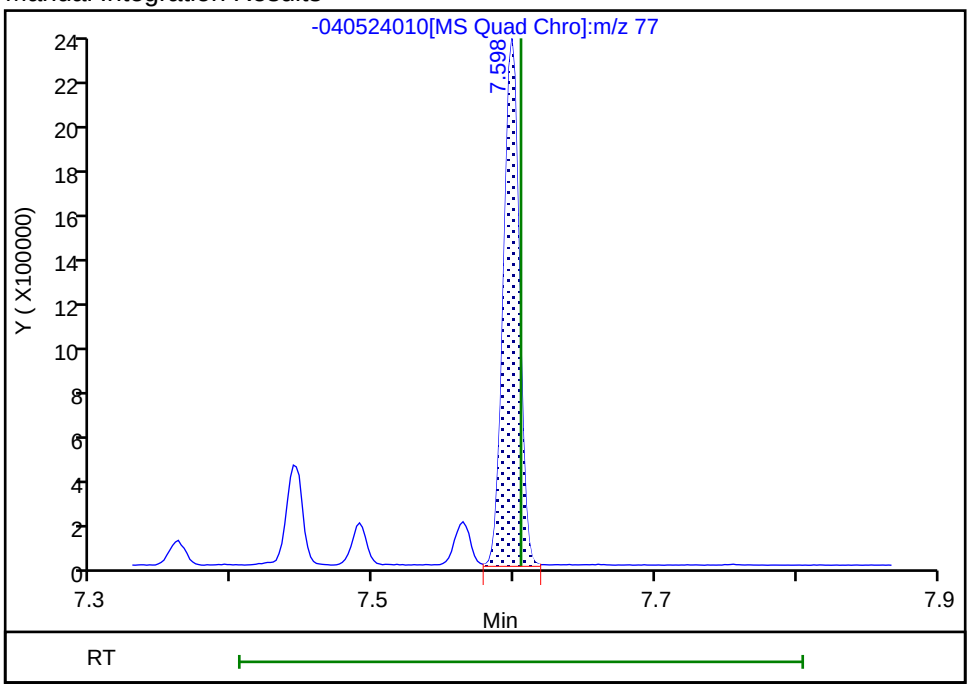
Not Detected
Expected RT: 7.60

Processing Integration Results



Manual Integration Results

RT: 7.60
Area: 1812838
Amount: 13.289927
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:02:47 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

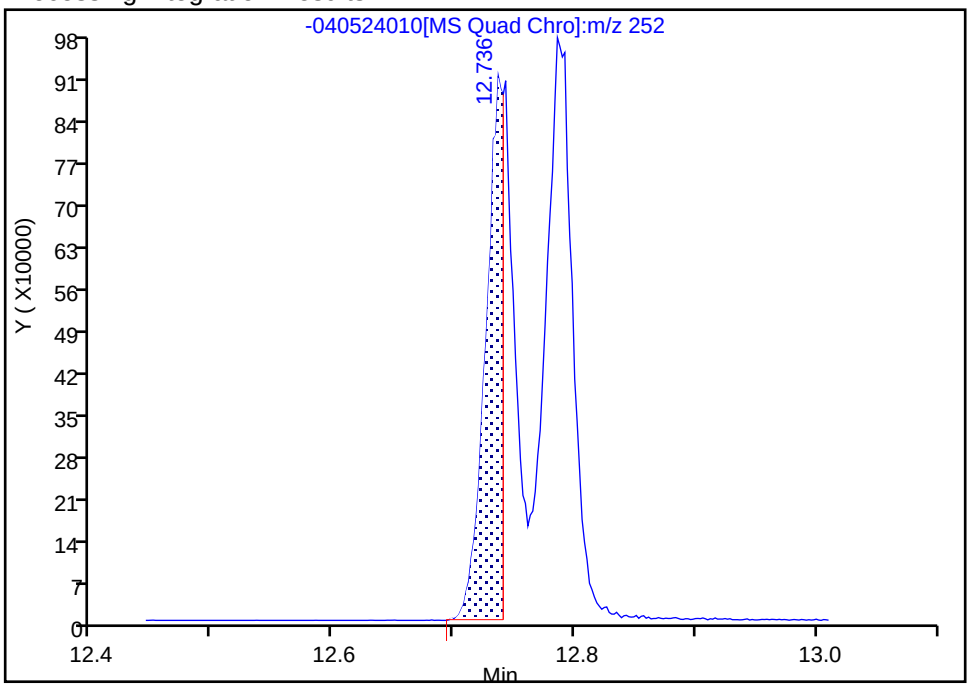
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524010.D				
Injection Date:	05-Apr-2024 13:08:17	Instrument ID:	SMS_3		
Lims ID:	STD125				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

145 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

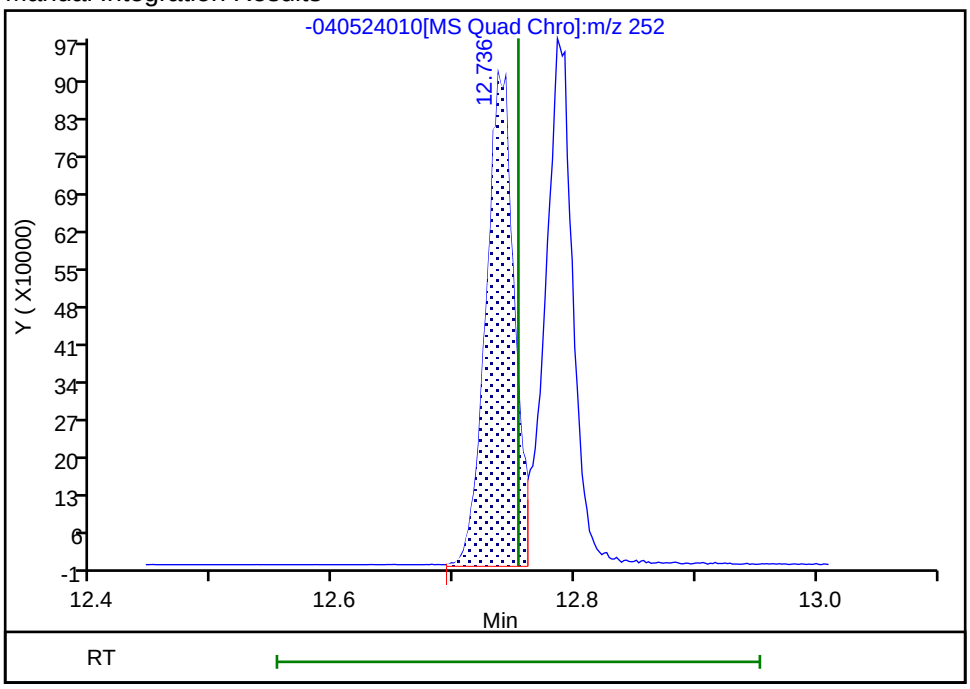
Processing Integration Results

RT: 12.74
Area: 914897
Amount: 8.451905
Amount Units: ug/ml



Manual Integration Results

RT: 12.74
Area: 1462819
Amount: 12.929185
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:03:15 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

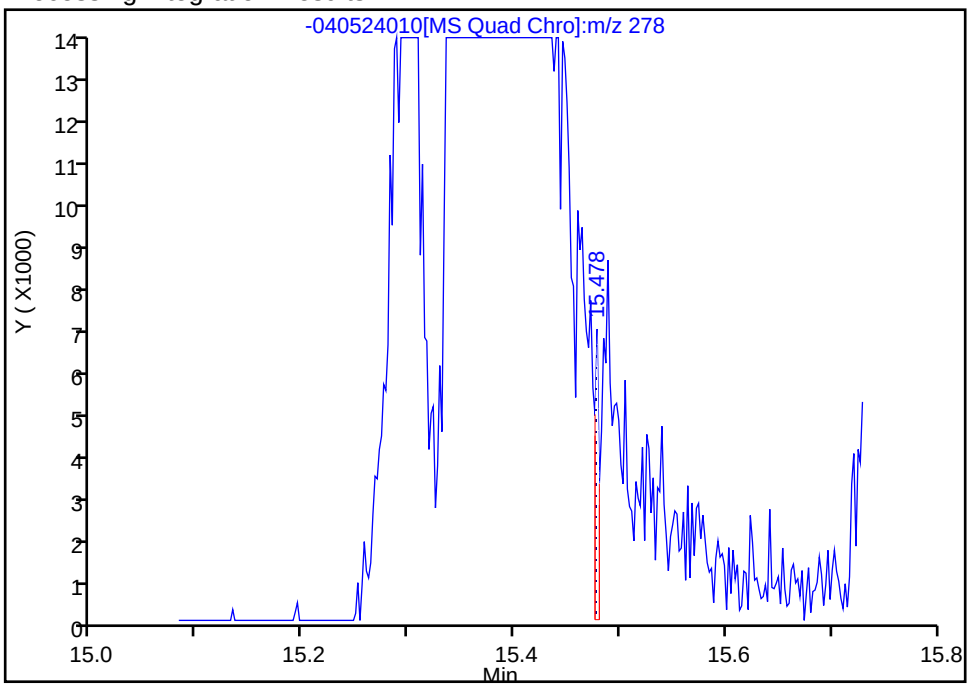
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524010.D				
Injection Date:	05-Apr-2024 13:08:17	Instrument ID:	SMS_3		
Lims ID:	STD125				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

153 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

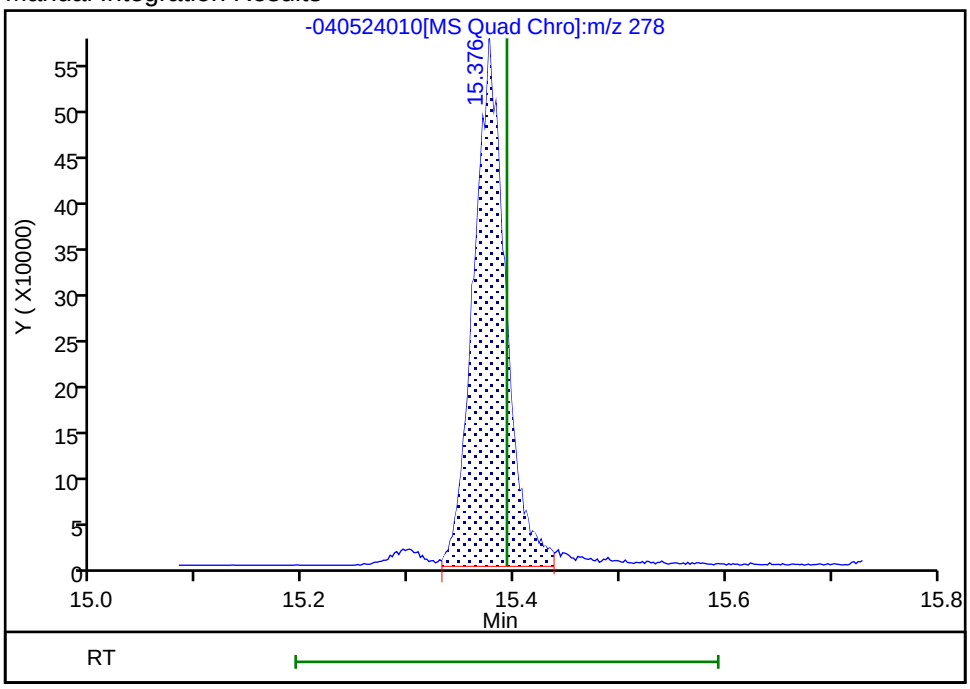
Processing Integration Results

RT: 15.48
Area: 1823
Amount: 0.031881
Amount Units: ug/ml



Manual Integration Results

RT: 15.38
Area: 1197693
Amount: 12.985821
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:03:23 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524011.D
Lims ID: STD050
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 05-Apr-2024 13:30:47 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: std 5
Operator ID: DM Instrument ID: SMS_3
Sublist: chrom-SMS_3 8270 RVE*sub1

Method: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 08-Apr-2024 10:13:39 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1660

First Level Reviewer: G3YK Date: 05-Apr-2024 16:05:32

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
*	1 1,4-Dichlorobenzene-d4	115	4.022	4.024	-0.002	97	248576	8.00	8.00	
*	2 Naphthalene-d8	136	5.193	5.196	-0.003	99	1403148	8.00	8.00	
*	3 Acenaphthene-d10	164	6.886	6.892	-0.006	92	844204	8.00	8.00	
*	4 Phenanthrene-d10	188	8.337	8.344	-0.007	97	1460002	8.00	8.00	
*	5 Chrysene-d12	240	11.114	11.130	-0.016	99	1106851	8.00	8.00	
*	6 Perylene-d12	264	13.378	13.390	-0.012	97	1102502	8.00	8.00	
$	7 2-Fluorophenol	112	2.913	2.915	-0.002	95	253391	5.00	4.86	
$	8 Phenol-d5	99	3.715	3.720	-0.005	0	340661	5.00	4.91	
$	9 Nitrobenzene-d5	82	4.524	4.528	-0.004	93	318818	5.00	4.99	
$	10 2-Fluorobiphenyl	172	6.247	6.253	-0.006	100	478068	5.00	4.76	
$	11 2,4,6-Tribromophenol	330	7.655	7.666	-0.011	89	69844	5.00	4.70	
$	12 Terphenyl-d14	244	9.934	9.942	-0.008	97	500990	5.00	4.70	
	13 N-Nitrosodimethylamine	74	1.854	1.854	0.000	94	184874	5.00	4.75	
	14 Pyridine	79	1.884	1.880	0.004	91	433799	10.0	9.51	
	22 Phenol	94	3.728	3.732	-0.004	98	407847	5.00	5.06	
	23 Aniline	93	3.732	3.736	-0.004	96	404419	5.00	4.97	
	25 Bis(2-chloroethyl)ether	93	3.801	3.805	-0.004	92	313824	5.00	5.09	
	26 2-Chlorophenol	128	3.834	3.836	-0.002	94	257216	5.00	4.98	
	27 n-Decane	43	3.895	3.897	-0.002	93	360359	5.00	5.08	
	28 1,3-Dichlorobenzene	146	3.967	3.971	-0.004	94	269289	5.00	4.90	
	29 1,4-Dichlorobenzene	146	4.036	4.038	-0.002	91	285491	5.00	4.98	
	30 Benzyl alcohol	79	4.154	4.161	-0.007	88	258109	5.00	5.05	
	31 1,2-Dichlorobenzene	146	4.167	4.171	-0.004	94	268526	5.00	5.05	
	32 Indene	116	4.250	4.252	-0.002	91	950436	10.0	10.3	
	33 2-Methylphenol	108	4.267	4.271	-0.004	97	241865	5.00	4.94	
	34 2,2'-oxybis[1-chloropropane]	45	4.279	4.283	-0.004	93	553447	5.00	5.27	
	36 Acetophenone	105	4.391	4.395	-0.004	91	389794	5.00	5.06	
	37 N-Nitrosodi-n-propylamine	70	4.399	4.408	-0.009	93	237391	5.00	5.23	
	39 3 & 4 Methylphenol	108	4.412	4.416	-0.004	0	260842	5.00	5.09	
	38 3-Methylphenol	108	4.412	4.416	-0.004	91	260842	5.00	5.09	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
41 4-Methylphenol	108	4.412	4.416	-0.004	90	260842	5.00	5.09	
43 Hexachloroethane	117	4.473	4.475	-0.002	95	132997	5.00	4.93	
44 Nitrobenzene	77	4.542	4.548	-0.006	92	340895	5.00	5.07	
46 Isophorone	82	4.771	4.777	-0.006	99	606957	5.00	5.03	
47 2-Nitrophenol	139	4.838	4.842	-0.004	93	130505	5.00	4.92	
48 2,4-Dimethylphenol	107	4.902	4.908	-0.006	97	226209	5.00	4.99	
51 Bis(2-chloroethoxy)methane	93	4.991	4.998	-0.007	95	382391	5.00	5.12	
49 Benzoic acid	105	4.995	5.059	-0.064	92	381304	10.0	9.29	a
52 2,4-Dichlorophenol	162	5.071	5.075	-0.004	96	202929	5.00	4.96	
53 1,2,4-Trichlorobenzene	180	5.142	5.147	-0.005	93	229792	5.00	5.02	
54 Naphthalene	128	5.212	5.216	-0.004	98	711845	5.00	5.13	
55 4-Chloroaniline	127	5.277	5.283	-0.006	93	300313	5.00	5.10	
56 2,6-Dichlorophenol	162	5.281	5.285	-0.004	93	208144	5.00	5.09	
57 Hexachlorobutadiene	225	5.340	5.345	-0.005	97	134986	5.00	4.87	
61 4-Chloro-3-methylphenol	107	5.763	5.767	-0.004	95	239268	5.00	5.11	
63 2-Methylnaphthalene	141	5.879	5.886	-0.007	94	376635	5.00	4.99	
64 1-Methylnaphthalene	142	5.971	5.977	-0.006	92	410794	5.00	5.01	
65 Hexachlorocyclopentadiene	237	6.035	6.039	-0.004	96	107344	5.00	4.47	
66 1,2,4,5-Tetrachlorobenzene	216	6.039	6.045	-0.006	98	232792	5.00	4.64	
68 2,4,6-Trichlorophenol	196	6.159	6.167	-0.008	96	153476	5.00	4.71	
69 2,4,5-Trichlorophenol	196	6.196	6.200	-0.004	93	165682	5.00	4.80	
71 1,1'-Biphenyl	154	6.339	6.345	-0.006	97	544972	5.00	4.84	
72 2-Chloronaphthalene	162	6.347	6.353	-0.006	97	445079	5.00	4.77	
74 2-Nitroaniline	138	6.457	6.467	-0.010	77	160010	5.00	4.76	
77 Dimethyl phthalate	163	6.659	6.668	-0.009	96	498194	5.00	4.74	
78 1,3-Dinitrobenzene	168	6.671	6.680	-0.009	80	80344	5.00	4.68	
79 2,6-Dinitrotoluene	165	6.708	6.716	-0.008	89	116613	5.00	4.80	
80 Acenaphthylene	152	6.745	6.751	-0.006	99	686608	5.00	4.89	
81 3-Nitroaniline	65	6.861	6.872	-0.011	89	244718	5.00	5.00	
82 Acenaphthene	153	6.916	6.925	-0.009	97	443469	5.00	4.91	
83 2,4-Dinitrophenol	184	6.963	6.974	-0.011	78	96225	10.0	8.63	
85 4-Nitrophenol	65	7.057	7.068	-0.011	95	263181	10.0	9.50	
86 Dibenzofuran	168	7.088	7.096	-0.008	96	637337	5.00	4.93	
87 2,4-Dinitrotoluene	165	7.094	7.104	-0.010	84	162646	5.00	4.91	
89 2,3,4,6-Tetrachlorophenol	232	7.215	7.223	-0.009	77	124451	5.00	4.71	
91 Diethyl phthalate	149	7.355	7.370	-0.015	96	520023	5.00	4.78	
92 Hexadecane	57	7.392	7.400	-0.008	91	476561	5.00	4.97	
93 Fluorene	166	7.423	7.431	-0.008	96	492187	5.00	4.88	
95 4-Chlorophenyl phenyl ether	204	7.443	7.451	-0.008	94	233616	5.00	4.82	
97 4-Nitroaniline	138	7.453	7.472	-0.019	81	135632	5.00	4.94	
98 4,6-Dinitro-2-methylphenol	198	7.486	7.498	-0.012	69	152590	10.0	9.19	
100 N-Nitrosodiphenylamine	168	7.560	7.570	-0.010	87	224863	5.00	4.91	
99 Diphenylamine	169	7.562	7.570	-0.008	93	343551	4.25	4.07	
102 1,2-Diphenylhydrazine	77	7.596	7.605	-0.009	41	749447	5.05	5.04	a
101 Azobenzene	77	7.596	7.605	-0.009	98	749446	5.00	4.99	
108 4-Bromophenyl phenyl ether	248	7.921	7.927	-0.006	78	135351	5.00	4.75	
110 Hexachlorobenzene	284	7.951	7.962	-0.011	93	164227	5.00	4.98	
113 Pentachlorophenol	266	8.158	8.166	-0.008	90	175269	10.0	9.25	
156 n-Octadecane	57	8.305	8.313	-0.008	92	498023	5.00	5.04	
117 Phenanthrene	178	8.360	8.368	-0.008	99	700596	5.00	4.88	
120 Anthracene	178	8.409	8.419	-0.010	98	719048	5.00	5.00	
121 Carbazole	167	8.582	8.591	-0.009	96	676867	5.00	4.91	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
122 Alachlor	45	8.742	8.750	-0.008	90	289347	5.00	5.04	
124 Di-n-butyl phthalate	149	8.974	8.983	-0.009	99	867584	5.00	4.82	
127 Fluoranthene	202	9.525	9.536	-0.011	99	739152	5.00	4.74	
129 Pyrene	202	9.744	9.754	-0.010	97	796269	5.00	4.87	
136 Butyl benzyl phthalate	149	10.493	10.503	-0.010	96	361858	5.00	4.70	
138 Benzo[a]anthracene	228	11.104	11.118	-0.014	99	664417	5.00	4.75	
141 Chrysene	228	11.148	11.165	-0.017	97	657386	5.00	4.87	
142 Bis(2-ethylhexyl) phthalate	149	11.283	11.293	-0.010	97	483204	5.00	4.73	
144 Di-n-octyl phthalate	149	12.318	12.335	-0.017	99	763329	5.00	4.48	
145 Benzo[b]fluoranthene	252	12.731	12.753	-0.022	98	565877	5.00	4.63	
147 Benzo[k]fluoranthene	252	12.780	12.802	-0.022	99	628027	5.00	4.92	
148 Benzo[a]pyrene	252	13.278	13.298	-0.020	78	545458	5.00	4.82	a
152 Indeno[1,2,3-cd]pyrene	276	15.291	15.315	-0.024	97	493576	5.00	4.55	Ma
153 Dibenz(a,h)anthracene	278	15.364	15.393	-0.029	94	461287	5.00	4.63	a
154 Benzo[g,h,i]perylene	276	15.744	15.770	-0.026	96	502644	5.00	4.79	
209 1,4-Dioxane	88		0.000				ND	ND	
S 168 Methyl Phenols,Total	108				0			10.0	
S 170 TPAH	1				0			77.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-RVHSL-WS_00006	Amount Added:	50.00	Units: uL	
MS-IS-RVE_00005	Amount Added:	30.00	Units: uL	Run Reagent

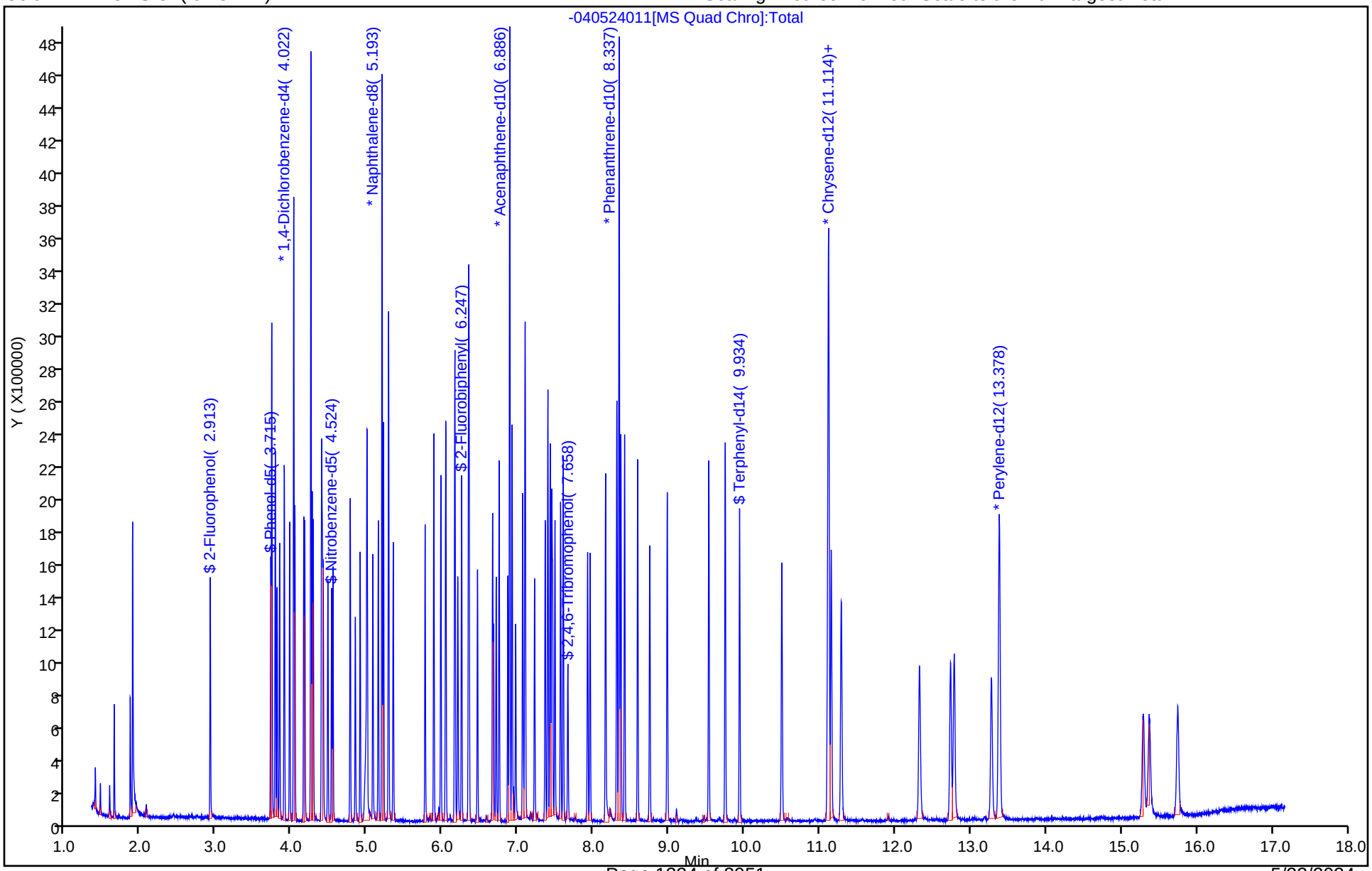
Report Date: 08-Apr-2024 10:13:40 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524011.D

Injection Date:	05-Apr-2024 13:30:47	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	STD050			Worklist Smp#:	7
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

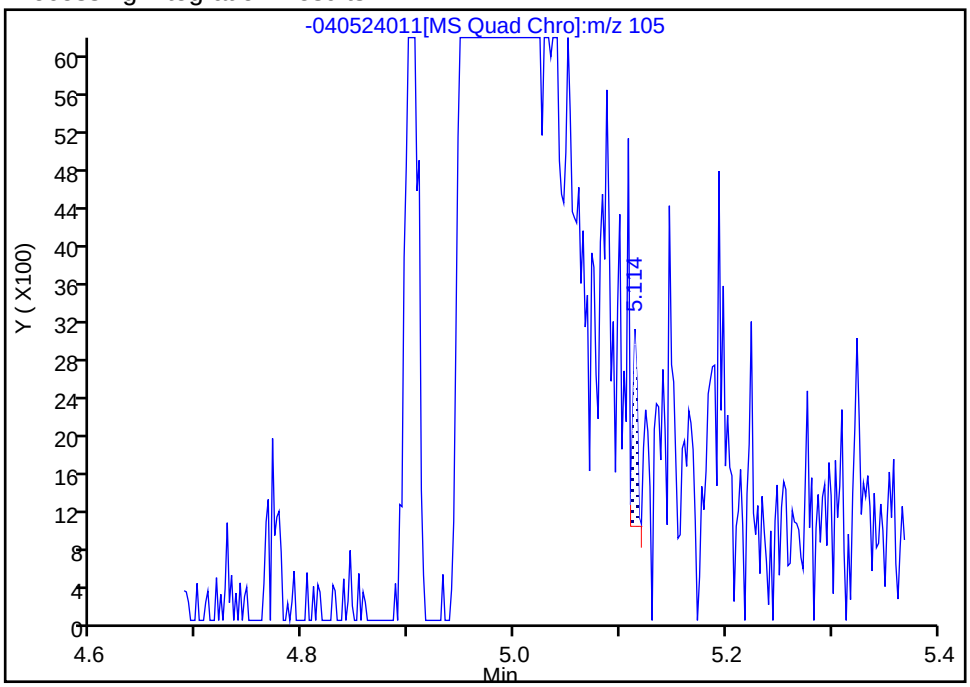
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524011.D				
Injection Date:	05-Apr-2024 13:30:47	Instrument ID:	SMS_3		
Lims ID:	STD050				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

49 Benzoic acid, CAS: 65-85-0

Signal: 1

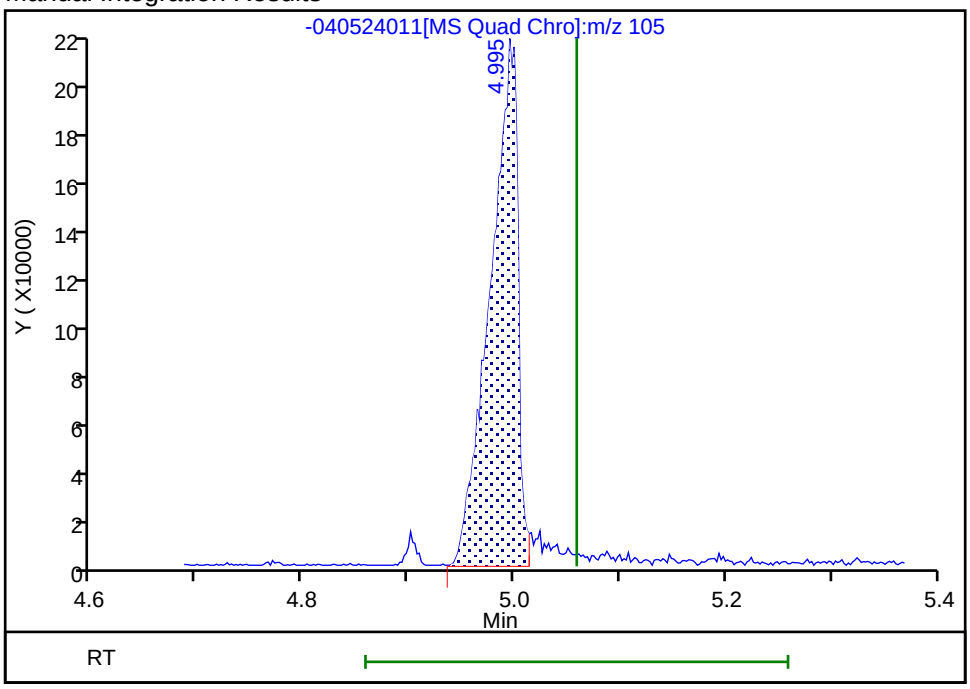
Processing Integration Results

RT: 5.11
Area: 617
Amount: 5.400536
Amount Units: ug/ml



Manual Integration Results

RT: 5.00
Area: 381304
Amount: 9.288748
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:04:10 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

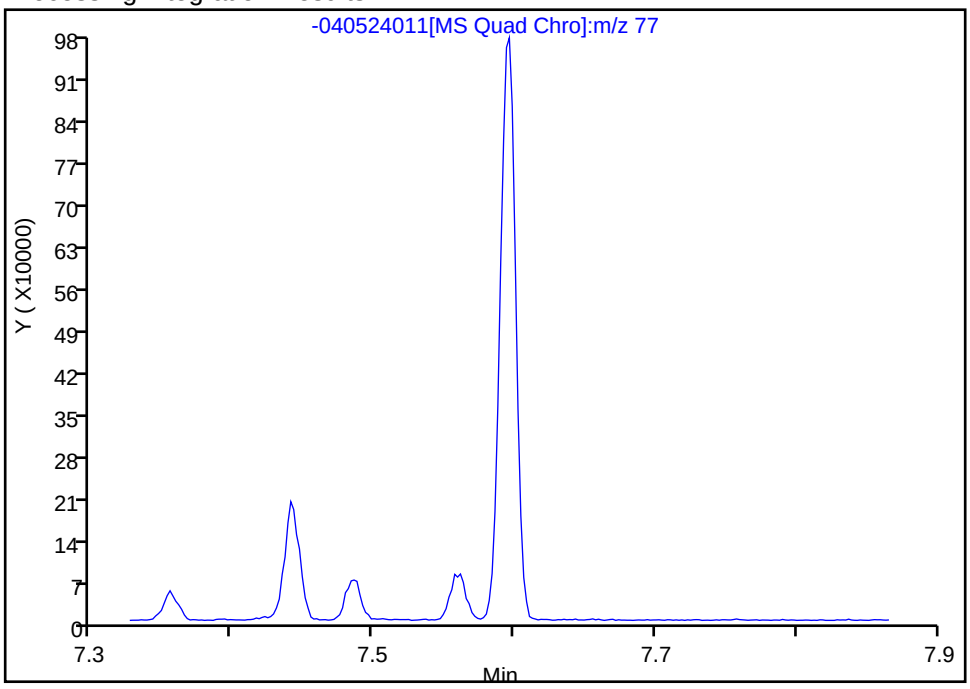
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524011.D				
Injection Date:	05-Apr-2024 13:30:47	Instrument ID:	SMS_3		
Lims ID:	STD050				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

102 1,2-Diphenylhydrazine, CAS: 122-66-7

Signal: 1

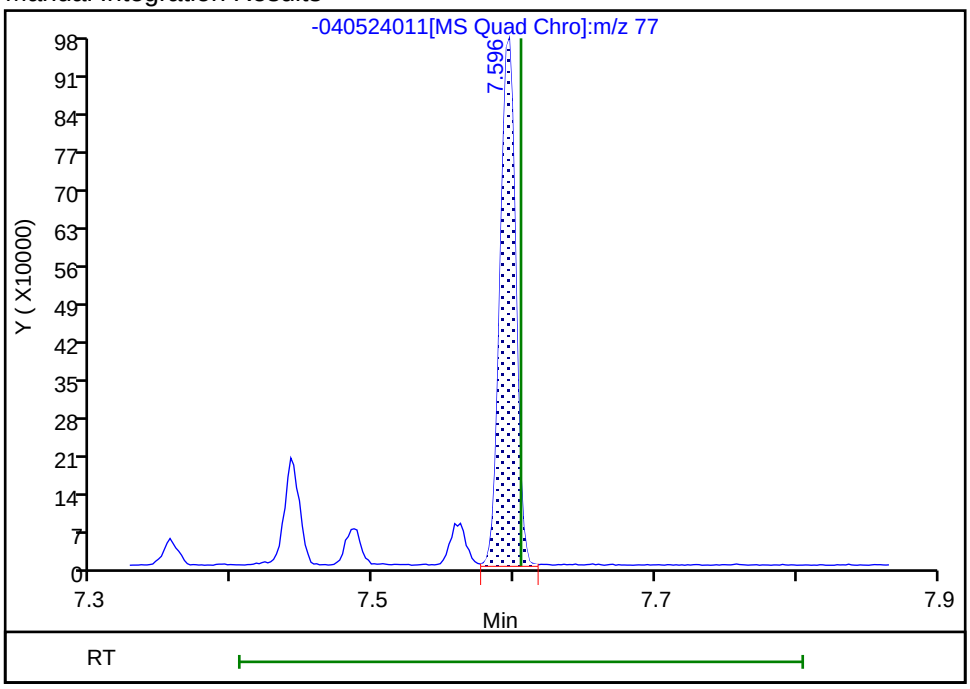
Not Detected
Expected RT: 7.60

Processing Integration Results



Manual Integration Results

RT: 7.60
Area: 749447
Amount: 5.041622
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:04:39 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

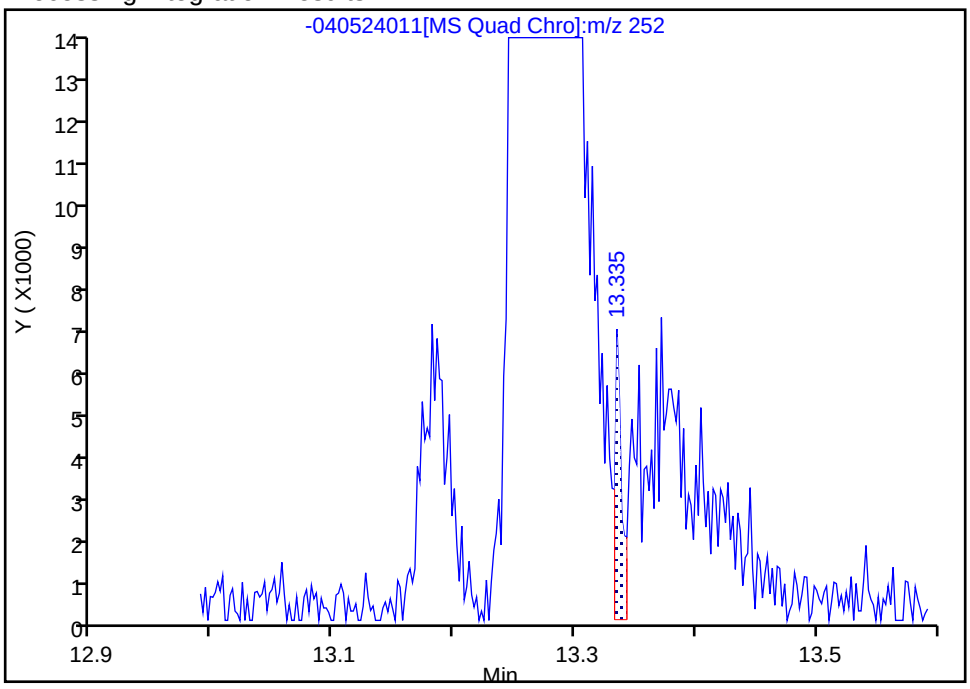
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524011.D				
Injection Date:	05-Apr-2024 13:30:47	Instrument ID:	SMS_3		
Lims ID:	STD050				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

148 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

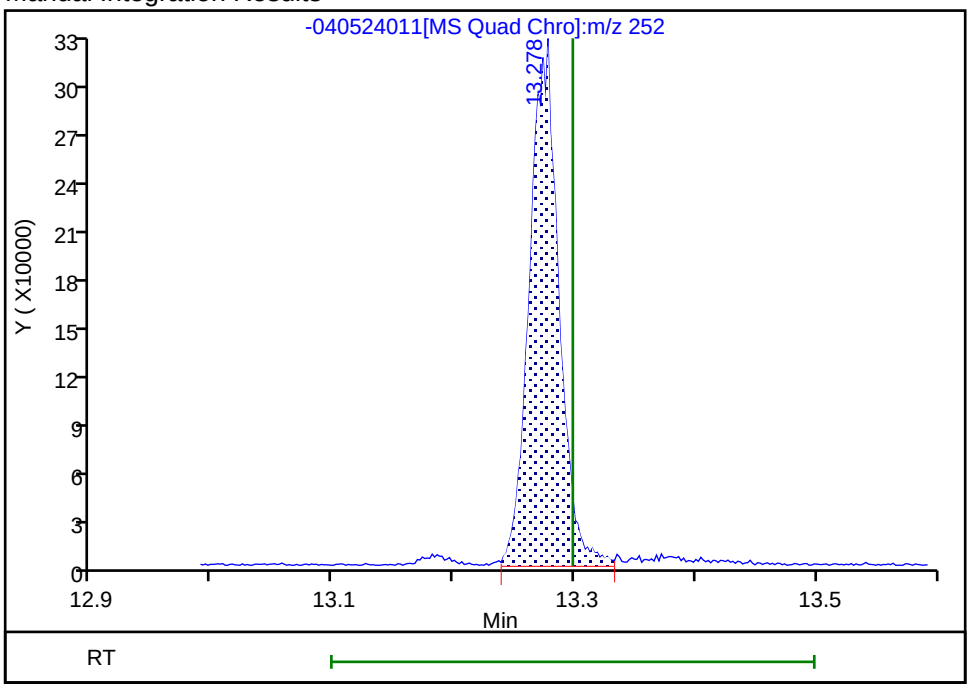
Processing Integration Results

RT: 13.33
Area: 2588
Amount: 0.025857
Amount Units: ug/ml



Manual Integration Results

RT: 13.28
Area: 545458
Amount: 4.819285
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:05:04 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

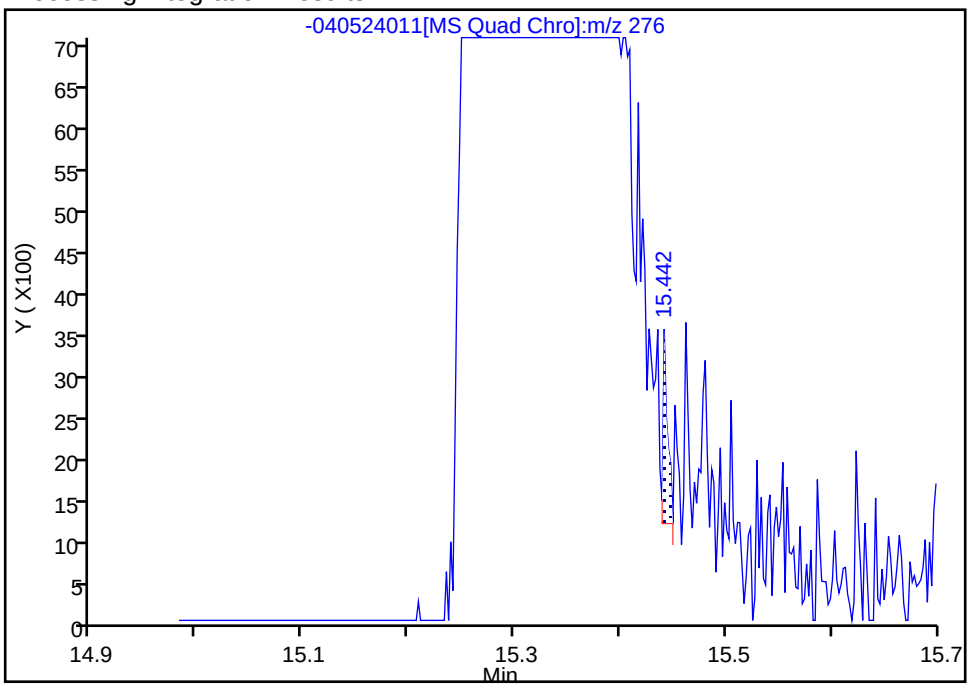
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524011.D				
Injection Date:	05-Apr-2024 13:30:47	Instrument ID:	SMS_3		
Lims ID:	STD050				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

152 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

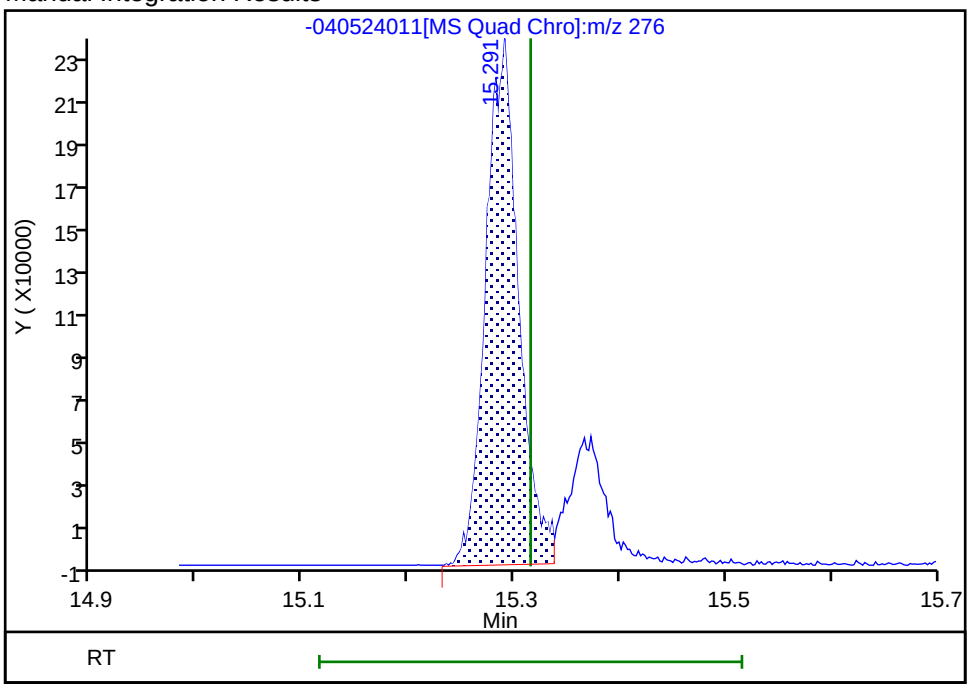
Processing Integration Results

RT: 15.44
Area: 681
Amount: 0.007075
Amount Units: ug/ml



Manual Integration Results

RT: 15.29
Area: 493576
Amount: 4.554386
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:05:18 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

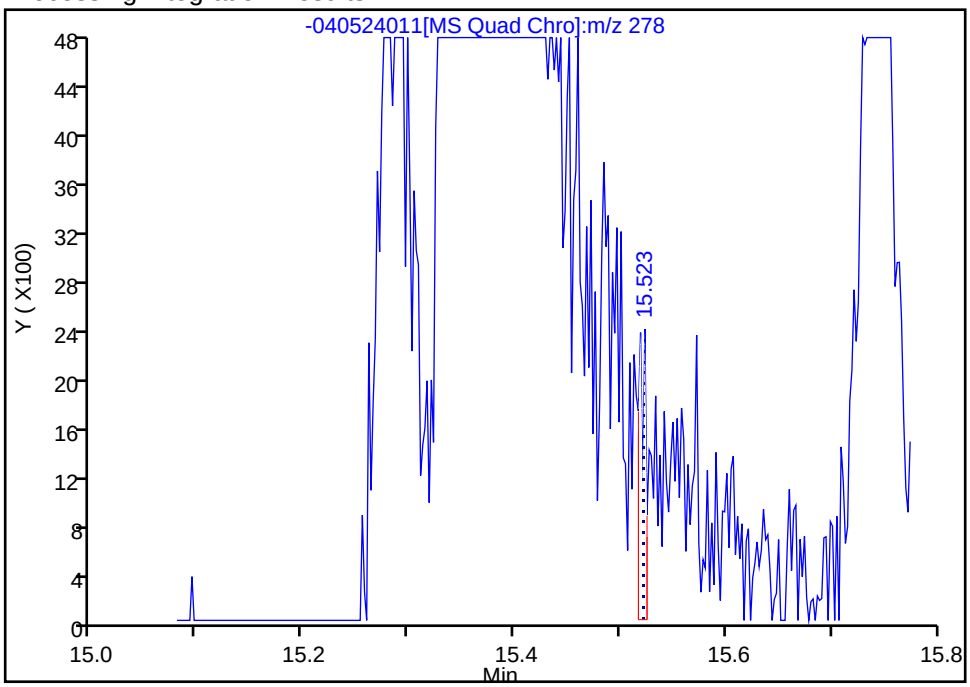
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524011.D				
Injection Date:	05-Apr-2024 13:30:47	Instrument ID:	SMS_3		
Lims ID:	STD050				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

153 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

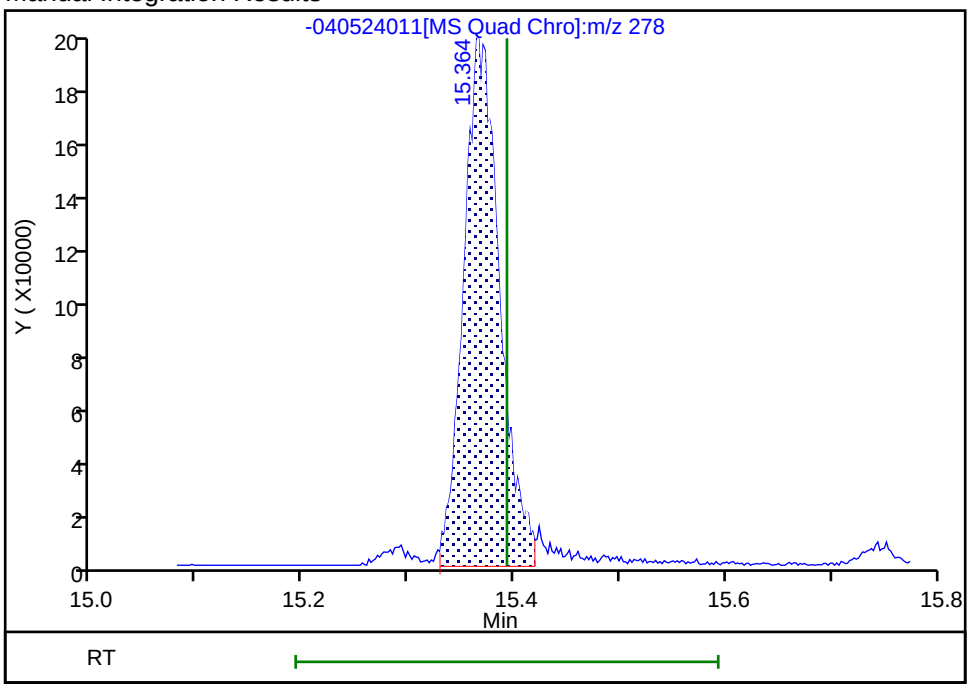
Processing Integration Results

RT: 15.52
Area: 1026
Amount: 0.013408
Amount Units: ug/ml



Manual Integration Results

RT: 15.36
Area: 461287
Amount: 4.630559
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:05:23 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524012.D
Lims ID: STD025
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 05-Apr-2024 13:53:18 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: std 2.5
Operator ID: DM Instrument ID: SMS_3
Sublist: chrom-SMS_3 8270 RVE*sub1

Method: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 08-Apr-2024 10:13:42 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1660

First Level Reviewer: G3YK Date: 05-Apr-2024 16:10:14

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
*	1 1,4-Dichlorobenzene-d4	115	4.020	4.024	-0.004	96	267525	8.00	8.00	
*	2 Naphthalene-d8	136	5.191	5.196	-0.005	99	1510535	8.00	8.00	
*	3 Acenaphthene-d10	164	6.886	6.892	-0.006	94	859050	8.00	8.00	
*	4 Phenanthrene-d10	188	8.337	8.344	-0.007	97	1548751	8.00	8.00	
*	5 Chrysene-d12	240	11.116	11.130	-0.014	99	1149080	8.00	8.00	
*	6 Perylene-d12	264	13.380	13.390	-0.010	98	1129946	8.00	8.00	
$	7 2-Fluorophenol	112	2.913	2.915	-0.002	95	130883	2.50	2.33	
$	8 Phenol-d5	99	3.715	3.720	-0.005	0	173063	2.50	2.32	
$	9 Nitrobenzene-d5	82	4.522	4.528	-0.006	93	162548	2.50	2.36	
$	10 2-Fluorobiphenyl	172	6.247	6.253	-0.006	99	242059	2.50	2.37	
$	11 2,4,6-Tribromophenol	330	7.657	7.666	-0.009	86	32563	2.50	2.07	
$	12 Terphenyl-d14	244	9.934	9.942	-0.008	97	257697	2.50	2.33	
	13 N-Nitrosodimethylamine	74	1.854	1.854	0.000	94	91659	2.50	2.19	
	14 Pyridine	79	1.886	1.880	0.006	89	199206	5.00	4.42	
	22 Phenol	94	3.728	3.732	-0.004	98	205556	2.50	2.37	
	23 Aniline	93	3.732	3.736	-0.004	97	209002	2.50	2.39	
	25 Bis(2-chloroethyl)ether	93	3.799	3.805	-0.006	92	157509	2.50	2.37	
	26 2-Chlorophenol	128	3.832	3.836	-0.004	93	131559	2.50	2.37	
	27 n-Decane	43	3.895	3.897	-0.002	94	194525	2.50	2.55	
	28 1,3-Dichlorobenzene	146	3.967	3.971	-0.005	93	141408	2.50	2.39	
	29 1,4-Dichlorobenzene	146	4.036	4.038	-0.002	94	151169	2.50	2.45	
	30 Benzyl alcohol	79	4.152	4.161	-0.009	90	128037	2.50	2.33	
	31 1,2-Dichlorobenzene	146	4.167	4.171	-0.004	92	138099	2.50	2.41	
	32 Indene	116	4.248	4.252	-0.004	91	496055	5.00	5.00	
	33 2-Methylphenol	108	4.265	4.271	-0.006	96	128930	2.50	2.44	
	34 2,2'-oxybis[1-chloropropane]	45	4.279	4.283	-0.004	93	289409	2.50	2.56	a
	36 Acetophenone	105	4.389	4.395	-0.006	90	199135	2.50	2.40	
	37 N-Nitrosodi-n-propylamine	70	4.399	4.408	-0.009	90	118270	2.50	2.42	
	38 3-Methylphenol	108	4.412	4.416	-0.004	89	128421	2.50	2.33	a
	41 4-Methylphenol	108	4.412	4.416	-0.004	94	128421	2.50	2.33	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
39 3 & 4 Methylphenol	108	4.412	4.416	-0.004	0	128421	2.50	2.33	
43 Hexachloroethane	117	4.473	4.475	-0.002	95	68326	2.50	2.35	
44 Nitrobenzene	77	4.540	4.548	-0.008	91	178617	2.50	2.47	
46 Isophorone	82	4.769	4.777	-0.008	99	310121	2.50	2.39	
47 2-Nitrophenol	139	4.838	4.842	-0.004	92	64936	2.50	2.27	
48 2,4-Dimethylphenol	107	4.902	4.908	-0.006	97	112959	2.50	2.32	
51 Bis(2-chloroethoxy)methane	93	4.991	4.998	-0.007	95	192468	2.50	2.39	
49 Benzoic acid	105	4.981	5.059	-0.078	92	156282	5.00	4.32	a
52 2,4-Dichlorophenol	162	5.069	5.075	-0.006	98	103235	2.50	2.34	
53 1,2,4-Trichlorobenzene	180	5.140	5.147	-0.007	93	119298	2.50	2.42	
54 Naphthalene	128	5.212	5.216	-0.004	98	365149	2.50	2.44	
55 4-Chloroaniline	127	5.277	5.283	-0.006	92	152510	2.50	2.41	
56 2,6-Dichlorophenol	162	5.281	5.285	-0.004	92	104742	2.50	2.38	
57 Hexachlorobutadiene	225	5.340	5.345	-0.005	97	66094	2.50	2.22	
61 4-Chloro-3-methylphenol	107	5.763	5.767	-0.004	95	117025	2.50	2.32	
63 2-Methylnaphthalene	141	5.879	5.886	-0.007	92	195965	2.50	2.41	
64 1-Methylnaphthalene	142	5.971	5.977	-0.006	94	213573	2.50	2.42	
65 Hexachlorocyclopentadiene	237	6.032	6.039	-0.007	96	46944	2.50	2.27	
66 1,2,4,5-Tetrachlorobenzene	216	6.041	6.045	-0.004	99	122903	2.50	2.41	
68 2,4,6-Trichlorophenol	196	6.163	6.167	-0.004	95	75407	2.50	2.28	
69 2,4,5-Trichlorophenol	196	6.198	6.200	-0.002	91	81408	2.50	2.32	
71 1,1'-Biphenyl	154	6.339	6.345	-0.006	96	283936	2.50	2.48	
72 2-Chloronaphthalene	162	6.347	6.353	-0.006	97	230968	2.50	2.43	
74 2-Nitroaniline	138	6.459	6.467	-0.008	75	76396	2.50	2.23	
77 Dimethyl phthalate	163	6.657	6.668	-0.011	97	260307	2.50	2.44	
78 1,3-Dinitrobenzene	168	6.674	6.680	-0.006	82	39386	2.50	2.45	
79 2,6-Dinitrotoluene	165	6.706	6.716	-0.010	86	57936	2.50	2.34	
80 Acenaphthylene	152	6.745	6.751	-0.006	98	342038	2.50	2.39	
81 3-Nitroaniline	65	6.859	6.872	-0.013	89	114739	2.50	2.30	
82 Acenaphthene	153	6.916	6.925	-0.009	96	223725	2.50	2.43	
83 2,4-Dinitrophenol	184	6.963	6.974	-0.011	76	40900	5.00	4.63	
85 4-Nitrophenol	65	7.059	7.068	-0.009	93	121332	5.00	4.75	
86 Dibenzofuran	168	7.090	7.096	-0.006	95	317731	2.50	2.42	
87 2,4-Dinitrotoluene	165	7.094	7.104	-0.010	86	80020	2.50	2.37	
89 2,3,4,6-Tetrachlorophenol	232	7.215	7.223	-0.009	76	58569	2.50	2.18	
91 Diethyl phthalate	149	7.355	7.370	-0.015	96	262513	2.50	2.37	
92 Hexadecane	57	7.392	7.400	-0.008	92	237241	2.50	2.43	
93 Fluorene	166	7.423	7.431	-0.008	94	251198	2.50	2.45	
95 4-Chlorophenyl phenyl ether	204	7.443	7.451	-0.008	94	122359	2.50	2.48	
97 4-Nitroaniline	138	7.453	7.472	-0.019	81	69523	2.50	2.49	
98 4,6-Dinitro-2-methylphenol	198	7.482	7.498	-0.016	71	70240	5.00	4.56	
100 N-Nitrosodiphenylamine	168	7.562	7.570	-0.008	66	114816	2.50	2.47	
99 Diphenylamine	169	7.560	7.570	-0.010	93	181844	2.13	2.12	
102 1,2-Diphenylhydrazine	77	7.594	7.605	-0.011	41	372881	2.53	2.36	a
101 Azobenzene	77	7.594	7.605	-0.011	98	372881	2.50	2.34	
108 4-Bromophenyl phenyl ether	248	7.919	7.927	-0.008	78	70667	2.50	2.34	M
110 Hexachlorobenzene	284	7.951	7.962	-0.011	89	83932	2.50	2.40	M
113 Pentachlorophenol	266	8.158	8.166	-0.008	89	76978	5.00	4.39	
156 n-Octadecane	57	8.307	8.313	-0.006	92	236720	2.50	2.26	
117 Phenanthrene	178	8.358	8.368	-0.010	99	359774	2.50	2.36	
120 Anthracene	178	8.409	8.419	-0.010	99	357428	2.50	2.34	
121 Carbazole	167	8.582	8.591	-0.009	96	339123	2.50	2.32	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
122 Alachlor	45	8.744	8.750	-0.006	90	143029	2.50	2.35	
124 Di-n-butyl phthalate	149	8.974	8.983	-0.009	99	434619	2.50	2.28	
127 Fluoranthene	202	9.525	9.536	-0.011	98	371243	2.50	2.25	
129 Pyrene	202	9.746	9.754	-0.008	98	394939	2.50	2.33	
136 Butyl benzyl phthalate	149	10.495	10.503	-0.008	96	172596	2.50	2.16	
138 Benzo[a]anthracene	228	11.104	11.118	-0.014	97	331464	2.50	2.28	
141 Chrysene	228	11.150	11.165	-0.015	98	334664	2.50	2.39	
142 Bis(2-ethylhexyl) phthalate	149	11.283	11.293	-0.010	97	220737	2.50	2.08	
144 Di-n-octyl phthalate	149	12.320	12.335	-0.015	99	335560	2.50	2.21	
145 Benzo[b]fluoranthene	252	12.733	12.753	-0.020	98	280168	2.50	2.24	
147 Benzo[k]fluoranthene	252	12.780	12.802	-0.022	99	314529	2.50	2.40	
148 Benzo[a]pyrene	252	13.274	13.298	-0.024	82	241278	2.50	2.08	
152 Indeno[1,2,3-cd]pyrene	276	15.286	15.315	-0.029	97	232684	2.50	2.09	M
153 Dibenz(a,h)anthracene	278	15.364	15.393	-0.029	95	216904	2.50	2.12	a
154 Benzo[g,h,i]perylene	276	15.746	15.770	-0.024	96	242981	2.50	2.26	Ma
209 1,4-Dioxane	88		0.000				ND	ND	
S 168 Methyl Phenols,Total	108				0			4.78	
S 170 TPAH	1				0			36.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-RVHSL-WS_00006	Amount Added:	25.00	Units: uL	
MS-IS-RVE_00005	Amount Added:	30.00	Units: uL	Run Reagent

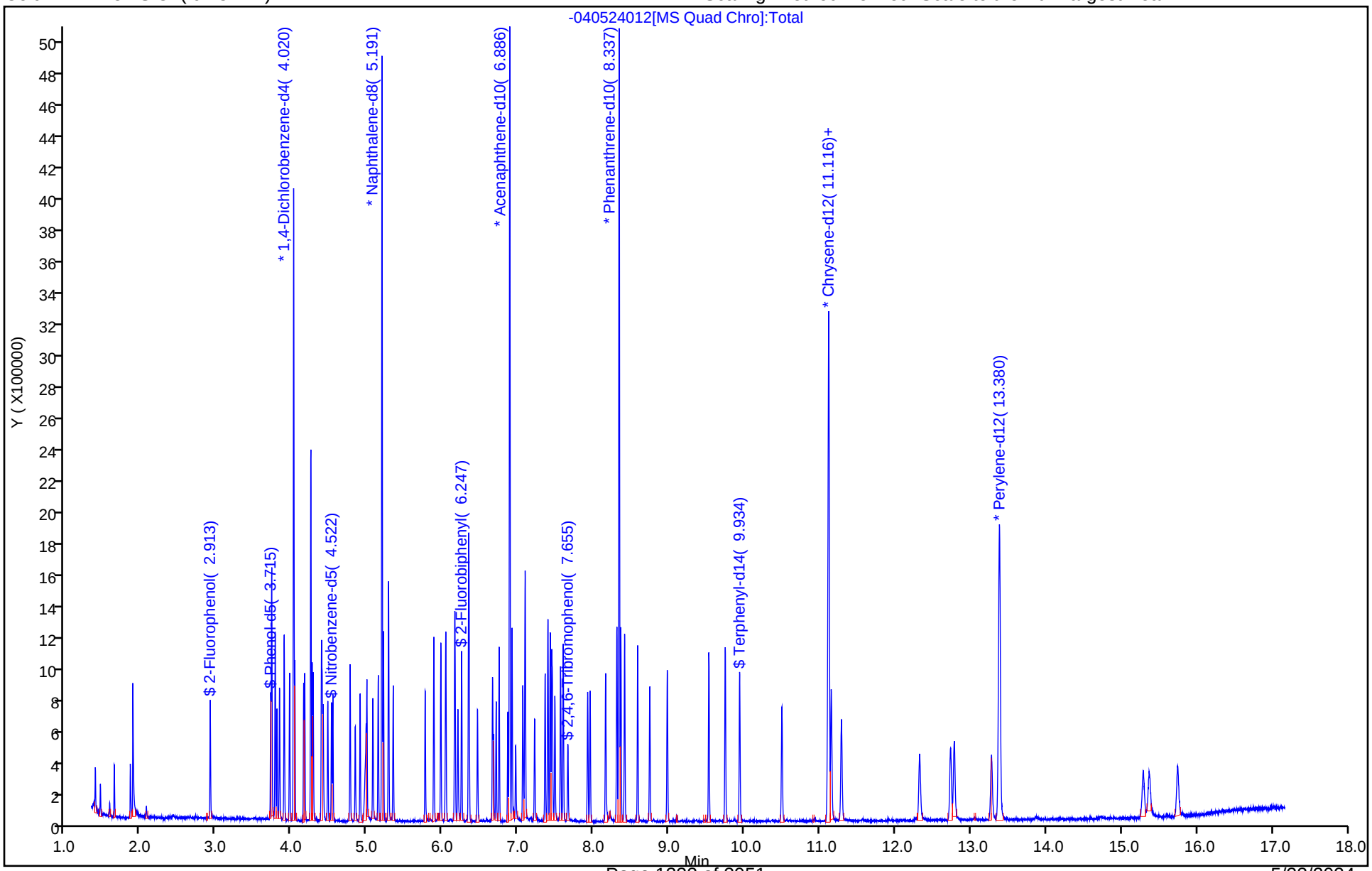
Report Date: 08-Apr-2024 10:13:43 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524012.D

Injection Date:	05-Apr-2024 13:53:18	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	STD025			Worklist Smp#:	8
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

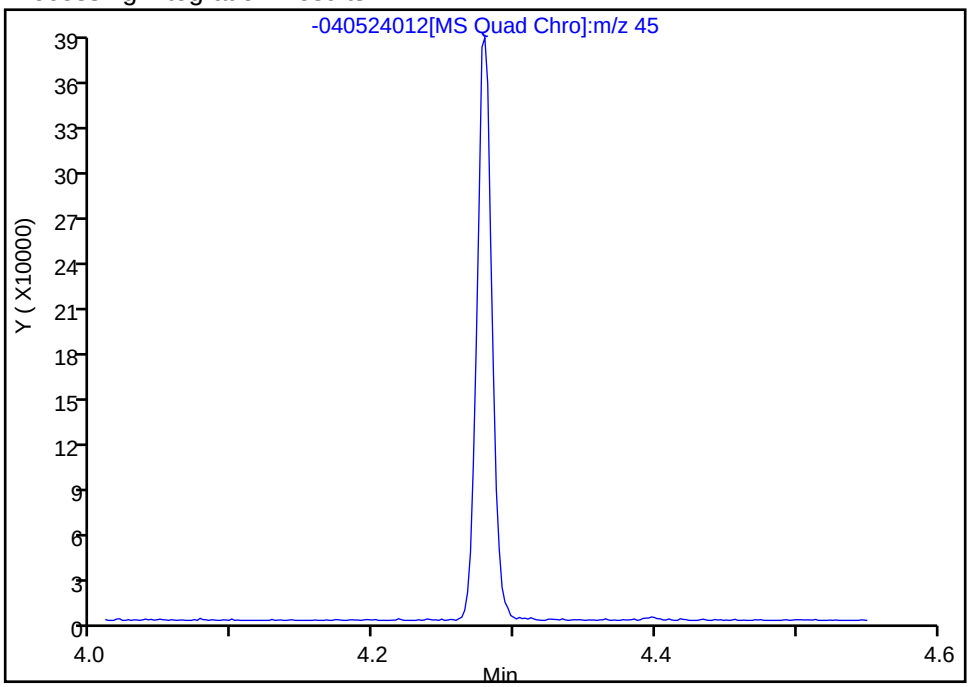
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524012.D				
Injection Date:	05-Apr-2024 13:53:18	Instrument ID:	SMS_3		
Lims ID:	STD025				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

34 2,2'-oxybis[1-chloropropane], CAS: 108-60-1

Signal: 1

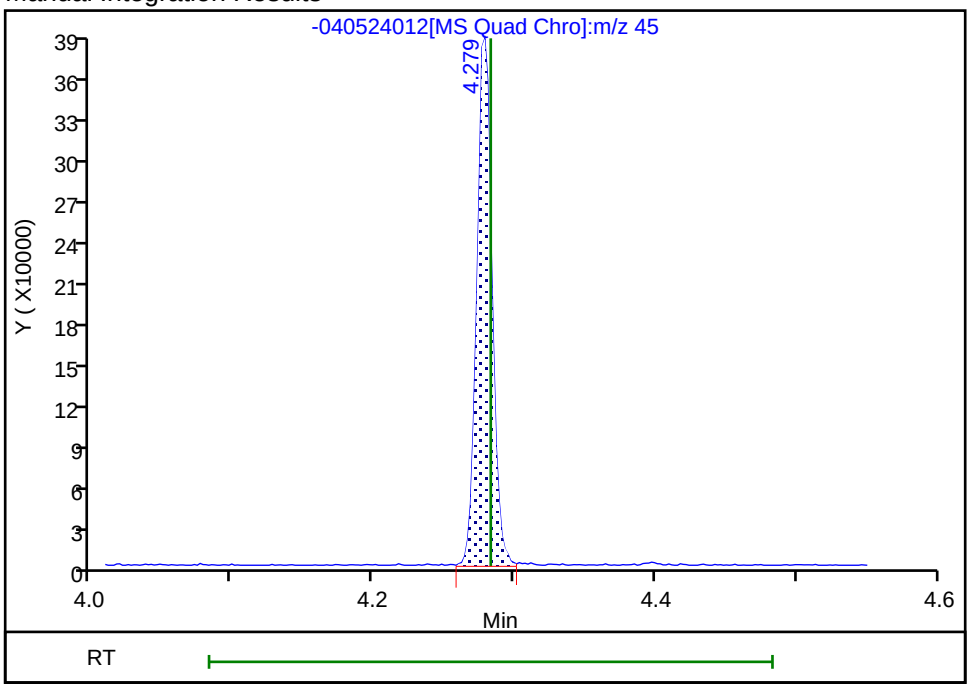
Not Detected
Expected RT: 4.28

Processing Integration Results



Manual Integration Results

RT: 4.28
Area: 289409
Amount: 2.561606
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:06:27 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

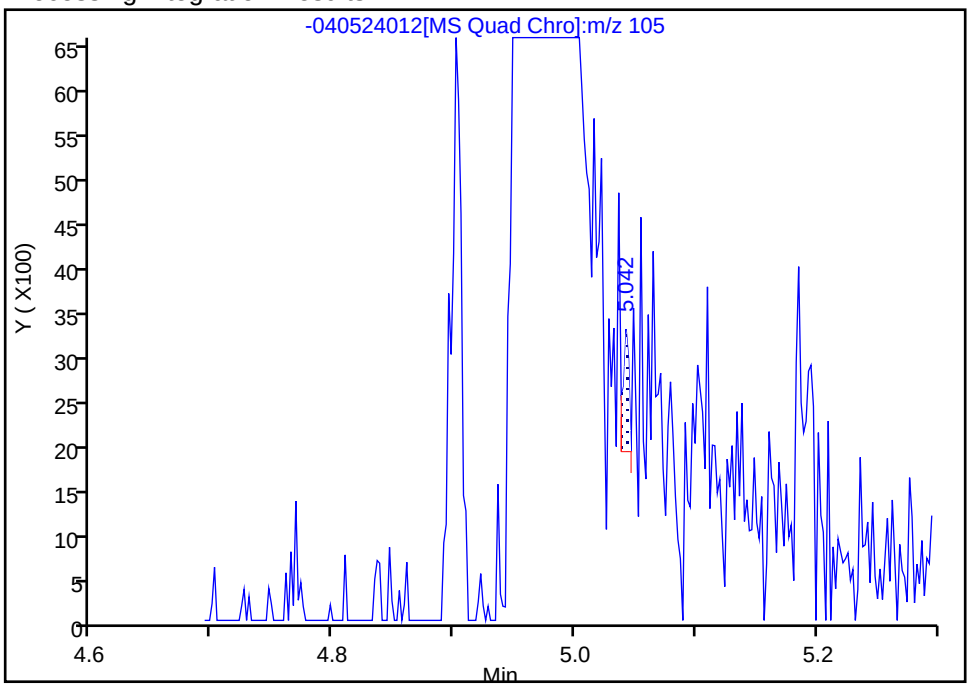
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524012.D				
Injection Date:	05-Apr-2024 13:53:18	Instrument ID:	SMS_3		
Lims ID:	STD025				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

49 Benzoic acid, CAS: 65-85-0

Signal: 1

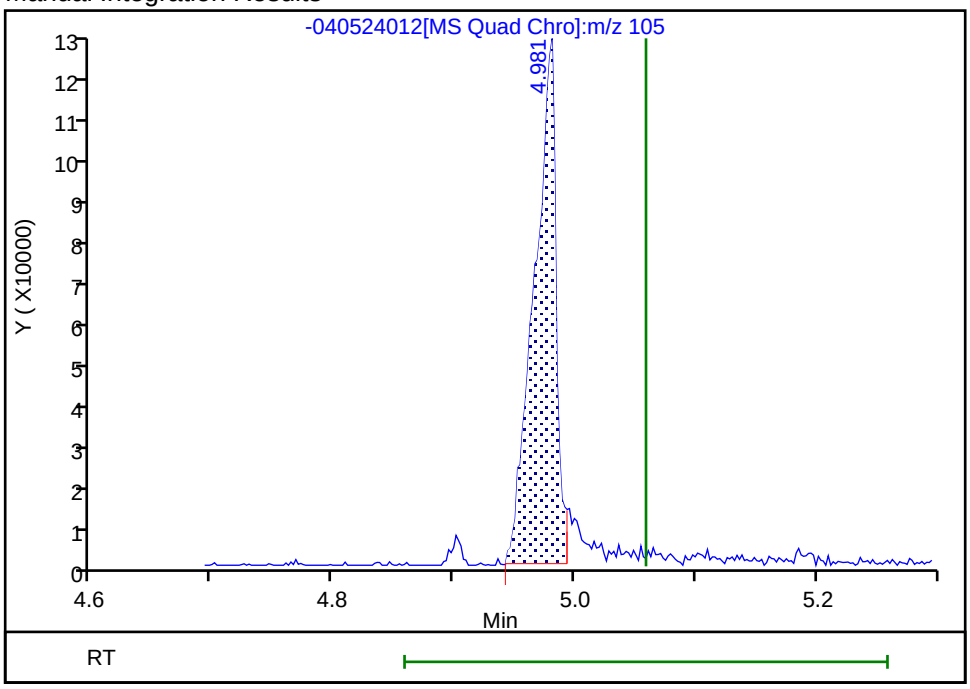
Processing Integration Results

RT: 5.04
Area: 460
Amount: 3.991274
Amount Units: ug/ml



Manual Integration Results

RT: 4.98
Area: 156282
Amount: 4.321900
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:06:46 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

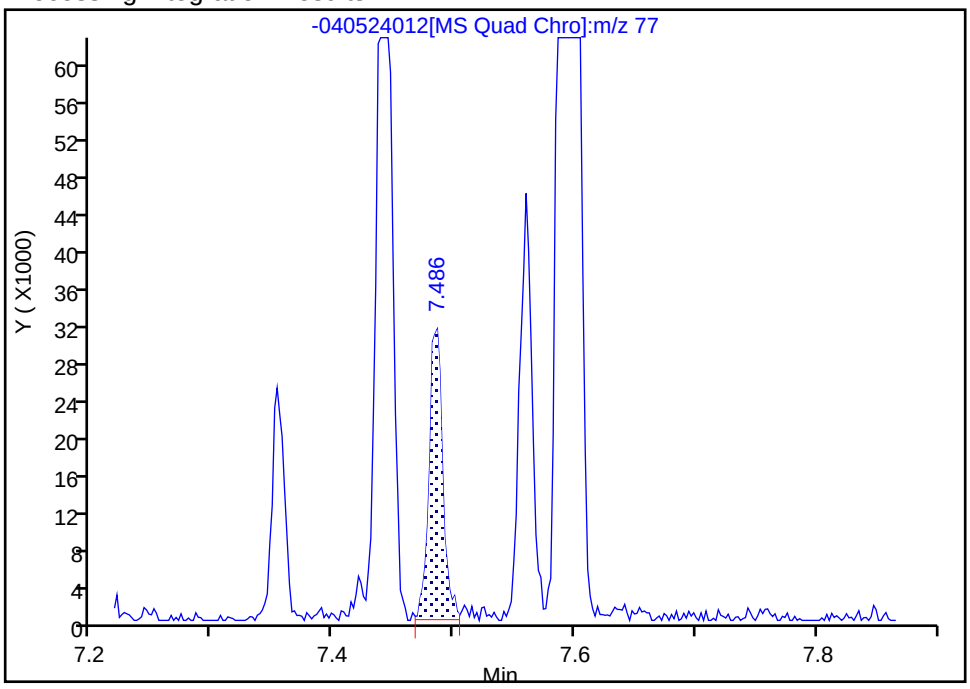
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524012.D				
Injection Date:	05-Apr-2024 13:53:18	Instrument ID:	SMS_3		
Lims ID:	STD025				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

102 1,2-Diphenylhydrazine, CAS: 122-66-7

Signal: 1

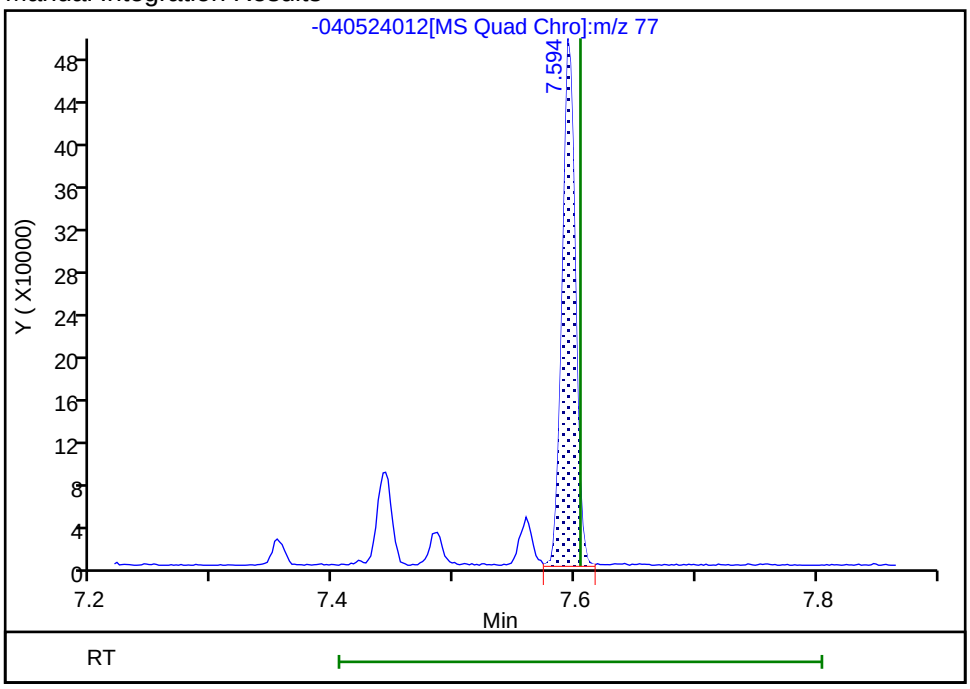
Processing Integration Results

RT: 7.49
Area: 24473
Amount: 0.175462
Amount Units: ug/ml



Manual Integration Results

RT: 7.59
Area: 372881
Amount: 2.364675
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:07:14 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

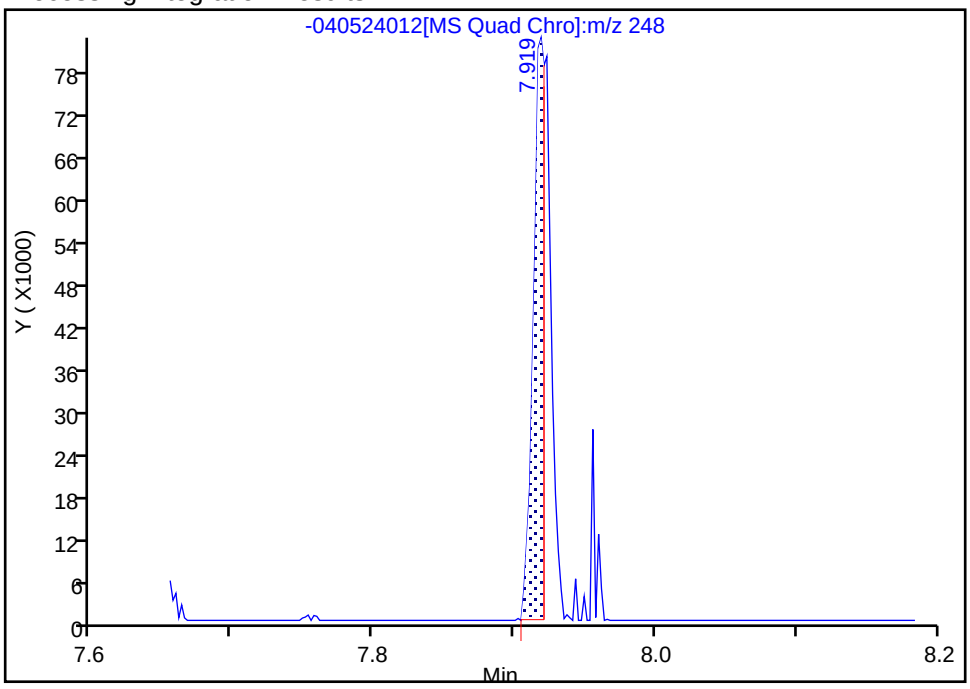
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524012.D				
Injection Date:	05-Apr-2024 13:53:18	Instrument ID:	SMS_3		
Lims ID:	STD025				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

108 4-Bromophenyl phenyl ether, CAS: 101-55-3

Signal: 1

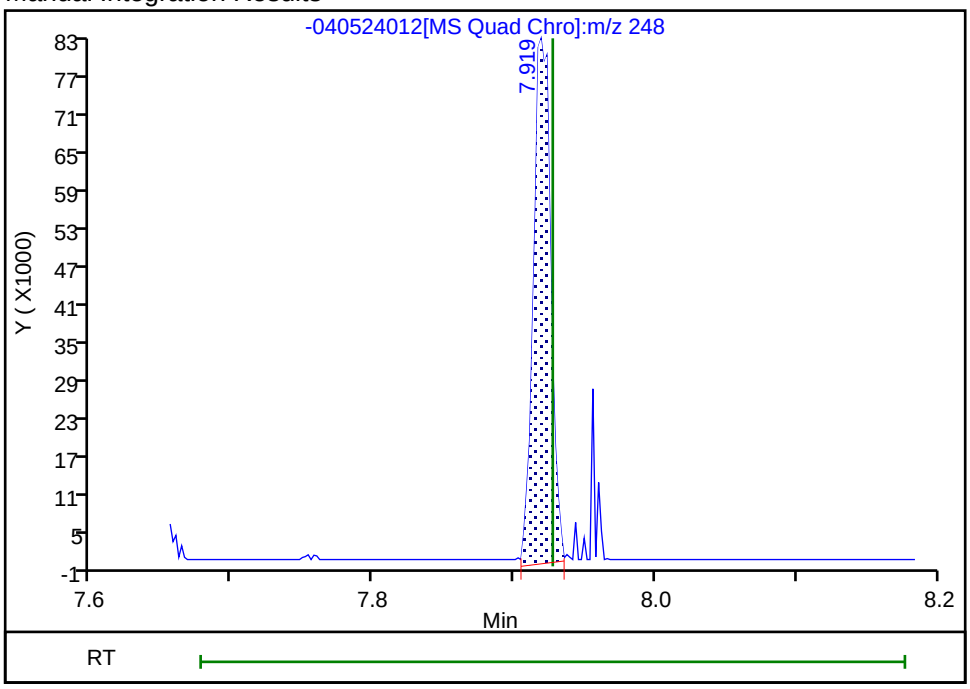
Processing Integration Results

RT: 7.92
Area: 45322
Amount: 1.552728
Amount Units: ug/ml



Manual Integration Results

RT: 7.92
Area: 70667
Amount: 2.335829
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:07:28 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

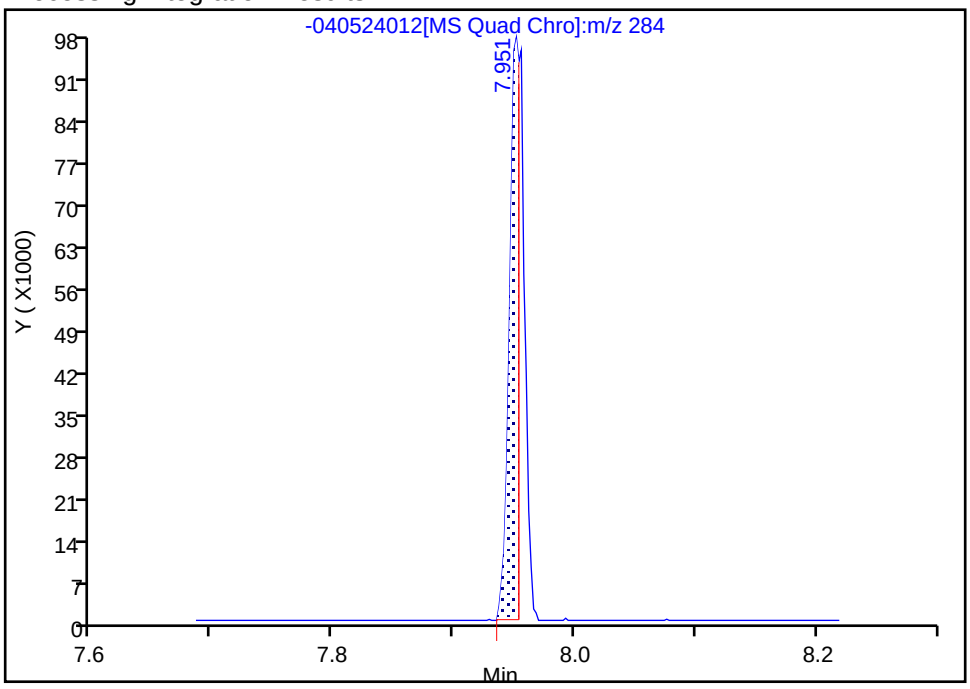
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524012.D				
Injection Date:	05-Apr-2024 13:53:18	Instrument ID:	SMS_3		
Lims ID:	STD025				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

110 Hexachlorobenzene, CAS: 118-74-1

Signal: 1

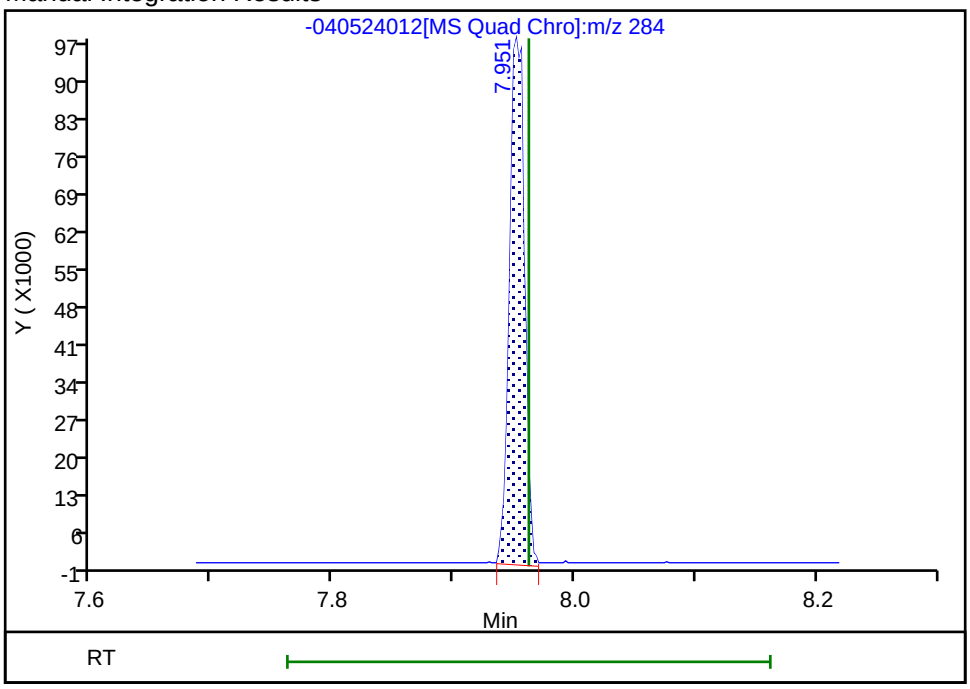
Processing Integration Results

RT: 7.95
Area: 55532
Amount: 2.383948
Amount Units: ug/ml



Manual Integration Results

RT: 7.95
Area: 83932
Amount: 2.399437
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:08:21 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

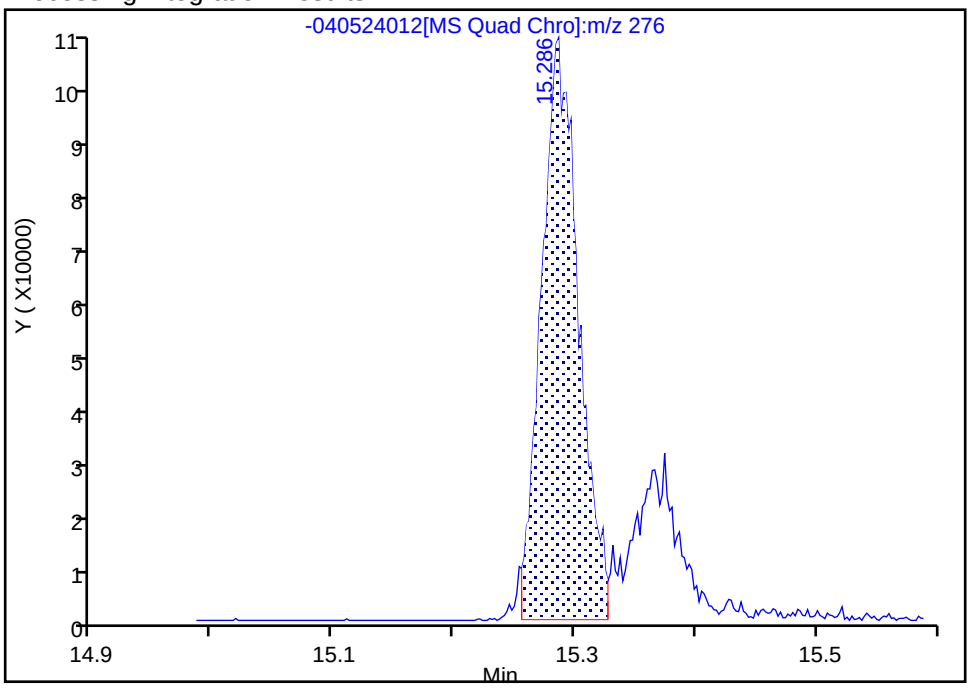
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524012.D				
Injection Date:	05-Apr-2024 13:53:18	Instrument ID:	SMS_3		
Lims ID:	STD025				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

152 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

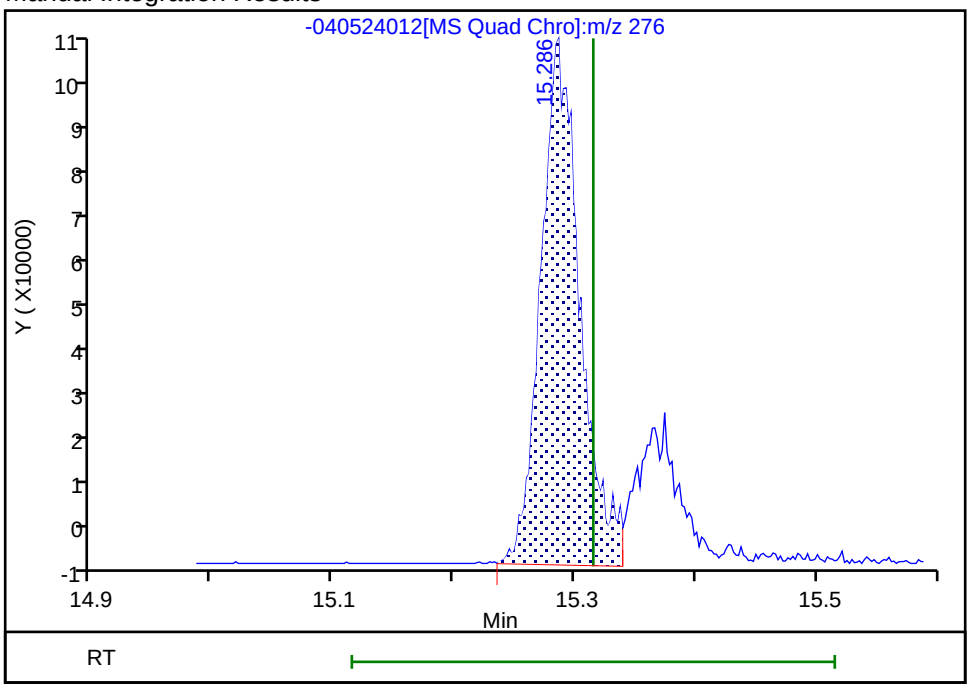
Processing Integration Results

RT: 15.29
Area: 221571
Amount: 1.959398
Amount Units: ug/ml



Manual Integration Results

RT: 15.29
Area: 232684
Amount: 2.094903
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:08:56 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

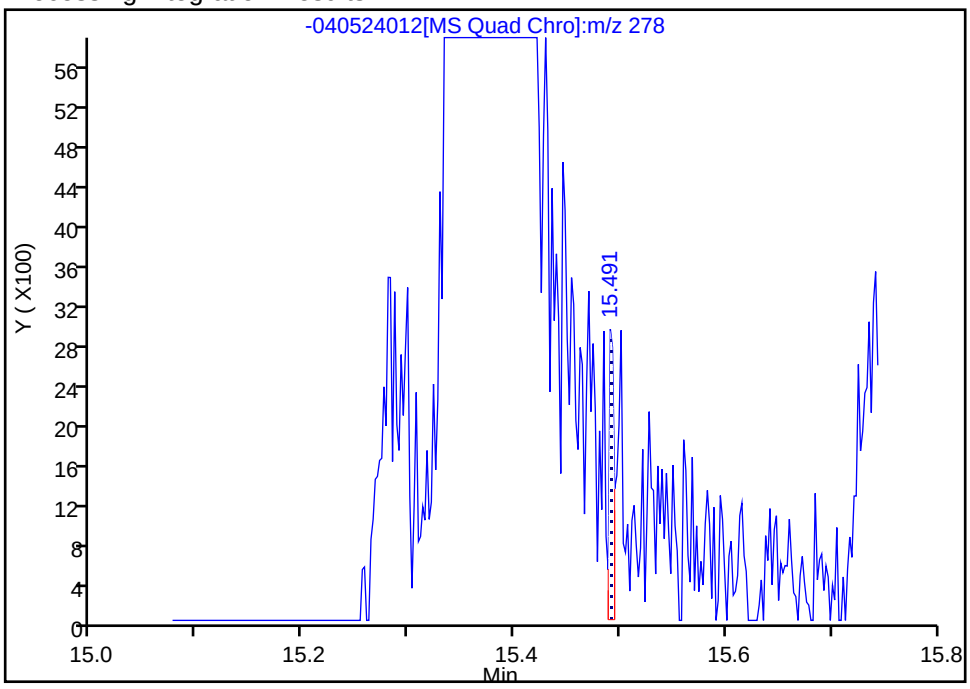
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524012.D				
Injection Date:	05-Apr-2024 13:53:18	Instrument ID:	SMS_3		
Lims ID:	STD025				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

153 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

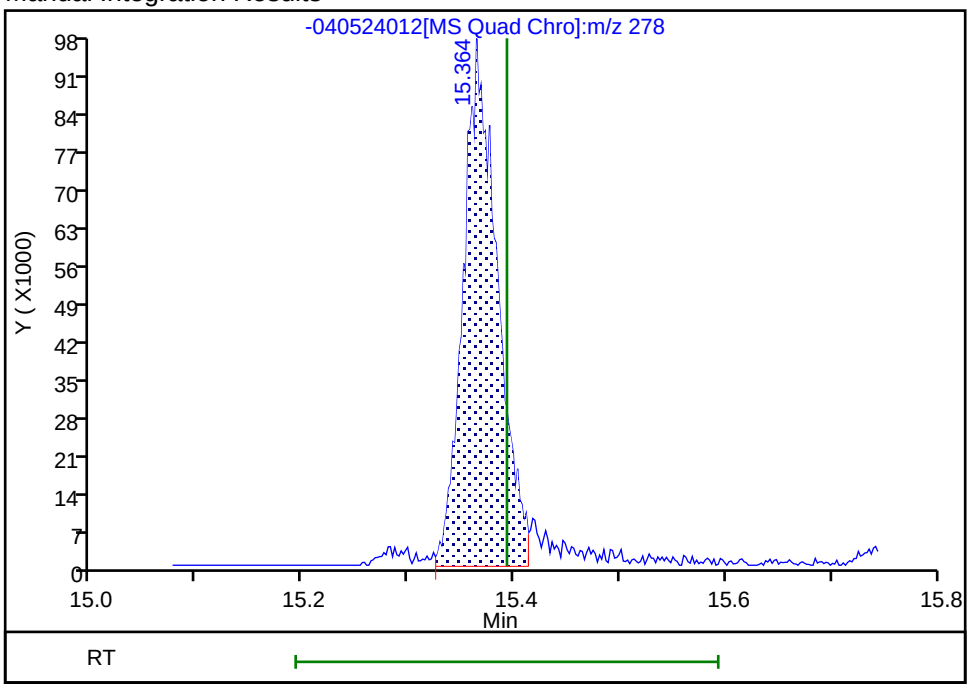
Processing Integration Results

RT: 15.49
Area: 916
Amount: 0.009967
Amount Units: ug/ml



Manual Integration Results

RT: 15.36
Area: 216904
Amount: 2.124474
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:08:42 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

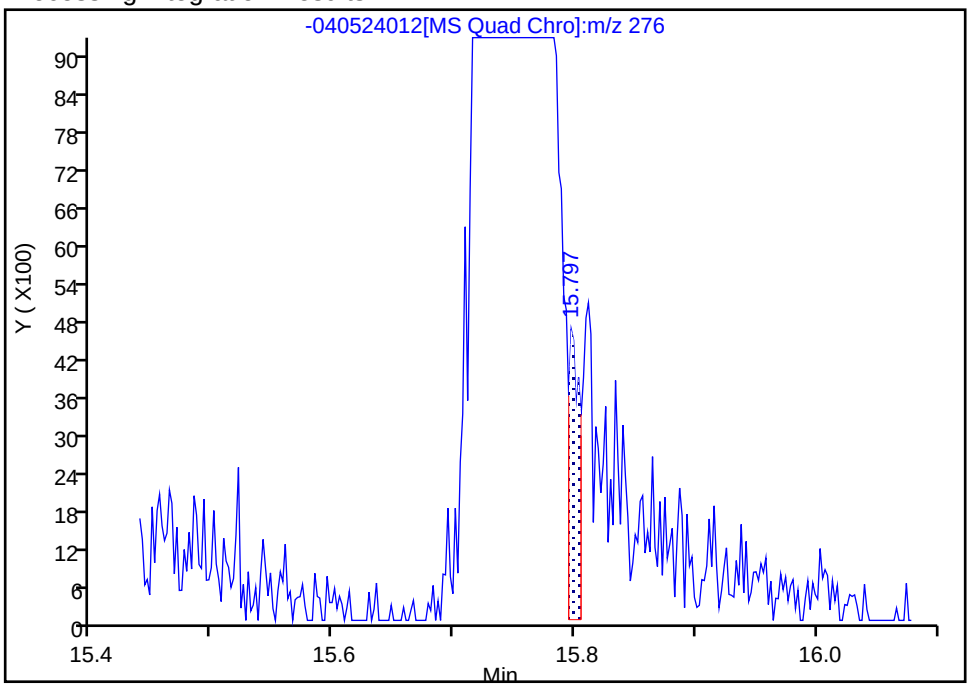
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524012.D				
Injection Date:	05-Apr-2024 13:53:18	Instrument ID:	SMS_3		
Lims ID:	STD025				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

154 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

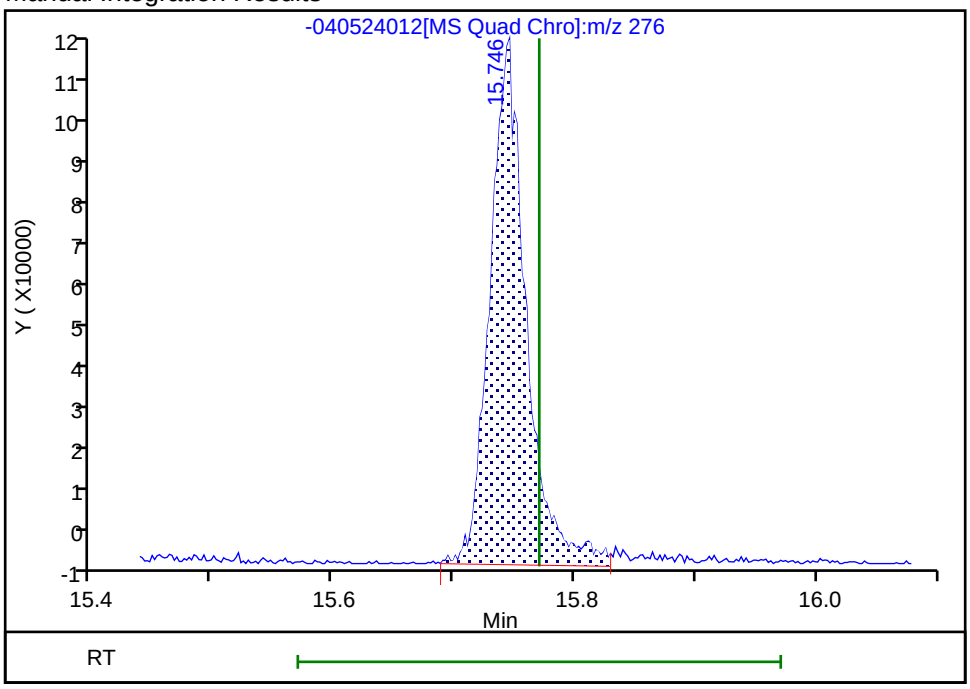
Processing Integration Results

RT: 15.80
Area: 2835
Amount: 0.029749
Amount Units: ug/ml



Manual Integration Results

RT: 15.75
Area: 242981
Amount: 2.258823
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:09:07 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D
Lims ID: STD010
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 05-Apr-2024 14:15:49 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: std 1
Operator ID: DM Instrument ID: SMS_3
Sublist: chrom-SMS_3 8270 RVE*sub1

Method: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 08-Apr-2024 10:13:21 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1660

First Level Reviewer: G3YK Date: 05-Apr-2024 17:19:26

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
*	1 1,4-Dichlorobenzene-d4	115	4.020	4.024	-0.004	97	270462	8.00	8.00	
*	2 Naphthalene-d8	136	5.191	5.196	-0.005	99	1540622	8.00	8.00	
*	3 Acenaphthene-d10	164	6.886	6.892	-0.006	93	877947	8.00	8.00	
*	4 Phenanthrene-d10	188	8.335	8.344	-0.009	97	1577085	8.00	8.00	
*	5 Chrysene-d12	240	11.116	11.130	-0.014	99	1145015	8.00	8.00	
*	6 Perylene-d12	264	13.382	13.390	-0.008	97	1119587	8.00	8.00	a
$	7 2-Fluorophenol	112	2.915	2.915	0.000	95	48438	1.00	0.8545	
$	8 Phenol-d5	99	3.716	3.720	-0.004	0	67889	1.00	0.8986	
$	9 Nitrobenzene-d5	82	4.522	4.528	-0.006	92	65414	1.00	0.9318	
$	10 2-Fluorobiphenyl	172	6.247	6.253	-0.006	99	100183	1.00	0.9587	
$	11 2,4,6-Tribromophenol	330	7.656	7.666	-0.010	87	14658	1.00	0.9132	M
$	12 Terphenyl-d14	244	9.936	9.942	-0.006	97	104687	1.00	0.9492	
	13 N-Nitrosodimethylamine	74	1.858	1.854	0.004	96	33829	1.00	0.7983	
	14 Pyridine	79	1.892	1.880	0.012	93	78917	2.00	2.12	
	22 Phenol	94	3.728	3.732	-0.004	83	80303	1.00	0.9153	
	23 Aniline	93	3.730	3.736	-0.006	86	84291	1.00	0.9520	
	25 Bis(2-chloroethyl)ether	93	3.797	3.805	-0.008	93	63797	1.00	0.9512	
	26 2-Chlorophenol	128	3.834	3.836	-0.002	95	51852	1.00	0.9228	
	27 n-Decane	43	3.895	3.897	-0.002	94	78923	1.00	1.02	
	28 1,3-Dichlorobenzene	146	3.965	3.971	-0.006	92	59860	1.00	1.00	
	29 1,4-Dichlorobenzene	146	4.036	4.038	-0.002	89	63313	1.00	1.02	
	30 Benzyl alcohol	79	4.154	4.161	-0.007	87	46304	1.00	0.8324	
	31 1,2-Dichlorobenzene	146	4.167	4.171	-0.004	92	58850	1.00	1.02	
	32 Indene	116	4.248	4.252	-0.004	90	201804	2.00	2.01	
	33 2-Methylphenol	108	4.265	4.271	-0.006	95	50769	1.00	0.9523	
	34 2,2'-oxybis[1-chloropropane]	45	4.279	4.283	-0.004	92	124345	1.00	1.09	
	36 Acetophenone	105	4.389	4.395	-0.006	93	81449	1.00	0.9724	
	37 N-Nitrosodi-n-propylamine	70	4.399	4.408	-0.009	91	49225	1.00	1.00	
	39 3 & 4 Methylphenol	108	4.412	4.416	-0.004	0	51381	1.00	0.9224	
	38 3-Methylphenol	108	4.412	4.416	-0.004	88	51381	1.00	0.9224	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
41 4-Methylphenol	108	4.412	4.416	-0.004	93	51381	1.00	0.9224	
43 Hexachloroethane	117	4.473	4.475	-0.002	95	28298	1.00	0.9640	
44 Nitrobenzene	77	4.540	4.548	-0.008	93	69197	1.00	0.9374	
46 Isophorone	82	4.769	4.777	-0.008	99	121213	1.00	0.9150	
47 2-Nitrophenol	139	4.836	4.842	-0.006	91	23966	1.00	0.8232	
48 2,4-Dimethylphenol	107	4.902	4.908	-0.006	97	46595	1.00	0.9366	
51 Bis(2-chloroethoxy)methane	93	4.991	4.998	-0.007	94	80986	1.00	0.9870	
49 Benzoic acid	105	4.961	5.059	-0.098	94	44647	2.00	2.12	
52 2,4-Dichlorophenol	162	5.071	5.075	-0.004	96	38389	1.00	0.8539	
53 1,2,4-Trichlorobenzene	180	5.140	5.147	-0.007	92	49265	1.00	0.9801	
54 Naphthalene	128	5.212	5.216	-0.004	97	153801	1.00	1.01	
55 4-Chloroaniline	127	5.277	5.283	-0.006	90	60980	1.00	0.9439	
56 2,6-Dichlorophenol	162	5.279	5.285	-0.006	89	41658	1.00	0.9284	
57 Hexachlorobutadiene	225	5.341	5.345	-0.004	95	30484	1.00	1.00	
61 4-Chloro-3-methylphenol	107	5.765	5.767	-0.002	95	42795	1.00	0.8320	
63 2-Methylnaphthalene	141	5.879	5.886	-0.007	95	77170	1.00	0.9317	
64 1-Methylnaphthalene	142	5.971	5.977	-0.006	96	86316	1.00	0.9578	
65 Hexachlorocyclopentadiene	237	6.035	6.039	-0.004	71	19097	1.00	1.27	
66 1,2,4,5-Tetrachlorobenzene	216	6.041	6.045	-0.004	98	51107	1.00	0.9797	
68 2,4,6-Trichlorophenol	196	6.161	6.167	-0.006	95	29661	1.00	0.8759	
69 2,4,5-Trichlorophenol	196	6.200	6.200	0.000	89	29235	1.00	0.8152	
71 1,1'-Biphenyl	154	6.339	6.345	-0.006	96	111902	1.00	0.9547	
72 2-Chloronaphthalene	162	6.347	6.353	-0.006	98	96391	1.00	0.99	
74 2-Nitroaniline	138	6.459	6.467	-0.008	77	29337	1.00	0.8388	
77 Dimethyl phthalate	163	6.657	6.668	-0.011	96	104950	1.00	0.9612	
78 1,3-Dinitrobenzene	168	6.672	6.680	-0.008	79	12259	1.00	1.02	
79 2,6-Dinitrotoluene	165	6.708	6.716	-0.008	78	22182	1.00	0.8779	M
80 Acenaphthylene	152	6.745	6.751	-0.006	99	137924	1.00	0.9446	
81 3-Nitroaniline	65	6.859	6.872	-0.013	84	44772	1.00	0.8791	
82 Acenaphthene	153	6.917	6.925	-0.008	96	93537	1.00	0.99	
83 2,4-Dinitrophenol	184	6.968	6.974	-0.006	74	11637	2.00	2.56	M
85 4-Nitrophenol	65	7.061	7.068	-0.007	94	38997	2.00	2.05	
86 Dibenzofuran	168	7.086	7.096	-0.010	95	132411	1.00	0.9852	
87 2,4-Dinitrotoluene	165	7.092	7.104	-0.012	79	30548	1.00	0.8859	
89 2,3,4,6-Tetrachlorophenol	232	7.217	7.223	-0.006	77	23787	1.00	0.8664	
91 Diethyl phthalate	149	7.353	7.370	-0.017	96	109595	1.00	0.9678	
92 Hexadecane	57	7.392	7.400	-0.008	92	94221	1.00	0.9445	
93 Fluorene	166	7.423	7.431	-0.008	95	104921	1.00	1.00	
95 4-Chlorophenyl phenyl ether	204	7.441	7.451	-0.010	94	49007	1.00	0.9727	
97 4-Nitroaniline	138	7.451	7.472	-0.021	79	25999	1.00	0.9106	
98 4,6-Dinitro-2-methylphenol	198	7.486	7.498	-0.012	73	25466	2.00	2.10	
100 N-Nitrosodiphenylamine	168	7.562	7.570	-0.008	69	45021	1.00	0.9459	
99 Diphenylamine	169	7.560	7.570	-0.010	92	73348	0.8500	0.8364	
102 1,2-Diphenylhydrazine	77	7.596	7.605	-0.009	41	151655	1.01	0.9445	
101 Azobenzene	77	7.596	7.605	-0.009	99	151655	1.00	0.9344	
108 4-Bromophenyl phenyl ether	248	7.919	7.927	-0.008	76	28074	1.00	0.9113	
110 Hexachlorobenzene	284	7.952	7.962	-0.010	90	34318	1.00	0.9635	
113 Pentachlorophenol	266	8.156	8.166	-0.010	90	26450	2.00	2.12	
156 n-Octadecane	57	8.305	8.313	-0.008	91	95056	1.00	0.8912	
117 Phenanthrene	178	8.360	8.368	-0.008	98	152724	1.00	0.9855	
120 Anthracene	178	8.409	8.419	-0.010	99	142660	1.00	0.9175	
121 Carbazole	167	8.582	8.591	-0.009	96	140080	1.00	0.9405	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
122 Alachlor	45	8.742	8.750	-0.008	91	56736	1.00	0.9151	
124 Di-n-butyl phthalate	149	8.974	8.983	-0.009	100	165064	1.00	0.8498	
127 Fluoranthene	202	9.526	9.536	-0.010	98	152448	1.00	0.9054	
129 Pyrene	202	9.746	9.754	-0.008	96	165254	1.00	0.9769	
136 Butyl benzyl phthalate	149	10.495	10.503	-0.008	96	63500	1.00	0.7970	
138 Benzo[a]anthracene	228	11.102	11.118	-0.016	50	135505	1.00	0.9374	M
141 Chrysene	228	11.153	11.165	-0.012	98	136338	1.00	0.9765	a
142 Bis(2-ethylhexyl) phthalate	149	11.287	11.293	-0.006	96	81916	1.00	0.7753	
144 Di-n-octyl phthalate	149	12.316	12.335	-0.019	98	109832	1.00	1.06	
145 Benzo[b]fluoranthene	252	12.727	12.753	-0.026	97	113589	1.00	0.9153	Ma
147 Benzo[k]fluoranthene	252	12.780	12.802	-0.022	98	114553	1.00	0.8831	Ma
148 Benzo[a]pyrene	252	13.278	13.298	-0.020	80	97750	1.00	0.8505	
152 Indeno[1,2,3-cd]pyrene	276	15.285	15.315	-0.030	97	91710	1.00	0.8333	M
153 Dibenz(a,h)anthracene	278	15.370	15.393	-0.023	90	86244	1.00	0.8525	M
154 Benzo[g,h,i]perylene	276	15.744	15.770	-0.026	98	96521	1.00	0.9056	a
209 1,4-Dioxane	88		0.000				ND	ND	
S 168 Methyl Phenols,Total	108				0			1.87	
S 170 TPAH	1				0			14.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-RVHSL-WS_00006	Amount Added:	10.00	Units: uL	
MS-IS-RVE_00005	Amount Added:	30.00	Units: uL	Run Reagent

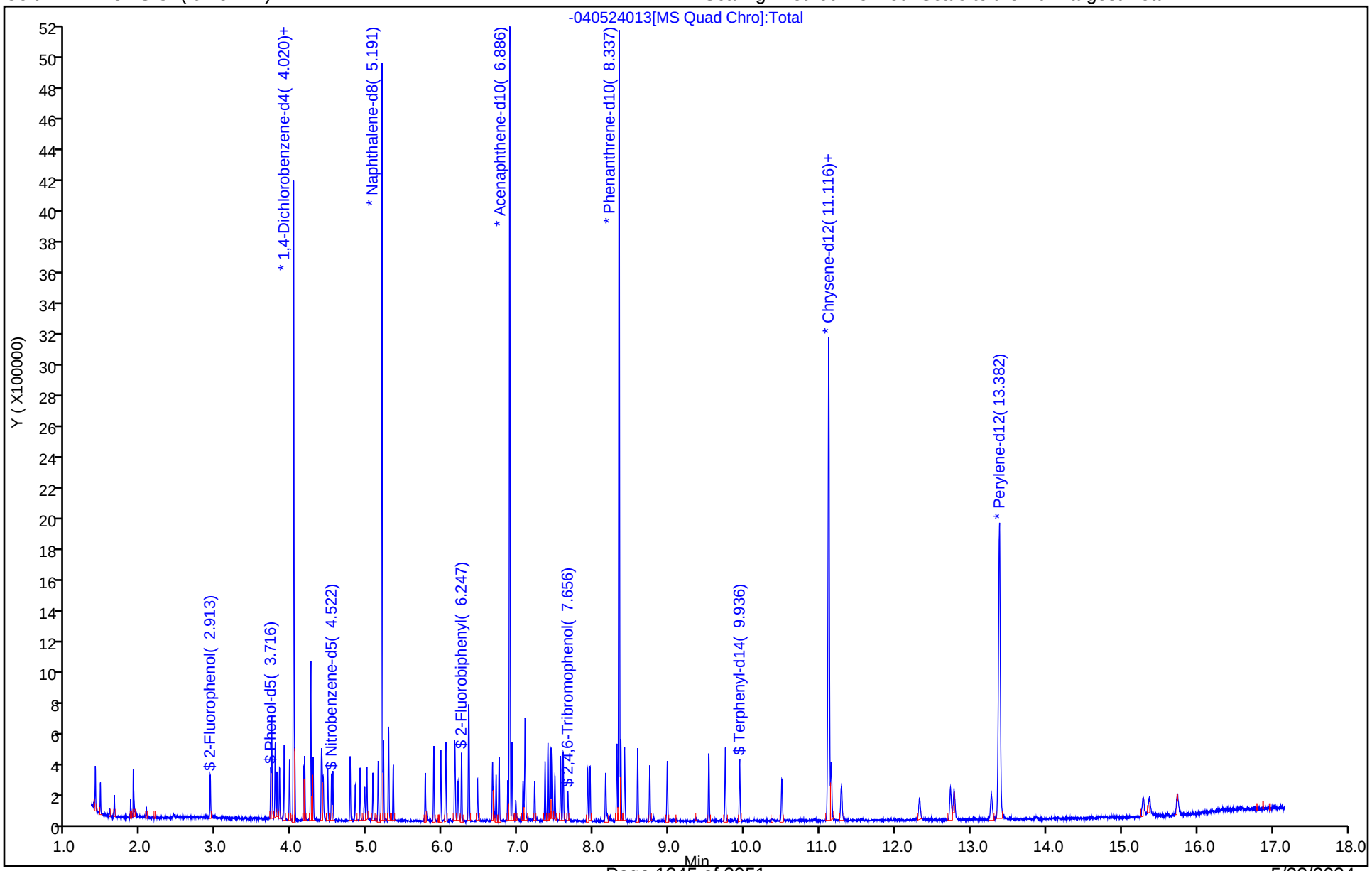
Report Date: 08-Apr-2024 10:13:21 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Injection Date:	05-Apr-2024 14:15:49	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	STD010			Worklist Smp#:	9
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

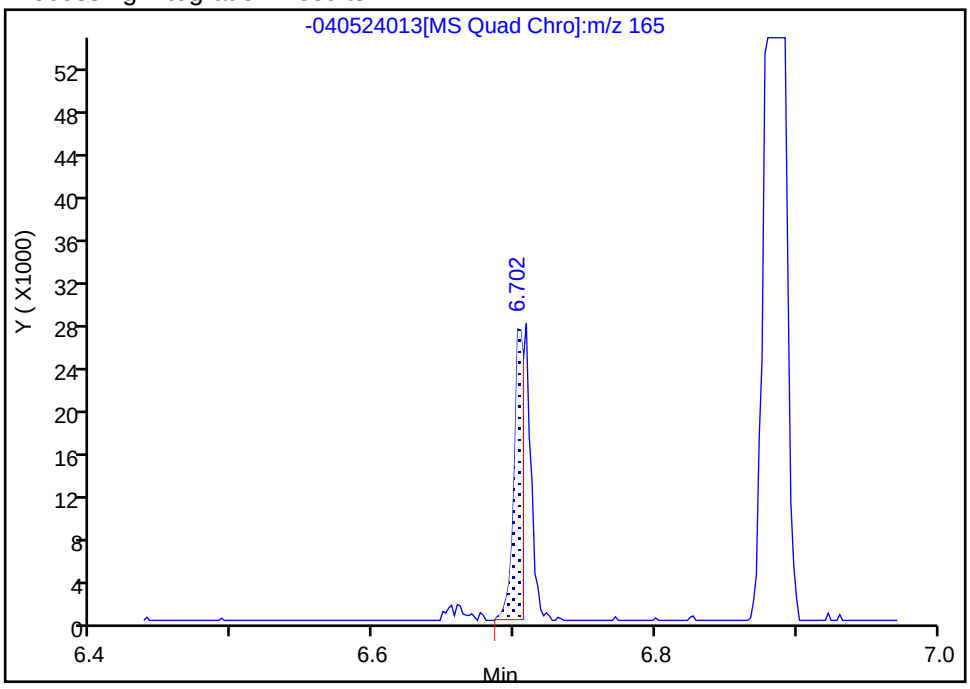
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D				
Injection Date:	05-Apr-2024 14:15:49	Instrument ID:	SMS_3		
Lims ID:	STD010				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

79 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

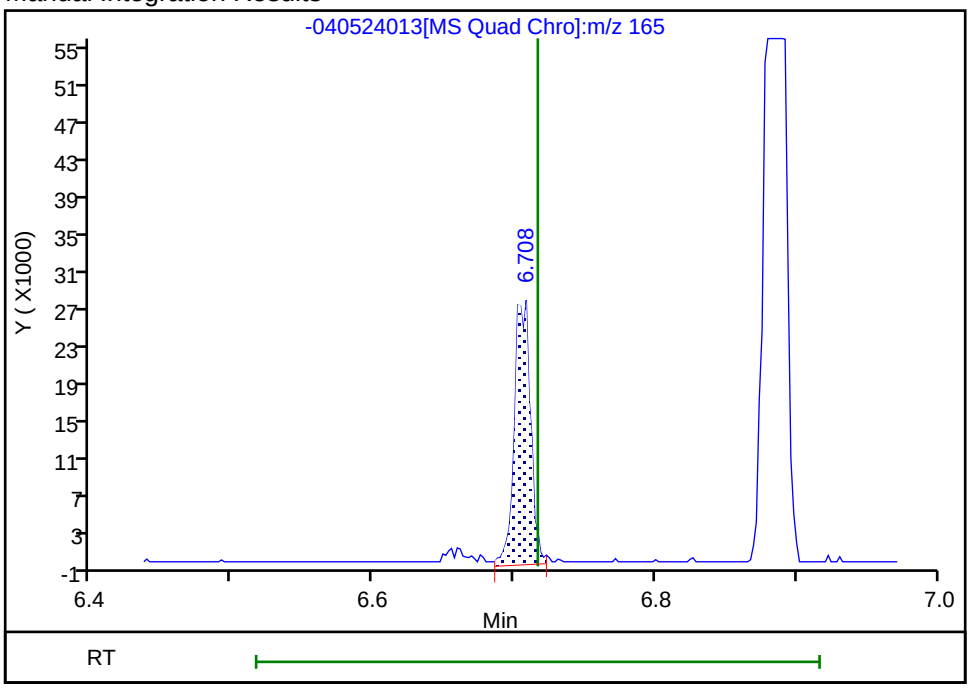
Processing Integration Results

RT: 6.70
Area: 13312
Amount: 0.551014
Amount Units: ug/ml



Manual Integration Results

RT: 6.71
Area: 22182
Amount: 0.877874
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:14:38 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

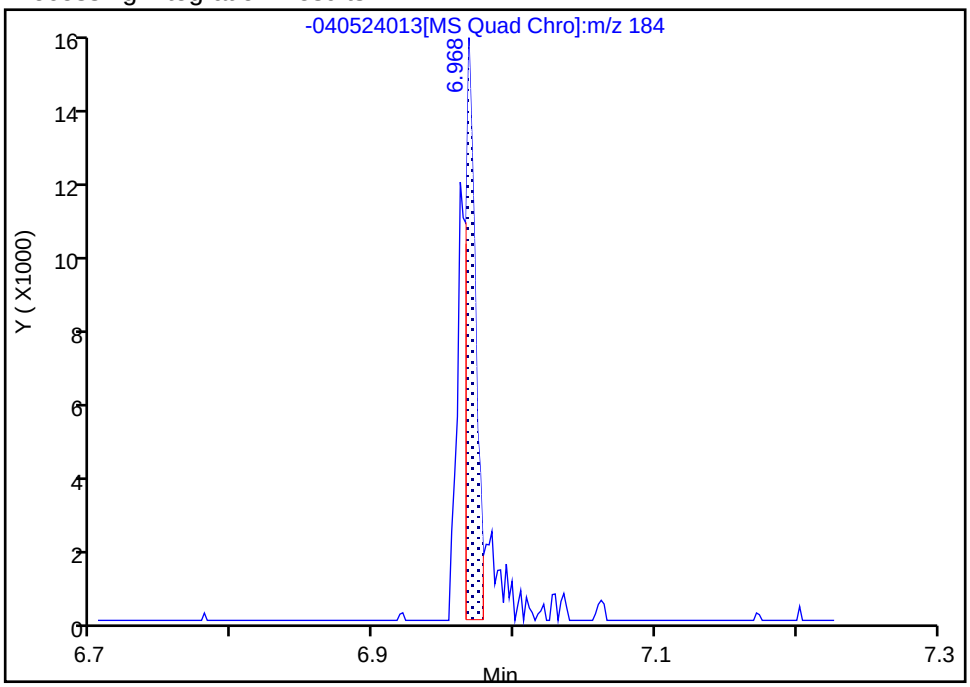
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D				
Injection Date:	05-Apr-2024 14:15:49	Instrument ID:	SMS_3		
Lims ID:	STD010				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

83 2,4-Dinitrophenol, CAS: 51-28-5

Signal: 1

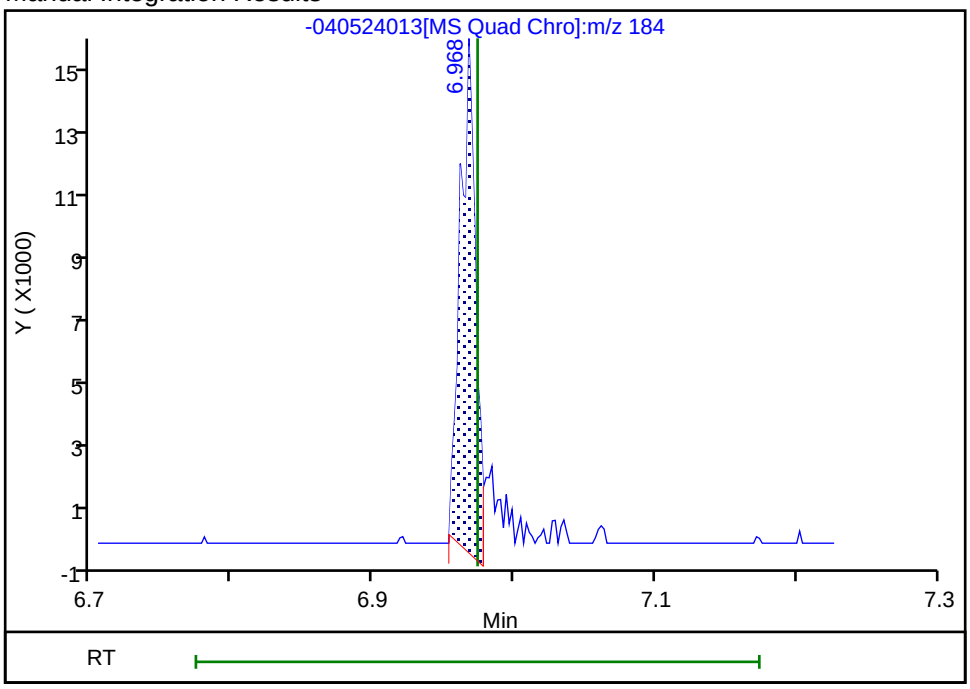
Processing Integration Results

RT: 6.97
Area: 7201
Amount: 2.108565
Amount Units: ug/ml



Manual Integration Results

RT: 6.97
Area: 11637
Amount: 2.556871
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:14:49 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

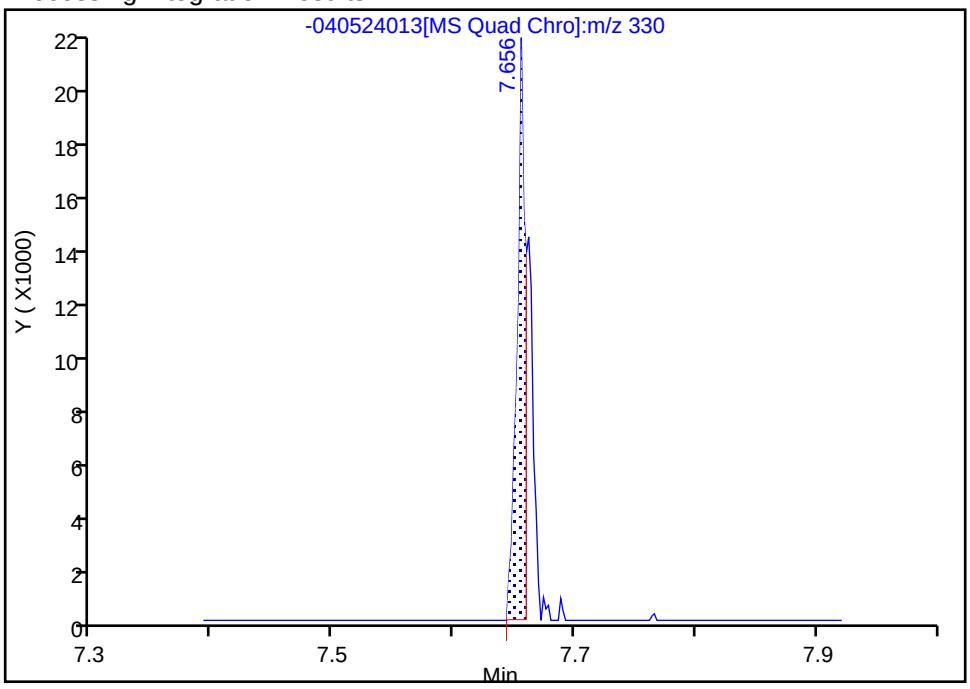
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D				
Injection Date:	05-Apr-2024 14:15:49	Instrument ID:	SMS_3		
Lims ID:	STD010				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

$ 11 2,4,6-Tribromophenol, CAS: 118-79-6

Signal: 1

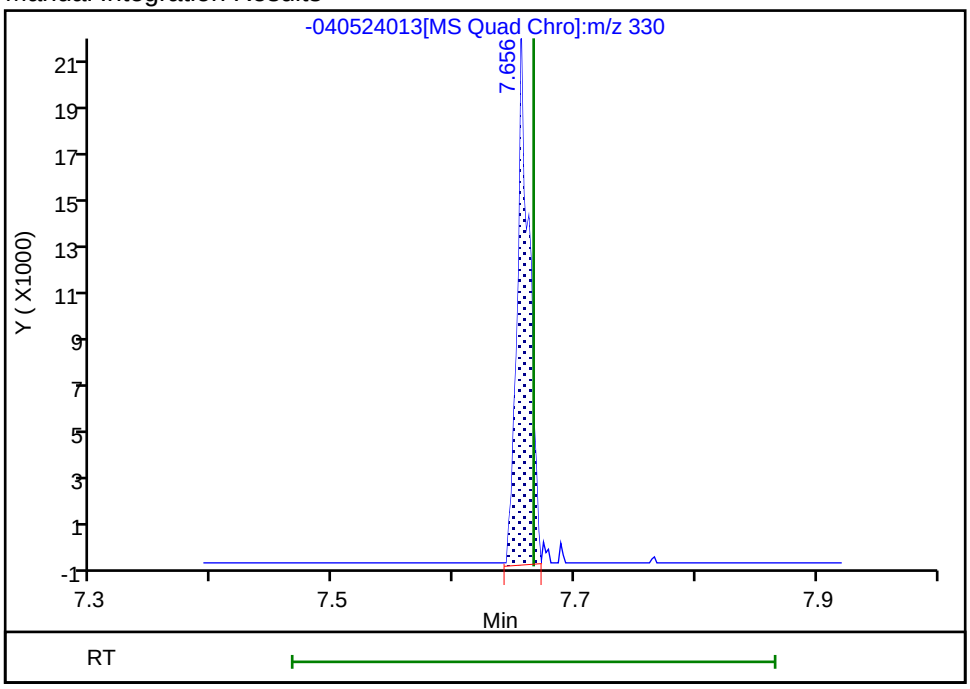
Processing Integration Results

RT: 7.66
Area: 9941
Amount: 1.023581
Amount Units: ug/ml



Manual Integration Results

RT: 7.66
Area: 14658
Amount: 0.913151
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:13:49 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

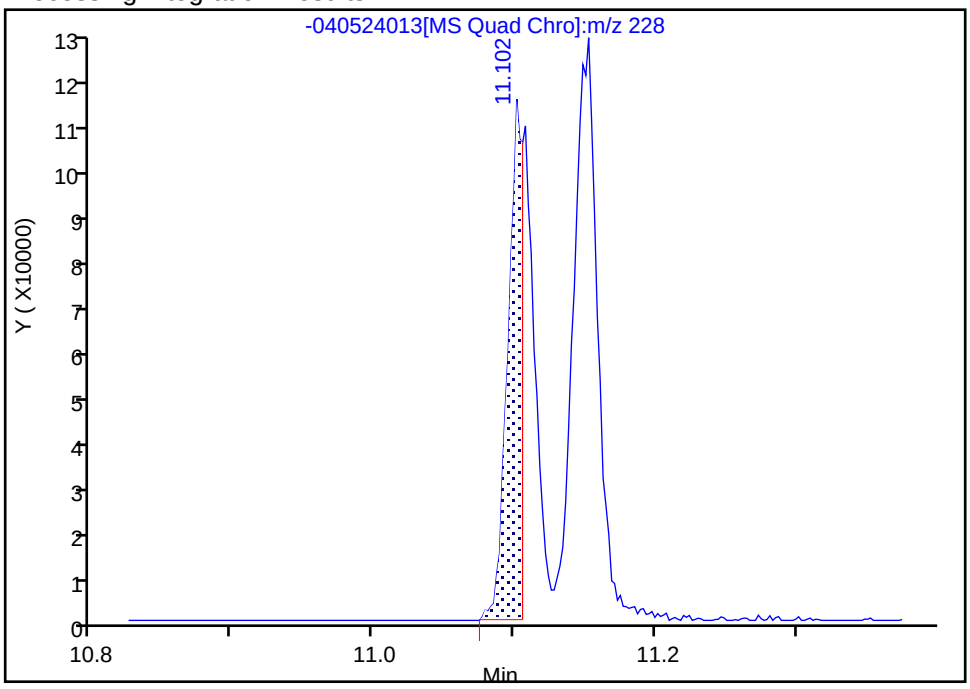
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D				
Injection Date:	05-Apr-2024 14:15:49	Instrument ID:	SMS_3		
Lims ID:	STD010				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

138 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

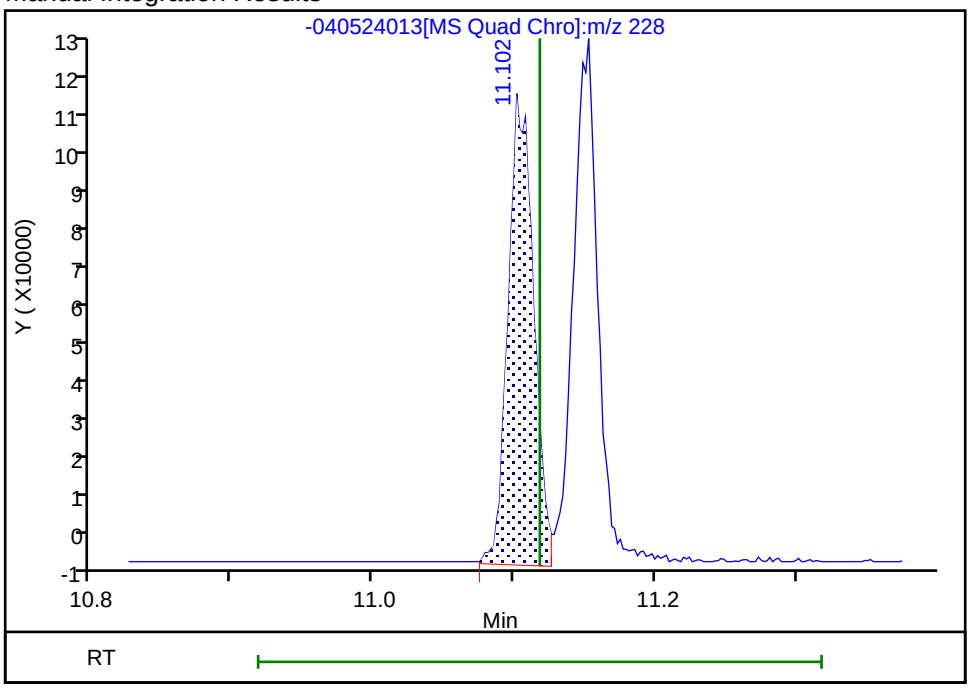
Processing Integration Results

RT: 11.10
Area: 78081
Amount: 0.568345
Amount Units: ug/ml



Manual Integration Results

RT: 11.10
Area: 135505
Amount: 0.937354
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:15:19 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

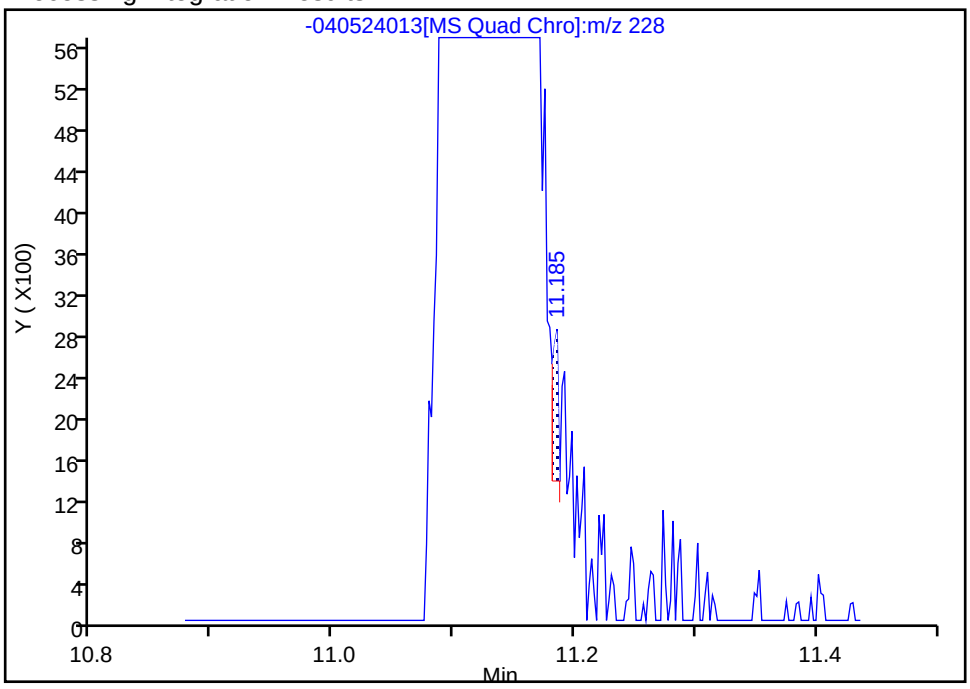
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D				
Injection Date:	05-Apr-2024 14:15:49	Instrument ID:	SMS_3		
Lims ID:	STD010				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

141 Chrysene, CAS: 218-01-9

Signal: 1

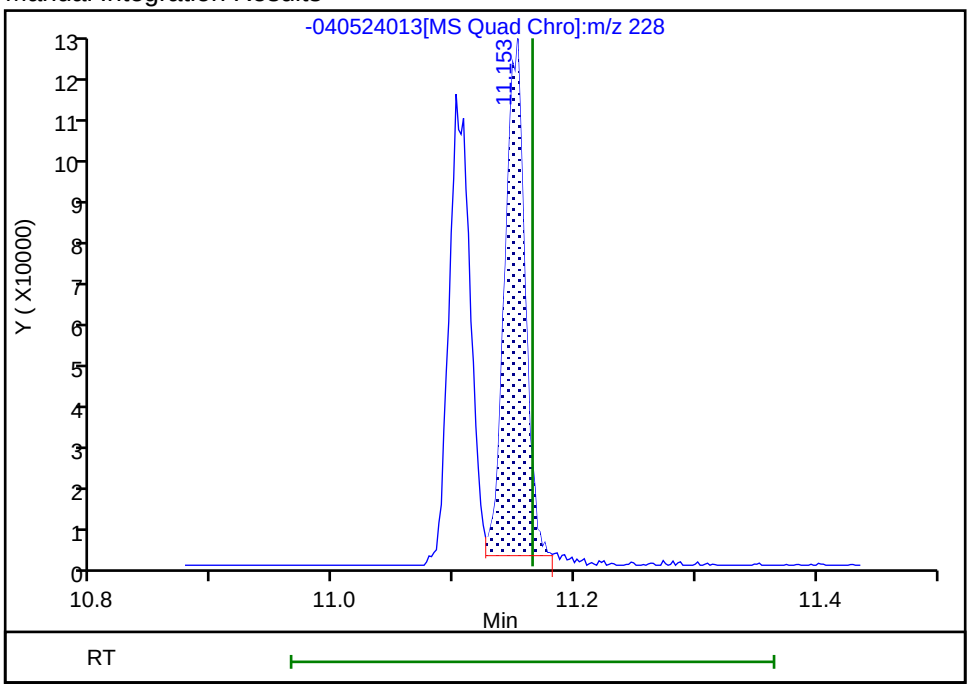
Processing Integration Results

RT: 11.19
Area: 486
Amount: 0.003963
Amount Units: ug/ml



Manual Integration Results

RT: 11.15
Area: 136338
Amount: 0.976463
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:15:25 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

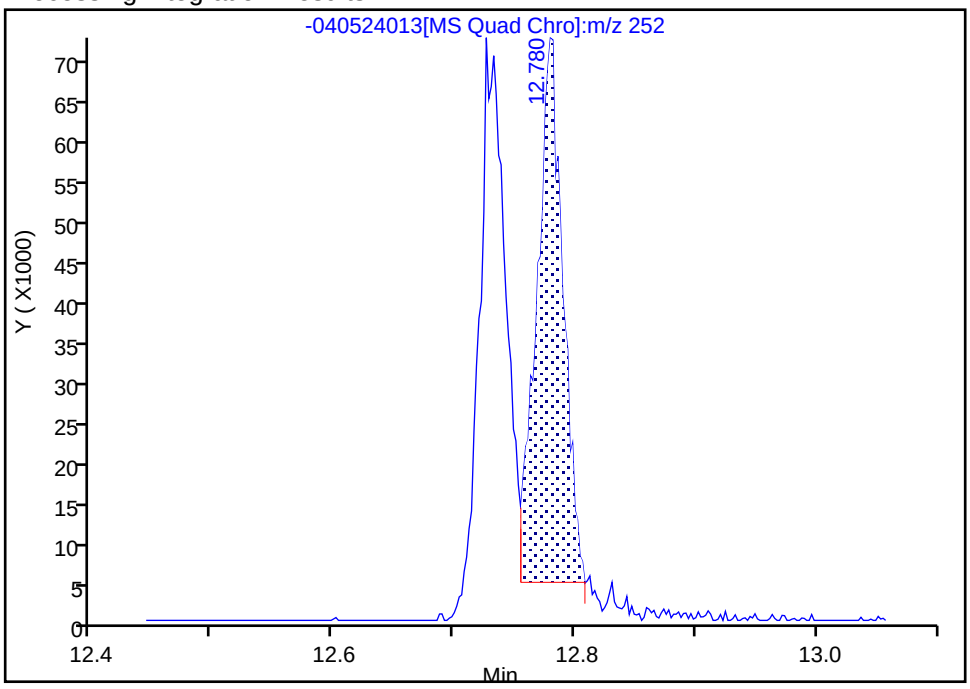
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D				
Injection Date:	05-Apr-2024 14:15:49	Instrument ID:	SMS_3		
Lims ID:	STD010				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

145 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

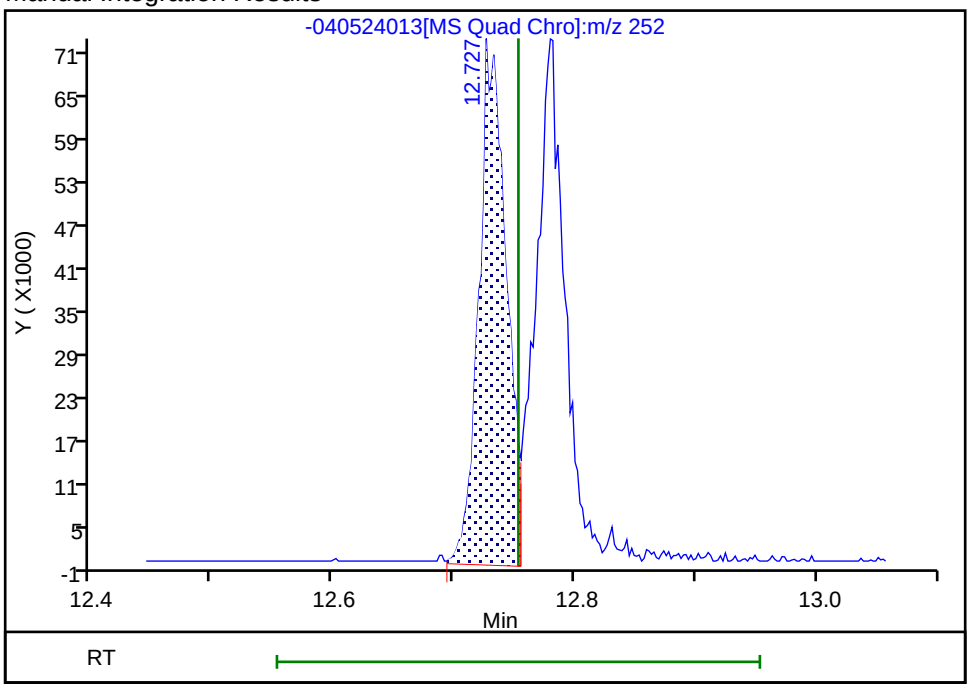
Processing Integration Results

RT: 12.78
Area: 101013
Amount: 0.824431
Amount Units: ug/ml



Manual Integration Results

RT: 12.73
Area: 113589
Amount: 0.915328
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:15:45 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

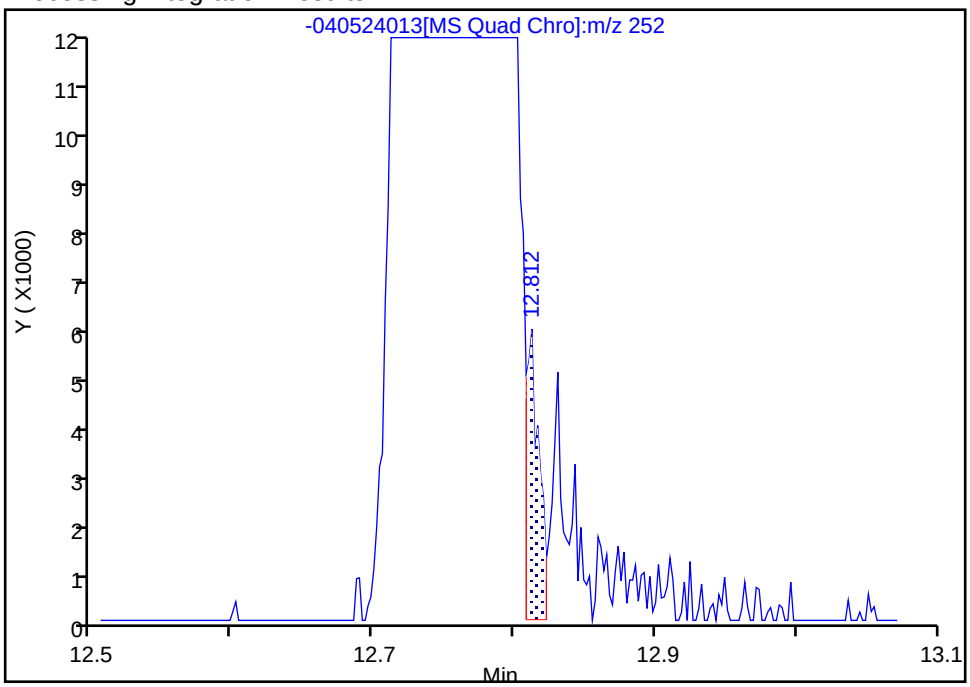
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D				
Injection Date:	05-Apr-2024 14:15:49	Instrument ID:	SMS_3		
Lims ID:	STD010				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

147 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

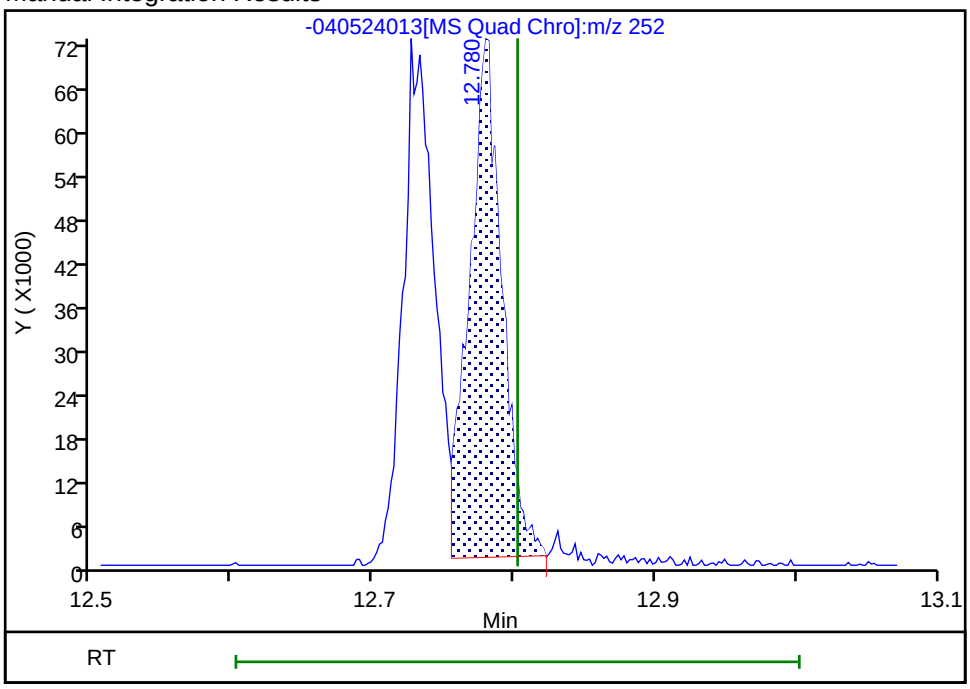
Processing Integration Results

RT: 12.81
Area: 3459
Amount: 0.029861
Amount Units: ug/ml



Manual Integration Results

RT: 12.78
Area: 114553
Amount: 0.883053
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:16:02 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

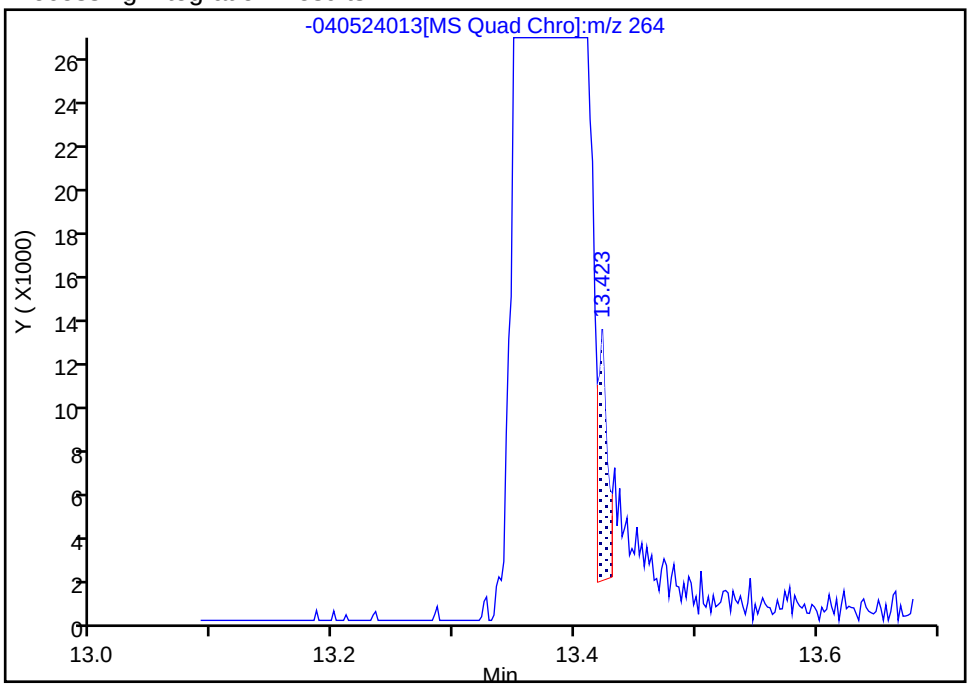
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D				
Injection Date:	05-Apr-2024 14:15:49	Instrument ID:	SMS_3		
Lims ID:	STD010				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

* 6 Perylene-d12, CAS: 1520-96-3

Signal: 1

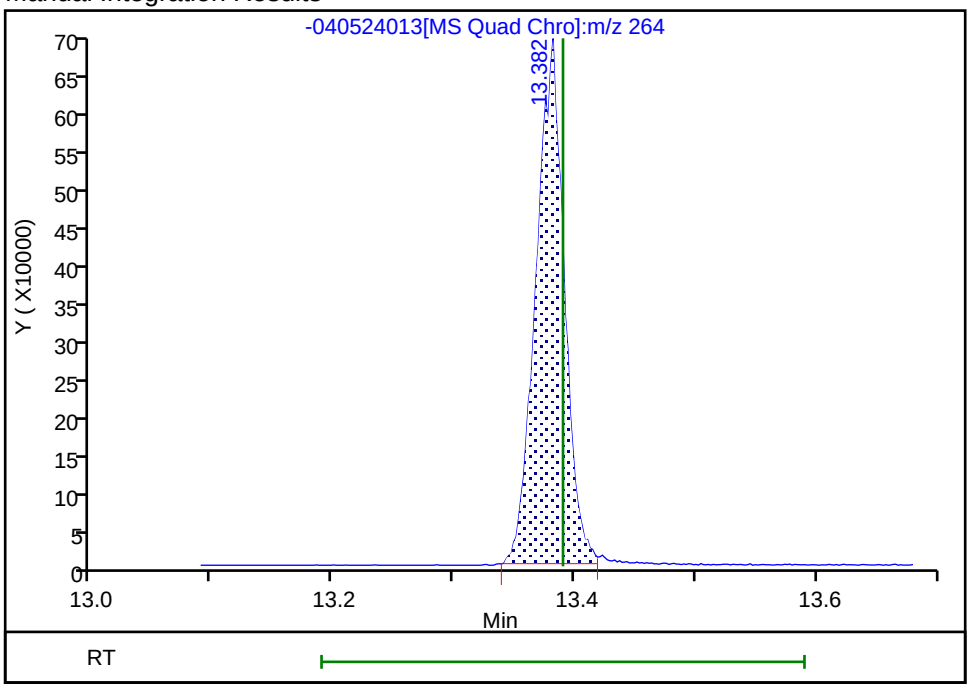
Processing Integration Results

RT: 13.42
Area: 6236
Amount: 8.000000
Amount Units: ug/ml



Manual Integration Results

RT: 13.38
Area: 1119587
Amount: 8.000000
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:13:31 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

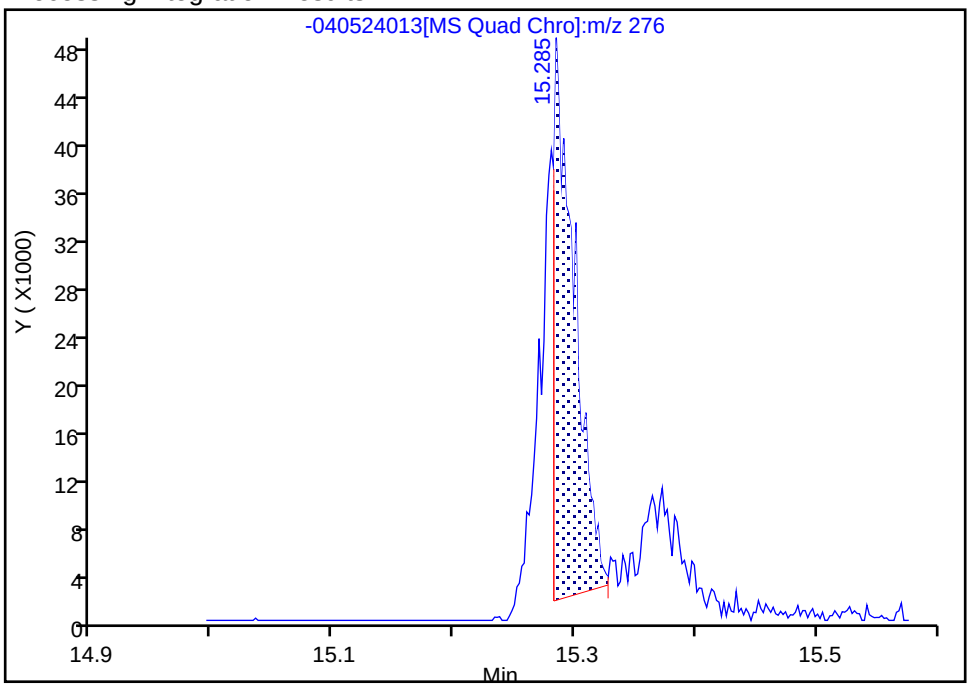
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D				
Injection Date:	05-Apr-2024 14:15:49	Instrument ID:	SMS_3		
Lims ID:	STD010				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

152 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

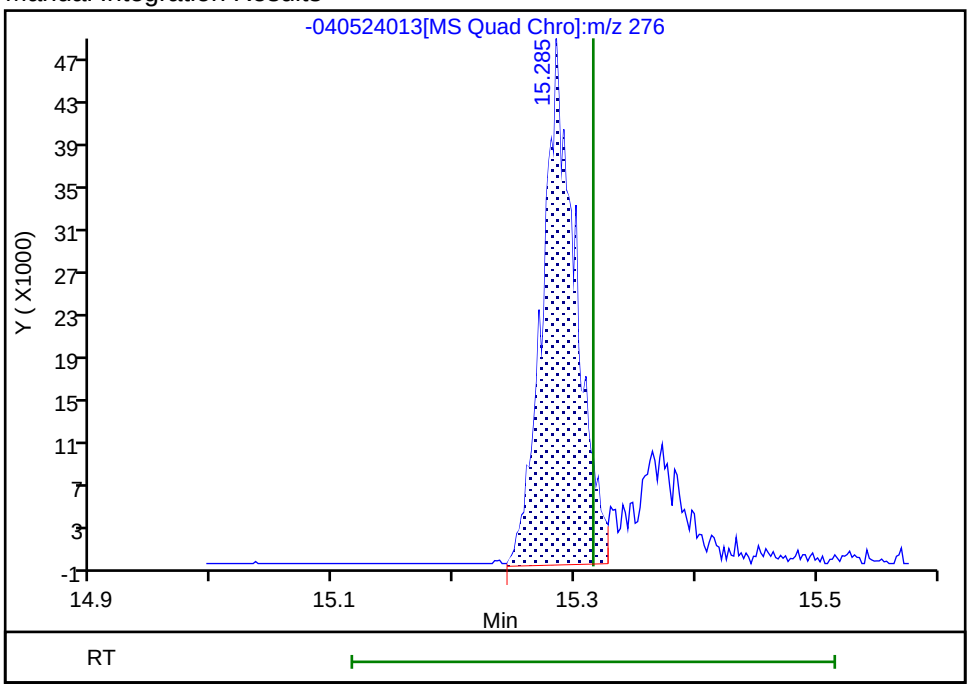
Processing Integration Results

RT: 15.28
Area: 54255
Amount: 0.514893
Amount Units: ug/ml



Manual Integration Results

RT: 15.28
Area: 91710
Amount: 0.833324
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:16:11 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

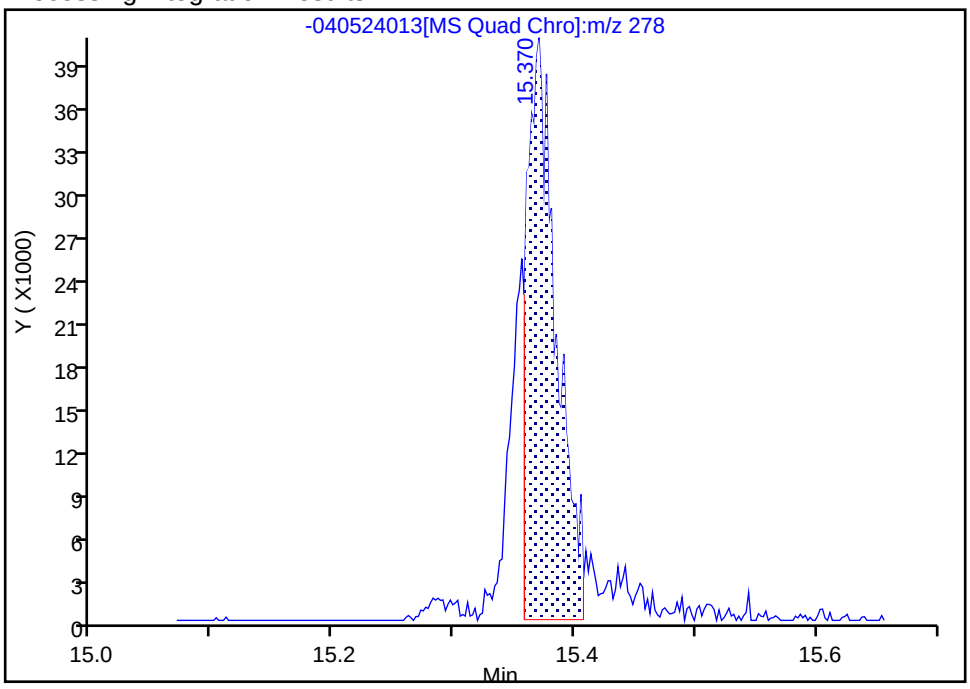
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D				
Injection Date:	05-Apr-2024 14:15:49	Instrument ID:	SMS_3		
Lims ID:	STD010				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

153 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

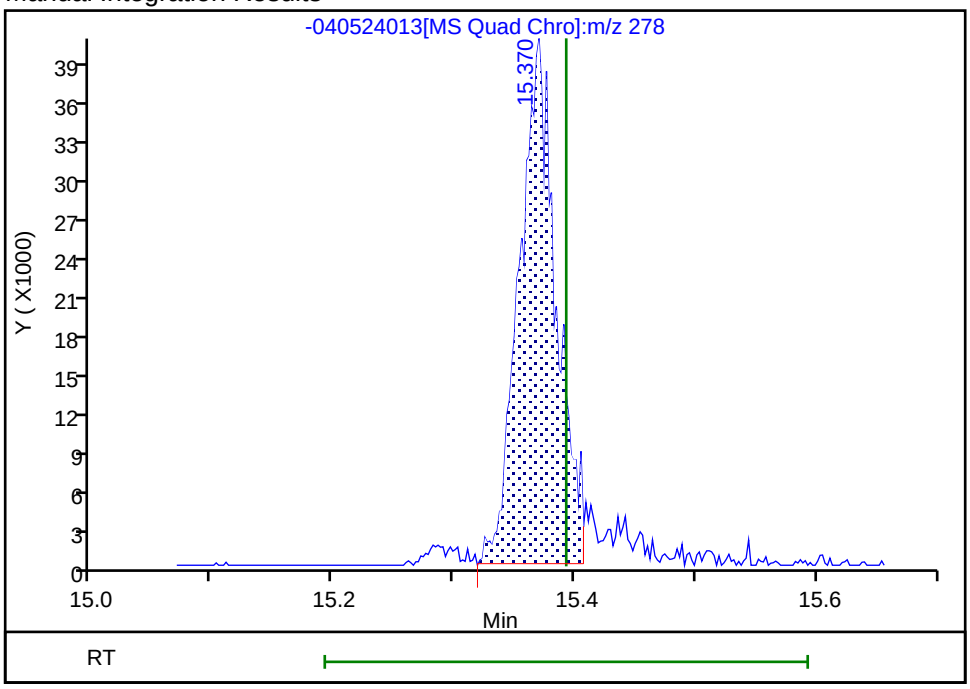
Processing Integration Results

RT: 15.37
Area: 67393
Amount: 1.028863
Amount Units: ug/ml



Manual Integration Results

RT: 15.37
Area: 86244
Amount: 0.852536
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:16:20 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

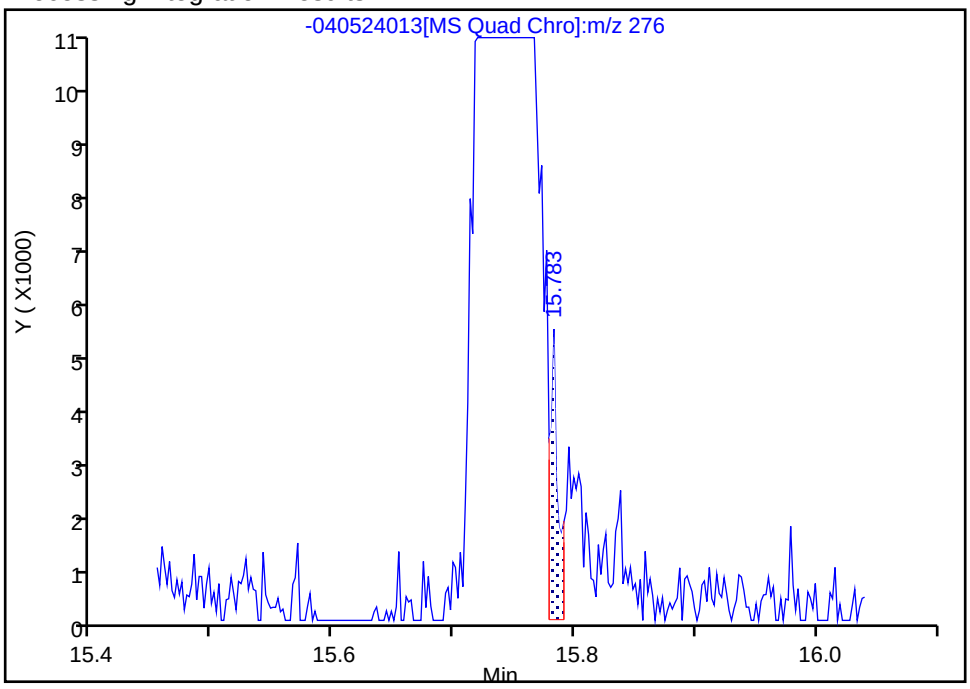
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D				
Injection Date:	05-Apr-2024 14:15:49	Instrument ID:	SMS_3		
Lims ID:	STD010				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

154 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

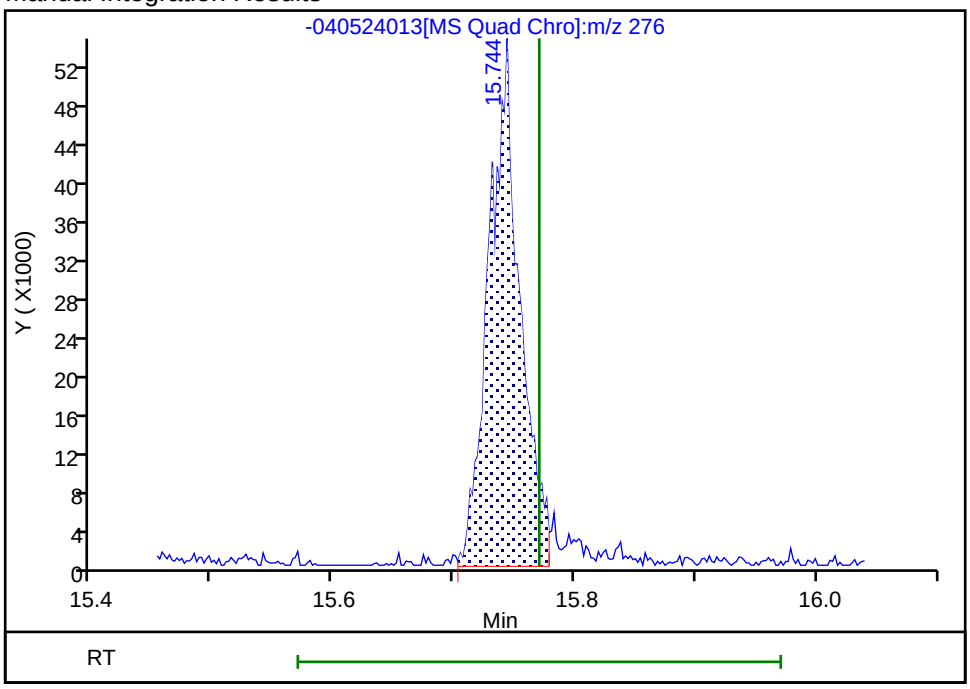
Processing Integration Results

RT: 15.78
Area: 2453
Amount: 0.025869
Amount Units: ug/ml



Manual Integration Results

RT: 15.74
Area: 96521
Amount: 0.905590
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:16:25 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Calibration / N-Nitrosodimethylamine

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

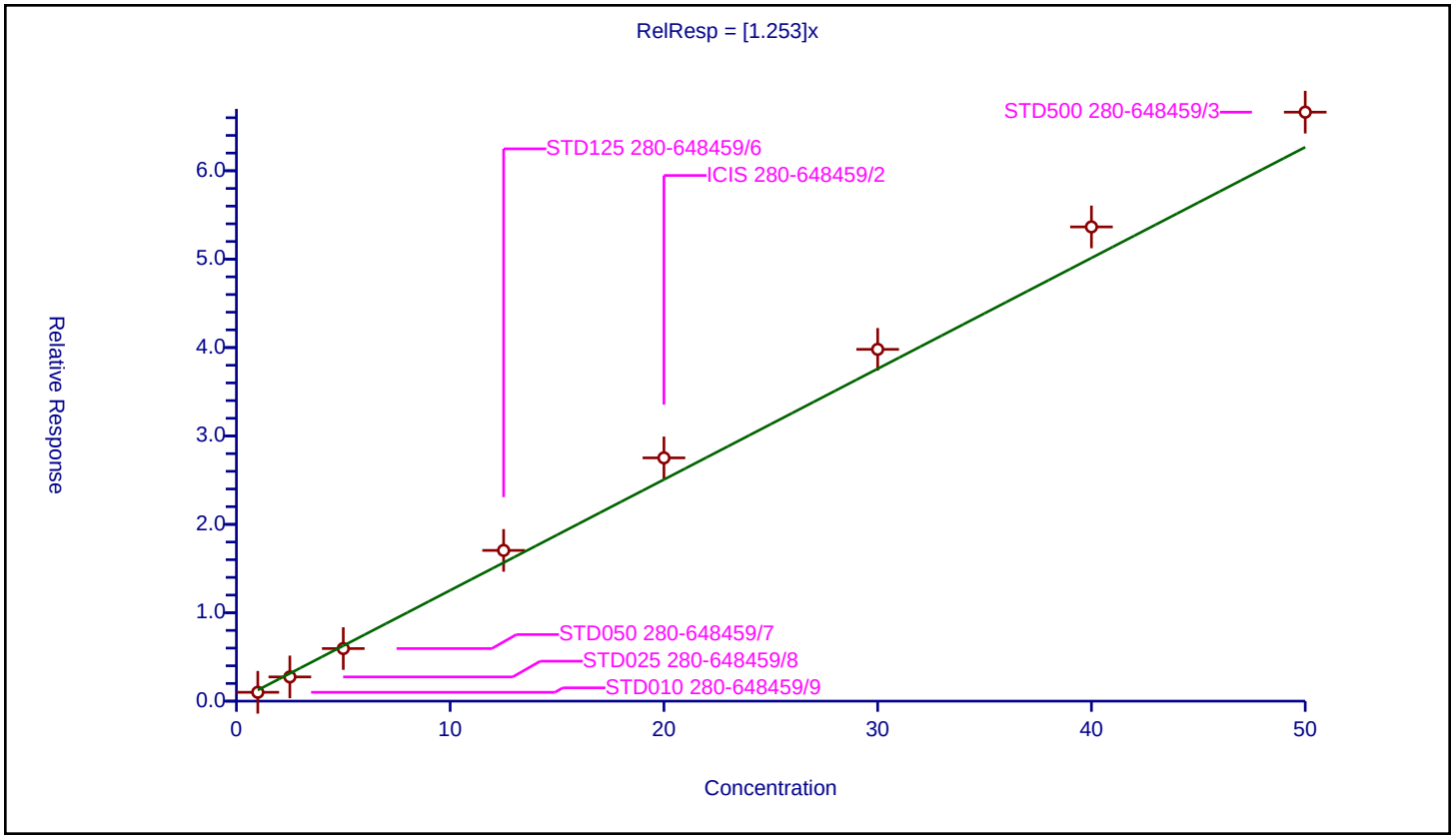
Curve Coefficients

Intercept:	0
Slope:	1.253

Error Coefficients

Relative Standard Deviation:	11.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	1.000629	8.0	270462.0	1.000629	Y
2	STD025 280-648459/8	2.5	2.740948	8.0	267525.0	1.096379	Y
3	STD050 280-648459/7	5.0	5.949858	8.0	248576.0	1.189972	Y
4	STD125 280-648459/6	12.5	17.051981	8.0	240278.0	1.364159	Y
5	ICIS 280-648459/2	20.0	27.518471	8.0	242760.0	1.375924	Y
6	STD300 280-648459/5	30.0	39.796743	8.0	232454.0	1.326558	Y
7	STD400 280-648459/4	40.0	53.649971	8.0	235095.0	1.341249	Y
8	STD500 280-648459/3	50.0	66.62995	8.0	233644.0	1.332599	Y



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Calibration / Pyridine

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

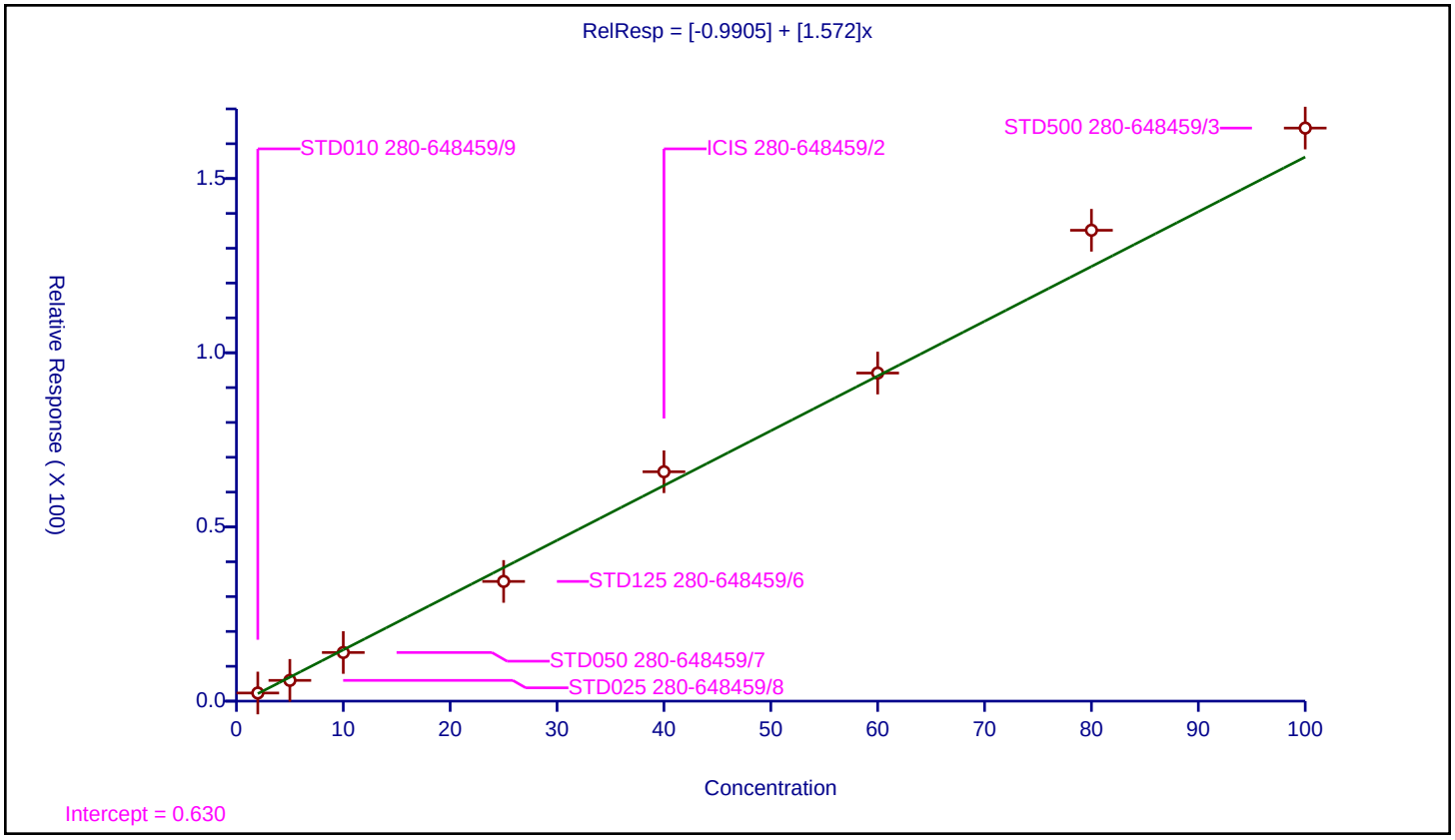
Curve Coefficients

Intercept:	-0.9905
Slope:	1.572

Error Coefficients

Relative Standard Deviation:	8.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	2.0	2.334287	8.0	270462.0	1.167144	Y
2	STD025 280-648459/8	5.0	5.957006	8.0	267525.0	1.191401	Y
3	STD050 280-648459/7	10.0	13.96109	8.0	248576.0	1.396109	Y
4	STD125 280-648459/6	25.0	34.359101	8.0	240278.0	1.374364	Y
5	ICIS 280-648459/2	40.0	65.84172	8.0	242760.0	1.646043	Y
6	STD300 280-648459/5	60.0	94.17736	8.0	232454.0	1.569623	Y
7	STD400 280-648459/4	80.0	135.163981	8.0	235095.0	1.68955	Y
8	STD500 280-648459/3	100.0	164.493537	8.0	233644.0	1.644935	Y



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Calibration / 2-Fluorophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

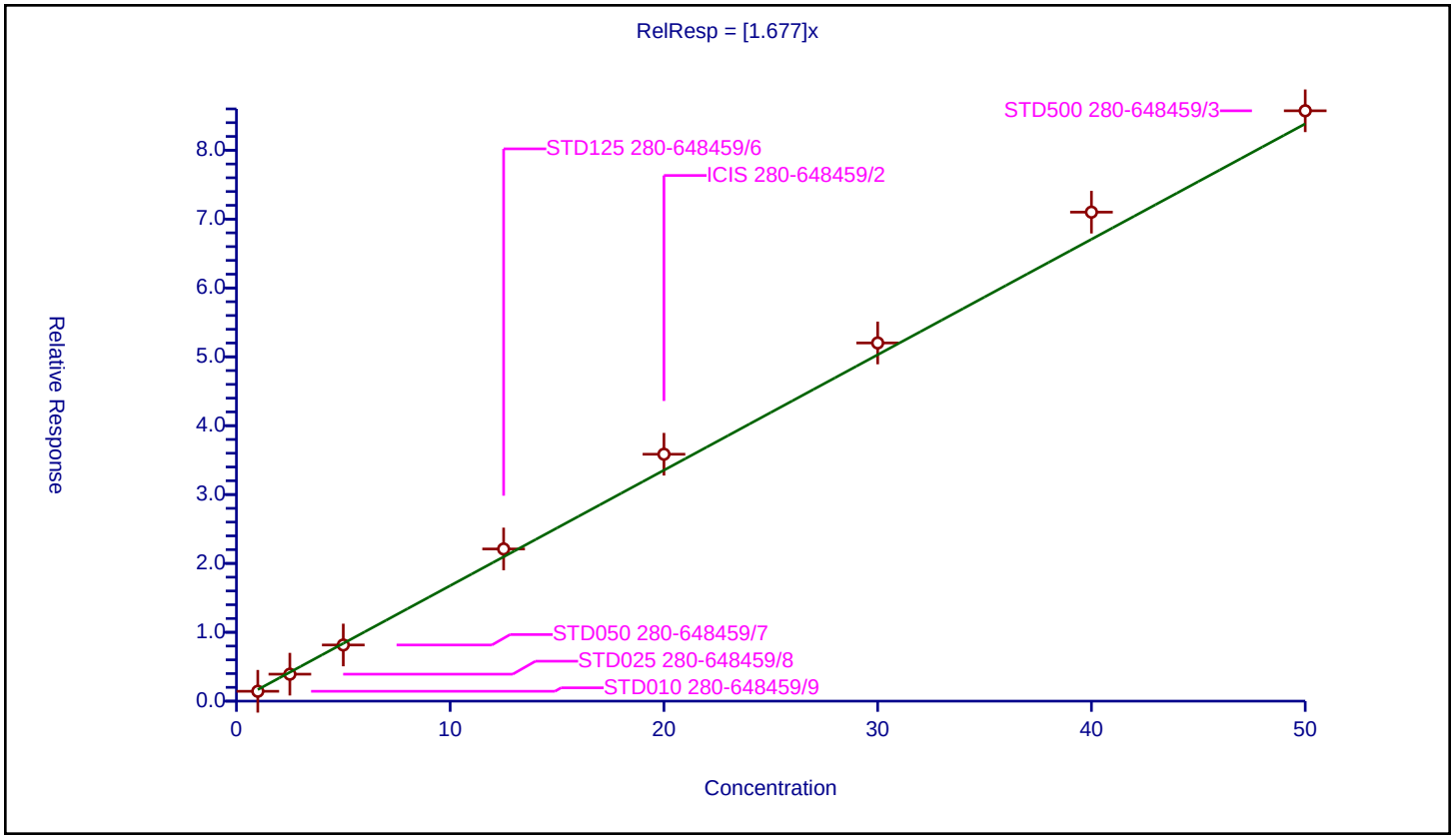
Curve Coefficients

Intercept:	0
Slope:	1.677

Error Coefficients

Relative Standard Deviation:	7.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	1.432748	8.0	270462.0	1.432748	Y
2	STD025 280-648459/8	2.5	3.913892	8.0	267525.0	1.565557	Y
3	STD050 280-648459/7	5.0	8.154963	8.0	248576.0	1.630993	Y
4	STD125 280-648459/6	12.5	22.097104	8.0	240278.0	1.767768	Y
5	ICIS 280-648459/2	20.0	35.854803	8.0	242760.0	1.79274	Y
6	STD300 280-648459/5	30.0	52.014007	8.0	232454.0	1.7338	Y
7	STD400 280-648459/4	40.0	71.004249	8.0	235095.0	1.775106	Y
8	STD500 280-648459/3	50.0	85.723716	8.0	233644.0	1.714474	Y



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Calibration / Phenol-d5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

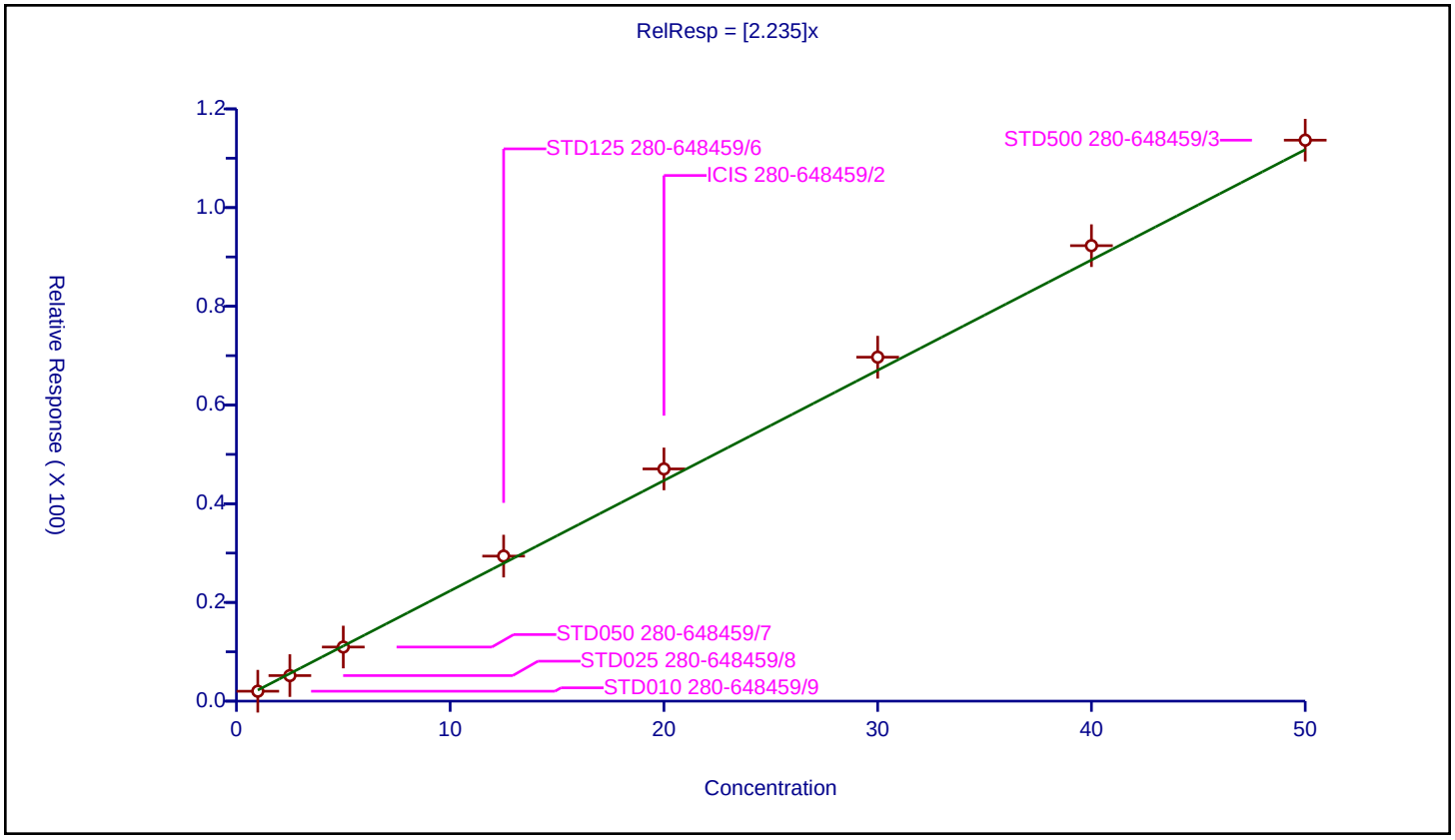
Curve Coefficients

Intercept:	0
Slope:	2.235

Error Coefficients

Relative Standard Deviation:	5.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	2.00809	8.0	270462.0	2.00809	Y
2	STD025 280-648459/8	2.5	5.175232	8.0	267525.0	2.070093	Y
3	STD050 280-648459/7	5.0	10.963601	8.0	248576.0	2.19272	Y
4	STD125 280-648459/6	12.5	29.385362	8.0	240278.0	2.350829	Y
5	ICIS 280-648459/2	20.0	47.048377	8.0	242760.0	2.352419	Y
6	STD300 280-648459/5	30.0	69.694546	8.0	232454.0	2.323152	Y
7	STD400 280-648459/4	40.0	92.288819	8.0	235095.0	2.30722	Y
8	STD500 280-648459/3	50.0	113.663899	8.0	233644.0	2.273278	Y



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Calibration / Phenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

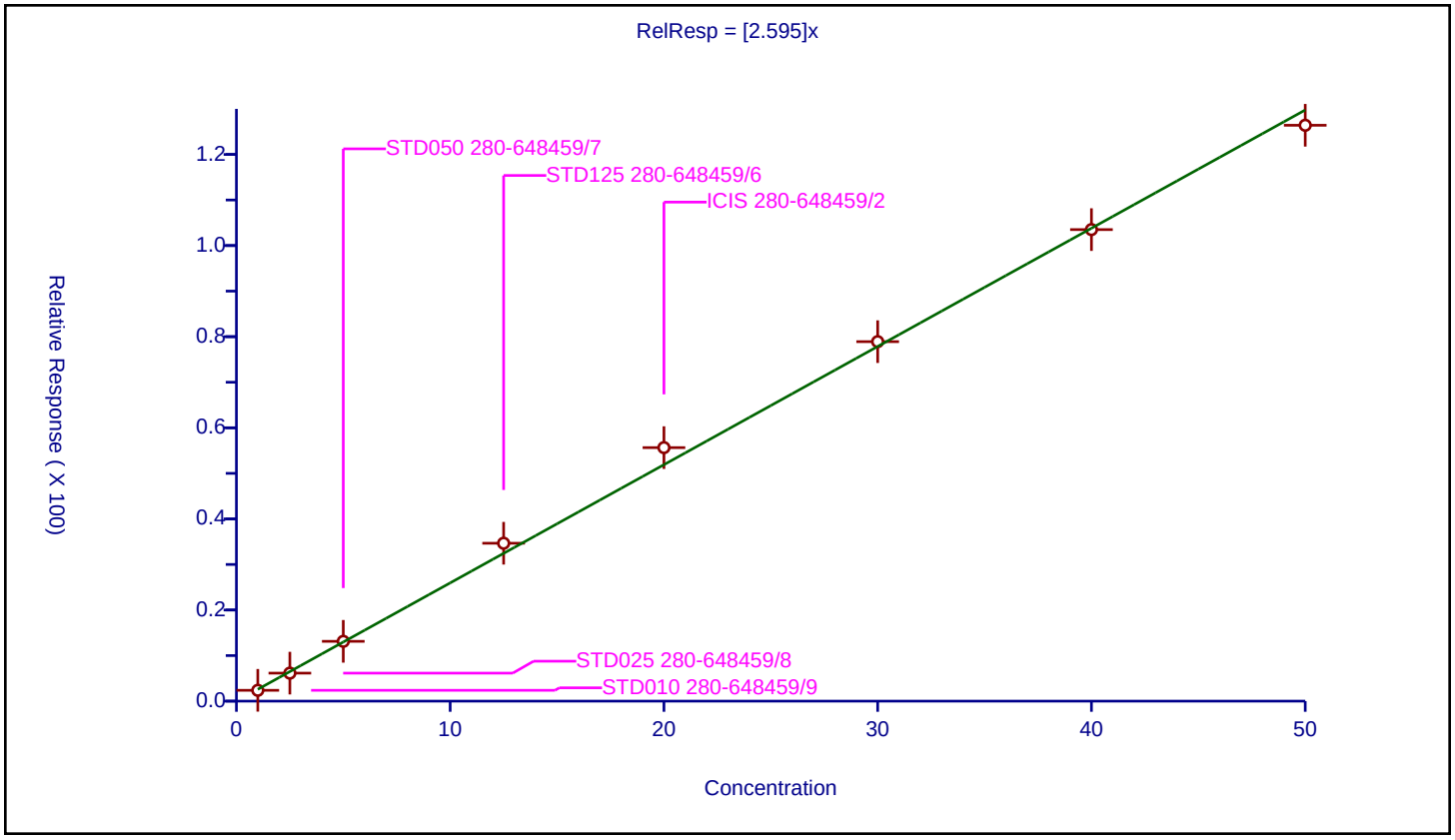
Curve Coefficients

Intercept:	0
Slope:	2.595

Error Coefficients

Relative Standard Deviation:	5.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	2.375284	8.0	270462.0	2.375284	Y
2	STD025 280-648459/8	2.5	6.146895	8.0	267525.0	2.458758	Y
3	STD050 280-648459/7	5.0	13.125869	8.0	248576.0	2.625174	Y
4	STD125 280-648459/6	12.5	34.661484	8.0	240278.0	2.772919	Y
5	ICIS 280-648459/2	20.0	55.650157	8.0	242760.0	2.782508	Y
6	STD300 280-648459/5	30.0	78.912301	8.0	232454.0	2.63041	Y
7	STD400 280-648459/4	40.0	103.504098	8.0	235095.0	2.587602	Y
8	STD500 280-648459/3	50.0	126.405403	8.0	233644.0	2.528108	Y



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Calibration / Aniline

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

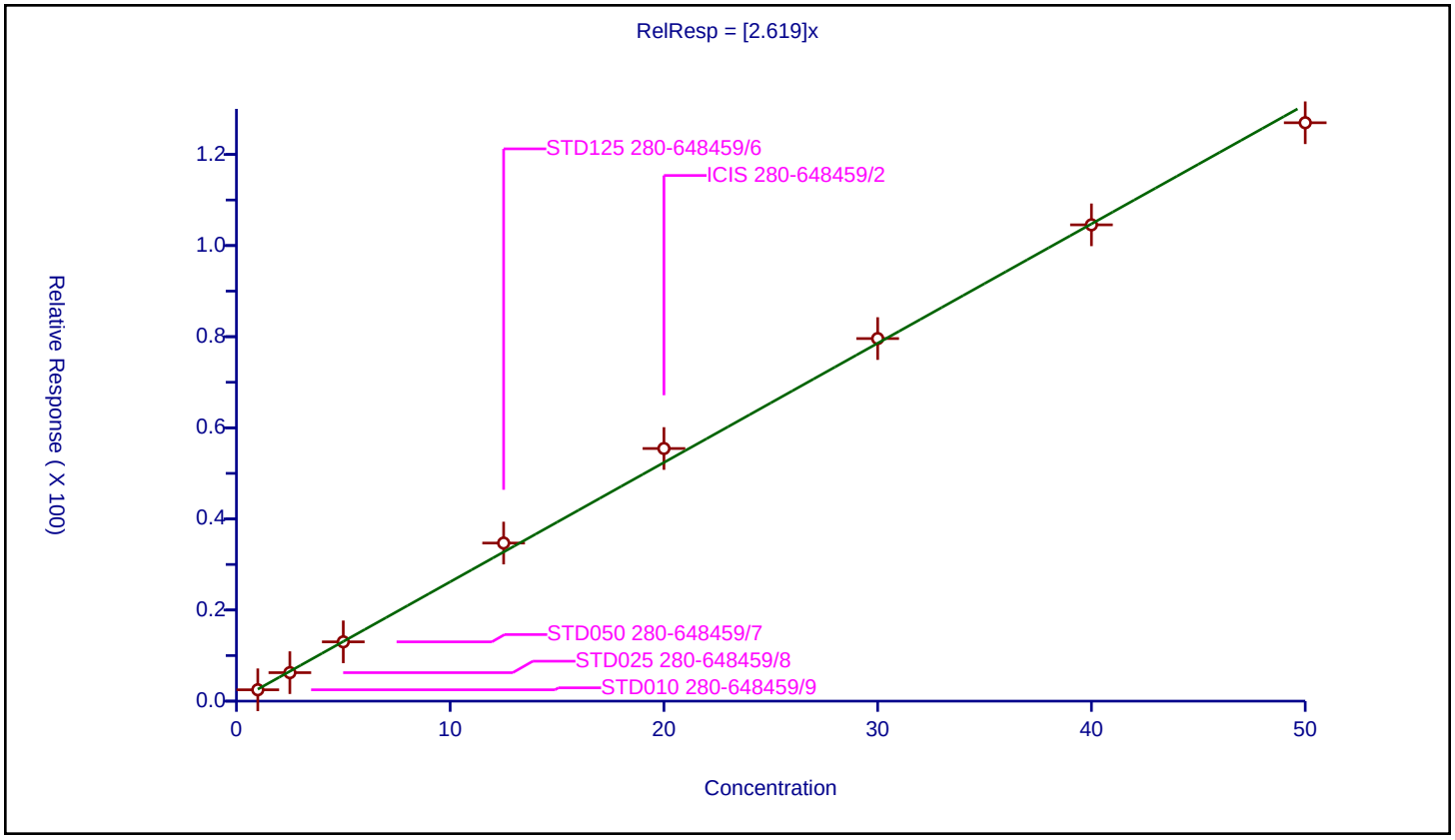
Curve Coefficients

Intercept:	0
Slope:	2.619

Error Coefficients

Relative Standard Deviation:	4.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	2.493245	8.0	270462.0	2.493245	Y
2	STD025 280-648459/8	2.5	6.249943	8.0	267525.0	2.499977	Y
3	STD050 280-648459/7	5.0	13.015545	8.0	248576.0	2.603109	Y
4	STD125 280-648459/6	12.5	34.697475	8.0	240278.0	2.775798	Y
5	ICIS 280-648459/2	20.0	55.452859	8.0	242760.0	2.772643	Y
6	STD300 280-648459/5	30.0	79.590285	8.0	232454.0	2.653009	Y
7	STD400 280-648459/4	40.0	104.54868	8.0	235095.0	2.613717	Y
8	STD500 280-648459/3	50.0	126.961634	8.0	233644.0	2.539233	Y



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Calibration / Bis(2-chloroethyl)ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

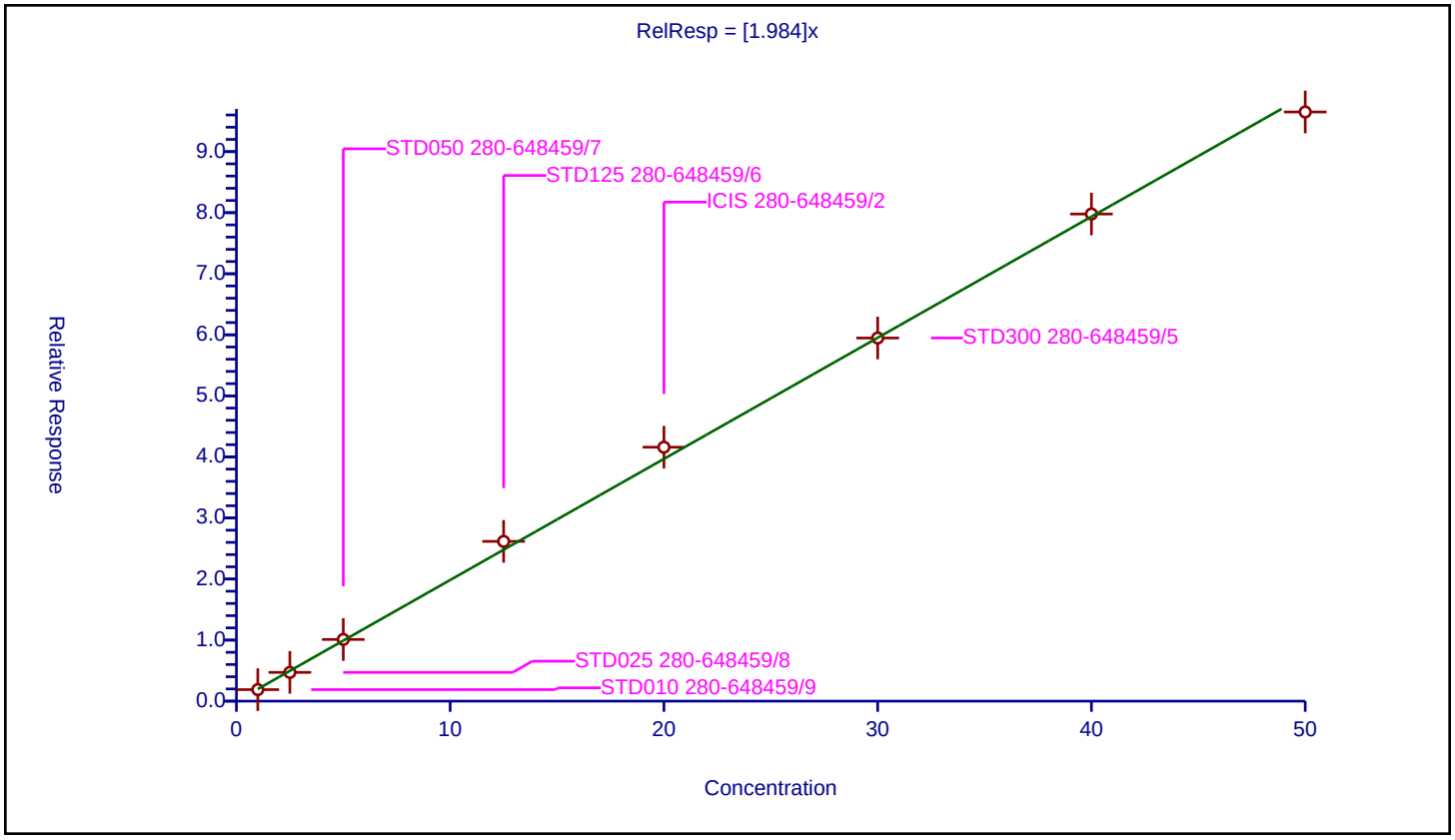
Curve Coefficients

Intercept:	0
Slope:	1.984

Error Coefficients

Relative Standard Deviation:	4.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	1.887053	8.0	270462.0	1.887053	Y
2	STD025 280-648459/8	2.5	4.710109	8.0	267525.0	1.884044	Y
3	STD050 280-648459/7	5.0	10.099897	8.0	248576.0	2.019979	Y
4	STD125 280-648459/6	12.5	26.165625	8.0	240278.0	2.09325	Y
5	ICIS 280-648459/2	20.0	41.590707	8.0	242760.0	2.079535	Y
6	STD300 280-648459/5	30.0	59.476748	8.0	232454.0	1.982558	Y
7	STD400 280-648459/4	40.0	79.783645	8.0	235095.0	1.994591	Y
8	STD500 280-648459/3	50.0	96.495283	8.0	233644.0	1.929906	Y



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Calibration / 2-Chlorophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

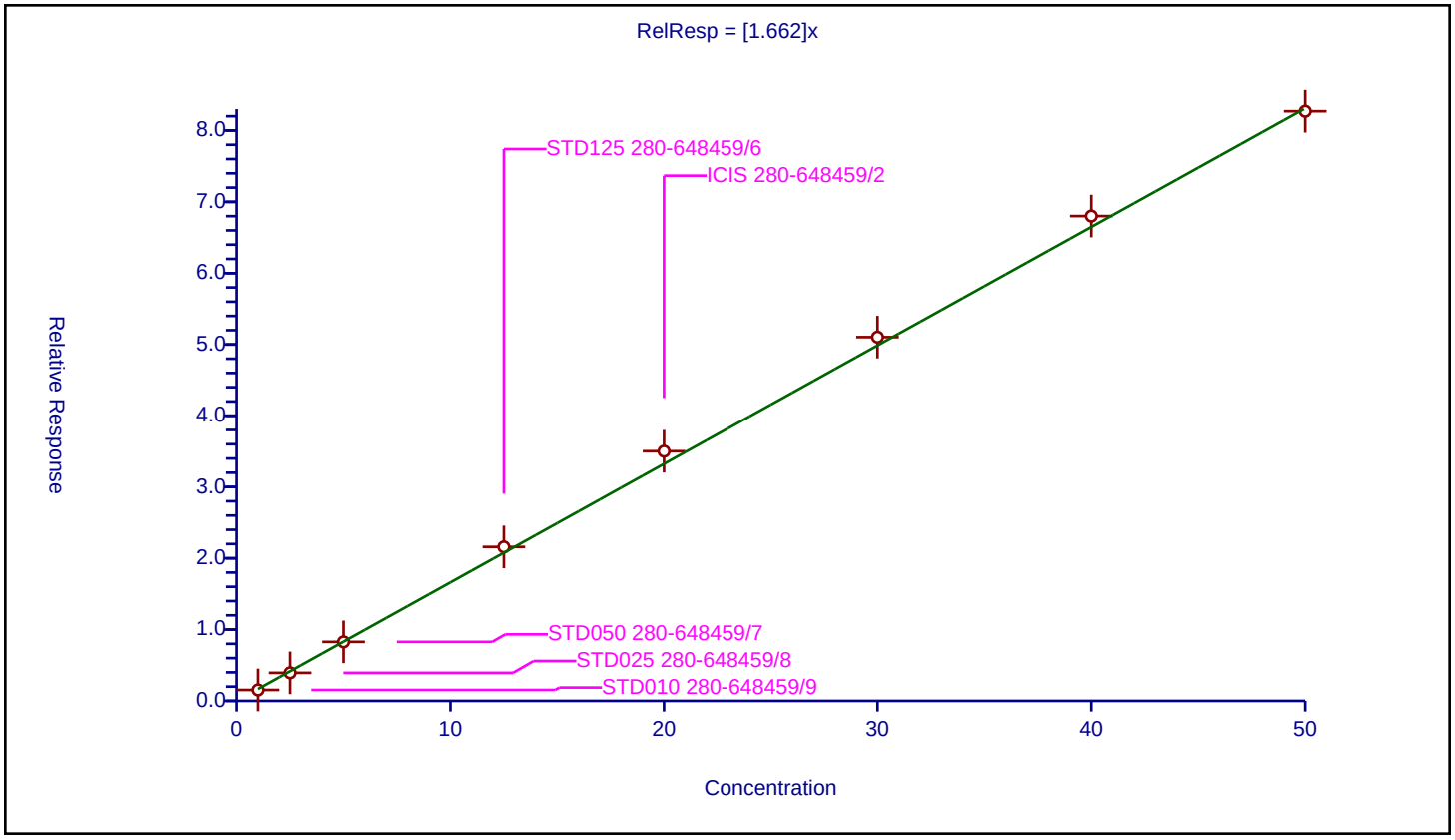
Curve Coefficients

Intercept:	0
Slope:	1.662

Error Coefficients

Relative Standard Deviation:	4.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	1.533731	8.0	270462.0	1.533731	Y
2	STD025 280-648459/8	2.5	3.934107	8.0	267525.0	1.573643	Y
3	STD050 280-648459/7	5.0	8.278064	8.0	248576.0	1.655613	Y
4	STD125 280-648459/6	12.5	21.596417	8.0	240278.0	1.727713	Y
5	ICIS 280-648459/2	20.0	35.019509	8.0	242760.0	1.750975	Y
6	STD300 280-648459/5	30.0	51.028419	8.0	232454.0	1.700947	Y
7	STD400 280-648459/4	40.0	68.009137	8.0	235095.0	1.700228	Y
8	STD500 280-648459/3	50.0	82.697506	8.0	233644.0	1.65395	Y



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Calibration / 1,3-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

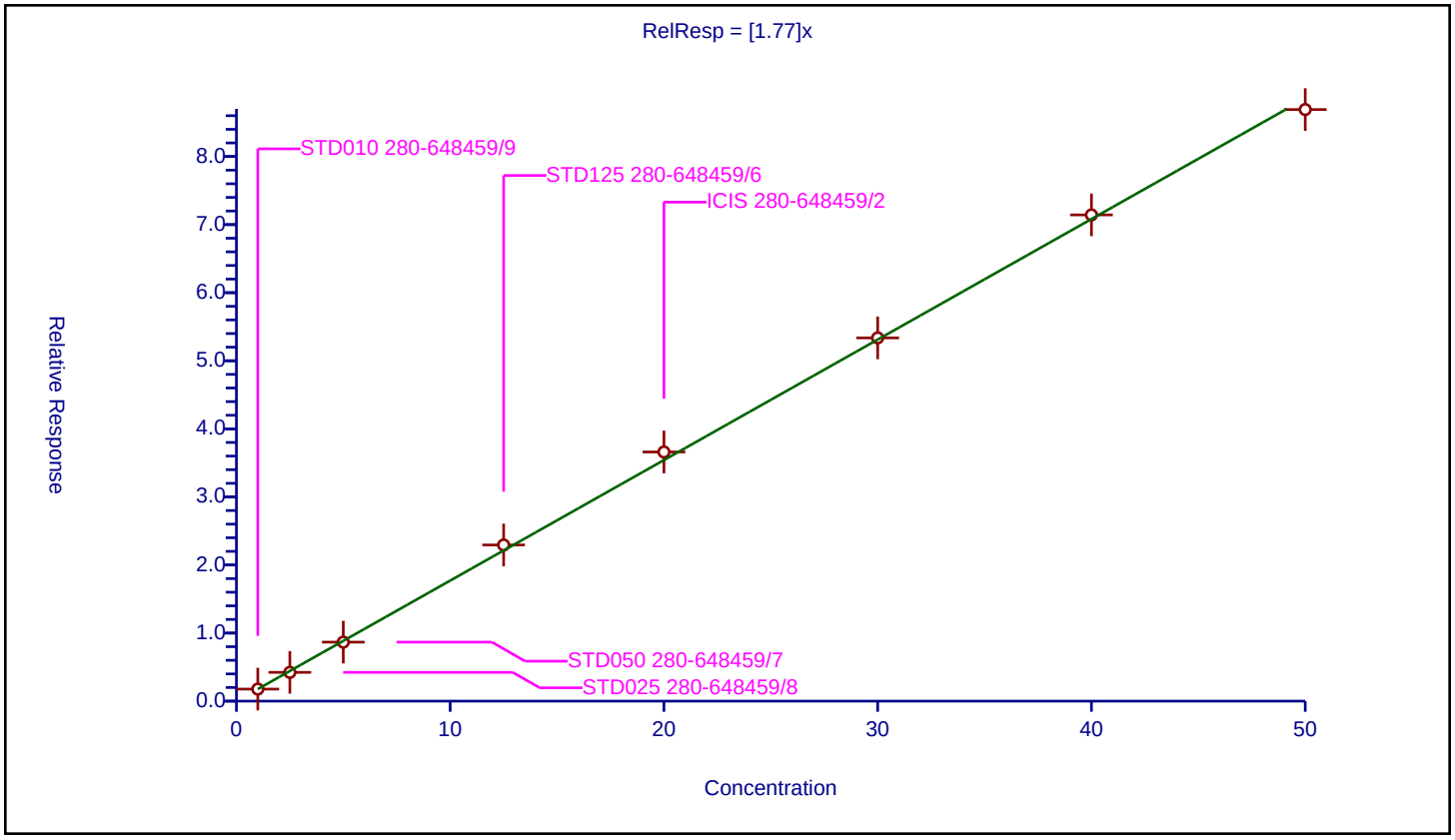
Curve Coefficients

Intercept:	0
Slope:	1.77

Error Coefficients

Relative Standard Deviation:	2.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	1.7706	8.0	270462.0	1.7706	Y
2	STD025 280-648459/8	2.5	4.228629	8.0	267525.0	1.691452	Y
3	STD050 280-648459/7	5.0	8.666613	8.0	248576.0	1.733323	Y
4	STD125 280-648459/6	12.5	22.941559	8.0	240278.0	1.835325	Y
5	ICIS 280-648459/2	20.0	36.60435	8.0	242760.0	1.830217	Y
6	STD300 280-648459/5	30.0	53.360717	8.0	232454.0	1.778691	Y
7	STD400 280-648459/4	40.0	71.428929	8.0	235095.0	1.785723	Y
8	STD500 280-648459/3	50.0	86.902604	8.0	233644.0	1.738052	Y



Calibration / 1,4-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

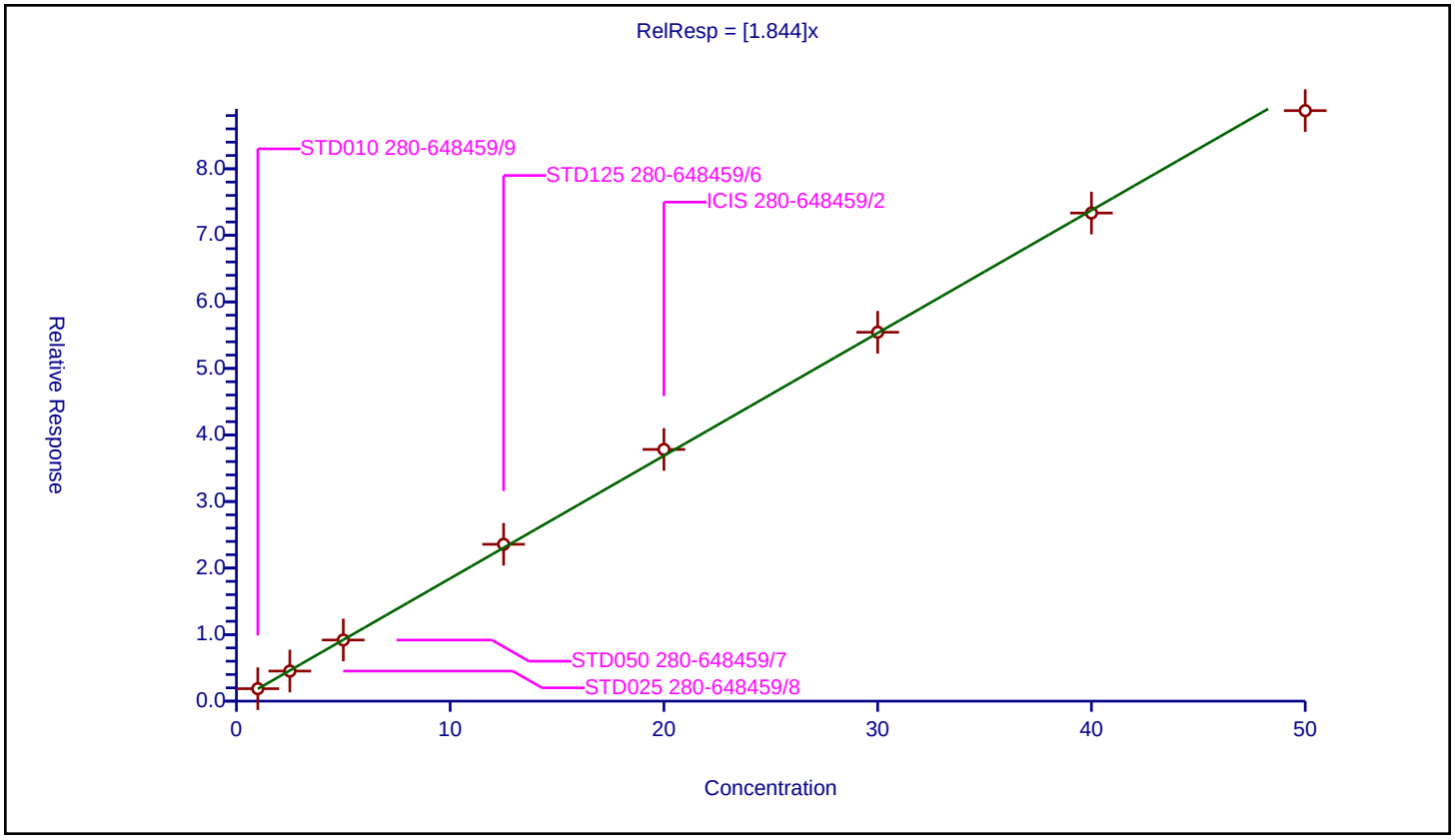
Curve Coefficients

Intercept:	0
Slope:	1.844

Error Coefficients

Relative Standard Deviation:	2.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	1.872736	8.0	270462.0	1.872736	Y
2	STD025 280-648459/8	2.5	4.52052	8.0	267525.0	1.808208	Y
3	STD050 280-648459/7	5.0	9.188047	8.0	248576.0	1.837609	Y
4	STD125 280-648459/6	12.5	23.570897	8.0	240278.0	1.885672	Y
5	ICIS 280-648459/2	20.0	37.823925	8.0	242760.0	1.891196	Y
6	STD300 280-648459/5	30.0	55.436689	8.0	232454.0	1.84789	Y
7	STD400 280-648459/4	40.0	73.351249	8.0	235095.0	1.833781	Y
8	STD500 280-648459/3	50.0	88.739518	8.0	233644.0	1.77479	Y



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Calibration / Benzyl alcohol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

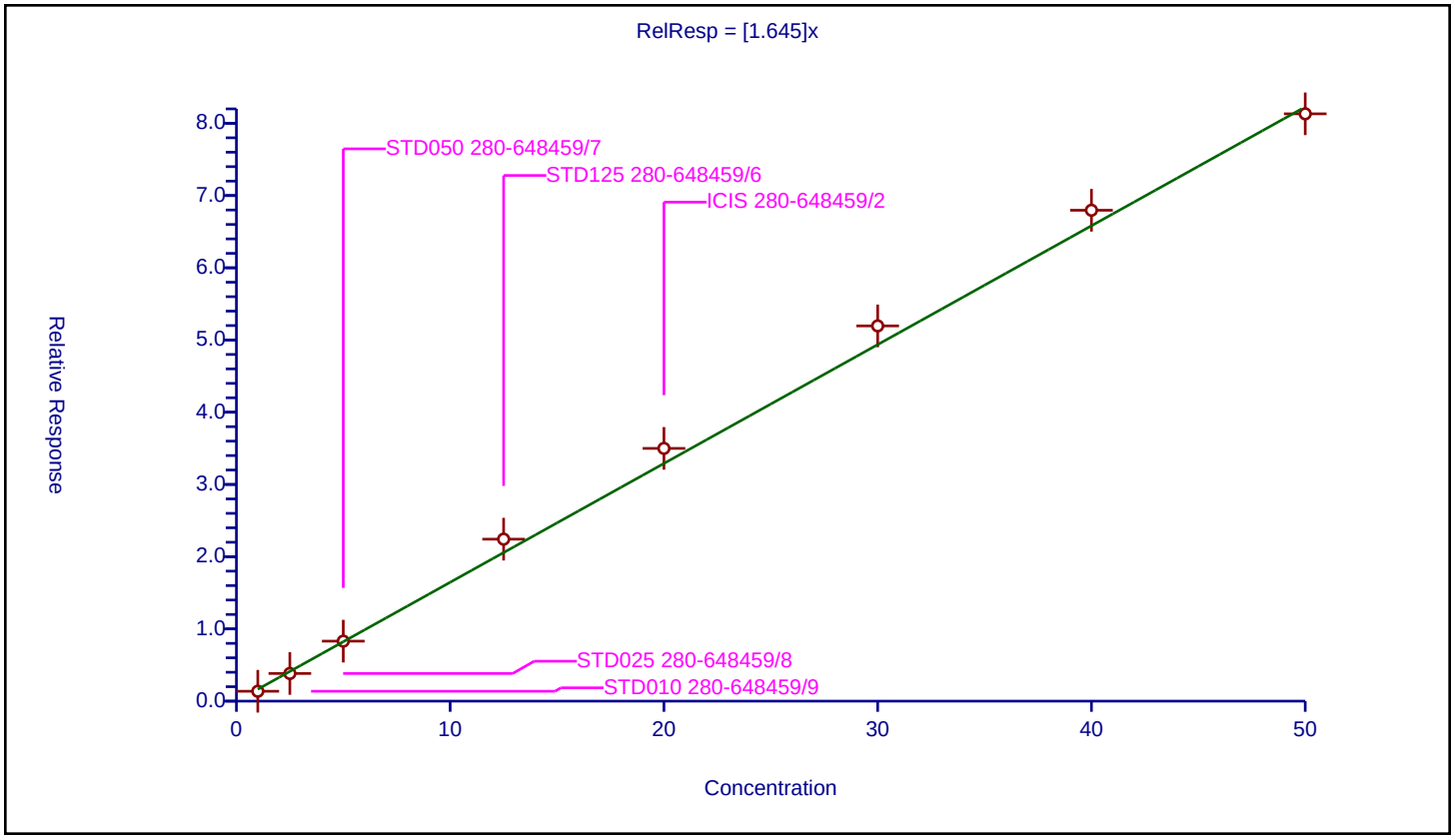
Curve Coefficients

Intercept:	0
Slope:	1.645

Error Coefficients

Relative Standard Deviation:	8.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	1.369627	8.0	270462.0	1.369627	Y
2	STD025 280-648459/8	2.5	3.828786	8.0	267525.0	1.531514	Y
3	STD050 280-648459/7	5.0	8.306804	8.0	248576.0	1.661361	Y
4	STD125 280-648459/6	12.5	22.426523	8.0	240278.0	1.794122	Y
5	ICIS 280-648459/2	20.0	34.992453	8.0	242760.0	1.749623	Y
6	STD300 280-648459/5	30.0	51.954055	8.0	232454.0	1.731802	Y
7	STD400 280-648459/4	40.0	67.963674	8.0	235095.0	1.699092	Y
8	STD500 280-648459/3	50.0	81.317115	8.0	233644.0	1.626342	Y



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Calibration / 1,2-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

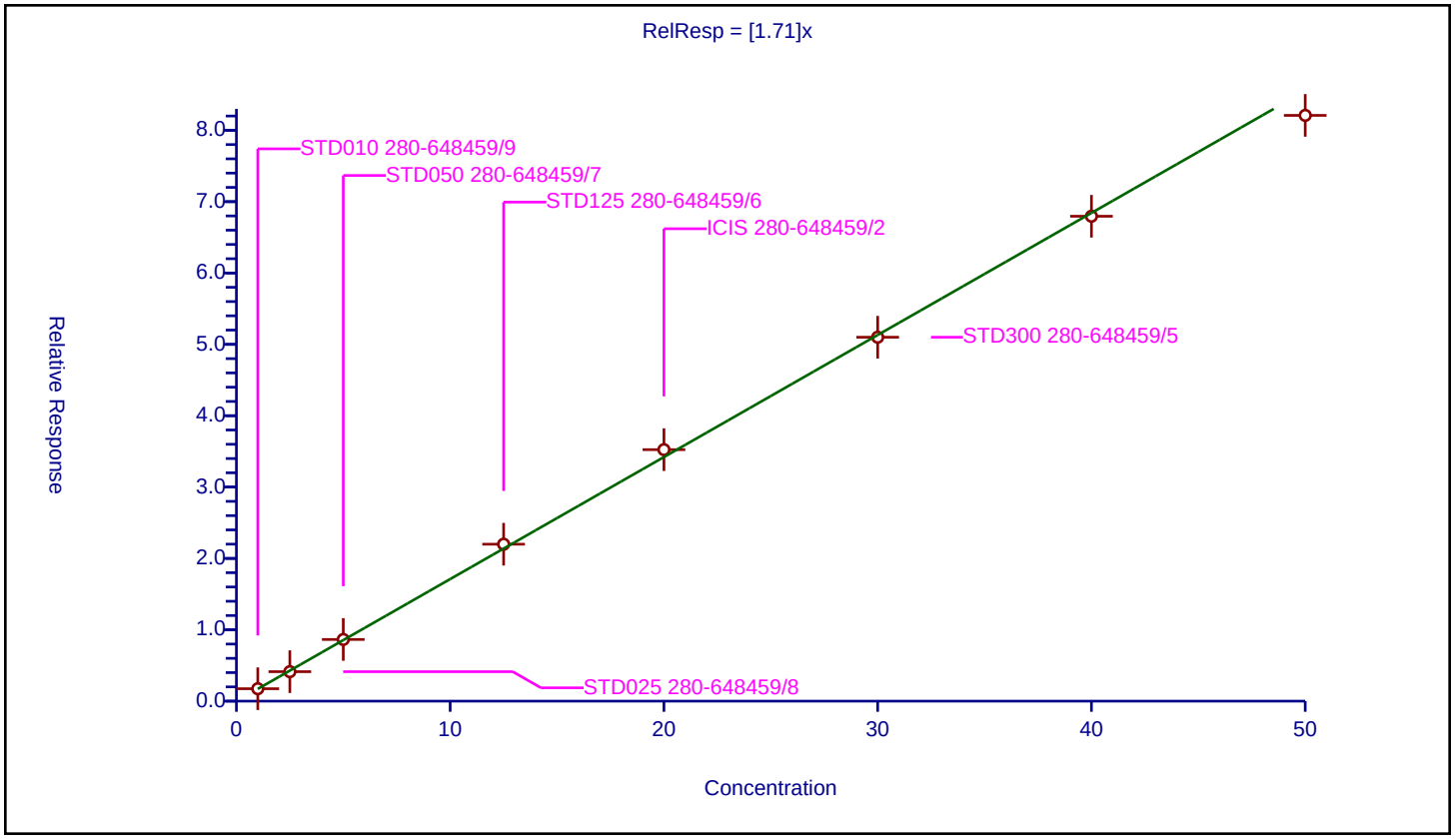
Curve Coefficients

Intercept:	0
Slope:	1.71

Error Coefficients

Relative Standard Deviation:	2.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	1.740725	8.0	270462.0	1.740725	Y
2	STD025 280-648459/8	2.5	4.129678	8.0	267525.0	1.651871	Y
3	STD050 280-648459/7	5.0	8.642057	8.0	248576.0	1.728411	Y
4	STD125 280-648459/6	12.5	21.992725	8.0	240278.0	1.759418	Y
5	ICIS 280-648459/2	20.0	35.245477	8.0	242760.0	1.762274	Y
6	STD300 280-648459/5	30.0	51.000095	8.0	232454.0	1.700003	Y
7	STD400 280-648459/4	40.0	67.954486	8.0	235095.0	1.698862	Y
8	STD500 280-648459/3	50.0	82.090873	8.0	233644.0	1.641817	Y



Calibration / 2-Methylphenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

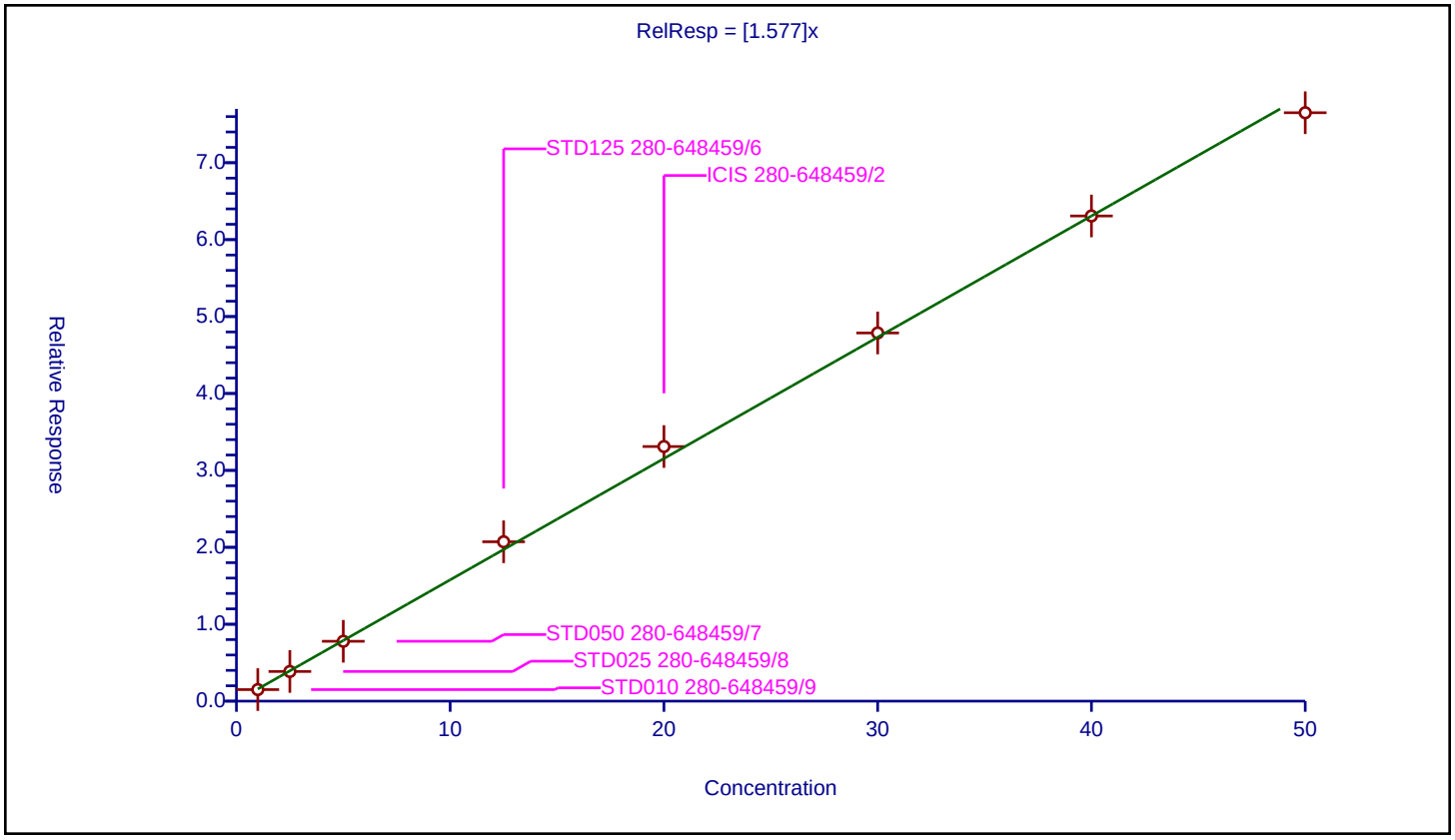
Curve Coefficients

Intercept:	0
Slope:	1.577

Error Coefficients

Relative Standard Deviation:	3.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	1.501697	8.0	270462.0	1.501697	Y
2	STD025 280-648459/8	2.5	3.85549	8.0	267525.0	1.542196	Y
3	STD050 280-648459/7	5.0	7.784018	8.0	248576.0	1.556804	Y
4	STD125 280-648459/6	12.5	20.719034	8.0	240278.0	1.657523	Y
5	ICIS 280-648459/2	20.0	33.101895	8.0	242760.0	1.655095	Y
6	STD300 280-648459/5	30.0	47.868292	8.0	232454.0	1.59561	Y
7	STD400 280-648459/4	40.0	63.079351	8.0	235095.0	1.576984	Y
8	STD500 280-648459/3	50.0	76.499837	8.0	233644.0	1.529997	Y



Calibration / 2,2'-oxybis[1-chloropropane]

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

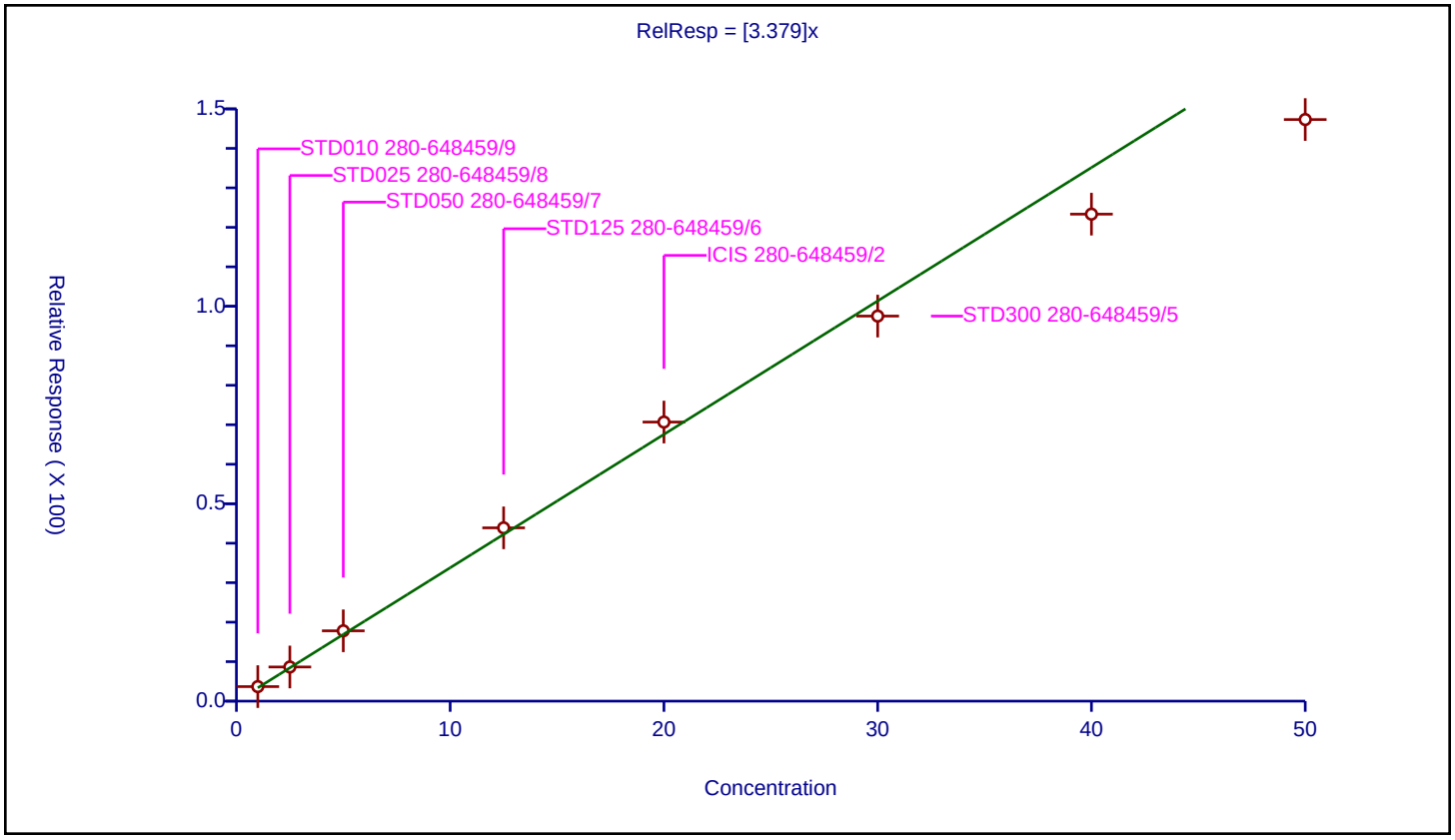
Curve Coefficients

Intercept:	0
Slope:	3.379

Error Coefficients

Relative Standard Deviation:	7.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	3.678003	8.0	270462.0	3.678003	Y
2	STD025 280-648459/8	2.5	8.654414	8.0	267525.0	3.461765	Y
3	STD050 280-648459/7	5.0	17.81176	8.0	248576.0	3.562352	Y
4	STD125 280-648459/6	12.5	43.889295	8.0	240278.0	3.511144	Y
5	ICIS 280-648459/2	20.0	70.685055	8.0	242760.0	3.534253	Y
6	STD300 280-648459/5	30.0	97.528629	8.0	232454.0	3.250954	Y
7	STD400 280-648459/4	40.0	123.342785	8.0	235095.0	3.08357	Y
8	STD500 280-648459/3	50.0	147.302289	8.0	233644.0	2.946046	Y



5/23/2024
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Calibration / Acetophenone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

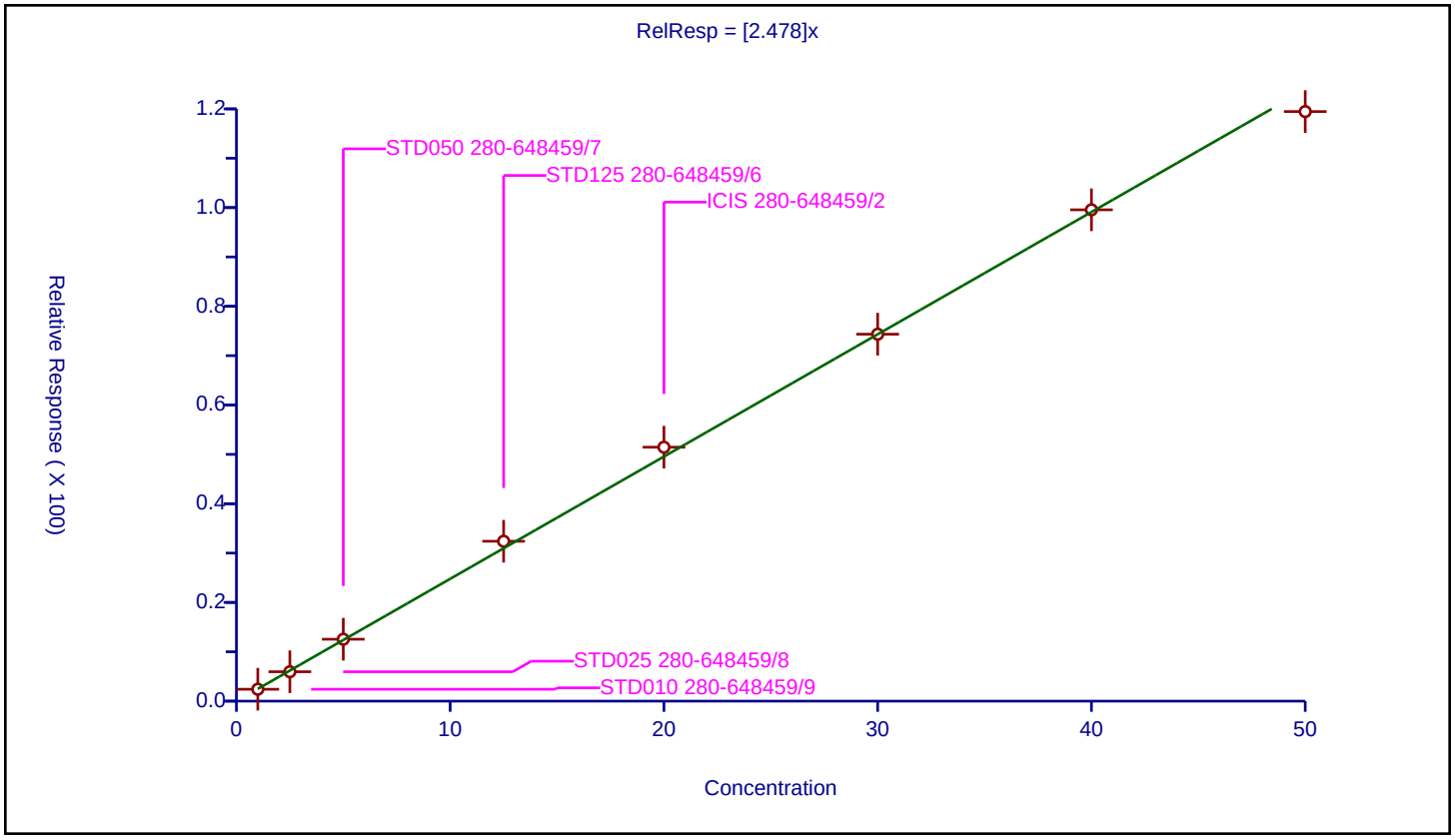
Curve Coefficients

Intercept:	0
Slope:	2.478

Error Coefficients

Relative Standard Deviation:	3.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	2.409181	8.0	270462.0	2.409181	Y
2	STD025 280-648459/8	2.5	5.954883	8.0	267525.0	2.381953	Y
3	STD050 280-648459/7	5.0	12.544864	8.0	248576.0	2.508973	Y
4	STD125 280-648459/6	12.5	32.399371	8.0	240278.0	2.59195	Y
5	ICIS 280-648459/2	20.0	51.454803	8.0	242760.0	2.57274	Y
6	STD300 280-648459/5	30.0	74.350986	8.0	232454.0	2.478366	Y
7	STD400 280-648459/4	40.0	99.550054	8.0	235095.0	2.488751	Y
8	STD500 280-648459/3	50.0	119.461642	8.0	233644.0	2.389233	Y



5/23/2024
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Calibration / N-Nitrosodi-n-propylamine

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

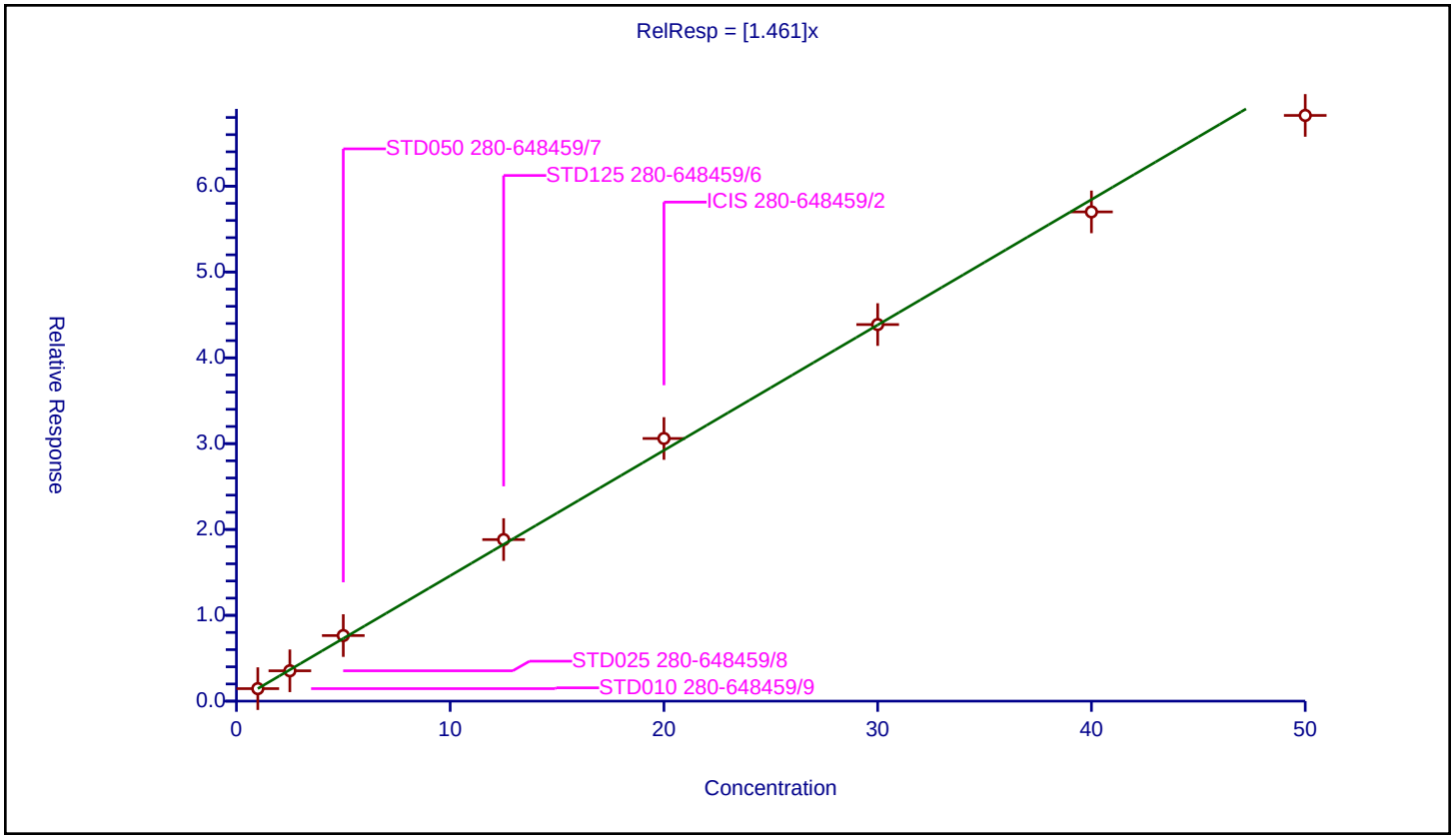
Curve Coefficients

Intercept:	0
Slope:	1.461

Error Coefficients

Relative Standard Deviation:	4.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	1.456027	8.0	270462.0	1.456027	Y
2	STD025 280-648459/8	2.5	3.536716	8.0	267525.0	1.414686	Y
3	STD050 280-648459/7	5.0	7.64003	8.0	248576.0	1.528006	Y
4	STD125 280-648459/6	12.5	18.822364	8.0	240278.0	1.505789	Y
5	ICIS 280-648459/2	20.0	30.601812	8.0	242760.0	1.530091	Y
6	STD300 280-648459/5	30.0	43.875244	8.0	232454.0	1.462508	Y
7	STD400 280-648459/4	40.0	57.000753	8.0	235095.0	1.425019	Y
8	STD500 280-648459/3	50.0	68.238311	8.0	233644.0	1.364766	Y



5/23/2024
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Calibration

/ 3 & 4 Methylphenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

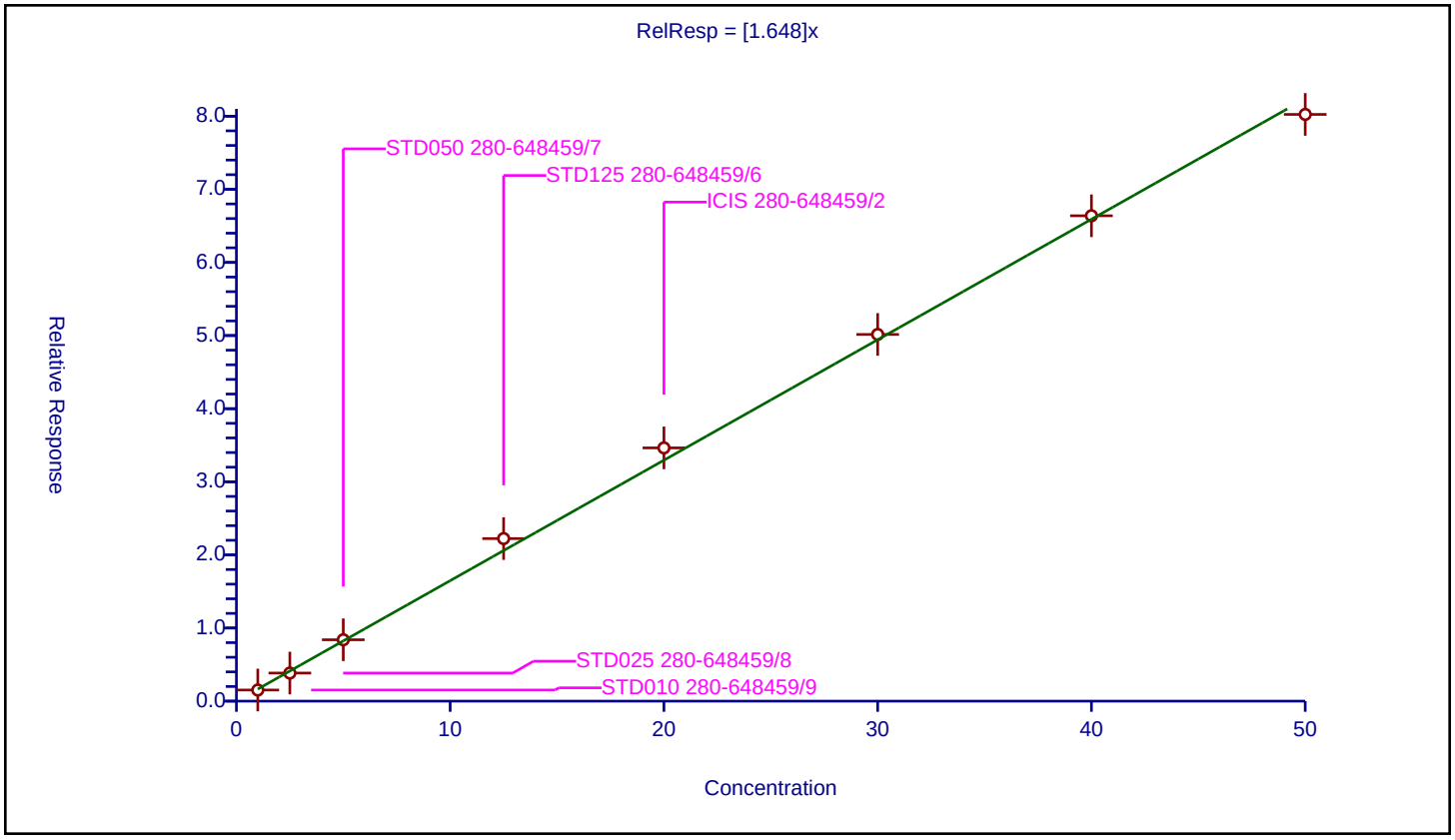
Curve Coefficients

Intercept:	0
Slope:	1.648

Error Coefficients

Relative Standard Deviation:	5.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	1.519799	8.0	270462.0	1.519799	Y
2	STD025 280-648459/8	2.5	3.840269	8.0	267525.0	1.536108	Y
3	STD050 280-648459/7	5.0	8.394761	8.0	248576.0	1.678952	Y
4	STD125 280-648459/6	12.5	22.234179	8.0	240278.0	1.778734	Y
5	ICIS 280-648459/2	20.0	34.634866	8.0	242760.0	1.731743	Y
6	STD300 280-648459/5	30.0	50.149139	8.0	232454.0	1.671638	Y
7	STD400 280-648459/4	40.0	66.382254	8.0	235095.0	1.659556	Y
8	STD500 280-648459/3	50.0	80.244029	8.0	233644.0	1.604881	Y



Calibration / Hexachloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

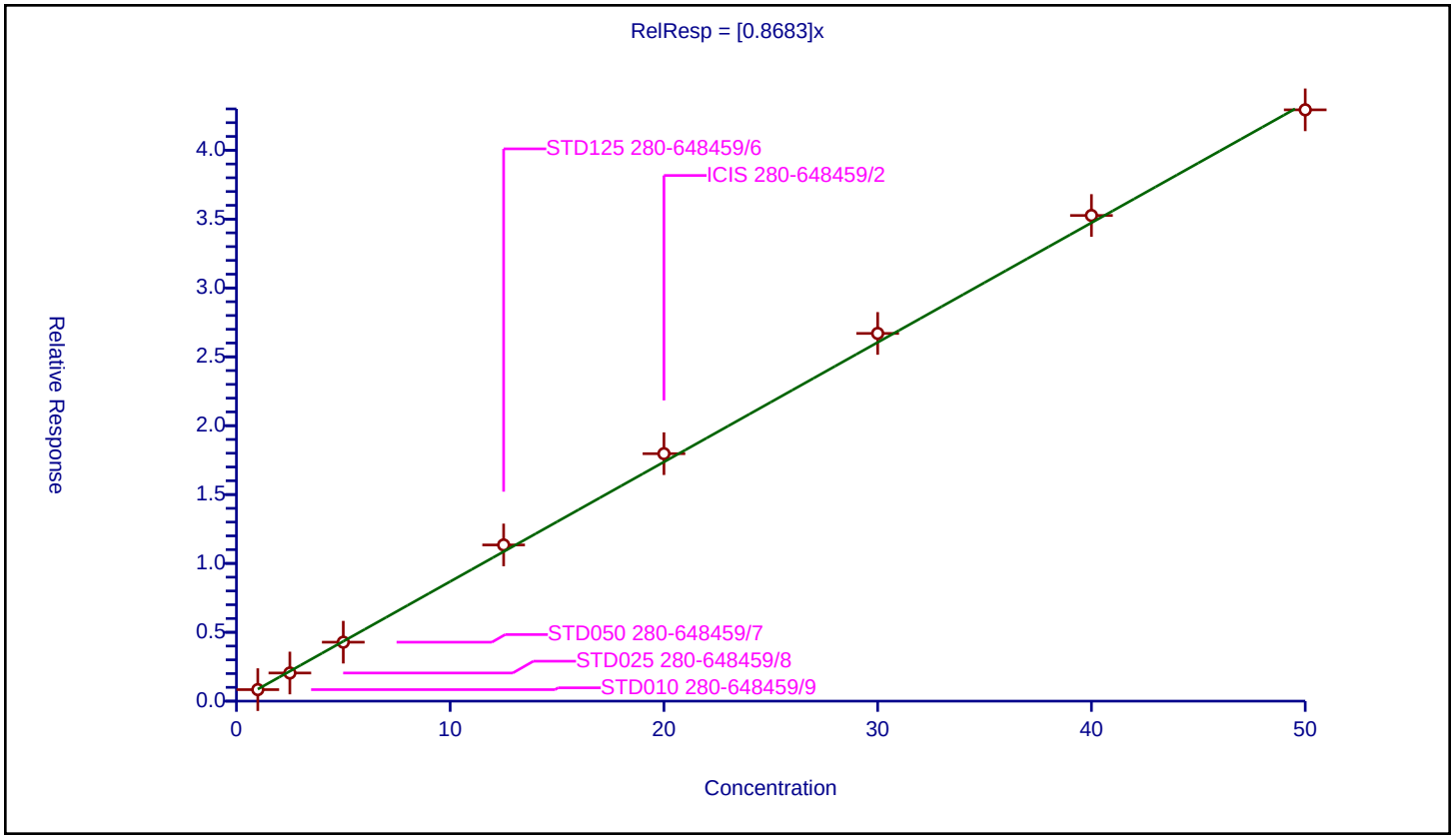
Curve Coefficients

Intercept:	0
Slope:	0.8683

Error Coefficients

Relative Standard Deviation:	3.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.837027	8.0	270462.0	0.837027	Y
2	STD025 280-648459/8	2.5	2.043203	8.0	267525.0	0.817281	Y
3	STD050 280-648459/7	5.0	4.280285	8.0	248576.0	0.856057	Y
4	STD125 280-648459/6	12.5	11.341196	8.0	240278.0	0.907296	Y
5	ICIS 280-648459/2	20.0	17.968331	8.0	242760.0	0.898417	Y
6	STD300 280-648459/5	30.0	26.698581	8.0	232454.0	0.889953	Y
7	STD400 280-648459/4	40.0	35.260912	8.0	235095.0	0.881523	Y
8	STD500 280-648459/3	50.0	42.931982	8.0	233644.0	0.85864	Y



Calibration / Nitrobenzene-d5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

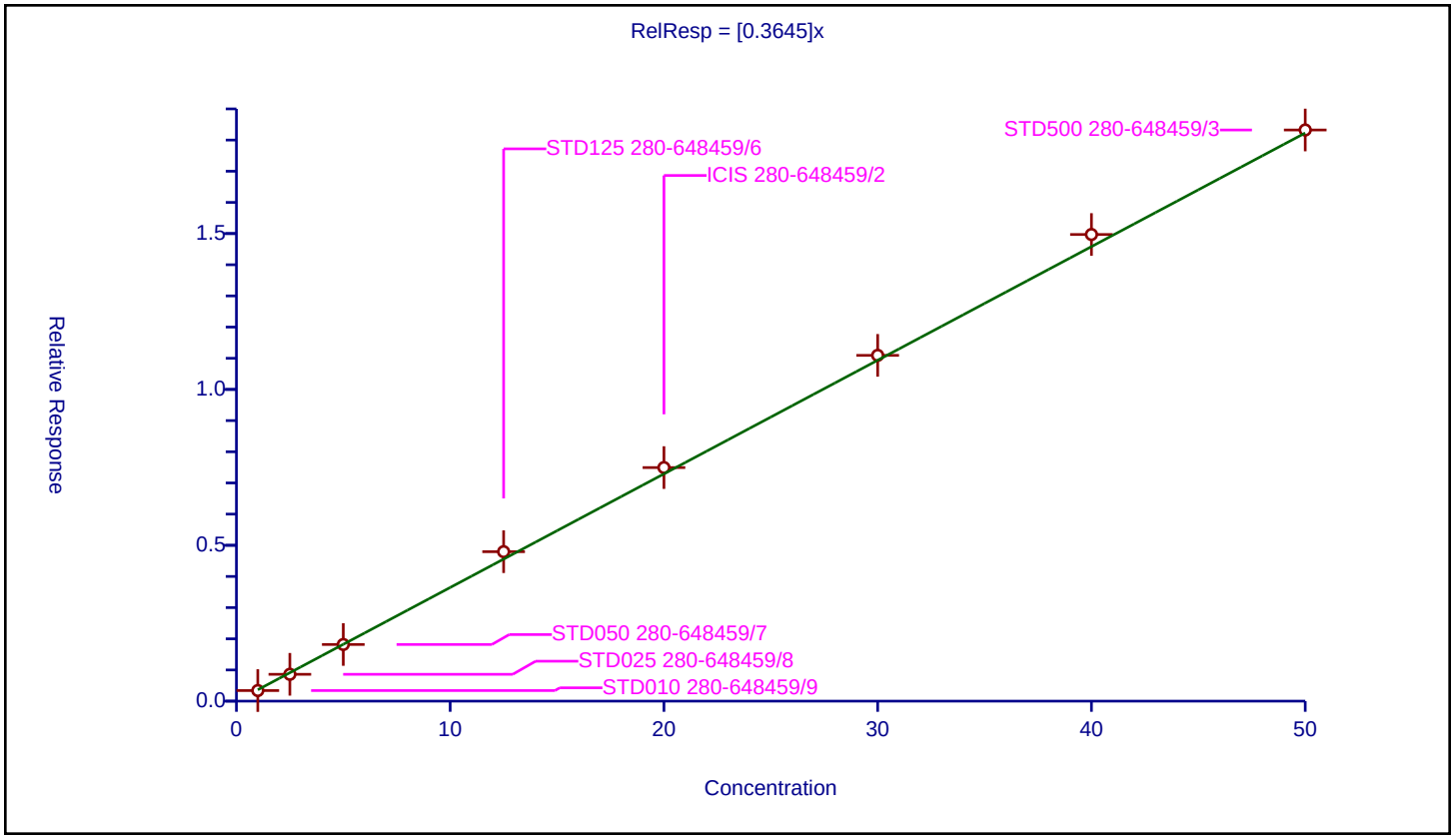
Curve Coefficients

Intercept:	0
Slope:	0.3645

Error Coefficients

Relative Standard Deviation:	4.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.339676	8.0	1540622.0	0.339676	Y
2	STD025 280-648459/8	2.5	0.860876	8.0	1510535.0	0.344351	Y
3	STD050 280-648459/7	5.0	1.81773	8.0	1403148.0	0.363546	Y
4	STD125 280-648459/6	12.5	4.794533	8.0	1370491.0	0.383563	Y
5	ICIS 280-648459/2	20.0	7.493349	8.0	1385333.0	0.374667	Y
6	STD300 280-648459/5	30.0	11.093255	8.0	1316604.0	0.369775	Y
7	STD400 280-648459/4	40.0	14.970602	8.0	1318627.0	0.374265	Y
8	STD500 280-648459/3	50.0	18.323585	8.0	1304422.0	0.366472	Y



Calibration / Nitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

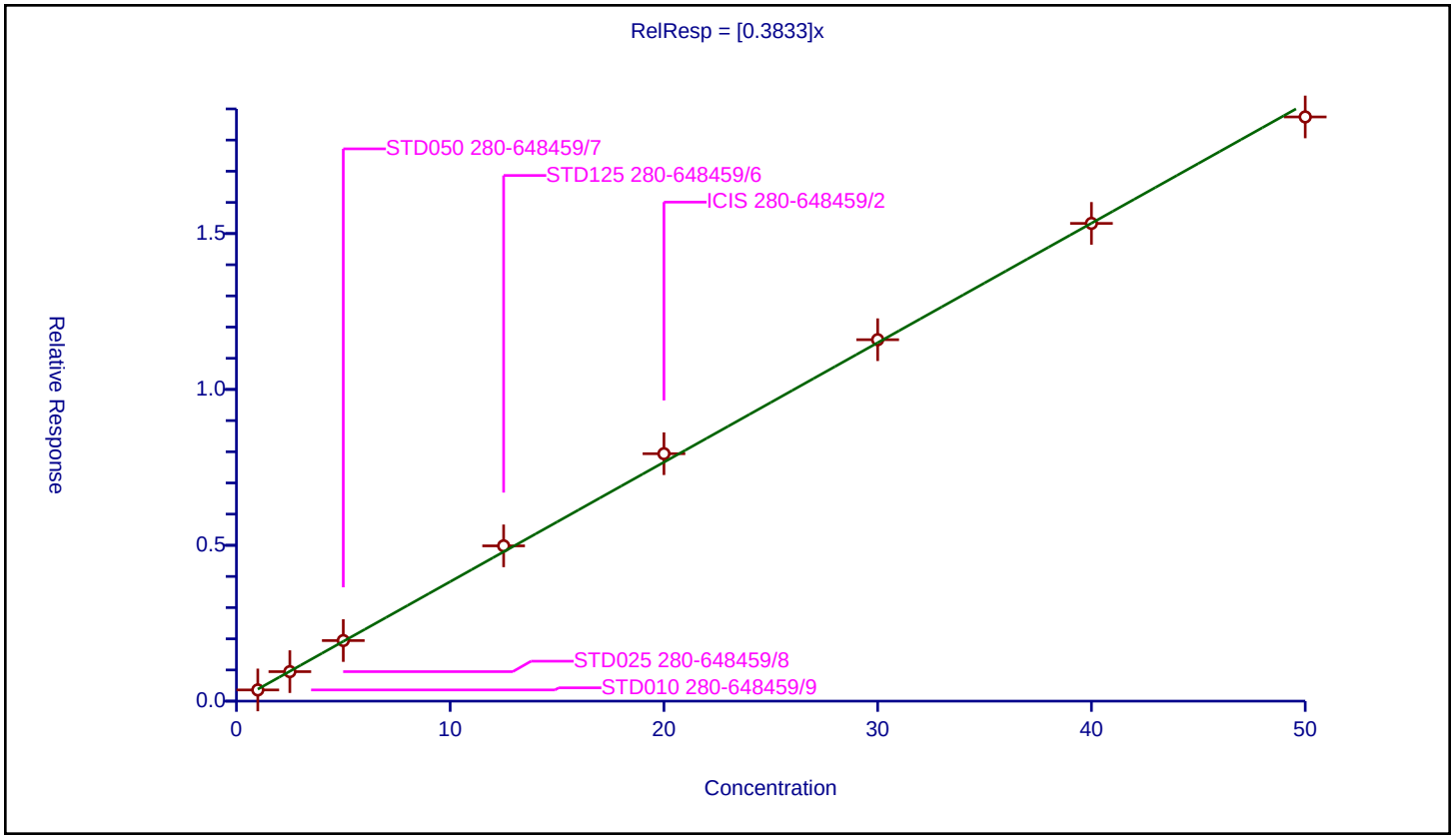
Curve Coefficients

Intercept:	0
Slope:	0.3833

Error Coefficients

Relative Standard Deviation:	3.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.35932	8.0	1540622.0	0.35932	Y
2	STD025 280-648459/8	2.5	0.94598	8.0	1510535.0	0.378392	Y
3	STD050 280-648459/7	5.0	1.943601	8.0	1403148.0	0.38872	Y
4	STD125 280-648459/6	12.5	4.981882	8.0	1370491.0	0.398551	Y
5	ICIS 280-648459/2	20.0	7.938551	8.0	1385333.0	0.396928	Y
6	STD300 280-648459/5	30.0	11.595602	8.0	1316604.0	0.38652	Y
7	STD400 280-648459/4	40.0	15.327009	8.0	1318627.0	0.383175	Y
8	STD500 280-648459/3	50.0	18.742088	8.0	1304422.0	0.374842	Y



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Calibration / Isophorone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

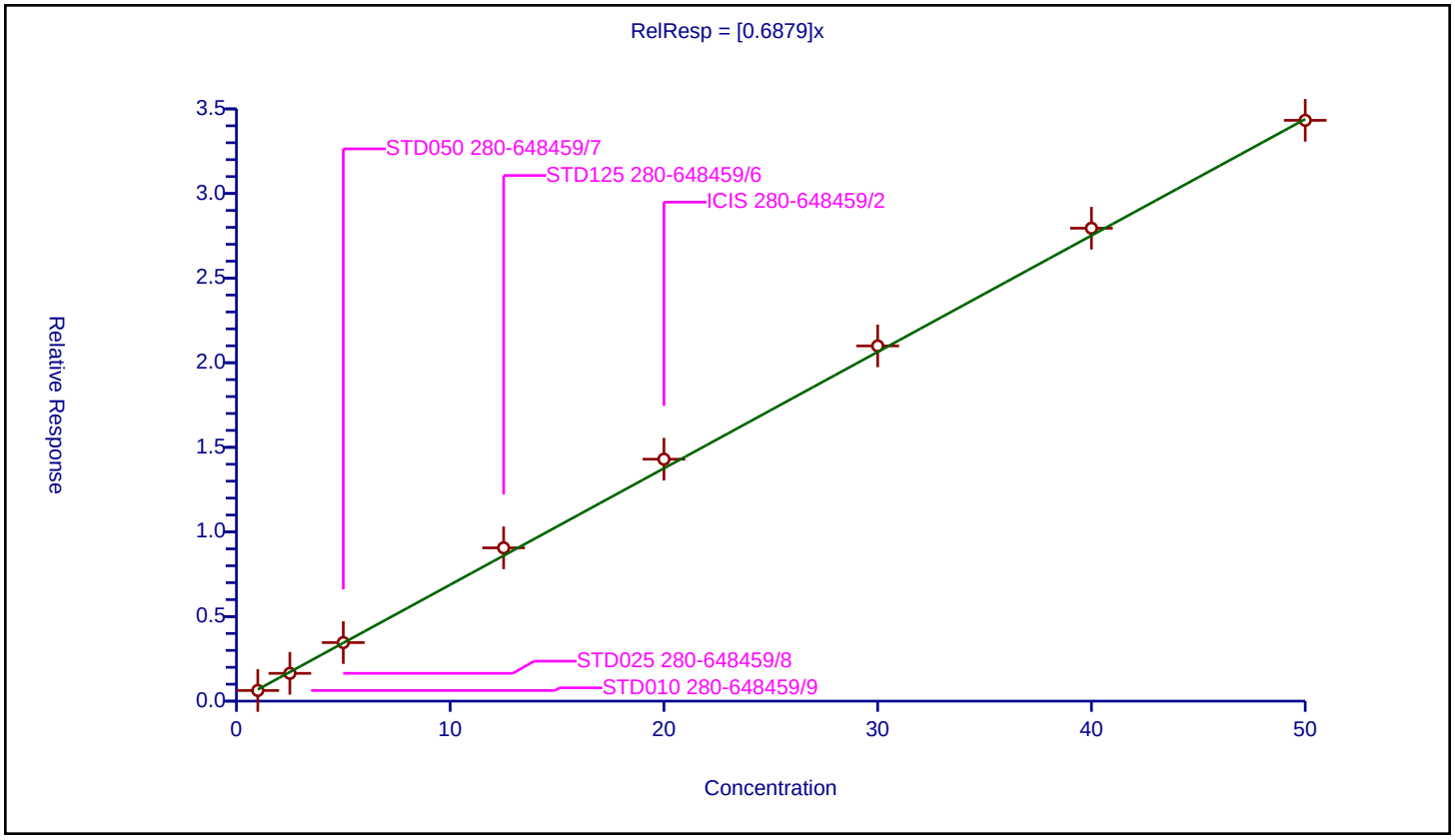
Curve Coefficients

Intercept:	0
Slope:	0.6879

Error Coefficients

Relative Standard Deviation:	4.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.629424	8.0	1540622.0	0.629424	Y
2	STD025 280-648459/8	2.5	1.642443	8.0	1510535.0	0.656977	Y
3	STD050 280-648459/7	5.0	3.460544	8.0	1403148.0	0.692109	Y
4	STD125 280-648459/6	12.5	9.059311	8.0	1370491.0	0.724745	Y
5	ICIS 280-648459/2	20.0	14.29913	8.0	1385333.0	0.714956	Y
6	STD300 280-648459/5	30.0	20.992724	8.0	1316604.0	0.699757	Y
7	STD400 280-648459/4	40.0	27.948713	8.0	1318627.0	0.698718	Y
8	STD500 280-648459/3	50.0	34.324867	8.0	1304422.0	0.686497	Y



Calibration / 2-Nitrophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

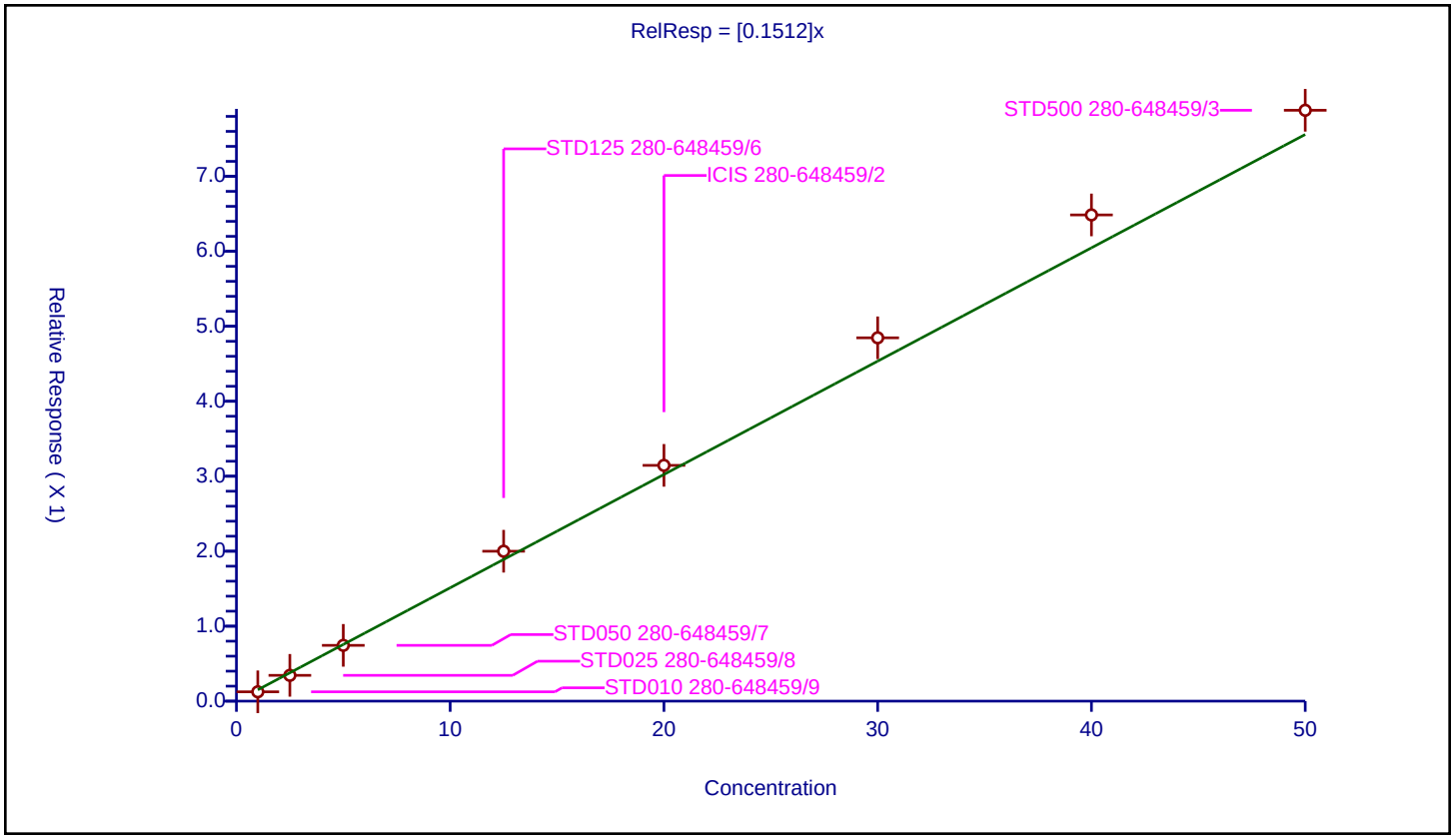
Curve Coefficients

Intercept:	0
Slope:	0.1512

Error Coefficients

Relative Standard Deviation:	9.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.124448	8.0	1540622.0	0.124448	Y
2	STD025 280-648459/8	2.5	0.34391	8.0	1510535.0	0.137564	Y
3	STD050 280-648459/7	5.0	0.74407	8.0	1403148.0	0.148814	Y
4	STD125 280-648459/6	12.5	1.999821	8.0	1370491.0	0.159986	Y
5	ICIS 280-648459/2	20.0	3.145104	8.0	1385333.0	0.157255	Y
6	STD300 280-648459/5	30.0	4.846584	8.0	1316604.0	0.161553	Y
7	STD400 280-648459/4	40.0	6.485485	8.0	1318627.0	0.162137	Y
8	STD500 280-648459/3	50.0	7.881456	8.0	1304422.0	0.157629	Y



Calibration / 2,4-Dimethylphenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

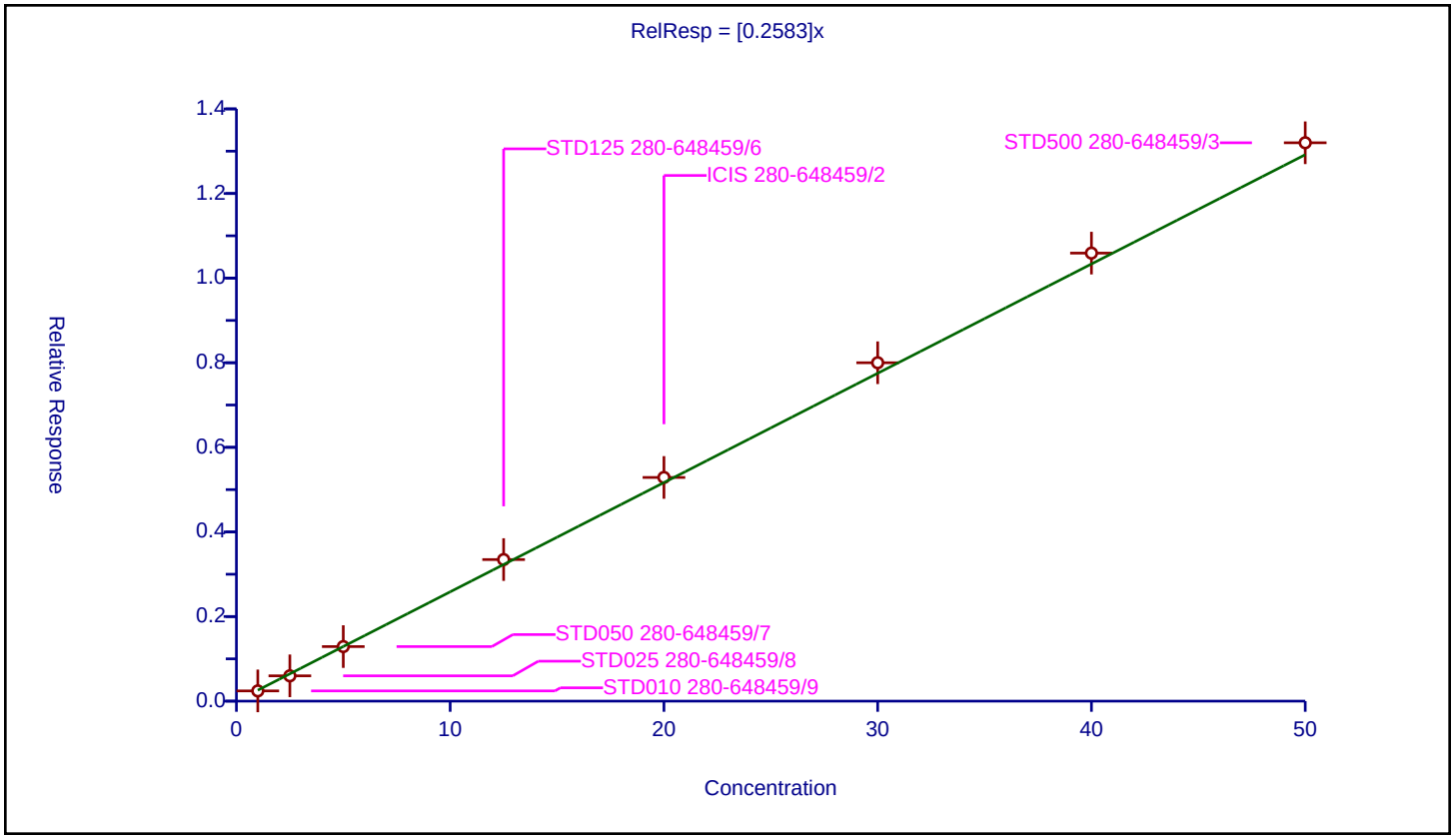
Curve Coefficients

Intercept:	0
Slope:	0.2583

Error Coefficients

Relative Standard Deviation:	4.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.241954	8.0	1540622.0	0.241954	Y
2	STD025 280-648459/8	2.5	0.598246	8.0	1510535.0	0.239299	Y
3	STD050 280-648459/7	5.0	1.289723	8.0	1403148.0	0.257945	Y
4	STD125 280-648459/6	12.5	3.346363	8.0	1370491.0	0.267709	Y
5	ICIS 280-648459/2	20.0	5.287947	8.0	1385333.0	0.264397	Y
6	STD300 280-648459/5	30.0	7.999477	8.0	1316604.0	0.266649	Y
7	STD400 280-648459/4	40.0	10.591022	8.0	1318627.0	0.264776	Y
8	STD500 280-648459/3	50.0	13.199311	8.0	1304422.0	0.263986	Y



Calibration / Benzoic acid

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

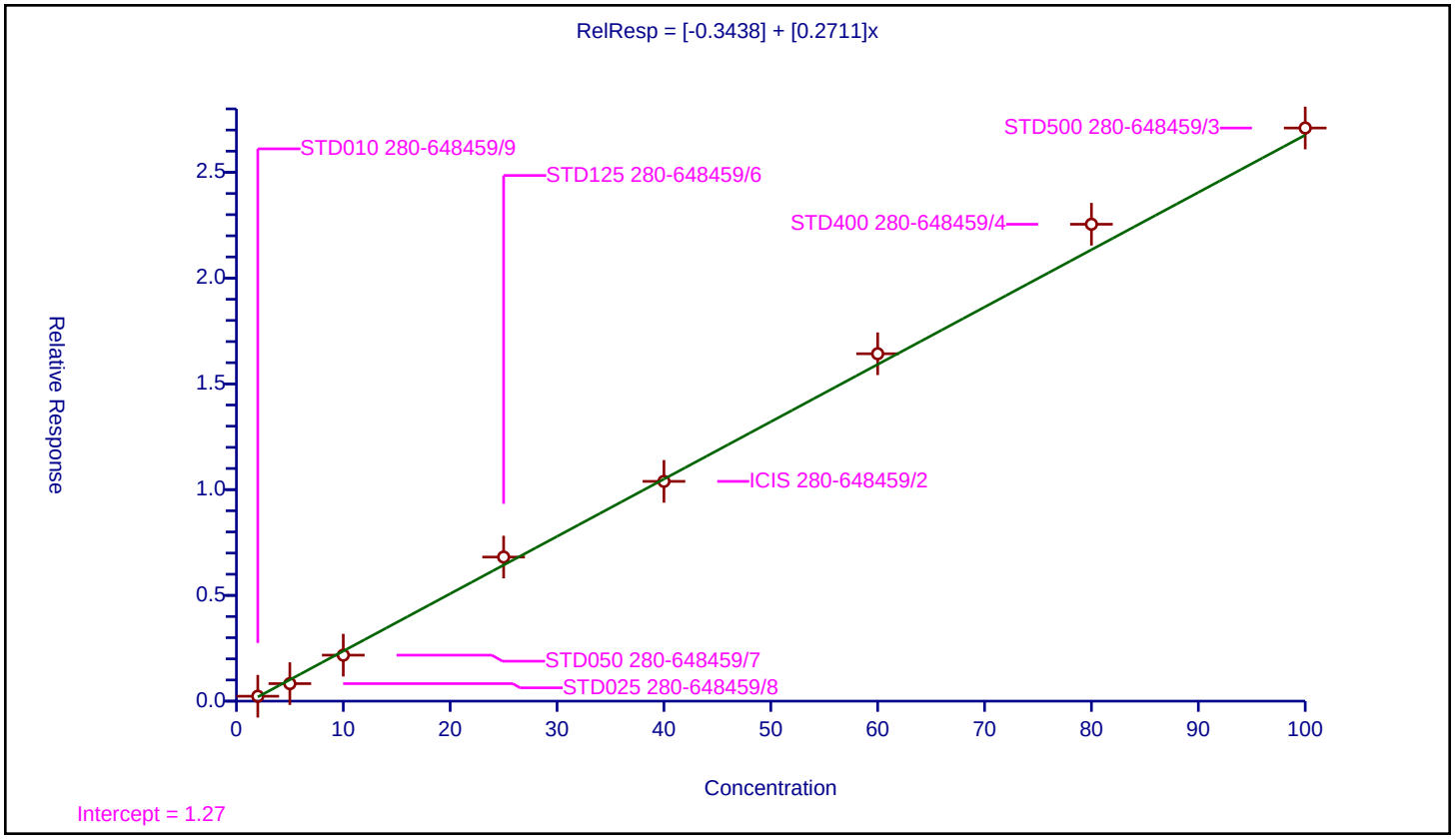
Curve Coefficients

Intercept:	-0.3438
Slope:	0.2711

Error Coefficients

Relative Standard Deviation:	7.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	2.0	0.231839	8.0	1540622.0	0.115919	Y
2	STD025 280-648459/8	5.0	0.827691	8.0	1510535.0	0.165538	Y
3	STD050 280-648459/7	10.0	2.173992	8.0	1403148.0	0.217399	Y
4	STD125 280-648459/6	25.0	6.811854	8.0	1370491.0	0.272474	Y
5	ICIS 280-648459/2	40.0	10.390536	8.0	1385333.0	0.259763	Y
6	STD300 280-648459/5	60.0	16.423884	8.0	1316604.0	0.273731	Y
7	STD400 280-648459/4	80.0	22.545857	8.0	1318627.0	0.281823	Y
8	STD500 280-648459/3	100.0	27.096476	8.0	1304422.0	0.270965	Y



Calibration / Bis(2-chloroethoxy)methane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

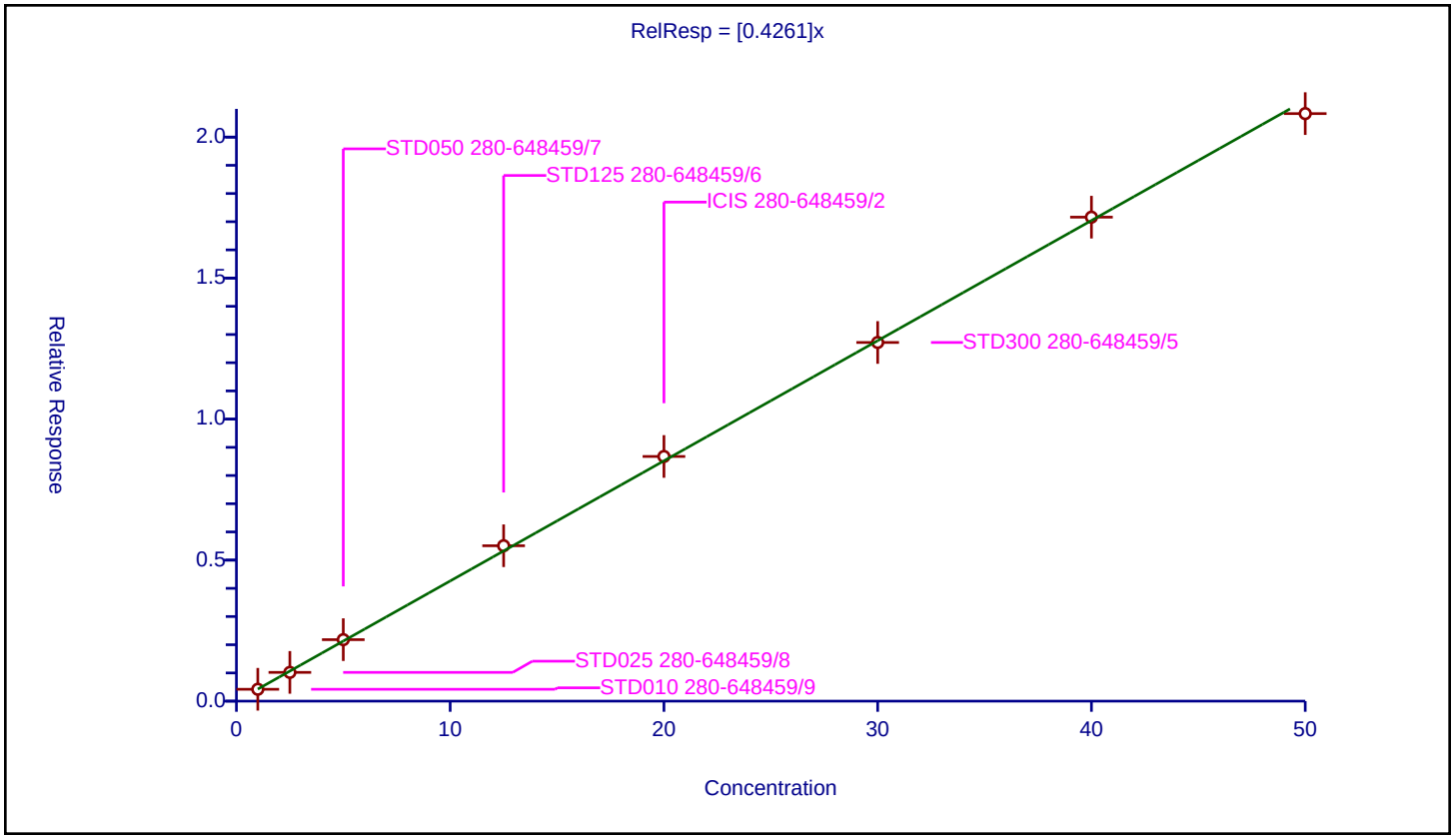
Curve Coefficients

Intercept:	0
Slope:	0.4261

Error Coefficients

Relative Standard Deviation:	2.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.420537	8.0	1540622.0	0.420537	Y
2	STD025 280-648459/8	2.5	1.019337	8.0	1510535.0	0.407735	Y
3	STD050 280-648459/7	5.0	2.180189	8.0	1403148.0	0.436038	Y
4	STD125 280-648459/6	12.5	5.510025	8.0	1370491.0	0.440802	Y
5	ICIS 280-648459/2	20.0	8.675708	8.0	1385333.0	0.433785	Y
6	STD300 280-648459/5	30.0	12.717537	8.0	1316604.0	0.423918	Y
7	STD400 280-648459/4	40.0	17.160607	8.0	1318627.0	0.429015	Y
8	STD500 280-648459/3	50.0	20.832731	8.0	1304422.0	0.416655	Y



Calibration / 2,4-Dichlorophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

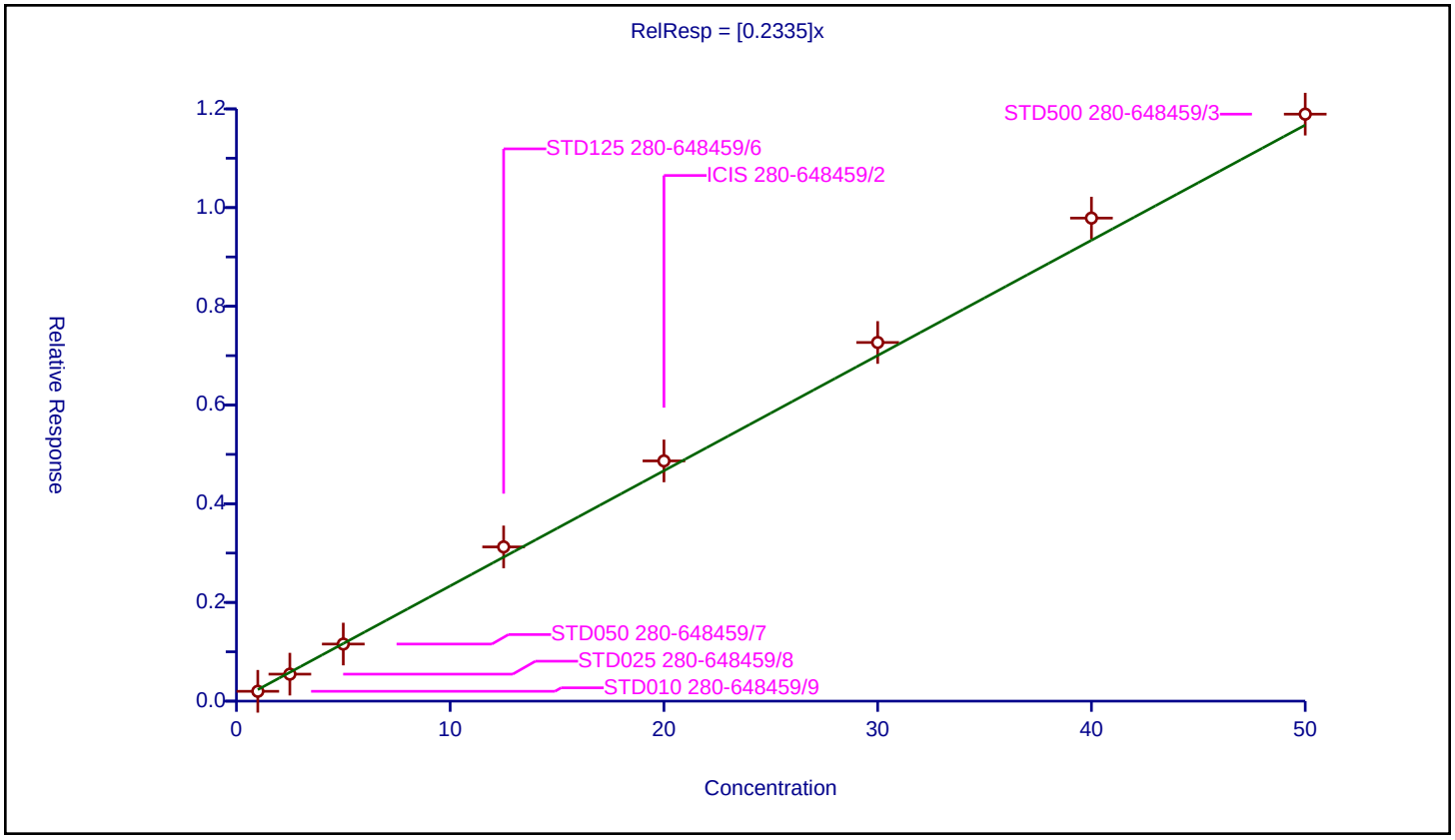
Curve Coefficients

Intercept:	0
Slope:	0.2335

Error Coefficients

Relative Standard Deviation:	7.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.199343	8.0	1540622.0	0.199343	Y
2	STD025 280-648459/8	2.5	0.546747	8.0	1510535.0	0.218699	Y
3	STD050 280-648459/7	5.0	1.156993	8.0	1403148.0	0.231399	Y
4	STD125 280-648459/6	12.5	3.125076	8.0	1370491.0	0.250006	Y
5	ICIS 280-648459/2	20.0	4.867659	8.0	1385333.0	0.243383	Y
6	STD300 280-648459/5	30.0	7.266975	8.0	1316604.0	0.242232	Y
7	STD400 280-648459/4	40.0	9.787241	8.0	1318627.0	0.244681	Y
8	STD500 280-648459/3	50.0	11.89385	8.0	1304422.0	0.237877	Y



Calibration / 1,2,4-Trichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

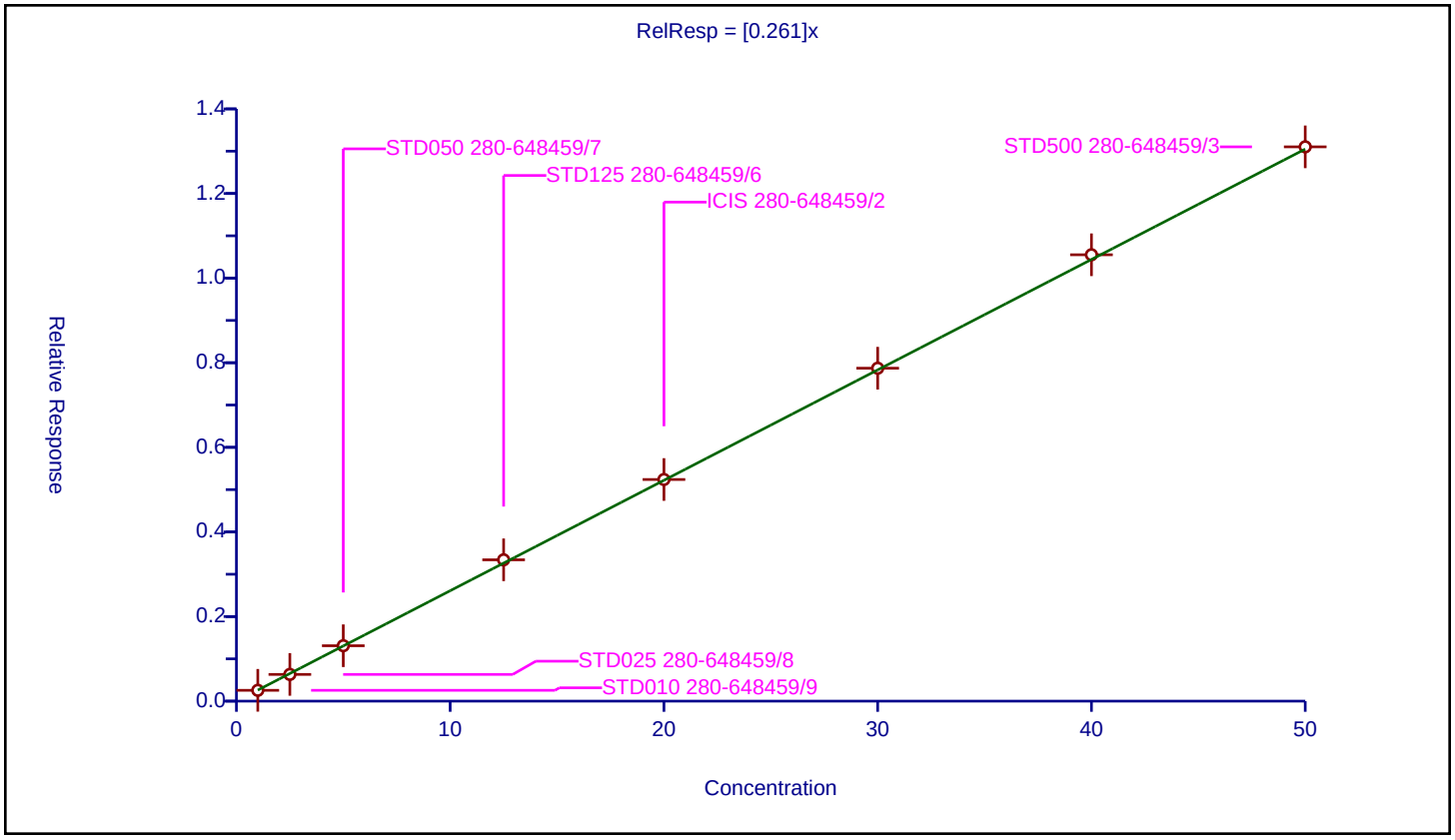
Curve Coefficients

Intercept:	0
Slope:	0.261

Error Coefficients

Relative Standard Deviation:	1.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.255819	8.0	1540622.0	0.255819	Y
2	STD025 280-648459/8	2.5	0.631819	8.0	1510535.0	0.252727	Y
3	STD050 280-648459/7	5.0	1.310151	8.0	1403148.0	0.26203	Y
4	STD125 280-648459/6	12.5	3.340987	8.0	1370491.0	0.267279	Y
5	ICIS 280-648459/2	20.0	5.239445	8.0	1385333.0	0.261972	Y
6	STD300 280-648459/5	30.0	7.870011	8.0	1316604.0	0.262334	Y
7	STD400 280-648459/4	40.0	10.55143	8.0	1318627.0	0.263786	Y
8	STD500 280-648459/3	50.0	13.102968	8.0	1304422.0	0.262059	Y



Calibration / Naphthalene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

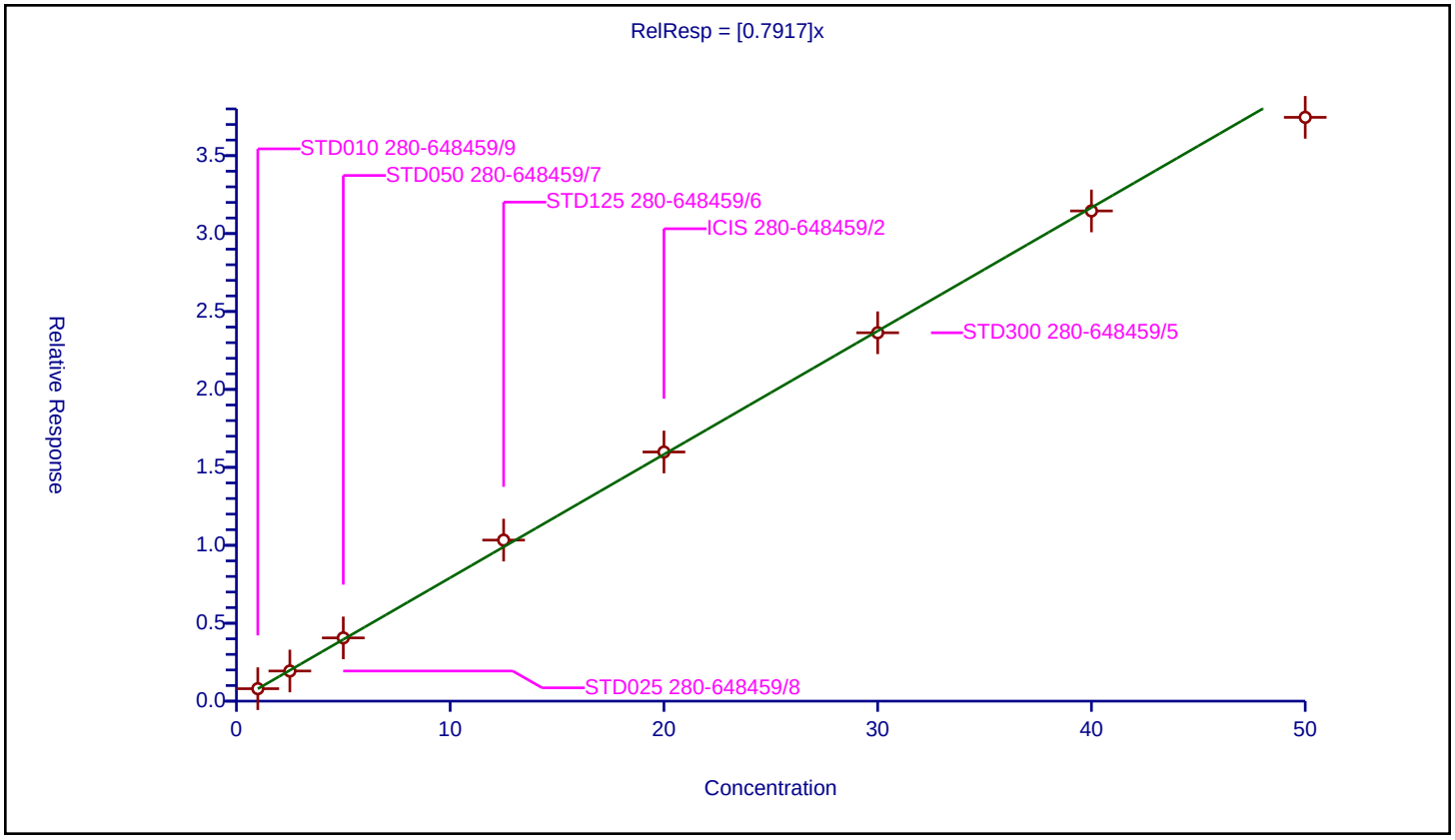
Curve Coefficients

Intercept:	0
Slope:	0.7917

Error Coefficients

Relative Standard Deviation:	3.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.798644	8.0	1540622.0	0.798644	Y
2	STD025 280-648459/8	2.5	1.933879	8.0	1510535.0	0.773552	Y
3	STD050 280-648459/7	5.0	4.05856	8.0	1403148.0	0.811712	Y
4	STD125 280-648459/6	12.5	10.333441	8.0	1370491.0	0.826675	Y
5	ICIS 280-648459/2	20.0	15.985696	8.0	1385333.0	0.799285	Y
6	STD300 280-648459/5	30.0	23.636927	8.0	1316604.0	0.787898	Y
7	STD400 280-648459/4	40.0	31.454002	8.0	1318627.0	0.78635	Y
8	STD500 280-648459/3	50.0	37.458418	8.0	1304422.0	0.749168	Y



Calibration / 4-Chloroaniline

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

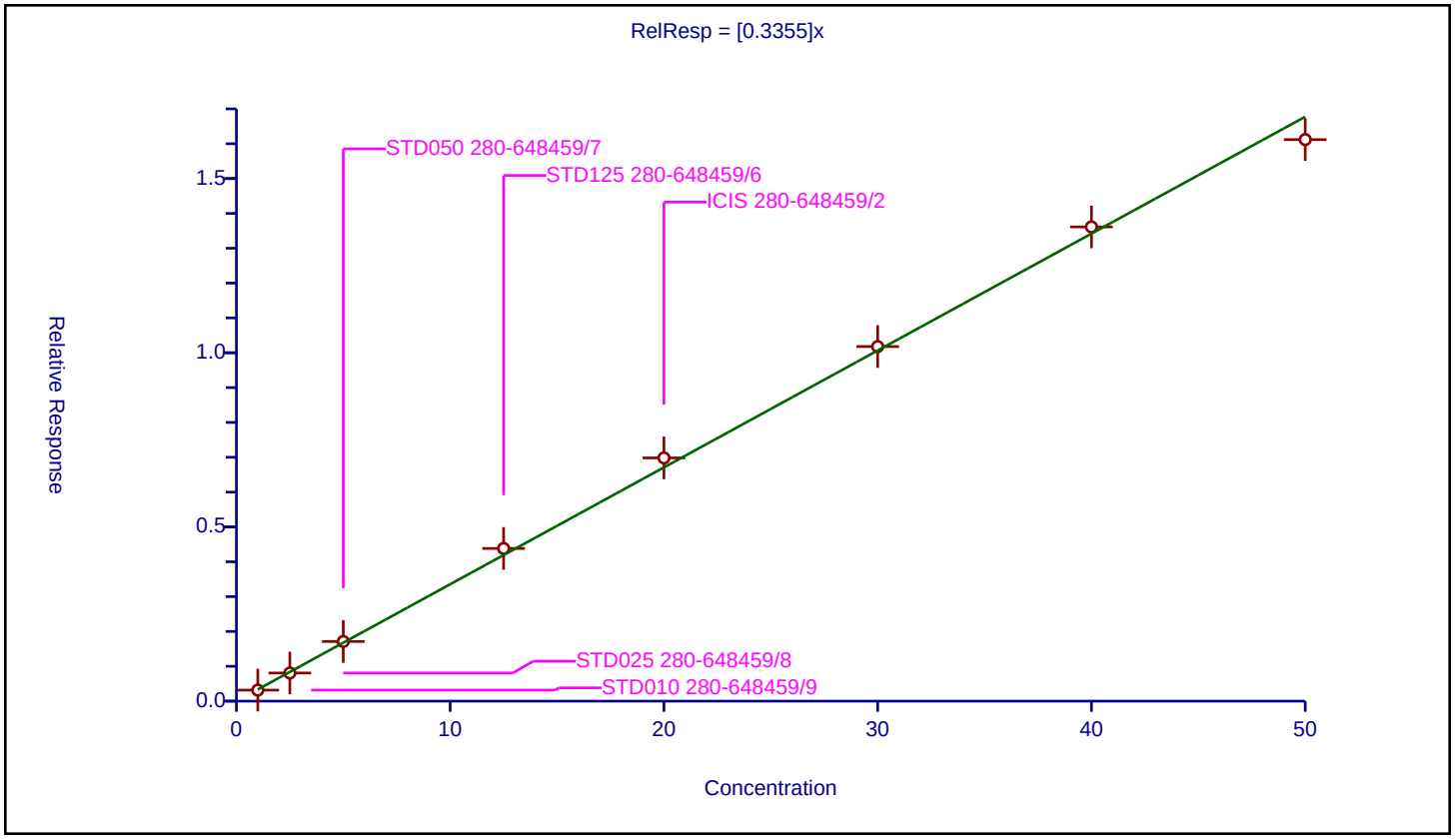
Curve Coefficients

Intercept:	0
Slope:	0.3355

Error Coefficients

Relative Standard Deviation:	3.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.316651	8.0	1540622.0	0.316651	Y
2	STD025 280-648459/8	2.5	0.807714	8.0	1510535.0	0.323086	Y
3	STD050 280-648459/7	5.0	1.712224	8.0	1403148.0	0.342445	Y
4	STD125 280-648459/6	12.5	4.382552	8.0	1370491.0	0.350604	Y
5	ICIS 280-648459/2	20.0	6.981877	8.0	1385333.0	0.349094	Y
6	STD300 280-648459/5	30.0	10.178186	8.0	1316604.0	0.339273	Y
7	STD400 280-648459/4	40.0	13.612262	8.0	1318627.0	0.340307	Y
8	STD500 280-648459/3	50.0	16.11833	8.0	1304422.0	0.322367	Y



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Calibration / 2,6-Dichlorophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

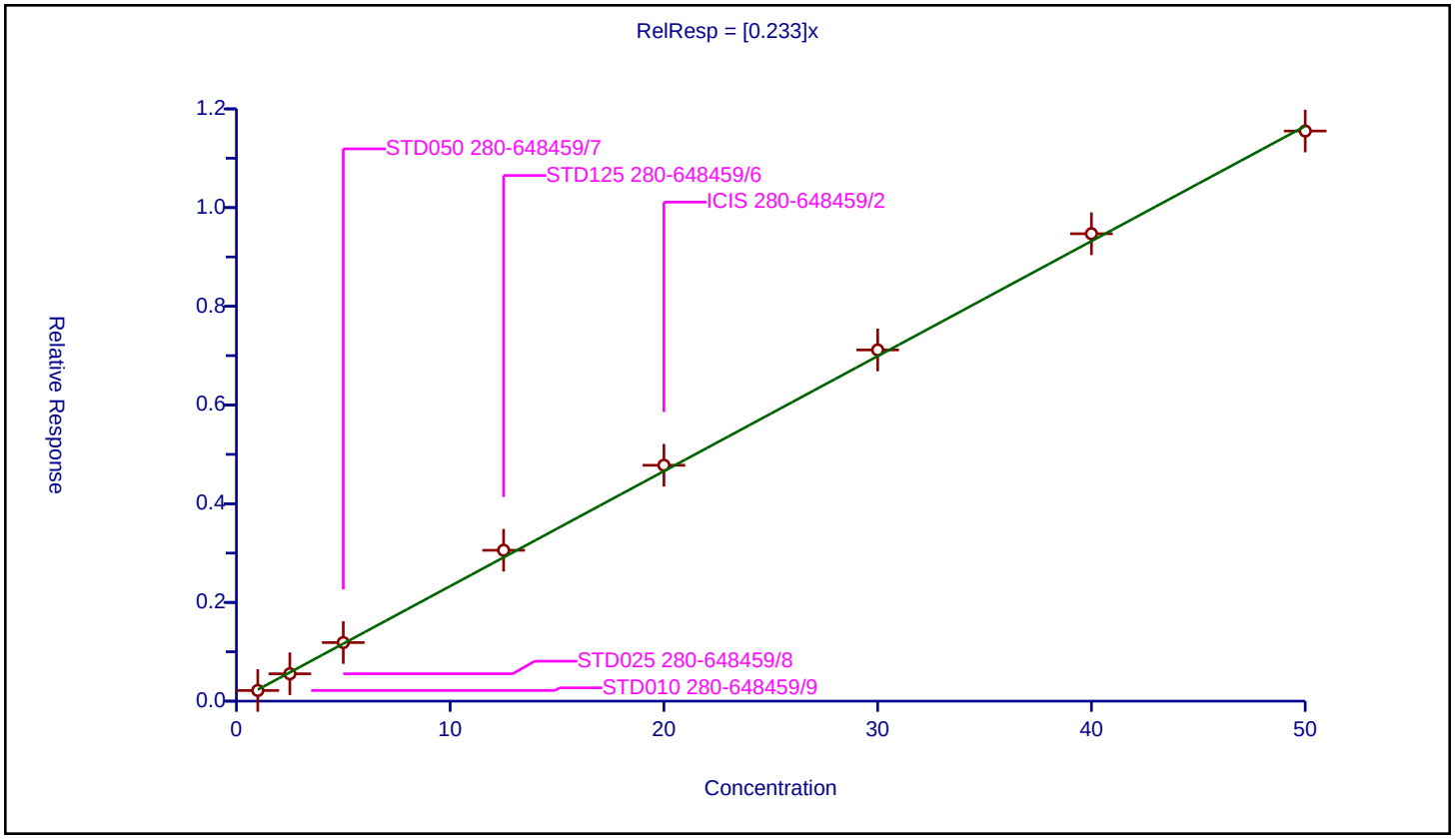
Curve Coefficients

Intercept:	0
Slope:	0.233

Error Coefficients

Relative Standard Deviation:	4.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.216318	8.0	1540622.0	0.216318	Y
2	STD025 280-648459/8	2.5	0.554728	8.0	1510535.0	0.221891	Y
3	STD050 280-648459/7	5.0	1.186726	8.0	1403148.0	0.237345	Y
4	STD125 280-648459/6	12.5	3.056773	8.0	1370491.0	0.244542	Y
5	ICIS 280-648459/2	20.0	4.779622	8.0	1385333.0	0.238981	Y
6	STD300 280-648459/5	30.0	7.116296	8.0	1316604.0	0.23721	Y
7	STD400 280-648459/4	40.0	9.470803	8.0	1318627.0	0.23677	Y
8	STD500 280-648459/3	50.0	11.551605	8.0	1304422.0	0.231032	Y



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Calibration / Hexachlorobutadiene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

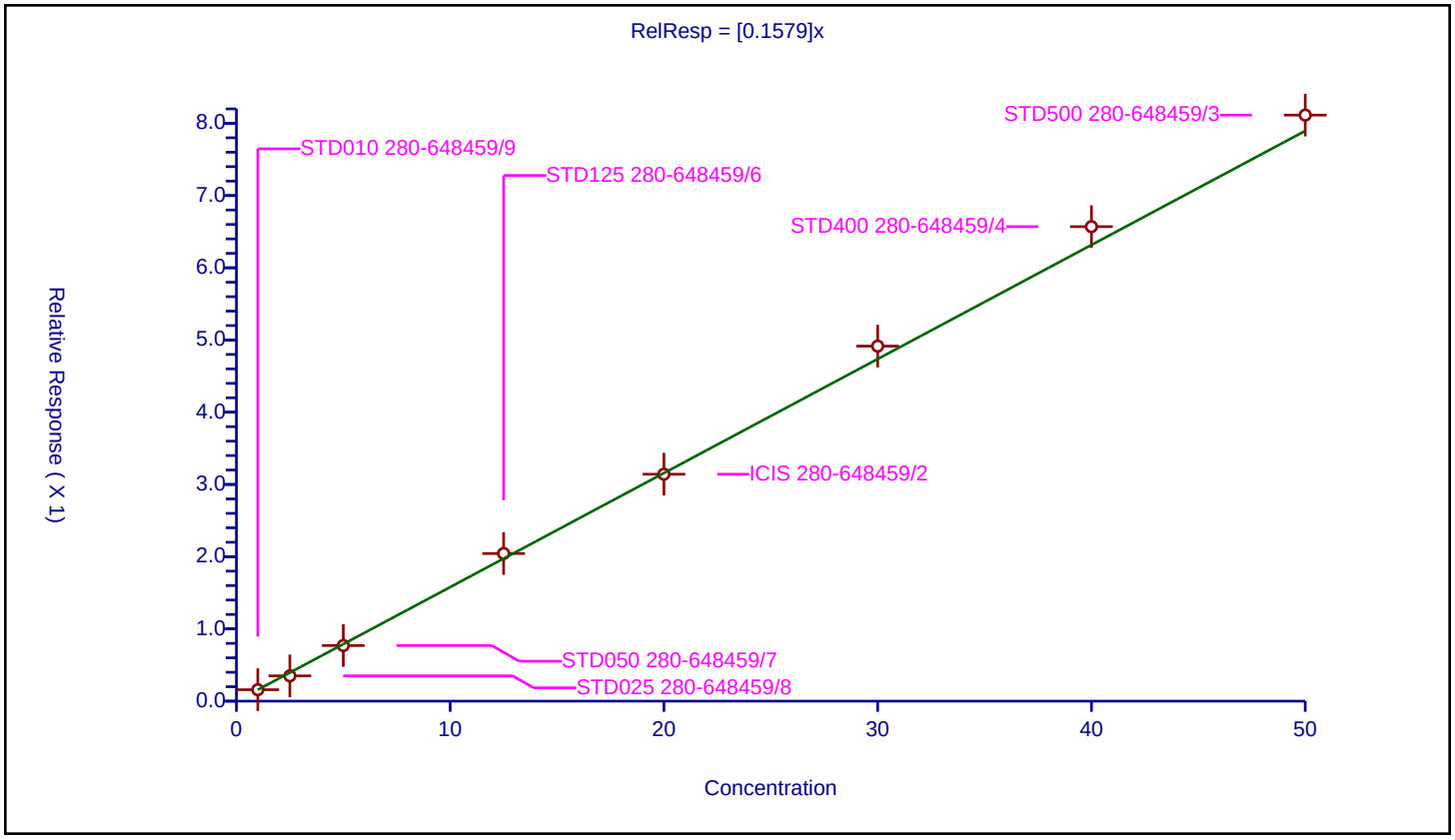
Curve Coefficients

Intercept:	0
Slope:	0.1579

Error Coefficients

Relative Standard Deviation:	5.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.158295	8.0	1540622.0	0.158295	Y
2	STD025 280-648459/8	2.5	0.350043	8.0	1510535.0	0.140017	Y
3	STD050 280-648459/7	5.0	0.769618	8.0	1403148.0	0.153924	Y
4	STD125 280-648459/6	12.5	2.043729	8.0	1370491.0	0.163498	Y
5	ICIS 280-648459/2	20.0	3.141899	8.0	1385333.0	0.157095	Y
6	STD300 280-648459/5	30.0	4.915483	8.0	1316604.0	0.163849	Y
7	STD400 280-648459/4	40.0	6.569706	8.0	1318627.0	0.164243	Y
8	STD500 280-648459/3	50.0	8.11411	8.0	1304422.0	0.162282	Y



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Calibration / 4-Chloro-3-methylphenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

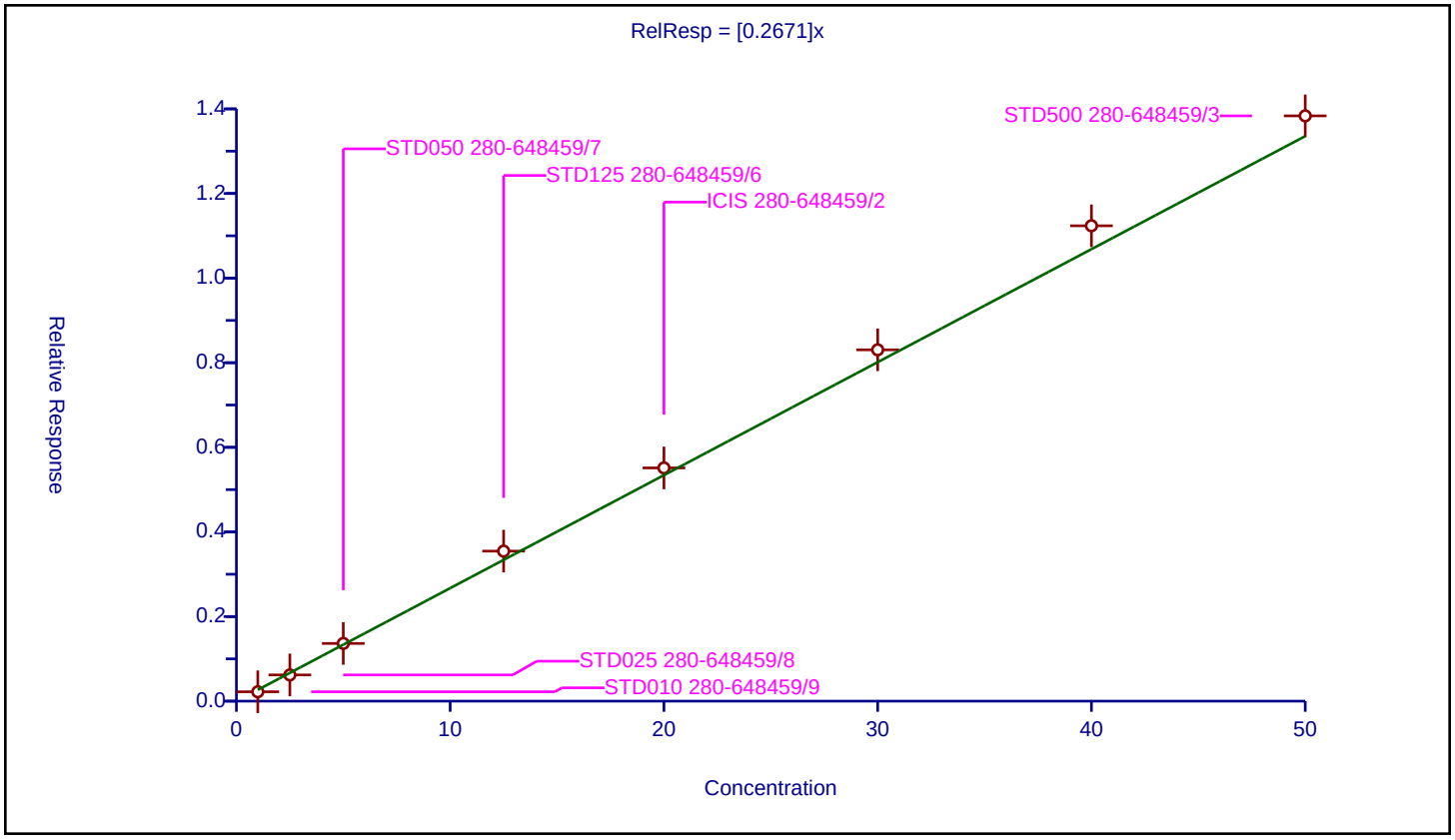
Curve Coefficients

Intercept:	0
Slope:	0.2671

Error Coefficients

Relative Standard Deviation:	7.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.222222	8.0	1540622.0	0.222222	Y
2	STD025 280-648459/8	2.5	0.61978	8.0	1510535.0	0.247912	Y
3	STD050 280-648459/7	5.0	1.364178	8.0	1403148.0	0.272836	Y
4	STD125 280-648459/6	12.5	3.546419	8.0	1370491.0	0.283714	Y
5	ICIS 280-648459/2	20.0	5.513337	8.0	1385333.0	0.275667	Y
6	STD300 280-648459/5	30.0	8.304389	8.0	1316604.0	0.276813	Y
7	STD400 280-648459/4	40.0	11.236518	8.0	1318627.0	0.280913	Y
8	STD500 280-648459/3	50.0	13.834891	8.0	1304422.0	0.276698	Y



Calibration / 2-Methylnaphthalene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

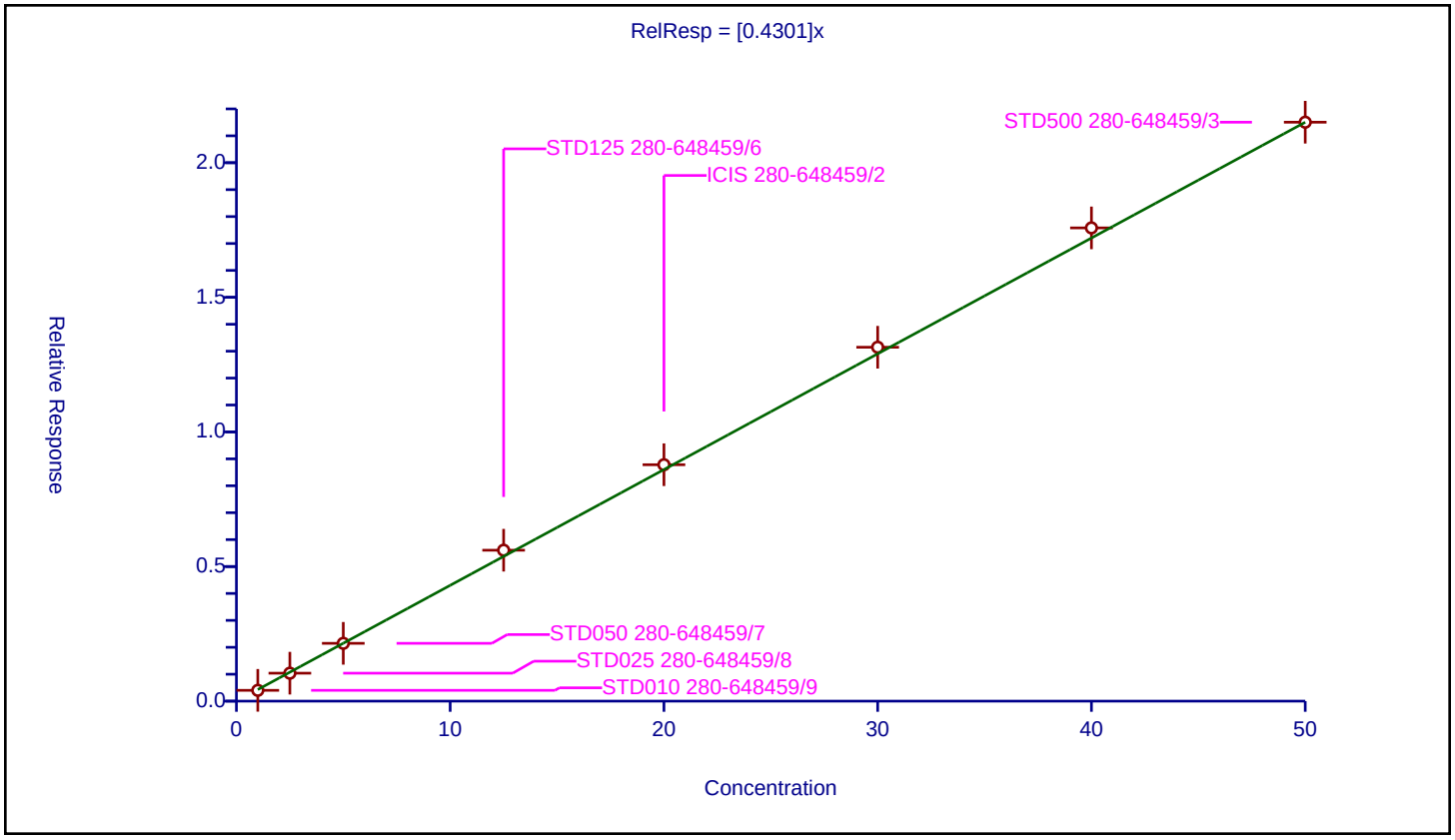
Curve Coefficients

Intercept:	0
Slope:	0.4301

Error Coefficients

Relative Standard Deviation:	3.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.400721	8.0	1540622.0	0.400721	Y
2	STD025 280-648459/8	2.5	1.037857	8.0	1510535.0	0.415143	Y
3	STD050 280-648459/7	5.0	2.147371	8.0	1403148.0	0.429474	Y
4	STD125 280-648459/6	12.5	5.605839	8.0	1370491.0	0.448467	Y
5	ICIS 280-648459/2	20.0	8.782218	8.0	1385333.0	0.439111	Y
6	STD300 280-648459/5	30.0	13.146532	8.0	1316604.0	0.438218	Y
7	STD400 280-648459/4	40.0	17.57937	8.0	1318627.0	0.439484	Y
8	STD500 280-648459/3	50.0	21.505353	8.0	1304422.0	0.430107	Y



Calibration / 1-Methylnaphthalene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

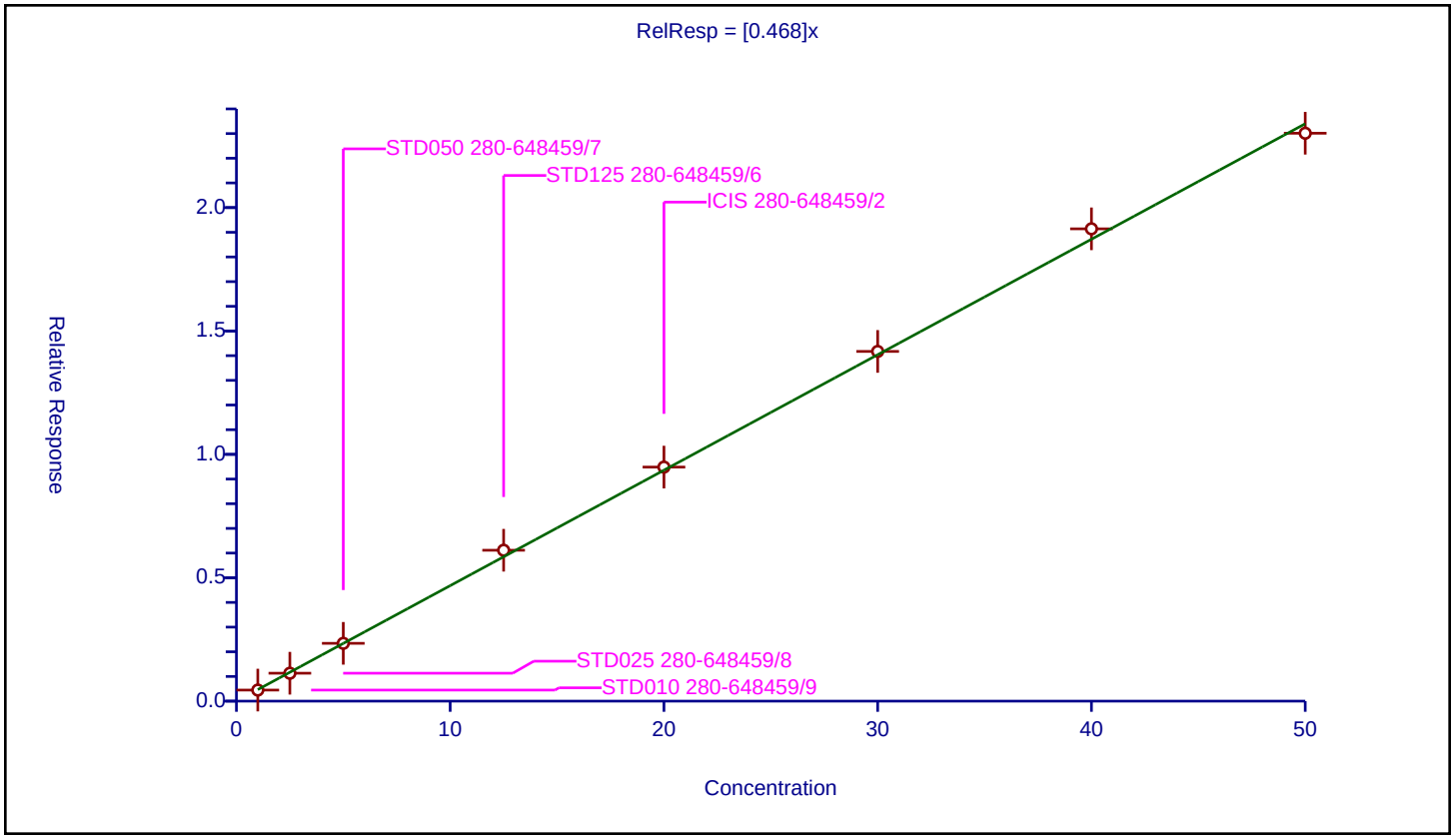
Curve Coefficients

Intercept:	0
Slope:	0.468

Error Coefficients

Relative Standard Deviation:	2.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.448214	8.0	1540622.0	0.448214	Y
2	STD025 280-648459/8	2.5	1.131112	8.0	1510535.0	0.452445	Y
3	STD050 280-648459/7	5.0	2.342128	8.0	1403148.0	0.468426	Y
4	STD125 280-648459/6	12.5	6.114784	8.0	1370491.0	0.489183	Y
5	ICIS 280-648459/2	20.0	9.484605	8.0	1385333.0	0.47423	Y
6	STD300 280-648459/5	30.0	14.171411	8.0	1316604.0	0.47238	Y
7	STD400 280-648459/4	40.0	19.140218	8.0	1318627.0	0.478505	Y
8	STD500 280-648459/3	50.0	23.013141	8.0	1304422.0	0.460263	Y



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Calibration / Hexachlorocyclopentadiene

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

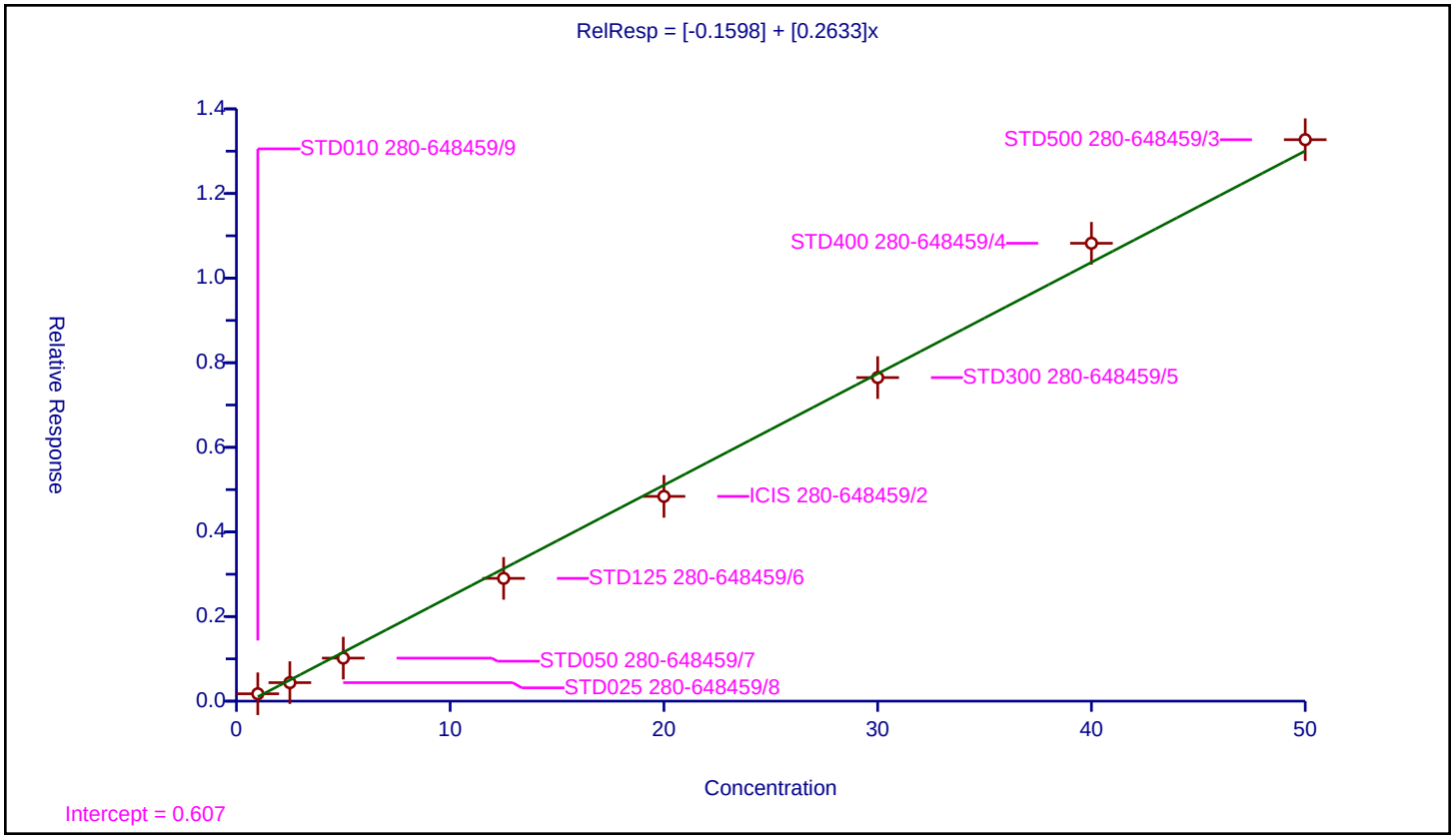
Curve Coefficients

Intercept:	-0.1598
Slope:	0.2633

Error Coefficients

Relative Standard Deviation:	13.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.174015	8.0	877947.0	0.174015	Y
2	STD025 280-648459/8	2.5	0.437171	8.0	859050.0	0.174869	Y
3	STD050 280-648459/7	5.0	1.017233	8.0	844204.0	0.203447	Y
4	STD125 280-648459/6	12.5	2.902284	8.0	785511.0	0.232183	Y
5	ICIS 280-648459/2	20.0	4.840135	8.0	779332.0	0.242007	Y
6	STD300 280-648459/5	30.0	7.648829	8.0	744731.0	0.254961	Y
7	STD400 280-648459/4	40.0	10.823448	8.0	716718.0	0.270586	Y
8	STD500 280-648459/3	50.0	13.271993	8.0	719265.0	0.26544	Y



Calibration / 1,2,4,5-Tetrachlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

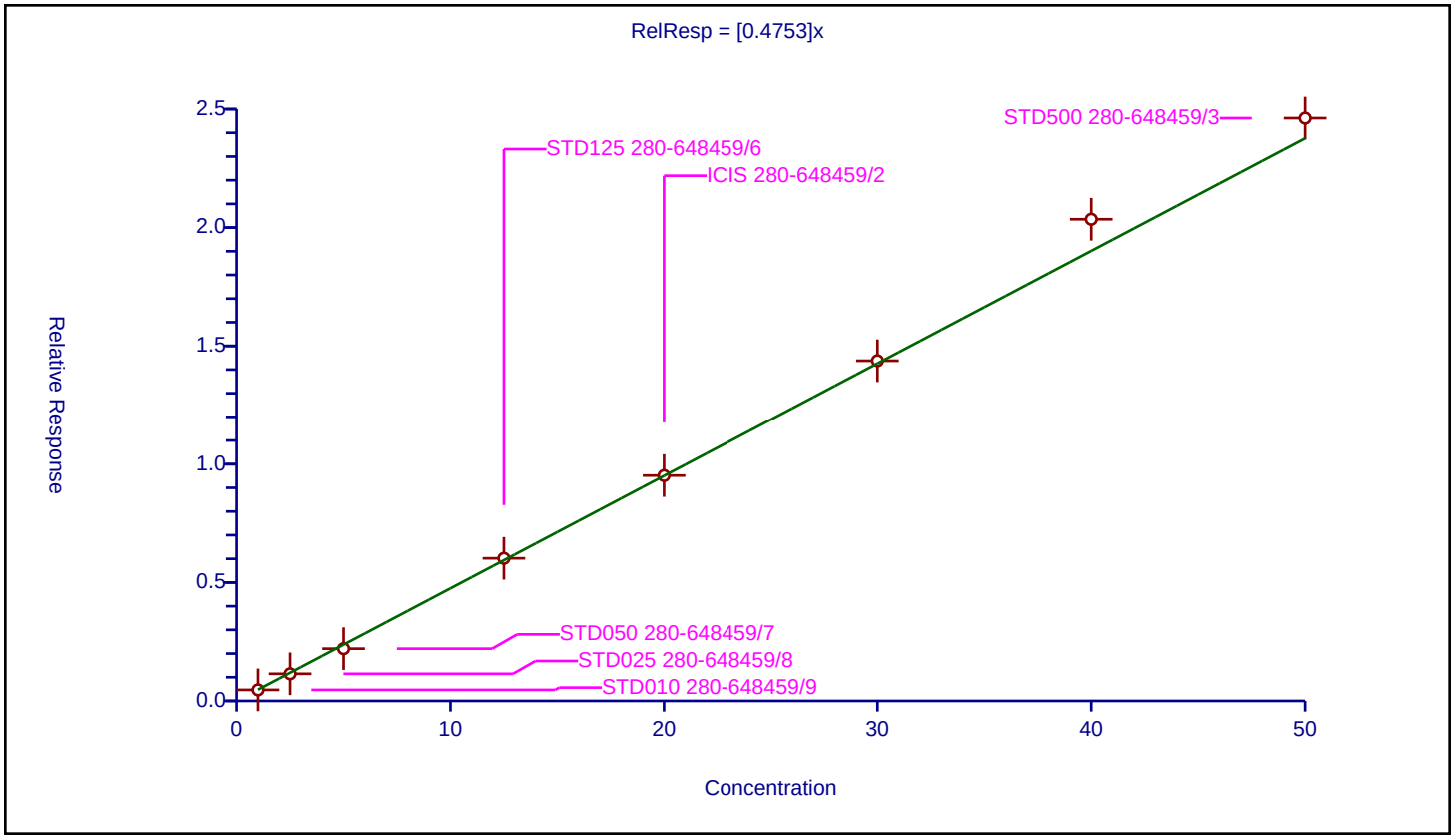
Curve Coefficients

Intercept:	0
Slope:	0.4753

Error Coefficients

Relative Standard Deviation:	4.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.465696	8.0	877947.0	0.465696	Y
2	STD025 280-648459/8	2.5	1.144548	8.0	859050.0	0.457819	Y
3	STD050 280-648459/7	5.0	2.206026	8.0	844204.0	0.441205	Y
4	STD125 280-648459/6	12.5	6.022597	8.0	785511.0	0.481808	Y
5	ICIS 280-648459/2	20.0	9.518151	8.0	779332.0	0.475908	Y
6	STD300 280-648459/5	30.0	14.374339	8.0	744731.0	0.479145	Y
7	STD400 280-648459/4	40.0	20.35177	8.0	716718.0	0.508794	Y
8	STD500 280-648459/3	50.0	24.621056	8.0	719265.0	0.492421	Y



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Calibration / 2,4,6-Trichlorophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

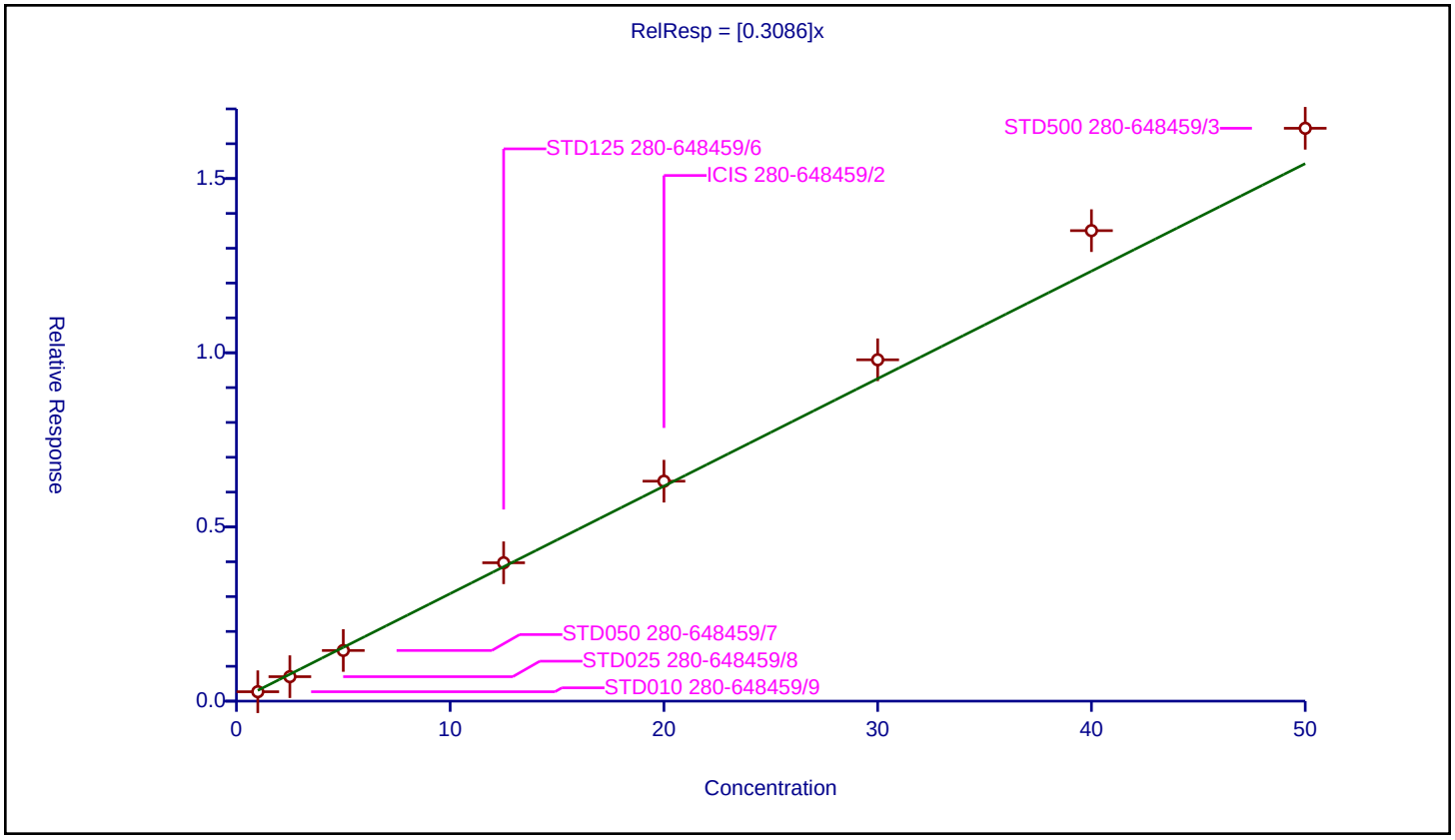
Curve Coefficients

Intercept:	0
Slope:	0.3086

Error Coefficients

Relative Standard Deviation:	8.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.270276	8.0	877947.0	0.270276	Y
2	STD025 280-648459/8	2.5	0.702236	8.0	859050.0	0.280894	Y
3	STD050 280-648459/7	5.0	1.454397	8.0	844204.0	0.290879	Y
4	STD125 280-648459/6	12.5	3.971794	8.0	785511.0	0.317744	Y
5	ICIS 280-648459/2	20.0	6.313468	8.0	779332.0	0.315673	Y
6	STD300 280-648459/5	30.0	9.798641	8.0	744731.0	0.326621	Y
7	STD400 280-648459/4	40.0	13.505641	8.0	716718.0	0.337641	Y
8	STD500 280-648459/3	50.0	16.443075	8.0	719265.0	0.328861	Y



Calibration / 2,4,5-Trichlorophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

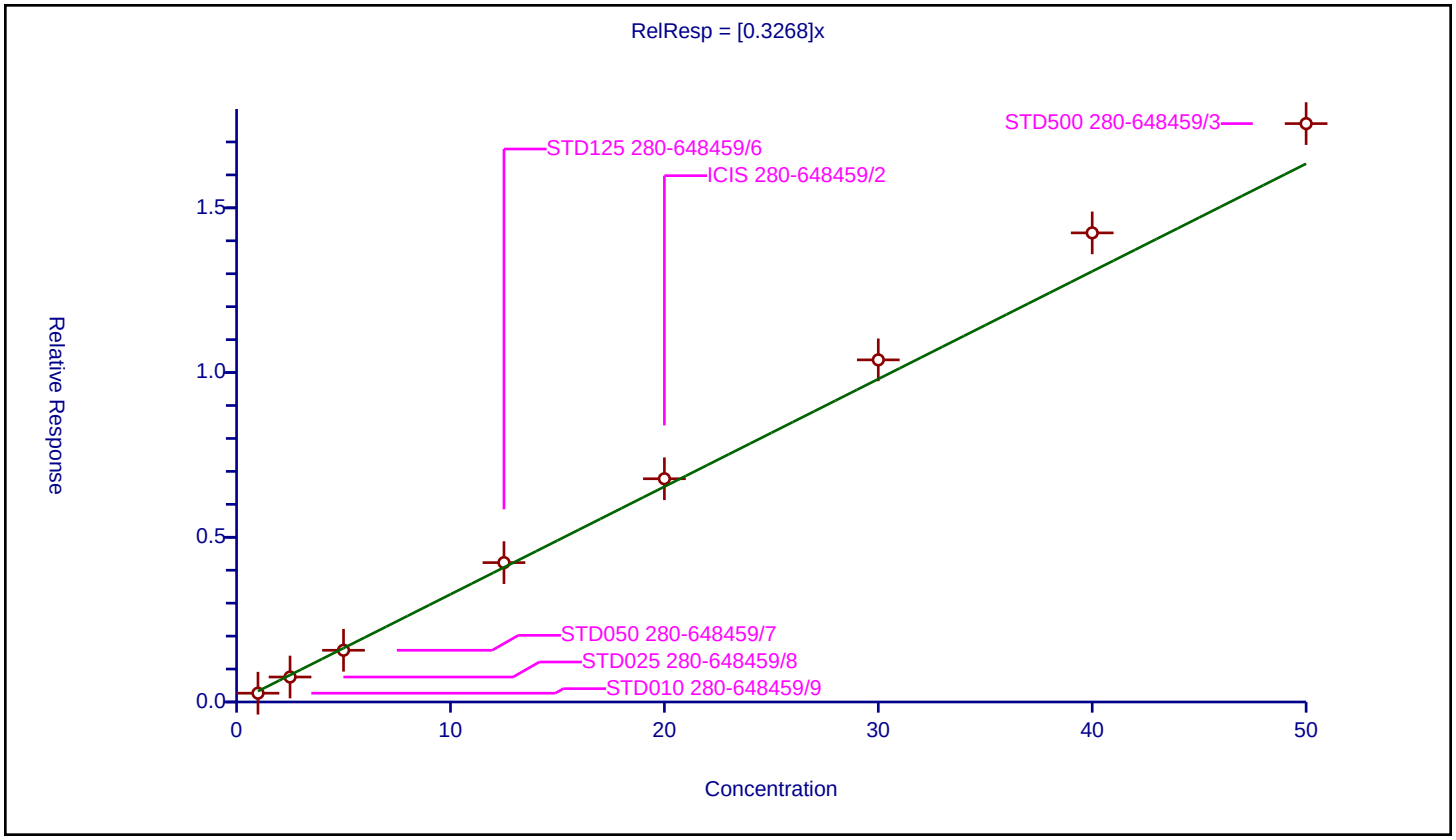
Curve Coefficients

Intercept:	0
Slope:	0.3268

Error Coefficients

Relative Standard Deviation:	9.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.266394	8.0	877947.0	0.266394	Y
2	STD025 280-648459/8	2.5	0.758121	8.0	859050.0	0.303248	Y
3	STD050 280-648459/7	5.0	1.570066	8.0	844204.0	0.314013	Y
4	STD125 280-648459/6	12.5	4.23105	8.0	785511.0	0.338484	Y
5	ICIS 280-648459/2	20.0	6.77684	8.0	779332.0	0.338842	Y
6	STD300 280-648459/5	30.0	10.385312	8.0	744731.0	0.346177	Y
7	STD400 280-648459/4	40.0	14.240357	8.0	716718.0	0.356009	Y
8	STD500 280-648459/3	50.0	17.557134	8.0	719265.0	0.351143	Y



Calibration / 2-Fluorobiphenyl

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

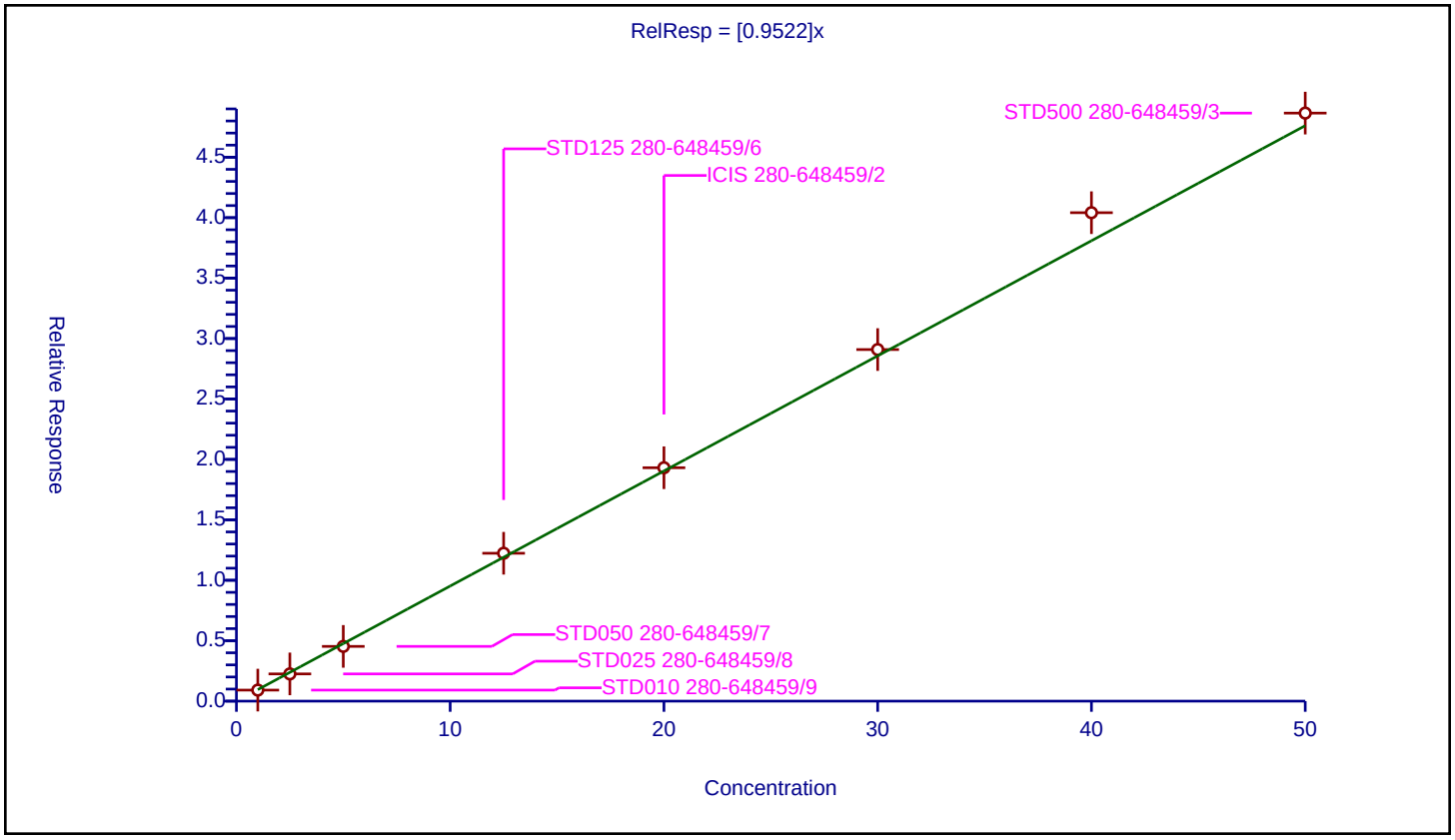
Curve Coefficients

Intercept:	0
Slope:	0.9522

Error Coefficients

Relative Standard Deviation:	4.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.912884	8.0	877947.0	0.912884	Y
2	STD025 280-648459/8	2.5	2.254202	8.0	859050.0	0.901681	Y
3	STD050 280-648459/7	5.0	4.530355	8.0	844204.0	0.906071	Y
4	STD125 280-648459/6	12.5	12.235571	8.0	785511.0	0.978846	Y
5	ICIS 280-648459/2	20.0	19.31023	8.0	779332.0	0.965511	Y
6	STD300 280-648459/5	30.0	29.088935	8.0	744731.0	0.969631	Y
7	STD400 280-648459/4	40.0	40.413128	8.0	716718.0	1.010328	Y
8	STD500 280-648459/3	50.0	48.651943	8.0	719265.0	0.973039	Y



Calibration / 1,1'-Biphenyl

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

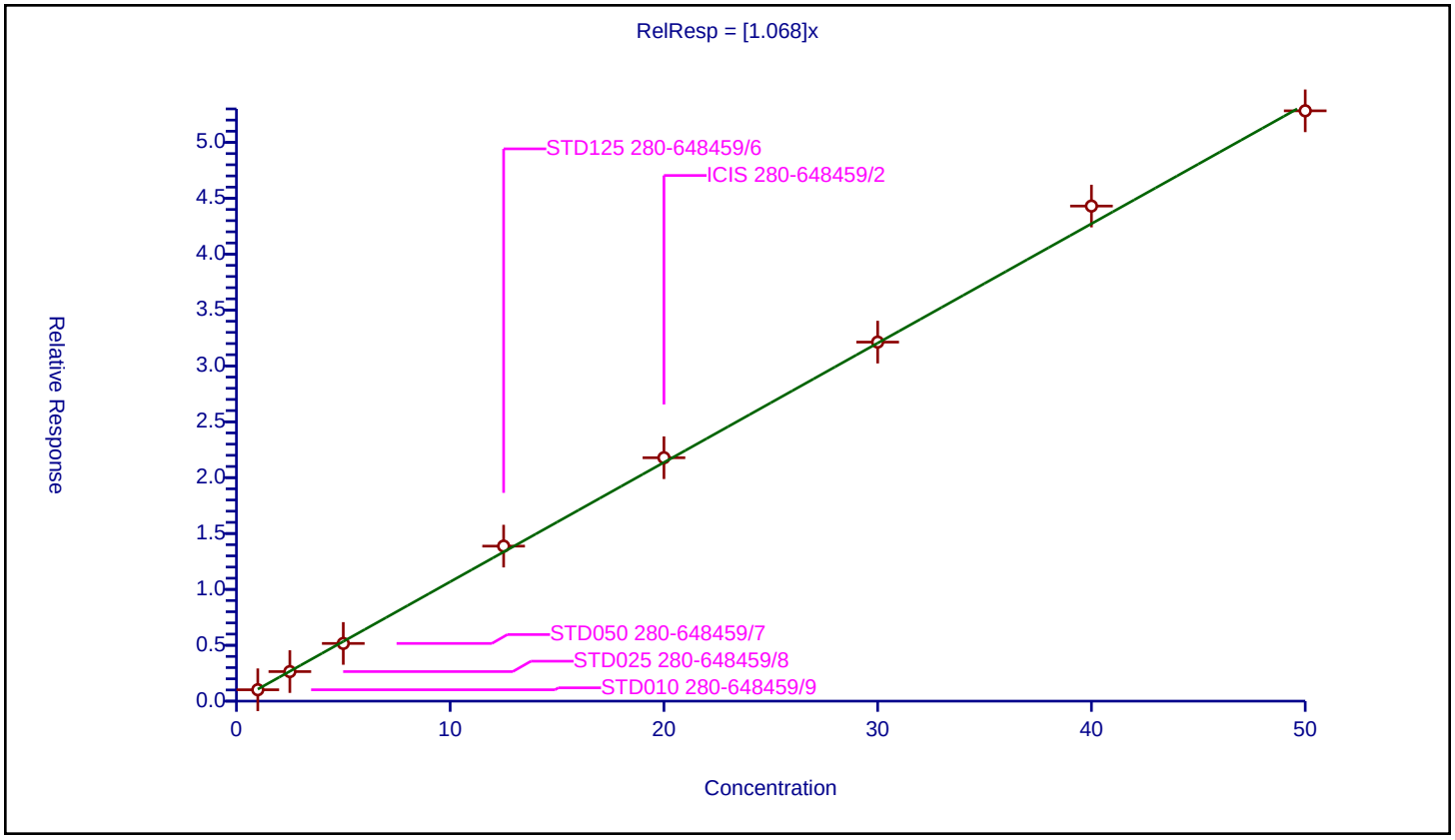
Curve Coefficients

Intercept:	0
Slope:	1.068

Error Coefficients

Relative Standard Deviation:	3.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	1.01967	8.0	877947.0	1.01967	Y
2	STD025 280-648459/8	2.5	2.644186	8.0	859050.0	1.057674	Y
3	STD050 280-648459/7	5.0	5.164363	8.0	844204.0	1.032873	Y
4	STD125 280-648459/6	12.5	13.873425	8.0	785511.0	1.109874	Y
5	ICIS 280-648459/2	20.0	21.782532	8.0	779332.0	1.089127	Y
6	STD300 280-648459/5	30.0	32.131033	8.0	744731.0	1.071034	Y
7	STD400 280-648459/4	40.0	44.305571	8.0	716718.0	1.107639	Y
8	STD500 280-648459/3	50.0	52.827762	8.0	719265.0	1.056555	Y



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Calibration / 2-Chloronaphthalene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

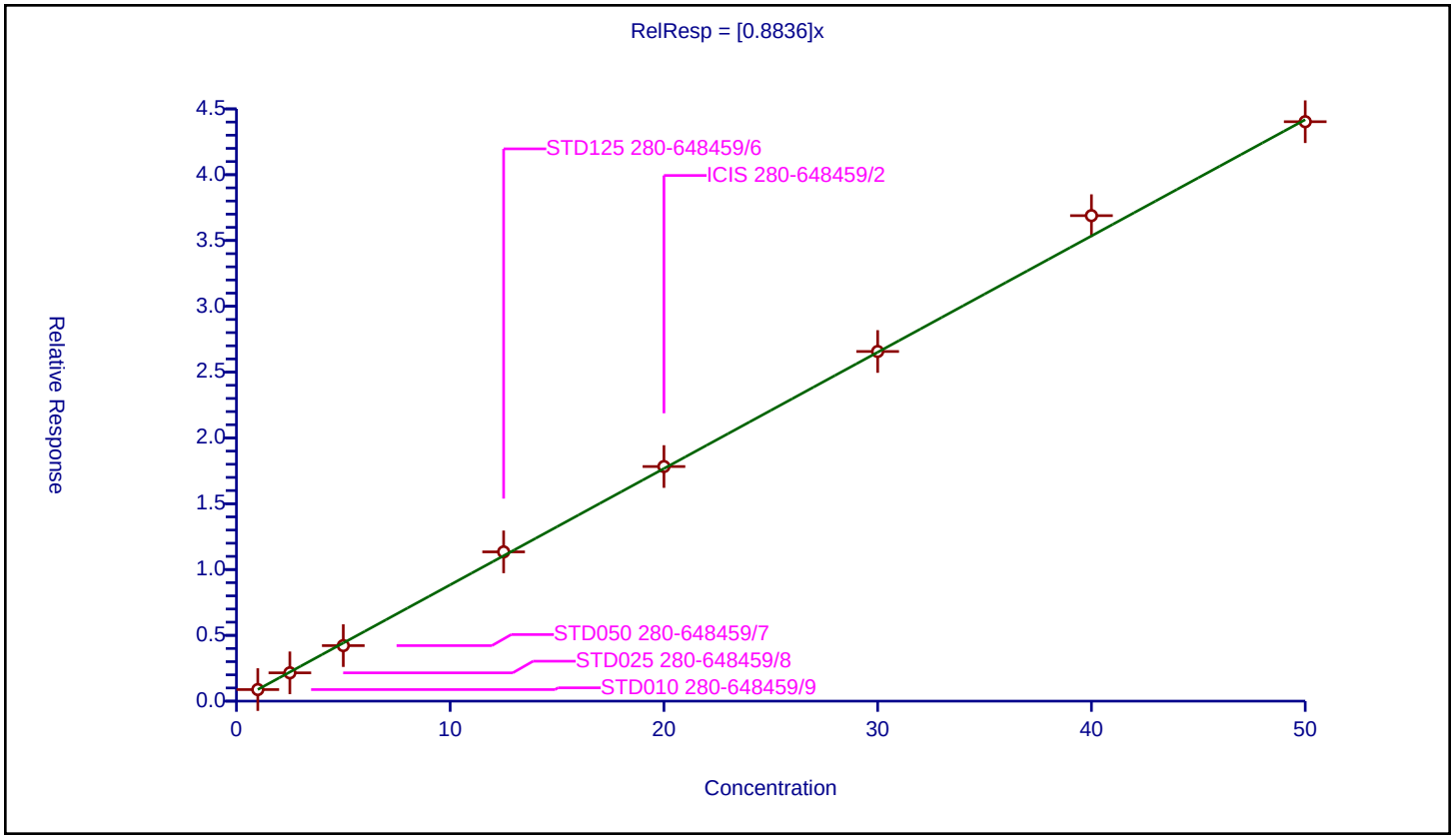
Curve Coefficients

Intercept:	0
Slope:	0.8836

Error Coefficients

Relative Standard Deviation:	2.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.878331	8.0	877947.0	0.878331	Y
2	STD025 280-648459/8	2.5	2.150916	8.0	859050.0	0.860366	Y
3	STD050 280-648459/7	5.0	4.217739	8.0	844204.0	0.843548	Y
4	STD125 280-648459/6	12.5	11.340877	8.0	785511.0	0.90727	Y
5	ICIS 280-648459/2	20.0	17.825307	8.0	779332.0	0.891265	Y
6	STD300 280-648459/5	30.0	26.568068	8.0	744731.0	0.885602	Y
7	STD400 280-648459/4	40.0	36.888539	8.0	716718.0	0.922213	Y
8	STD500 280-648459/3	50.0	44.026955	8.0	719265.0	0.880539	Y



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Calibration / 2-Nitroaniline

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

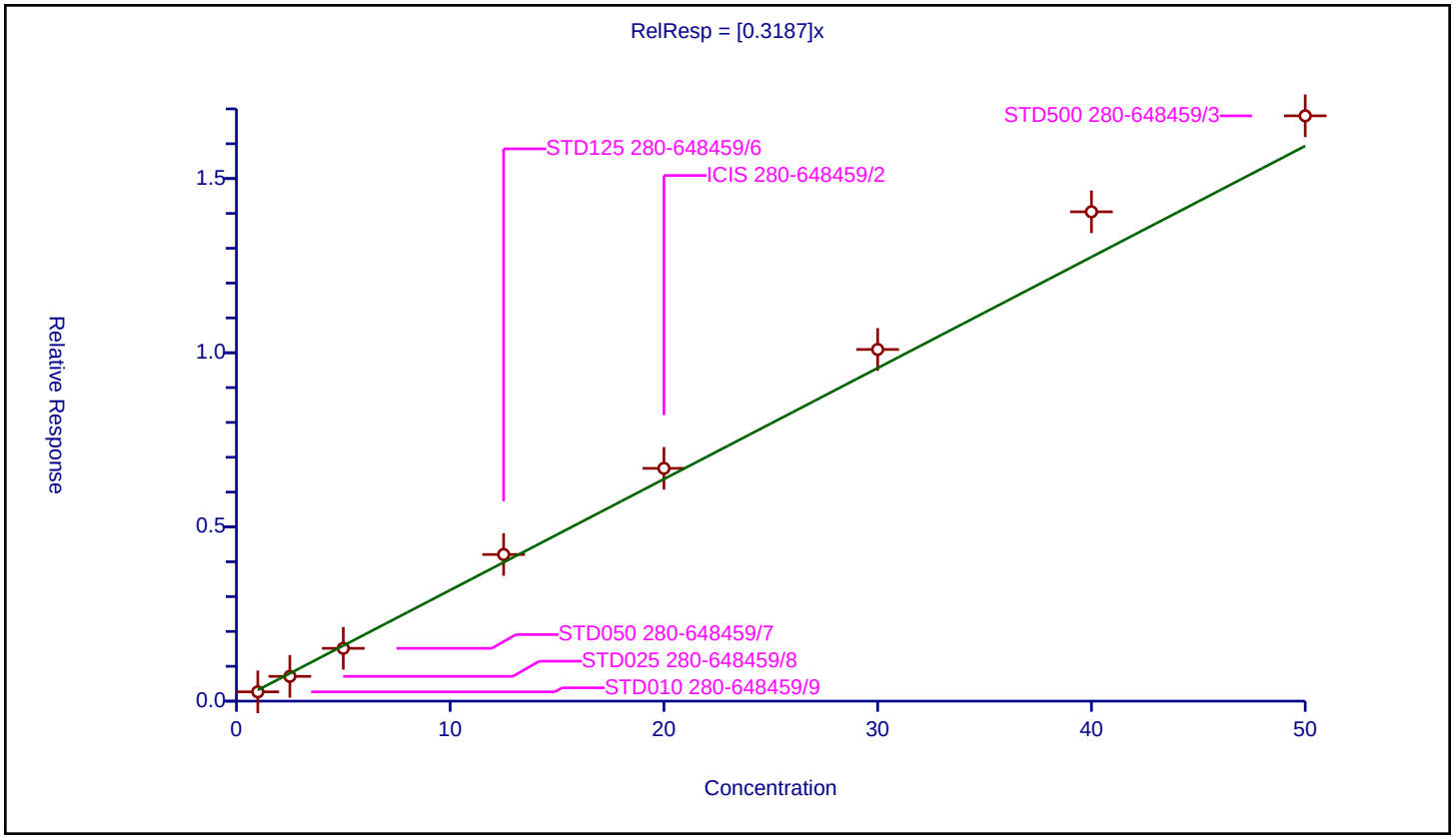
Curve Coefficients

Intercept:	0
Slope:	0.3187

Error Coefficients

Relative Standard Deviation:	9.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.267324	8.0	877947.0	0.267324	Y
2	STD025 280-648459/8	2.5	0.711446	8.0	859050.0	0.284579	Y
3	STD050 280-648459/7	5.0	1.516316	8.0	844204.0	0.303263	Y
4	STD125 280-648459/6	12.5	4.209275	8.0	785511.0	0.336742	Y
5	ICIS 280-648459/2	20.0	6.682133	8.0	779332.0	0.334107	Y
6	STD300 280-648459/5	30.0	10.094791	8.0	744731.0	0.336493	Y
7	STD400 280-648459/4	40.0	14.045893	8.0	716718.0	0.351147	Y
8	STD500 280-648459/3	50.0	16.801218	8.0	719265.0	0.336024	Y



5/23/2024
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Calibration / Dimethyl phthalate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

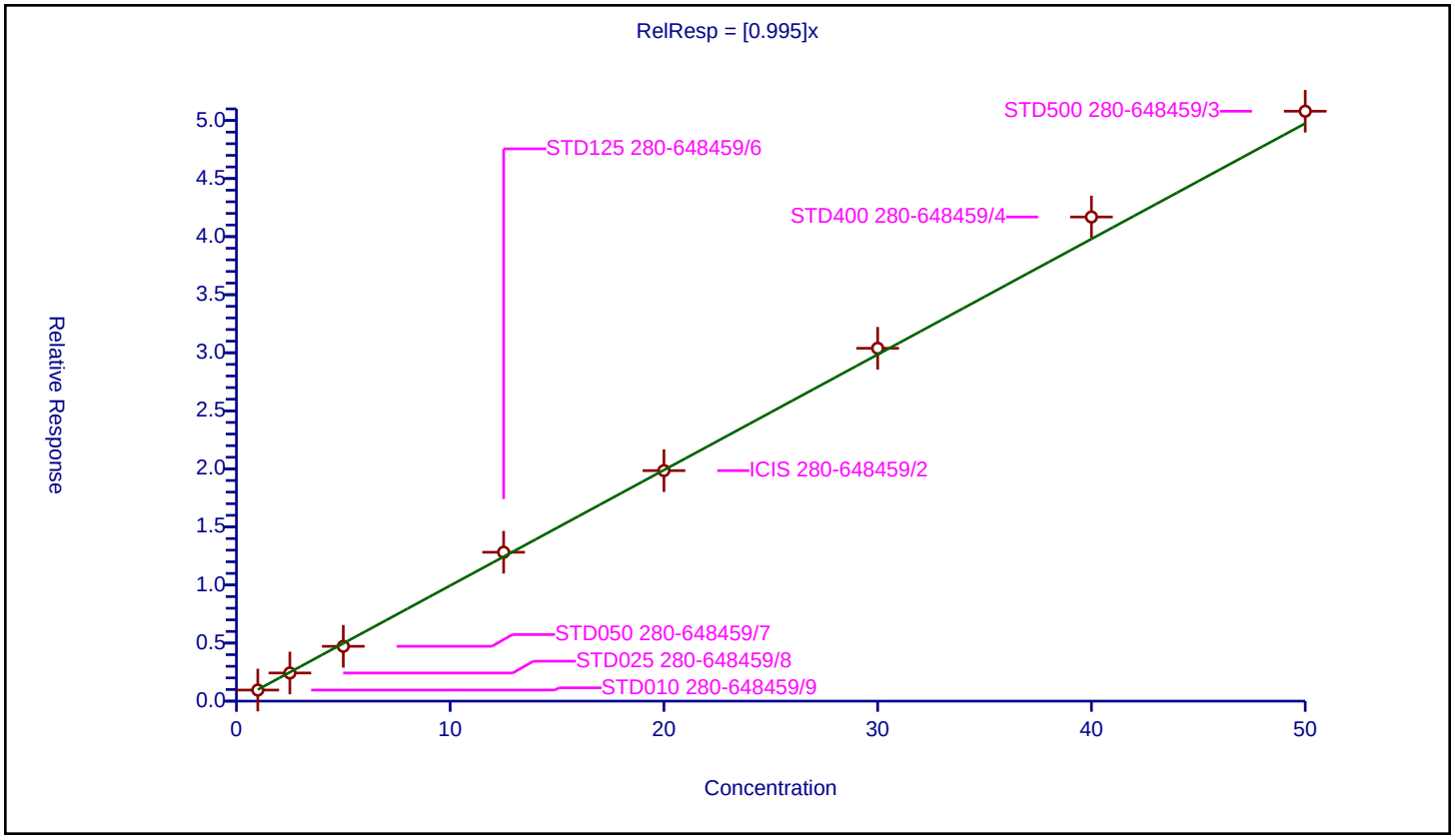
Curve Coefficients

Intercept:	0
Slope:	0.995

Error Coefficients

Relative Standard Deviation:	3.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.956322	8.0	877947.0	0.956322	Y
2	STD025 280-648459/8	2.5	2.424138	8.0	859050.0	0.969655	Y
3	STD050 280-648459/7	5.0	4.721077	8.0	844204.0	0.944215	Y
4	STD125 280-648459/6	12.5	12.821076	8.0	785511.0	1.025686	Y
5	ICIS 280-648459/2	20.0	19.851873	8.0	779332.0	0.992594	Y
6	STD300 280-648459/5	30.0	30.385973	8.0	744731.0	1.012866	Y
7	STD400 280-648459/4	40.0	41.693174	8.0	716718.0	1.042329	Y
8	STD500 280-648459/3	50.0	50.801404	8.0	719265.0	1.016028	Y



5/23/2024
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Calibration / 1,3-Dinitrobenzene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

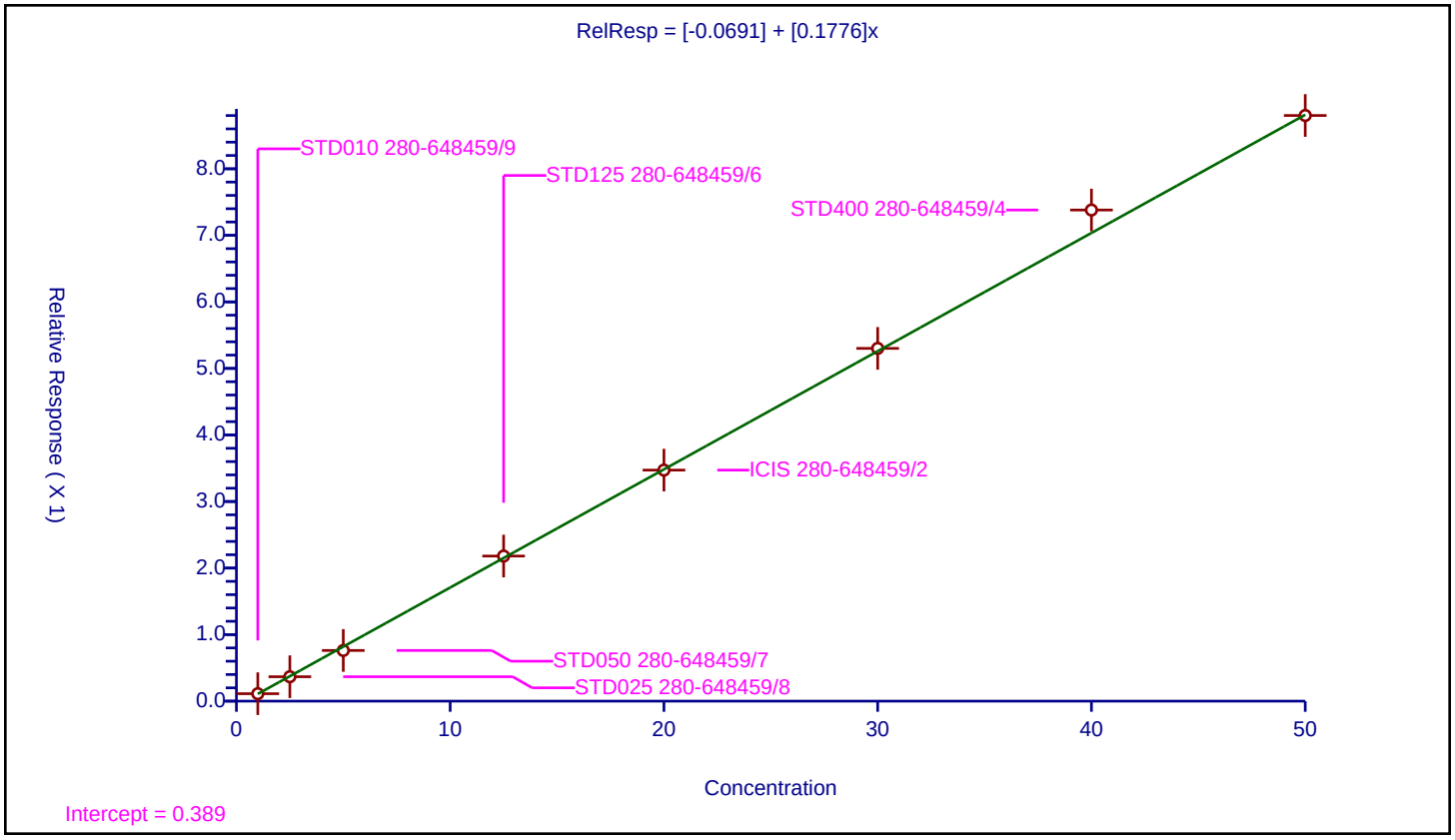
Curve Coefficients

Intercept:	-0.0691
Slope:	0.1776

Error Coefficients

Relative Standard Deviation:	3.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.111706	8.0	877947.0	0.111706	Y
2	STD025 280-648459/8	2.5	0.366787	8.0	859050.0	0.146715	Y
3	STD050 280-648459/7	5.0	0.76137	8.0	844204.0	0.152274	Y
4	STD125 280-648459/6	12.5	2.18041	8.0	785511.0	0.174433	Y
5	ICIS 280-648459/2	20.0	3.471794	8.0	779332.0	0.17359	Y
6	STD300 280-648459/5	30.0	5.301125	8.0	744731.0	0.176704	Y
7	STD400 280-648459/4	40.0	7.38023	8.0	716718.0	0.184506	Y
8	STD500 280-648459/3	50.0	8.800918	8.0	719265.0	0.176018	Y



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Calibration / 2,6-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

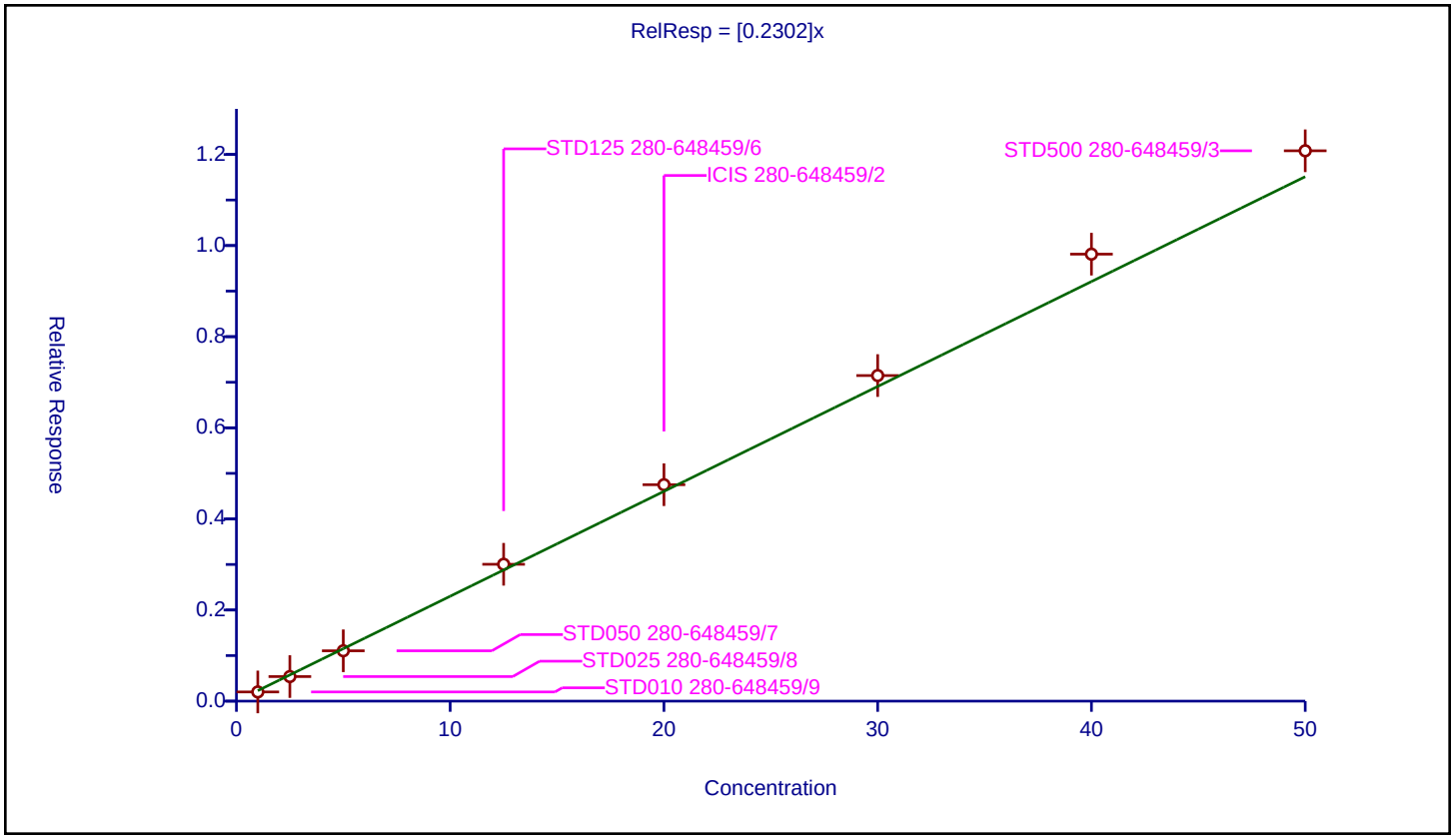
Curve Coefficients

Intercept:	0
Slope:	0.2302

Error Coefficients

Relative Standard Deviation:	6.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.202126	8.0	877947.0	0.202126	Y
2	STD025 280-648459/8	2.5	0.539536	8.0	859050.0	0.215814	Y
3	STD050 280-648459/7	5.0	1.105069	8.0	844204.0	0.221014	Y
4	STD125 280-648459/6	12.5	3.004261	8.0	785511.0	0.240341	Y
5	ICIS 280-648459/2	20.0	4.750961	8.0	779332.0	0.237548	Y
6	STD300 280-648459/5	30.0	7.146634	8.0	744731.0	0.238221	Y
7	STD400 280-648459/4	40.0	9.811424	8.0	716718.0	0.245286	Y
8	STD500 280-648459/3	50.0	12.080454	8.0	719265.0	0.241609	Y



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Calibration / Acenaphthylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

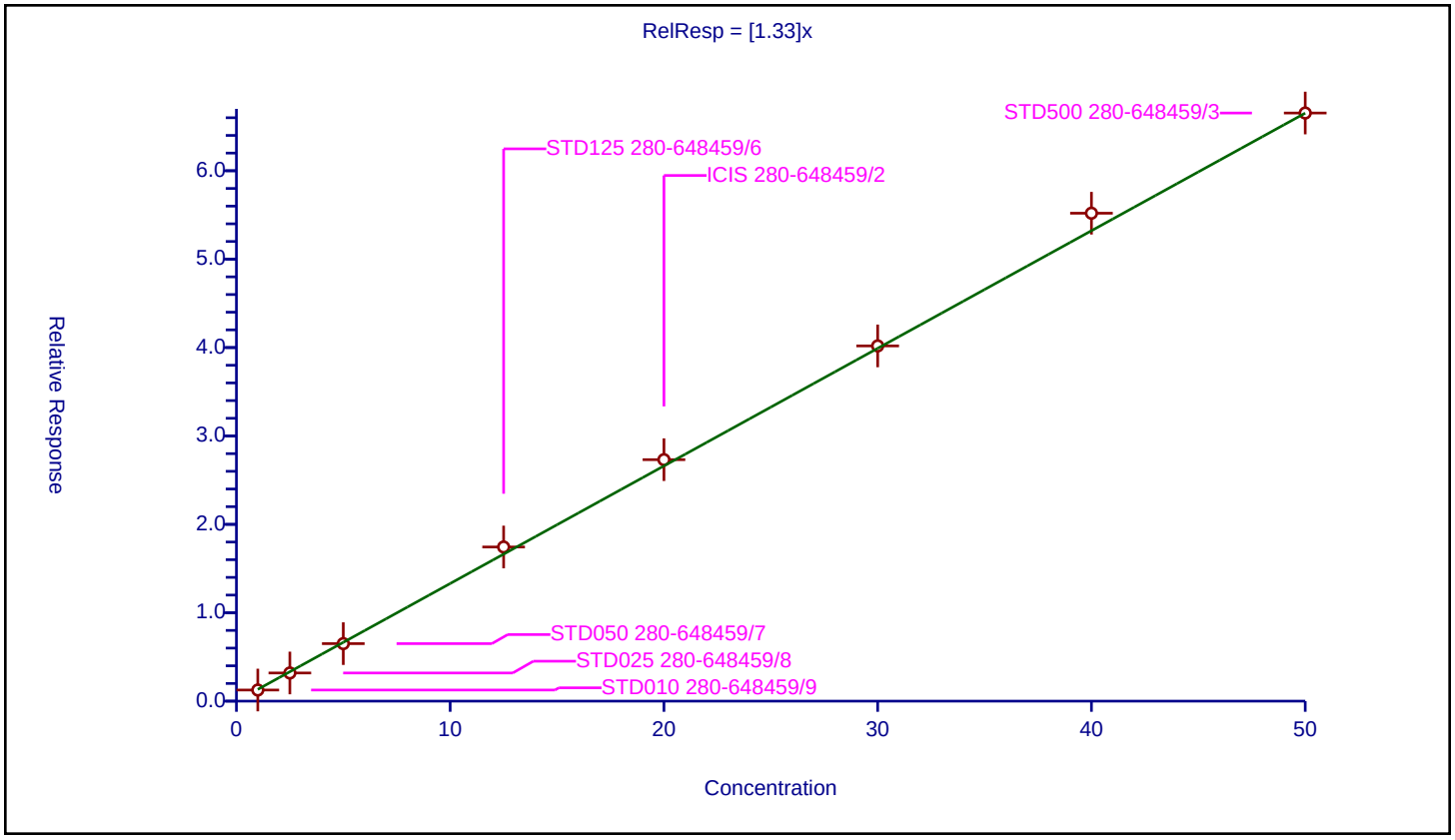
Curve Coefficients

Intercept:	0
Slope:	1.33

Error Coefficients

Relative Standard Deviation:	3.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	1.256787	8.0	877947.0	1.256787	Y
2	STD025 280-648459/8	2.5	3.185267	8.0	859050.0	1.274107	Y
3	STD050 280-648459/7	5.0	6.50656	8.0	844204.0	1.301312	Y
4	STD125 280-648459/6	12.5	17.439124	8.0	785511.0	1.39513	Y
5	ICIS 280-648459/2	20.0	27.319191	8.0	779332.0	1.36596	Y
6	STD300 280-648459/5	30.0	40.187858	8.0	744731.0	1.339595	Y
7	STD400 280-648459/4	40.0	55.198301	8.0	716718.0	1.379958	Y
8	STD500 280-648459/3	50.0	66.532752	8.0	719265.0	1.330655	Y



Calibration / 3-Nitroaniline

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

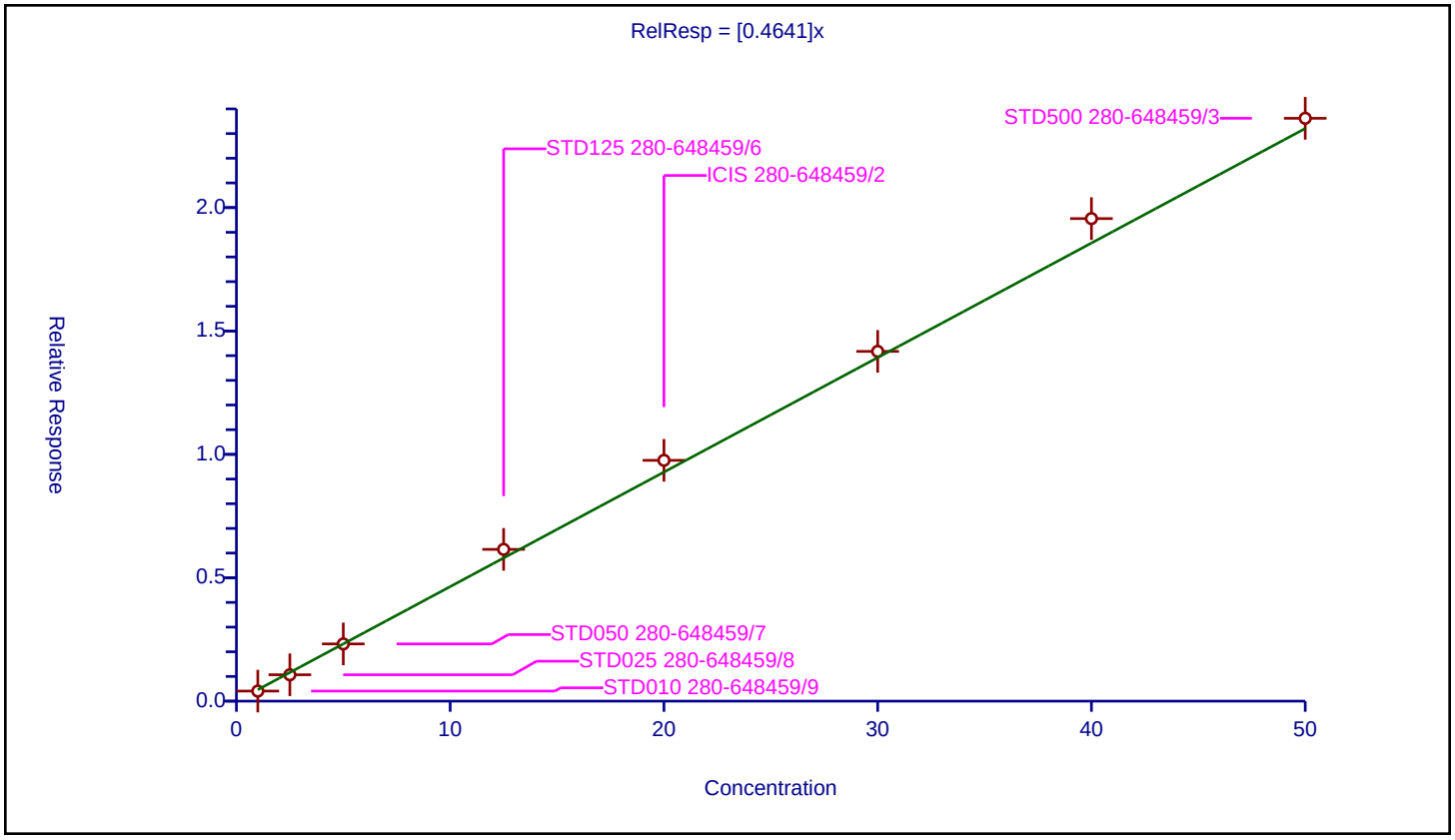
Curve Coefficients

Intercept:	0
Slope:	0.4641

Error Coefficients

Relative Standard Deviation:	6.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.40797	8.0	877947.0	0.40797	Y
2	STD025 280-648459/8	2.5	1.06852	8.0	859050.0	0.427408	Y
3	STD050 280-648459/7	5.0	2.319041	8.0	844204.0	0.463808	Y
4	STD125 280-648459/6	12.5	6.150391	8.0	785511.0	0.492031	Y
5	ICIS 280-648459/2	20.0	9.758542	8.0	779332.0	0.487927	Y
6	STD300 280-648459/5	30.0	14.172763	8.0	744731.0	0.472425	Y
7	STD400 280-648459/4	40.0	19.554224	8.0	716718.0	0.488856	Y
8	STD500 280-648459/3	50.0	23.619111	8.0	719265.0	0.472382	Y



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Calibration / Acenaphthene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

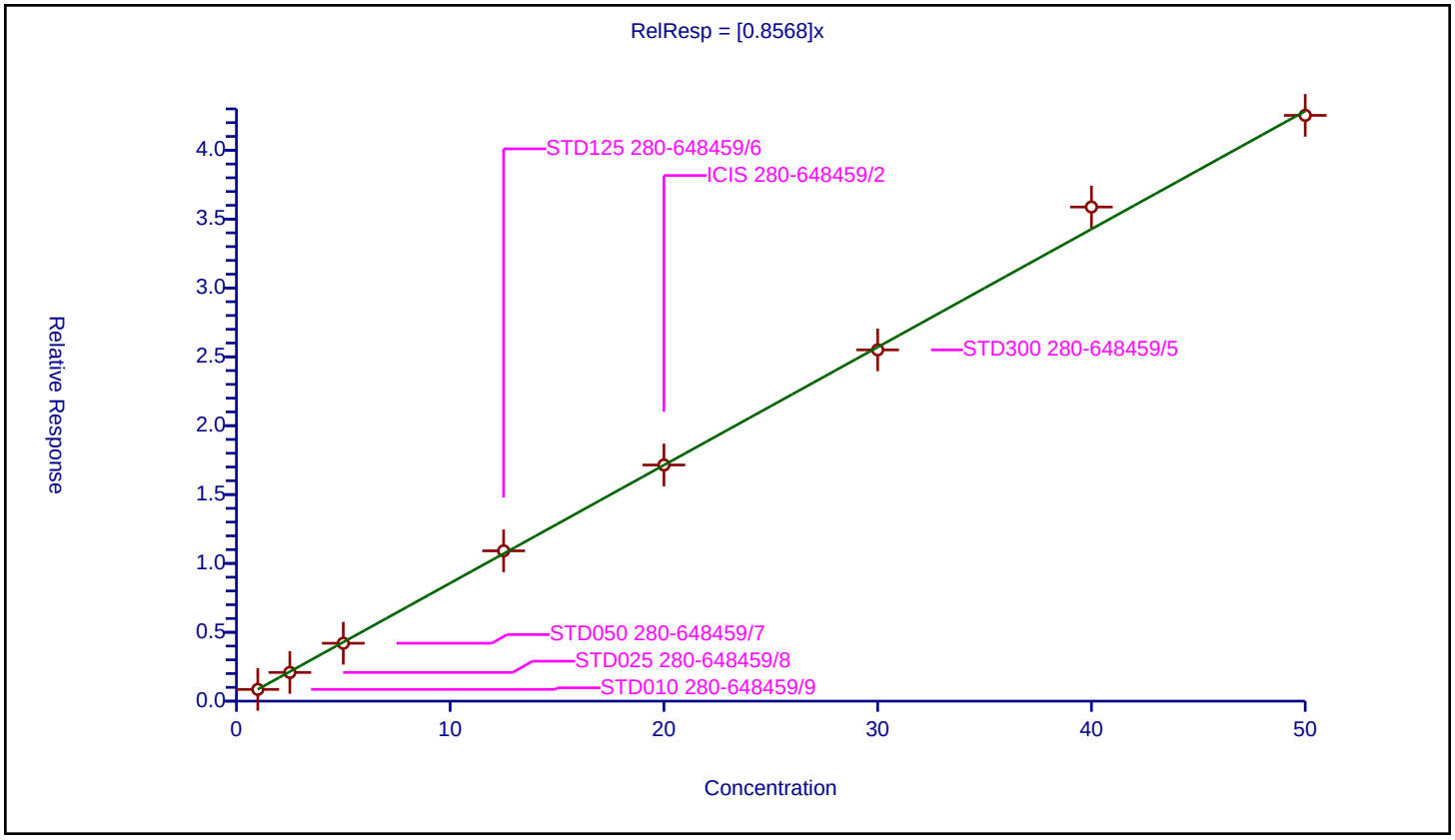
Curve Coefficients

Intercept:	0
Slope:	0.8568

Error Coefficients

Relative Standard Deviation:	2.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.852325	8.0	877947.0	0.852325	Y
2	STD025 280-648459/8	2.5	2.083464	8.0	859050.0	0.833386	Y
3	STD050 280-648459/7	5.0	4.202482	8.0	844204.0	0.840496	Y
4	STD125 280-648459/6	12.5	10.913029	8.0	785511.0	0.873042	Y
5	ICIS 280-648459/2	20.0	17.146407	8.0	779332.0	0.85732	Y
6	STD300 280-648459/5	30.0	25.503458	8.0	744731.0	0.850115	Y
7	STD400 280-648459/4	40.0	35.876035	8.0	716718.0	0.896901	Y
8	STD500 280-648459/3	50.0	42.530439	8.0	719265.0	0.850609	Y



Calibration / 2,4-Dinitrophenol

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

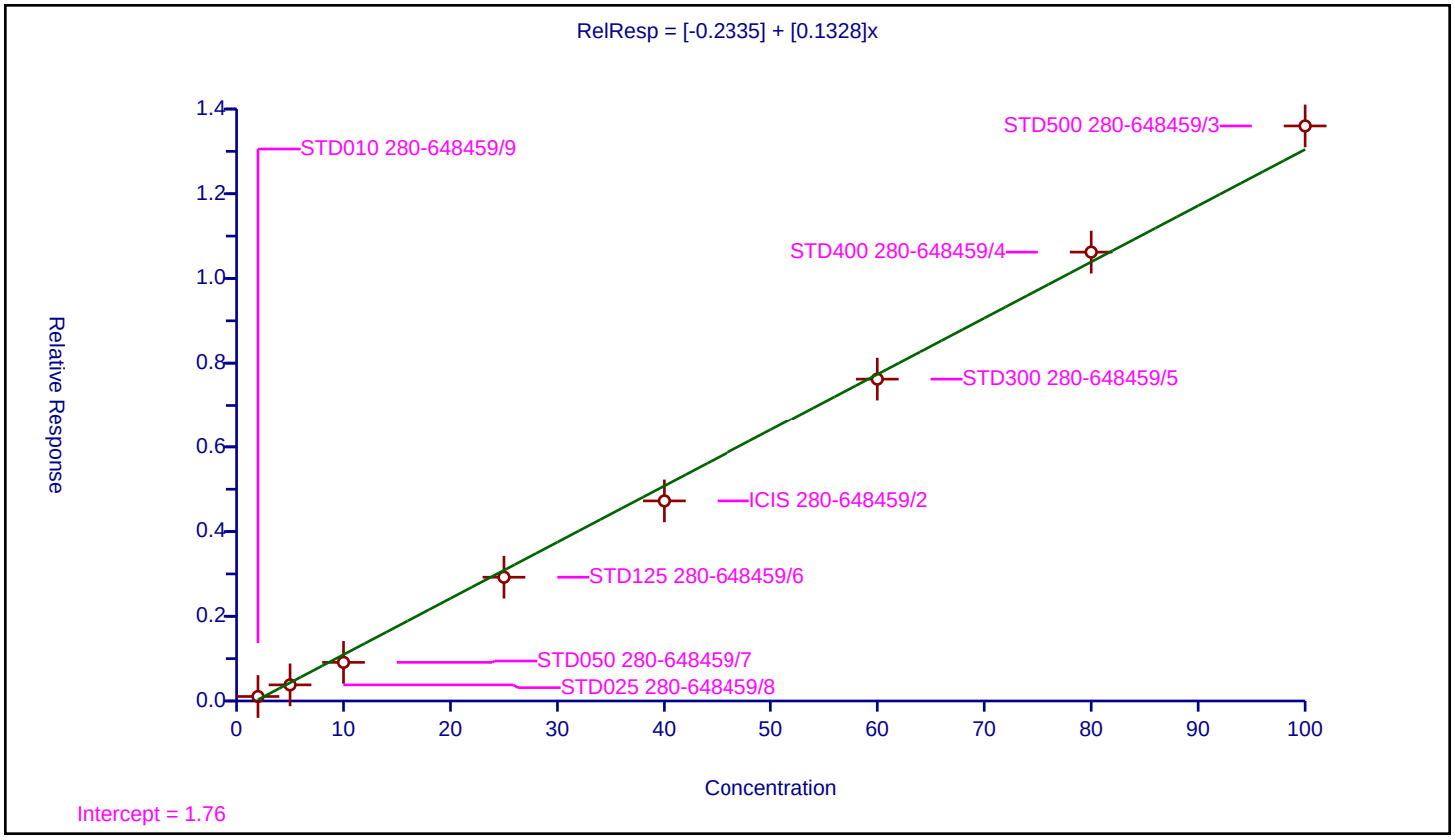
Curve Coefficients

Intercept:	-0.2335
Slope:	0.1328

Error Coefficients

Relative Standard Deviation:	13.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	2.0	0.106038	8.0	877947.0	0.053019	Y
2	STD025 280-648459/8	5.0	0.380886	8.0	859050.0	0.076177	Y
3	STD050 280-648459/7	10.0	0.911865	8.0	844204.0	0.091186	Y
4	STD125 280-648459/6	25.0	2.922408	8.0	785511.0	0.116896	Y
5	ICIS 280-648459/2	40.0	4.724159	8.0	779332.0	0.118104	Y
6	STD300 280-648459/5	60.0	7.62293	8.0	744731.0	0.127049	Y
7	STD400 280-648459/4	80.0	10.621874	8.0	716718.0	0.132773	Y
8	STD500 280-648459/3	100.0	13.600439	8.0	719265.0	0.136004	Y



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Calibration / 4-Nitrophenol

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

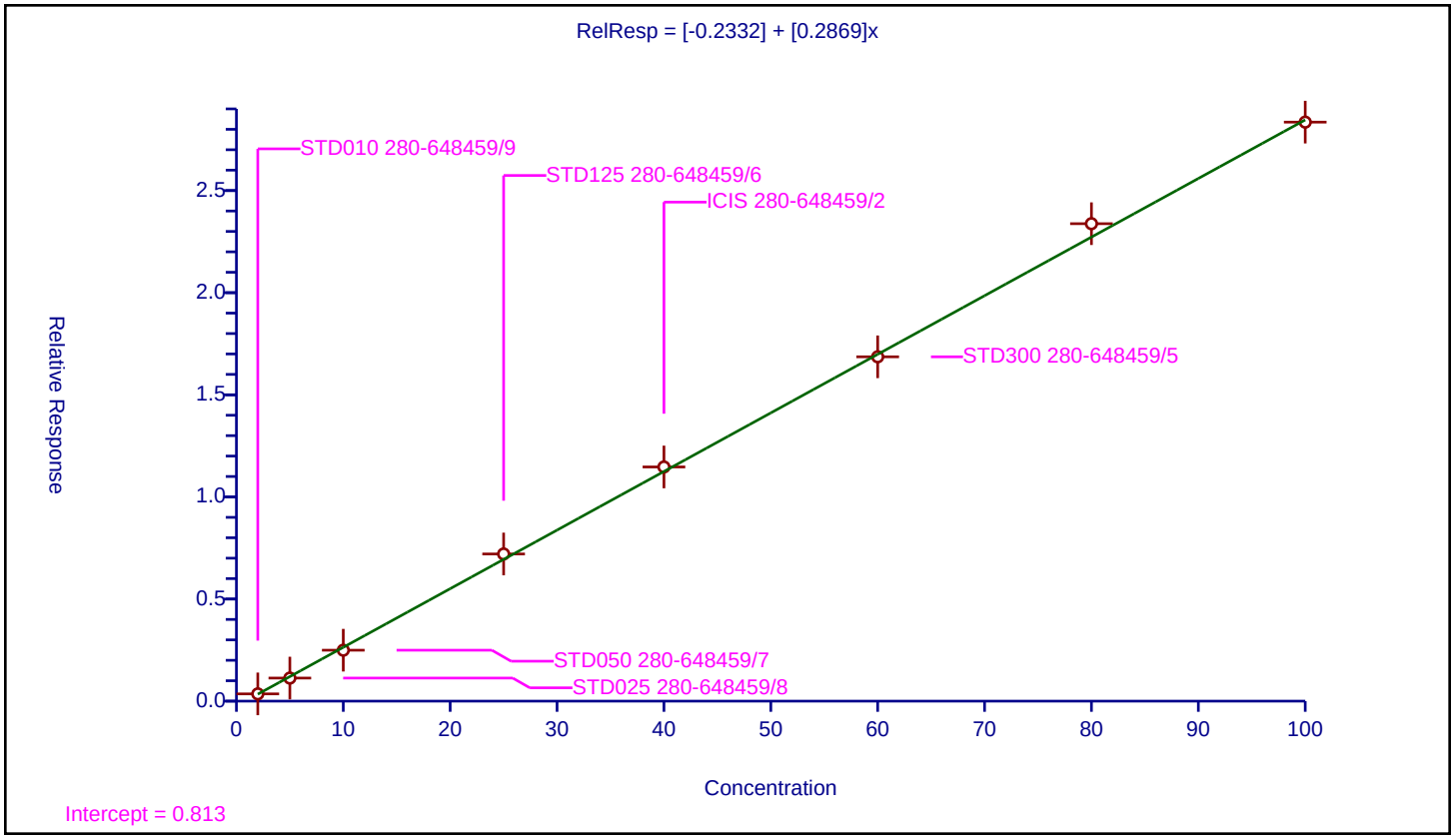
Curve Coefficients

Intercept:	-0.2332
Slope:	0.2869

Error Coefficients

Relative Standard Deviation:	3.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	2.0	0.355347	8.0	877947.0	0.177674	Y
2	STD025 280-648459/8	5.0	1.129918	8.0	859050.0	0.225984	Y
3	STD050 280-648459/7	10.0	2.494004	8.0	844204.0	0.2494	Y
4	STD125 280-648459/6	25.0	7.206244	8.0	785511.0	0.28825	Y
5	ICIS 280-648459/2	40.0	11.46624	8.0	779332.0	0.286656	Y
6	STD300 280-648459/5	60.0	16.860531	8.0	744731.0	0.281009	Y
7	STD400 280-648459/4	80.0	23.37898	8.0	716718.0	0.292237	Y
8	STD500 280-648459/3	100.0	28.351876	8.0	719265.0	0.283519	Y



Calibration / Dibenzofuran

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

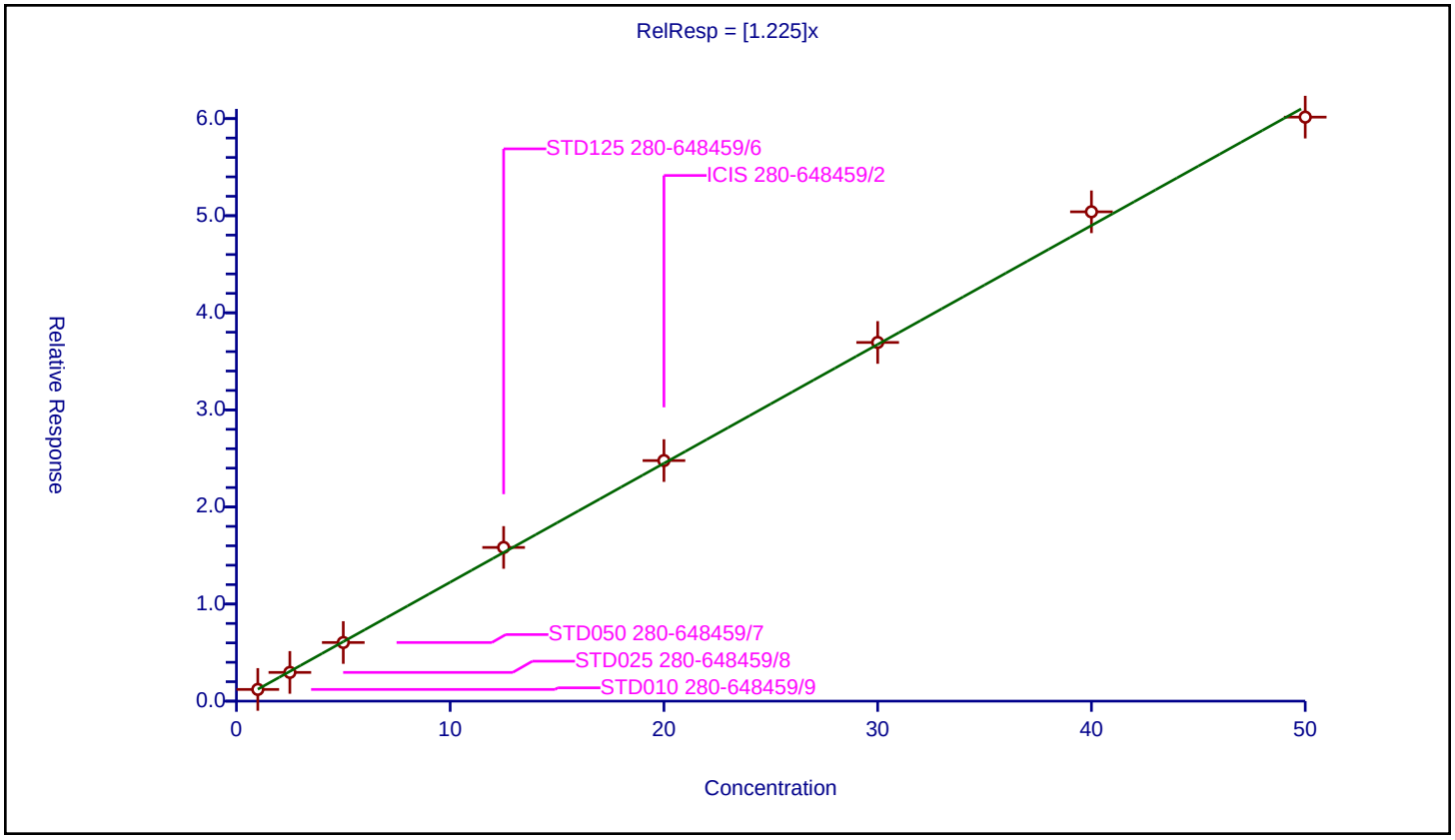
Curve Coefficients

Intercept:	0
Slope:	1.225

Error Coefficients

Relative Standard Deviation:	2.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	1.206551	8.0	877947.0	1.206551	Y
2	STD025 280-648459/8	2.5	2.958906	8.0	859050.0	1.183562	Y
3	STD050 280-648459/7	5.0	6.039649	8.0	844204.0	1.20793	Y
4	STD125 280-648459/6	12.5	15.830195	8.0	785511.0	1.266416	Y
5	ICIS 280-648459/2	20.0	24.777959	8.0	779332.0	1.238898	Y
6	STD300 280-648459/5	30.0	36.943756	8.0	744731.0	1.231459	Y
7	STD400 280-648459/4	40.0	50.399158	8.0	716718.0	1.259979	Y
8	STD500 280-648459/3	50.0	60.15245	8.0	719265.0	1.203049	Y



Calibration / 2,4-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

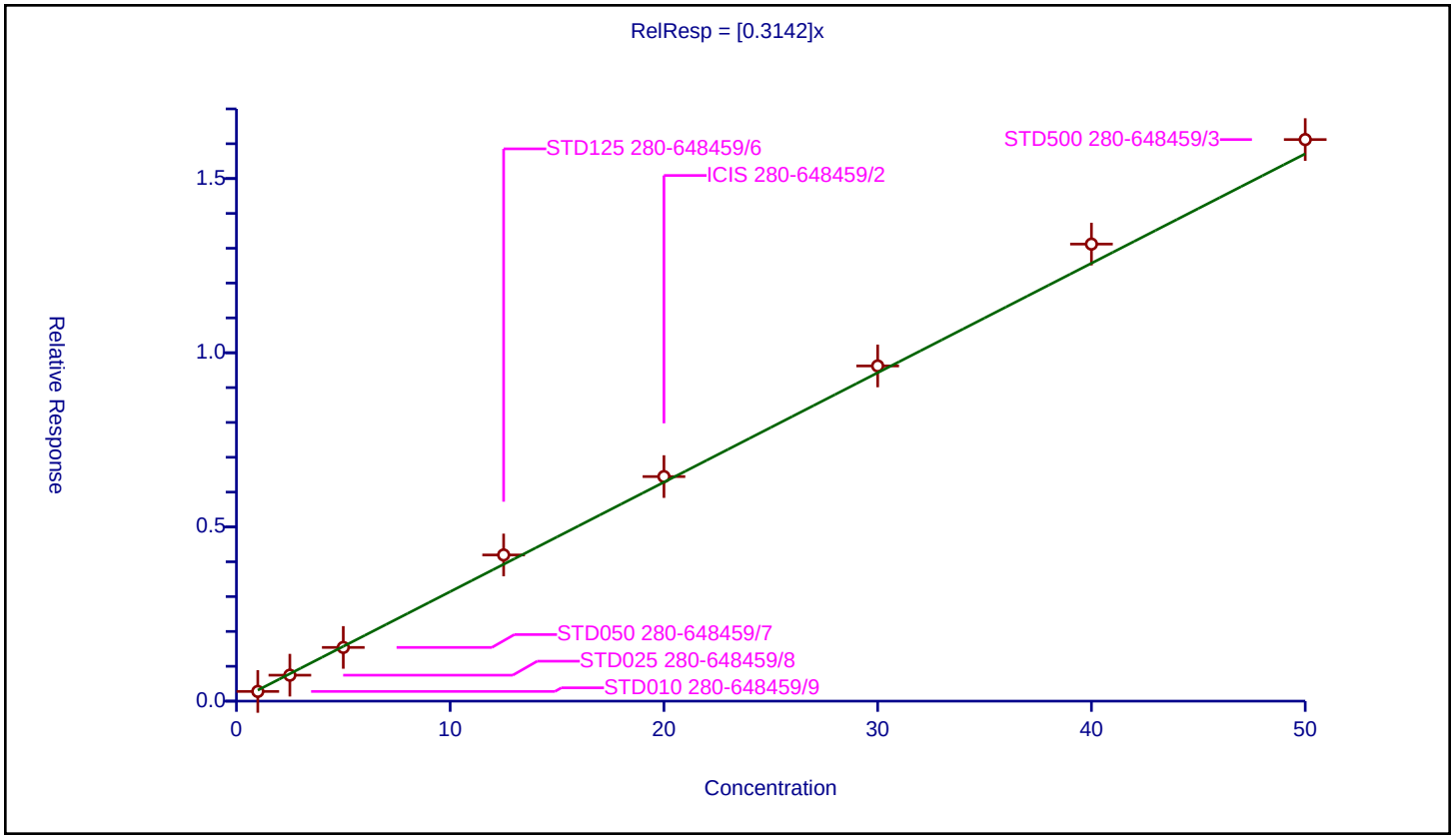
Curve Coefficients

Intercept:	0
Slope:	0.3142

Error Coefficients

Relative Standard Deviation:	5.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.278358	8.0	877947.0	0.278358	Y
2	STD025 280-648459/8	2.5	0.745195	8.0	859050.0	0.298078	Y
3	STD050 280-648459/7	5.0	1.541296	8.0	844204.0	0.308259	Y
4	STD125 280-648459/6	12.5	4.196158	8.0	785511.0	0.335693	Y
5	ICIS 280-648459/2	20.0	6.445951	8.0	779332.0	0.322298	Y
6	STD300 280-648459/5	30.0	9.622041	8.0	744731.0	0.320735	Y
7	STD400 280-648459/4	40.0	13.119179	8.0	716718.0	0.327979	Y
8	STD500 280-648459/3	50.0	16.119288	8.0	719265.0	0.322386	Y



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Calibration / 2,3,4,6-Tetrachlorophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

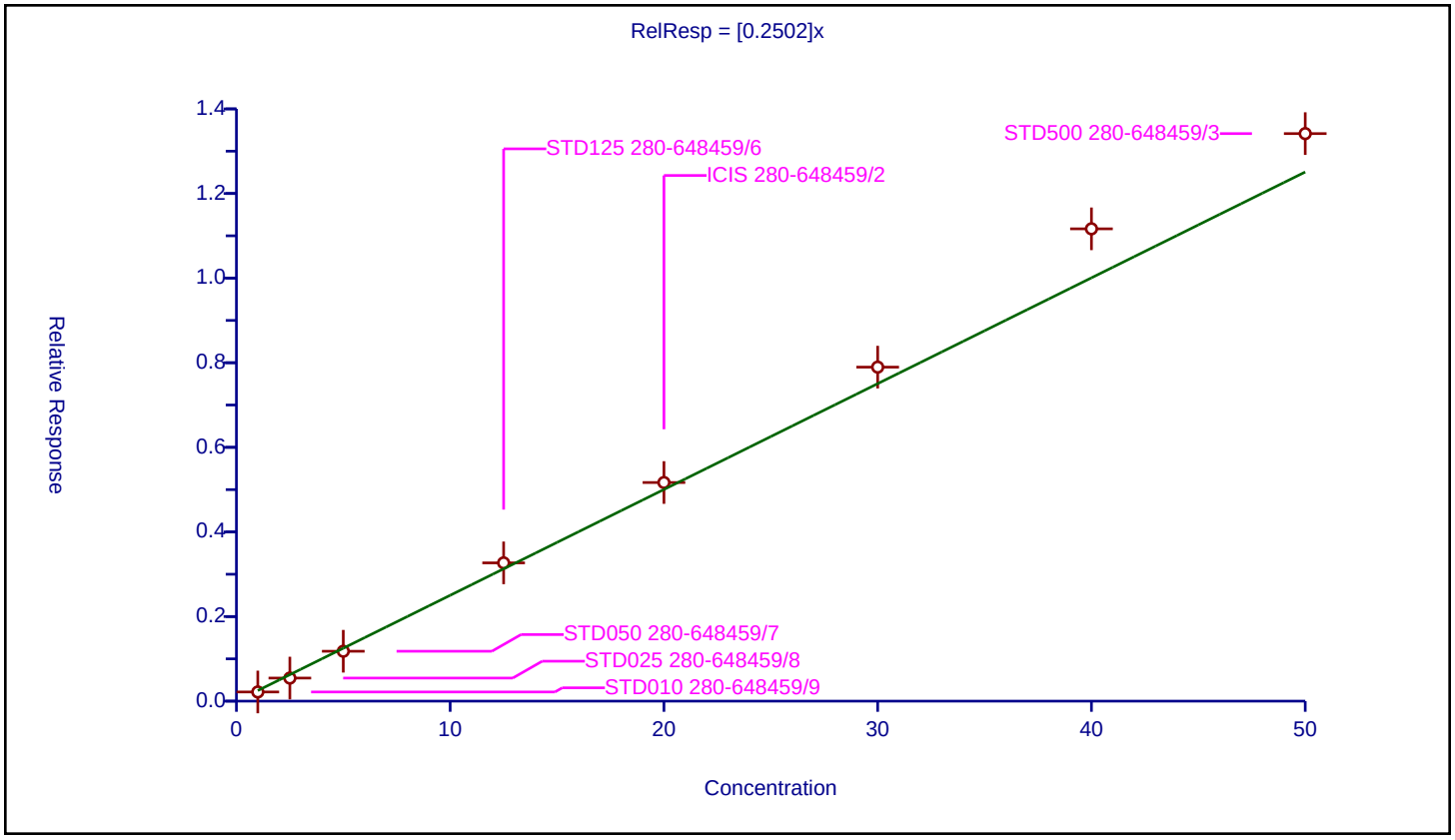
Curve Coefficients

Intercept:	0
Slope:	0.2502

Error Coefficients

Relative Standard Deviation:	9.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.216751	8.0	877947.0	0.216751	Y
2	STD025 280-648459/8	2.5	0.54543	8.0	859050.0	0.218172	Y
3	STD050 280-648459/7	5.0	1.179345	8.0	844204.0	0.235869	Y
4	STD125 280-648459/6	12.5	3.268588	8.0	785511.0	0.261487	Y
5	ICIS 280-648459/2	20.0	5.1678	8.0	779332.0	0.25839	Y
6	STD300 280-648459/5	30.0	7.89564	8.0	744731.0	0.263188	Y
7	STD400 280-648459/4	40.0	11.165005	8.0	716718.0	0.279125	Y
8	STD500 280-648459/3	50.0	13.415729	8.0	719265.0	0.268315	Y



Calibration / Diethyl phthalate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

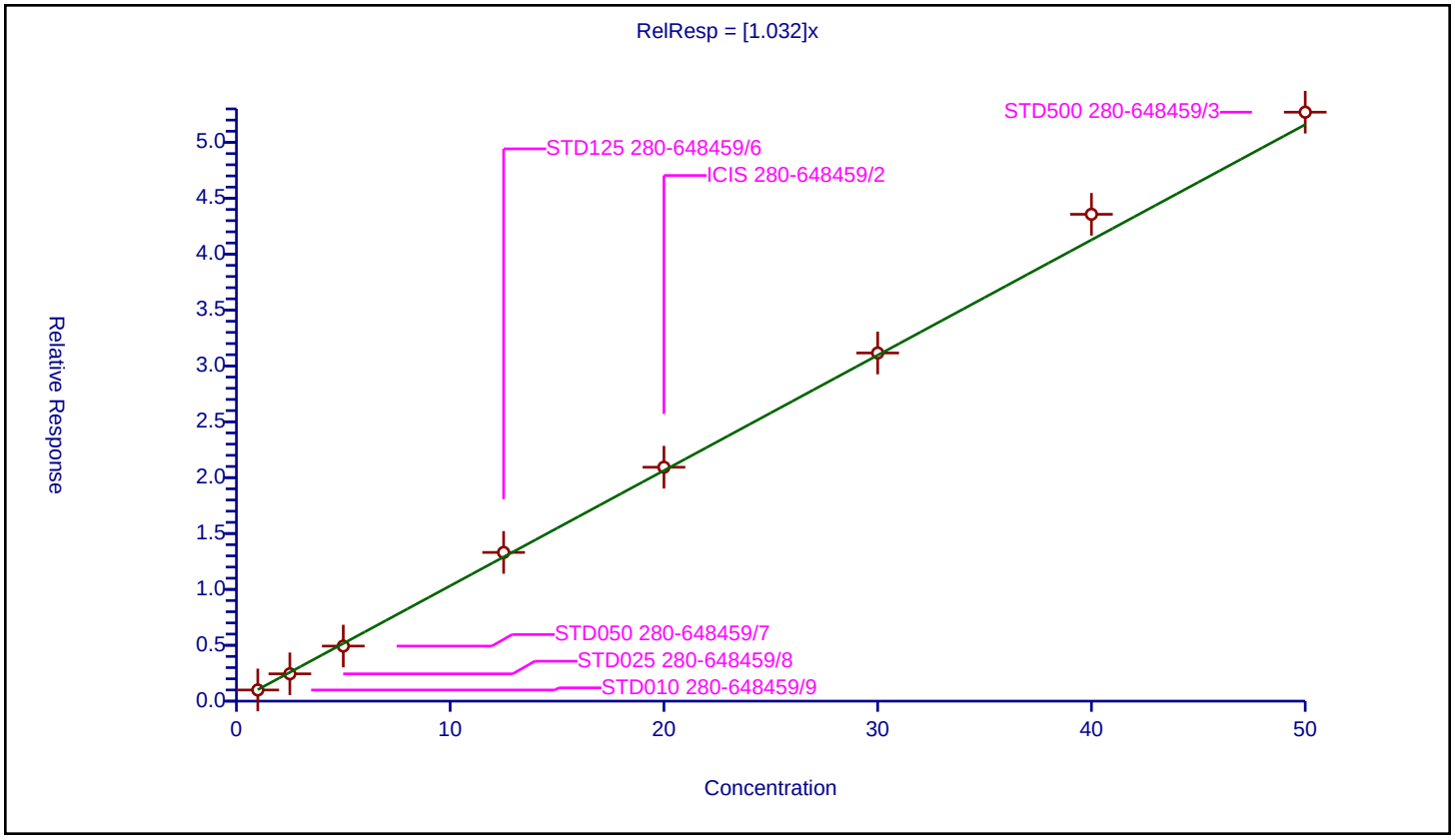
Curve Coefficients

Intercept:	0
Slope:	1.032

Error Coefficients

Relative Standard Deviation:	3.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.998648	8.0	877947.0	0.998648	Y
2	STD025 280-648459/8	2.5	2.444682	8.0	859050.0	0.977873	Y
3	STD050 280-648459/7	5.0	4.927937	8.0	844204.0	0.985587	Y
4	STD125 280-648459/6	12.5	13.308218	8.0	785511.0	1.064657	Y
5	ICIS 280-648459/2	20.0	20.932737	8.0	779332.0	1.046637	Y
6	STD300 280-648459/5	30.0	31.156947	8.0	744731.0	1.038565	Y
7	STD400 280-648459/4	40.0	43.569772	8.0	716718.0	1.089244	Y
8	STD500 280-648459/3	50.0	52.706616	8.0	719265.0	1.054132	Y



Calibration / Fluorene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

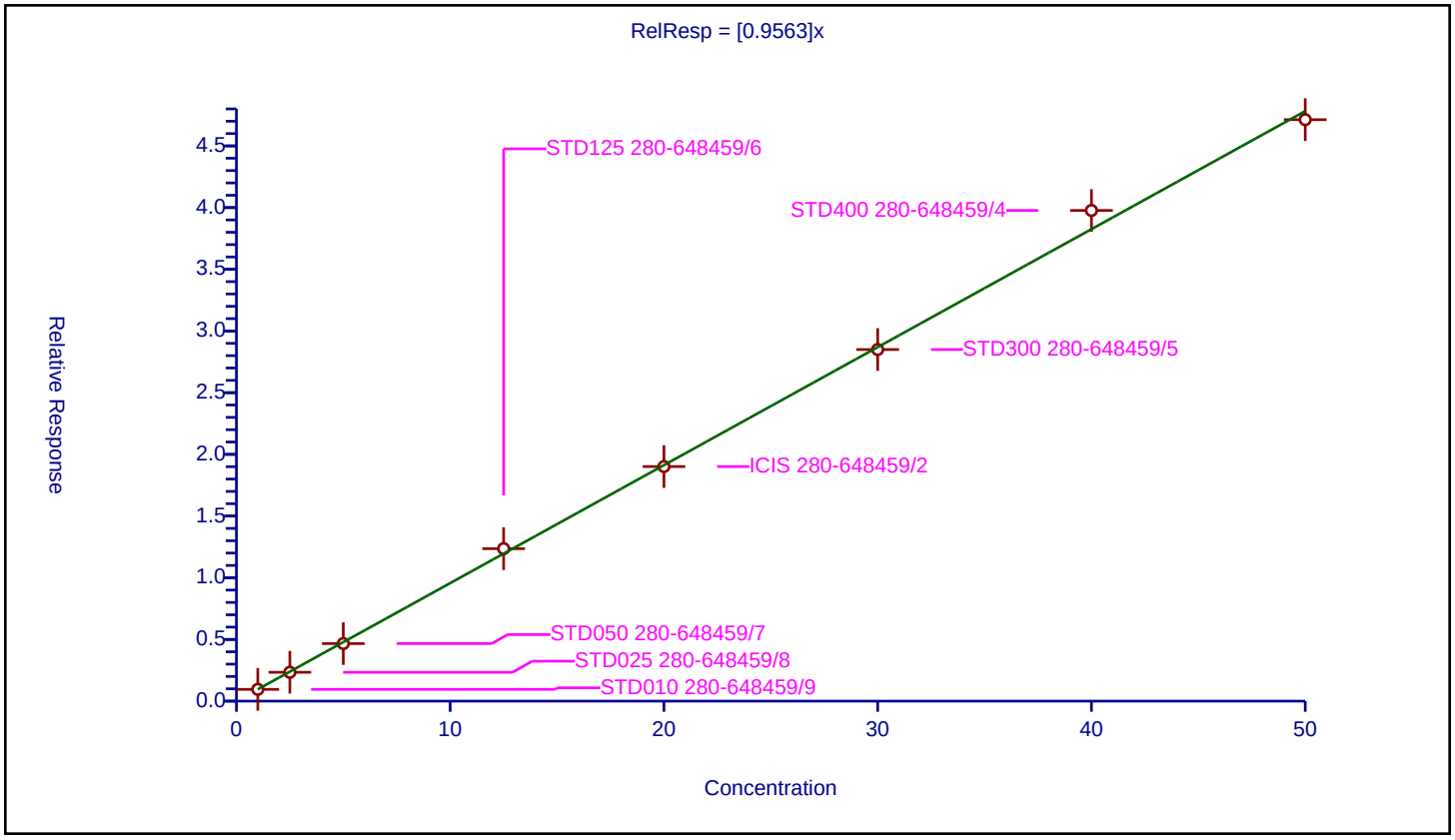
Curve Coefficients

Intercept:	0
Slope:	0.9563

Error Coefficients

Relative Standard Deviation:	2.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.956058	8.0	877947.0	0.956058	Y
2	STD025 280-648459/8	2.5	2.33931	8.0	859050.0	0.935724	Y
3	STD050 280-648459/7	5.0	4.664152	8.0	844204.0	0.93283	Y
4	STD125 280-648459/6	12.5	12.357653	8.0	785511.0	0.988612	Y
5	ICIS 280-648459/2	20.0	19.013042	8.0	779332.0	0.950652	Y
6	STD300 280-648459/5	30.0	28.497699	8.0	744731.0	0.949923	Y
7	STD400 280-648459/4	40.0	39.768411	8.0	716718.0	0.99421	Y
8	STD500 280-648459/3	50.0	47.126008	8.0	719265.0	0.94252	Y



5/23/2024
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Calibration / 4-Chlorophenyl phenyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

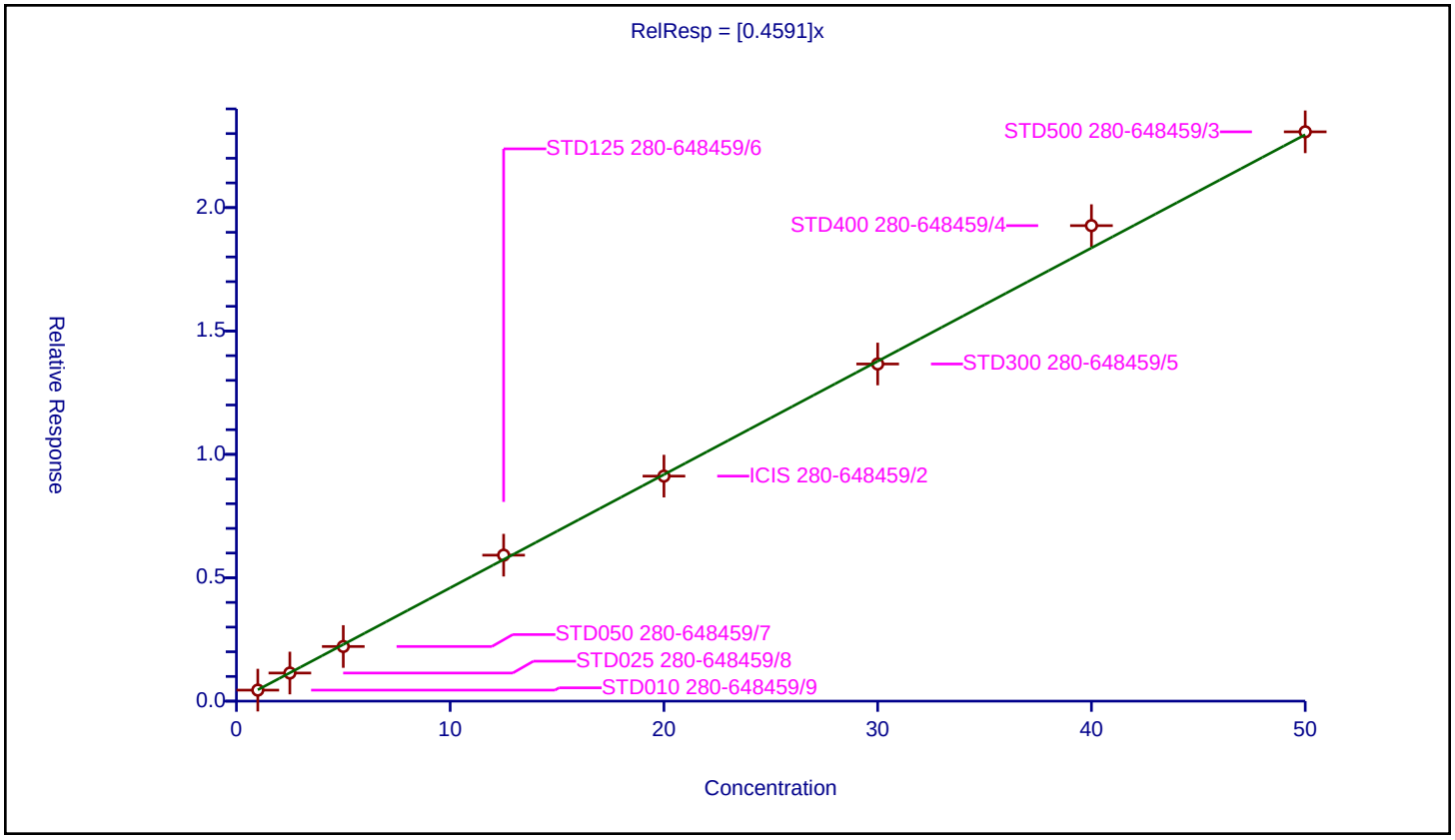
Curve Coefficients

Intercept:	0
Slope:	0.4591

Error Coefficients

Relative Standard Deviation:	2.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.44656	8.0	877947.0	0.44656	Y
2	STD025 280-648459/8	2.5	1.139482	8.0	859050.0	0.455793	Y
3	STD050 280-648459/7	5.0	2.213835	8.0	844204.0	0.442767	Y
4	STD125 280-648459/6	12.5	5.915456	8.0	785511.0	0.473237	Y
5	ICIS 280-648459/2	20.0	9.118815	8.0	779332.0	0.455941	Y
6	STD300 280-648459/5	30.0	13.662716	8.0	744731.0	0.455424	Y
7	STD400 280-648459/4	40.0	19.269916	8.0	716718.0	0.481748	Y
8	STD500 280-648459/3	50.0	23.070974	8.0	719265.0	0.461419	Y



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Calibration / 4-Nitroaniline

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

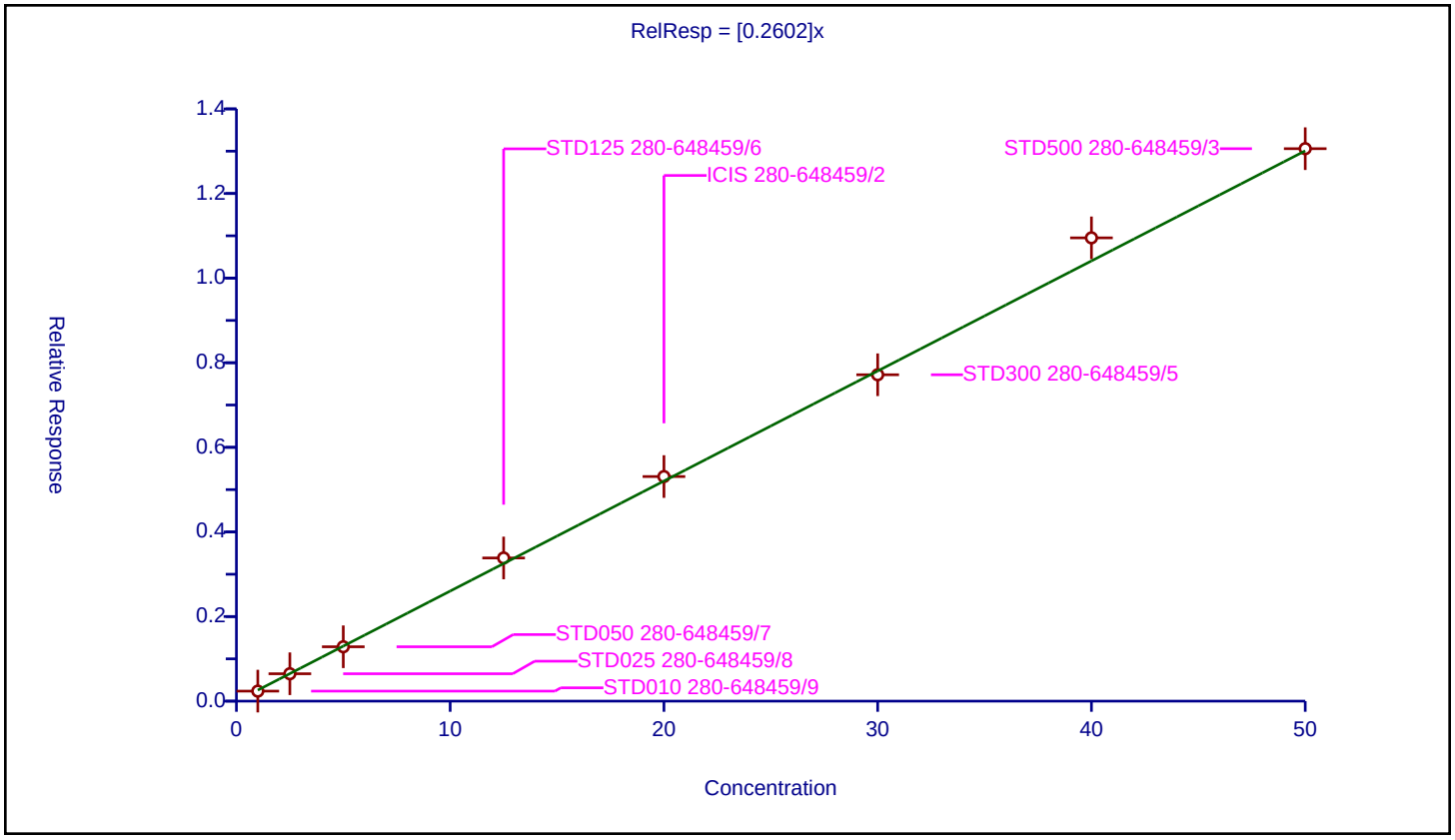
Curve Coefficients

Intercept:	0
Slope:	0.2602

Error Coefficients

Relative Standard Deviation:	4.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.236907	8.0	877947.0	0.236907	Y
2	STD025 280-648459/8	2.5	0.647441	8.0	859050.0	0.258976	Y
3	STD050 280-648459/7	5.0	1.285301	8.0	844204.0	0.25706	Y
4	STD125 280-648459/6	12.5	3.384508	8.0	785511.0	0.270761	Y
5	ICIS 280-648459/2	20.0	5.308865	8.0	779332.0	0.265443	Y
6	STD300 280-648459/5	30.0	7.715548	8.0	744731.0	0.257185	Y
7	STD400 280-648459/4	40.0	10.951699	8.0	716718.0	0.273792	Y
8	STD500 280-648459/3	50.0	13.059587	8.0	719265.0	0.261192	Y



Calibration / 4,6-Dinitro-2-methylphenol

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

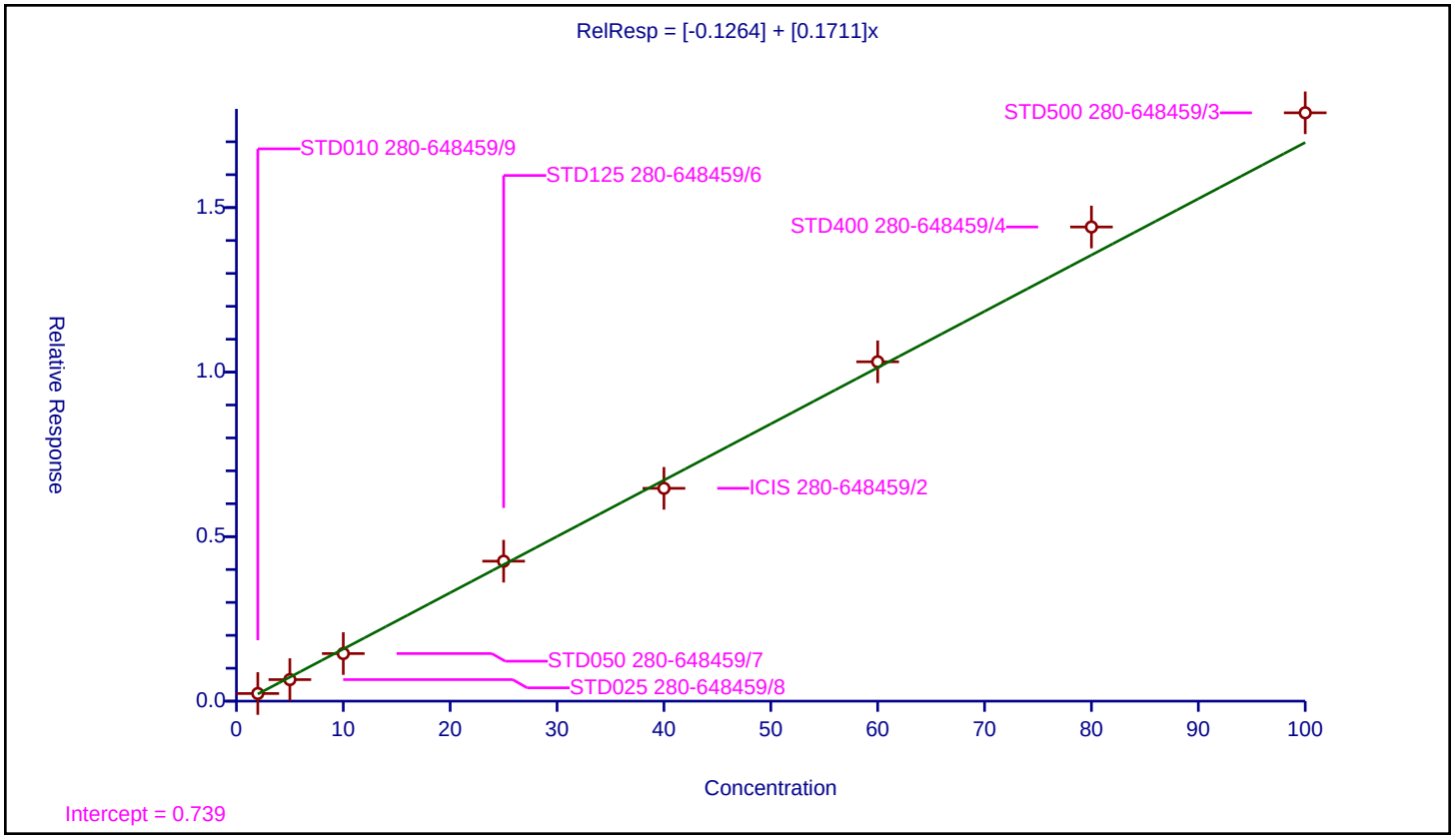
Curve Coefficients

Intercept:	-0.1264
Slope:	0.1711

Error Coefficients

Relative Standard Deviation:	6.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	2.0	0.23205	8.0	877947.0	0.116025	Y
2	STD025 280-648459/8	5.0	0.654118	8.0	859050.0	0.130824	Y
3	STD050 280-648459/7	10.0	1.446001	8.0	844204.0	0.1446	Y
4	STD125 280-648459/6	25.0	4.253557	8.0	785511.0	0.170142	Y
5	ICIS 280-648459/2	40.0	6.467857	8.0	779332.0	0.161696	Y
6	STD300 280-648459/5	60.0	10.313866	8.0	744731.0	0.171898	Y
7	STD400 280-648459/4	80.0	14.410588	8.0	716718.0	0.180132	Y
8	STD500 280-648459/3	100.0	17.880631	8.0	719265.0	0.178806	Y



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Calibration / Diphenylamine

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

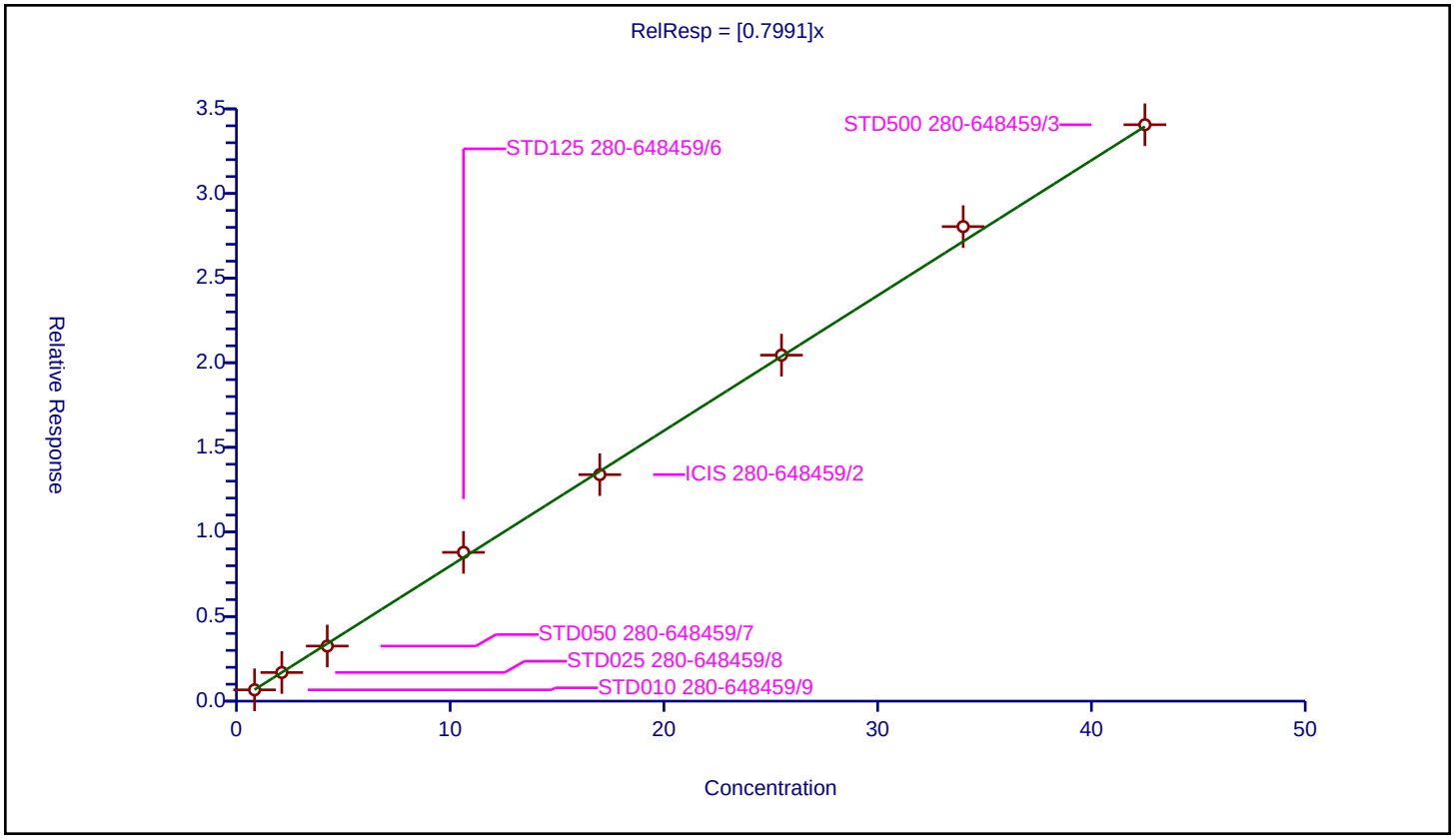
Curve Coefficients

Intercept:	0
Slope:	0.7991

Error Coefficients

Relative Standard Deviation:	2.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	0.85	0.668359	8.0	877947.0	0.786305	Y
2	STD025 280-648459/8	2.125	1.693443	8.0	859050.0	0.796914	Y
3	STD050 280-648459/7	4.25	3.255621	8.0	844204.0	0.766028	Y
4	STD125 280-648459/6	10.625	8.793542	8.0	785511.0	0.827627	Y
5	ICIS 280-648459/2	17.0	13.385546	8.0	779332.0	0.787385	Y
6	STD300 280-648459/5	25.5	20.4485	8.0	744731.0	0.801902	Y
7	STD400 280-648459/4	34.0	28.043375	8.0	716718.0	0.824805	Y
8	STD500 280-648459/3	42.5	34.063062	8.0	719265.0	0.801484	Y



Calibration / N-Nitrosodiphenylamine

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

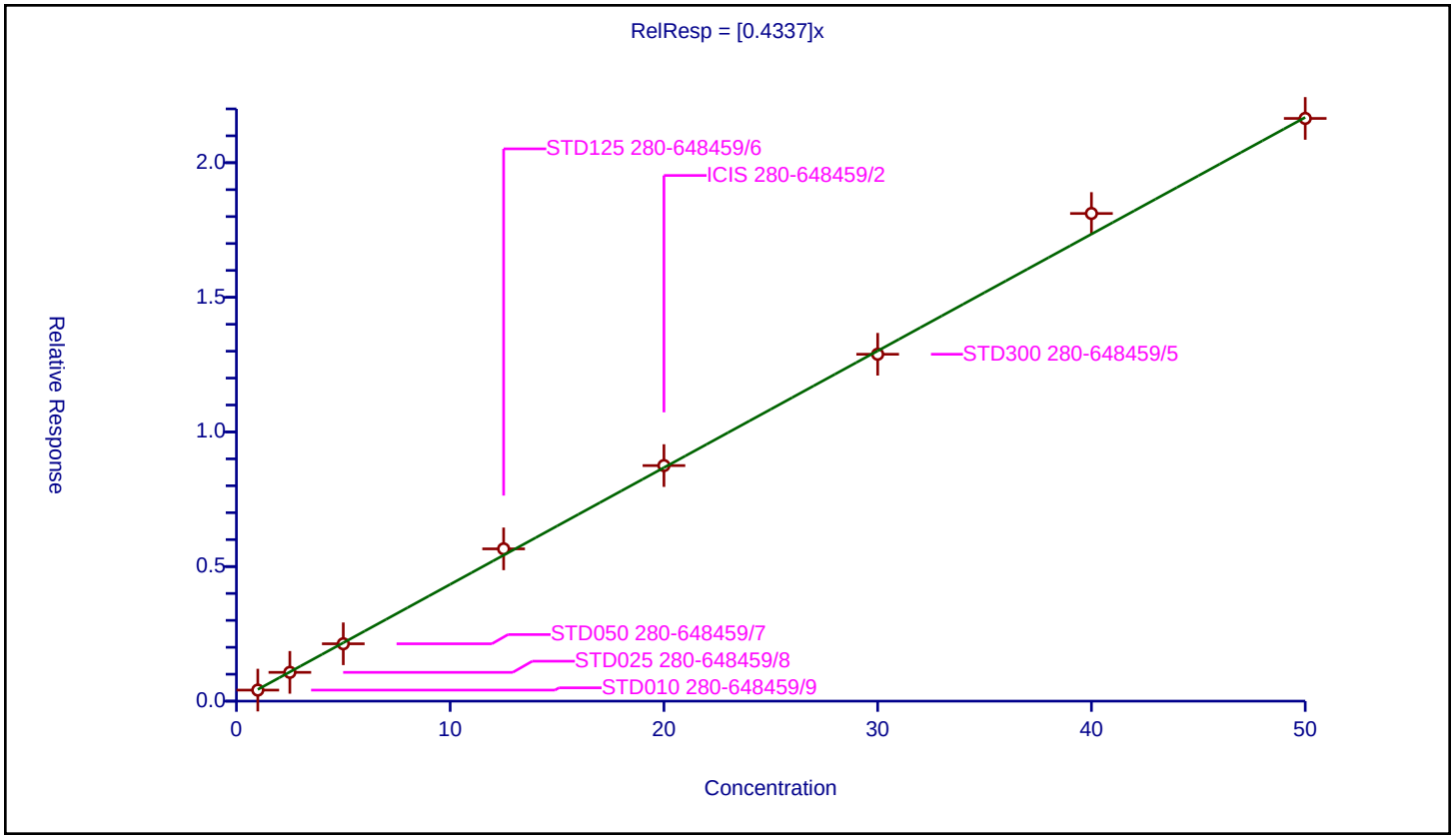
Curve Coefficients

Intercept:	0
Slope:	0.4337

Error Coefficients

Relative Standard Deviation:	3.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.410239	8.0	877947.0	0.410239	Y
2	STD025 280-648459/8	2.5	1.069237	8.0	859050.0	0.427695	Y
3	STD050 280-648459/7	5.0	2.130888	8.0	844204.0	0.426178	Y
4	STD125 280-648459/6	12.5	5.656883	8.0	785511.0	0.452551	Y
5	ICIS 280-648459/2	20.0	8.750817	8.0	779332.0	0.437541	Y
6	STD300 280-648459/5	30.0	12.88592	8.0	744731.0	0.429531	Y
7	STD400 280-648459/4	40.0	18.114818	8.0	716718.0	0.45287	Y
8	STD500 280-648459/3	50.0	21.645318	8.0	719265.0	0.432906	Y



Calibration / 1,2-Diphenylhydrazine

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

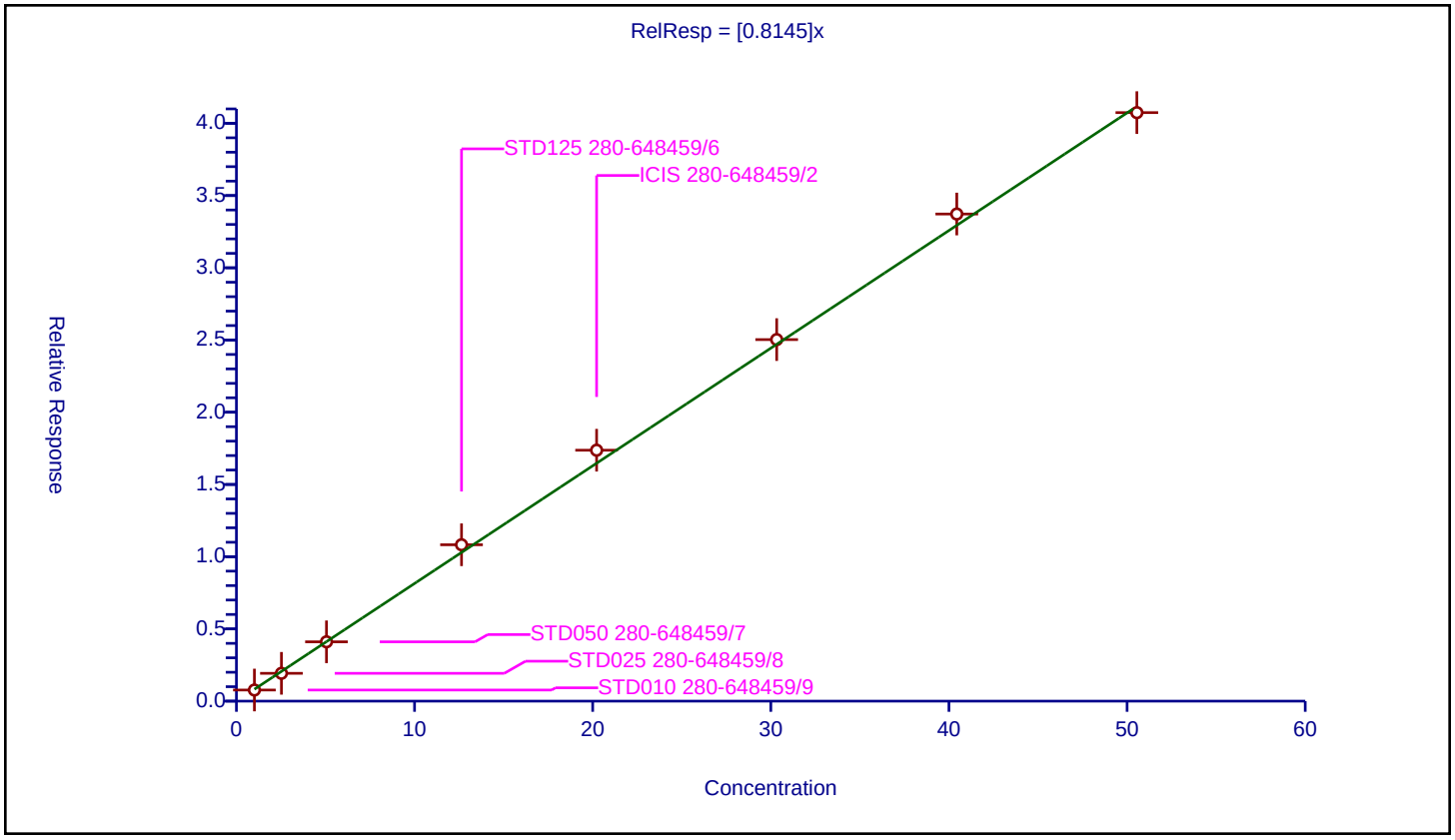
Curve Coefficients

Intercept:	0
Slope:	0.8145

Error Coefficients

Relative Standard Deviation:	4.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.010975	0.769293	8.0	1577085.0	0.760942	Y
2	STD025 280-648459/8	2.527436	1.926099	8.0	1548751.0	0.762076	Y
3	STD050 280-648459/7	5.054873	4.106553	8.0	1460002.0	0.812395	Y
4	STD125 280-648459/6	12.637182	10.825046	8.0	1339736.0	0.856603	Y
5	ICIS 280-648459/2	20.219491	17.371278	8.0	1300177.0	0.859135	Y
6	STD300 280-648459/5	30.329236	25.028499	8.0	1256728.0	0.825227	Y
7	STD400 280-648459/4	40.438982	33.721564	8.0	1212753.0	0.833888	Y
8	STD500 280-648459/3	50.548727	40.741053	8.0	1204913.0	0.805976	Y



Calibration / Azobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

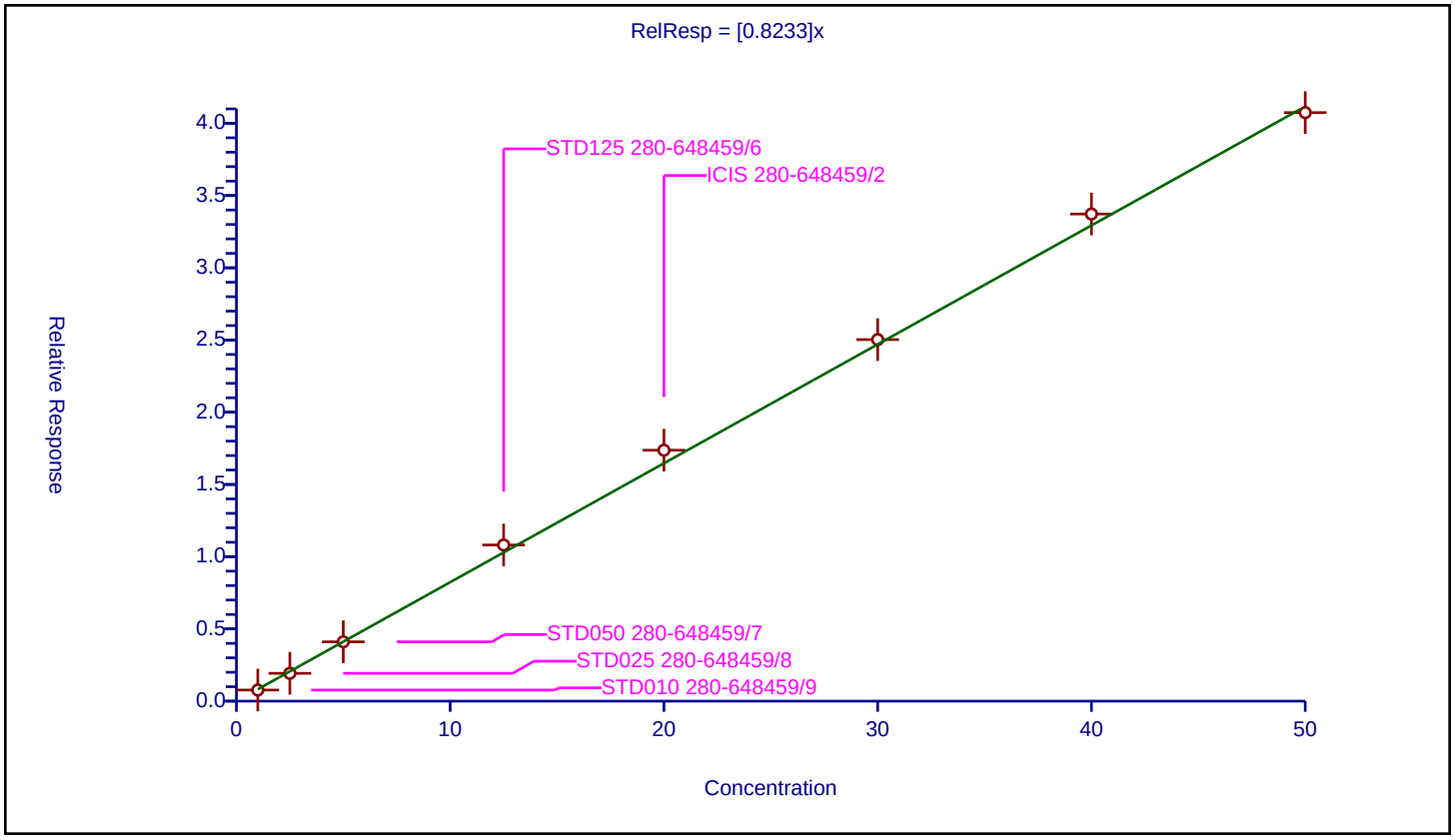
Curve Coefficients

Intercept:	0
Slope:	0.8233

Error Coefficients

Relative Standard Deviation:	4.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.769293	8.0	1577085.0	0.769293	Y
2	STD025 280-648459/8	2.5	1.926099	8.0	1548751.0	0.77044	Y
3	STD050 280-648459/7	5.0	4.106548	8.0	1460002.0	0.82131	Y
4	STD125 280-648459/6	12.5	10.810781	8.0	1339736.0	0.864862	Y
5	ICIS 280-648459/2	20.0	17.371278	8.0	1300177.0	0.868564	Y
6	STD300 280-648459/5	30.0	25.028499	8.0	1256728.0	0.834283	Y
7	STD400 280-648459/4	40.0	33.721564	8.0	1212753.0	0.843039	Y
8	STD500 280-648459/3	50.0	40.741053	8.0	1204913.0	0.814821	Y



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Calibration / 2,4,6-Tribromophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

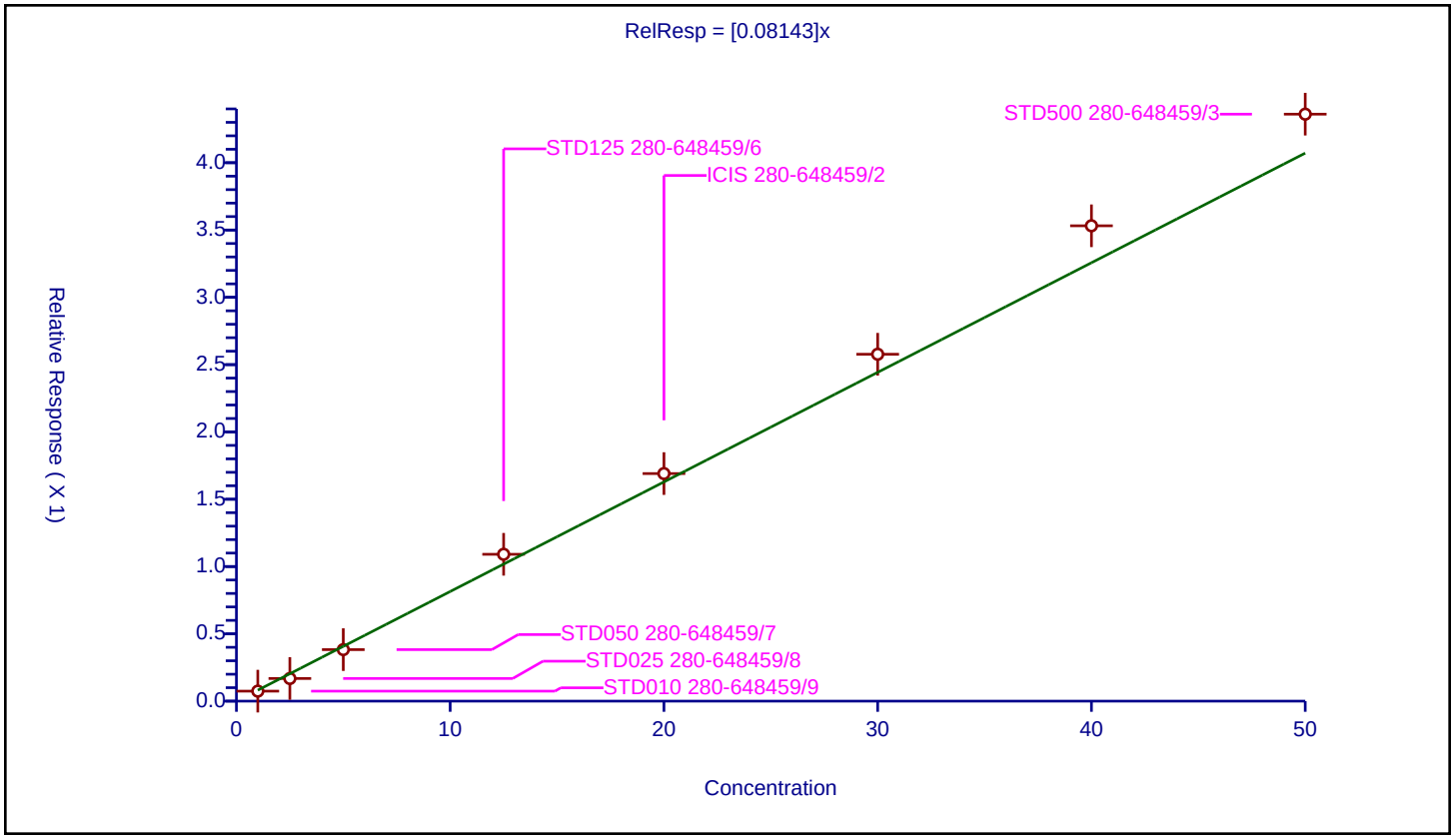
Curve Coefficients

Intercept:	0
Slope:	0.08143

Error Coefficients

Relative Standard Deviation:	9.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.074355	8.0	1577085.0	0.074355	Y
2	STD025 280-648459/8	2.5	0.168203	8.0	1548751.0	0.067281	Y
3	STD050 280-648459/7	5.0	0.382706	8.0	1460002.0	0.076541	Y
4	STD125 280-648459/6	12.5	1.091063	8.0	1339736.0	0.087285	Y
5	ICIS 280-648459/2	20.0	1.690779	8.0	1300177.0	0.084539	Y
6	STD300 280-648459/5	30.0	2.577137	8.0	1256728.0	0.085905	Y
7	STD400 280-648459/4	40.0	3.531628	8.0	1212753.0	0.088291	Y
8	STD500 280-648459/3	50.0	4.360859	8.0	1204913.0	0.087217	Y



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Calibration / 4-Bromophenyl phenyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

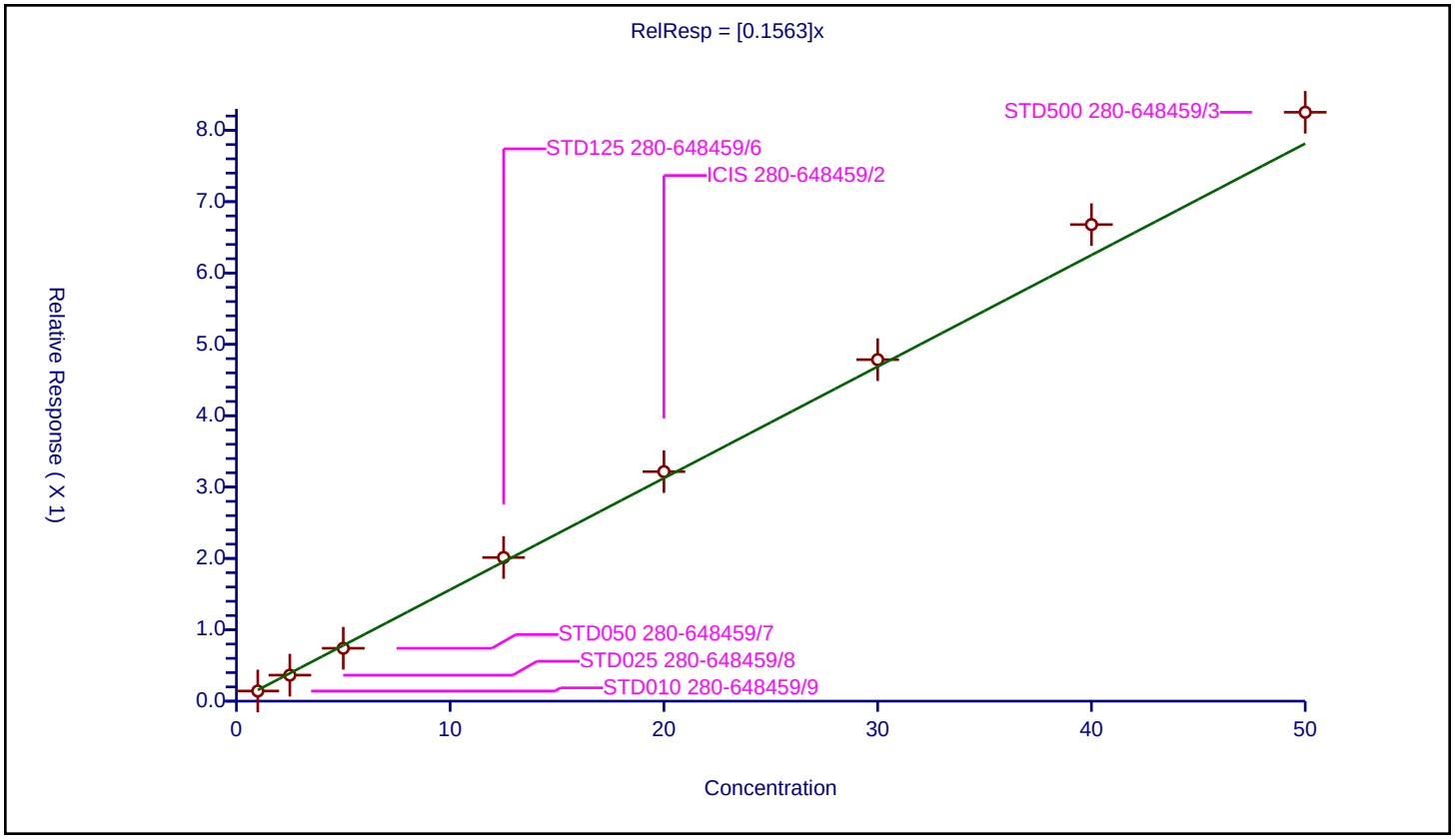
Curve Coefficients

Intercept:	0
Slope:	0.1563

Error Coefficients

Relative Standard Deviation:	6.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.14241	8.0	1577085.0	0.14241	Y
2	STD025 280-648459/8	2.5	0.365027	8.0	1548751.0	0.146011	Y
3	STD050 280-648459/7	5.0	0.741648	8.0	1460002.0	0.14833	Y
4	STD125 280-648459/6	12.5	2.013274	8.0	1339736.0	0.161062	Y
5	ICIS 280-648459/2	20.0	3.216737	8.0	1300177.0	0.160837	Y
6	STD300 280-648459/5	30.0	4.785647	8.0	1256728.0	0.159522	Y
7	STD400 280-648459/4	40.0	6.67855	8.0	1212753.0	0.166964	Y
8	STD500 280-648459/3	50.0	8.252493	8.0	1204913.0	0.16505	Y



Calibration / Hexachlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

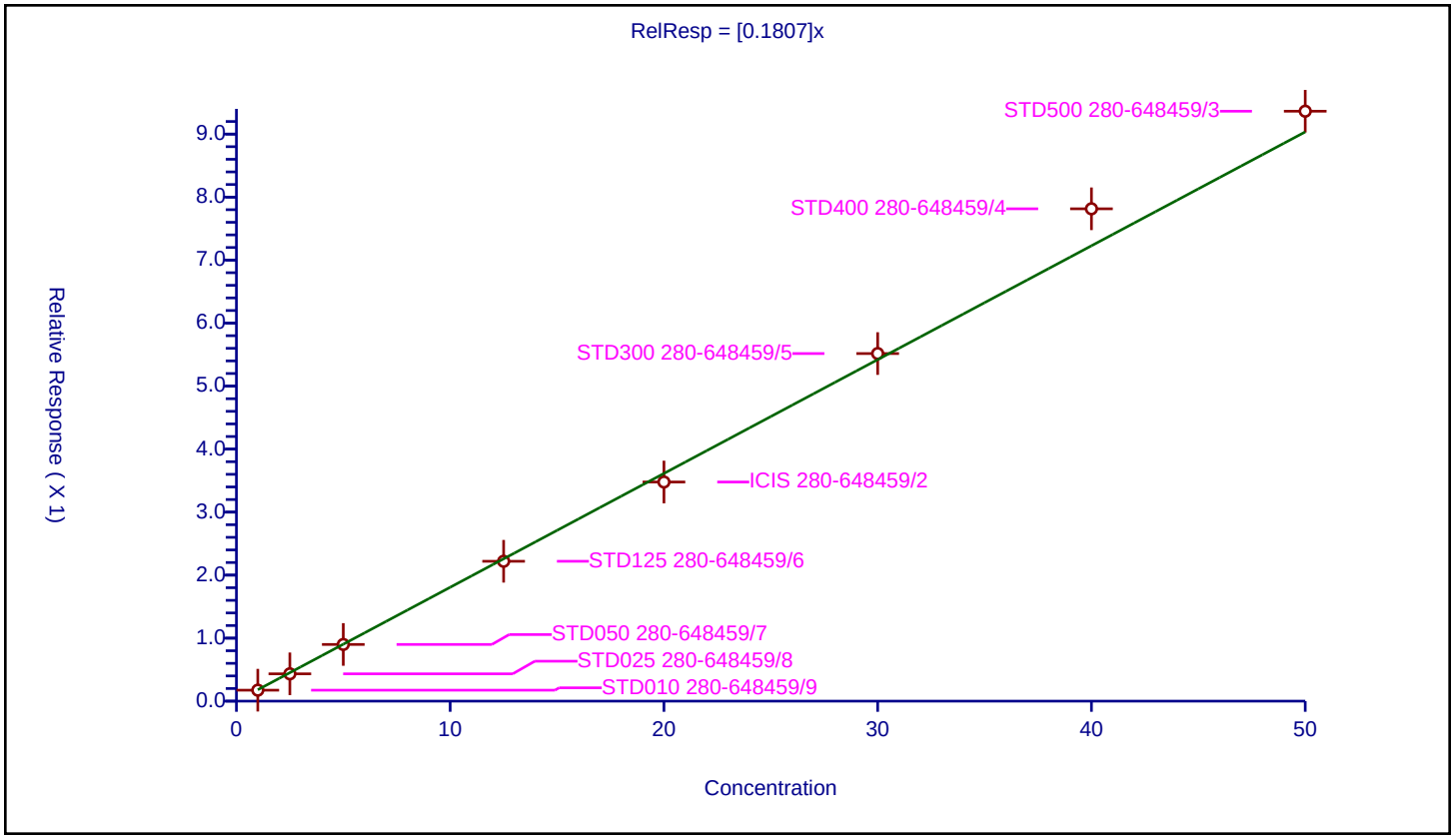
Curve Coefficients

Intercept:	0
Slope:	0.1807

Error Coefficients

Relative Standard Deviation:	4.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.174083	8.0	1577085.0	0.174083	Y
2	STD025 280-648459/8	2.5	0.433547	8.0	1548751.0	0.173419	Y
3	STD050 280-648459/7	5.0	0.899873	8.0	1460002.0	0.179975	Y
4	STD125 280-648459/6	12.5	2.21993	8.0	1339736.0	0.177594	Y
5	ICIS 280-648459/2	20.0	3.47813	8.0	1300177.0	0.173906	Y
6	STD300 280-648459/5	30.0	5.516885	8.0	1256728.0	0.183896	Y
7	STD400 280-648459/4	40.0	7.814234	8.0	1212753.0	0.195356	Y
8	STD500 280-648459/3	50.0	9.363279	8.0	1204913.0	0.187266	Y



Calibration / Pentachlorophenol

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

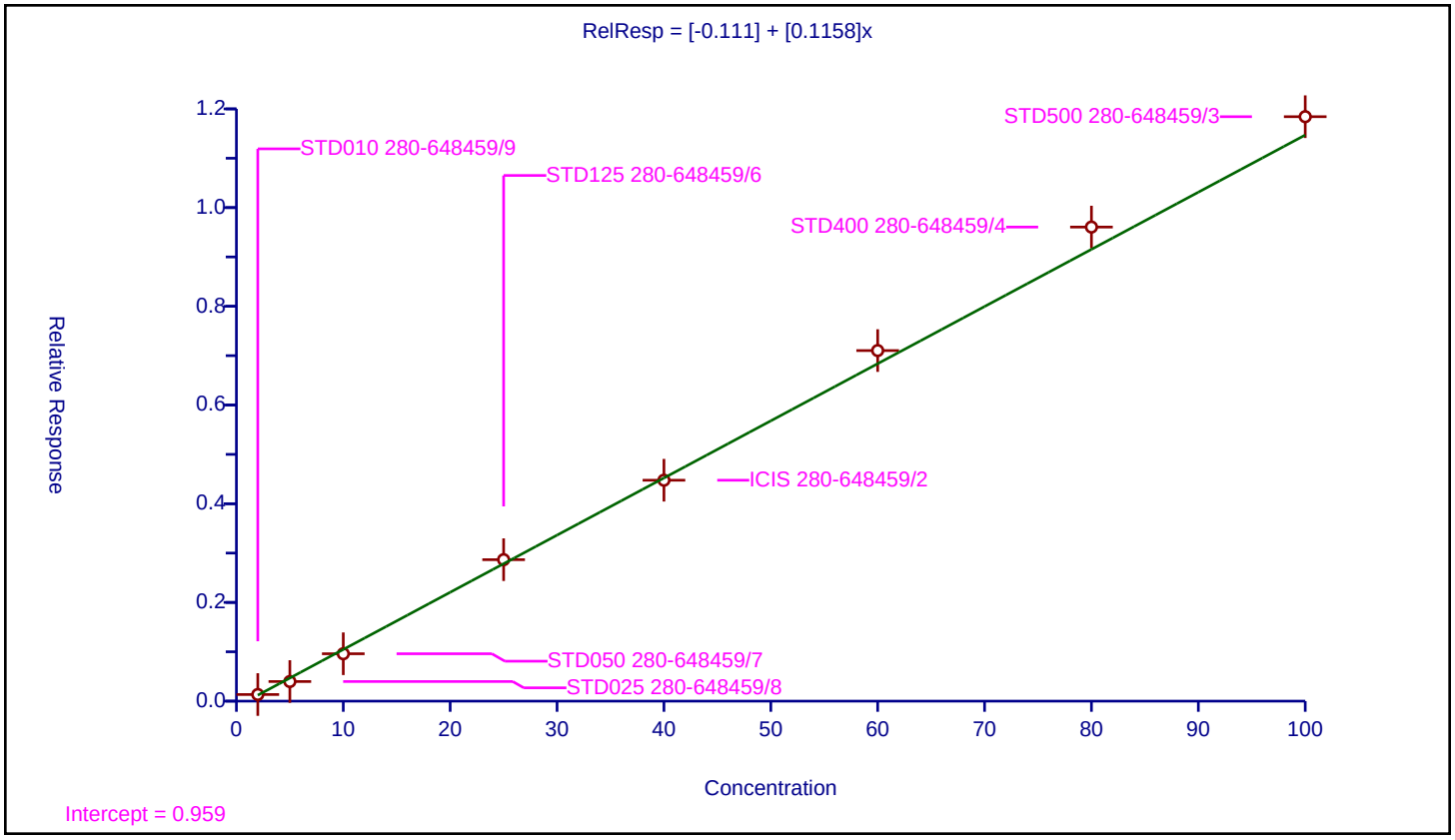
Curve Coefficients

Intercept:	-0.111
Slope:	0.1158

Error Coefficients

Relative Standard Deviation:	7.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	2.0	0.134172	8.0	1577085.0	0.067086	Y
2	STD025 280-648459/8	5.0	0.397626	8.0	1548751.0	0.079525	Y
3	STD050 280-648459/7	10.0	0.960377	8.0	1460002.0	0.096038	Y
4	STD125 280-648459/6	25.0	2.866463	8.0	1339736.0	0.114659	Y
5	ICIS 280-648459/2	40.0	4.476037	8.0	1300177.0	0.111901	Y
6	STD300 280-648459/5	60.0	7.103246	8.0	1256728.0	0.118387	Y
7	STD400 280-648459/4	80.0	9.605643	8.0	1212753.0	0.120071	Y
8	STD500 280-648459/3	100.0	11.841857	8.0	1204913.0	0.118419	Y



Calibration / Phenanthrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

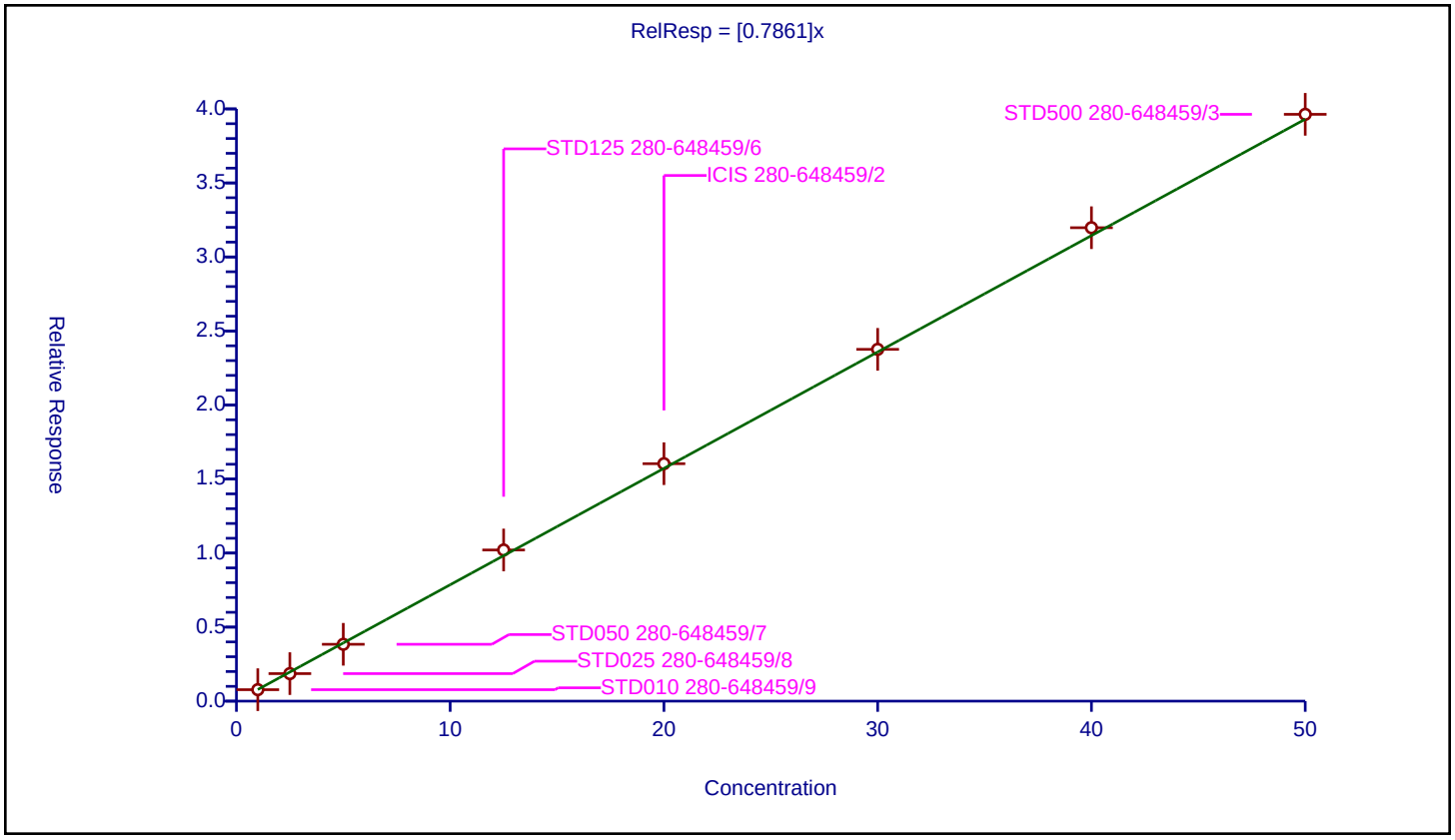
Curve Coefficients

Intercept:	0
Slope:	0.7861

Error Coefficients

Relative Standard Deviation:	2.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.774715	8.0	1577085.0	0.774715	Y
2	STD025 280-648459/8	2.5	1.858396	8.0	1548751.0	0.743358	Y
3	STD050 280-648459/7	5.0	3.838877	8.0	1460002.0	0.767775	Y
4	STD125 280-648459/6	12.5	10.209504	8.0	1339736.0	0.81676	Y
5	ICIS 280-648459/2	20.0	16.038235	8.0	1300177.0	0.801912	Y
6	STD300 280-648459/5	30.0	23.760788	8.0	1256728.0	0.792026	Y
7	STD400 280-648459/4	40.0	31.975956	8.0	1212753.0	0.799399	Y
8	STD500 280-648459/3	50.0	39.632717	8.0	1204913.0	0.792654	Y



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Calibration / Anthracene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

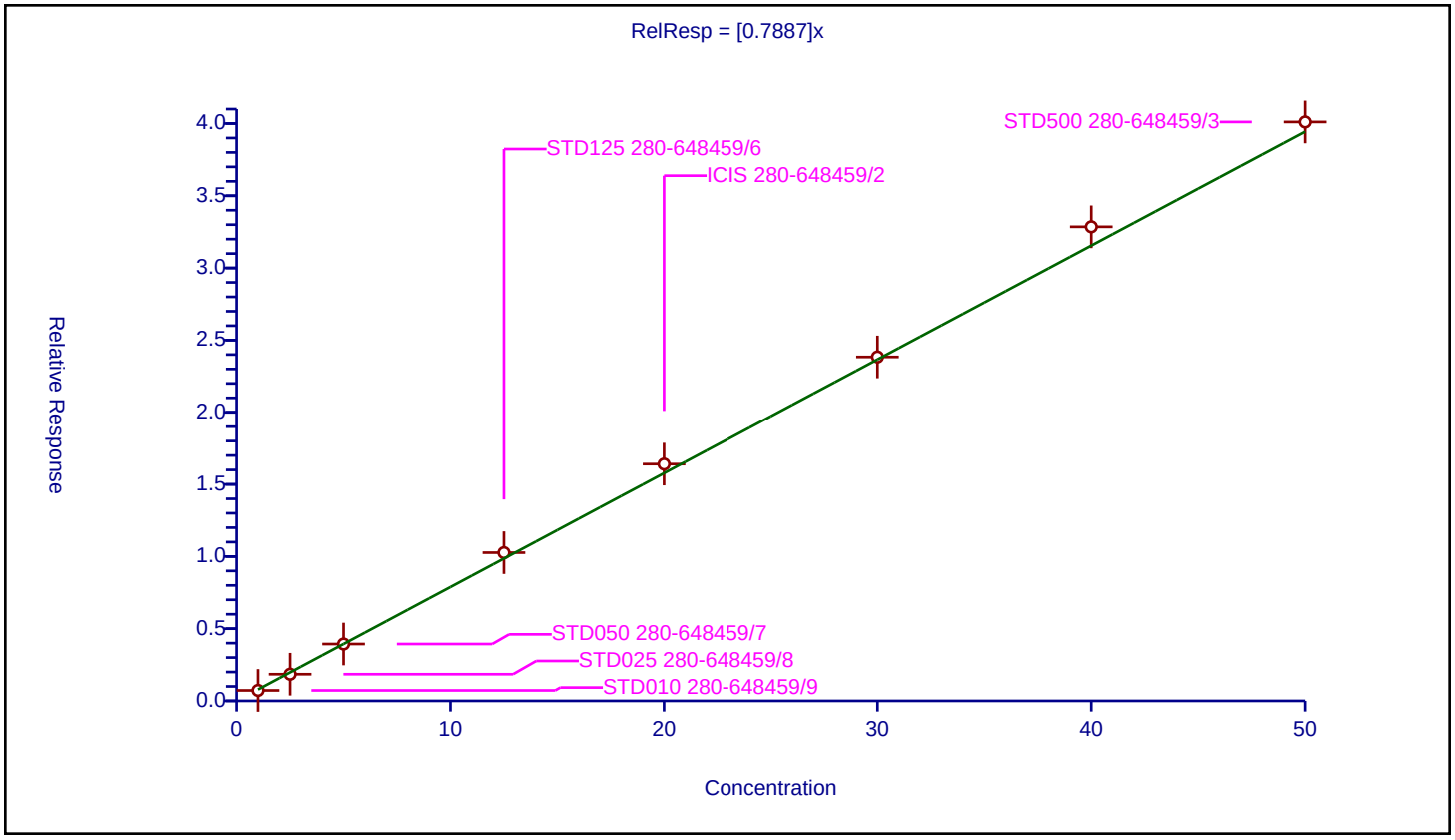
Curve Coefficients

Intercept:	0
Slope:	0.7887

Error Coefficients

Relative Standard Deviation:	4.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.723664	8.0	1577085.0	0.723664	Y
2	STD025 280-648459/8	2.5	1.846277	8.0	1548751.0	0.738511	Y
3	STD050 280-648459/7	5.0	3.939984	8.0	1460002.0	0.787997	Y
4	STD125 280-648459/6	12.5	10.268489	8.0	1339736.0	0.821479	Y
5	ICIS 280-648459/2	20.0	16.40608	8.0	1300177.0	0.820304	Y
6	STD300 280-648459/5	30.0	23.836744	8.0	1256728.0	0.794558	Y
7	STD400 280-648459/4	40.0	32.852368	8.0	1212753.0	0.821309	Y
8	STD500 280-648459/3	50.0	40.108768	8.0	1204913.0	0.802175	Y



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Calibration / Carbazole

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

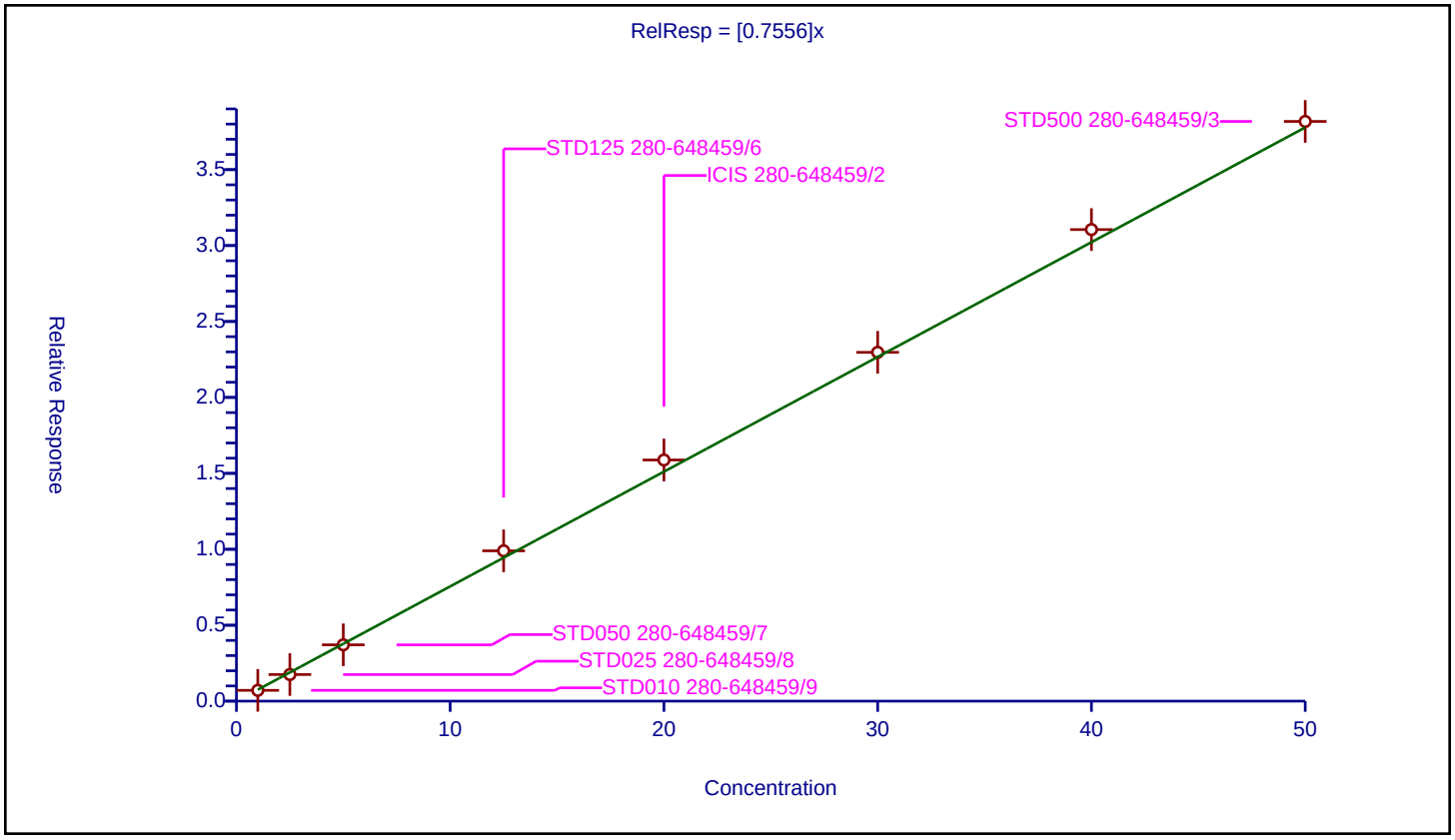
Curve Coefficients

Intercept:	0
Slope:	0.7556

Error Coefficients

Relative Standard Deviation:	4.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.710577	8.0	1577085.0	0.710577	Y
2	STD025 280-648459/8	2.5	1.751724	8.0	1548751.0	0.70069	Y
3	STD050 280-648459/7	5.0	3.708855	8.0	1460002.0	0.741771	Y
4	STD125 280-648459/6	12.5	9.898673	8.0	1339736.0	0.791894	Y
5	ICIS 280-648459/2	20.0	15.881179	8.0	1300177.0	0.794059	Y
6	STD300 280-648459/5	30.0	22.969725	8.0	1256728.0	0.765657	Y
7	STD400 280-648459/4	40.0	31.05274	8.0	1212753.0	0.776319	Y
8	STD500 280-648459/3	50.0	38.173896	8.0	1204913.0	0.763478	Y



5/23/2024
4:40:30 AM

Calibration / Alachlor

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

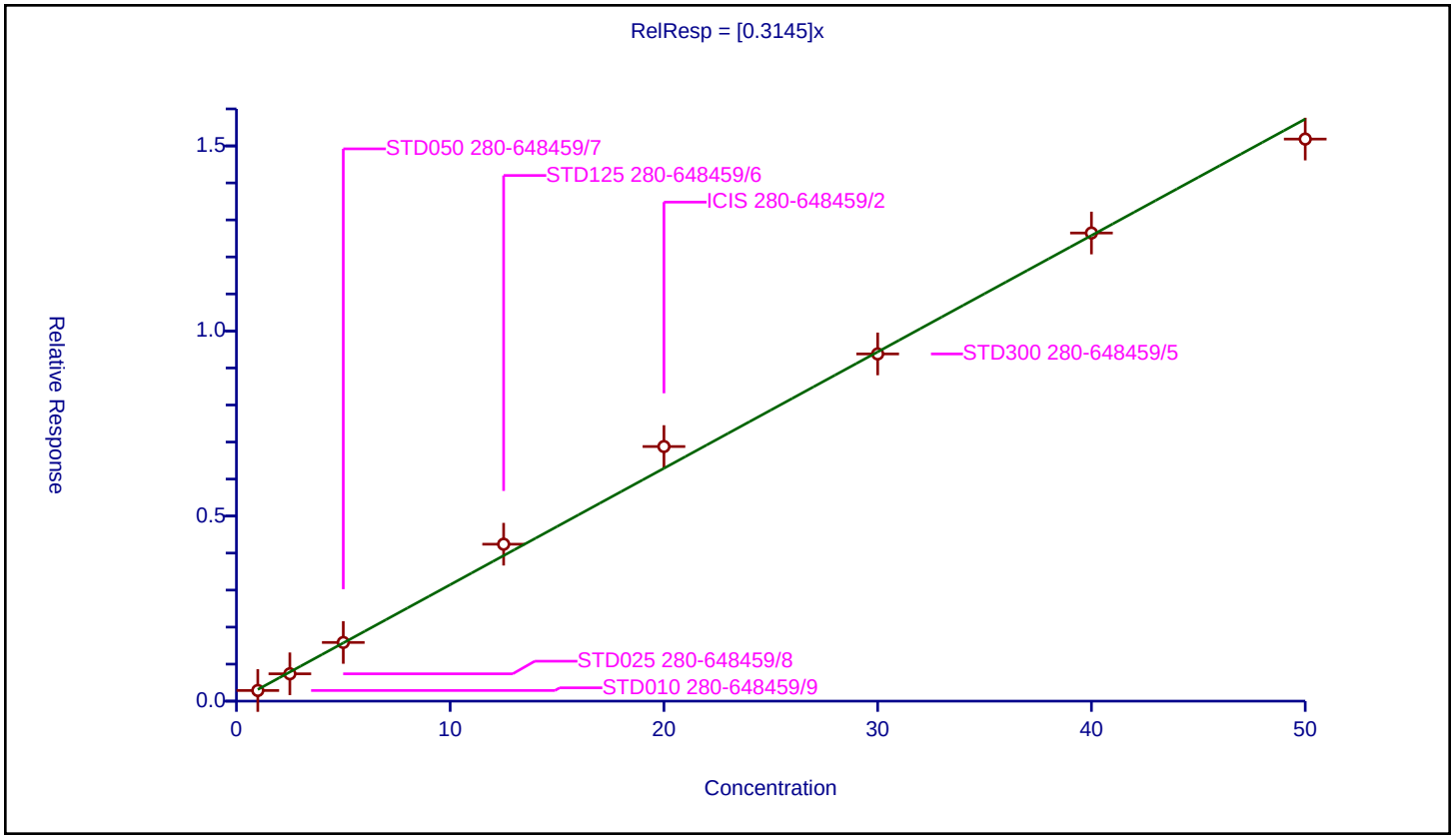
Curve Coefficients

Intercept:	0
Slope:	0.3145

Error Coefficients

Relative Standard Deviation:	6.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.287802	8.0	1577085.0	0.287802	Y
2	STD025 280-648459/8	2.5	0.73881	8.0	1548751.0	0.295524	Y
3	STD050 280-648459/7	5.0	1.585461	8.0	1460002.0	0.317092	Y
4	STD125 280-648459/6	12.5	4.239755	8.0	1339736.0	0.33918	Y
5	ICIS 280-648459/2	20.0	6.878073	8.0	1300177.0	0.343904	Y
6	STD300 280-648459/5	30.0	9.380232	8.0	1256728.0	0.312674	Y
7	STD400 280-648459/4	40.0	12.647218	8.0	1212753.0	0.31618	Y
8	STD500 280-648459/3	50.0	15.184824	8.0	1204913.0	0.303696	Y



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Calibration / Di-n-butyl phthalate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

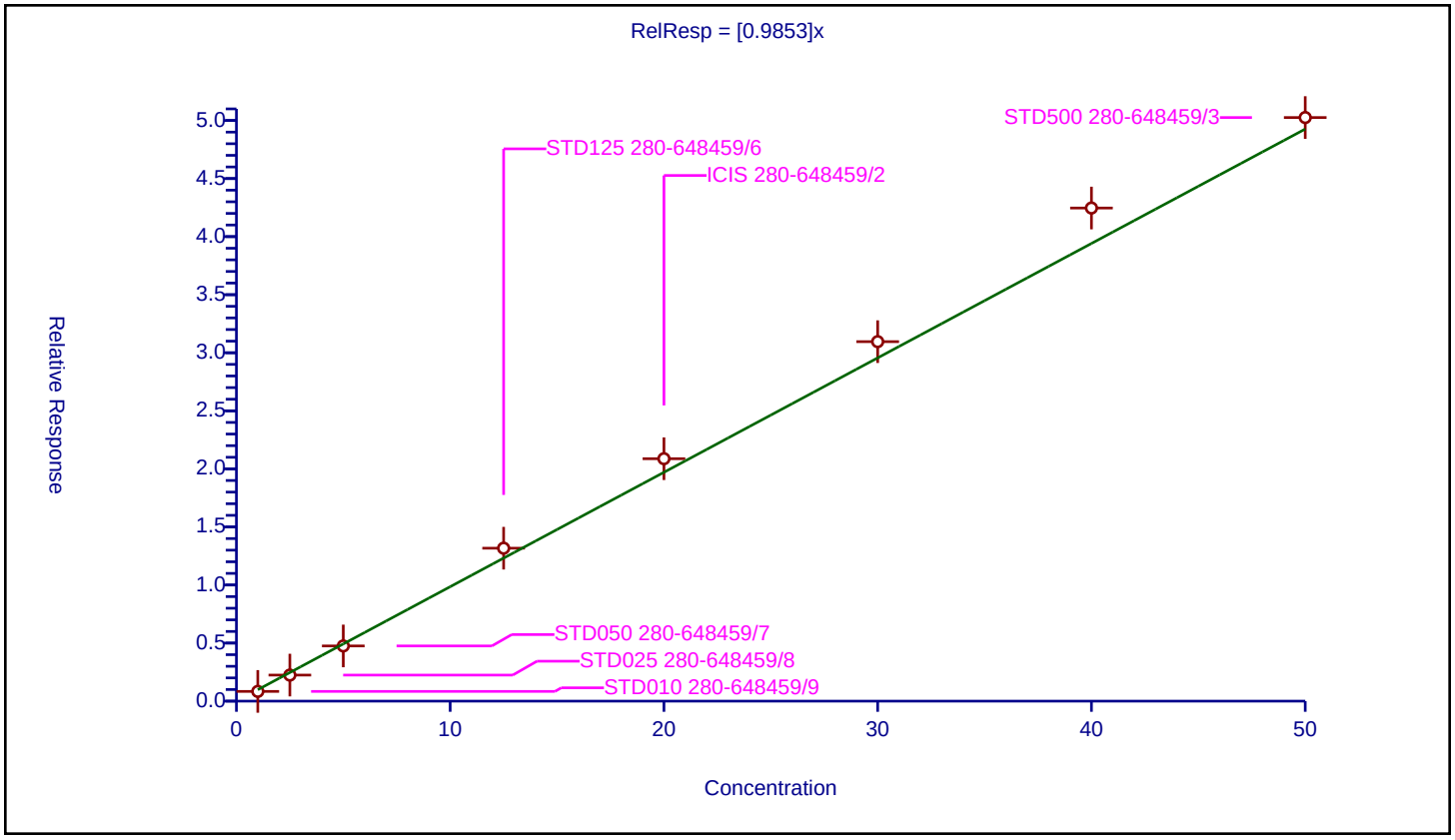
Curve Coefficients

Intercept:	0
Slope:	0.9853

Error Coefficients

Relative Standard Deviation:	8.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.837312	8.0	1577085.0	0.837312	Y
2	STD025 280-648459/8	2.5	2.245004	8.0	1548751.0	0.898002	Y
3	STD050 280-648459/7	5.0	4.753878	8.0	1460002.0	0.950776	Y
4	STD125 280-648459/6	12.5	13.171276	8.0	1339736.0	1.053702	Y
5	ICIS 280-648459/2	20.0	20.876788	8.0	1300177.0	1.043839	Y
6	STD300 280-648459/5	30.0	30.957165	8.0	1256728.0	1.031905	Y
7	STD400 280-648459/4	40.0	42.463723	8.0	1212753.0	1.061593	Y
8	STD500 280-648459/3	50.0	50.254078	8.0	1204913.0	1.005082	Y



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Calibration / Fluoranthene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

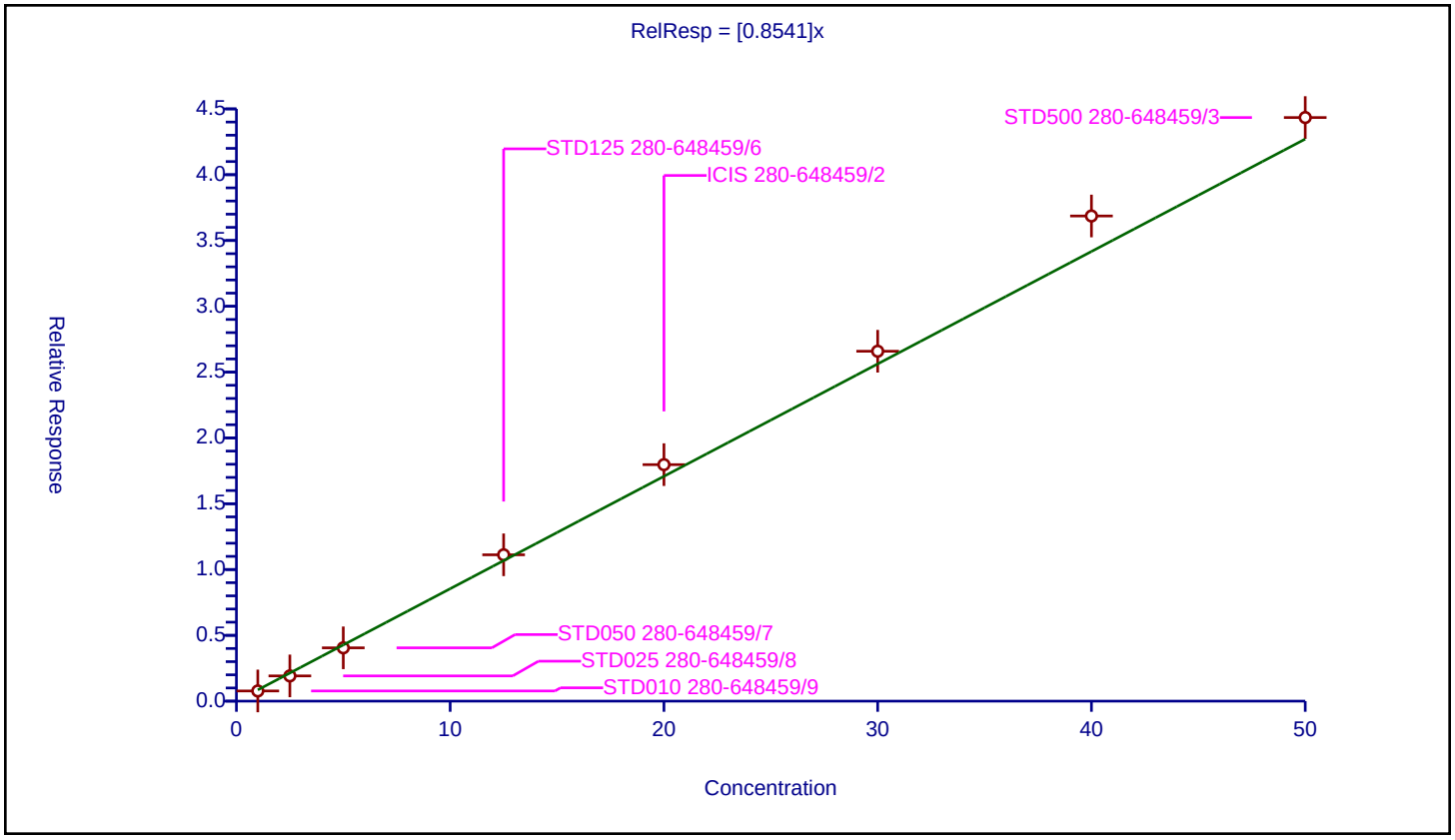
Curve Coefficients

Intercept:	0
Slope:	0.8541

Error Coefficients

Relative Standard Deviation:	7.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.773315	8.0	1577085.0	0.773315	Y
2	STD025 280-648459/8	2.5	1.917638	8.0	1548751.0	0.767055	Y
3	STD050 280-648459/7	5.0	4.050142	8.0	1460002.0	0.810028	Y
4	STD125 280-648459/6	12.5	11.118543	8.0	1339736.0	0.889483	Y
5	ICIS 280-648459/2	20.0	17.970003	8.0	1300177.0	0.8985	Y
6	STD300 280-648459/5	30.0	26.587284	8.0	1256728.0	0.886243	Y
7	STD400 280-648459/4	40.0	36.862715	8.0	1212753.0	0.921568	Y
8	STD500 280-648459/3	50.0	44.342023	8.0	1204913.0	0.88684	Y



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Calibration / Pyrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

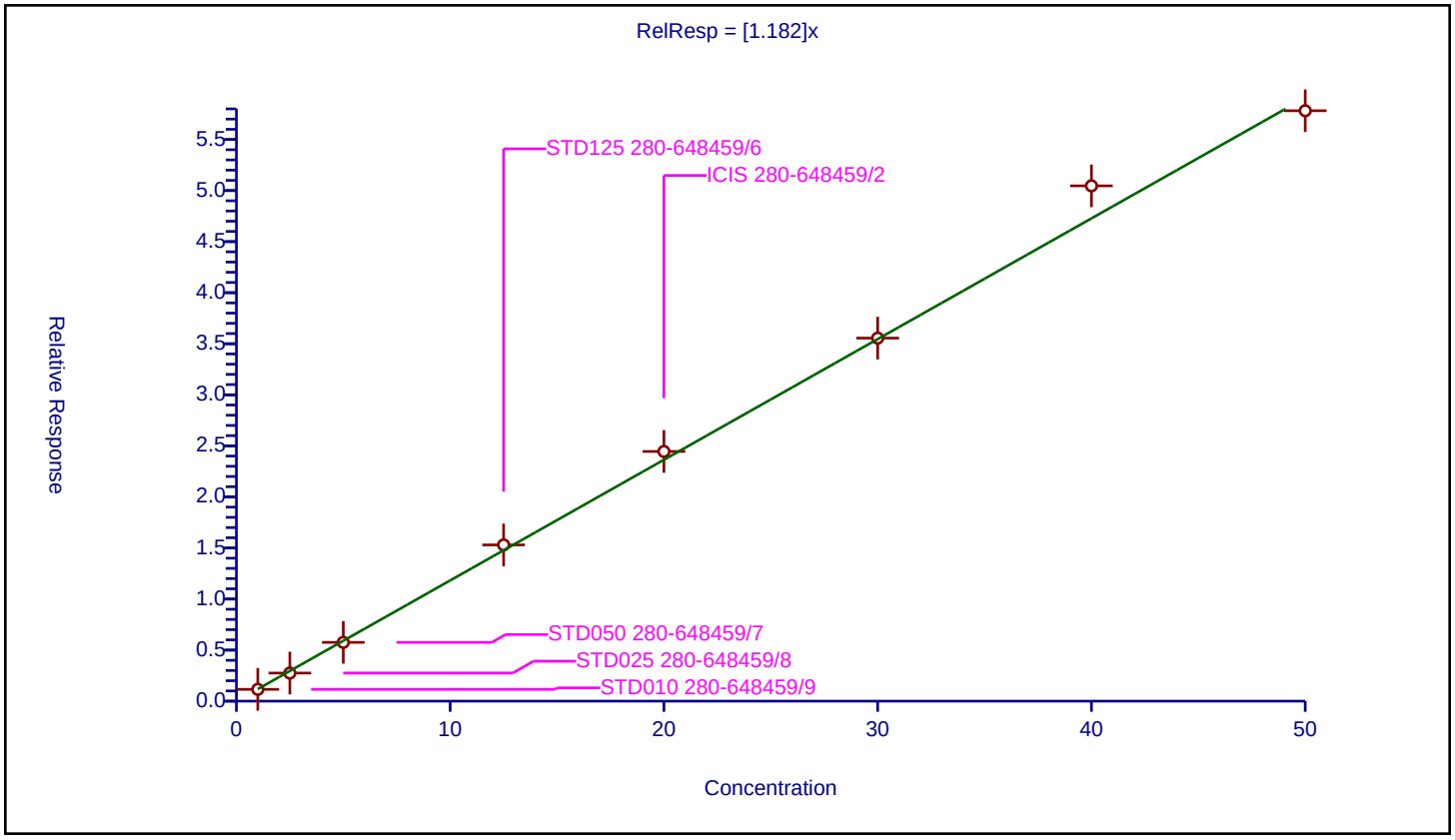
Curve Coefficients

Intercept:	0
Slope:	1.182

Error Coefficients

Relative Standard Deviation:	4.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	1.154598	8.0	1145015.0	1.154598	Y
2	STD025 280-648459/8	2.5	2.749601	8.0	1149080.0	1.099841	Y
3	STD050 280-648459/7	5.0	5.755203	8.0	1106851.0	1.151041	Y
4	STD125 280-648459/6	12.5	15.298531	8.0	1019792.0	1.223883	Y
5	ICIS 280-648459/2	20.0	24.45167	8.0	1005319.0	1.222583	Y
6	STD300 280-648459/5	30.0	35.553533	8.0	959937.0	1.185118	Y
7	STD400 280-648459/4	40.0	50.462044	8.0	905014.0	1.261551	Y
8	STD500 280-648459/3	50.0	57.816425	8.0	960577.0	1.156328	Y



Calibration / Terphenyl-d14

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

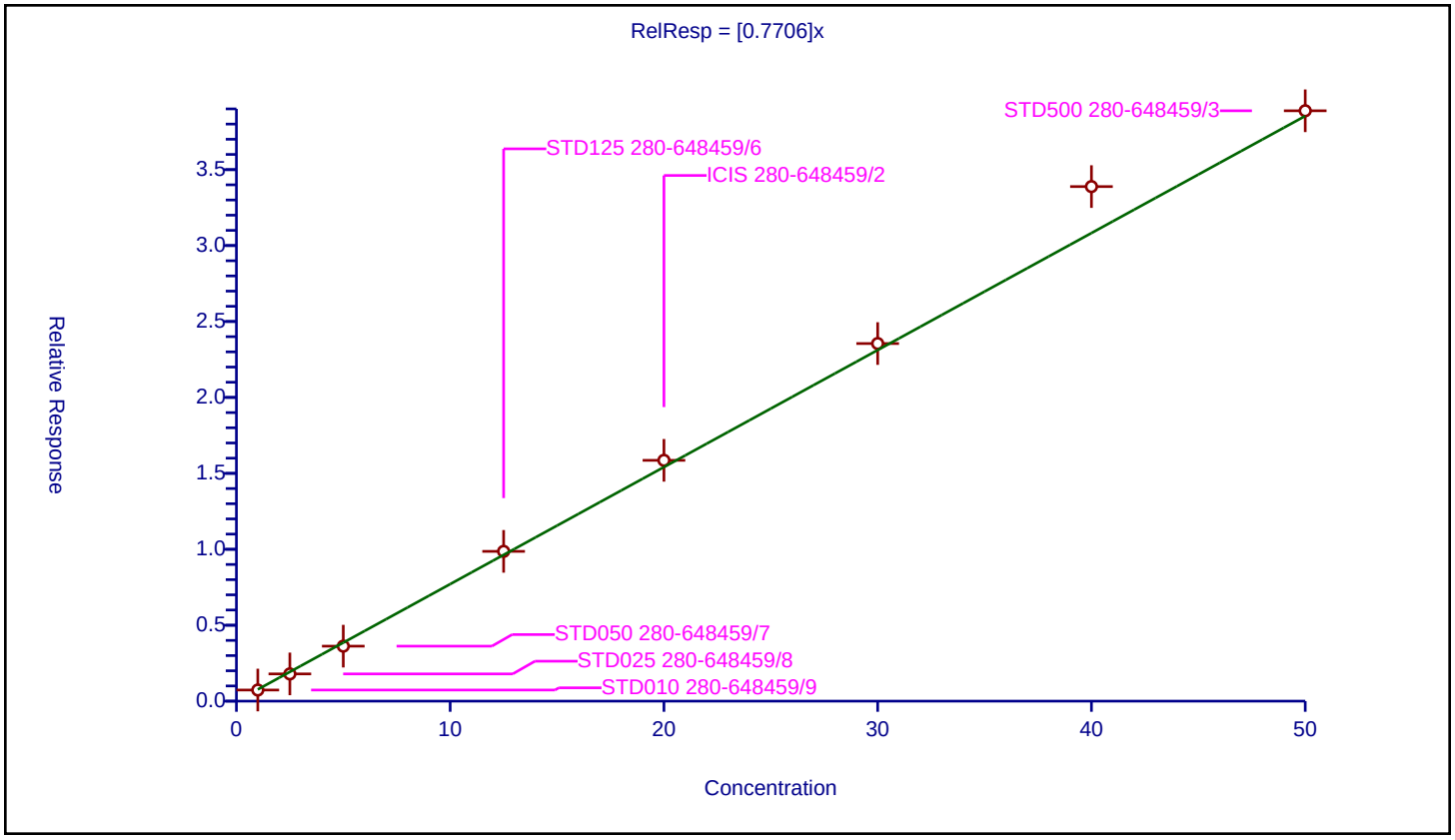
Curve Coefficients

Intercept:	0
Slope:	0.7706

Error Coefficients

Relative Standard Deviation:	5.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.731428	8.0	1145015.0	0.731428	Y
2	STD025 280-648459/8	2.5	1.79411	8.0	1149080.0	0.717644	Y
3	STD050 280-648459/7	5.0	3.621011	8.0	1106851.0	0.724202	Y
4	STD125 280-648459/6	12.5	9.863753	8.0	1019792.0	0.7891	Y
5	ICIS 280-648459/2	20.0	15.858322	8.0	1005319.0	0.792916	Y
6	STD300 280-648459/5	30.0	23.548562	8.0	959937.0	0.784952	Y
7	STD400 280-648459/4	40.0	33.883454	8.0	905014.0	0.847086	Y
8	STD500 280-648459/3	50.0	38.875842	8.0	960577.0	0.777517	Y



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Calibration / Butyl benzyl phthalate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

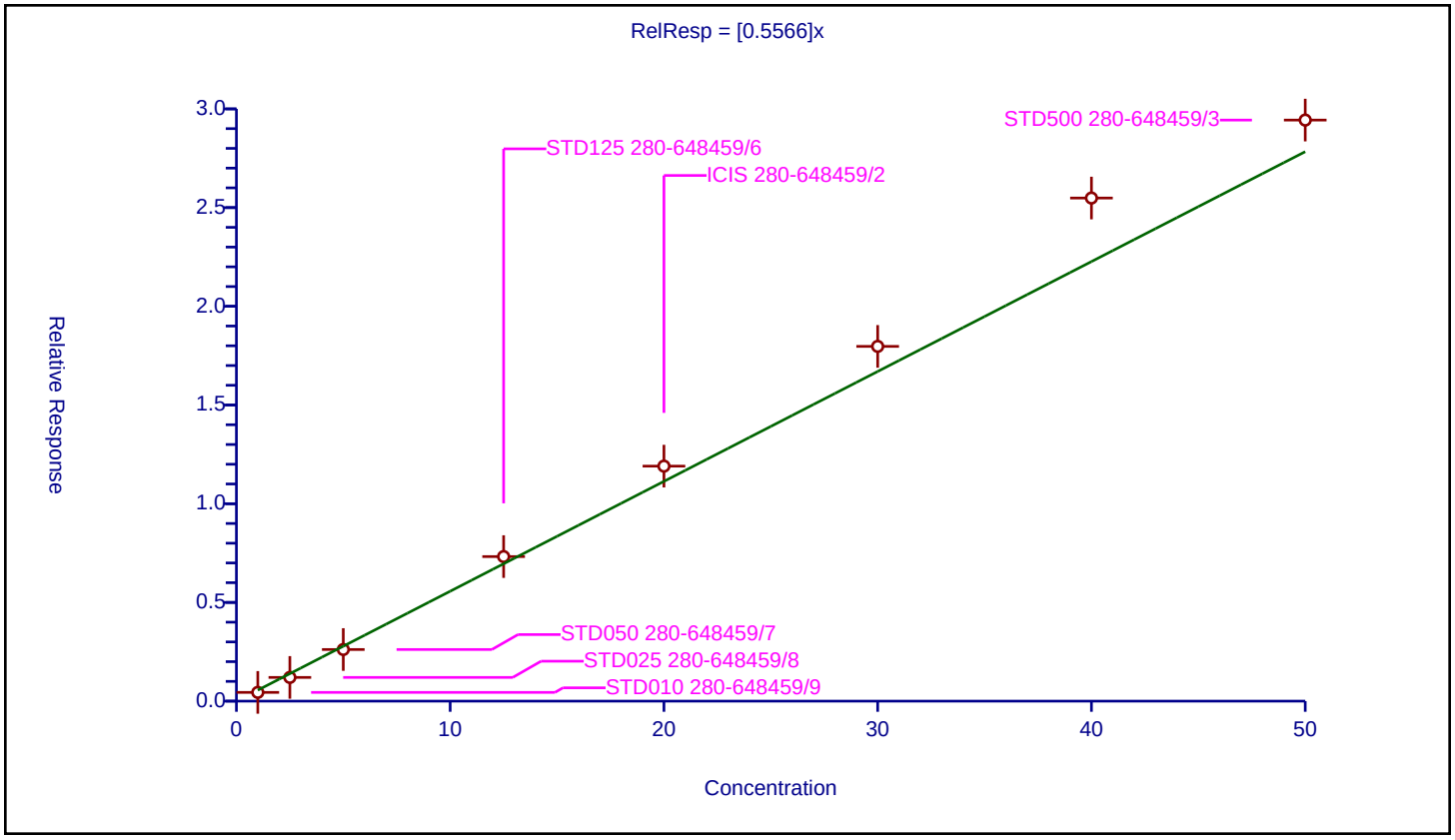
Curve Coefficients

Intercept:	0
Slope:	0.5566

Error Coefficients

Relative Standard Deviation:	12.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.443662	8.0	1145015.0	0.443662	Y
2	STD025 280-648459/8	2.5	1.201629	8.0	1149080.0	0.480652	Y
3	STD050 280-648459/7	5.0	2.615405	8.0	1106851.0	0.523081	Y
4	STD125 280-648459/6	12.5	7.322419	8.0	1019792.0	0.585793	Y
5	ICIS 280-648459/2	20.0	11.904273	8.0	1005319.0	0.595214	Y
6	STD300 280-648459/5	30.0	17.970313	8.0	959937.0	0.59901	Y
7	STD400 280-648459/4	40.0	25.484123	8.0	905014.0	0.637103	Y
8	STD500 280-648459/3	50.0	29.432985	8.0	960577.0	0.58866	Y



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Calibration / Benzo[a]anthracene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

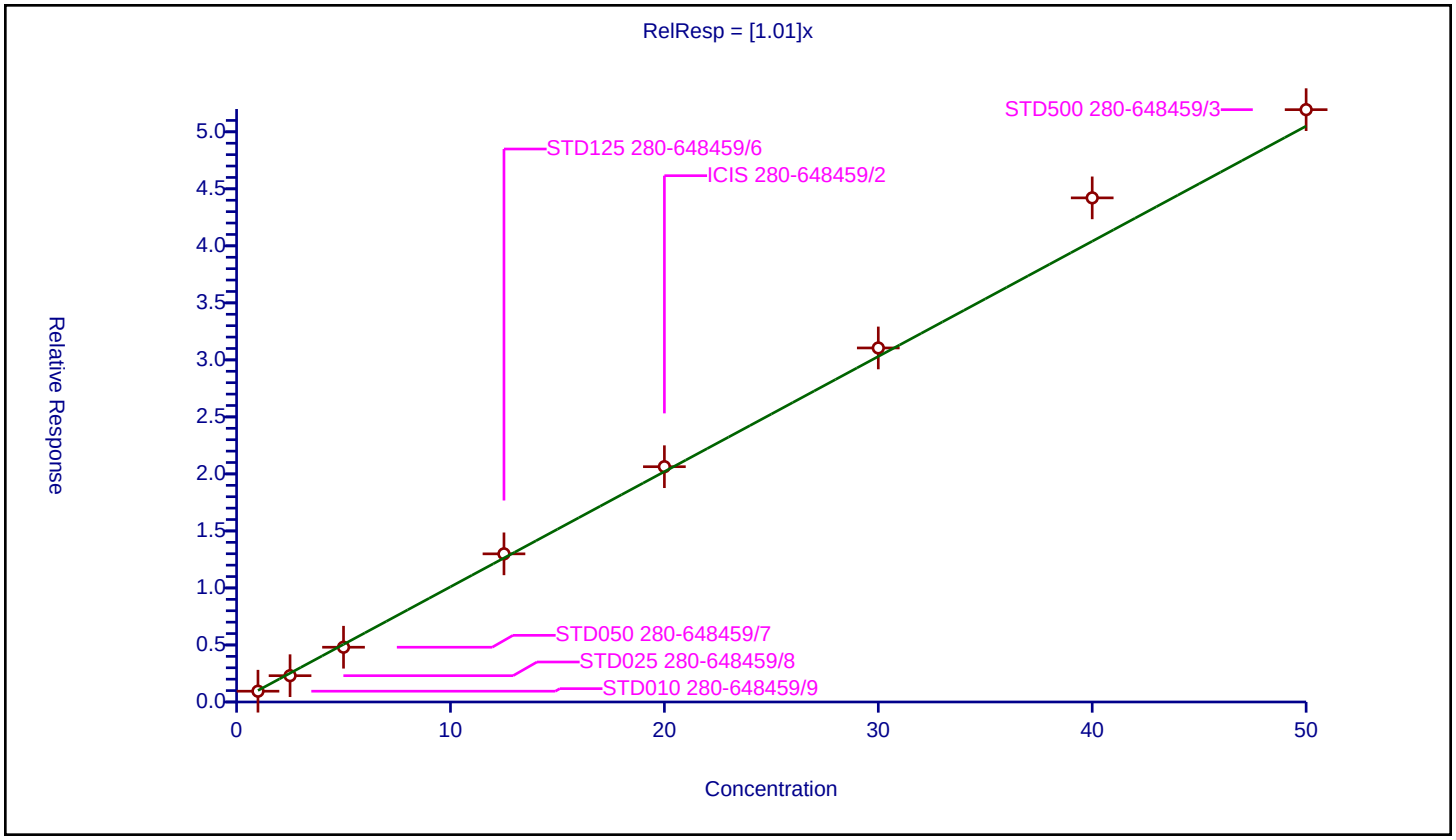
Curve Coefficients

Intercept:	0
Slope:	1.01

Error Coefficients

Relative Standard Deviation:	6.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.946747	8.0	1145015.0	0.946747	Y
2	STD025 280-648459/8	2.5	2.307683	8.0	1149080.0	0.923073	Y
3	STD050 280-648459/7	5.0	4.802215	8.0	1106851.0	0.960443	Y
4	STD125 280-648459/6	12.5	12.99119	8.0	1019792.0	1.039295	Y
5	ICIS 280-648459/2	20.0	20.633172	8.0	1005319.0	1.031659	Y
6	STD300 280-648459/5	30.0	31.046829	8.0	959937.0	1.034894	Y
7	STD400 280-648459/4	40.0	44.207891	8.0	905014.0	1.105197	Y
8	STD500 280-648459/3	50.0	51.942922	8.0	960577.0	1.038858	Y



Calibration / Chrysene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

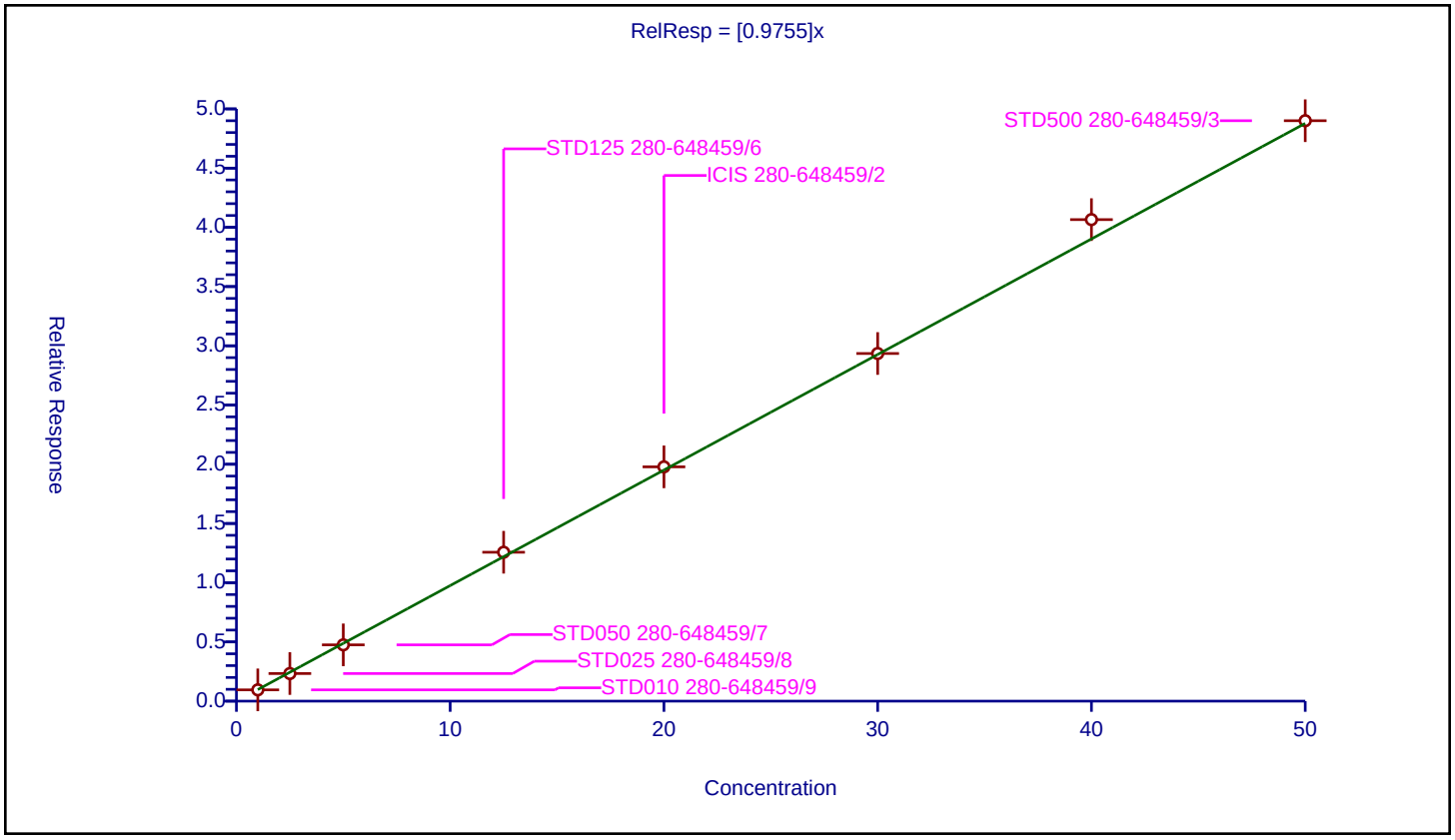
Curve Coefficients

Intercept:	0
Slope:	0.9755

Error Coefficients

Relative Standard Deviation:	3.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.952567	8.0	1145015.0	0.952567	Y
2	STD025 280-648459/8	2.5	2.329961	8.0	1149080.0	0.931985	Y
3	STD050 280-648459/7	5.0	4.751397	8.0	1106851.0	0.950279	Y
4	STD125 280-648459/6	12.5	12.570681	8.0	1019792.0	1.005654	Y
5	ICIS 280-648459/2	20.0	19.780261	8.0	1005319.0	0.989013	Y
6	STD300 280-648459/5	30.0	29.350034	8.0	959937.0	0.978334	Y
7	STD400 280-648459/4	40.0	40.653727	8.0	905014.0	1.016343	Y
8	STD500 280-648459/3	50.0	49.002447	8.0	960577.0	0.980049	Y



Calibration / Bis(2-ethylhexyl) phthalate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

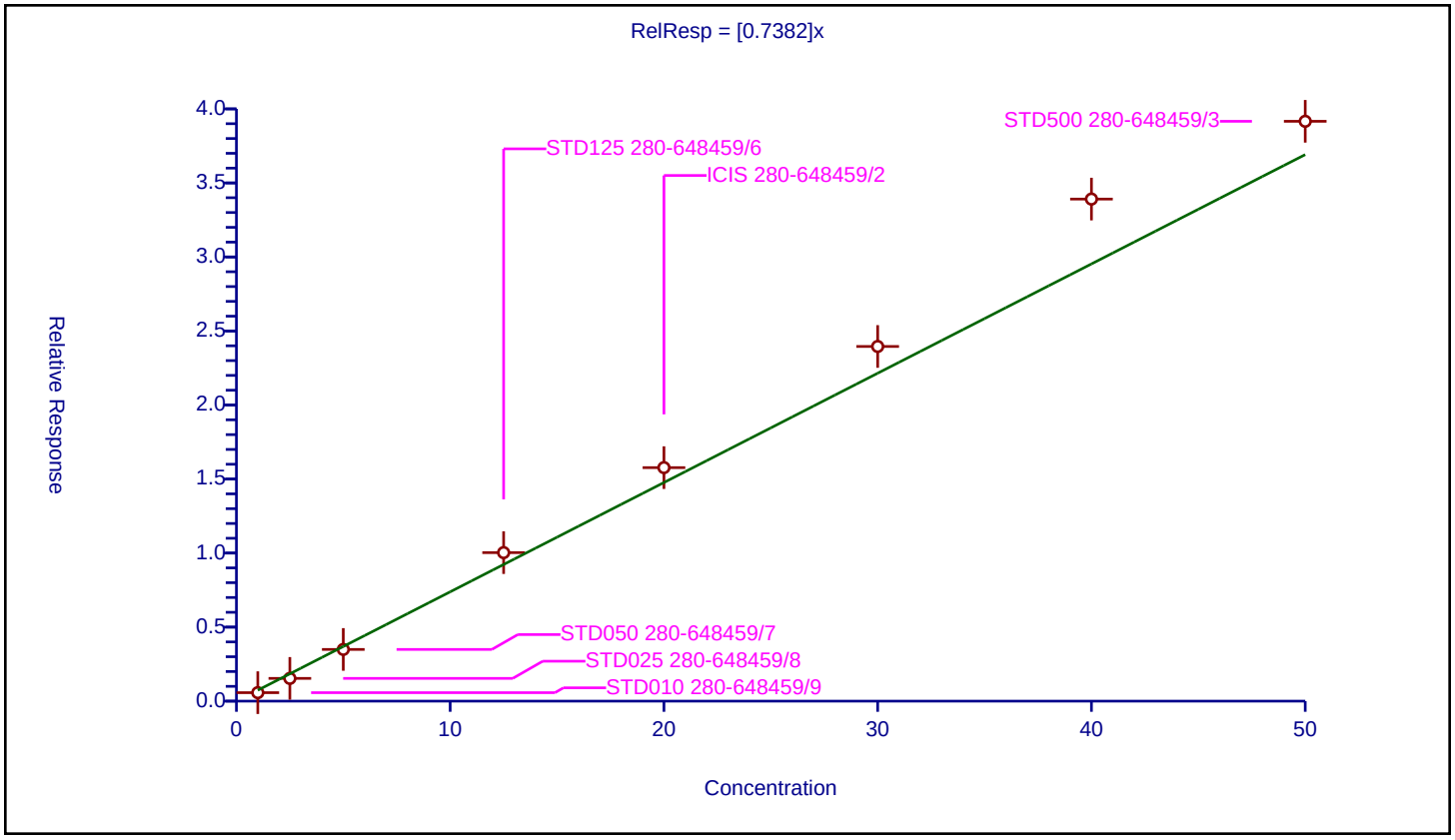
Curve Coefficients

Intercept:	0
Slope:	0.7382

Error Coefficients

Relative Standard Deviation:	13.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.572331	8.0	1145015.0	0.572331	Y
2	STD025 280-648459/8	2.5	1.536791	8.0	1149080.0	0.614716	Y
3	STD050 280-648459/7	5.0	3.492459	8.0	1106851.0	0.698492	Y
4	STD125 280-648459/6	12.5	10.03054	8.0	1019792.0	0.802443	Y
5	ICIS 280-648459/2	20.0	15.771551	8.0	1005319.0	0.788578	Y
6	STD300 280-648459/5	30.0	23.953897	8.0	959937.0	0.798463	Y
7	STD400 280-648459/4	40.0	33.908435	8.0	905014.0	0.847711	Y
8	STD500 280-648459/3	50.0	39.160938	8.0	960577.0	0.783219	Y



Calibration / Di-n-octyl phthalate

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

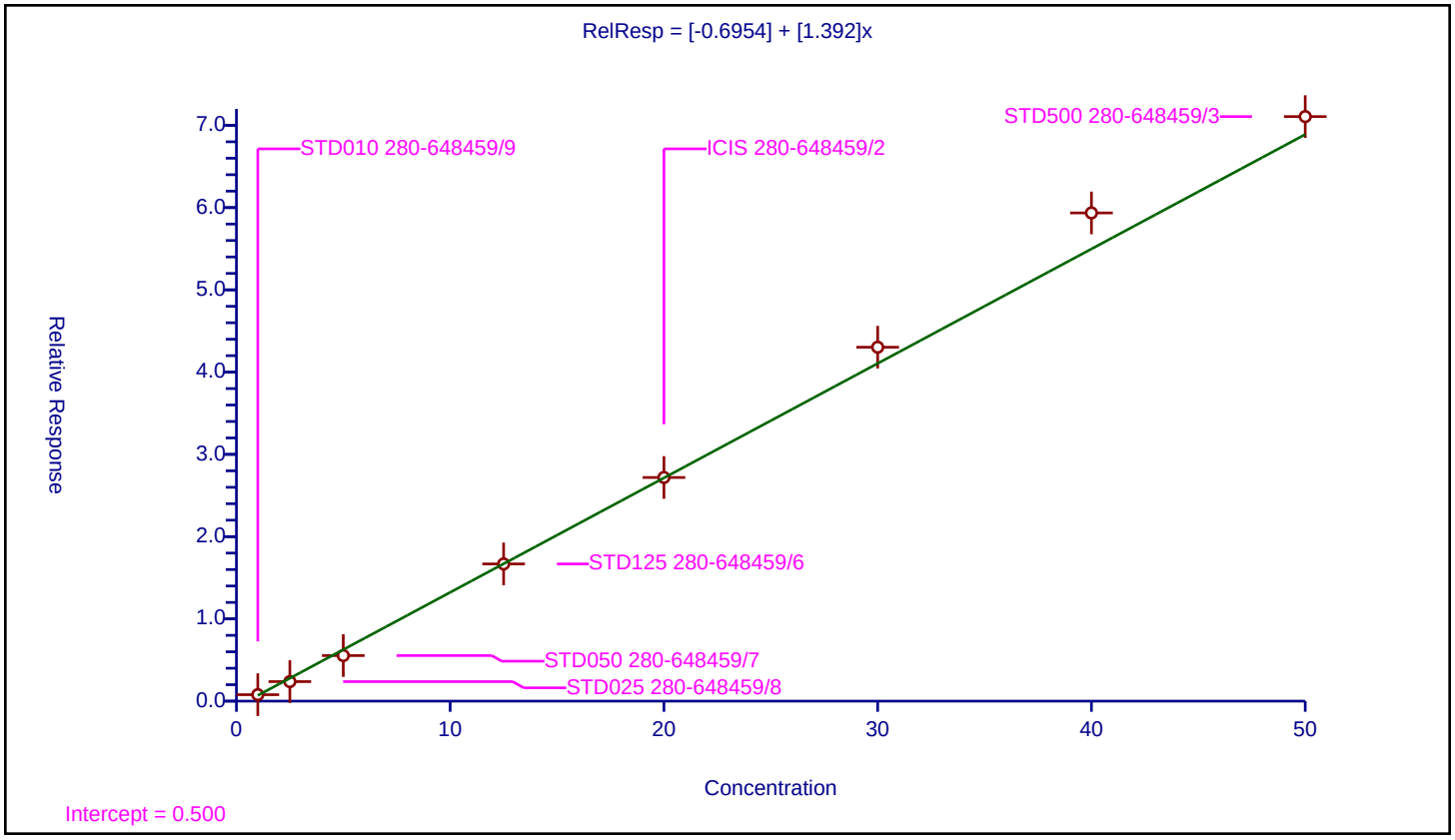
Curve Coefficients

Intercept:	-0.6954
Slope:	1.392

Error Coefficients

Relative Standard Deviation:	8.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.784804	8.0	1119587.0	0.784804	Y
2	STD025 280-648459/8	2.5	2.37576	8.0	1129946.0	0.950304	Y
3	STD050 280-648459/7	5.0	5.538885	8.0	1102502.0	1.107777	Y
4	STD125 280-648459/6	12.5	16.680067	8.0	1020746.0	1.334405	Y
5	ICIS 280-648459/2	20.0	27.191766	8.0	990218.0	1.359588	Y
6	STD300 280-648459/5	30.0	43.025951	8.0	933128.0	1.434198	Y
7	STD400 280-648459/4	40.0	59.35259	8.0	910465.0	1.483815	Y
8	STD500 280-648459/3	50.0	71.065217	8.0	941737.0	1.421304	Y



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Calibration / Benzo[b]fluoranthene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

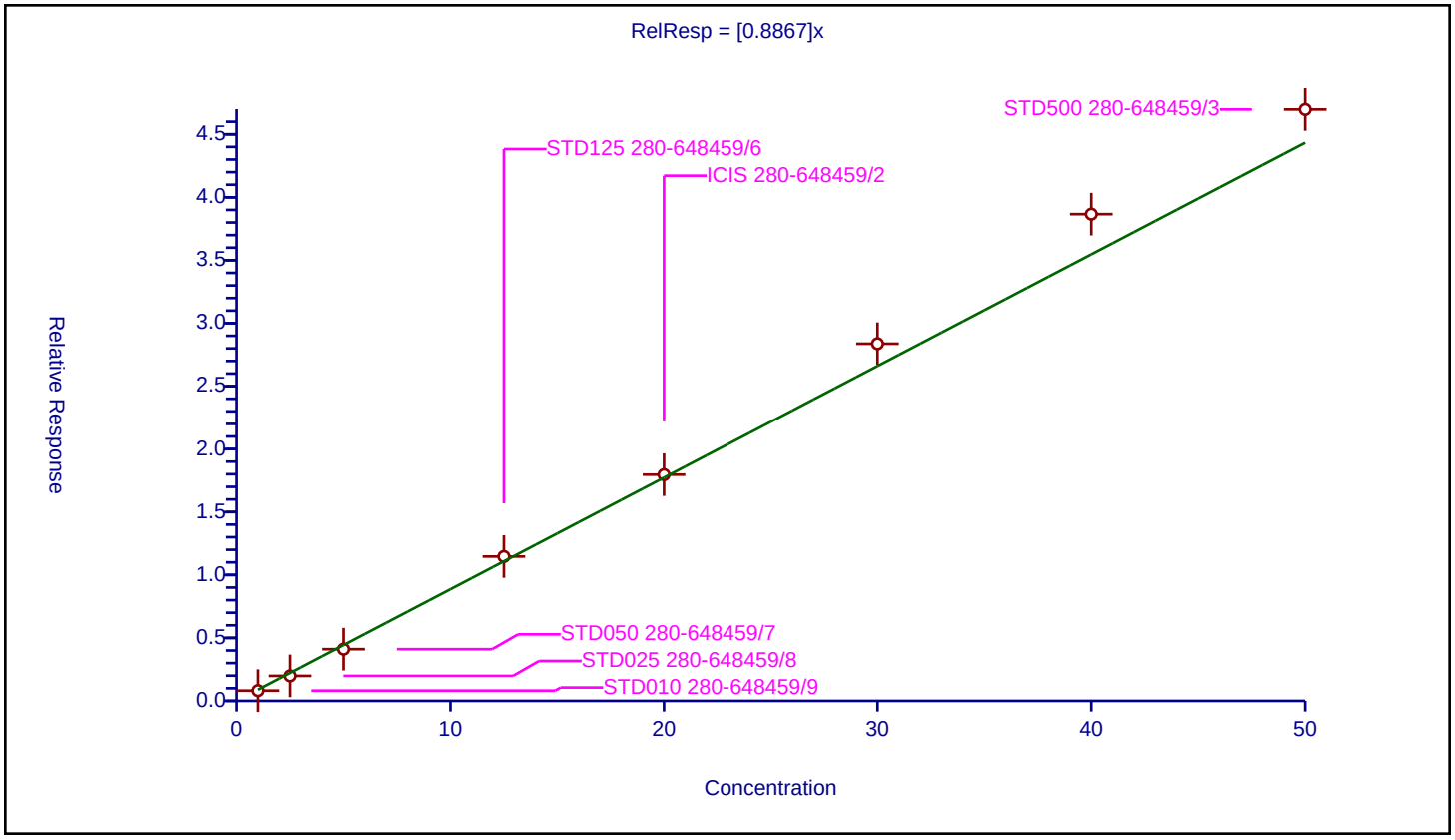
Curve Coefficients

Intercept:	0
Slope:	0.8867

Error Coefficients

Relative Standard Deviation:	7.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.811649	8.0	1119587.0	0.811649	Y
2	STD025 280-648459/8	2.5	1.983585	8.0	1129946.0	0.793434	Y
3	STD050 280-648459/7	5.0	4.10613	8.0	1102502.0	0.821226	Y
4	STD125 280-648459/6	12.5	11.464705	8.0	1020746.0	0.917176	Y
5	ICIS 280-648459/2	20.0	17.969522	8.0	990218.0	0.898476	Y
6	STD300 280-648459/5	30.0	28.373488	8.0	933128.0	0.945783	Y
7	STD400 280-648459/4	40.0	38.664559	8.0	910465.0	0.966614	Y
8	STD500 280-648459/3	50.0	46.974338	8.0	941737.0	0.939487	Y



Calibration / Benzo[k]fluoranthene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

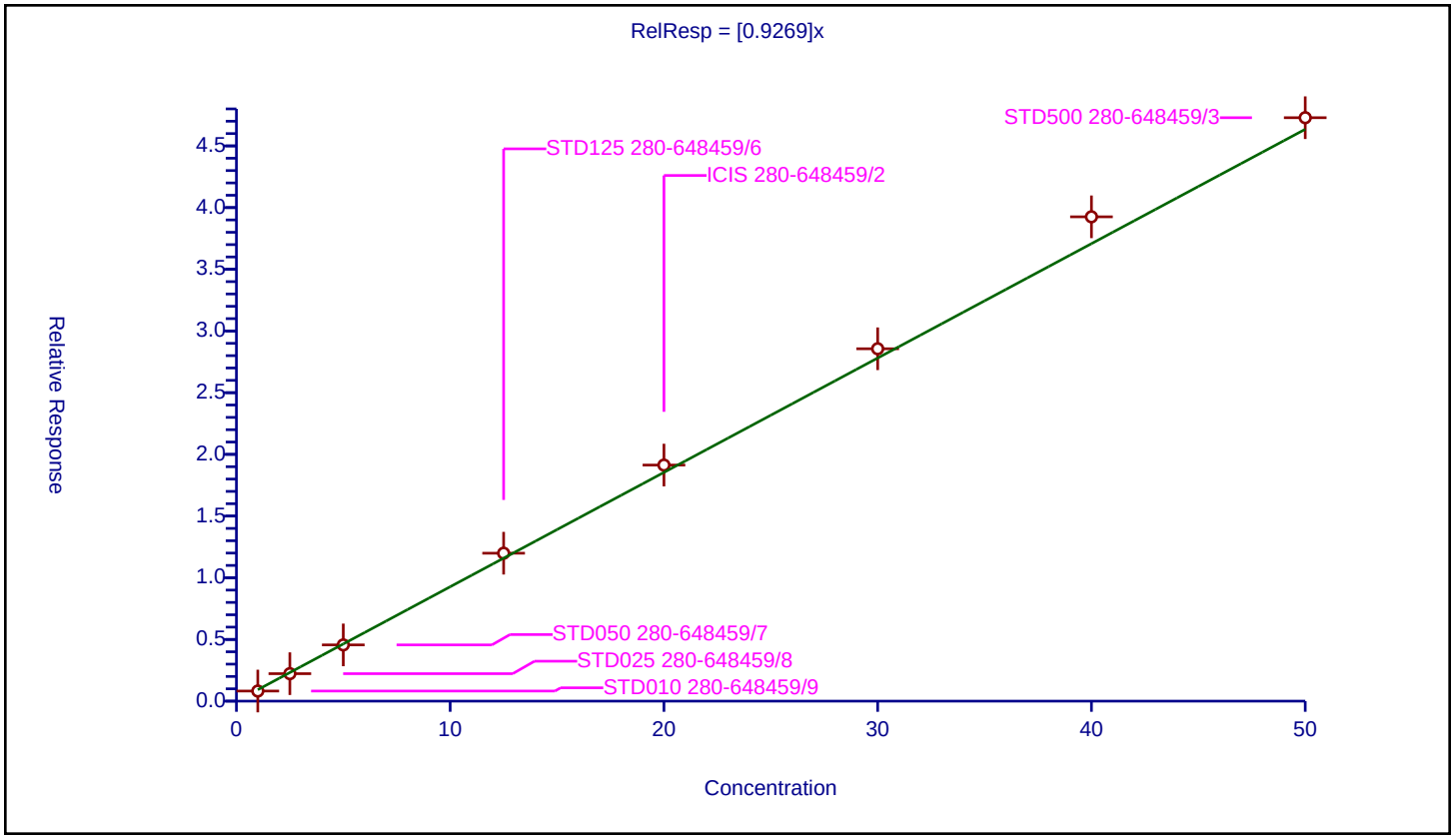
Curve Coefficients

Intercept:	0
Slope:	0.9269

Error Coefficients

Relative Standard Deviation:	5.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.818538	8.0	1119587.0	0.818538	Y
2	STD025 280-648459/8	2.5	2.22686	8.0	1129946.0	0.890744	Y
3	STD050 280-648459/7	5.0	4.557104	8.0	1102502.0	0.911421	Y
4	STD125 280-648459/6	12.5	11.98902	8.0	1020746.0	0.959122	Y
5	ICIS 280-648459/2	20.0	19.132433	8.0	990218.0	0.956622	Y
6	STD300 280-648459/5	30.0	28.560438	8.0	933128.0	0.952015	Y
7	STD400 280-648459/4	40.0	39.253665	8.0	910465.0	0.981342	Y
8	STD500 280-648459/3	50.0	47.286068	8.0	941737.0	0.945721	Y



Calibration / Benzo[a]pyrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

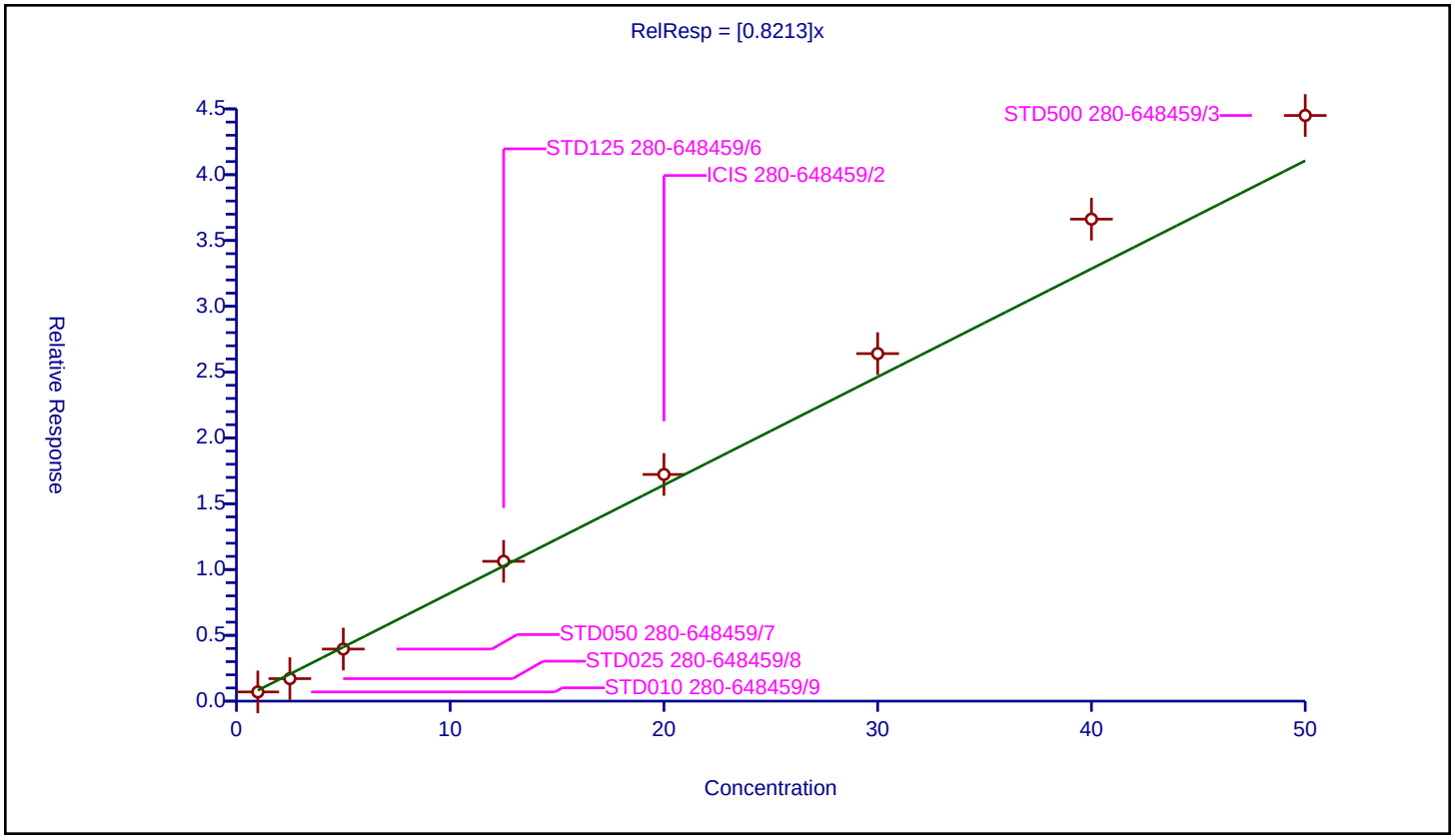
Curve Coefficients

Intercept:	0
Slope:	0.8213

Error Coefficients

Relative Standard Deviation:	10.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.698472	8.0	1119587.0	0.698472	Y
2	STD025 280-648459/8	2.5	1.708244	8.0	1129946.0	0.683298	Y
3	STD050 280-648459/7	5.0	3.957965	8.0	1102502.0	0.791593	Y
4	STD125 280-648459/6	12.5	10.62423	8.0	1020746.0	0.849938	Y
5	ICIS 280-648459/2	20.0	17.222301	8.0	990218.0	0.861115	Y
6	STD300 280-648459/5	30.0	26.405235	8.0	933128.0	0.880174	Y
7	STD400 280-648459/4	40.0	36.624002	8.0	910465.0	0.9156	Y
8	STD500 280-648459/3	50.0	44.501036	8.0	941737.0	0.890021	Y



Calibration / Indeno[1,2,3-cd]pyrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

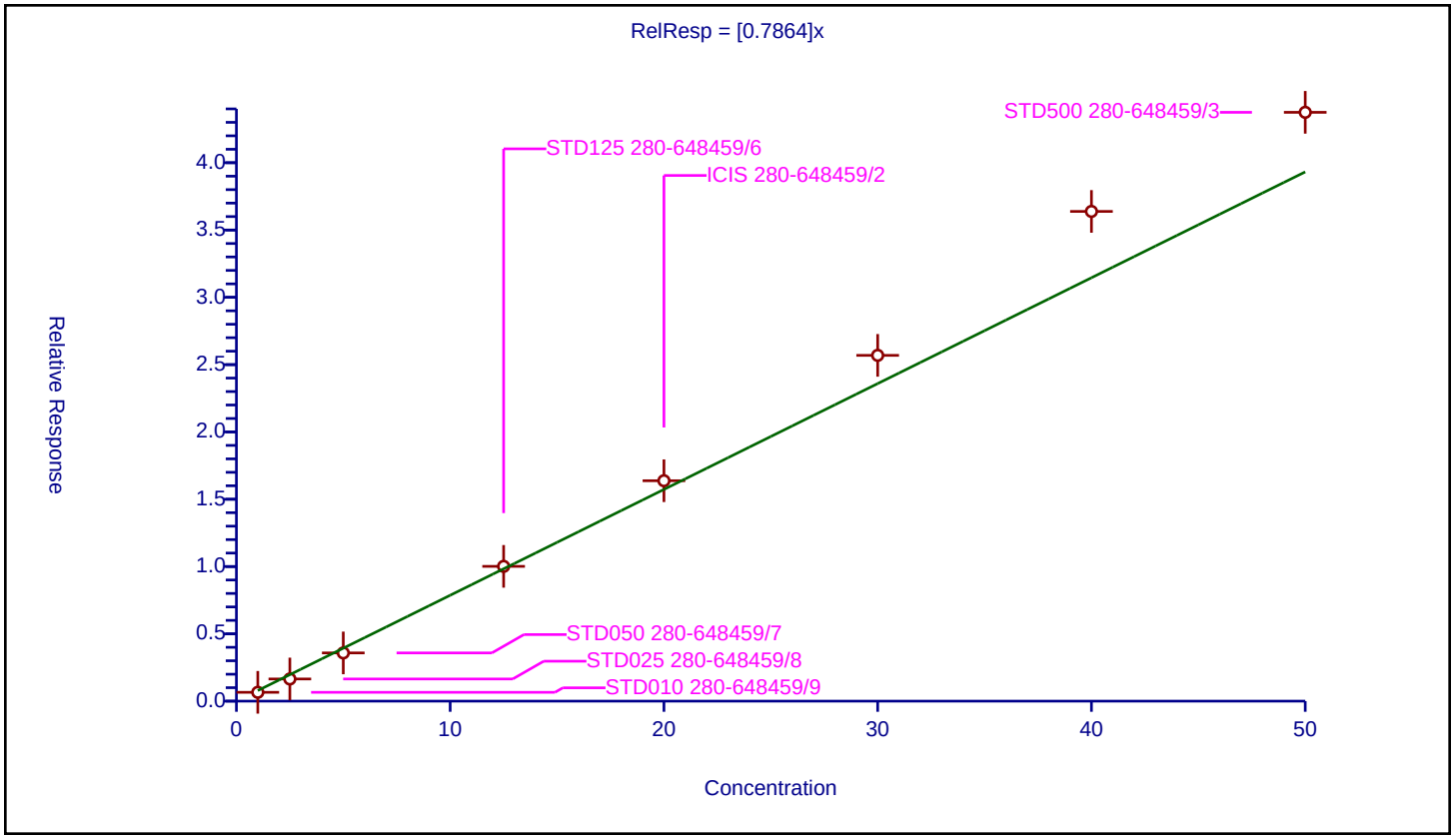
Curve Coefficients

Intercept:	0
Slope:	0.7864

Error Coefficients

Relative Standard Deviation:	12.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.655313	8.0	1119587.0	0.655313	Y
2	STD025 280-648459/8	2.5	1.647399	8.0	1129946.0	0.65896	Y
3	STD050 280-648459/7	5.0	3.581497	8.0	1102502.0	0.716299	Y
4	STD125 280-648459/6	12.5	10.01303	8.0	1020746.0	0.801042	Y
5	ICIS 280-648459/2	20.0	16.37452	8.0	990218.0	0.818726	Y
6	STD300 280-648459/5	30.0	25.689106	8.0	933128.0	0.856304	Y
7	STD400 280-648459/4	40.0	36.382033	8.0	910465.0	0.909551	Y
8	STD500 280-648459/3	50.0	43.743984	8.0	941737.0	0.87488	Y



5/23/2024
4:40:30 AM

Calibration / Dibenz(a,h)anthracene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

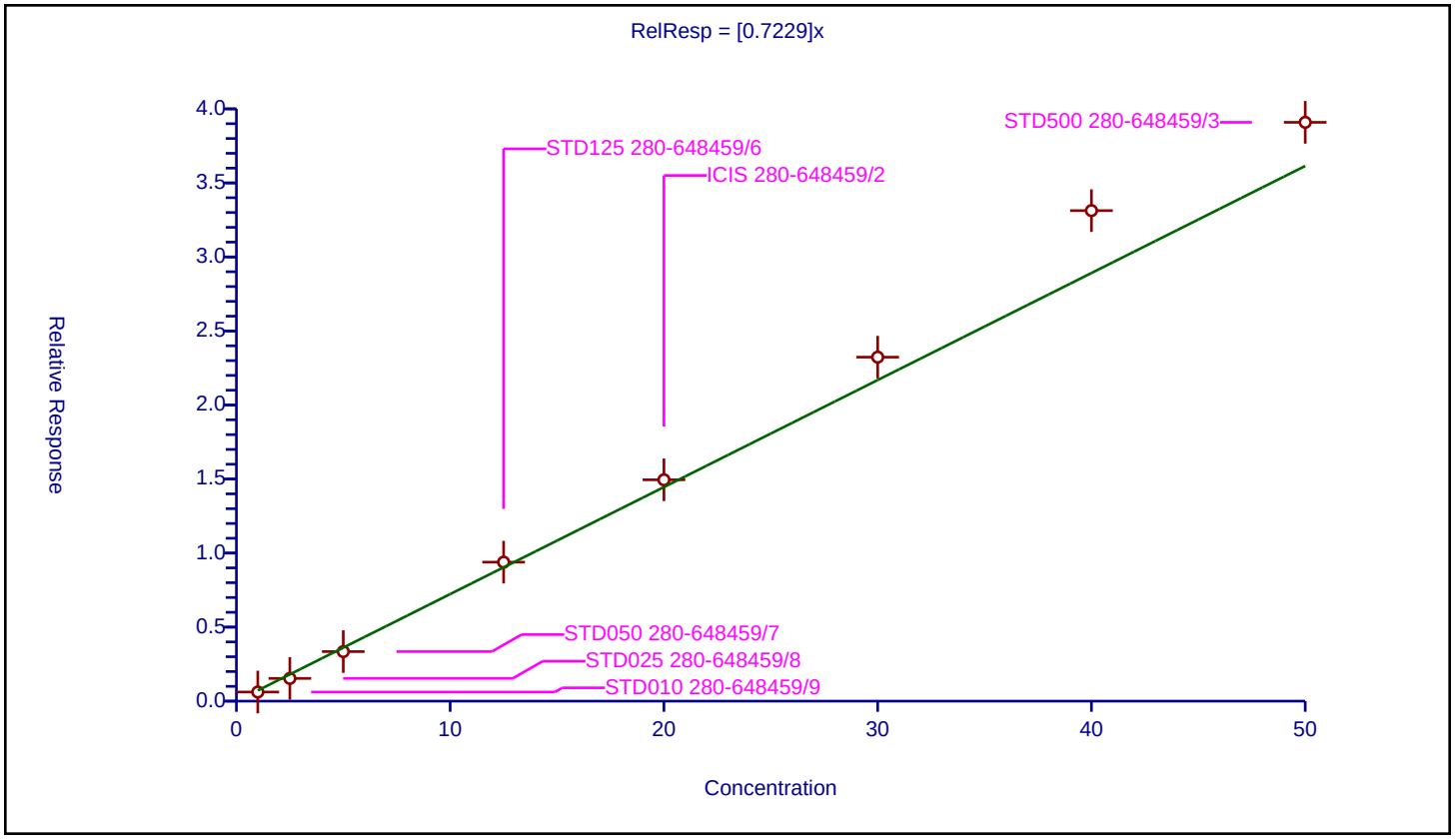
Curve Coefficients

Intercept:	0
Slope:	0.7229

Error Coefficients

Relative Standard Deviation:	11.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.616256	8.0	1119587.0	0.616256	Y
2	STD025 280-648459/8	2.5	1.535677	8.0	1129946.0	0.614271	Y
3	STD050 280-648459/7	5.0	3.347201	8.0	1102502.0	0.66944	Y
4	STD125 280-648459/6	12.5	9.386805	8.0	1020746.0	0.750944	Y
5	ICIS 280-648459/2	20.0	14.948951	8.0	990218.0	0.747448	Y
6	STD300 280-648459/5	30.0	23.232294	8.0	933128.0	0.77441	Y
7	STD400 280-648459/4	40.0	33.128645	8.0	910465.0	0.828216	Y
8	STD500 280-648459/3	50.0	39.090914	8.0	941737.0	0.781818	Y



Calibration / Benzo[g,h,i]perylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

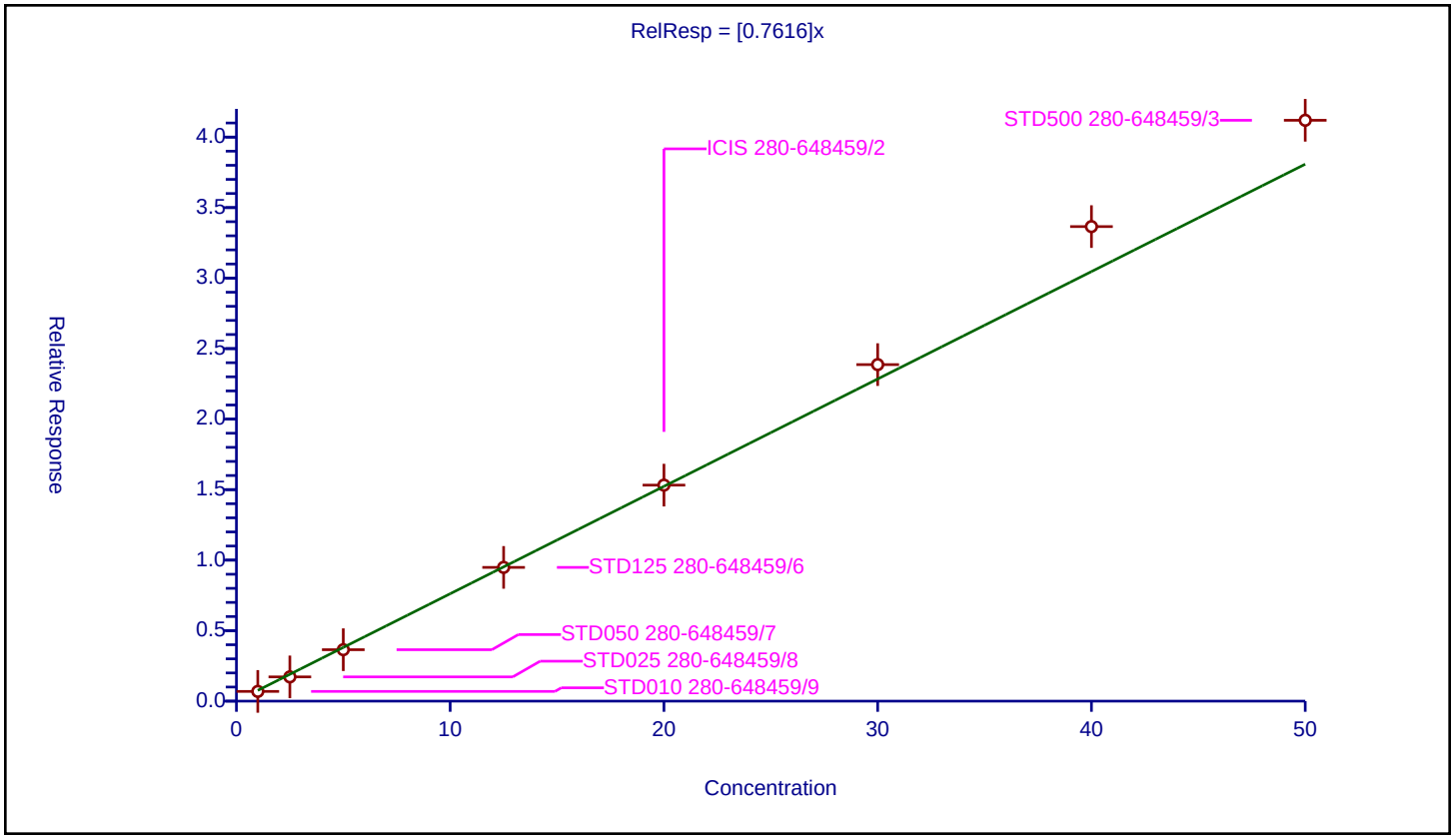
Curve Coefficients

Intercept:	0
Slope:	0.7616

Error Coefficients

Relative Standard Deviation:	7.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD010 280-648459/9	1.0	0.68969	8.0	1119587.0	0.68969	Y
2	STD025 280-648459/8	2.5	1.720302	8.0	1129946.0	0.688121	Y
3	STD050 280-648459/7	5.0	3.647297	8.0	1102502.0	0.729459	Y
4	STD125 280-648459/6	12.5	9.485392	8.0	1020746.0	0.758831	Y
5	ICIS 280-648459/2	20.0	15.318615	8.0	990218.0	0.765931	Y
6	STD300 280-648459/5	30.0	23.866171	8.0	933128.0	0.795539	Y
7	STD400 280-648459/4	40.0	33.652624	8.0	910465.0	0.841316	Y
8	STD500 280-648459/3	50.0	41.192469	8.0	941737.0	0.823849	Y



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICV 280-648459/10 | Calibration Date: 04/05/2024 14:38

Instrument ID: SMS_3 | Calib Start Date: 04/05/2024 11:38

GC Column: DB-5MS ID: 0.25(mm) | Calib End Date: 04/05/2024 14:15

Lab File ID: SMS_3-040524014.D | Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
N-Nitrosodimethylamine	Ave	1.253	1.377		27.5	25.0	9.8	20.0
Pyridine	Lin2		1.830		58.8	50.0	17.7	20.0
Phenol	Ave	2.595	2.725	0.8000	26.3	25.0	5.0	20.0
Aniline	Ave	2.619	2.778		26.5	25.0	6.1	20.0
Bis(2-chloroethyl)ether	Ave	1.984	2.038	0.7000	25.7	25.0	2.7	20.0
2-Chlorophenol	Ave	1.662	1.715	0.8000	25.8	25.0	3.2	20.0
1,3-Dichlorobenzene	Ave	1.770	1.846		26.1	25.0	4.3	20.0
1,4-Dichlorobenzene	Ave	1.844	1.862		25.2	25.0	1.0	20.0
Benzyl alcohol	Ave	1.645	1.737		26.4	25.0	5.5	20.0
1,2-Dichlorobenzene	Ave	1.710	1.750		25.6	25.0	2.3	20.0
Indene	Ave	2.966	2.715		45.8	50.0	-8.5	20.0
2-Methylphenol	Ave	1.577	1.659	0.7000	26.3	25.0	5.2	20.0
2,2'-oxybis[1-chloropropane]	Ave	3.379	3.350	0.0100	24.8	25.0	-0.9	20.0
Acetophenone	Ave	2.478	2.545	0.0100	25.7	25.0	2.7	20.0
N-Nitrosodi-n-propylamine	Ave	1.461	1.493	0.5000	25.6	25.0	2.2	20.0
3 & 4 Methylphenol	Ave	1.648	1.724		26.2	25.0	4.7	20.0
3-Methylphenol	Ave	1.648	1.724		26.2	25.0	4.7	20.0
4-Methylphenol	Ave	1.648	1.724	0.6000	26.2	25.0	4.7	20.0
Hexachloroethane	Ave	0.8683	0.8691	0.3000	25.0	25.0	0.0	20.0
Nitrobenzene	Ave	0.3833	0.3902	0.2000	25.4	25.0	1.8	20.0
Isophorone	Ave	0.6879	0.7006	0.4000	25.5	25.0	1.9	20.0
2-Nitrophenol	Ave	0.1512	0.1575	0.1000	26.0	25.0	4.2	20.0
2,4-Dimethylphenol	Ave	0.2583	0.3014	0.2000	29.2	25.0	16.7	20.0
Bis(2-chloroethoxy)methane	Ave	0.4261	0.4336	0.3000	25.4	25.0	1.8	20.0
Benzoic acid	Lin2		0.2521		47.8	50.0	-4.5	20.0
2,4-Dichlorophenol	Ave	0.2335	0.2386	0.2000	25.6	25.0	2.2	20.0
1,2,4-Trichlorobenzene	Ave	0.2610	0.2628		25.2	25.0	0.7	20.0
Naphthalene	Ave	0.7917	0.7879	0.7000	24.9	25.0	-0.5	20.0
4-Chloroaniline	Ave	0.3355	0.3499	0.0100	26.1	25.0	4.3	20.0
2,6-Dichlorophenol	Ave	0.2330	0.2358		25.3	25.0	1.2	20.0
Hexachlorobutadiene	Ave	0.1579	0.1631	0.0100	25.8	25.0	3.3	20.0
4-Chloro-3-methylphenol	Ave	0.2671	0.2772	0.2000	25.9	25.0	3.8	20.0
2-Methylnaphthalene	Ave	0.4301	0.4291	0.4000	24.9	25.0	-0.2	20.0
1-Methylnaphthalene	Ave	0.4680	0.4801		25.6	25.0	2.6	20.0
Hexachlorocyclopentadiene	Lin1		0.2544	0.0500	24.8	25.0	-0.9	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4753	0.4834	0.0100	25.4	25.0	1.7	20.0
2,4,6-Trichlorophenol	Ave	0.3086	0.3154	0.2000	25.6	25.0	2.2	20.0
2,4,5-Trichlorophenol	Ave	0.3268	0.3447	0.2000	26.4	25.0	5.5	20.0
1,1'-Biphenyl	Ave	1.068	1.116	0.0100	26.1	25.0	4.5	20.0
2-Chloronaphthalene	Ave	0.8836	0.9043	0.8000	25.6	25.0	2.3	20.0
2-Nitroaniline	Ave	0.3187	0.3425	0.0100	26.9	25.0	7.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICV 280-648459/10 | Calibration Date: 04/05/2024 14:38

Instrument ID: SMS_3 | Calib Start Date: 04/05/2024 11:38

GC Column: DB-5MS ID: 0.25(mm) | Calib End Date: 04/05/2024 14:15

Lab File ID: SMS_3-040524014.D | Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dimethyl phthalate	Ave	0.9950	1.025	0.0100	25.8	25.0	3.0	20.0
1,3-Dinitrobenzene	Lin2		0.1792		25.6	25.0	2.4	20.0
2,6-Dinitrotoluene	Ave	0.2302	0.2467	0.2000	26.8	25.0	7.1	20.0
Acenaphthylene	Ave	1.330	1.363	0.9000	25.6	25.0	2.5	20.0
3-Nitroaniline	Ave	0.4641	0.4860	0.0100	26.2	25.0	4.7	20.0
Acenaphthene	Ave	0.8568	0.8770*	0.9000	25.6	25.0	2.4	20.0
2,4-Dinitrophenol	Lin1		0.1366	0.0100	53.2	50.0	6.4	20.0
4-Nitrophenol	Lin2		0.2920	0.0100	51.7	50.0	3.4	20.0
Dibenzofuran	Ave	1.225	1.253	0.8000	25.6	25.0	2.3	20.0
2,4-Dinitrotoluene	Ave	0.3142	0.3310	0.2000	26.3	25.0	5.4	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.2502	0.2734	0.0100	27.3	25.0	9.3	20.0
Diethyl phthalate	Ave	1.032	1.068	0.0100	25.9	25.0	3.5	20.0
Hexadecane	Ave	0.9090	0.9311		25.6	25.0	2.4	20.0
Fluorene	Ave	0.9563	0.9753	0.9000	25.5	25.0	2.0	20.0
4-Chlorophenyl phenyl ether	Ave	0.4591	0.4784	0.4000	26.0	25.0	4.2	20.0
4-Nitroaniline	Ave	0.2602	0.2664	0.0100	25.6	25.0	2.4	20.0
4,6-Dinitro-2-methylphenol	Lin2		0.1778	0.0100	52.7	50.0	5.4	20.0
N-Nitrosodiphenylamine	Ave	0.4337	0.4469	0.0100	25.8	25.0	3.1	20.0
Diphenylamine	Ave	0.7991	0.8137		21.6	21.3	1.8	20.0
1,2-Diphenylhydrazine	Ave	0.8145	0.8574		26.3	25.0	5.3	20.0
Azobenzene	Ave	0.8233	0.8574		26.0	25.0	4.1	20.0
4-Bromophenyl phenyl ether	Ave	0.1563	0.1648	0.1000	26.4	25.0	5.4	20.0
Hexachlorobenzene	Ave	0.1807	0.1865	0.1000	25.8	25.0	3.2	20.0
Pentachlorophenol	Lin2		0.1278	0.0500	56.1	50.0	12.2	20.0
Phenanthrene	Ave	0.7861	0.8145	0.7000	25.9	25.0	3.6	20.0
Anthracene	Ave	0.7887	0.8305	0.7000	26.3	25.0	5.3	20.0
Carbazole	Ave	0.7556	0.7855	0.0100	26.0	25.0	4.0	20.0
Di-n-butyl phthalate	Ave	0.9853	1.064	0.0100	27.0	25.0	8.0	20.0
Fluoranthene	Ave	0.8541	0.9162	0.6000	26.8	25.0	7.3	20.0
Pyrene	Ave	1.182	1.213	0.6000	25.7	25.0	2.7	20.0
Butyl benzyl phthalate	Ave	0.5566	0.6250	0.0100	28.1	25.0	12.3	20.0
Benzo[a]anthracene	Ave	1.010	1.069	0.8000	26.5	25.0	5.8	20.0
Chrysene	Ave	0.9755	1.013	0.7000	26.0	25.0	3.8	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7382	0.8032	0.0100	27.2	25.0	8.8	20.0
Di-n-octyl phthalate	Lin2		1.452	0.0100	26.6	25.0	6.3	20.0
Benzo[b]fluoranthene	Ave	0.8867	0.9824	0.7000	27.7	25.0	10.8	20.0
Benzo[k]fluoranthene	Ave	0.9269	0.9871	0.7000	26.6	25.0	6.5	20.0
Benzo[a]pyrene	Ave	0.8213	0.8850	0.7000	26.9	25.0	7.8	20.0
Indeno[1,2,3-cd]pyrene	Ave	0.7864	0.7904	0.5000	25.1	25.0	0.5	20.0
Dibenz(a,h)anthracene	Ave	0.7229	0.8002	0.4000	27.7	25.0	10.7	20.0
Benzo[g,h,i]perylene	Ave	0.7616	0.8450	0.5000	27.7	25.0	10.9	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524014.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 05-Apr-2024 14:38:22 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: icv
Operator ID: DM Instrument ID: SMS_3
Sublist:

Method: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 08-Apr-2024 09:01:28 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1660

First Level Reviewer: G3YK Date: 05-Apr-2024 16:22:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	115	4.022	4.024	-0.002	96	249838	8.00	8.00	
* 2 Naphthalene-d8	136	5.196	5.196	0.000	99	1420857	8.00	8.00	
* 3 Acenaphthene-d10	164	6.888	6.892	-0.004	94	803031	8.00	8.00	
* 4 Phenanthrene-d10	188	8.340	8.344	-0.004	97	1370674	8.00	8.00	
* 5 Chrysene-d12	240	11.124	11.130	-0.006	99	1072714	8.00	8.00	
* 6 Perylene-d12	264	13.386	13.390	-0.004	98	1014897	8.00	8.00	
13 N-Nitrosodimethylamine	74	1.856	1.854	0.002	93	1074797	25.0	27.5	
14 Pyridine	79	1.878	1.880	-0.002	91	2857199	50.0	58.8	
22 Phenol	94	3.732	3.732	0.000	90	2127913	25.0	26.3	
23 Aniline	93	3.734	3.736	-0.002	90	2169051	25.0	26.5	
25 Bis(2-chloroethyl)ether	93	3.803	3.805	-0.002	92	1590916	25.0	25.7	
26 2-Chlorophenol	128	3.836	3.836	0.000	95	1338771	25.0	25.8	
27 n-Decane	43	3.897	3.897	0.000	92	1819379	25.0	25.5	
28 1,3-Dichlorobenzene	146	3.969	3.971	-0.002	94	1441036	25.0	26.1	
29 1,4-Dichlorobenzene	146	4.038	4.038	0.000	91	1453480	25.0	25.2	
30 Benzyl alcohol	79	4.161	4.161	0.000	90	1355949	25.0	26.4	
31 1,2-Dichlorobenzene	146	4.169	4.171	-0.002	94	1366253	25.0	25.6	
32 Indene	116	4.253	4.252	0.000	90	4239563	50.0	45.8	
33 2-Methylphenol	108	4.271	4.271	0.000	97	1295612	25.0	26.3	
34 2,2'-oxybis[1-chloropropane]	45	4.289	4.283	0.006	93	2615303	25.0	24.8	
36 Acetophenone	105	4.395	4.395	0.000	93	1986879	25.0	25.7	
37 N-Nitrosodi-n-propylamine	70	4.406	4.408	-0.002	90	1165904	25.0	25.6	
41 4-Methylphenol	108	4.414	4.416	-0.002	93	1346234	25.0	26.2	
39 3 & 4 Methylphenol	108	4.414	4.416	-0.002	0	1346234	25.0	26.2	
38 3-Methylphenol	108	4.414	4.416	-0.002	89	1346234	25.0	26.2	
43 Hexachloroethane	117	4.475	4.475	0.000	96	678538	25.0	25.0	
44 Nitrobenzene	77	4.546	4.548	-0.002	91	1732543	25.0	25.4	
46 Isophorone	82	4.779	4.777	0.002	99	3111008	25.0	25.5	
47 2-Nitrophenol	139	4.842	4.842	0.000	96	699211	25.0	26.0	
48 2,4-Dimethylphenol	107	4.906	4.908	-0.002	98	1338245	25.0	29.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
51 Bis(2-chloroethoxy)methane	93	4.998	4.998	0.000	96	1925072	25.0	25.4	
49 Benzoic acid	105	5.069	5.059	0.010	88	2238756	50.0	47.8	Ma
52 2,4-Dichlorophenol	162	5.075	5.075	0.000	97	1059454	25.0	25.6	
53 1,2,4-Trichlorobenzene	180	5.145	5.147	-0.002	93	1166812	25.0	25.2	
54 Naphthalene	128	5.214	5.216	-0.002	98	3498522	25.0	24.9	
55 4-Chloroaniline	127	5.283	5.283	0.000	94	1553501	25.0	26.1	
56 2,6-Dichlorophenol	162	5.285	5.285	0.000	93	1047062	25.0	25.3	
57 Hexachlorobutadiene	225	5.343	5.345	-0.002	97	724011	25.0	25.8	
61 4-Chloro-3-methylphenol	107	5.765	5.767	-0.002	95	1230671	25.0	25.9	
63 2-Methylnaphthalene	141	5.882	5.886	-0.004	92	1905176	25.0	24.9	
64 1-Methylnaphthalene	142	5.976	5.977	-0.001	93	2131566	25.0	25.6	
65 Hexachlorocyclopentadiene	237	6.037	6.039	-0.002	98	638476	25.0	24.8	
66 1,2,4,5-Tetrachlorobenzene	216	6.043	6.045	-0.002	99	1212996	25.0	25.4	
68 2,4,6-Trichlorophenol	196	6.163	6.167	-0.004	95	791514	25.0	25.6	
69 2,4,5-Trichlorophenol	196	6.196	6.200	-0.004	93	864948	25.0	26.4	
71 1,1'-Biphenyl	154	6.343	6.345	-0.002	96	2800953	25.0	26.1	
72 2-Chloronaphthalene	162	6.349	6.353	-0.004	98	2269243	25.0	25.6	
74 2-Nitroaniline	138	6.463	6.467	-0.004	77	859505	25.0	26.9	
77 Dimethyl phthalate	163	6.666	6.668	-0.002	97	2572202	25.0	25.8	
78 1,3-Dinitrobenzene	168	6.678	6.680	-0.002	80	449644	25.0	25.6	
79 2,6-Dinitrotoluene	165	6.715	6.716	-0.001	87	618976	25.0	26.8	
80 Acenaphthylene	152	6.749	6.751	-0.002	99	3421495	25.0	25.6	
81 3-Nitroaniline	65	6.870	6.872	-0.002	89	1219676	25.0	26.2	
82 Acenaphthene	153	6.921	6.925	-0.004	95	2200696	25.0	25.6	
83 2,4-Dinitrophenol	184	6.974	6.974	0.000	77	685524	50.0	53.2	
85 4-Nitrophenol	65	7.066	7.068	-0.002	95	1465765	50.0	51.7	
86 Dibenzofuran	168	7.092	7.096	-0.004	96	3145541	25.0	25.6	
87 2,4-Dinitrotoluene	165	7.100	7.104	-0.004	87	830754	25.0	26.3	
89 2,3,4,6-Tetrachlorophenol	232	7.219	7.223	-0.004	77	686117	25.0	27.3	
91 Diethyl phthalate	149	7.366	7.370	-0.004	96	2679483	25.0	25.9	
92 Hexadecane	57	7.396	7.400	-0.004	90	2336482	25.0	25.6	
93 Fluorene	166	7.427	7.431	-0.004	94	2447562	25.0	25.5	
95 4-Chlorophenyl phenyl ether	204	7.445	7.451	-0.006	96	1200438	25.0	26.0	
97 4-Nitroaniline	138	7.470	7.472	-0.002	80	668598	25.0	25.6	
98 4,6-Dinitro-2-methylphenol	198	7.498	7.498	0.000	75	892131	50.0	52.7	
100 N-Nitrosodiphenylamine	168	7.566	7.570	-0.004	66	1121585	25.0	25.8	
99 Diphenylamine	169	7.568	7.570	-0.002	92	1735598	21.3	21.6	
102 1,2-Diphenylhydrazine	77	7.601	7.605	-0.004	61	3672559	25.0	26.3	
101 Azobenzene	77	7.601	7.605	-0.004	98	3672559	25.0	26.0	
108 4-Bromophenyl phenyl ether	248	7.923	7.927	-0.004	75	705809	25.0	26.4	
110 Hexachlorobenzene	284	7.956	7.962	-0.006	93	798762	25.0	25.8	
113 Pentachlorophenol	266	8.162	8.166	-0.004	91	1094484	50.0	56.1	
156 n-Octadecane	57	8.309	8.313	-0.004	92	2433607	25.0	26.3	
117 Phenanthrene	178	8.366	8.368	-0.002	99	3488872	25.0	25.9	
120 Anthracene	178	8.415	8.419	-0.004	99	3557314	25.0	26.3	
121 Carbazole	167	8.589	8.591	-0.002	96	3364392	25.0	26.0	
122 Alachlor	45	8.746	8.750	-0.004	92	1405054	25.0	26.1	
124 Di-n-butyl phthalate	149	8.979	8.983	-0.004	100	4558693	25.0	27.0	
127 Fluoranthene	202	9.532	9.536	-0.004	98	3924546	25.0	26.8	
129 Pyrene	202	9.748	9.754	-0.006	97	4067503	25.0	25.7	
136 Butyl benzyl phthalate	149	10.497	10.503	-0.006	97	2094998	25.0	28.1	
138 Benzo[a]anthracene	228	11.112	11.118	-0.006	99	3582703	25.0	26.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
141 Chrysene	228	11.161	11.165	-0.004	98	3394727	25.0	26.0	
142 Bis(2-ethylhexyl) phthalate	149	11.285	11.293	-0.008	98	2692571	25.0	27.2	
144 Di-n-octyl phthalate	149	12.327	12.335	-0.008	99	4605059	25.0	26.6	
145 Benzo[b]fluoranthene	252	12.747	12.753	-0.006	97	3115585	25.0	27.7	M
147 Benzo[k]fluoranthene	252	12.794	12.802	-0.008	99	3130713	25.0	26.6	
148 Benzo[a]pyrene	252	13.294	13.298	-0.004	78	2806747	25.0	26.9	
152 Indeno[1,2,3-cd]pyrene	276	15.307	15.315	-0.008	99	2506882	25.0	25.1	
153 Dibenz(a,h)anthracene	278	15.391	15.393	-0.002	95	2537939	25.0	27.7	a
154 Benzo[g,h,i]perylene	276	15.768	15.770	-0.002	97	2679911	25.0	27.7	
209 1,4-Dioxane	88		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-HSL-ICV1_00010	Amount Added:	50.00	Units: uL	
MS-HSL-ICV2_00004	Amount Added:	50.00	Units: uL	
MS-IS-RVE_00005	Amount Added:	30.00	Units: uL	Run Reagent

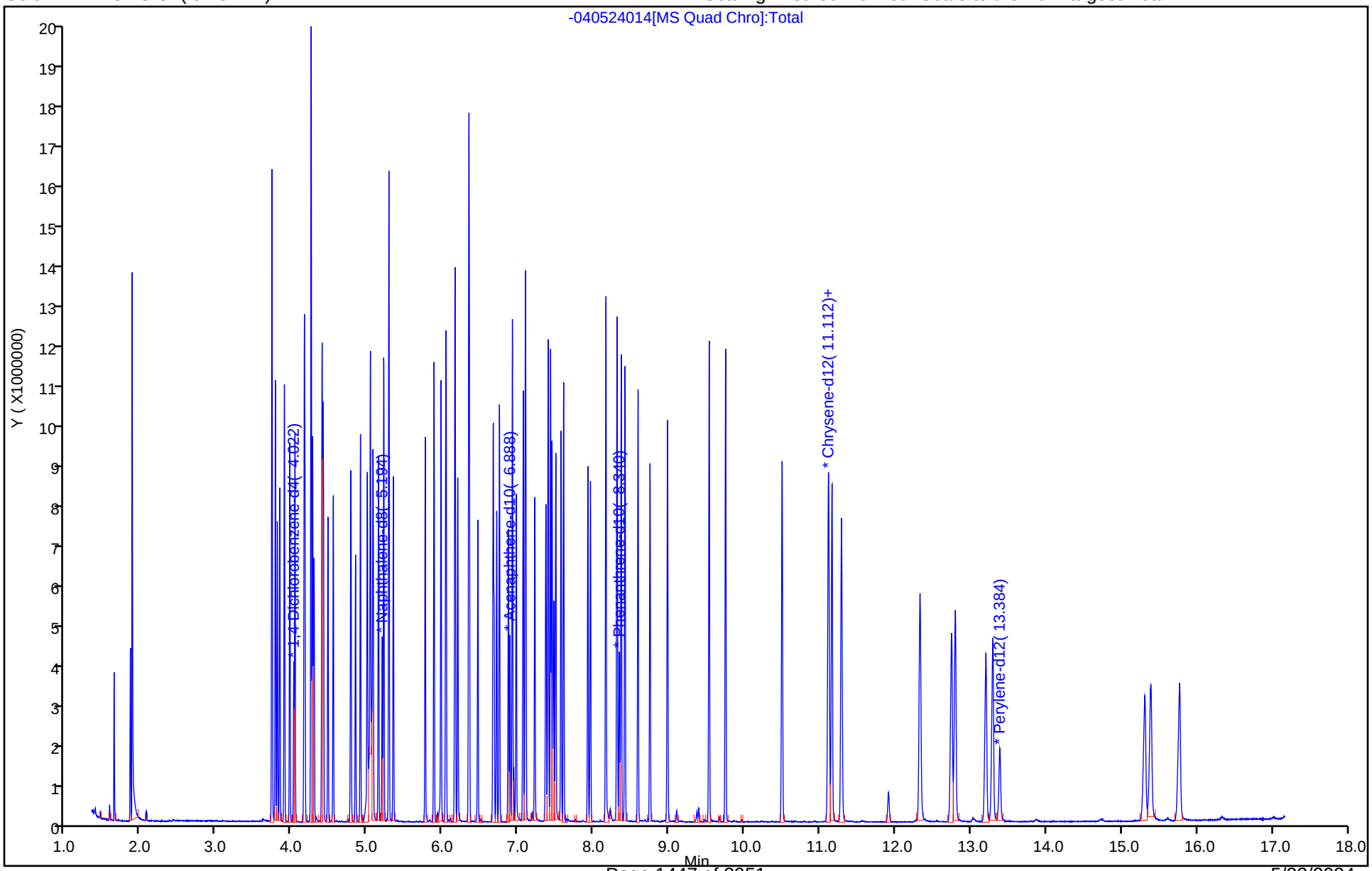
Report Date: 08-Apr-2024 09:01:30 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524014.D

Injection Date:	05-Apr-2024 14:38:22	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	ICV			Worklist Smp#:	10
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

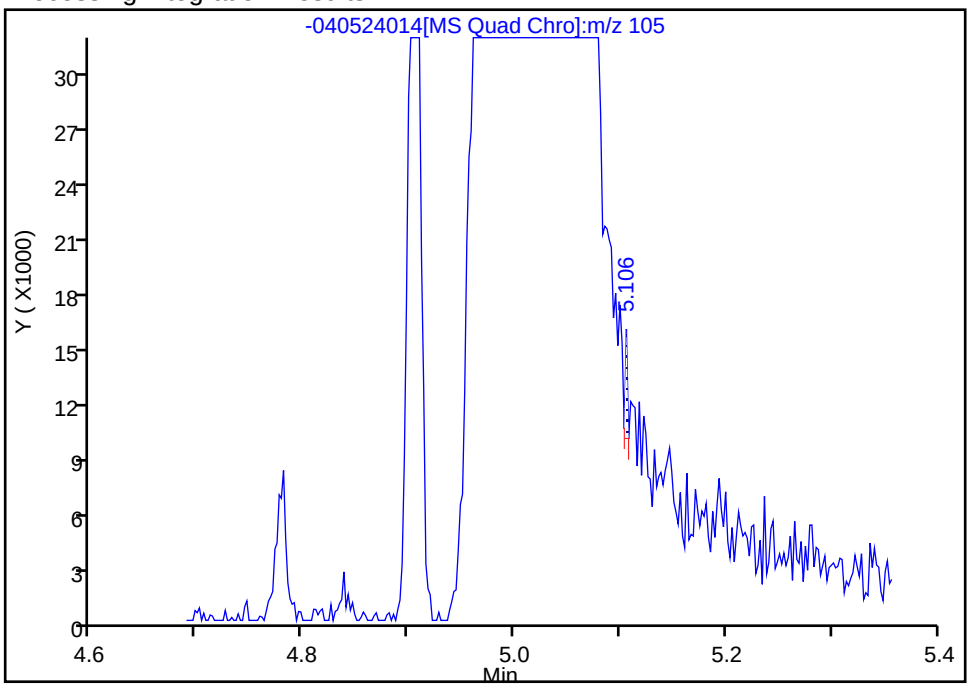
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524014.D				
Injection Date:	05-Apr-2024 14:38:22	Instrument ID:	SMS_3		
Lims ID:	ICV				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

49 Benzoic acid, CAS: 65-85-0

Signal: 1

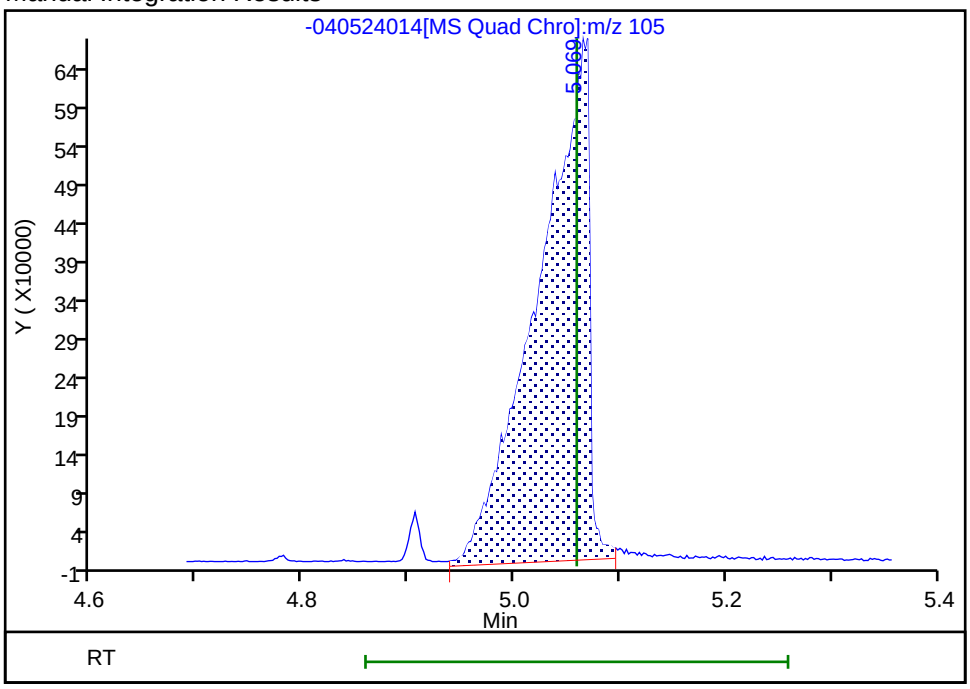
Processing Integration Results

RT: 5.11
Area: 794
Amount: 1.284829
Amount Units: ug/ml



Manual Integration Results

RT: 5.07
Area: 2238756
Amount: 47.771788
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:20:13 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

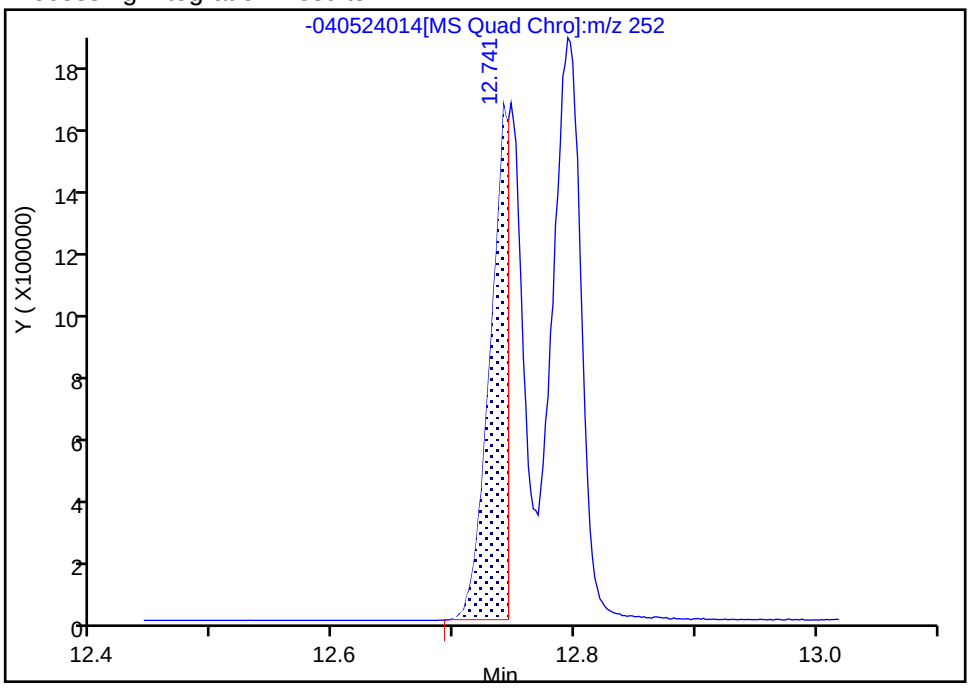
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524014.D				
Injection Date:	05-Apr-2024 14:38:22	Instrument ID:	SMS_3		
Lims ID:	ICV				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

145 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

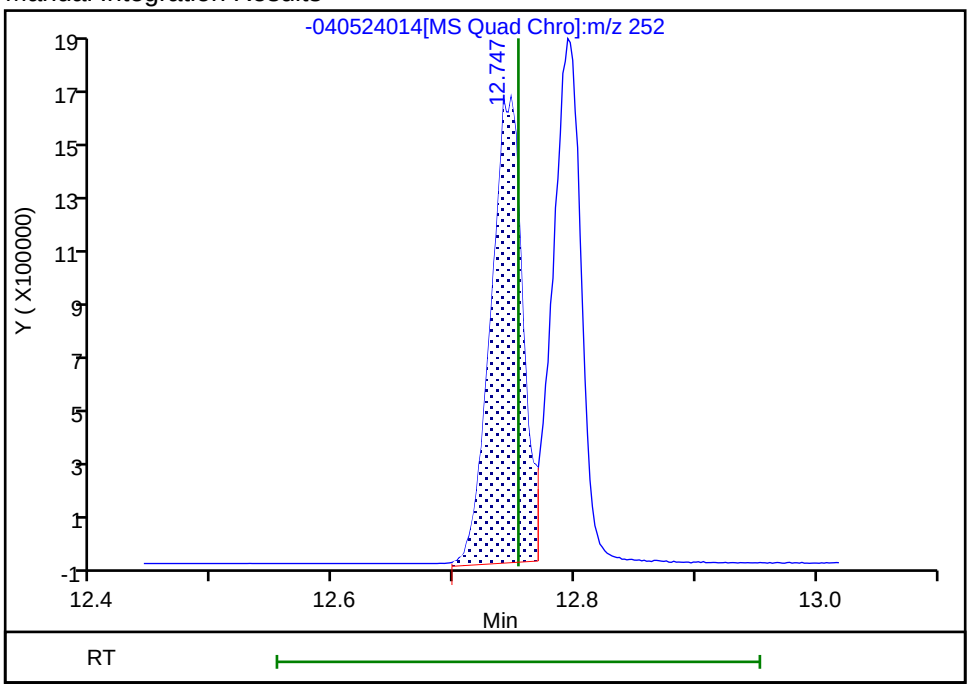
Processing Integration Results

RT: 12.74
Area: 1795524
Amount: 15.961272
Amount Units: ug/ml



Manual Integration Results

RT: 12.75
Area: 3115585
Amount: 27.695926
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:21:10 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

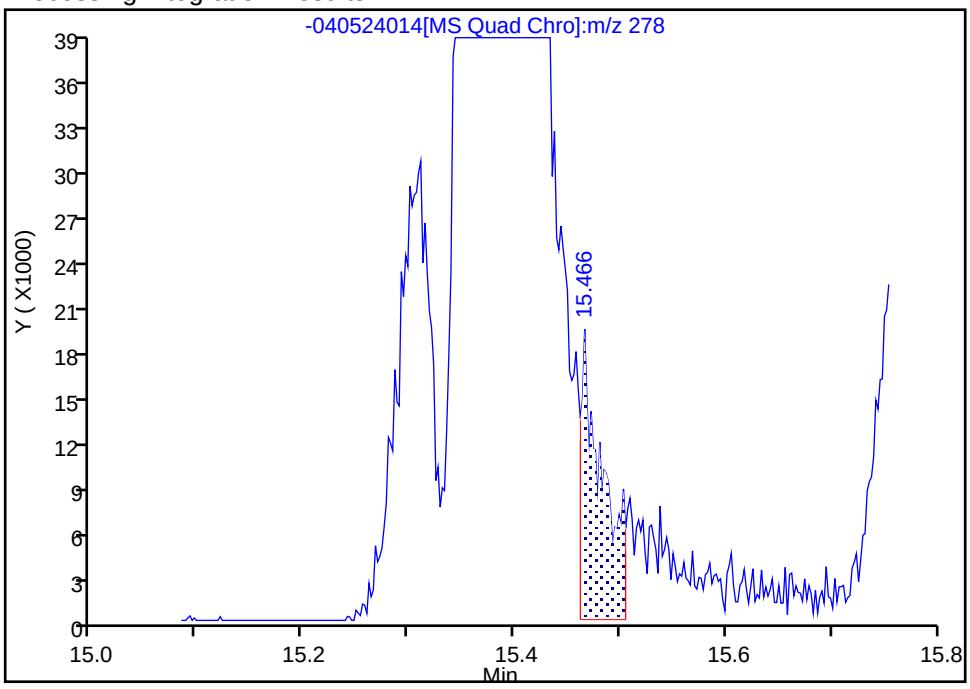
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524014.D				
Injection Date:	05-Apr-2024 14:38:22	Instrument ID:	SMS_3		
Lims ID:	ICV				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

153 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

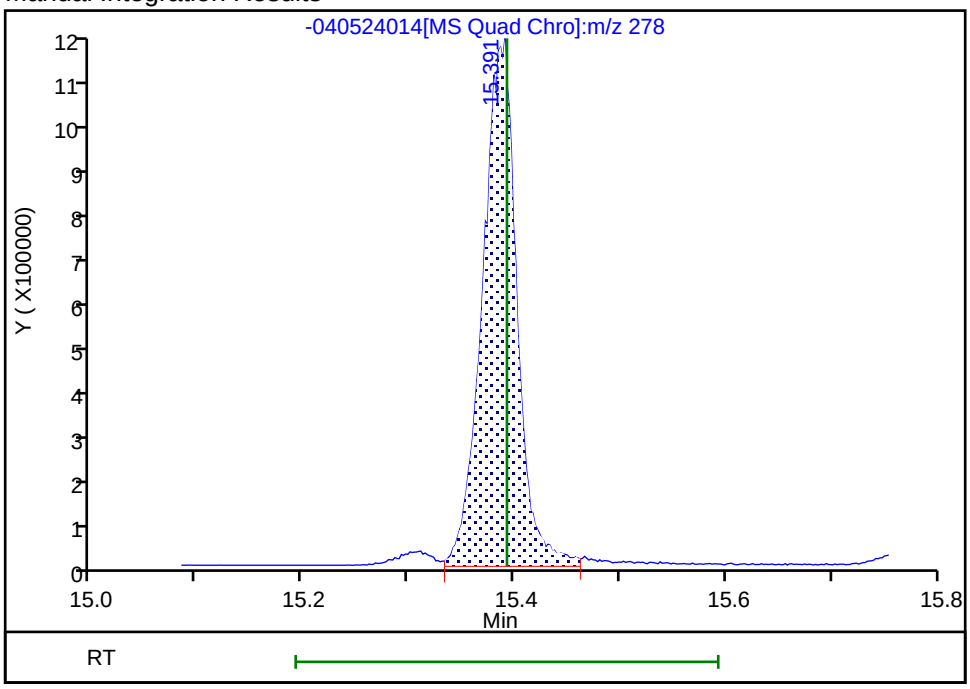
Processing Integration Results

RT: 15.47
Area: 26818
Amount: 0.292446
Amount Units: ug/ml



Manual Integration Results

RT: 15.39
Area: 2537939
Amount: 27.675839
Amount Units: ug/ml



Reviewer: G3YK, 05-Apr-2024 16:21:17 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVIS 280-653283/3 | Calibration Date: 05/14/2024 12:04

Instrument ID: SMS_3 | Calib Start Date: 04/05/2024 11:38

GC Column: DB-5MS ID: 0.25(mm) | Calib End Date: 04/05/2024 14:15

Lab File ID: SMS_3-051424004a.D | Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
N-Nitrosodimethylamine	Ave	1.253	1.431		22.8	20.0	14.2	20.0
Pyridine	Lin2		1.558		40.3	40.0	0.7	20.0
Aniline	Ave	2.619	2.660		20.3	20.0	1.6	20.0
Phenol	Ave	2.595	2.609	0.8000	20.1	20.0	0.5	20.0
Bis(2-chloroethyl)ether	Ave	1.984	2.107	0.7000	21.2	20.0	6.2	20.0
2-Chlorophenol	Ave	1.662	1.779	0.8000	21.4	20.0	7.0	20.0
1,3-Dichlorobenzene	Ave	1.770	1.877		21.2	20.0	6.0	20.0
1,4-Dichlorobenzene	Ave	1.844	1.944		21.1	20.0	5.4	20.0
1,2-Dichlorobenzene	Ave	1.710	1.806		21.1	20.0	5.6	20.0
Benzyl alcohol	Ave	1.645	1.688		20.5	20.0	2.6	20.0
Indene	Ave	2.966	3.126		42.2	40.0	5.4	20.0
2,2'-oxybis[1-chloropropane]	Ave	3.379	3.230	0.0100	19.1	20.0	-4.4	20.0
2-Methylphenol	Ave	1.577	1.616	0.7000	20.5	20.0	2.5	20.0
Acetophenone	Ave	2.478	2.509	0.0100	20.3	20.0	1.3	20.0
N-Nitrosodi-n-propylamine	Ave	1.461	1.482	0.5000	20.3	20.0	1.4	20.0
3 & 4 Methylphenol	Ave	1.648	1.746		21.2	20.0	6.0	20.0
3-Methylphenol	Ave	1.648	1.746		21.2	20.0	6.0	20.0
4-Methylphenol	Ave	1.648	1.746	0.6000	21.2	20.0	6.0	20.0
Hexachloroethane	Ave	0.8683	0.9661	0.3000	22.3	20.0	11.3	20.0
Nitrobenzene	Ave	0.3833	0.4125	0.2000	21.5	20.0	7.6	20.0
Isophorone	Ave	0.6879	0.7155	0.4000	20.8	20.0	4.0	20.0
2-Nitrophenol	Ave	0.1512	0.1655	0.1000	21.9	20.0	9.5	20.0
2,4-Dimethylphenol	Ave	0.2583	0.2751	0.2000	21.3	20.0	6.5	20.0
Bis(2-chloroethoxy)methane	Ave	0.4261	0.4661	0.3000	21.9	20.0	9.4	20.0
2,4-Dichlorophenol	Ave	0.2335	0.2533	0.2000	21.7	20.0	8.5	20.0
Benzoic acid	Lin2		0.2662		40.6	40.0	1.4	20.0
1,2,4-Trichlorobenzene	Ave	0.2610	0.2818		21.6	20.0	8.0	20.0
Naphthalene	Ave	0.7917	0.8337	0.7000	21.1	20.0	5.3	20.0
4-Chloroaniline	Ave	0.3355	0.3507	0.0100	20.9	20.0	4.5	20.0
2,6-Dichlorophenol	Ave	0.2330	0.2449		21.0	20.0	5.1	20.0
Hexachlorobutadiene	Ave	0.1579	0.1683	0.0100	21.3	20.0	6.6	20.0
4-Chloro-3-methylphenol	Ave	0.2671	0.2756	0.2000	20.6	20.0	3.2	20.0
2-Methylnaphthalene	Ave	0.4301	0.4484	0.4000	20.8	20.0	4.2	20.0
1-Methylnaphthalene	Ave	0.4680	0.4861		20.8	20.0	3.9	20.0
Hexachlorocyclopentadiene	Lin1		0.2609	0.0500	20.4	20.0	2.1	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4753	0.5433	0.0100	22.9	20.0	14.3	20.0
2,4,6-Trichlorophenol	Ave	0.3086	0.3435	0.2000	22.3	20.0	11.3	20.0
2,4,5-Trichlorophenol	Ave	0.3268	0.3640	0.2000	22.3	20.0	11.4	20.0
1,1'-Biphenyl	Ave	1.068	1.184	0.0100	22.2	20.0	10.9	20.0
2-Chloronaphthalene	Ave	0.8836	0.9530	0.8000	21.6	20.0	7.8	20.0
2-Nitroaniline	Ave	0.3187	0.3490	0.0100	21.9	20.0	9.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVIS 280-653283/3 | Calibration Date: 05/14/2024 12:04

Instrument ID: SMS_3 | Calib Start Date: 04/05/2024 11:38

GC Column: DB-5MS ID: 0.25(mm) | Calib End Date: 04/05/2024 14:15

Lab File ID: SMS_3-051424004a.D | Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dimethyl phthalate	Ave	0.9950	1.054	0.0100	21.2	20.0	6.0	20.0
1,3-Dinitrobenzene	Lin2		0.1832		21.0	20.0	5.1	20.0
2,6-Dinitrotoluene	Ave	0.2302	0.2464	0.2000	21.4	20.0	7.0	20.0
Acenaphthylene	Ave	1.330	1.427	0.9000	21.5	20.0	7.3	20.0
3-Nitroaniline	Ave	0.4641	0.4859	0.0100	20.9	20.0	4.7	20.0
Acenaphthene	Ave	0.8568	0.9016	0.9000	21.0	20.0	5.2	20.0
2,4-Dinitrophenol	Lin1		0.1219	0.0100	38.5	40.0	-3.8	20.0
Dibenzofuran	Ave	1.225	1.291	0.8000	21.1	20.0	5.4	20.0
4-Nitrophenol	Lin2		0.2609	0.0100	37.2	40.0	-7.0	20.0
2,4-Dinitrotoluene	Ave	0.3142	0.3155	0.2000	20.1	20.0	0.4	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.2502	0.2680	0.0100	21.4	20.0	7.1	20.0
Diethyl phthalate	Ave	1.032	1.048	0.0100	20.3	20.0	1.5	20.0
Hexadecane	Ave	0.9090	1.086		23.9	20.0	19.5	20.0
Fluorene	Ave	0.9563	0.9876	0.9000	20.7	20.0	3.3	20.0
4-Chlorophenyl phenyl ether	Ave	0.4591	0.4769	0.4000	20.8	20.0	3.9	20.0
4-Nitroaniline	Ave	0.2602	0.2494	0.0100	19.2	20.0	-4.1	20.0
4,6-Dinitro-2-methylphenol	Lin2		0.1629	0.0100	38.8	40.0	-2.9	20.0
Diphenylamine	Ave	0.7991	0.8221		17.5	17.0	2.9	20.0
N-Nitrosodiphenylamine	Ave	0.4337	0.4416	0.0100	20.4	20.0	1.8	20.0
1,2-Diphenylhydrazine	Ave	0.8145	0.9475		23.5	20.2	16.3	20.0
Azobenzene	Ave	0.8233	0.9579		23.3	20.0	16.4	20.0
4-Bromophenyl phenyl ether	Ave	0.1563	0.1756	0.1000	22.5	20.0	12.4	20.0
Hexachlorobenzene	Ave	0.1807	0.1976	0.1000	21.9	20.0	9.4	20.0
Pentachlorophenol	Lin2		0.1048	0.0500	37.2	40.0	-7.1	20.0
Phenanthrene	Ave	0.7861	0.8680	0.7000	22.1	20.0	10.4	20.0
Anthracene	Ave	0.7887	0.8881	0.7000	22.5	20.0	12.6	20.0
Carbazole	Ave	0.7556	0.7962	0.0100	21.1	20.0	5.4	20.0
Di-n-butyl phthalate	Ave	0.9853	1.096	0.0100	22.3	20.0	11.3	20.0
Fluoranthene	Ave	0.8541	0.9590	0.6000	22.5	20.0	12.3	20.0
Pyrene	Ave	1.182	1.359	0.6000	23.0	20.0	15.0	20.0
Butyl benzyl phthalate	Ave	0.5566	0.6320	0.0100	22.7	20.0	13.5	20.0
Benzo[a]anthracene	Ave	1.010	1.085	0.8000	21.5	20.0	7.4	20.0
Chrysene	Ave	0.9755	1.066	0.7000	21.8	20.0	9.2	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7382	0.8701	0.0100	23.6	20.0	17.9	20.0
Di-n-octyl phthalate	Lin2		1.540	0.0100	22.6	20.0	13.2	20.0
Benzo[b]fluoranthene	Ave	0.8867	1.074	0.7000	24.2	20.0	21.1*	20.0
Benzo[k]fluoranthene	Ave	0.9269	1.153	0.7000	24.9	20.0	24.4*	20.0
Benzo[a]pyrene	Ave	0.8213	0.9434	0.7000	23.0	20.0	14.9	20.0
Indeno[1,2,3-cd]pyrene	Ave	0.7864	0.8254	0.5000	21.0	20.0	5.0	20.0
Dibenz(a,h)anthracene	Ave	0.7229	0.7665	0.4000	21.2	20.0	6.0	20.0
Benzo[g,h,i]perylene	Ave	0.7616	0.8326	0.5000	21.9	20.0	9.3	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVIS 280-653283/3 Calibration Date: 05/14/2024 12:04

Instrument ID: SMS_3 Calib Start Date: 04/05/2024 11:38

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 04/05/2024 14:15

Lab File ID: SMS_3-051424004a.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Fluorophenol (Surr)	Ave	1.677	1.883		22.5	20.0	12.3	20.0
Phenol-d5 (Surr)	Ave	2.235	2.390		21.4	20.0	6.9	20.0
Nitrobenzene-d5 (Surr)	Ave	0.3645	0.3980		21.8	20.0	9.2	20.0
2-Fluorobiphenyl	Ave	0.9522	1.031		21.6	20.0	8.2	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.0814	0.0925		22.7	20.0	13.6	20.0
Terphenyl-d14 (Surr)	Ave	0.7706	0.8628		22.4	20.0	12.0	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D
Lims ID: CCVIS HSL
Client ID:
Sample Type: CCVIS
Inject. Date: 14-May-2024 12:04:17 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: ccvis hsl
Operator ID: DM Instrument ID: SMS_3
Sublist: chrom-SMS_3 8270 RVE*sub1

Method: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 15-May-2024 10:45:55 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1641

First Level Reviewer: G3YK Date: 14-May-2024 12:48:10

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	115	3.989	3.989	0.000	97	219821	8.00	8.00	
* 2 Naphthalene-d8	136	5.157	5.157	0.000	99	1173133	8.00	8.00	
* 3 Acenaphthene-d10	164	6.847	6.847	0.000	92	622444	8.00	8.00	
* 4 Phenanthrene-d10	188	8.299	8.299	0.000	96	953278	8.00	8.00	
* 5 Chrysene-d12	240	11.061	11.061	0.000	99	685082	8.00	8.00	
* 6 Perylene-d12	264	13.292	13.292	0.000	97	677914	8.00	8.00	M
$ 7 2-Fluorophenol	112	2.911	2.911	0.000	95	1034790	20.0	22.5	
$ 8 Phenol-d5	99	3.718	3.718	0.000	0	1313419	20.0	21.4	
$ 9 Nitrobenzene-d5	82	4.495	4.495	0.000	92	1167160	20.0	21.8	
$ 10 2-Fluorobiphenyl	172	6.212	6.212	0.000	99	1603700	20.0	21.6	
$ 11 2,4,6-Tribromophenol	330	7.625	7.625	0.000	89	220445	20.0	22.7	
$ 12 Terphenyl-d14	244	9.897	9.897	0.000	97	1477785	20.0	22.4	
13 N-Nitrosodimethylamine	74	1.854	1.854	0.000	95	786360	20.0	22.8	
14 Pyridine	79	1.874	1.874	0.000	92	1712043	40.0	40.3	
23 Aniline	93	3.707	3.707	0.000	97	1462027	20.0	20.3	
22 Phenol	94	3.730	3.730	0.000	98	1433590	20.0	20.1	
25 Bis(2-chloroethyl)ether	93	3.773	3.773	0.000	91	1158064	20.0	21.2	
26 2-Chlorophenol	128	3.814	3.814	0.000	94	977526	20.0	21.4	
27 n-Decane	43	3.863	3.863	0.000	87	1220682	20.0	19.5	
28 1,3-Dichlorobenzene	146	3.936	3.936	0.000	94	1031564	20.0	21.2	
29 1,4-Dichlorobenzene	146	4.003	4.003	0.000	91	1068472	20.0	21.1	
31 1,2-Dichlorobenzene	146	4.134	4.134	0.000	92	992444	20.0	21.1	
30 Benzyl alcohol	79	4.136	4.136	0.000	90	927474	20.0	20.5	
32 Indene	116	4.218	4.218	0.000	91	3435585	40.0	42.2	
34 2,2'-oxybis[1-chloropropane]	45	4.248	4.248	0.000	96	1774990	20.0	19.1	
33 2-Methylphenol	108	4.257	4.257	0.000	97	888143	20.0	20.5	
36 Acetophenone	105	4.363	4.363	0.000	95	1379066	20.0	20.3	
37 N-Nitrosodi-n-propylamine	70	4.377	4.377	0.000	85	814412	20.0	20.3	
38 3-Methylphenol	108	4.401	4.401	0.000	89	959435	20.0	21.2	
39 3 & 4 Methylphenol	108	4.401	4.401	0.000	0	959435	20.0	21.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
41 4-Methylphenol	108	4.401	4.401	0.000	92	959435	20.0	21.2	
43 Hexachloroethane	117	4.438	4.438	0.000	96	530922	20.0	22.3	
44 Nitrobenzene	77	4.514	4.514	0.000	90	1209724	20.0	21.5	
46 Isophorone	82	4.742	4.742	0.000	99	2098443	20.0	20.8	
47 2-Nitrophenol	139	4.808	4.808	0.000	95	485286	20.0	21.9	
48 2,4-Dimethylphenol	107	4.883	4.883	0.000	98	806680	20.0	21.3	
51 Bis(2-chloroethoxy)methane	93	4.963	4.963	0.000	96	1367011	20.0	21.9	
52 2,4-Dichlorophenol	162	5.049	5.049	0.000	98	743011	20.0	21.7	
49 Benzoic acid	105	5.063	5.063	0.000	91	1561655	40.0	40.6	Ma
53 1,2,4-Trichlorobenzene	180	5.108	5.108	0.000	93	826495	20.0	21.6	
54 Naphthalene	128	5.177	5.177	0.000	98	2445190	20.0	21.1	
55 4-Chloroaniline	127	5.251	5.251	0.000	95	1028662	20.0	20.9	
56 2,6-Dichlorophenol	162	5.255	5.255	0.000	95	718279	20.0	21.0	
57 Hexachlorobutadiene	225	5.304	5.304	0.000	98	493643	20.0	21.3	
61 4-Chloro-3-methylphenol	107	5.749	5.749	0.000	95	808231	20.0	20.6	
63 2-Methylnaphthalene	141	5.845	5.845	0.000	92	1314956	20.0	20.8	
64 1-Methylnaphthalene	142	5.937	5.937	0.000	94	1425661	20.0	20.8	
65 Hexachlorocyclopentadiene	237	5.996	5.996	0.000	98	406024	20.0	20.4	
66 1,2,4,5-Tetrachlorobenzene	216	6.004	6.004	0.000	98	845420	20.0	22.9	
68 2,4,6-Trichlorophenol	196	6.133	6.133	0.000	95	534500	20.0	22.3	a
69 2,4,5-Trichlorophenol	196	6.173	6.173	0.000	93	566363	20.0	22.3	a
71 1,1'-Biphenyl	154	6.304	6.304	0.000	96	1842791	20.0	22.2	a
72 2-Chloronaphthalene	162	6.310	6.310	0.000	98	1482944	20.0	21.6	a
74 2-Nitroaniline	138	6.433	6.433	0.000	78	543099	20.0	21.9	
77 Dimethyl phthalate	163	6.631	6.631	0.000	97	1640695	20.0	21.2	
78 1,3-Dinitrobenzene	168	6.645	6.645	0.000	81	285004	20.0	21.0	
79 2,6-Dinitrotoluene	165	6.680	6.680	0.000	87	383354	20.0	21.4	a
80 Acenaphthylene	152	6.710	6.710	0.000	99	2220966	20.0	21.5	a
81 3-Nitroaniline	65	6.839	6.839	0.000	88	756127	20.0	20.9	
82 Acenaphthene	153	6.882	6.882	0.000	96	1403049	20.0	21.0	a
83 2,4-Dinitrophenol	184	6.939	6.939	0.000	78	379391	40.0	38.5	a
86 Dibenzofuran	168	7.053	7.053	0.000	96	2008389	20.0	21.1	
85 4-Nitrophenol	65	7.059	7.059	0.000	89	811947	40.0	37.2	
87 2,4-Dinitrotoluene	165	7.066	7.066	0.000	89	490940	20.0	20.1	a
89 2,3,4,6-Tetrachlorophenol	232	7.186	7.186	0.000	75	417025	20.0	21.4	
91 Diethyl phthalate	149	7.329	7.329	0.000	96	1630253	20.0	20.3	
92 Hexadecane	57	7.355	7.355	0.000	86	1690395	20.0	23.9	a
93 Fluorene	166	7.388	7.388	0.000	95	1536737	20.0	20.7	
95 4-Chlorophenyl phenyl ether	204	7.407	7.407	0.000	96	742121	20.0	20.8	
97 4-Nitroaniline	138	7.443	7.443	0.000	81	388138	20.0	19.2	
98 4,6-Dinitro-2-methylphenol	198	7.464	7.464	0.000	86	507090	40.0	38.8	
99 Diphenylamine	169	7.531	7.531	0.000	94	1087447	17.0	17.5	a
100 N-Nitrosodiphenylamine	168	7.531	7.531	0.000	64	687140	20.0	20.4	
102 1,2-Diphenylhydrazine	77	7.562	7.562	0.000	42	2282964	20.2	23.5	a
101 Azobenzene	77	7.562	7.562	0.000	97	2282964	20.0	23.3	
108 4-Bromophenyl phenyl ether	248	7.884	7.884	0.000	74	418585	20.0	22.5	
110 Hexachlorobenzene	284	7.915	7.915	0.000	92	471020	20.0	21.9	
113 Pentachlorophenol	266	8.127	8.127	0.000	91	499747	40.0	37.2	
156 n-Octadecane	57	8.268	8.268	0.000	88	1673654	20.0	26.0	
117 Phenanthrene	178	8.323	8.323	0.000	99	2068630	20.0	22.1	
120 Anthracene	178	8.374	8.374	0.000	99	2116423	20.0	22.5	
121 Carbazole	167	8.552	8.552	0.000	96	1897473	20.0	21.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
122 Alachlor	45	8.707	8.707	0.000	94	782602	20.0	20.9	
124 Di-n-butyl phthalate	149	8.940	8.940	0.000	100	2613029	20.0	22.3	
127 Fluoranthene	202	9.489	9.489	0.000	98	2285428	20.0	22.5	
129 Pyrene	202	9.707	9.707	0.000	96	2327326	20.0	23.0	
136 Butyl benzyl phthalate	149	10.450	10.450	0.000	96	1082495	20.0	22.7	
138 Benzo[a]anthracene	228	11.046	11.046	0.000	99	1858375	20.0	21.5	
141 Chrysene	228	11.097	11.097	0.000	98	1825022	20.0	21.8	
142 Bis(2-ethylhexyl) phthalate	149	11.222	11.222	0.000	97	1490197	20.0	23.6	
144 Di-n-octyl phthalate	149	12.243	12.243	0.000	98	2610409	20.0	22.6	a
145 Benzo[b]fluoranthene	252	12.659	12.659	0.000	98	1819980	20.0	24.2	a
147 Benzo[k]fluoranthene	252	12.706	12.706	0.000	99	1954658	20.0	24.9	a
148 Benzo[a]pyrene	252	13.196	13.196	0.000	82	1598853	20.0	23.0	a
152 Indeno[1,2,3-cd]pyrene	276	15.201	15.201	0.000	98	1398960	20.0	21.0	a
153 Dibenz(a,h)anthracene	278	15.278	15.278	0.000	95	1299012	20.0	21.2	
154 Benzo[g,h,i]perylene	276	15.658	15.658	0.000	97	1411127	20.0	21.9	a
209 1,4-Dioxane	88		0.000				ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

MS-RVHSL-WS_00006	Amount Added: 200.00	Units: uL	
MS-IS-RVE_00005	Amount Added: 30.00	Units: uL	Run Reagent

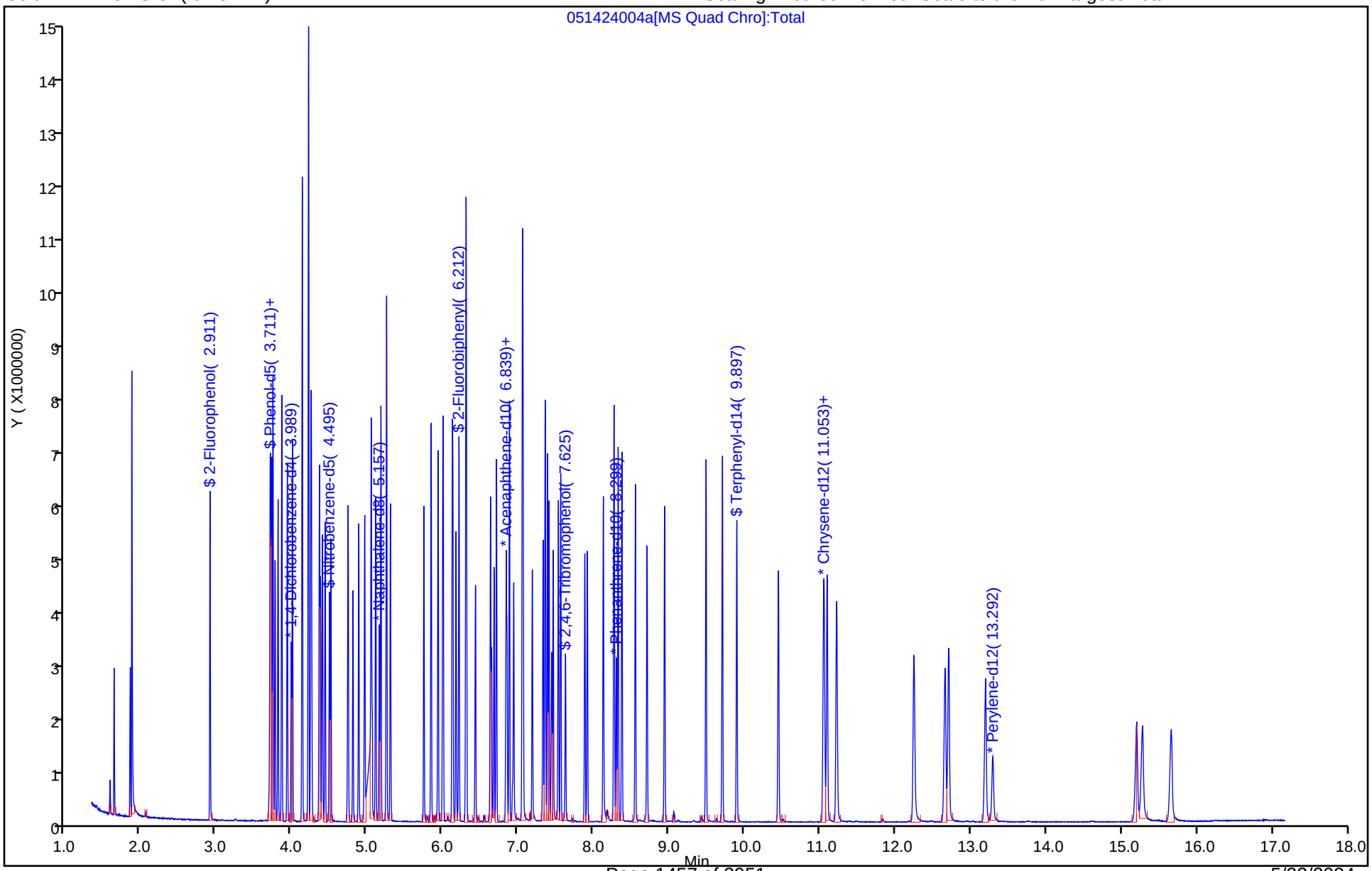
Report Date: 15-May-2024 10:45:55 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D

Injection Date:	14-May-2024 12:04:17	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	CCVIS HSL			Worklist Smp#:	3
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

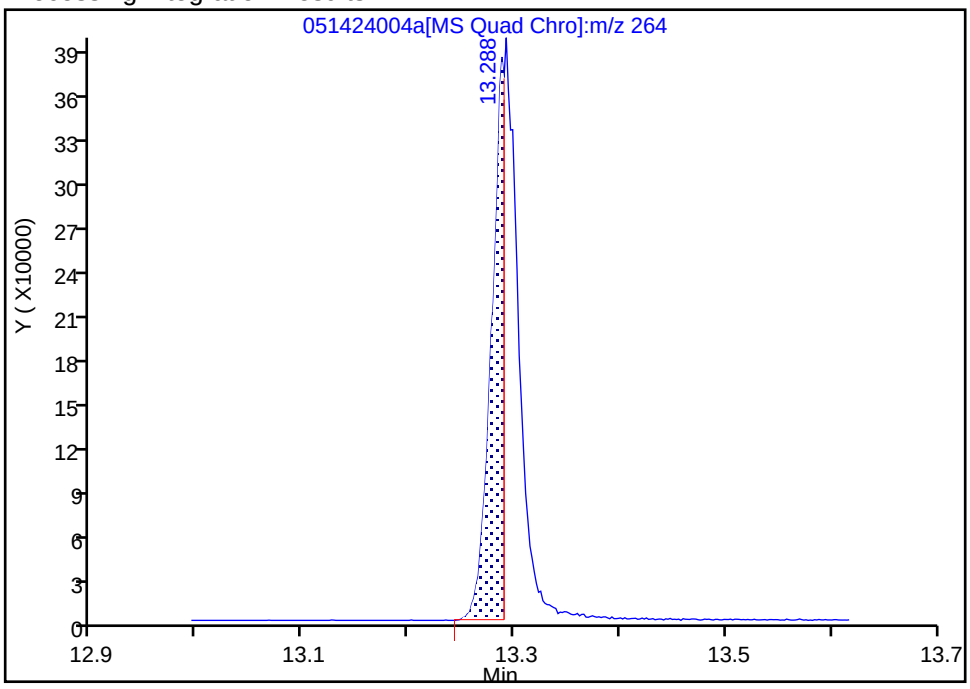
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D				
Injection Date:	14-May-2024 12:04:17	Instrument ID:	SMS_3		
Lims ID:	CCVIS HSL				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

* 6 Perylene-d12, CAS: 1520-96-3

Signal: 1

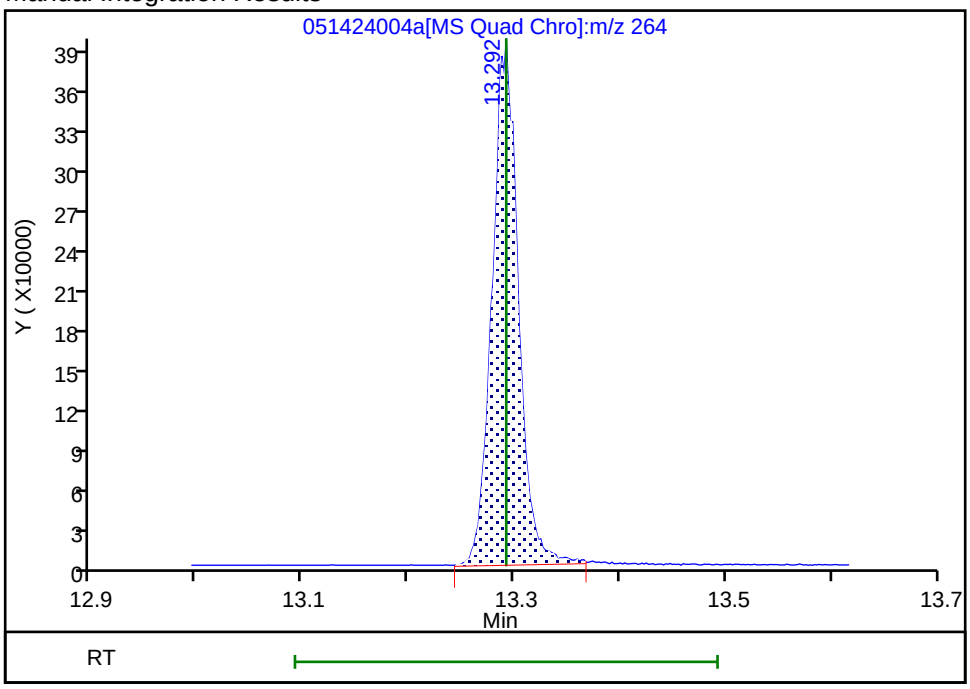
Processing Integration Results

RT: 13.29
Area: 326424
Amount: 8.000000
Amount Units: ug/ml



Manual Integration Results

RT: 13.29
Area: 677914
Amount: 8.000000
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 12:29:50 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

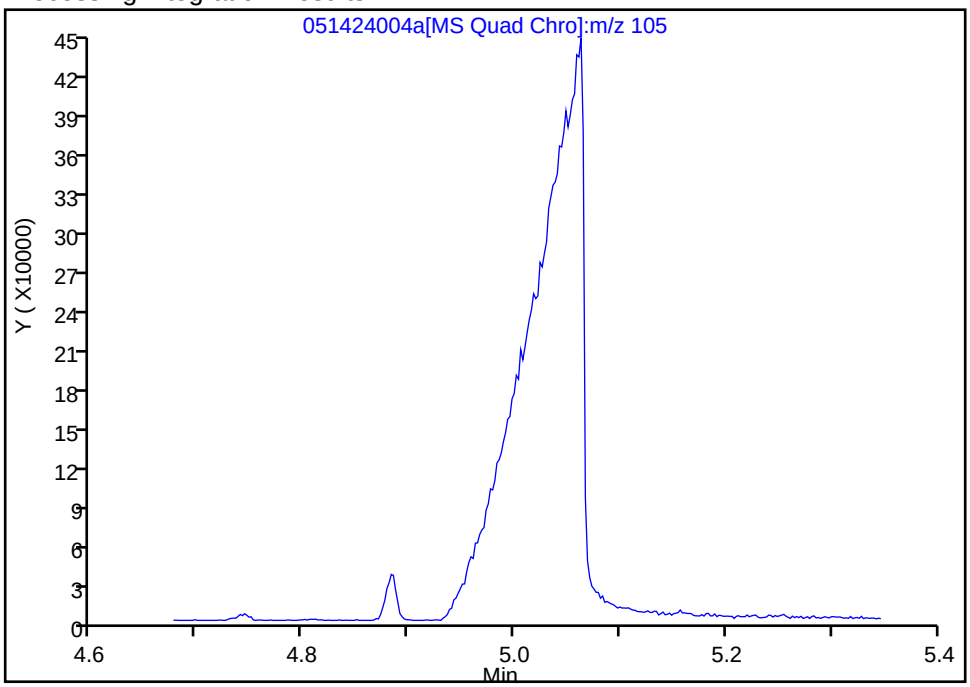
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D				
Injection Date:	14-May-2024 12:04:17	Instrument ID:	SMS_3		
Lims ID:	CCVIS HSL				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

49 Benzoic acid, CAS: 65-85-0

Signal: 1

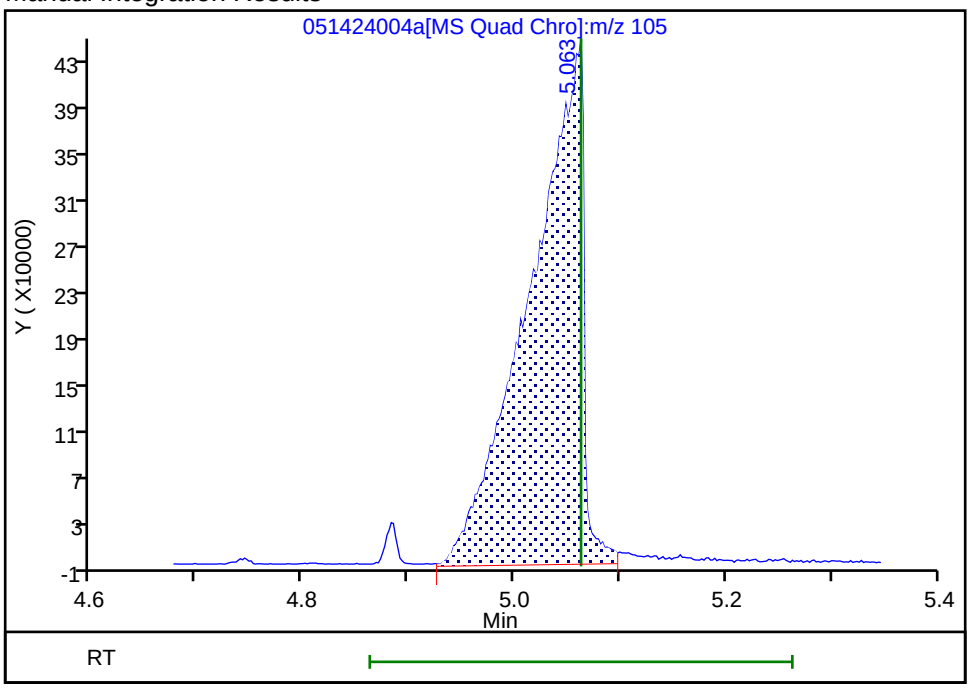
Not Detected
Expected RT: 5.06

Processing Integration Results



Manual Integration Results

RT: 5.06
Area: 1561655
Amount: 40.556944
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 12:27:05 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

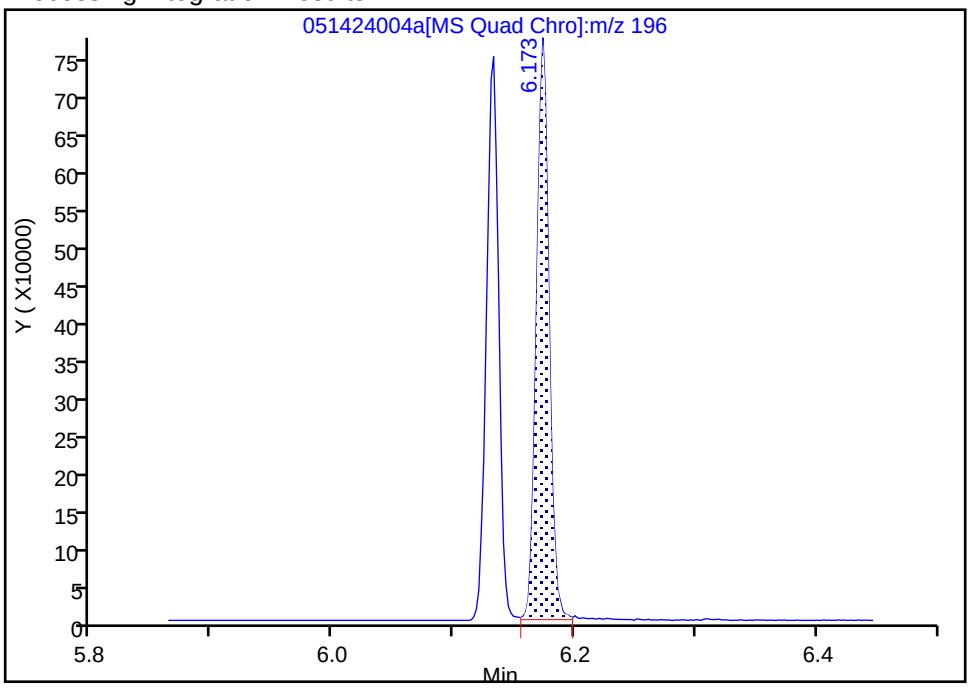
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D				
Injection Date:	14-May-2024 12:04:17	Instrument ID:	SMS_3		
Lims ID:	CCVIS HSL				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

68 2,4,6-Trichlorophenol, CAS: 88-06-2

Signal: 1

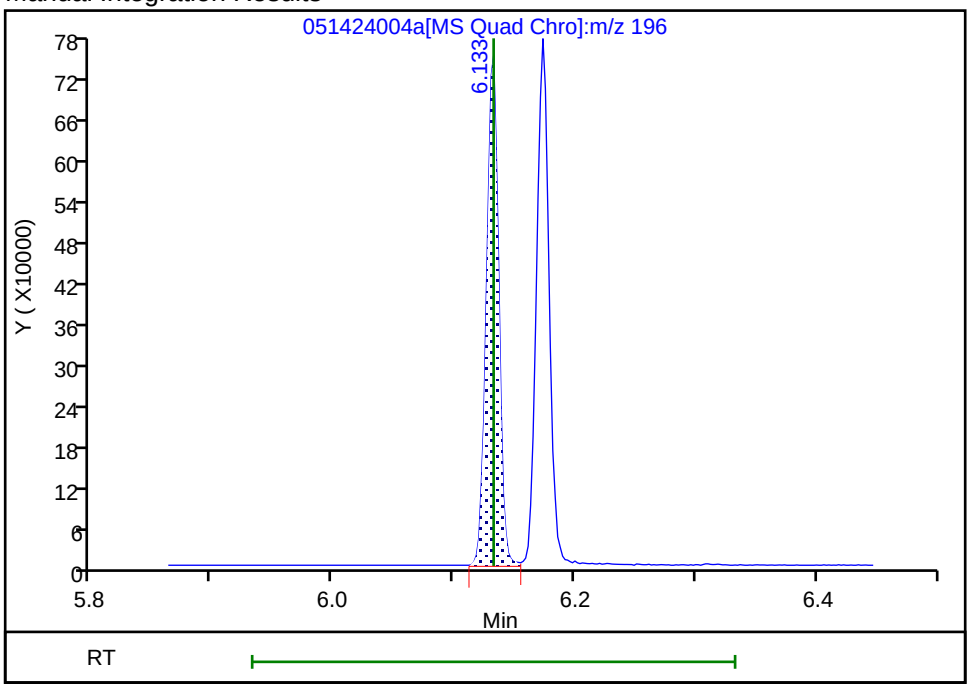
Processing Integration Results

RT: 6.17
Area: 566363
Amount: 23.589865
Amount Units: ug/ml



Manual Integration Results

RT: 6.13
Area: 534500
Amount: 22.262724
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 12:27:27 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

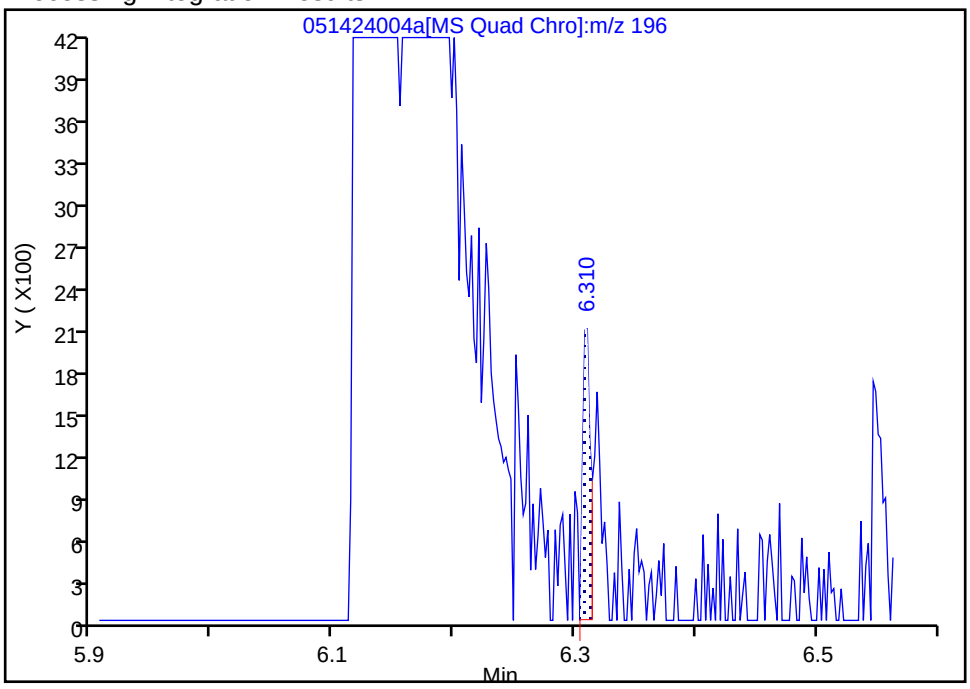
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D				
Injection Date:	14-May-2024 12:04:17	Instrument ID:	SMS_3		
Lims ID:	CCVIS HSL				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

69 2,4,5-Trichlorophenol, CAS: 95-95-4

Signal: 1

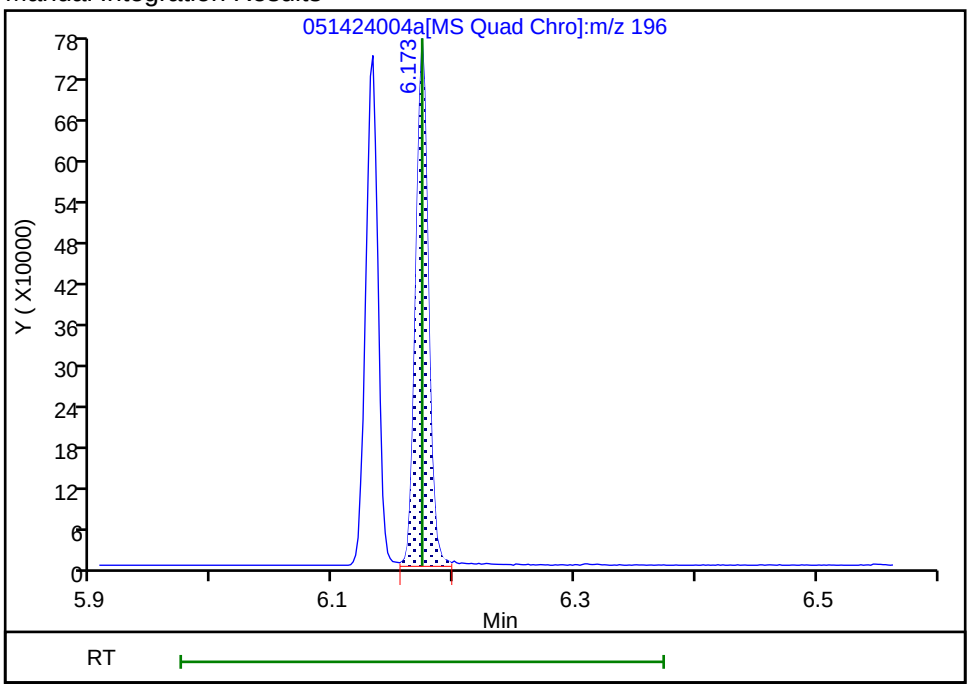
Processing Integration Results

RT: 6.31
Area: 922
Amount: 0.036262
Amount Units: ug/ml



Manual Integration Results

RT: 6.17
Area: 566363
Amount: 22.274984
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 12:27:30 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

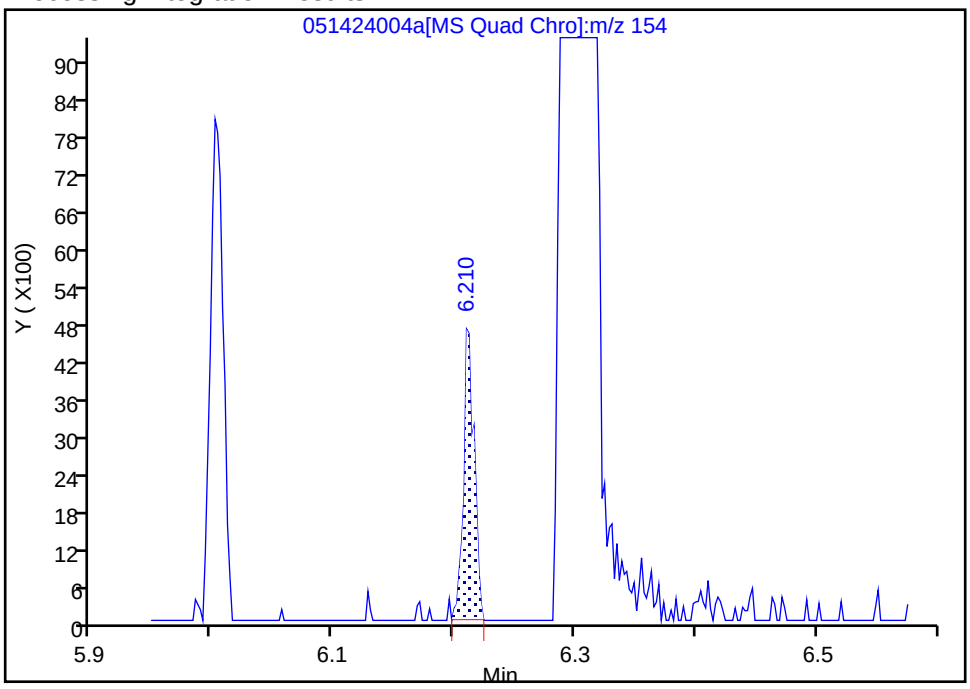
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D				
Injection Date:	14-May-2024 12:04:17	Instrument ID:	SMS_3		
Lims ID:	CCVIS HSL				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

71 1,1'-Biphenyl, CAS: 92-52-4

Signal: 1

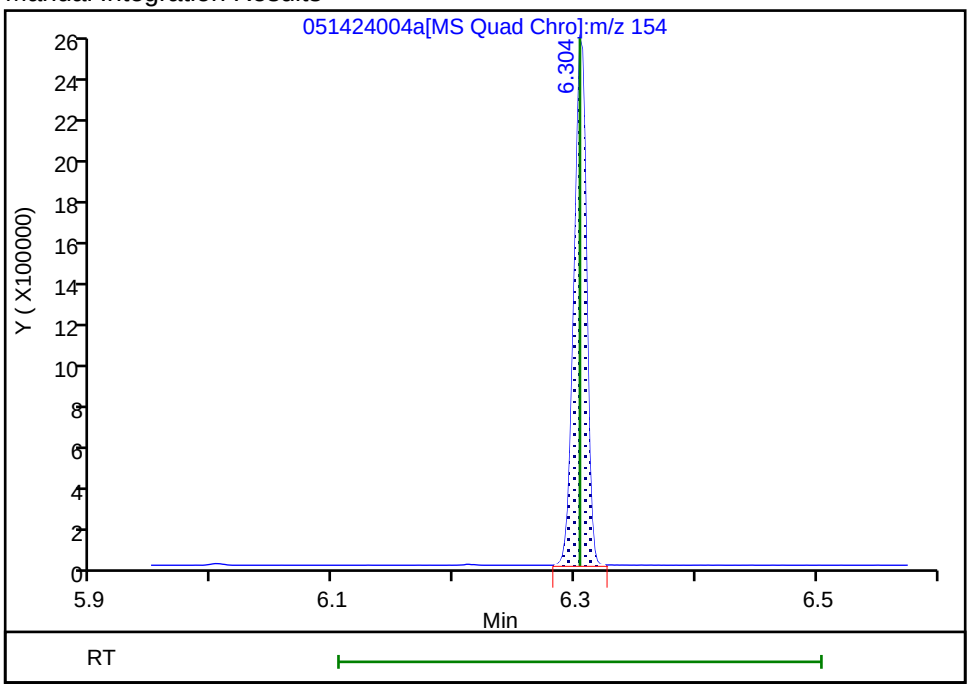
Processing Integration Results

RT: 6.21
Area: 2817
Amount: 0.033899
Amount Units: ug/ml



Manual Integration Results

RT: 6.30
Area: 1842791
Amount: 22.175420
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 12:27:34 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Eurofins Denver

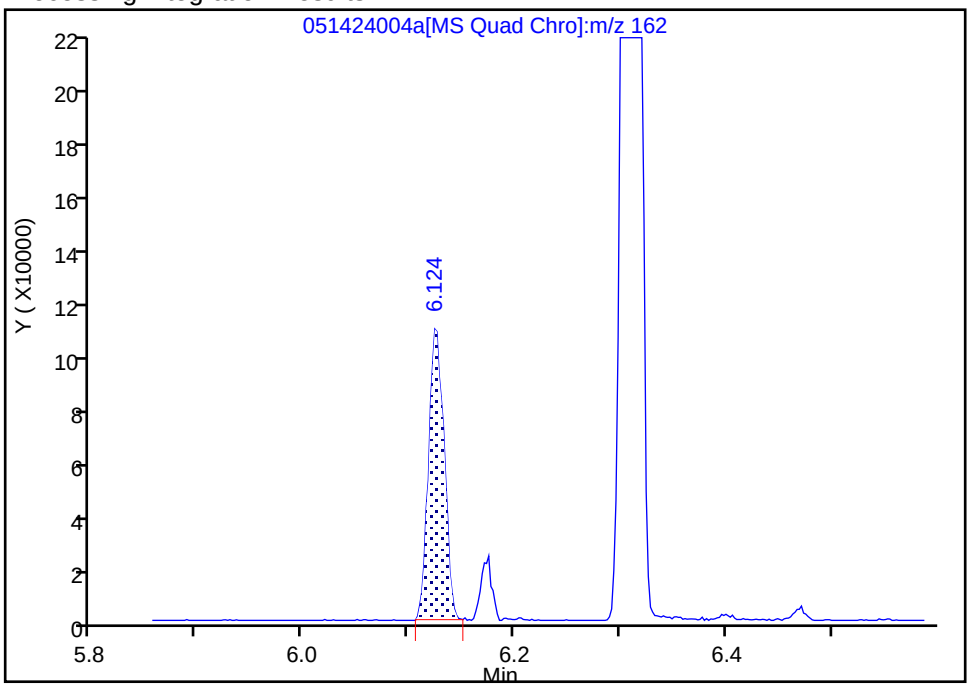
Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D
Injection Date: 14-May-2024 12:04:17 Instrument ID: SMS_3
Lims ID: CCVIS HSL
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E
Column: DB-5MS UI (0.18 mm) Detector MS Quad

72 2-Chloronaphthalene, CAS: 91-58-7

Signal: 1

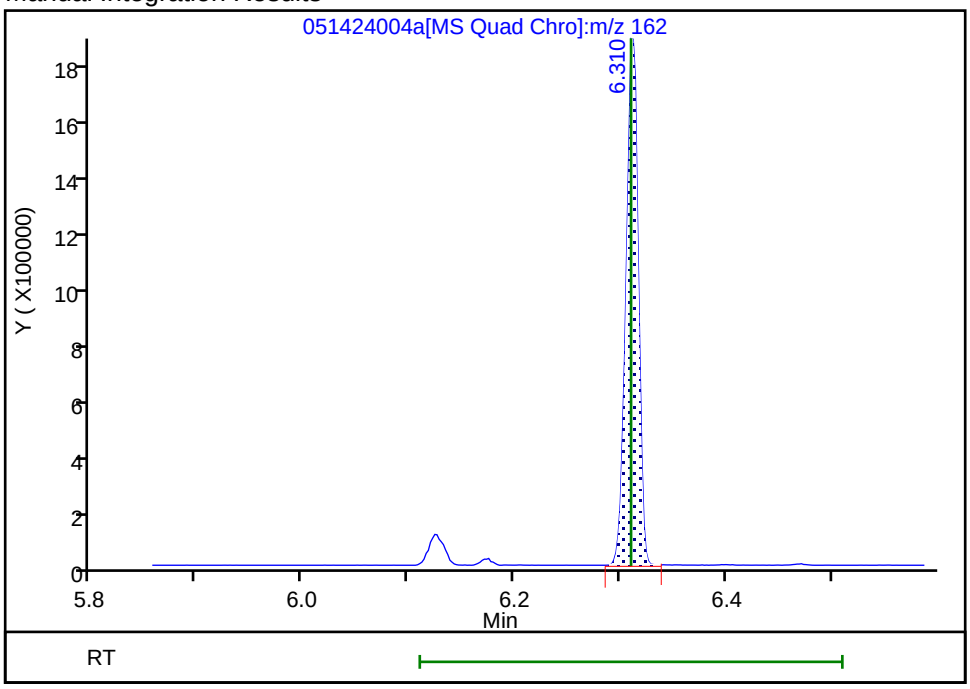
Processing Integration Results

RT: 6.12
Area: 109218
Amount: 1.588575
Amount Units: ug/ml



Manual Integration Results

RT: 6.31
Area: 1482944
Amount: 21.569404
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 12:27:22 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

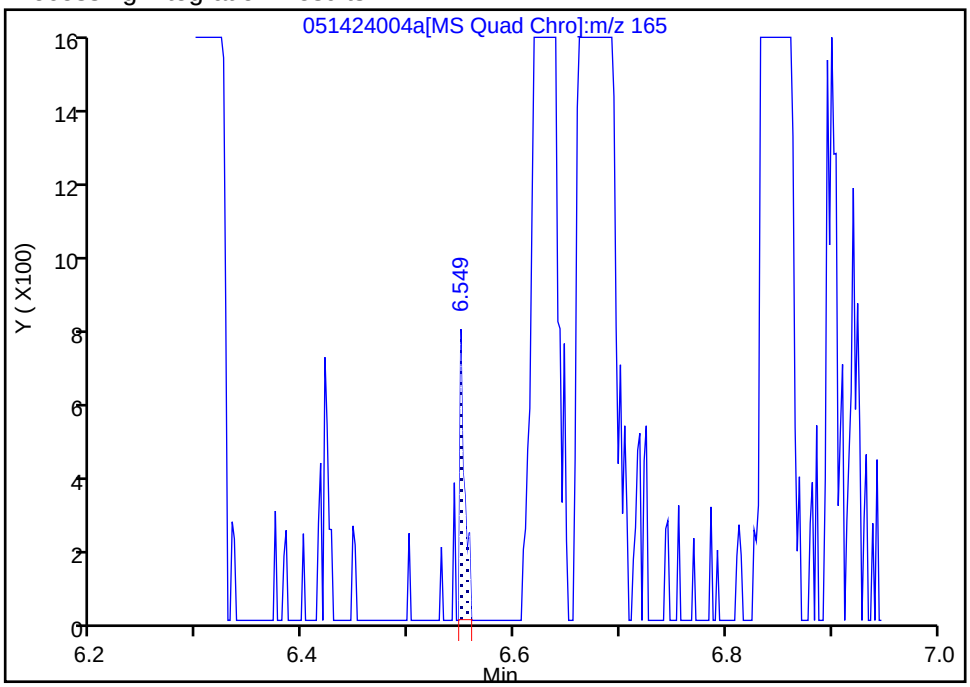
Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D
Injection Date: 14-May-2024 12:04:17 Instrument ID: SMS_3
Lims ID: CCVIS HSL
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E
Column: DB-5MS UI (0.18 mm) Detector MS Quad

79 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

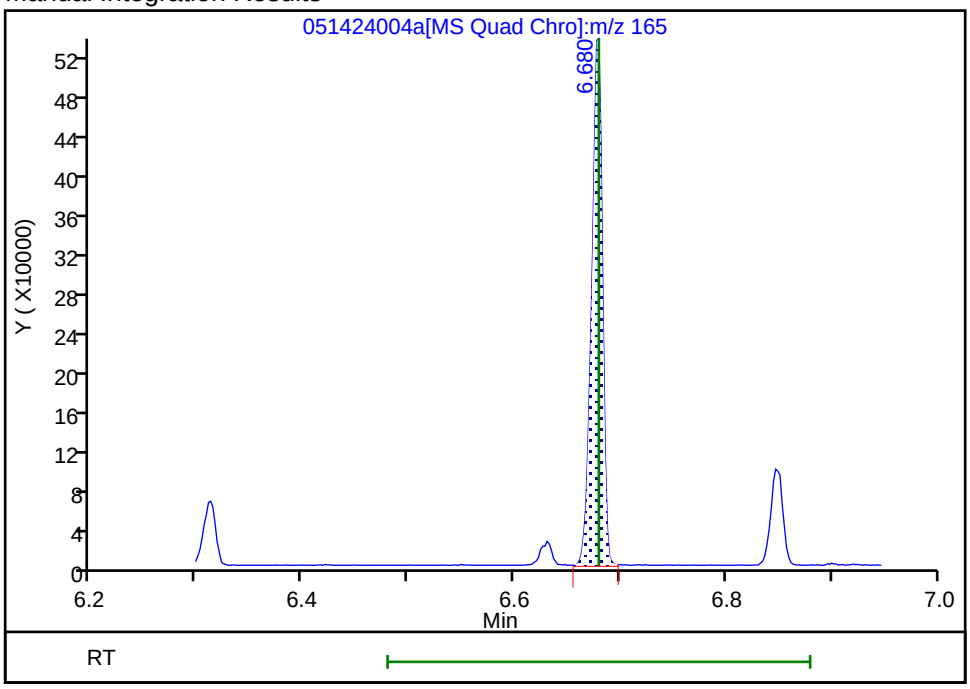
Processing Integration Results

RT: 6.55
Area: 237
Amount: 0.013230
Amount Units: ug/ml



Manual Integration Results

RT: 6.68
Area: 383354
Amount: 21.399309
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 12:27:39 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

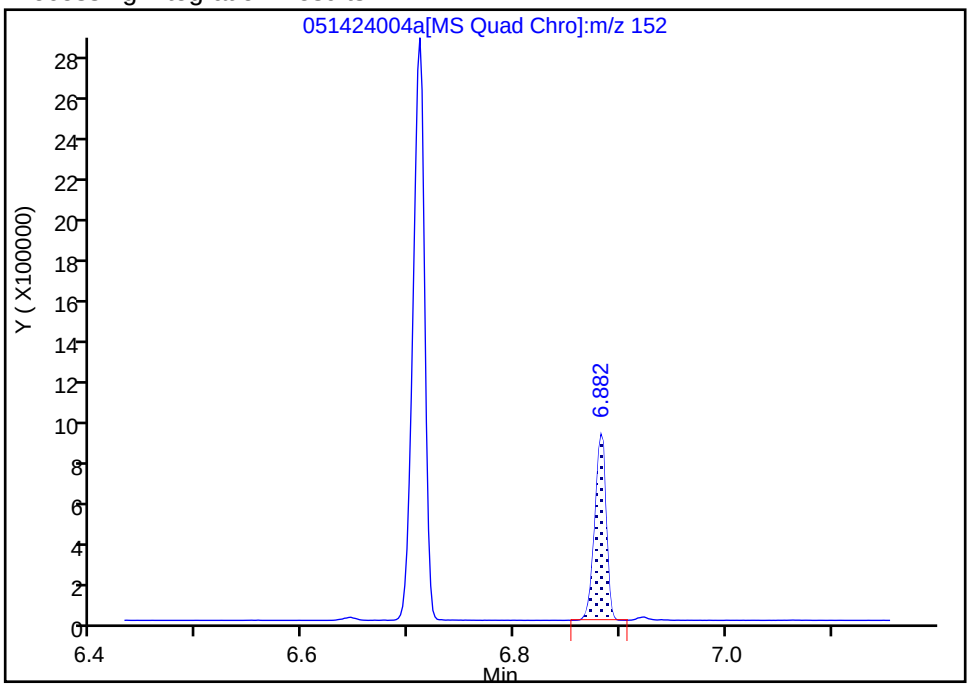
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D				
Injection Date:	14-May-2024 12:04:17	Instrument ID:	SMS_3		
Lims ID:	CCVIS HSL				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

80 Acenaphthylene, CAS: 208-96-8

Signal: 1

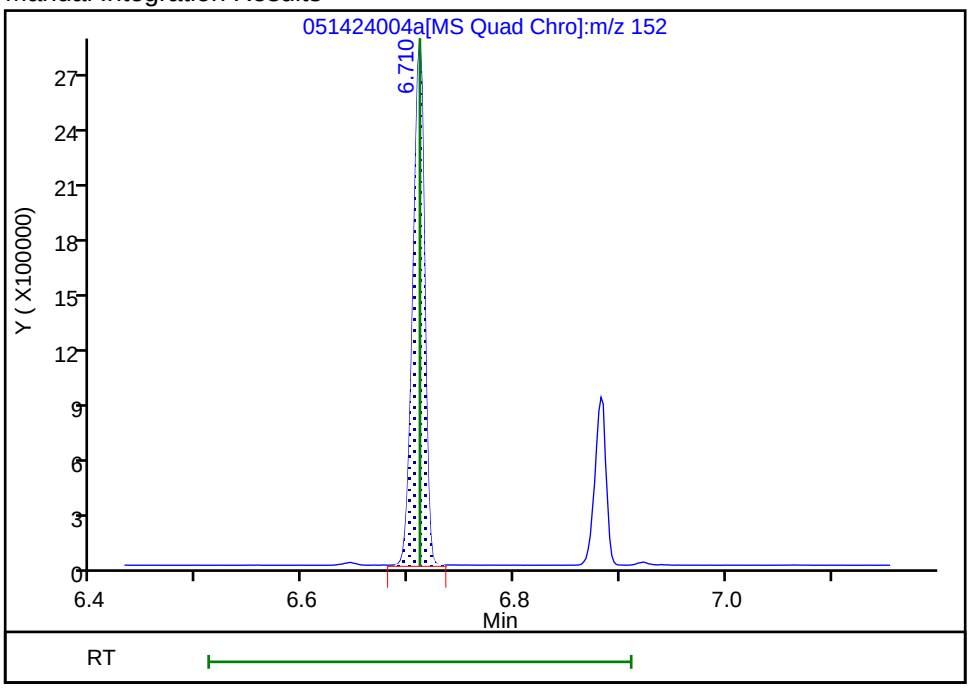
Processing Integration Results

RT: 6.88
Area: 684011
Amount: 6.607820
Amount Units: ug/ml



Manual Integration Results

RT: 6.71
Area: 2220966
Amount: 21.455420
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 12:28:06 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

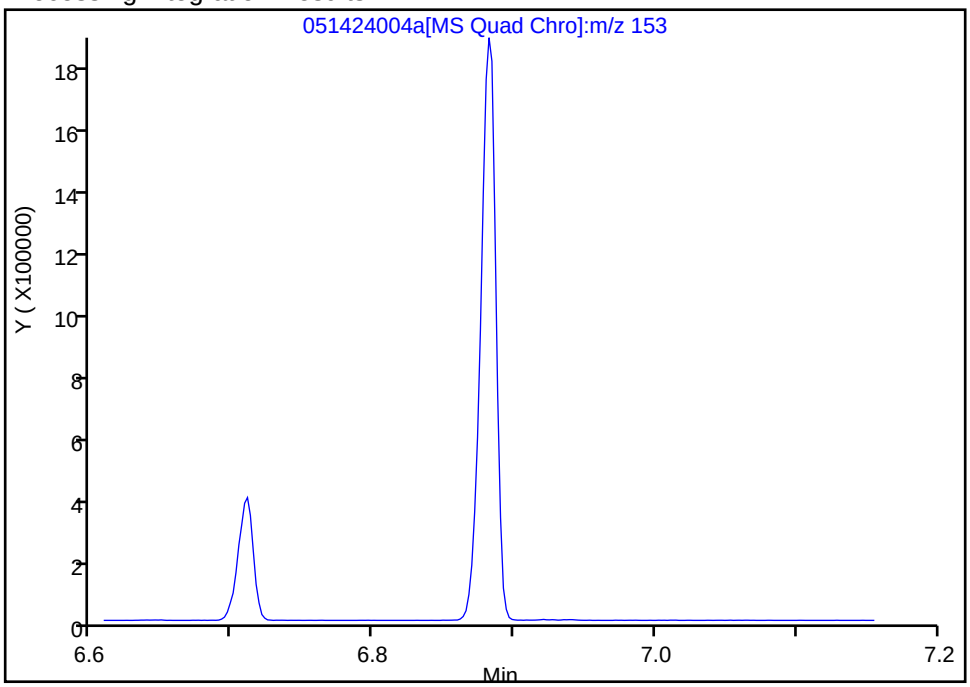
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D				
Injection Date:	14-May-2024 12:04:17	Instrument ID:	SMS_3		
Lims ID:	CCVIS HSL				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

82 Acenaphthene, CAS: 83-32-9

Signal: 1

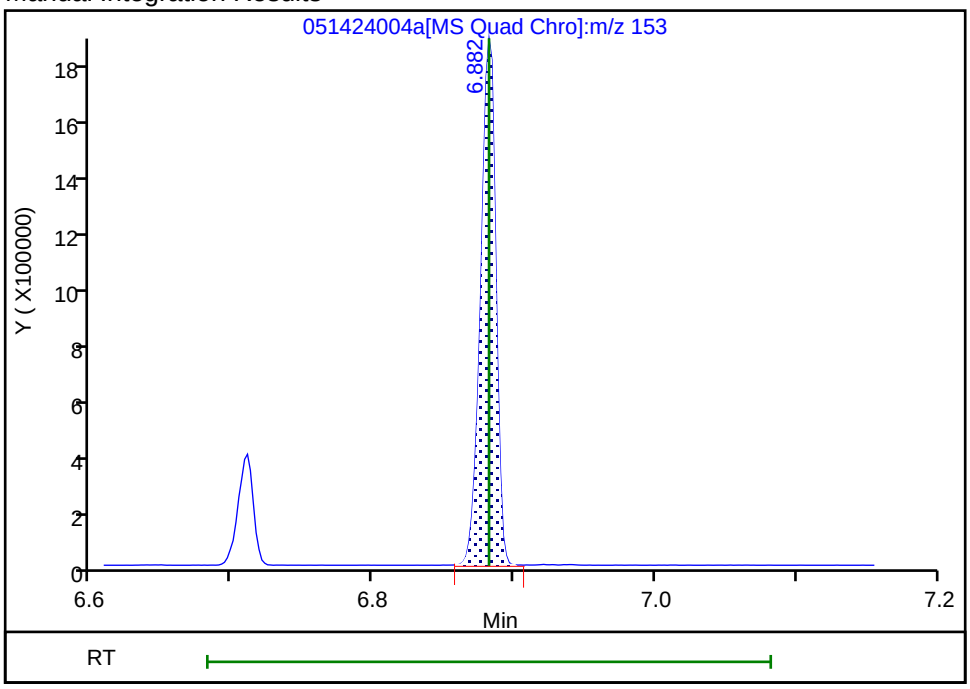
Not Detected
Expected RT: 6.88

Processing Integration Results



Manual Integration Results

RT: 6.88
Area: 1403049
Amount: 21.047286
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 12:28:01 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

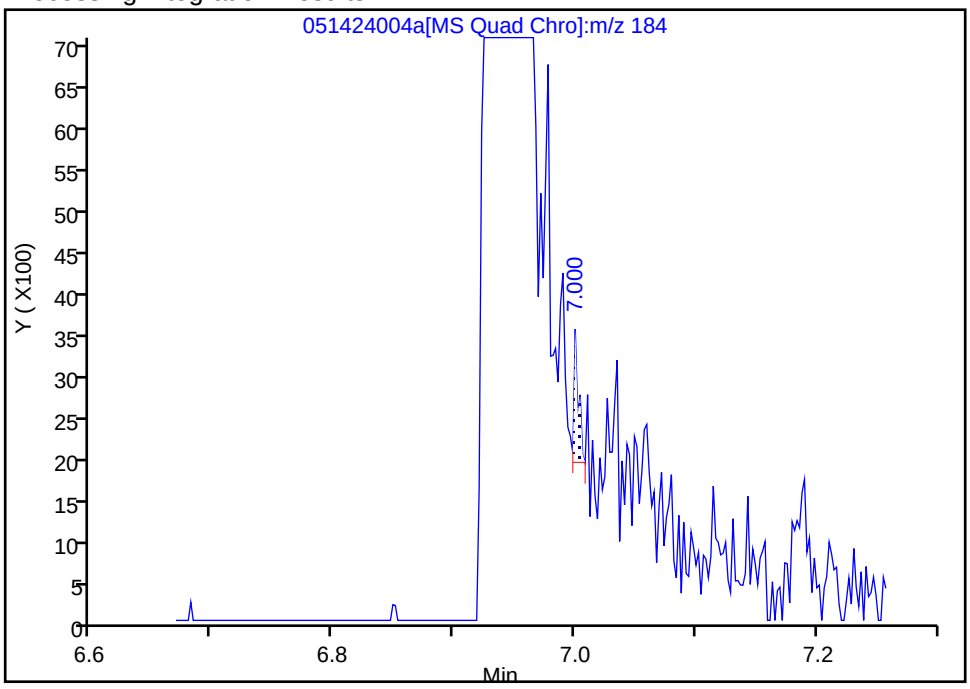
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D				
Injection Date:	14-May-2024 12:04:17	Instrument ID:	SMS_3		
Lims ID:	CCVIS HSL				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

83 2,4-Dinitrophenol, CAS: 51-28-5

Signal: 1

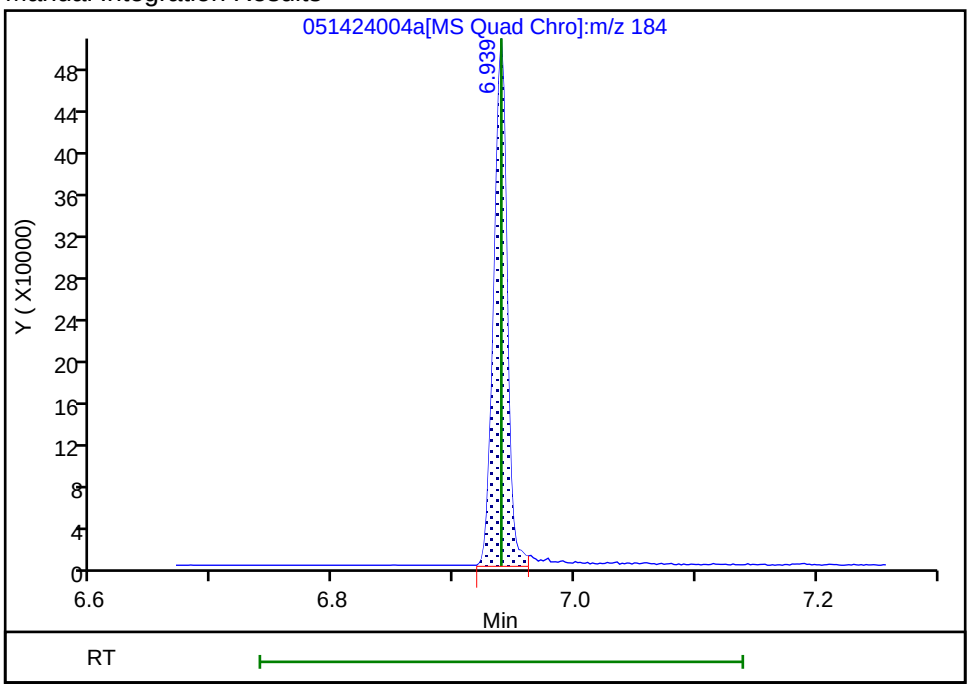
Processing Integration Results

RT: 7.00
Area: 395
Amount: 1.796564
Amount Units: ug/ml



Manual Integration Results

RT: 6.94
Area: 379391
Amount: 38.478949
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 12:28:15 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

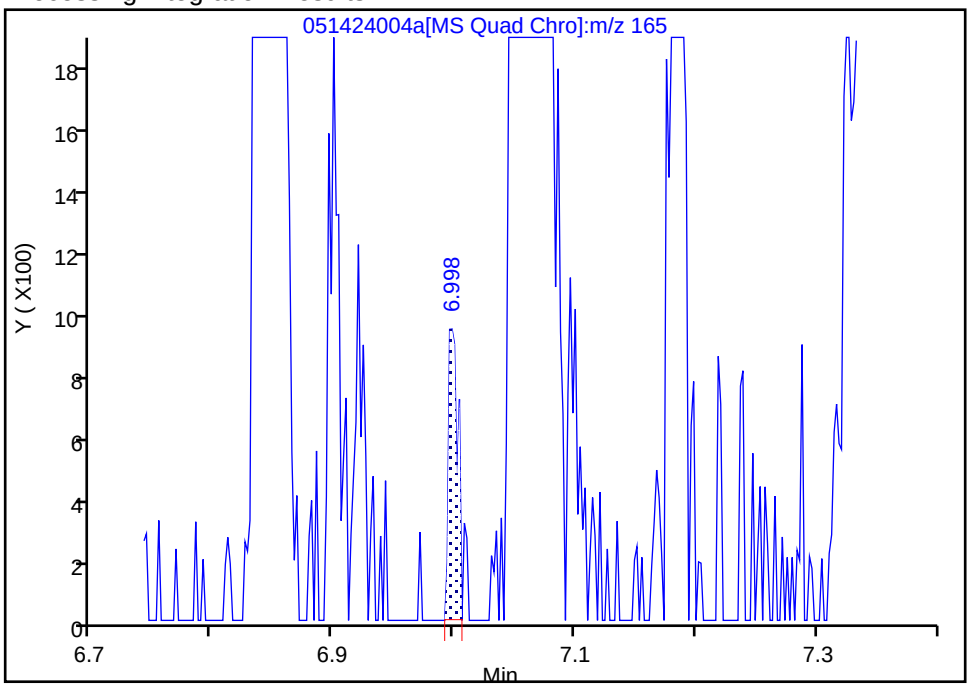
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D				
Injection Date:	14-May-2024 12:04:17	Instrument ID:	SMS_3		
Lims ID:	CCVIS HSL				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

87 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

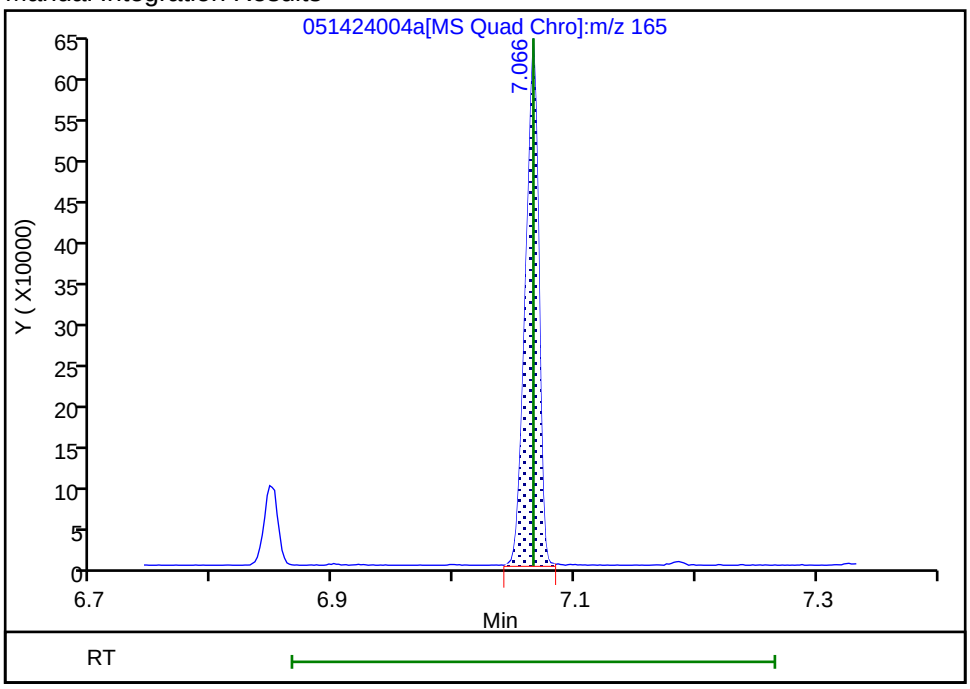
Processing Integration Results

RT: 7.00
Area: 486
Amount: 0.019879
Amount Units: ug/ml



Manual Integration Results

RT: 7.07
Area: 490940
Amount: 20.080745
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 12:28:11 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

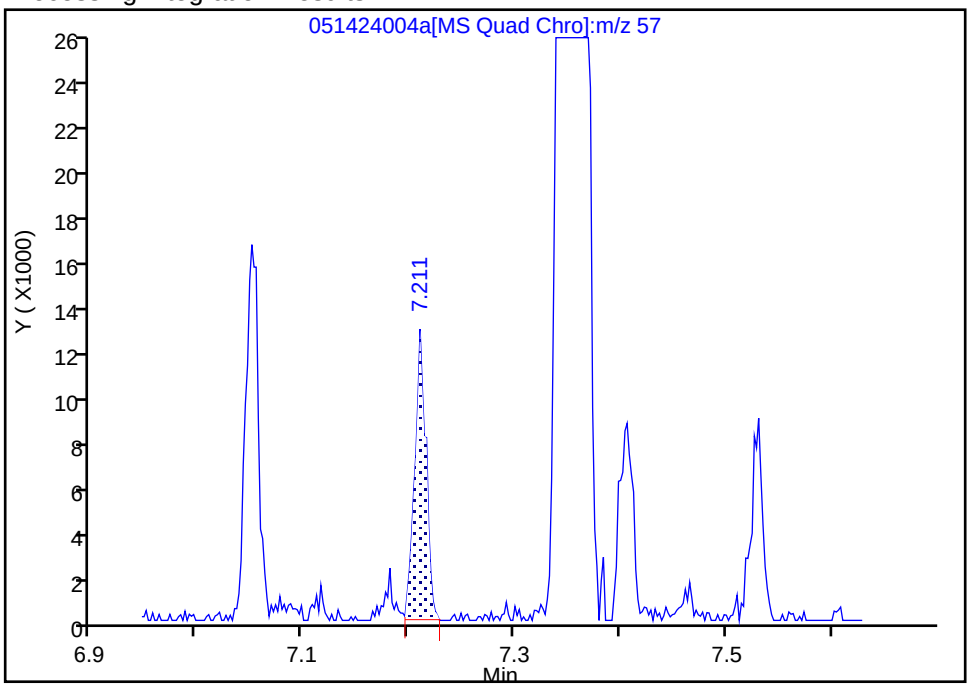
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D				
Injection Date:	14-May-2024 12:04:17	Instrument ID:	SMS_3		
Lims ID:	CCVIS HSL				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

92 Hexadecane, CAS: 544-76-3

Signal: 1

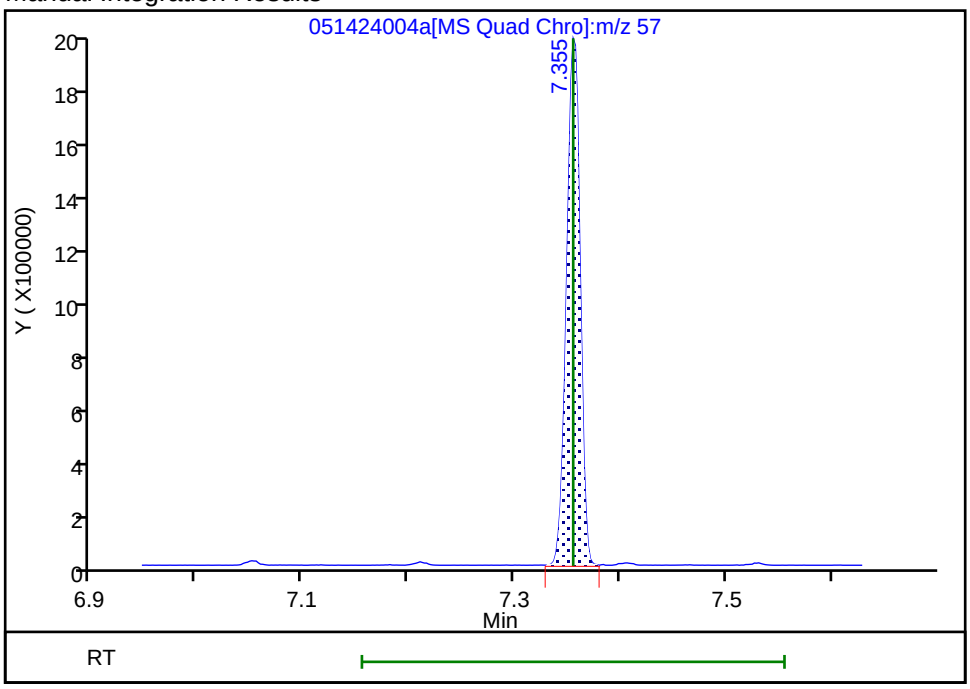
Processing Integration Results

RT: 7.21
Area: 9185
Amount: 0.129867
Amount Units: ug/ml



Manual Integration Results

RT: 7.36
Area: 1690395
Amount: 23.900537
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 12:28:23 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Eurofins Denver

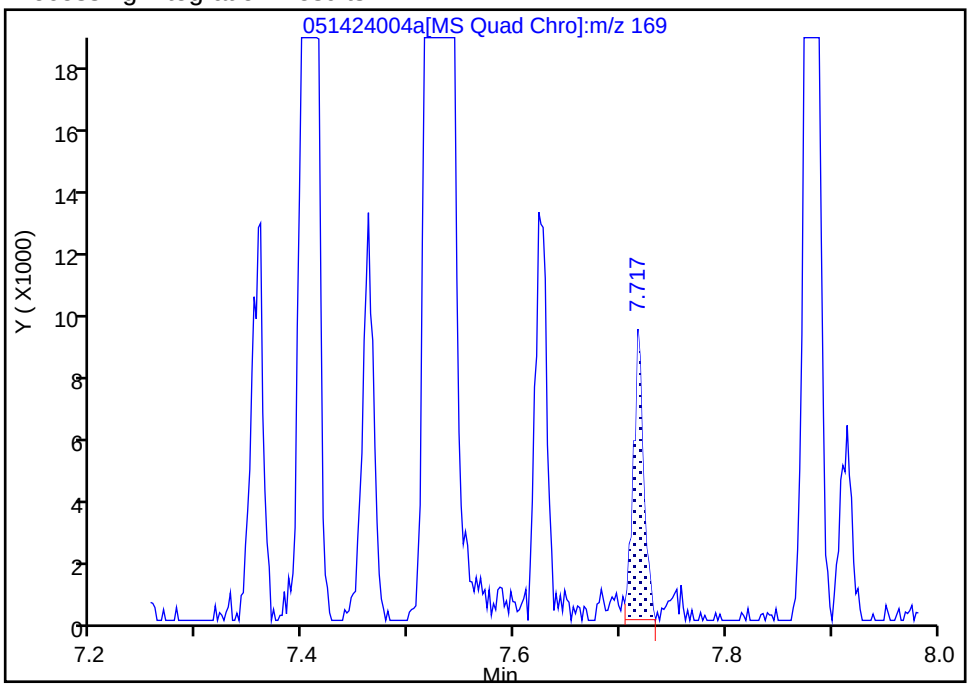
Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D
Injection Date: 14-May-2024 12:04:17 Instrument ID: SMS_3
Lims ID: CCVIS HSL
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E
Column: DB-5MS UI (0.18 mm) Detector MS Quad

99 Diphenylamine, CAS: 122-39-4

Signal: 1

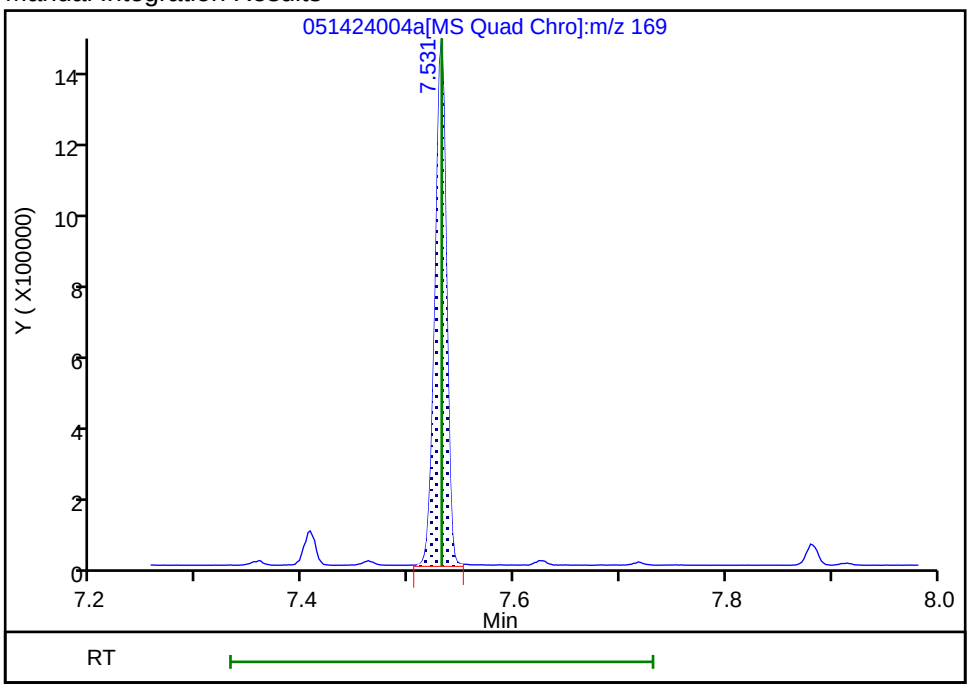
Processing Integration Results

RT: 7.72
Area: 6093
Amount: 0.098004
Amount Units: ug/ml



Manual Integration Results

RT: 7.53
Area: 1087447
Amount: 17.491231
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 12:28:40 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

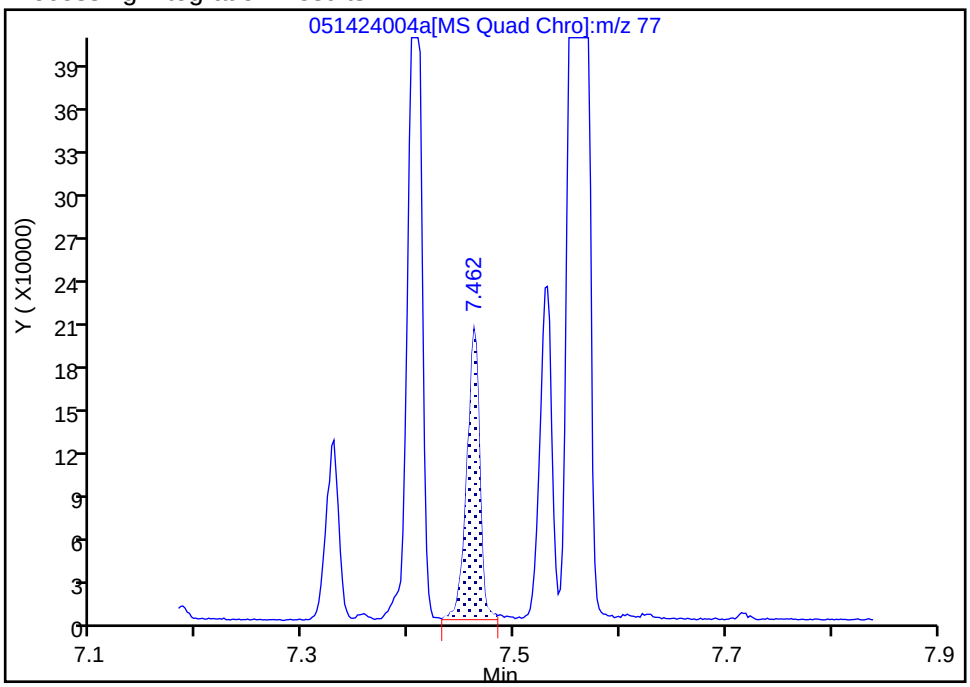
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D				
Injection Date:	14-May-2024 12:04:17	Instrument ID:	SMS_3		
Lims ID:	CCVIS HSL				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

102 1,2-Diphenylhydrazine, CAS: 122-66-7

Signal: 1

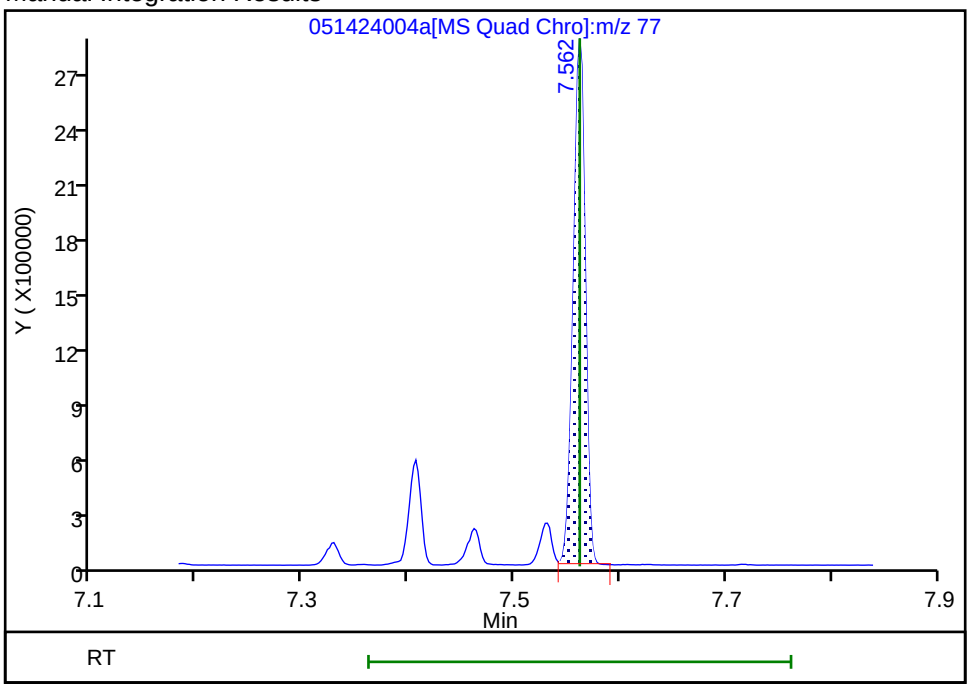
Processing Integration Results

RT: 7.46
Area: 167427
Amount: 1.724999
Amount Units: ug/ml



Manual Integration Results

RT: 7.56
Area: 2282964
Amount: 23.521353
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 12:28:32 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

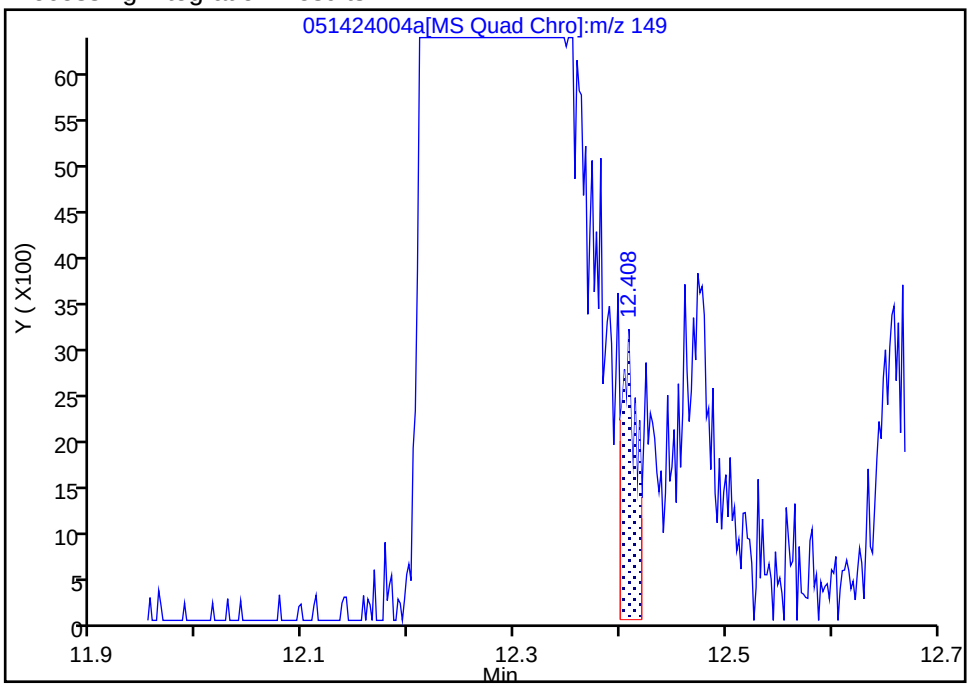
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D				
Injection Date:	14-May-2024 12:04:17	Instrument ID:	SMS_3		
Lims ID:	CCVIS HSL				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

144 Di-n-octyl phthalate, CAS: 117-84-0

Signal: 1

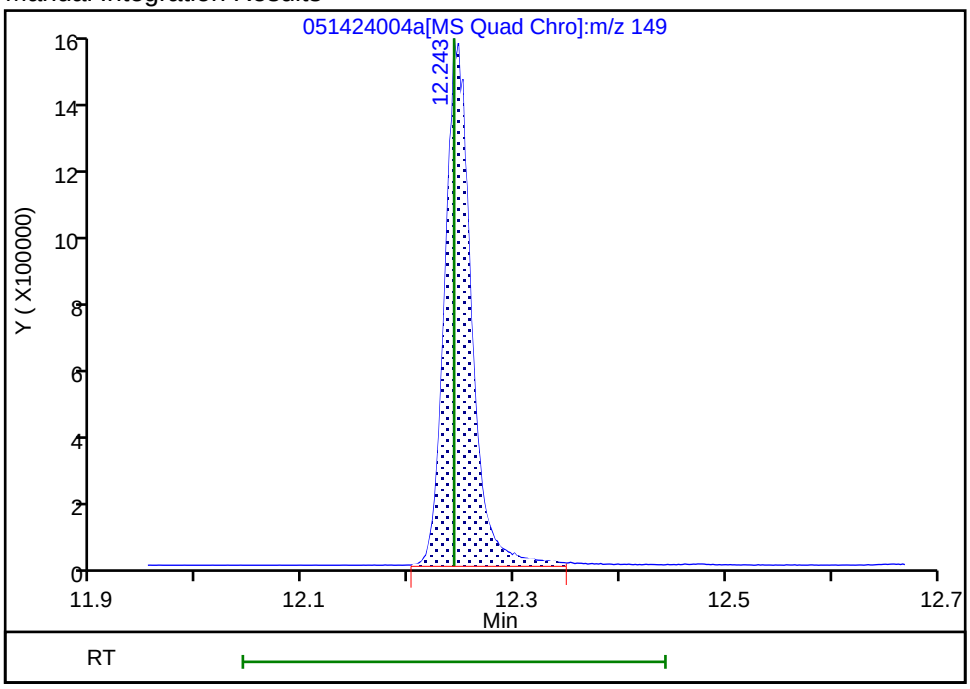
Processing Integration Results

RT: 12.41
Area: 2898
Amount: 0.524424
Amount Units: ug/ml



Manual Integration Results

RT: 12.24
Area: 2610409
Amount: 22.634436
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 12:29:01 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

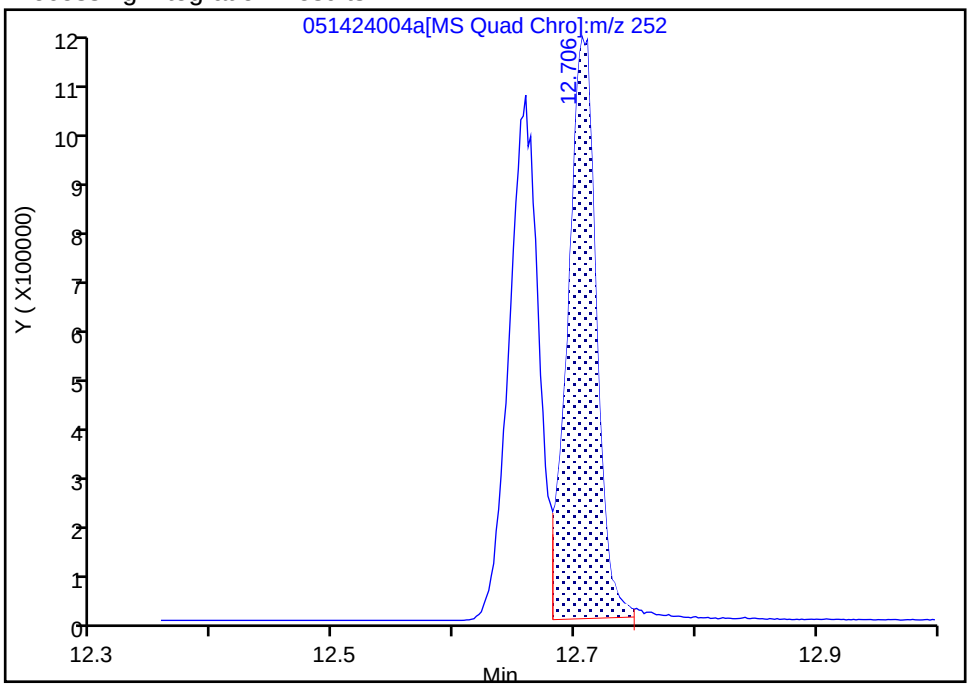
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D				
Injection Date:	14-May-2024 12:04:17	Instrument ID:	SMS_3		
Lims ID:	CCVIS HSL				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

145 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

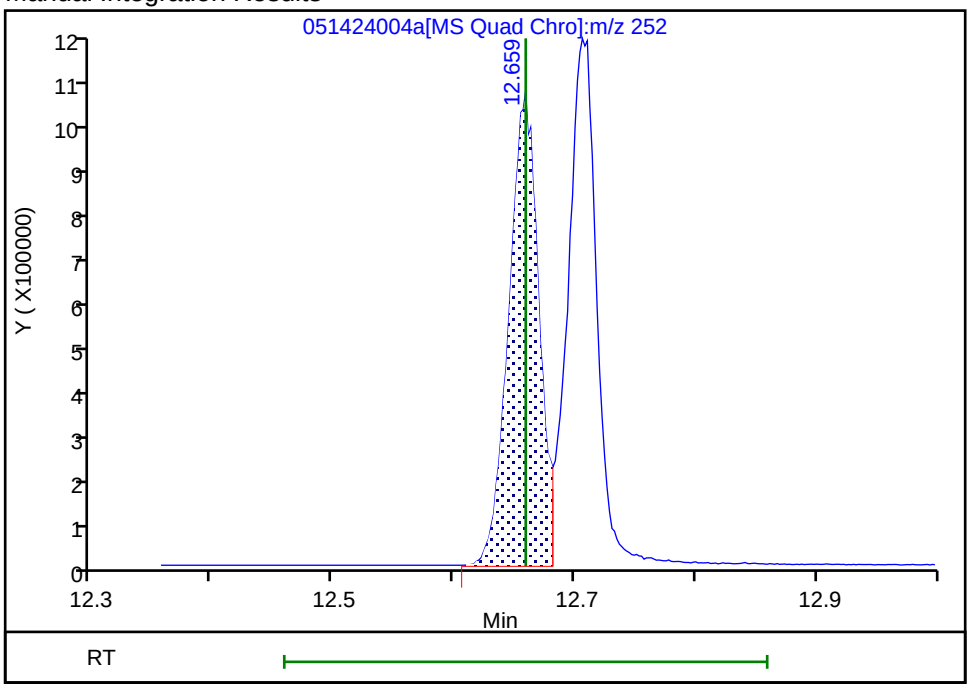
Processing Integration Results

RT: 12.71
Area: 1923886
Amount: 25.800632
Amount Units: ug/ml



Manual Integration Results

RT: 12.66
Area: 1819980
Amount: 24.220899
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 12:29:06 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

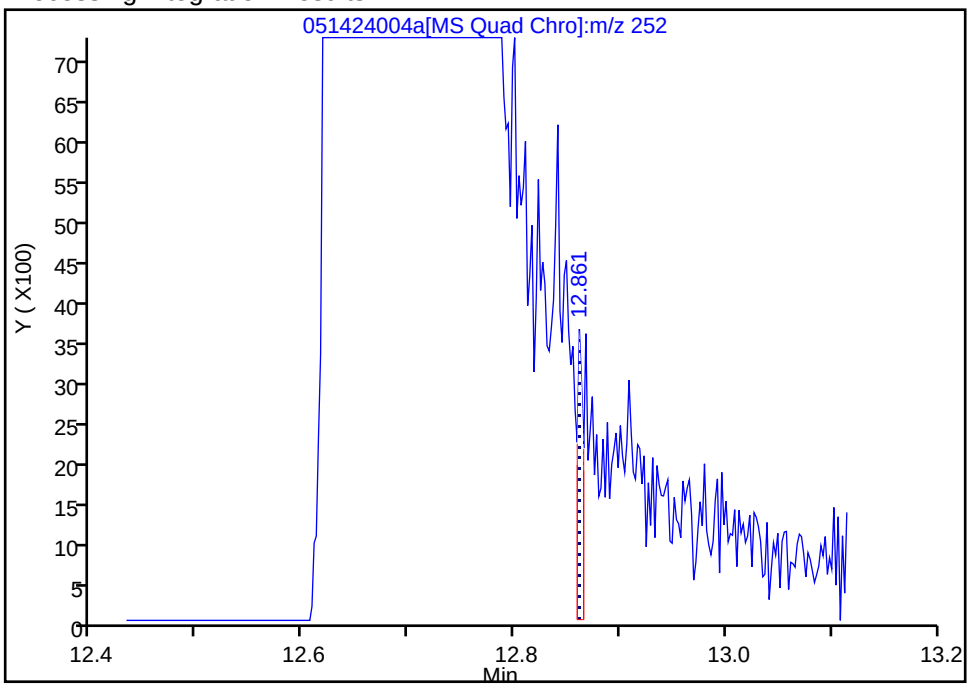
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D				
Injection Date:	14-May-2024 12:04:17	Instrument ID:	SMS_3		
Lims ID:	CCVIS HSL				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

147 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

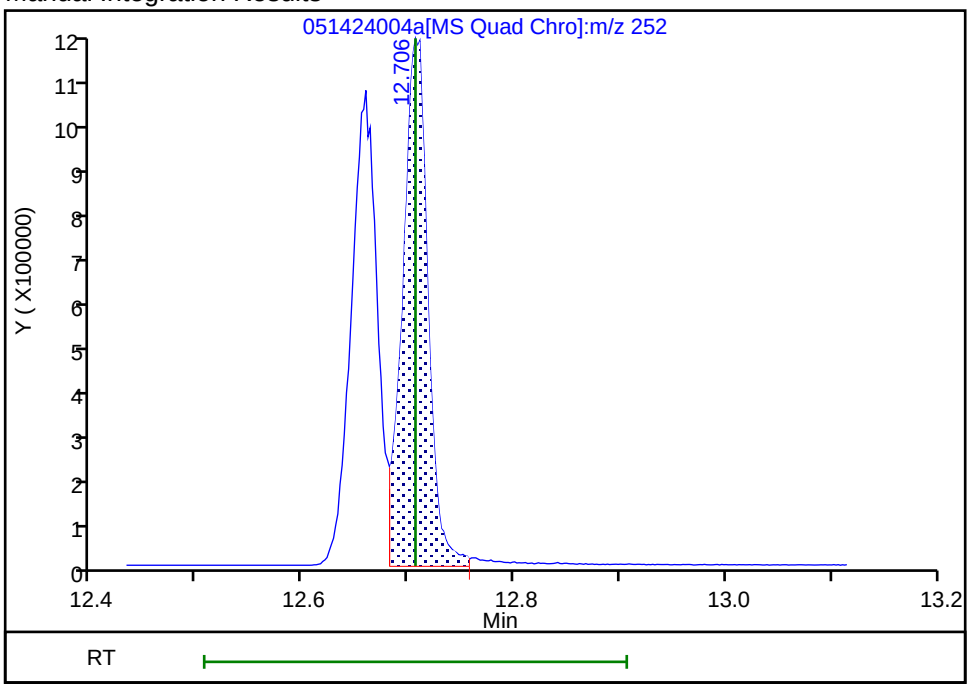
Processing Integration Results

RT: 12.86
Area: 1352
Amount: 0.017345
Amount Units: ug/ml



Manual Integration Results

RT: 12.71
Area: 1954658
Amount: 24.884811
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 12:29:18 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

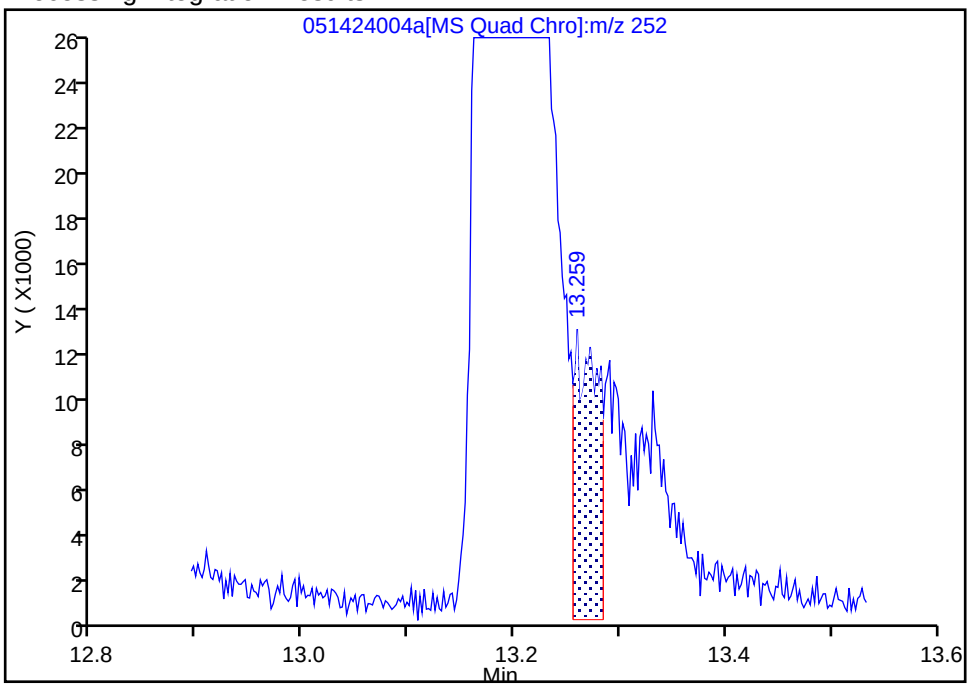
Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D
Injection Date: 14-May-2024 12:04:17 Instrument ID: SMS_3
Lims ID: CCVIS HSL
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E
Column: DB-5MS UI (0.18 mm) Detector MS Quad

148 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

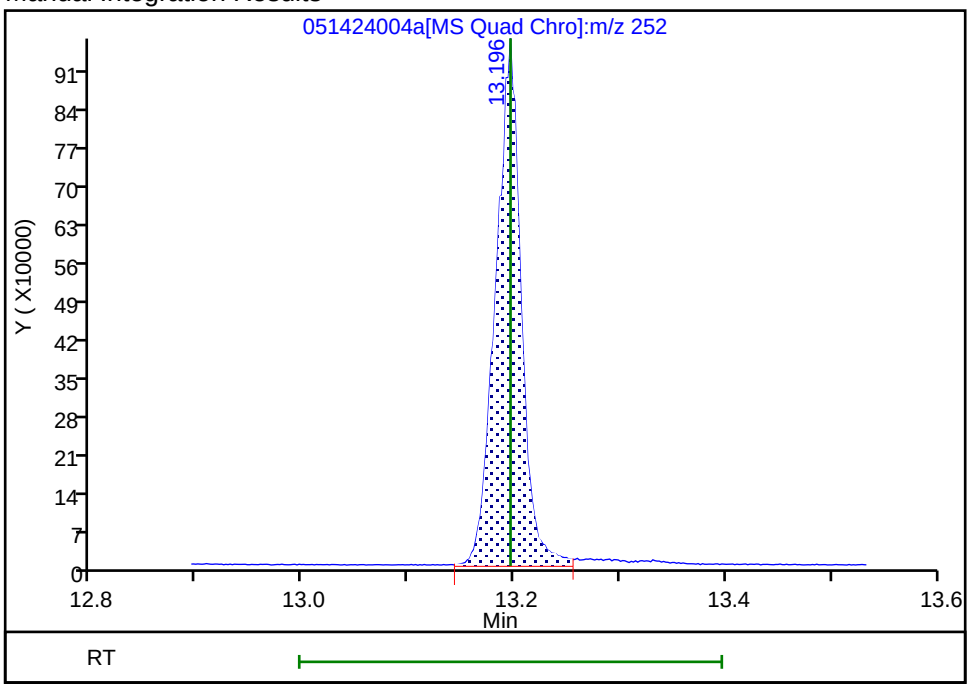
Processing Integration Results

RT: 13.26
Area: 19347
Amount: 0.280135
Amount Units: ug/ml



Manual Integration Results

RT: 13.20
Area: 1598853
Amount: 22.973892
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 12:29:24 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

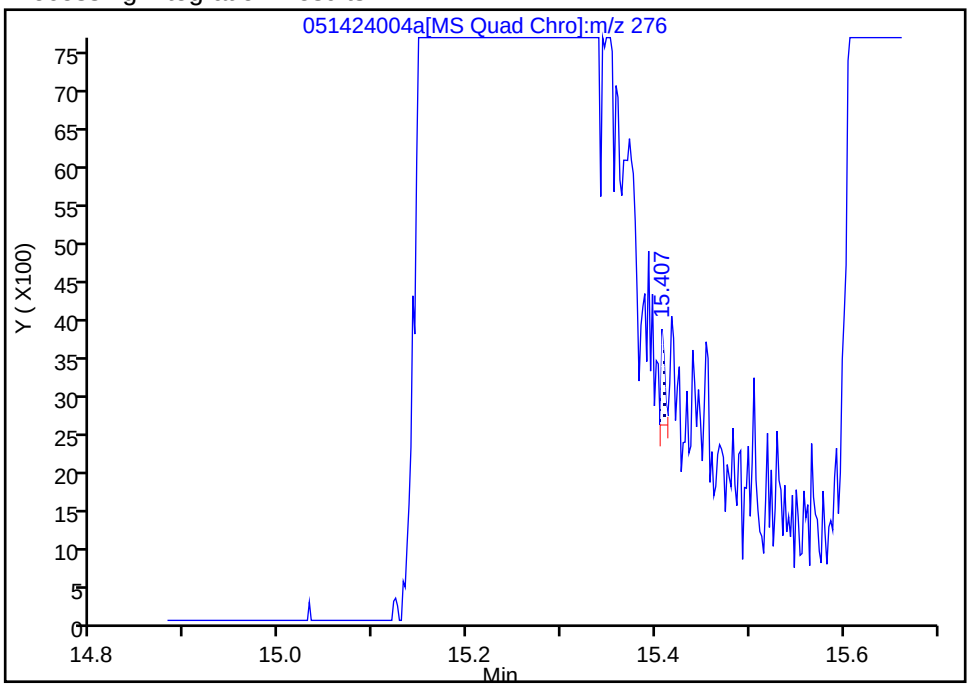
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D				
Injection Date:	14-May-2024 12:04:17	Instrument ID:	SMS_3		
Lims ID:	CCVIS HSL				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

152 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

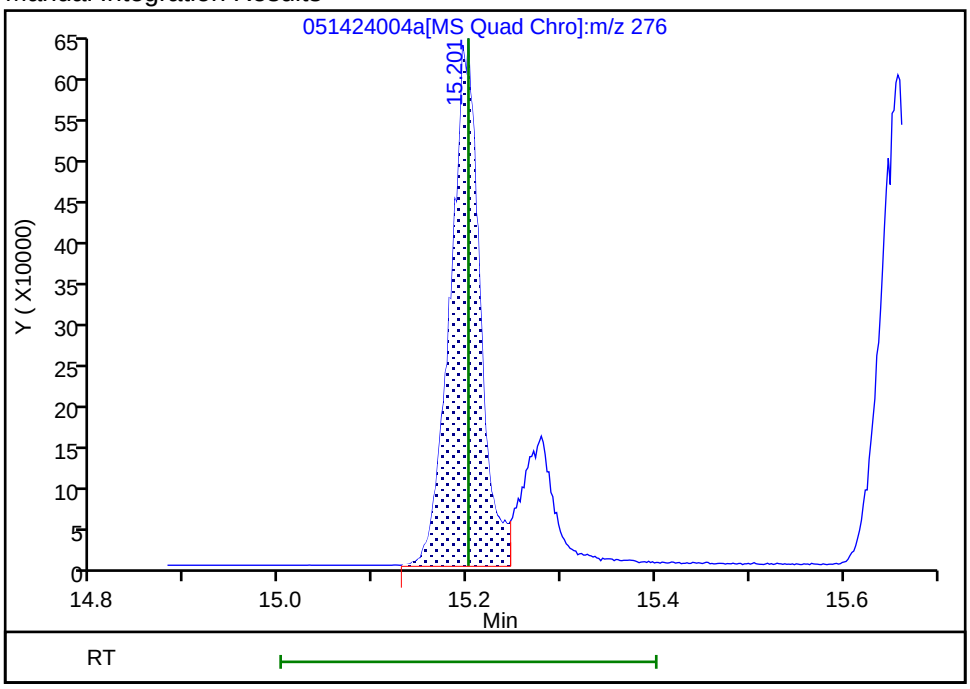
Processing Integration Results

RT: 15.41
Area: 319
Amount: 0.004824
Amount Units: ug/ml



Manual Integration Results

RT: 15.20
Area: 1398960
Amount: 20.993548
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 12:29:29 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

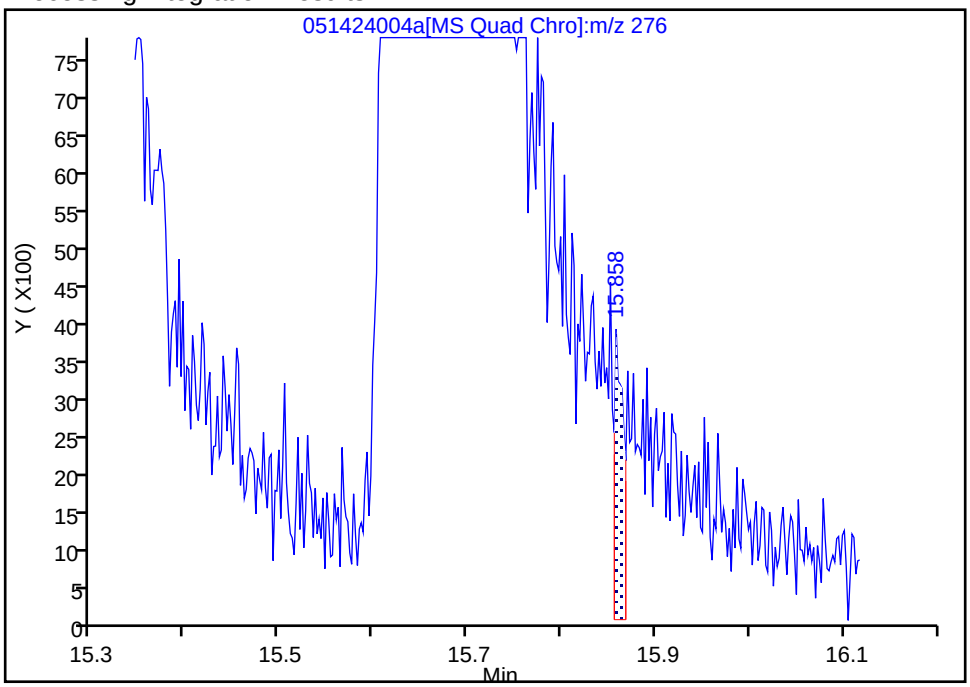
Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424004a.D
Injection Date: 14-May-2024 12:04:17 Instrument ID: SMS_3
Lims ID: CCVIS HSL
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E
Column: DB-5MS UI (0.18 mm) Detector MS Quad

154 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

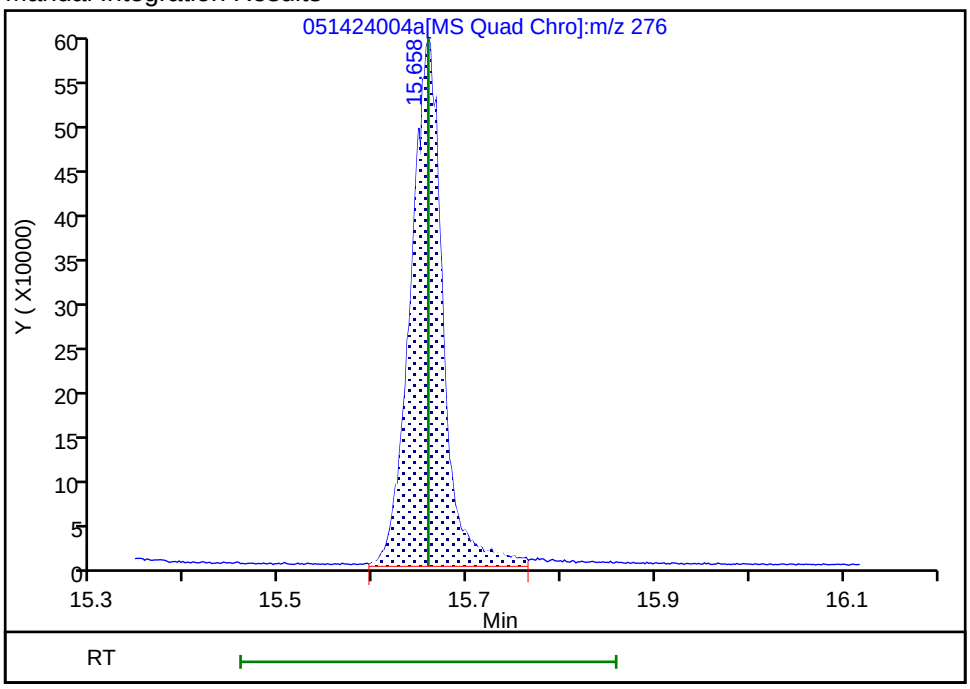
Processing Integration Results

RT: 15.86
Area: 2519
Amount: 0.039332
Amount Units: ug/ml



Manual Integration Results

RT: 15.66
Area: 1411127
Amount: 21.865484
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 12:29:36 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVC 280-653283/31 | Calibration Date: 05/14/2024 21:49

Instrument ID: SMS_3 | Calib Start Date: 04/05/2024 11:38

GC Column: DB-5MS ID: 0.25(mm) | Calib End Date: 04/05/2024 14:15

Lab File ID: SMS_3-051424030a.D | Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
N-Nitrosodimethylamine	Ave	1.253	1.366		21.8	20.0	9.0	50.0
Pyridine	Lin2		1.446		37.4	40.0	-6.4	50.0
Aniline	Ave	2.619	2.484		19.0	20.0	-5.1	50.0
Phenol	Ave	2.595	2.499	0.8000	19.3	20.0	-3.7	50.0
Bis(2-chloroethyl)ether	Ave	1.984	2.083	0.7000	21.0	20.0	5.0	50.0
2-Chlorophenol	Ave	1.662	1.805	0.8000	21.7	20.0	8.6	50.0
1,3-Dichlorobenzene	Ave	1.770	1.923		21.7	20.0	8.6	50.0
1,4-Dichlorobenzene	Ave	1.844	1.935		21.0	20.0	4.9	50.0
1,2-Dichlorobenzene	Ave	1.710	1.779		20.8	20.0	4.0	50.0
Benzyl alcohol	Ave	1.645	1.521		18.5	20.0	-7.6	50.0
Indene	Ave	2.966	3.071		41.4	40.0	3.6	50.0
2,2'-oxybis[1-chloropropane]	Ave	3.379	2.571	0.0100	15.2	20.0	-23.9	50.0
2-Methylphenol	Ave	1.577	1.636	0.7000	20.8	20.0	3.8	50.0
Acetophenone	Ave	2.478	2.472	0.0100	20.0	20.0	-0.2	50.0
N-Nitrosodi-n-propylamine	Ave	1.461	1.422	0.5000	19.5	20.0	-2.7	50.0
3 & 4 Methylphenol	Ave	1.648	1.783		21.6	20.0	8.2	50.0
3-Methylphenol	Ave	1.648	1.783		21.6	20.0	8.2	50.0
4-Methylphenol	Ave	1.648	1.783	0.6000	21.6	20.0	8.2	50.0
Hexachloroethane	Ave	0.8683	0.9475	0.3000	21.8	20.0	9.1	50.0
Nitrobenzene	Ave	0.3833	0.3770	0.2000	19.7	20.0	-1.6	50.0
Isophorone	Ave	0.6879	0.6489	0.4000	18.9	20.0	-5.7	50.0
2-Nitrophenol	Ave	0.1512	0.1656	0.1000	21.9	20.0	9.5	50.0
2,4-Dimethylphenol	Ave	0.2583	0.2577	0.2000	19.9	20.0	-0.3	50.0
Bis(2-chloroethoxy)methane	Ave	0.4261	0.4365	0.3000	20.5	20.0	2.5	50.0
2,4-Dichlorophenol	Ave	0.2335	0.2490	0.2000	21.3	20.0	6.6	50.0
Benzoic acid	Lin2		0.2558		39.0	40.0	-2.4	50.0
1,2,4-Trichlorobenzene	Ave	0.2610	0.2839		21.8	20.0	8.8	50.0
Naphthalene	Ave	0.7917	0.8319	0.7000	21.0	20.0	5.1	50.0
4-Chloroaniline	Ave	0.3355	0.3291	0.0100	19.6	20.0	-1.9	50.0
2,6-Dichlorophenol	Ave	0.2330	0.2482		21.3	20.0	6.5	50.0
Hexachlorobutadiene	Ave	0.1579	0.1719	0.0100	21.8	20.0	8.8	50.0
4-Chloro-3-methylphenol	Ave	0.2671	0.2539	0.2000	19.0	20.0	-4.9	50.0
2-Methylnaphthalene	Ave	0.4301	0.4456	0.4000	20.7	20.0	3.6	50.0
1-Methylnaphthalene	Ave	0.4680	0.4827		20.6	20.0	3.2	50.0
Hexachlorocyclopentadiene	Lin1		0.2348	0.0500	18.4	20.0	-7.8	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4753	0.5670	0.0100	23.9	20.0	19.3	50.0
2,4,6-Trichlorophenol	Ave	0.3086	0.3633	0.2000	23.5	20.0	17.7	50.0
2,4,5-Trichlorophenol	Ave	0.3268	0.3673	0.2000	22.5	20.0	12.4	50.0
1,1'-Biphenyl	Ave	1.068	1.219	0.0100	22.8	20.0	14.2	50.0
2-Chloronaphthalene	Ave	0.8836	1.004	0.8000	22.7	20.0	13.6	50.0
2-Nitroaniline	Ave	0.3187	0.3437	0.0100	21.6	20.0	7.8	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVC 280-653283/31 | Calibration Date: 05/14/2024 21:49

Instrument ID: SMS_3 | Calib Start Date: 04/05/2024 11:38

GC Column: DB-5MS ID: 0.25(mm) | Calib End Date: 04/05/2024 14:15

Lab File ID: SMS_3-051424030a.D | Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dimethyl phthalate	Ave	0.9950	1.031	0.0100	20.7	20.0	3.6	50.0
1,3-Dinitrobenzene	Lin2		0.1829		21.0	20.0	4.9	50.0
2,6-Dinitrotoluene	Ave	0.2302	0.2526	0.2000	21.9	20.0	9.7	50.0
Acenaphthylene	Ave	1.330	1.431	0.9000	21.5	20.0	7.6	50.0
3-Nitroaniline	Ave	0.4641	0.4091	0.0100	17.6	20.0	-11.8	50.0
Acenaphthene	Ave	0.8568	0.9260	0.9000	21.6	20.0	8.1	50.0
2,4-Dinitrophenol	Lin1		0.1136	0.0100	36.0	40.0	-10.0	50.0
Dibenzofuran	Ave	1.225	1.275	0.8000	20.8	20.0	4.1	50.0
4-Nitrophenol	Lin2		0.2214	0.0100	31.7	40.0	-20.8	50.0
2,4-Dinitrotoluene	Ave	0.3142	0.3180	0.2000	20.2	20.0	1.2	50.0
2,3,4,6-Tetrachlorophenol	Ave	0.2502	0.2751	0.0100	22.0	20.0	10.0	50.0
Diethyl phthalate	Ave	1.032	1.032	0.0100	20.0	20.0	0.0	50.0
Hexadecane	Ave	0.9090	0.9082		20.0	20.0	-0.0	50.0
Fluorene	Ave	0.9563	1.048	0.9000	21.9	20.0	9.6	50.0
4-Chlorophenyl phenyl ether	Ave	0.4591	0.5221	0.4000	22.7	20.0	13.7	50.0
4-Nitroaniline	Ave	0.2602	0.2507	0.0100	19.3	20.0	-3.6	50.0
4,6-Dinitro-2-methylphenol	Lin2		0.1656	0.0100	39.5	40.0	-1.3	50.0
Diphenylamine	Ave	0.7991	0.8432		17.9	17.0	5.5	50.0
N-Nitrosodiphenylamine	Ave	0.4337	0.4548	0.0100	21.0	20.0	4.9	50.0
1,2-Diphenylhydrazine	Ave	0.8145	0.8469		21.0	20.2	4.0	50.0
Azobenzene	Ave	0.8233	0.8562		20.8	20.0	4.0	50.0
4-Bromophenyl phenyl ether	Ave	0.1563	0.1784	0.1000	22.8	20.0	14.2	50.0
Hexachlorobenzene	Ave	0.1807	0.2098	0.1000	23.2	20.0	16.1	50.0
Pentachlorophenol	Lin2		0.1177	0.0500	41.6	40.0	4.0	50.0
Phenanthrene	Ave	0.7861	0.8497	0.7000	21.6	20.0	8.1	50.0
Anthracene	Ave	0.7887	0.8896	0.7000	22.6	20.0	12.8	50.0
Carbazole	Ave	0.7556	0.7901	0.0100	20.9	20.0	4.6	50.0
Di-n-butyl phthalate	Ave	0.9853	1.045	0.0100	21.2	20.0	6.1	50.0
Fluoranthene	Ave	0.8541	0.8970	0.6000	21.0	20.0	5.0	50.0
Pyrene	Ave	1.182	1.373	0.6000	23.2	20.0	16.2	50.0
Butyl benzyl phthalate	Ave	0.5566	0.6474	0.0100	23.3	20.0	16.3	50.0
Benzo[a]anthracene	Ave	1.010	1.153	0.8000	22.8	20.0	14.2	50.0
Chrysene	Ave	0.9755	1.089	0.7000	22.3	20.0	11.6	50.0
Bis(2-ethylhexyl) phthalate	Ave	0.7382	0.8953	0.0100	24.3	20.0	21.3	50.0
Di-n-octyl phthalate	Lin2		1.608	0.0100	23.6	20.0	18.0	50.0
Benzo[b]fluoranthene	Ave	0.8867	1.030	0.7000	23.2	20.0	16.2	50.0
Benzo[k]fluoranthene	Ave	0.9269	1.100	0.7000	23.7	20.0	18.7	50.0
Benzo[a]pyrene	Ave	0.8213	0.9809	0.7000	23.9	20.0	19.4	50.0
Indeno[1,2,3-cd]pyrene	Ave	0.7864	0.8668	0.5000	22.0	20.0	10.2	50.0
Dibenz(a,h)anthracene	Ave	0.7229	0.8176	0.4000	22.6	20.0	13.1	50.0
Benzo[g,h,i]perylene	Ave	0.7616	0.8571	0.5000	22.5	20.0	12.5	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVC 280-653283/31 Calibration Date: 05/14/2024 21:49

Instrument ID: SMS_3 Calib Start Date: 04/05/2024 11:38

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 04/05/2024 14:15

Lab File ID: SMS_3-051424030a.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Fluorophenol (Surr)	Ave	1.677	1.871		22.3	20.0	11.6	50.0
Phenol-d5 (Surr)	Ave	2.235	2.314		20.7	20.0	3.6	50.0
Nitrobenzene-d5 (Surr)	Ave	0.3645	0.3707		20.3	20.0	1.7	50.0
2-Fluorobiphenyl	Ave	0.9522	1.070		22.5	20.0	12.4	50.0
2,4,6-Tribromophenol (Surr)	Ave	0.0814	0.0908		22.3	20.0	11.5	50.0
Terphenyl-d14 (Surr)	Ave	0.7706	0.9251		24.0	20.0	20.0	50.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424030a.D
Lims ID: ccvc hsl
Client ID:
Sample Type: CCVC
Inject. Date: 14-May-2024 21:49:20 ALS Bottle#: 0 Worklist Smp#: 31
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: ccvc hsl
Operator ID: DM Instrument ID: SMS_3
Sublist: chrom-SMS_3 8270 RVE*sub1

Method: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 15-May-2024 10:45:44 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1641

First Level Reviewer: G3YK Date: 15-May-2024 08:56:10

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	115	3.989	3.987	0.002	96	290918	8.00	8.00	
* 2 Naphthalene-d8	136	5.157	5.155	0.002	100	1597351	8.00	8.00	
* 3 Acenaphthene-d10	164	6.849	6.849	0.000	91	812689	8.00	8.00	
* 4 Phenanthrene-d10	188	8.300	8.299	0.002	97	1316128	8.00	8.00	
* 5 Chrysene-d12	240	11.061	11.052	0.009	99	885944	8.00	8.00	
* 6 Perylene-d12	264	13.290	13.290	0.000	97	794596	8.00	8.00	
$ 7 2-Fluorophenol	112	2.913	2.911	0.002	93	1360560	20.0	22.3	
$ 8 Phenol-d5	99	3.719	3.718	0.001	0	1683210	20.0	20.7	
$ 9 Nitrobenzene-d5	82	4.495	4.495	0.000	89	1480329	20.0	20.3	
$ 10 2-Fluorobiphenyl	172	6.214	6.210	0.002	100	2174234	20.0	22.5	
$ 11 2,4,6-Tribromophenol	330	7.627	7.623	0.002	92	298792	20.0	22.3	
$ 12 Terphenyl-d14	244	9.897	9.899	0.000	98	2048909	20.0	24.0	
13 N-Nitrosodimethylamine	74	1.856	1.854	0.002	90	993699	20.0	21.8	
14 Pyridine	79	1.876	1.927	0.002	97	2103767	40.0	37.4	
23 Aniline	93	3.709	3.707	0.002	96	1806852	20.0	19.0	
22 Phenol	94	3.730	3.728	0.000	97	1817628	20.0	19.3	
25 Bis(2-chloroethyl)ether	93	3.775	3.773	0.002	95	1514675	20.0	21.0	
26 2-Chlorophenol	128	3.815	3.814	0.001	96	1312700	20.0	21.7	
27 n-Decane	43	3.862	3.863	0.000	83	1234852	20.0	14.9	
28 1,3-Dichlorobenzene	146	3.936	3.936	0.000	96	1398518	20.0	21.7	
29 1,4-Dichlorobenzene	146	4.003	4.003	0.000	92	1407081	20.0	21.0	
31 1,2-Dichlorobenzene	146	4.134	4.134	0.000	96	1293852	20.0	20.8	
30 Benzyl alcohol	79	4.136	4.136	0.000	92	1106342	20.0	18.5	
32 Indene	116	4.218	4.218	0.000	92	4467576	40.0	41.4	
34 2,2'-oxybis[1-chloropropane]	45	4.246	4.246	0.000	97	1870182	20.0	15.2	
33 2-Methylphenol	108	4.256	4.257	0.000	96	1190115	20.0	20.8	
36 Acetophenone	105	4.362	4.363	-0.001	97	1797974	20.0	20.0	
37 N-Nitrosodi-n-propylamine	70	4.377	4.377	0.000	80	1034281	20.0	19.5	
38 3-Methylphenol	108	4.403	4.405	0.002	91	1296657	20.0	21.6	
39 3 & 4 Methylphenol	108	4.403	4.405	0.002	0	1296657	20.0	21.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
41 4-Methylphenol	108	4.403	4.405	0.002	93	1296657	20.0	21.6	
43 Hexachloroethane	117	4.438	4.438	0.000	97	689145	20.0	21.8	
44 Nitrobenzene	77	4.514	4.514	0.000	87	1505637	20.0	19.7	
46 Isophorone	82	4.742	4.742	0.000	98	2591402	20.0	18.9	
47 2-Nitrophenol	139	4.808	4.808	0.000	97	661206	20.0	21.9	
48 2,4-Dimethylphenol	107	4.885	4.883	0.002	97	1028977	20.0	19.9	
51 Bis(2-chloroethoxy)methane	93	4.963	4.963	0.000	97	1743127	20.0	20.5	
52 2,4-Dichlorophenol	162	5.048	5.049	-0.001	96	994209	20.0	21.3	
49 Benzoic acid	105	5.067	5.018	0.004	88	2043308	40.0	39.0	Ma
53 1,2,4-Trichlorobenzene	180	5.110	5.108	0.002	93	1133603	20.0	21.8	
54 Naphthalene	128	5.179	5.177	0.002	98	3322202	20.0	21.0	
55 4-Chloroaniline	127	5.253	5.251	0.002	95	1314246	20.0	19.6	
56 2,6-Dichlorophenol	162	5.255	5.255	0.000	94	991132	20.0	21.3	
57 Hexachlorobutadiene	225	5.304	5.304	0.000	96	686297	20.0	21.8	
61 4-Chloro-3-methylphenol	107	5.749	5.749	0.000	96	1014095	20.0	19.0	
63 2-Methylnaphthalene	141	5.843	5.845	-0.002	96	1779603	20.0	20.7	
64 1-Methylnaphthalene	142	5.936	5.937	-0.001	93	1927716	20.0	20.6	
65 Hexachlorocyclopentadiene	237	5.996	5.994	0.000	96	476968	20.0	18.4	
66 1,2,4,5-Tetrachlorobenzene	216	6.004	6.004	0.000	98	1151985	20.0	23.9	
68 2,4,6-Trichlorophenol	196	6.132	6.132	-0.001	94	738109	20.0	23.5	a
69 2,4,5-Trichlorophenol	196	6.175	6.175	0.002	93	746205	20.0	22.5	a
71 1,1'-Biphenyl	154	6.306	6.302	0.002	96	2477613	20.0	22.8	
72 2-Chloronaphthalene	162	6.314	6.308	0.004	97	2040039	20.0	22.7	
74 2-Nitroaniline	138	6.433	6.431	0.000	79	698347	20.0	21.6	
77 Dimethyl phthalate	163	6.631	6.629	0.000	97	2094369	20.0	20.7	
78 1,3-Dinitrobenzene	168	6.647	6.643	0.002	88	371644	20.0	21.0	
79 2,6-Dinitrotoluene	165	6.680	6.680	0.000	93	513171	20.0	21.9	a
80 Acenaphthylene	152	6.710	6.708	0.000	99	2907998	20.0	21.5	
81 3-Nitroaniline	65	6.839	6.837	0.000	91	831249	20.0	17.6	
82 Acenaphthene	153	6.882	6.880	0.000	95	1881311	20.0	21.6	
83 2,4-Dinitrophenol	184	6.939	6.939	0.000	84	461738	40.0	36.0	a
86 Dibenzofuran	168	7.053	7.051	0.000	97	2589481	20.0	20.8	
85 4-Nitrophenol	65	7.061	7.057	0.002	86	899491	40.0	31.7	
87 2,4-Dinitrotoluene	165	7.065	7.064	-0.001	93	645988	20.0	20.2	
89 2,3,4,6-Tetrachlorophenol	232	7.186	7.184	0.000	74	558891	20.0	22.0	
91 Diethyl phthalate	149	7.329	7.319	0.000	97	2096519	20.0	20.0	
92 Hexadecane	57	7.357	7.353	0.002	87	1845205	20.0	20.0	
93 Fluorene	166	7.388	7.386	0.000	95	2129633	20.0	21.9	
95 4-Chlorophenyl phenyl ether	204	7.406	7.404	0.000	93	1060853	20.0	22.7	
97 4-Nitroaniline	138	7.443	7.441	0.000	82	509408	20.0	19.3	
98 4,6-Dinitro-2-methylphenol	198	7.463	7.462	-0.001	83	673100	40.0	39.5	
99 Diphenylamine	169	7.531	7.529	0.000	95	1456201	17.0	17.9	
100 N-Nitrosodiphenylamine	168	7.531	7.529	0.000	75	924117	20.0	21.0	
102 1,2-Diphenylhydrazine	77	7.561	7.561	-0.001	42	2817259	20.2	21.0	a
101 Azobenzene	77	7.561	7.561	-0.001	97	2817259	20.0	20.8	a
108 4-Bromophenyl phenyl ether	248	7.882	7.882	-0.002	68	587105	20.0	22.8	
110 Hexachlorobenzene	284	7.915	7.913	0.000	94	690309	20.0	23.2	
113 Pentachlorophenol	266	8.129	8.125	0.002	91	774699	40.0	41.6	
156 n-Octadecane	57	8.270	8.266	0.002	90	1819055	20.0	20.4	
117 Phenanthrene	178	8.325	8.321	0.002	98	2795650	20.0	21.6	
120 Anthracene	178	8.374	8.372	0.000	98	2927059	20.0	22.6	
121 Carbazole	167	8.554	8.550	0.002	96	2599761	20.0	20.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
122 Alachlor	45	8.705	8.705	-0.002	98	801123	20.0	15.5	
124 Di-n-butyl phthalate	149	8.939	8.940	-0.001	100	3439888	20.0	21.2	
127 Fluoranthene	202	9.489	9.487	0.000	98	2951412	20.0	21.0	
129 Pyrene	202	9.707	9.709	0.000	96	3042044	20.0	23.2	
136 Butyl benzyl phthalate	149	10.450	10.452	0.000	97	1433947	20.0	23.3	
138 Benzo[a]anthracene	228	11.050	11.049	0.004	99	2554784	20.0	22.8	
141 Chrysene	228	11.097	11.100	0.000	98	2411798	20.0	22.3	
142 Bis(2-ethylhexyl) phthalate	149	11.220	11.214	-0.002	98	1982912	20.0	24.3	
144 Di-n-octyl phthalate	149	12.247	12.245	0.004	99	3194276	20.0	23.6	
145 Benzo[b]fluoranthene	252	12.661	12.657	0.002	98	2046614	20.0	23.2	
147 Benzo[k]fluoranthene	252	12.710	12.702	0.004	99	2185099	20.0	23.7	
148 Benzo[a]pyrene	252	13.194	13.192	-0.002	78	1948462	20.0	23.9	
152 Indeno[1,2,3-cd]pyrene	276	15.203	15.203	0.002	98	1721962	20.0	22.0	a
153 Dibenz(a,h)anthracene	278	15.278	15.274	0.000	96	1624123	20.0	22.6	a
154 Benzo[g,h,i]perylene	276	15.658	15.653	0.000	97	1702608	20.0	22.5	
209 1,4-Dioxane	88		0.000				ND	ND	
S 168 Methyl Phenols,Total	108				0			42.4	
S 170 TPAH	1				0			357.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-RVHSL-WS_00006	Amount Added: 200.00	Units: uL	
MS-IS-RVE_00005	Amount Added: 30.00	Units: uL	Run Reagent

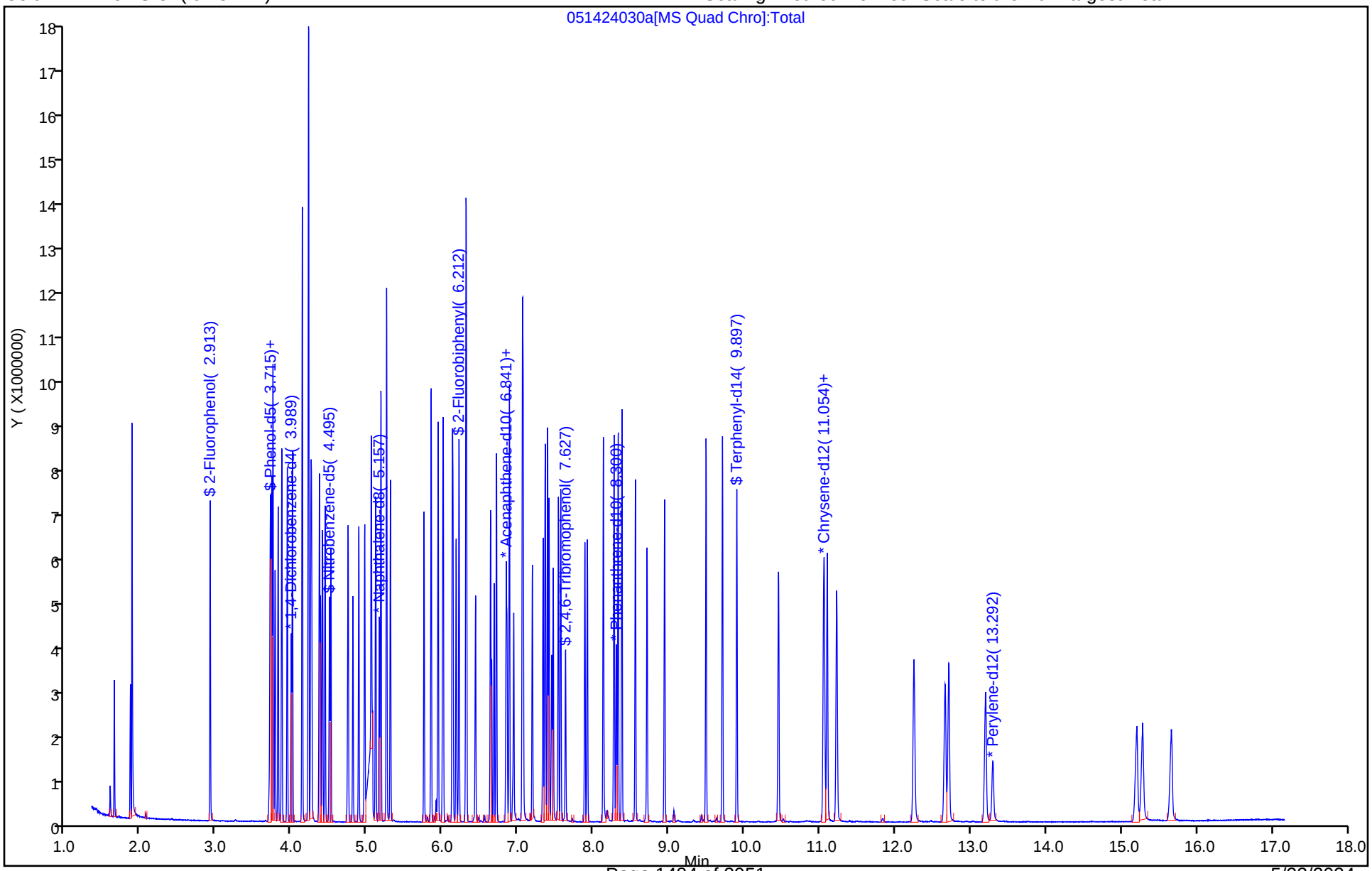
Report Date: 15-May-2024 10:45:44 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424030a.D

Injection Date:	14-May-2024 21:49:20	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	ccvc hsl			Worklist Smp#:	31
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

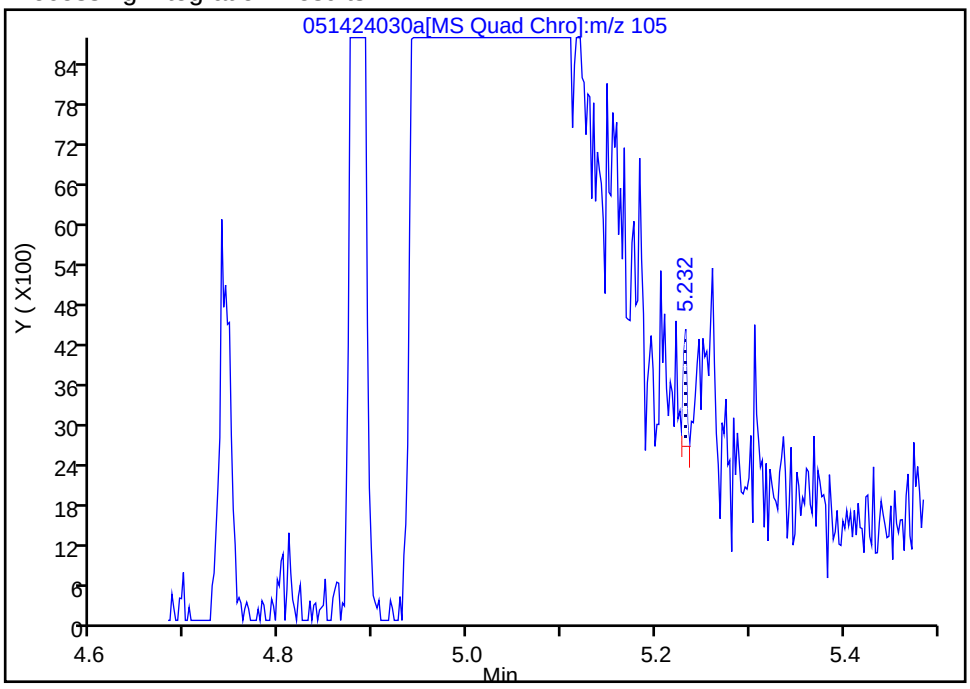
Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424030a.D
Injection Date: 14-May-2024 21:49:20 Instrument ID: SMS_3
Lims ID: ccvc hsl
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 31
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E
Column: DB-5MS UI (0.18 mm) Detector MS Quad

49 Benzoic acid, CAS: 65-85-0

Signal: 1

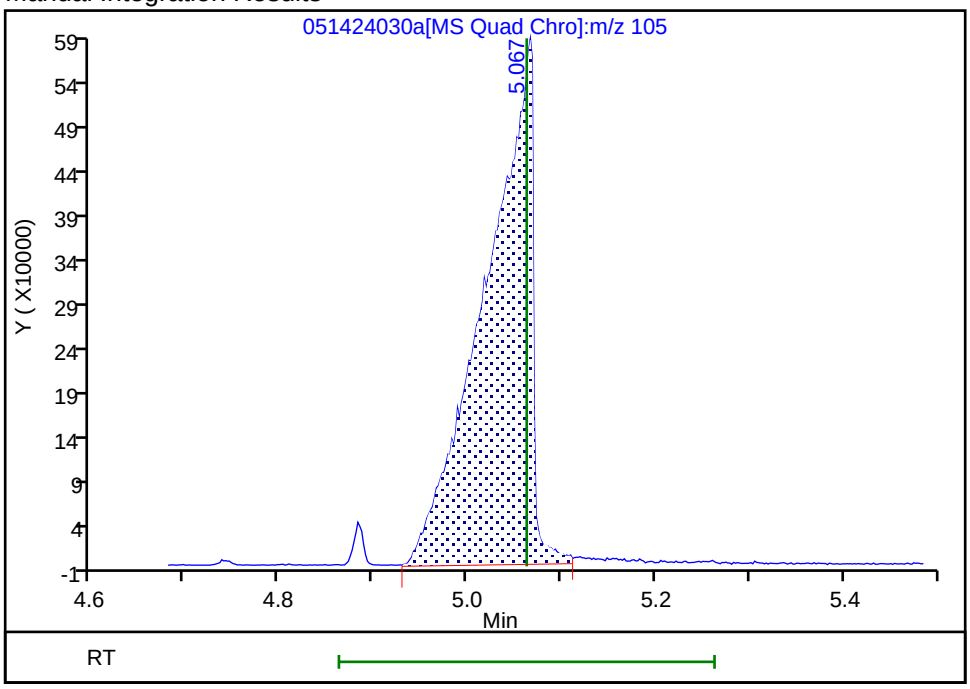
Processing Integration Results

RT: 5.23
Area: 453
Amount: 1.276706
Amount Units: ug/ml



Manual Integration Results

RT: 5.07
Area: 2043308
Amount: 39.022276
Amount Units: ug/ml



Reviewer: G3YK, 15-May-2024 08:50:19 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

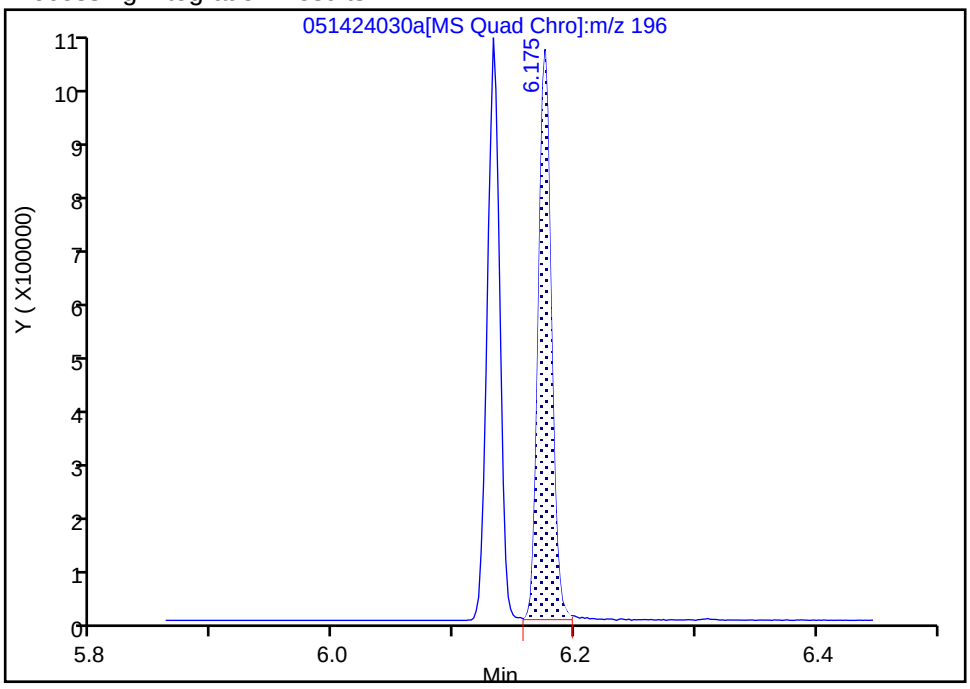
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424030a.D				
Injection Date:	14-May-2024 21:49:20	Instrument ID:	SMS_3		
Lims ID:	ccvc hsl				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	31
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

68 2,4,6-Trichlorophenol, CAS: 88-06-2

Signal: 1

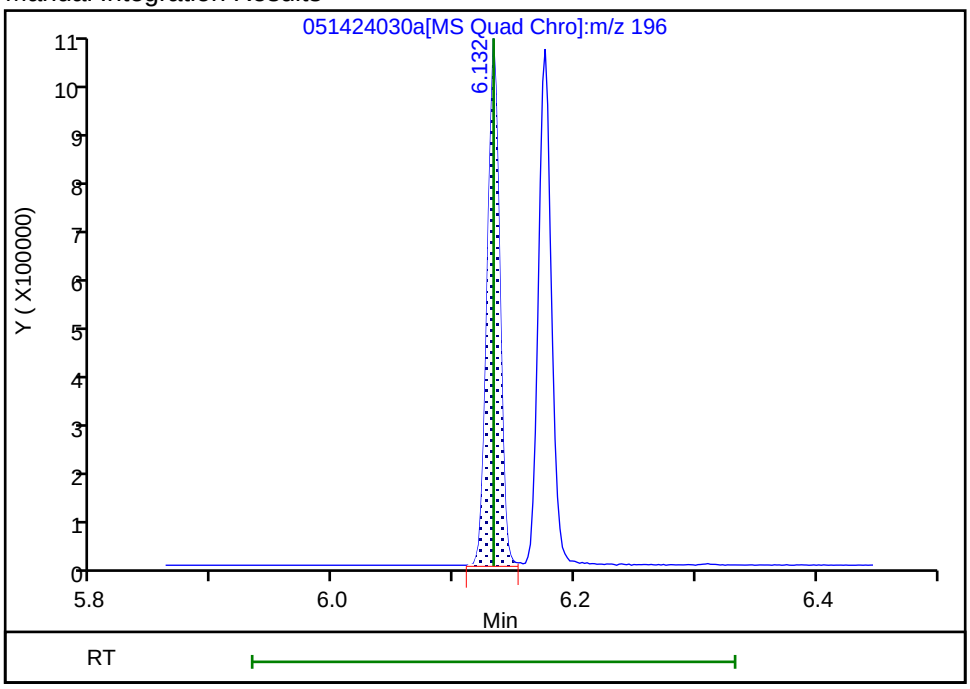
Processing Integration Results

RT: 6.18
Area: 746205
Amount: 23.804806
Amount Units: ug/ml



Manual Integration Results

RT: 6.13
Area: 738109
Amount: 23.546534
Amount Units: ug/ml



Reviewer: G3YK, 15-May-2024 08:50:37 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

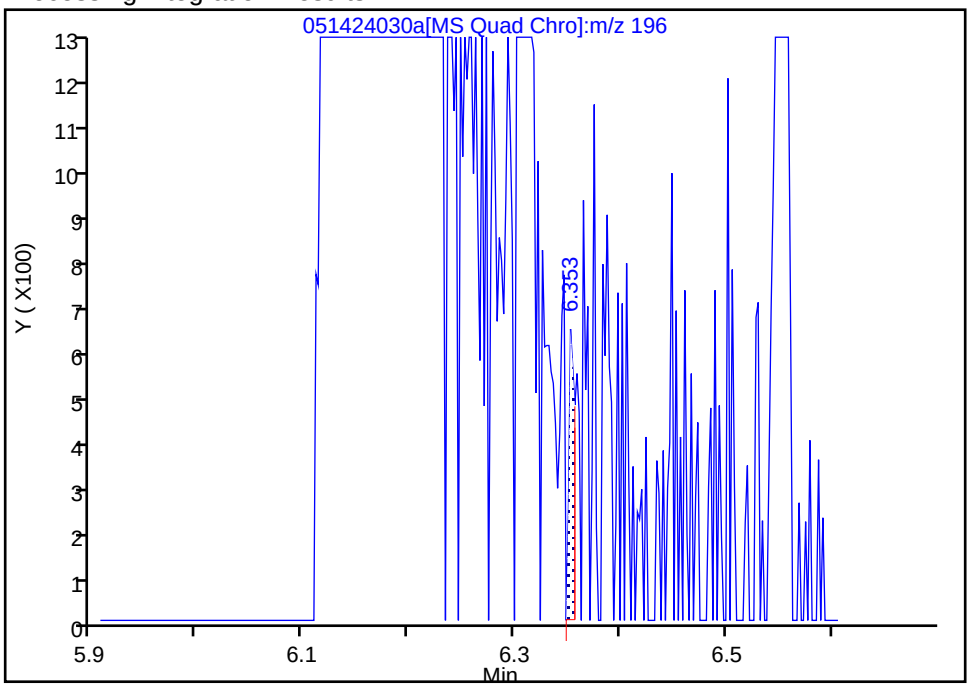
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424030a.D				
Injection Date:	14-May-2024 21:49:20	Instrument ID:	SMS_3		
Lims ID:	ccvc hsl				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	31
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

69 2,4,5-Trichlorophenol, CAS: 95-95-4

Signal: 1

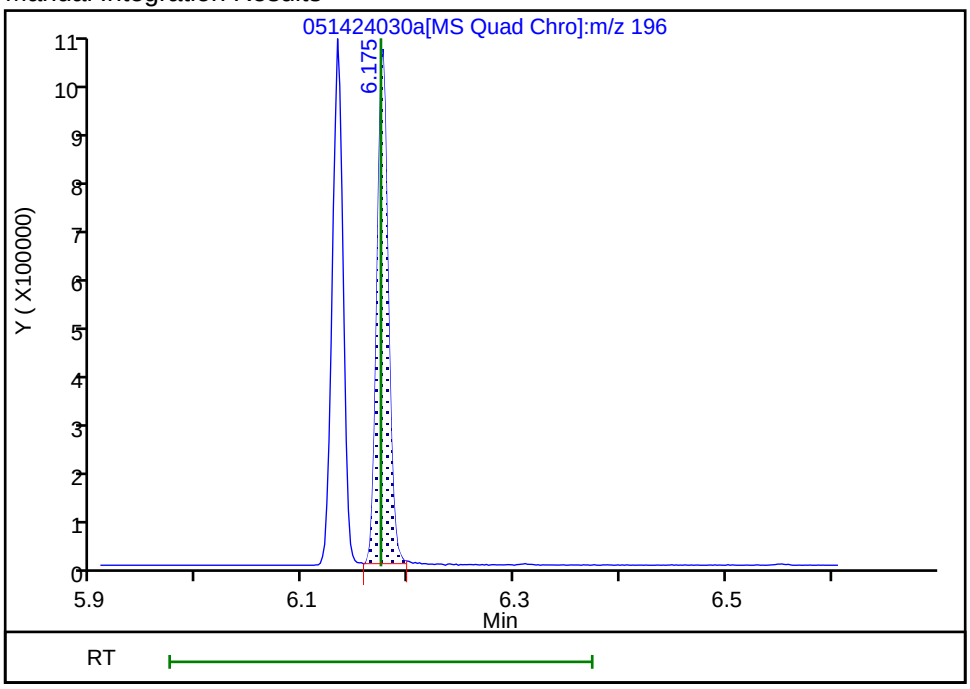
Processing Integration Results

RT: 6.35
Area: 221
Amount: 0.006657
Amount Units: ug/ml



Manual Integration Results

RT: 6.18
Area: 746205
Amount: 22.477944
Amount Units: ug/ml



Reviewer: G3YK, 15-May-2024 08:50:40 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

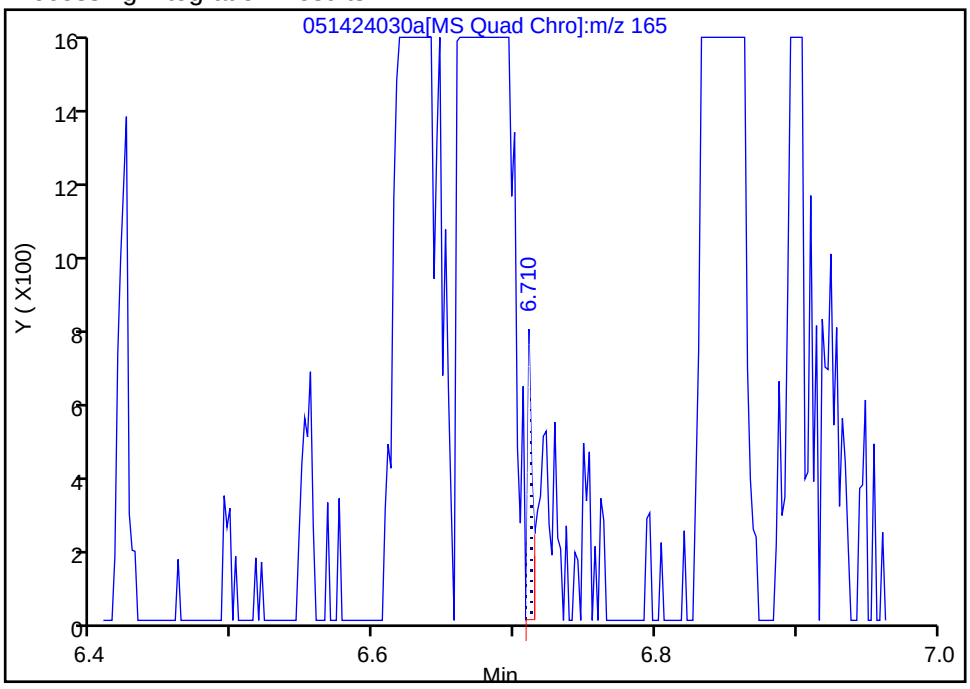
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424030a.D				
Injection Date:	14-May-2024 21:49:20	Instrument ID:	SMS_3		
Lims ID:	ccvc hsl				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	31
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

79 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

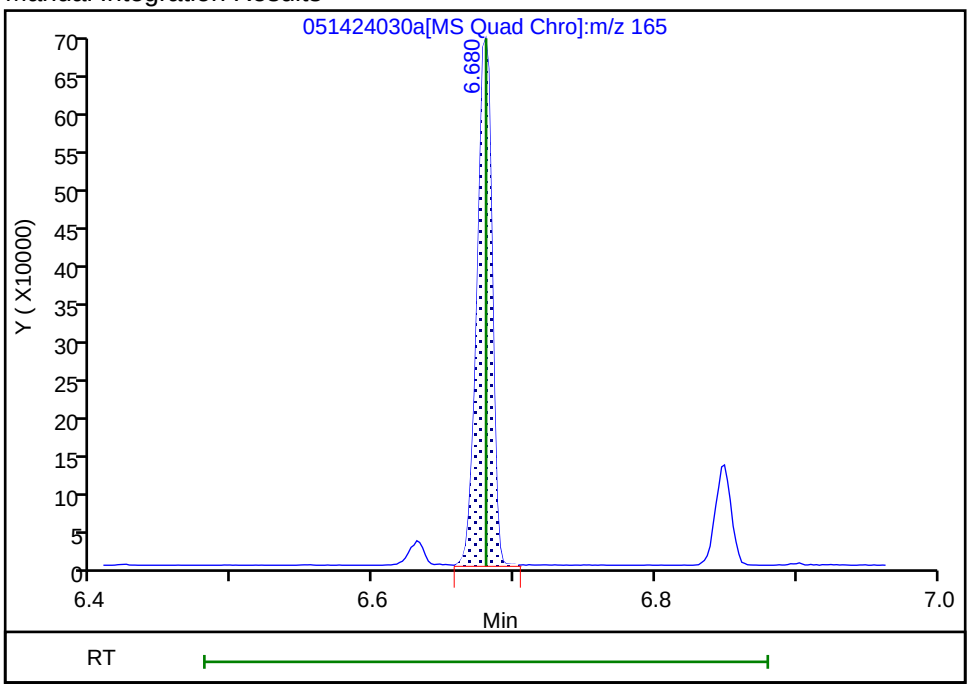
Processing Integration Results

RT: 6.71
Area: 167
Amount: 0.007140
Amount Units: ug/ml



Manual Integration Results

RT: 6.68
Area: 513171
Amount: 21.940057
Amount Units: ug/ml



Reviewer: G3YK, 15-May-2024 08:50:47 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

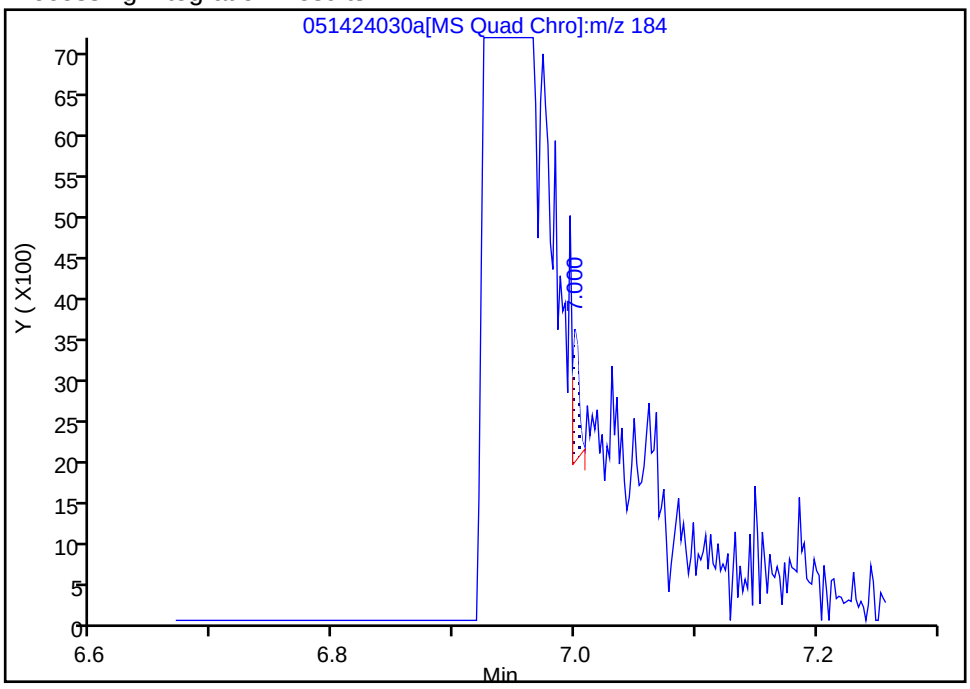
Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424030a.D
Injection Date: 14-May-2024 21:49:20 Instrument ID: SMS_3
Lims ID: ccvc hsl
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 31
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E
Column: DB-5MS UI (0.18 mm) Detector MS Quad

83 2,4-Dinitrophenol, CAS: 51-28-5

Signal: 1

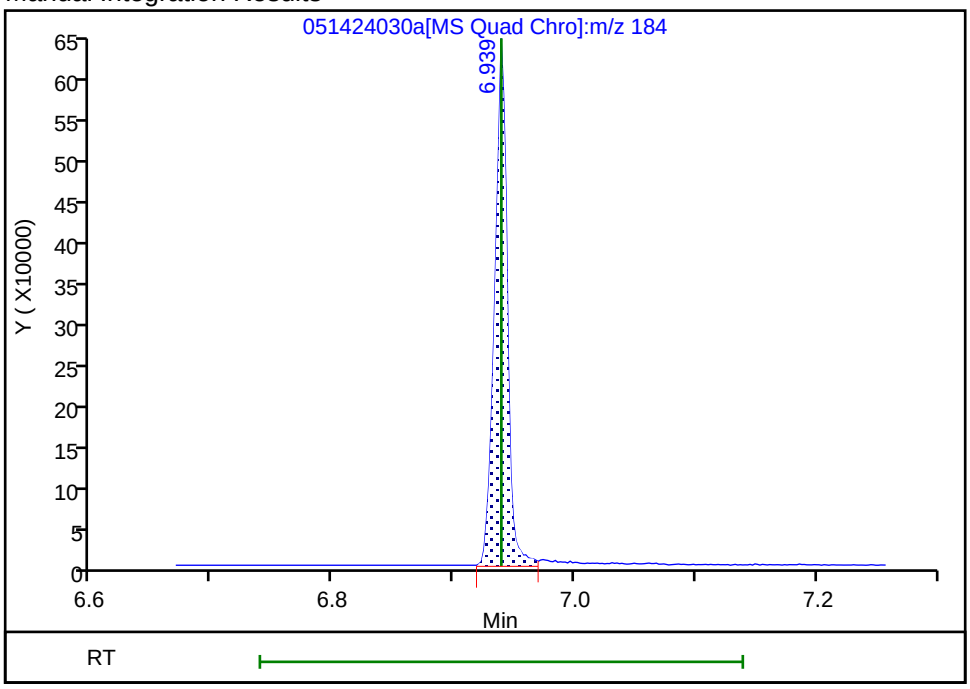
Processing Integration Results

RT: 7.00
Area: 576
Amount: 1.801032
Amount Units: ug/ml



Manual Integration Results

RT: 6.94
Area: 461738
Amount: 35.987353
Amount Units: ug/ml



Reviewer: G3YK, 15-May-2024 08:50:54 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Eurofins Denver

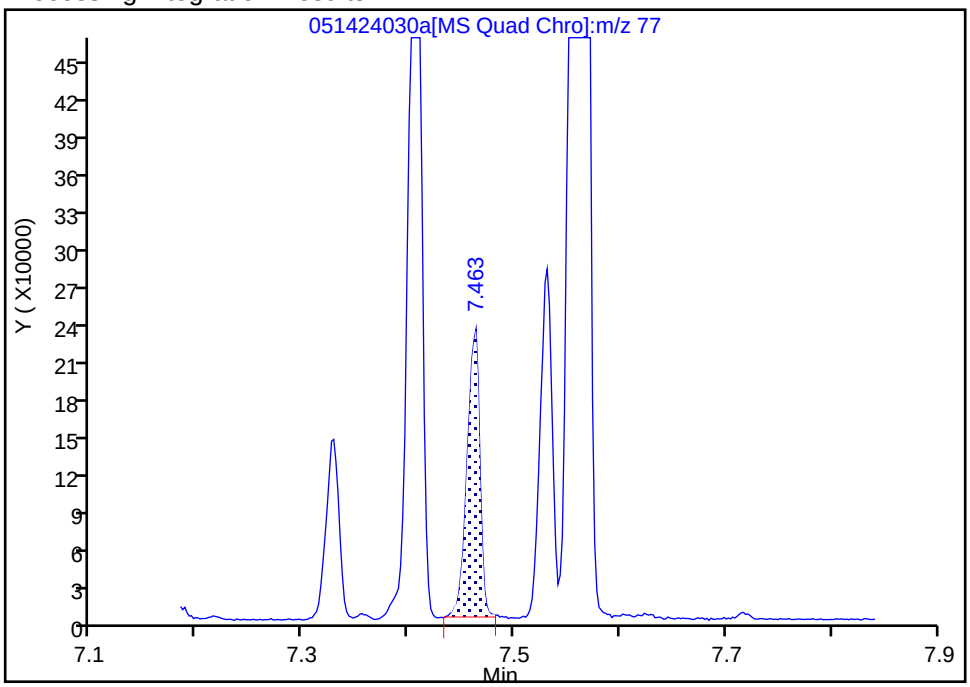
Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424030a.D
Injection Date: 14-May-2024 21:49:20 Instrument ID: SMS_3
Lims ID: ccvc hsl
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 31
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E
Column: DB-5MS UI (0.18 mm) Detector MS Quad

102 1,2-Diphenylhydrazine, CAS: 122-66-7

Signal: 1

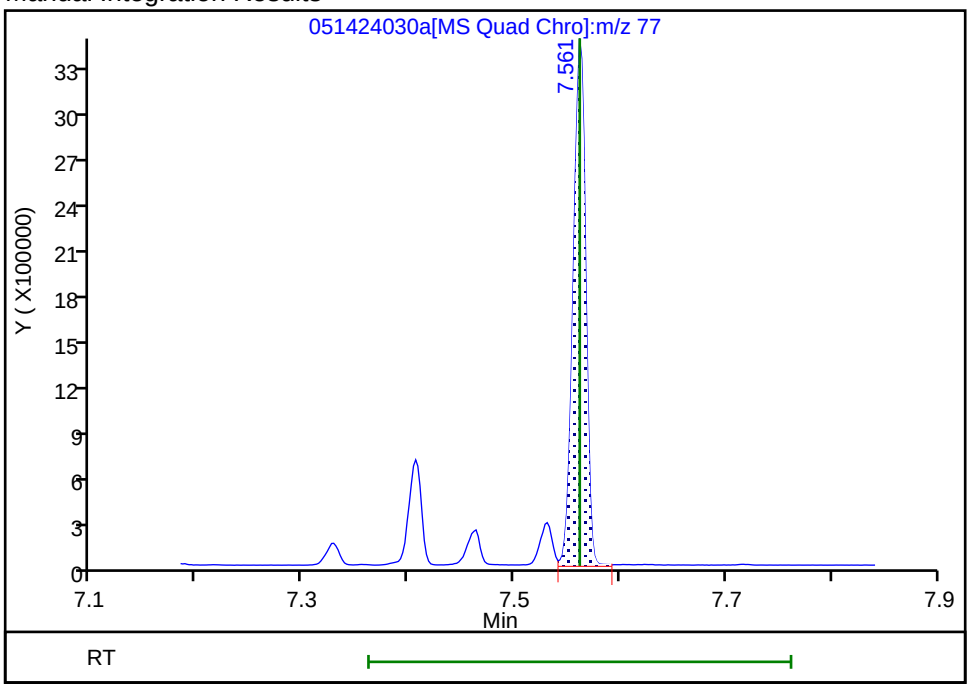
Processing Integration Results

RT: 7.46
Area: 192352
Amount: 1.435428
Amount Units: ug/ml



Manual Integration Results

RT: 7.56
Area: 2817259
Amount: 21.023812
Amount Units: ug/ml



Reviewer: G3YK, 15-May-2024 08:51:06 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

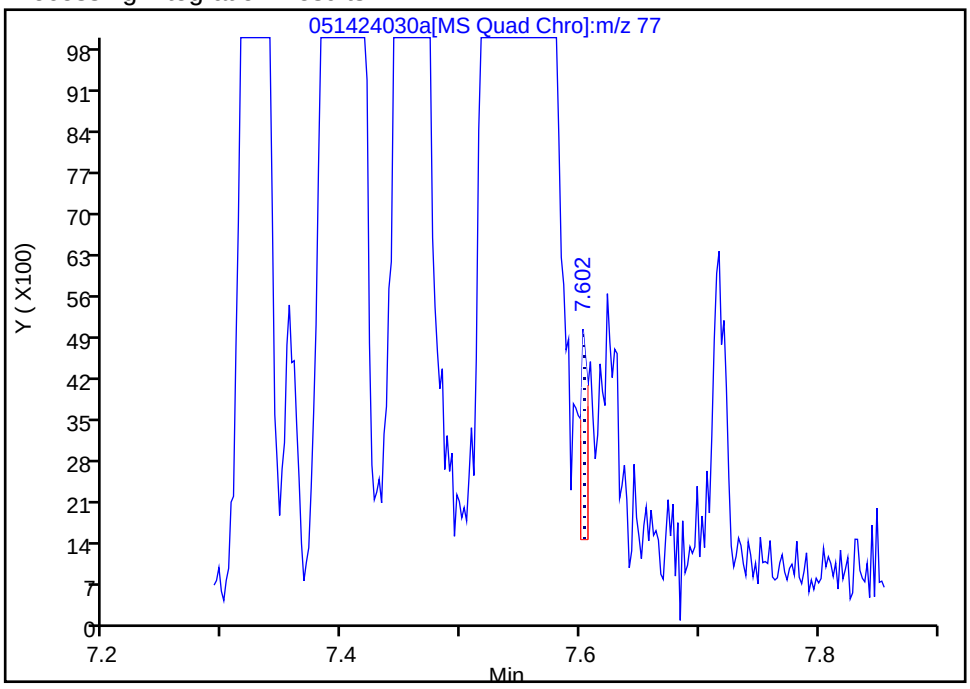
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424030a.D				
Injection Date:	14-May-2024 21:49:20	Instrument ID:	SMS_3		
Lims ID:	ccvc hsl				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	31
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

101 Azobenzene, CAS: 103-33-3

Signal: 1

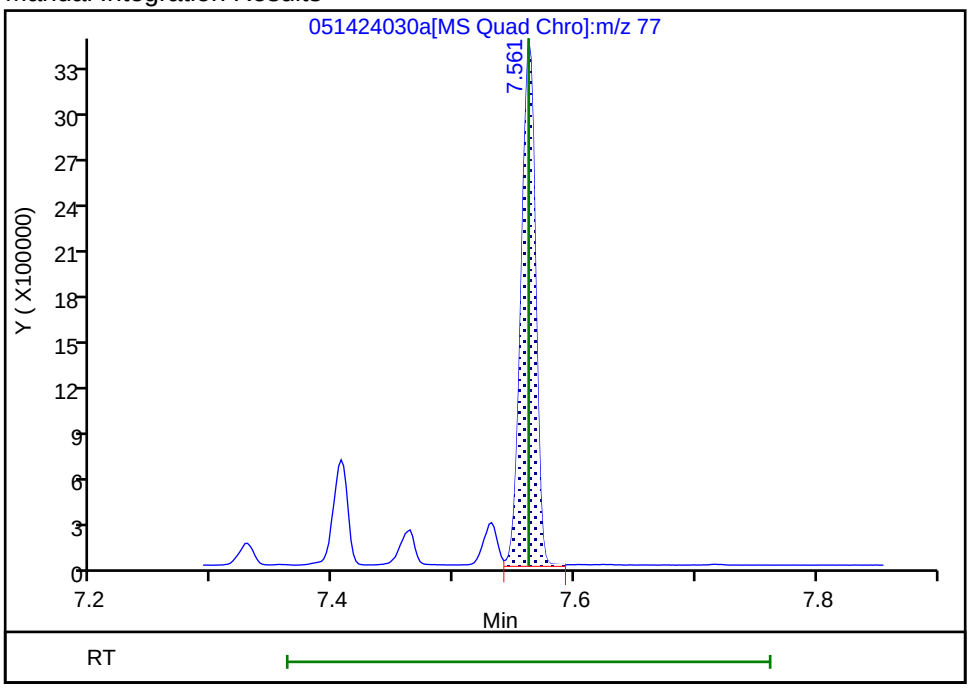
Processing Integration Results

RT: 7.60
Area: 1390
Amount: 0.010262
Amount Units: ug/ml



Manual Integration Results

RT: 7.56
Area: 2817259
Amount: 20.799196
Amount Units: ug/ml



Reviewer: G3YK, 15-May-2024 08:51:10 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

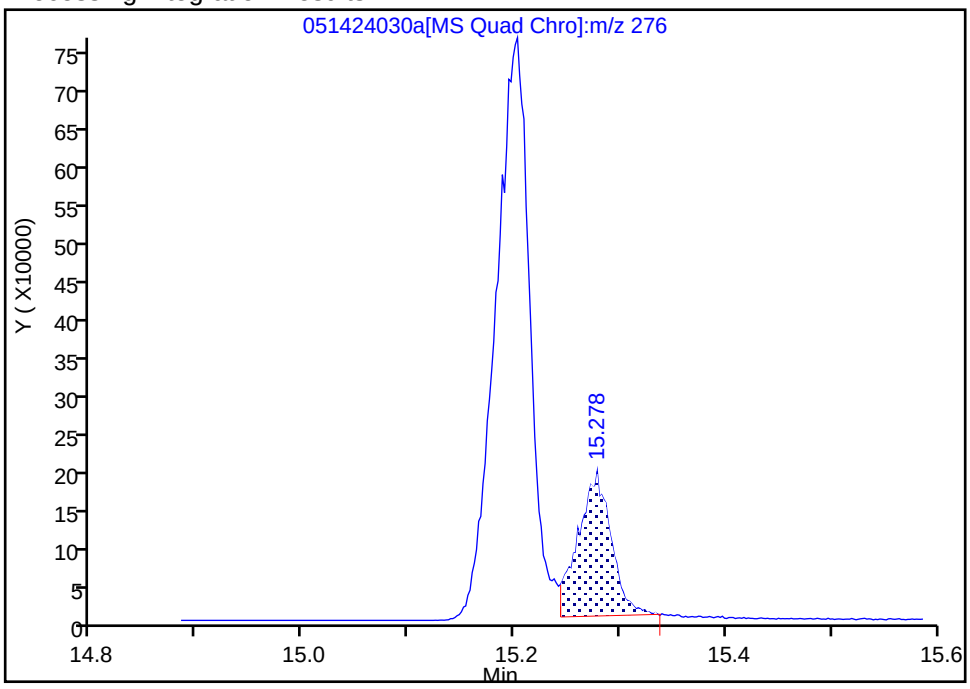
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424030a.D				
Injection Date:	14-May-2024 21:49:20	Instrument ID:	SMS_3		
Lims ID:	ccvc hsl				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	31
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

152 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

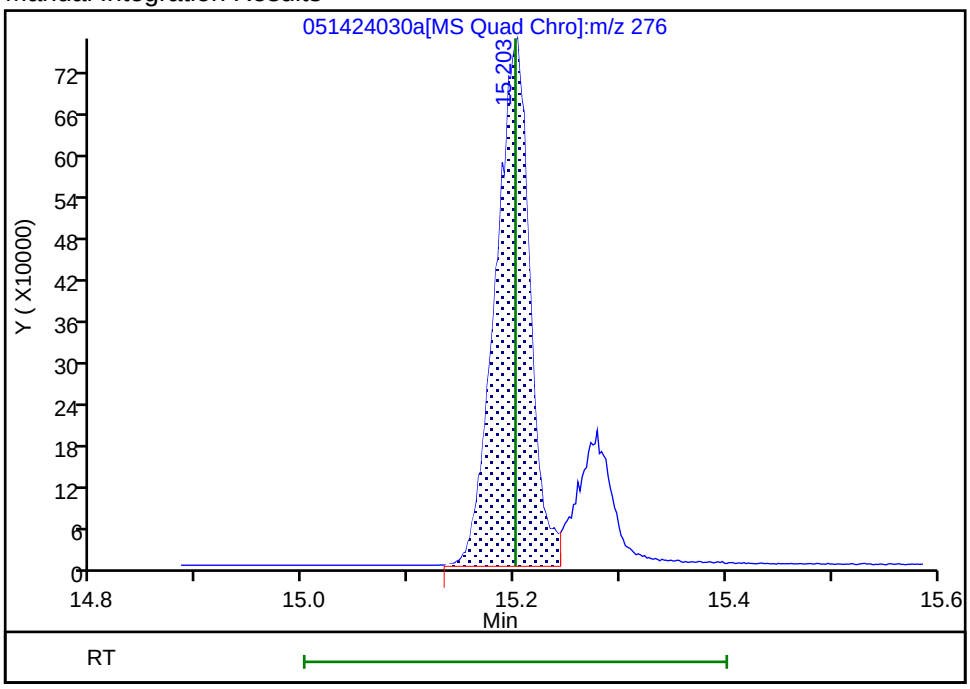
Processing Integration Results

RT: 15.28
Area: 411266
Amount: 5.265402
Amount Units: ug/ml



Manual Integration Results

RT: 15.20
Area: 1721962
Amount: 22.046128
Amount Units: ug/ml



Reviewer: G3YK, 15-May-2024 08:51:26 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

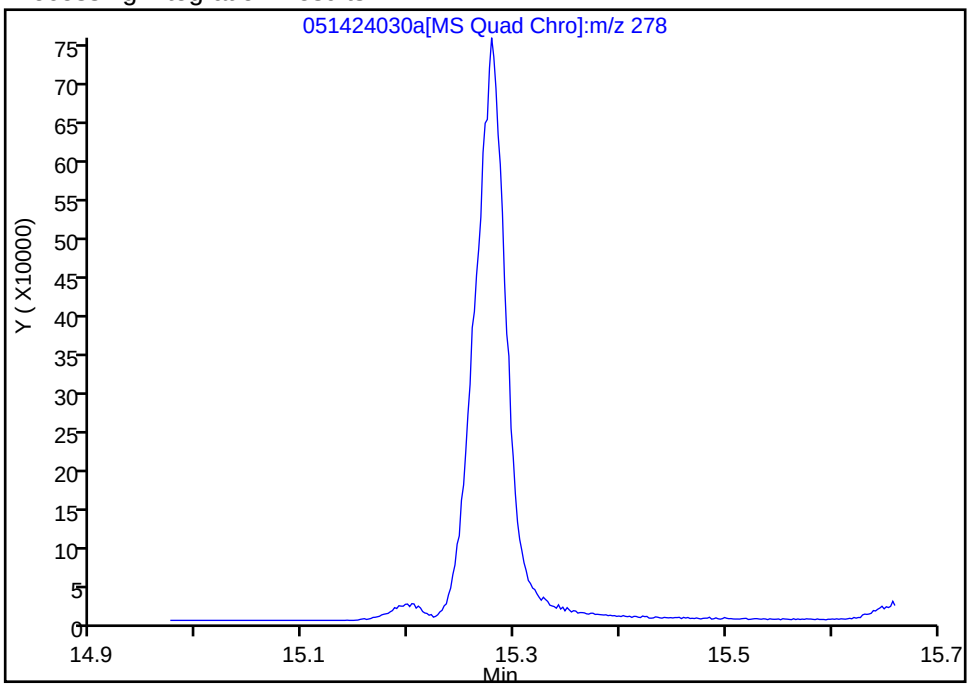
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424030a.D				
Injection Date:	14-May-2024 21:49:20	Instrument ID:	SMS_3		
Lims ID:	ccvc hsl				
Client ID:					
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	31
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

153 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

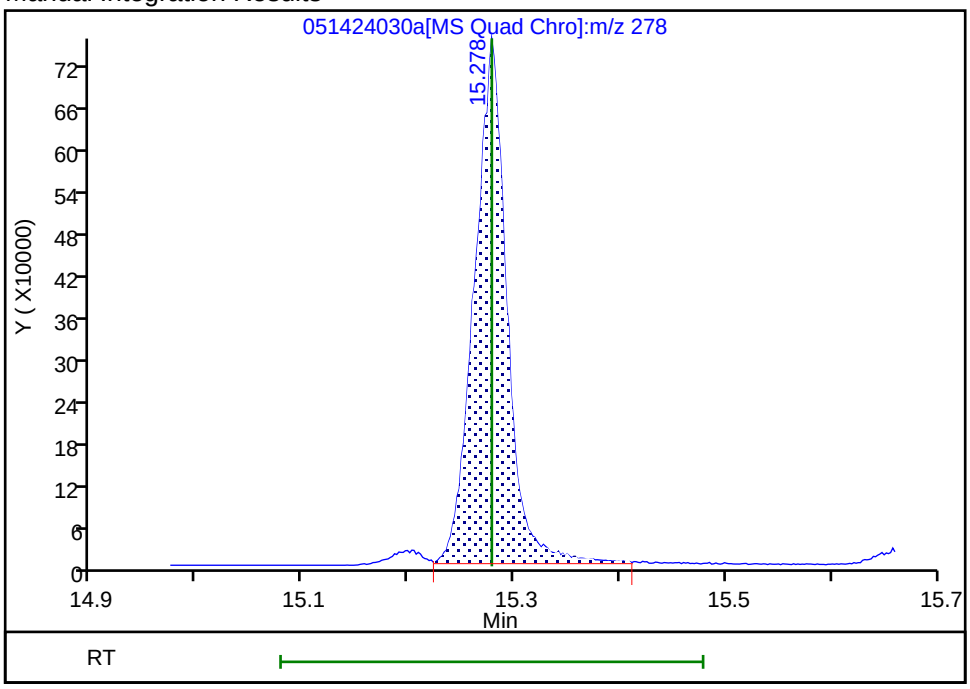
Not Detected
Expected RT: 15.28

Processing Integration Results



Manual Integration Results

RT: 15.28
Area: 1624123
Amount: 22.621121
Amount Units: ug/ml



Reviewer: G3YK, 15-May-2024 08:51:29 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240312-131073.b\SMS_3-031324001.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 13-Mar-2024 10:04:01 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: DFTPP
Operator ID: DM Instrument ID: SMS_3

Method: \\chromfs\Denver\ChromData\SMS_3\20240312-131073.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 21-Mar-2024 13:07:33 Calib Date: 13-Mar-2024 16:51:53
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240312-131096.b\SMS_3-031324010.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1662

First Level Reviewer: G3YK Date: 13-Mar-2024 10:26:32

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	115	3.959	3.959	0.000	44	563	8.00	8.00	s
* 2 Naphthalene-d8	136	5.258	5.258	0.000	1	189	8.00	8.00	s
* 3 Acenaphthene-d10	164		6.943				8.00	ND	
* 4 Phenanthrene-d10	188		8.399				8.00	ND	
* 5 Chrysene-d12	240		11.194				8.00	ND	
* 6 Perylene-d12	264		13.492				8.00	ND	
159 Pentachlorophenol_T	266	3.607	3.607	0.000	0	851582	NR	NR	
160 DFTPP									
161 Benzidine_T	184	4.746	4.746	0.000	0	5544203	NR	NR	
162 4,4'-DDE	246	4.882	4.882	0.000	0	1953	NR	NR	
163 4,4'-DDD	235	5.127	5.127	0.000	0	7127	NR	NR	
164 4,4'-DDT	235	5.346	5.346	0.000	0	2360839	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
s - Failed ISTD Recovery Test

Reagents:

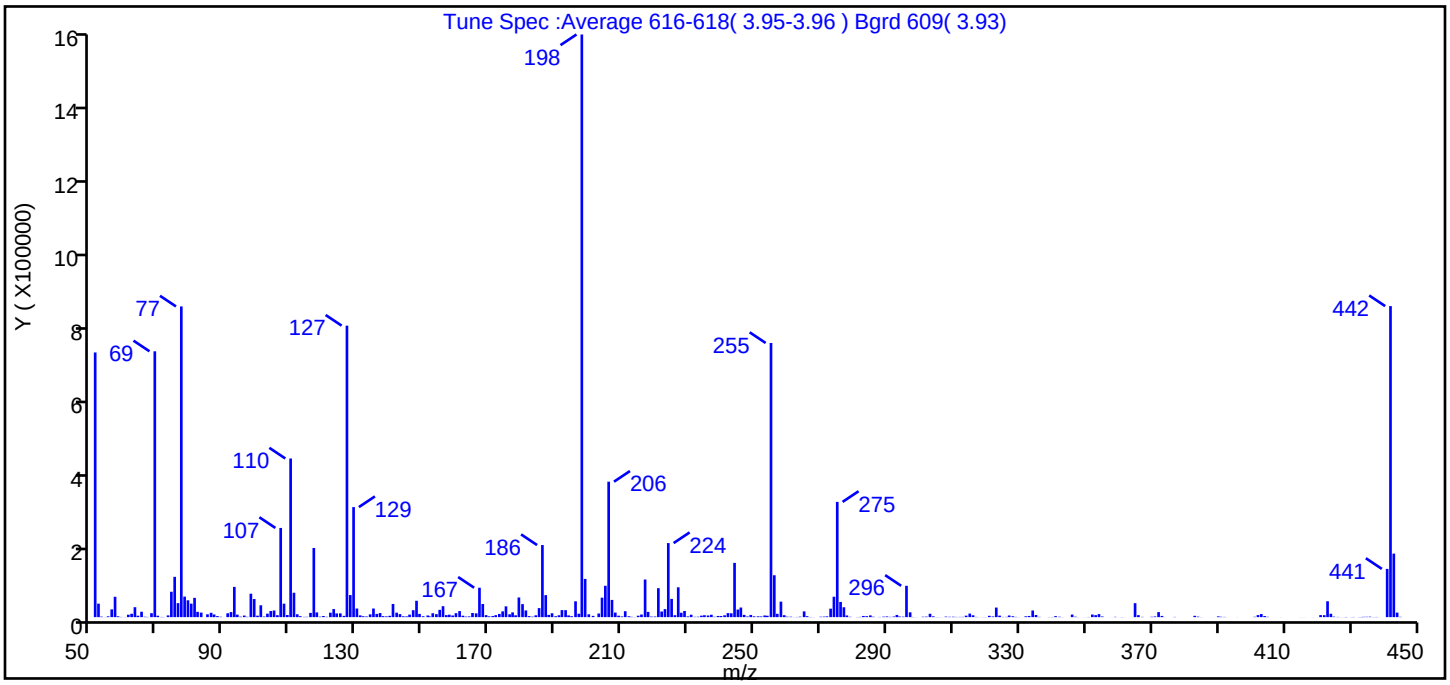
MS-DFTPP_RVE_00003 Amount Added: 500.00 Units: uL
MS-IS-RVE_00005 Amount Added: 30.00 Units: uL Run Reagent

MS Tune Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240312-131073.b\SMS_3-031324001.D
Injection Date: 13-Mar-2024 10:04:01 Instrument ID: SMS_3
Lims ID: DFTPP
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E
Tune Method: DFTPP Method 8270

160 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	45.4
68	<2% of mass 69	0.7 (1.5)
69	Present	45.6
70	<2% of mass 69	0.2 (0.5)
127	40-60% of mass 198	50.0
197	<1% of mass 198	0.6
199	5-9% of mass 198	6.6
275	10-30% of mass 198	19.8
365	>1% of mass 198	2.4
441	Present but less than mass 443	8.3 (76.0)
442	>40% of mass 198	53.4
443	17-23% of mass 442	10.9 (20.4)

Data File: \\chromfs\Denver\ChromData\SMS_3\20240312-131073.b\SMS_3-031324001.D\SMS_3 8270 RVE.rslt\sp
Injection Date: 13-Mar-2024 10:04:01
Spectrum: Tune Spec :Average 616-618(3.95-3.96) Bgrd 609(3.93)
Base Peak: 197.90
Minimum % Base Peak: 0
Number of Points: 356

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	715648	141.00	35680	231.00	6543	323.00	25896
52.00	36480	142.00	12061	232.00	851	324.00	4102
53.00	1408	143.00	8145	233.00	1211	325.00	614
54.00	250	144.00	2291	234.00	4021	326.00	728
55.00	2237	145.00	1997	235.00	5258	327.00	4443
56.00	20992	146.00	6779	236.00	4376	328.00	2446
57.00	55072	147.00	18800	237.00	6450	329.00	710
58.00	2270	148.00	44280	238.00	931	330.00	215
59.00	561	149.00	8725	239.00	3242	332.00	2217
60.00	299	150.00	2394	240.00	3157	333.00	3197
61.00	6577	151.00	4532	241.00	5018	334.00	18016
62.00	9147	152.00	2048	242.00	10898	335.00	5754
63.00	26888	153.00	10540	243.00	10461	336.00	761
64.00	3915	154.00	8101	244.00	146688	339.00	413
65.00	14639	155.00	19752	245.00	20584	340.00	430
66.00	1077	156.00	29624	246.00	25992	341.00	2793
67.00	600	157.00	5465	247.00	6149	342.00	1061
68.00	10744	158.00	6635	248.00	1756	343.00	270
69.00	718784	159.00	4482	249.00	5960	346.00	7026
70.00	3850	160.00	10689	250.00	2136	347.00	1128
71.00	568	161.00	16383	251.00	2134	348.00	230
72.00	358	162.00	3868	252.00	1889	350.00	175
73.00	4741	163.00	1507	253.00	4536	351.00	508
74.00	68680	164.00	1992	254.00	3828	352.00	7063
75.00	108984	165.00	11204	255.00	741312	353.00	5427
76.00	37864	166.00	10283	256.00	113264	354.00	8260
77.00	840064	167.00	79568	257.00	8981	355.00	1763
78.00	55520	168.00	35552	258.00	41928	357.00	58
79.00	45608	169.00	5403	259.00	5237	358.00	123
80.00	36528	170.00	2181	260.00	1259	359.00	838
81.00	52152	171.00	2925	261.00	1206	360.00	81
82.00	14354	172.00	5366	262.00	262	361.00	385
83.00	12263	173.00	8671	263.00	555	362.00	86

Report Date: 21-Mar-2024 13:07:34 Chrom Revision: 2.3 23-Feb-2024 16:51:14
Data File: \\chromfs\Denver\ChromData\SMS_3\20240312-131073.b\SMS_3-031324001.D\SMS_3 8270 RVE.rslt\sp
Injection Date: 13-Mar-2024 10:04:01
Spectrum: Tune Spec :Average 616-618(3.95-3.96) Bgrd 609(3.93)
Base Peak: 197.90
Minimum % Base Peak: 0
Number of Points: 356

m/z	Y	m/z	Y	m/z	Y	m/z	Y
85.00	7741	174.00	15635	264.00	1251	364.00	174
86.00	11741	175.00	29184	265.00	15595	365.00	37752
87.00	7175	176.00	7650	266.00	2519	366.00	5381
88.00	2783	177.00	12856	267.00	461	367.00	779
89.00	973	178.00	4969	268.00	238	370.00	1003
90.00	79	179.00	53176	270.00	1127	371.00	1831
91.00	10489	180.00	35208	271.00	1412	372.00	13579
92.00	13683	181.00	18104	272.00	2034	373.00	3327
93.00	81776	182.00	2790	273.00	22880	374.00	184
94.00	6782	183.00	1313	274.00	55232	377.00	634
95.00	1280	184.00	4933	275.00	311616	383.00	3625
96.00	4290	185.00	24464	276.00	41088	384.00	1422
97.00	899	186.00	194944	277.00	26696	385.00	300
98.00	63376	187.00	59576	278.00	4568	388.00	55
99.00	49008	188.00	6032	279.00	930	389.00	64
100.00	3990	189.00	10442	281.00	451	390.00	2039
101.00	32056	190.00	2511	282.00	680	391.00	1079
102.00	1625	191.00	5089	283.00	3176	392.00	646
103.00	9364	192.00	19112	284.00	2706	393.00	65
104.00	16544	193.00	18904	285.00	4694	396.00	132
105.00	18024	194.00	4765	286.00	1068	401.00	976
106.00	5253	195.00	2577	287.00	51	402.00	5565
107.00	241216	196.00	42832	288.00	496	403.00	8379
108.00	36440	197.00	9165	289.00	1349	404.00	2933
109.00	5760	198.00	1575424	290.00	1895	405.00	864
110.00	428992	199.00	103336	291.00	764	408.00	61
111.00	65984	200.00	7672	292.00	1691	409.00	163
112.00	7733	201.00	3426	293.00	5936	415.00	157
113.00	2673	203.00	9848	294.00	1753	416.00	171
114.00	715	204.00	52608	295.00	1322	418.00	119
115.00	878	205.00	84792	296.00	84752	420.00	58
116.00	11479	206.00	366272	297.00	13074	420.00	87
117.00	187072	207.00	46584	298.00	546	421.00	5549
118.00	12801	208.00	12341	299.00	220	422.00	5312

Report Date: 21-Mar-2024 13:07:34 Chrom Revision: 2.3 23-Feb-2024 16:51:14
Data File: \\chromfs\Denver\ChromData\SMS_3\20240312-131073.b\SMS_3-031324001.D\SMS_3 8270 RVE.rslt\sp
Injection Date: 13-Mar-2024 10:04:01
Spectrum: Tune Spec :Average 616-618(3.95-3.96) Bgrd 609(3.93)
Base Peak: 197.90
Minimum % Base Peak: 0
Number of Points: 356

m/z	Y	m/z	Y	m/z	Y	m/z	Y
119.00	1269	209.00	3919	301.00	1147	423.00	42976
120.00	3056	210.00	1866	302.00	1400	424.00	9113
121.00	932	211.00	16037	303.00	9125	425.00	1381
122.00	11991	212.00	2387	304.00	2130	426.00	602
123.00	21800	213.00	906	305.00	361	427.00	213
124.00	10034	214.00	331	306.00	254	428.00	244
125.00	10206	215.00	3889	307.00	85	429.00	477
126.00	3453	216.00	7089	308.00	1447	430.00	284
127.00	788160	217.00	101760	309.00	972	431.00	492
128.00	59680	218.00	14198	310.00	1159	433.00	429
129.00	297600	219.00	1494	311.00	627	433.00	453
130.00	23304	220.00	1712	312.00	679	434.00	850
131.00	4828	221.00	78312	313.00	752	435.00	950
132.00	2451	222.00	15220	314.00	4057	436.00	1226
133.00	1804	223.00	21632	315.00	9560	437.00	356
134.00	7544	224.00	200256	316.00	5022	438.00	523
135.00	23344	225.00	49256	317.00	586	439.00	71
136.00	8688	226.00	5326	318.00	152	441.00	130480
137.00	11051	227.00	80664	319.00	244	442.00	841024
138.00	2683	228.00	11874	320.00	304	443.00	171776
139.00	2021	229.00	16640	321.00	3613	444.00	12250
140.00	3628	230.00	1986	322.00	1842	445.00	846

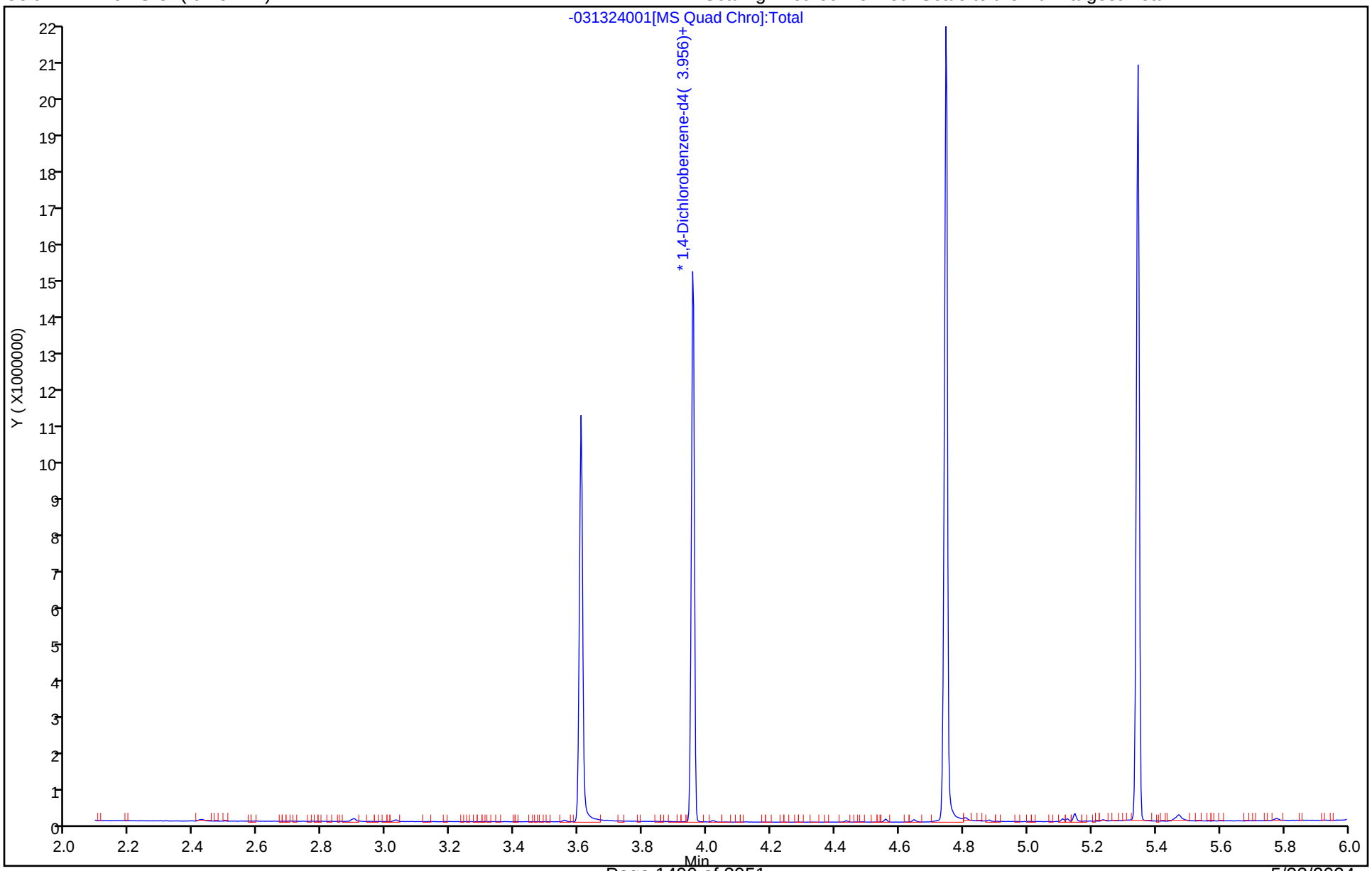
Report Date: 21-Mar-2024 13:07:34 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240312-131073.b\SMS_3-031324001.D

Injection Date:	13-Mar-2024 10:04:01	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	DFTPP			Worklist Smp#:	12
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Breakdown Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240312-131073.b\SMS_3-031324001.D
Injection Date: 13-Mar-2024 10:04:01 Instrument ID: SMS_3
Lims ID: DFTPP
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E

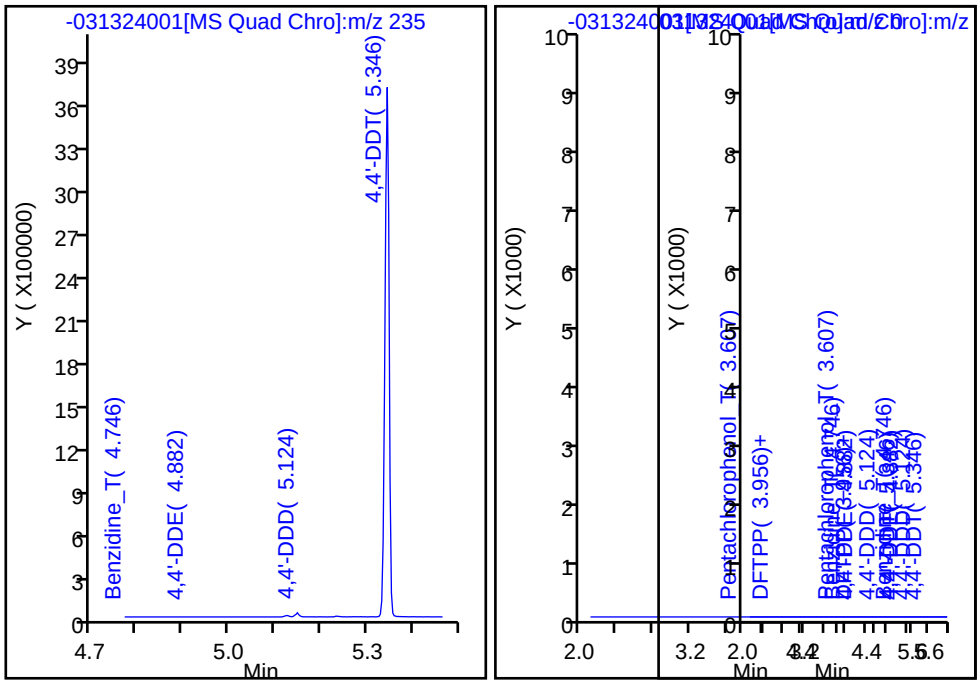
164 4,4'-DDT, Detector: MS Quad

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

164 4,4'-DDT, Area = 2360839
163 4,4'-DDD, Area = 7127
162 4,4'-DDE, Area = 1953

%Breakdown: 0.38%, <= 20.00%
Passed



Peak Tailing Report

Eurofins Denver

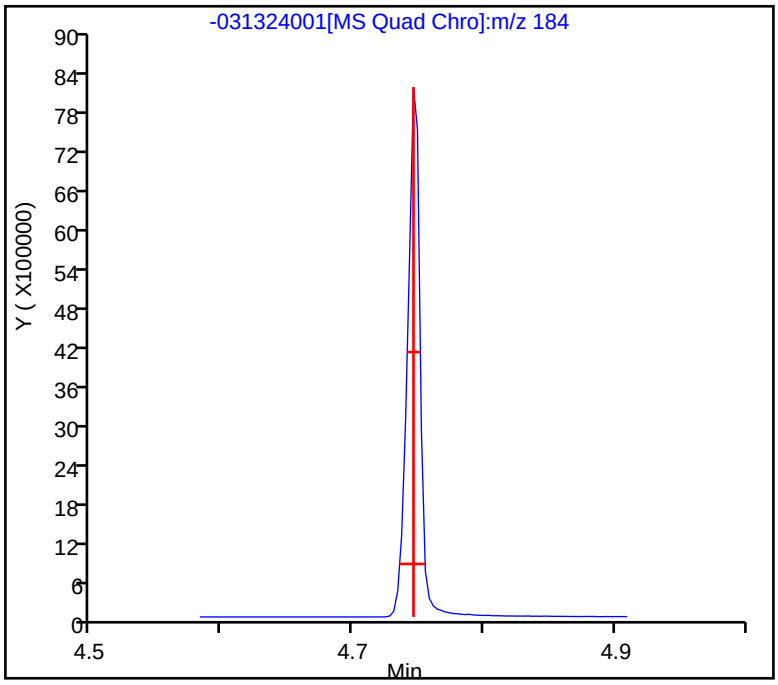
Data File: \\chromfs\Denver\ChromData\SMS_3\20240312-131073.b\SMS_3-031324001.D
Injection Date: 13-Mar-2024 10:04:01 Instrument ID: SMS_3
Lims ID: DFTPP
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E

161 Benzidine_T, Detector: MS Quad

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.009 (min.)
Front Width = 0.011 (min.)

Tailing Factor = 0.82, Max. Tailing <= 2.00
Passed



Peak Tailing Report

Eurofins Denver

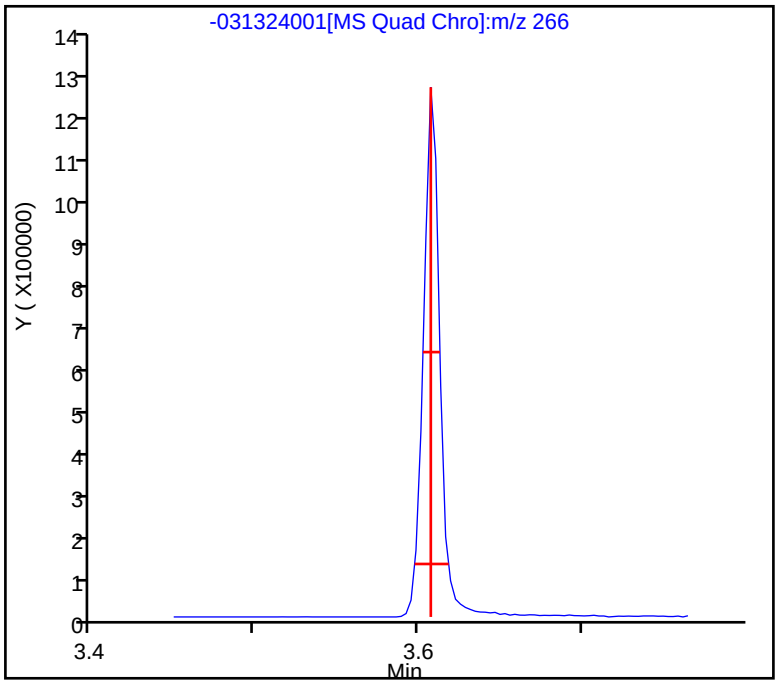
Data File: \\chromfs\Denver\ChromData\SMS_3\20240312-131073.b\SMS_3-031324001.D
Injection Date: 13-Mar-2024 10:04:01 Instrument ID: SMS_3
Lims ID: DFTPP
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E

159 Pentachlorophenol_T, Detector: MS Quad

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.011 (min.)
Front Width = 0.010 (min.)

Tailing Factor = 1.10, Max. Tailing <= 2.00
Passed



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240312-131096.b\SMS_3-031424001.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 14-Mar-2024 08:53:24 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: DFTPP
Operator ID: DM Instrument ID: SMS_3

Method: \\chromfs\Denver\ChromData\SMS_3\20240312-131096.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 15-Mar-2024 16:38:59 Calib Date: 13-Mar-2024 16:51:53
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240312-131096.b\SMS_3-031324010.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1669

First Level Reviewer: G3YK Date: 14-Mar-2024 09:10:12

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	115	3.956	3.956	0.000	44	630	8.00	8.00	s
* 2 Naphthalene-d8	136	5.185	5.185	0.000	1	105	8.00	8.00	s
* 3 Acenaphthene-d10	164		6.935				8.00	ND	
* 4 Phenanthrene-d10	188		8.388				8.00	ND	
* 5 Chrysene-d12	240		11.185				8.00	ND	
* 6 Perylene-d12	264		13.476				8.00	ND	
159 Pentachlorophenol_T	266	3.607	3.607	0.000	0	707908	NR	NR	
160 DFTPP									
161 Benzidine_T	184	4.746	4.746	0.000	0	4847903	NR	NR	
162 4,4'-DDE	246	4.879	4.879	0.000	0	1502	NR	NR	
163 4,4'-DDD	235	5.125	5.125	0.000	0	4824	NR	NR	
164 4,4'-DDT	235	5.346	5.346	0.000	0	2141435	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
s - Failed ISTD Recovery Test

Reagents:

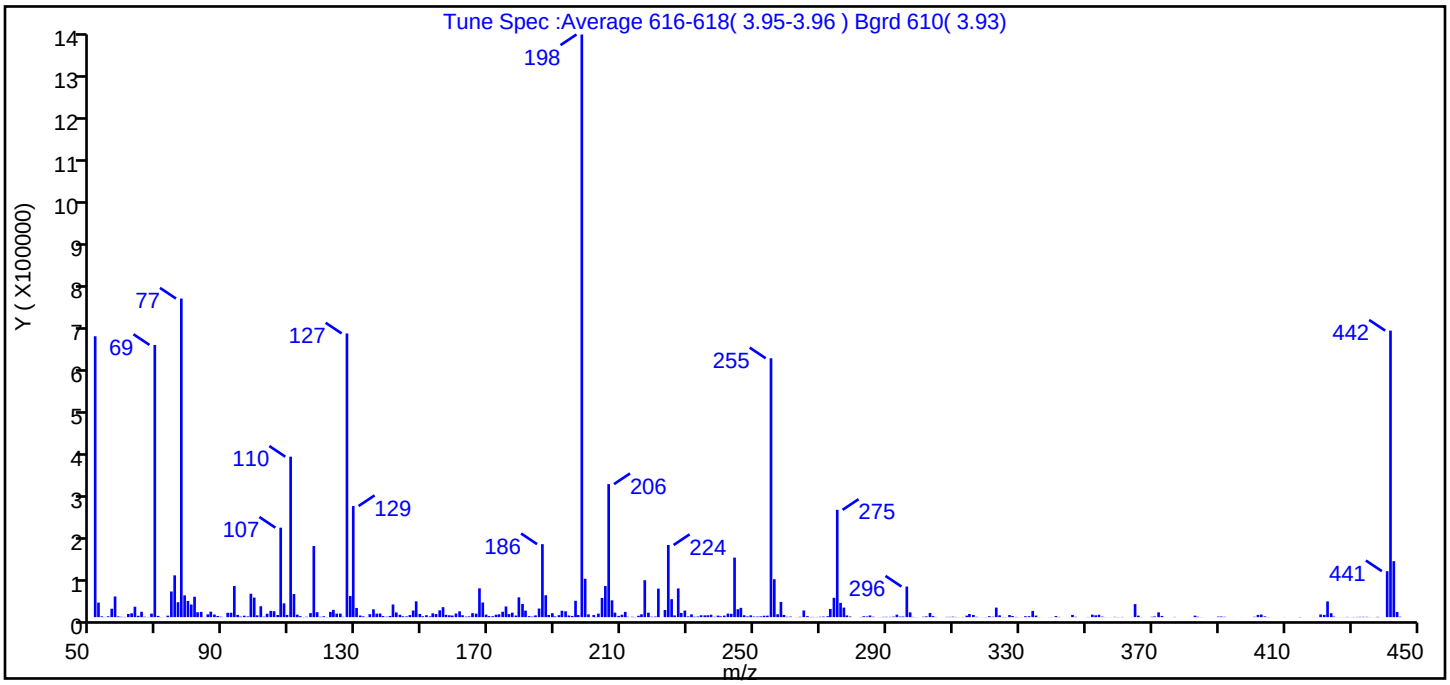
MS-DFTPP_RVE_00003 Amount Added: 500.00 Units: uL
MS-IS-RVE_00005 Amount Added: 30.00 Units: uL Run Reagent

MS Tune Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240312-131096.b\SMS_3-031424001.D
Injection Date: 14-Mar-2024 08:53:24 Instrument ID: SMS_3
Lims ID: DFTPP
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E
Tune Method: DFTPP Method 8270

160 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	48.2
68	<2% of mass 69	0.6 (1.3)
69	Present	46.7
70	<2% of mass 69	0.2 (0.5)
127	40-60% of mass 198	48.7
197	<1% of mass 198	0.4
199	5-9% of mass 198	6.6
275	10-30% of mass 198	18.4
365	>1% of mass 198	2.2
441	Present but less than mass 443	7.9 (82.1)
442	>40% of mass 198	49.2
443	17-23% of mass 442	9.6 (19.5)

Data File: \\chromfs\Denver\ChromData\SMS_3\20240312-131096.b\SMS_3-031424001.D\SMS_3 8270 RVE.rslt\sp
Injection Date: 14-Mar-2024 08:53:24
Spectrum: Tune Spec :Average 616-618(3.95-3.96) Bgrd 610(3.93)
Base Peak: 197.90
Minimum % Base Peak: 0
Number of Points: 357

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	674816	141.00	30416	232.00	1051	328.00	2647
52.00	34896	142.00	11303	233.00	1625	329.00	587
53.00	1912	143.00	5713	234.00	4499	330.00	220
54.00	258	144.00	2076	235.00	4229	331.00	107
55.00	2081	145.00	1761	236.00	4423	332.00	2279
56.00	20176	146.00	4943	237.00	5829	333.00	2335
57.00	49680	147.00	15891	238.00	871	334.00	14892
58.00	1779	148.00	37952	239.00	3754	335.00	3709
59.00	818	149.00	7731	240.00	1989	336.00	338
60.00	574	150.00	2141	241.00	3709	337.00	71
61.00	7587	151.00	4692	242.00	8629	339.00	250
62.00	9200	152.00	1810	243.00	8028	340.00	236
63.00	25040	153.00	9208	244.00	143040	341.00	2616
64.00	3202	154.00	7541	245.00	19032	342.00	611
65.00	13017	155.00	16339	246.00	22352	344.00	65
66.00	1083	156.00	23960	247.00	4508	345.00	63
67.00	460	157.00	5508	248.00	1773	346.00	5323
68.00	8537	158.00	4493	249.00	4323	347.00	905
69.00	653952	159.00	3827	250.00	1404	348.00	55
70.00	2963	160.00	8675	251.00	1337	350.00	122
71.00	350	161.00	13997	252.00	1765	351.00	460
72.00	168	162.00	4400	253.00	3400	352.00	6080
73.00	3527	163.00	1266	254.00	3613	353.00	4363
74.00	61648	164.00	1795	255.00	621952	354.00	5674
75.00	100416	165.00	9607	256.00	91128	355.00	1235
76.00	35832	166.00	8372	257.00	6919	356.00	250
77.00	765376	167.00	69272	258.00	36568	358.00	161
78.00	52336	168.00	35152	259.00	5251	359.00	733
79.00	39024	169.00	5970	260.00	910	360.00	371
80.00	30360	170.00	2547	261.00	1324	361.00	538
81.00	48960	171.00	2321	263.00	274	364.00	200
82.00	11808	172.00	5751	264.00	867	365.00	31352
83.00	12664	173.00	6842	265.00	16084	366.00	3555

Report Date: 15-Mar-2024 16:39:00 Chrom Revision: 2.3 23-Feb-2024 16:51:14
Data File: \\chromfs\Denver\ChromData\SMS_3\20240312-131096.b\SMS_3-031424001.D\SMS_3 8270 RVE.rslt\sp
Injection Date: 14-Mar-2024 08:53:24
Spectrum: Tune Spec :Average 616-618(3.95-3.96) Bgrd 610(3.93)
Base Peak: 197.90
Minimum % Base Peak: 0
Number of Points: 357

m/z	Y	m/z	Y	m/z	Y	m/z	Y
84.00	167	174.00	13002	266.00	2373	367.00	425
85.00	6747	175.00	25624	267.00	415	370.00	917
86.00	13232	176.00	7301	268.00	553	371.00	1621
87.00	6207	177.00	10808	269.00	421	372.00	11512
88.00	2819	178.00	3777	270.00	944	373.00	2914
89.00	1062	179.00	47520	271.00	1301	374.00	179
90.00	100	180.00	31648	272.00	2137	377.00	590
91.00	10444	181.00	15637	273.00	19680	378.00	73
92.00	10557	182.00	2476	274.00	46496	382.00	96
93.00	74712	183.00	1314	275.00	257792	383.00	3607
94.00	5474	184.00	4183	276.00	34208	384.00	1046
95.00	1337	185.00	20712	277.00	22944	385.00	370
96.00	3441	186.00	175360	278.00	4144	390.00	1316
97.00	1704	187.00	52632	279.00	1510	391.00	1473
98.00	56224	188.00	5184	281.00	48	392.00	882
99.00	47024	189.00	9525	282.00	485	395.00	89
100.00	4351	190.00	1764	283.00	2130	397.00	124
101.00	26168	191.00	4742	284.00	1620	401.00	845
102.00	1206	192.00	15427	285.00	4071	402.00	5212
103.00	8154	193.00	14051	286.00	988	403.00	6197
104.00	15099	194.00	4088	288.00	364	404.00	1810
105.00	14362	195.00	2880	289.00	755	405.00	326
106.00	5115	196.00	39264	290.00	840	406.00	98
107.00	214976	197.00	4966	291.00	693	410.00	211
108.00	33176	198.00	1399808	292.00	1273	412.00	60
109.00	5414	199.00	92224	293.00	5975	415.00	427
110.00	385472	200.00	6653	294.00	1319	415.00	174
111.00	55520	202.00	5080	295.00	1466	416.00	87
112.00	5950	202.00	515	296.00	73440	419.00	127
113.00	2372	203.00	8486	297.00	11521	420.00	80
114.00	399	204.00	46176	298.00	602	421.00	6375
115.00	959	205.00	74744	299.00	355	422.00	5329
116.00	9707	206.00	319616	301.00	1002	423.00	37800
117.00	170816	207.00	40448	302.00	1816	424.00	9419

Report Date: 15-Mar-2024 16:39:00 Chrom Revision: 2.3 23-Feb-2024 16:51:14
Data File: \\chromfs\Denver\ChromData\SMS_3\20240312-131096.b\SMS_3-031424001.D\SMS_3 8270 RVE.rslt\sp
Injection Date: 14-Mar-2024 08:53:24
Spectrum: Tune Spec :Average 616-618(3.95-3.96) Bgrd 610(3.93)
Base Peak: 197.90
Minimum % Base Peak: 0
Number of Points: 357

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	11939	208.00	10829	303.00	9988	425.00	1345
119.00	898	209.00	2999	304.00	2425	426.00	104
120.00	2078	210.00	5754	305.00	489	427.00	301
121.00	423	211.00	12640	308.00	700	428.00	212
122.00	12610	212.00	994	309.00	693	429.00	603
123.00	17456	213.00	879	310.00	1133	430.00	130
124.00	8344	214.00	533	311.00	545	431.00	474
125.00	8545	215.00	3362	312.00	205	432.00	582
126.00	744	216.00	6846	313.00	520	433.00	755
127.00	681600	217.00	88656	314.00	3641	434.00	817
128.00	50856	218.00	10649	315.00	7612	435.00	758
129.00	266880	219.00	1028	316.00	5279	436.00	254
130.00	22040	220.00	1476	317.00	892	438.00	141
131.00	3892	221.00	68536	318.00	118	438.00	733
132.00	1945	223.00	17192	319.00	183	439.00	200
133.00	505	224.00	173312	320.00	281	441.00	110456
134.00	7208	225.00	43160	321.00	2226	442.00	688384
135.00	18808	226.00	4118	322.00	1008	443.00	134464
136.00	8371	227.00	68960	323.00	22944	444.00	12470
137.00	8717	228.00	10104	324.00	4366	445.00	1055
138.00	2576	229.00	15813	325.00	449		
139.00	1004	230.00	1811	326.00	438		
140.00	2914	231.00	6737	327.00	5093		

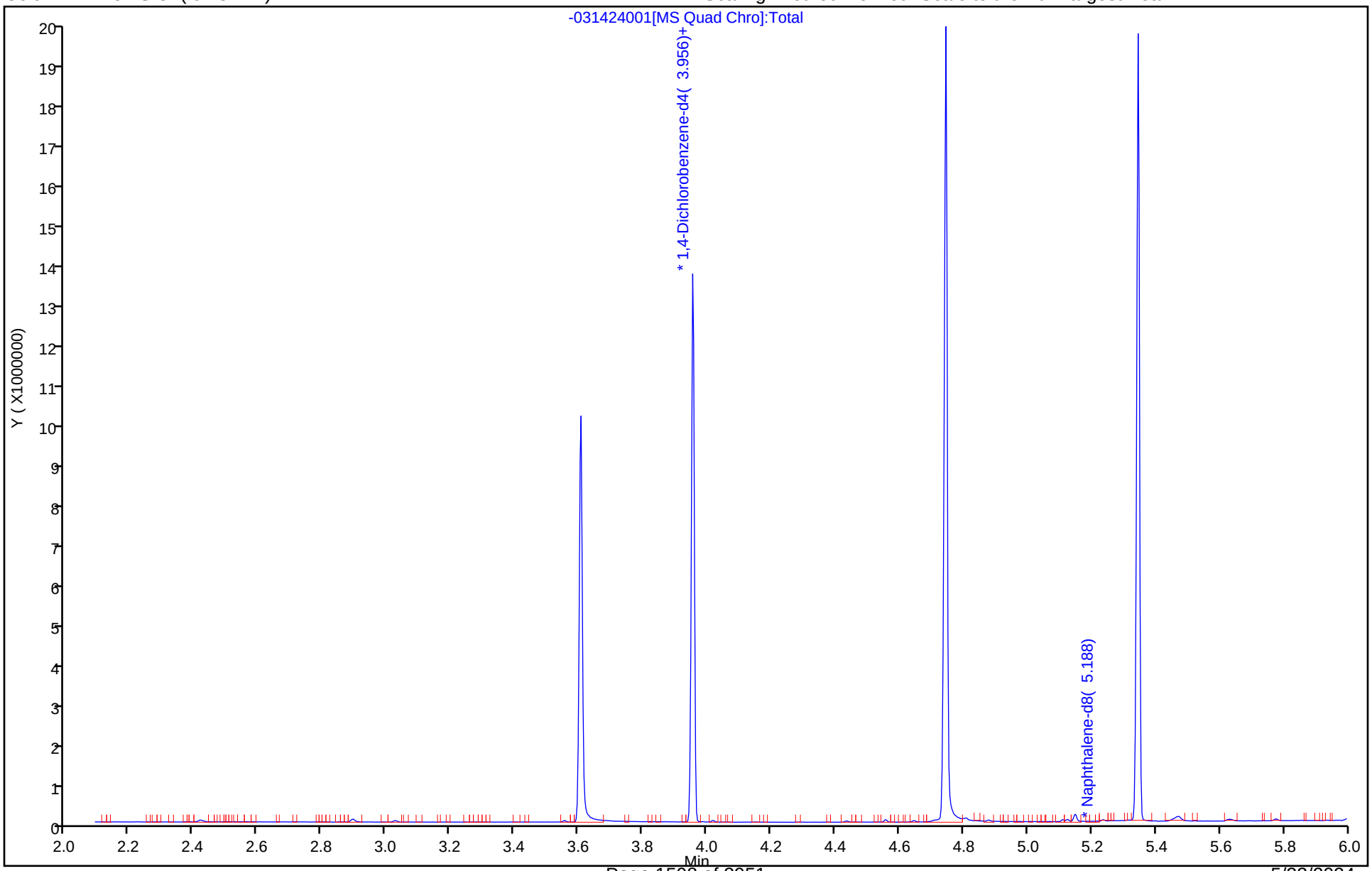
Report Date: 15-Mar-2024 16:39:00 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240312-131096.b\SMS_3-031424001.D

Injection Date:	14-Mar-2024 08:53:24	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	DFTPP			Worklist Smp#:	11
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Breakdown Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240312-131096.b\SMS_3-031424001.D
Injection Date: 14-Mar-2024 08:53:24 Instrument ID: SMS_3
Lims ID: DFTPP
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E

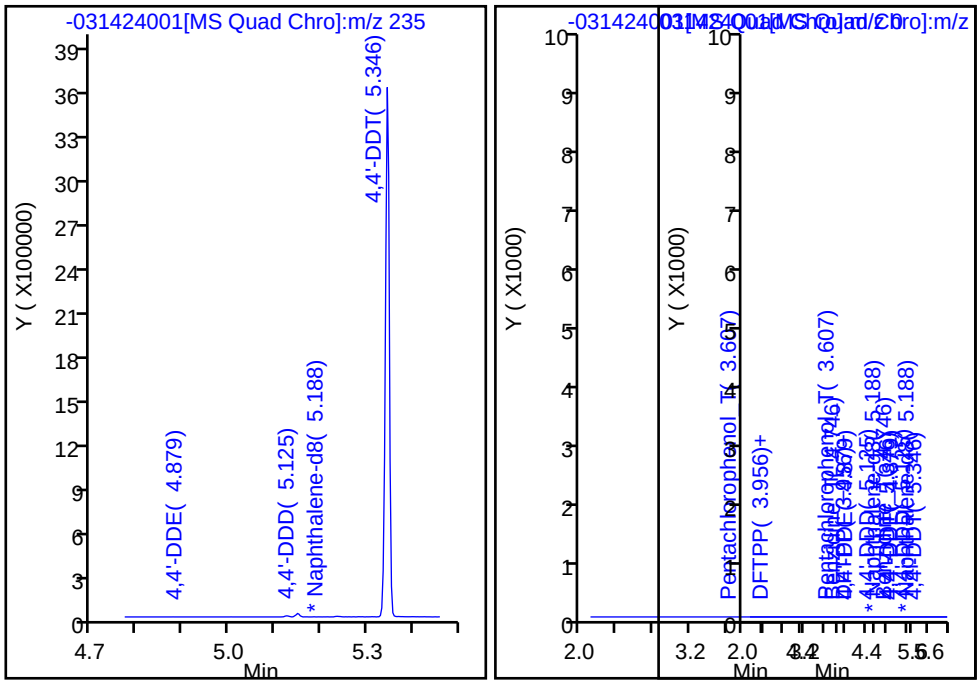
164 4,4'-DDT, Detector: MS Quad

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

164 4,4'-DDT, Area = 2141435
163 4,4'-DDD, Area = 4824
162 4,4'-DDE, Area = 1502

%Breakdown: 0.29%, <= 20.00%
Passed



Peak Tailing Report

Eurofins Denver

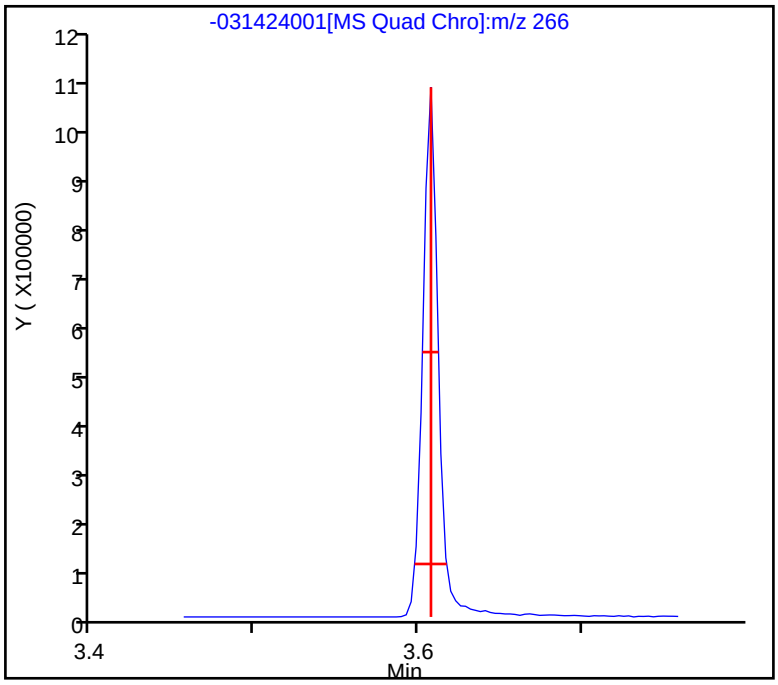
Data File: \\chromfs\Denver\ChromData\SMS_3\20240312-131096.b\SMS_3-031424001.D
Injection Date: 14-Mar-2024 08:53:24 Instrument ID: SMS_3
Lims ID: DFTPP
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E

159 Pentachlorophenol_T, Detector: MS Quad

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.010 (min.)
Front Width = 0.010 (min.)

Tailing Factor = 1.00, Max. Tailing <= 2.00
Passed



Peak Tailing Report

Eurofins Denver

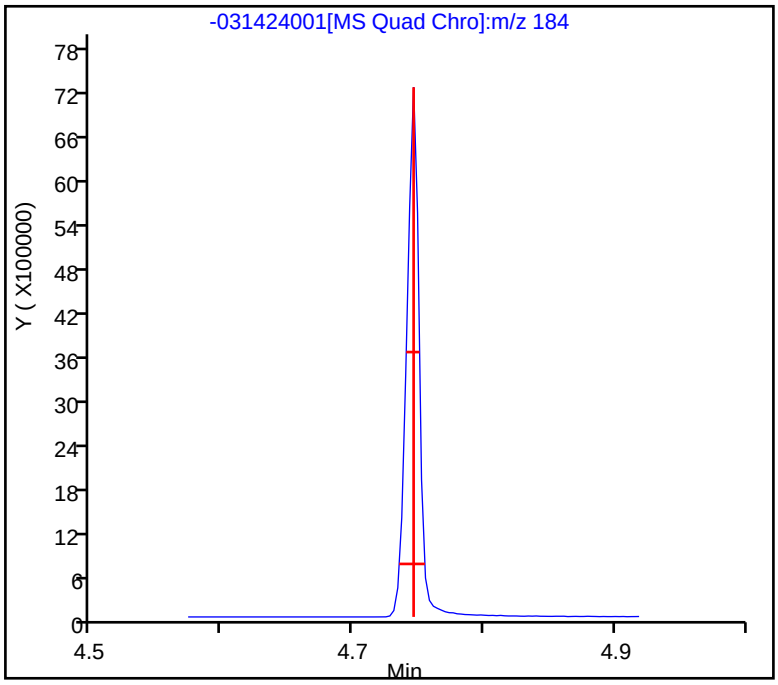
Data File: \\chromfs\Denver\ChromData\SMS_3\20240312-131096.b\SMS_3-031424001.D
Injection Date: 14-Mar-2024 08:53:24 Instrument ID: SMS_3
Lims ID: DFTPP
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E

161 Benzidine_T, Detector: MS Quad

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.009 (min.)
Front Width = 0.011 (min.)

Tailing Factor = 0.82, Max. Tailing <= 2.00
Passed



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524001.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 05-Apr-2024 10:11:55 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: DFTPP
Operator ID: DM Instrument ID: SMS_3

Method: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 08-Apr-2024 09:01:28 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1660

First Level Reviewer: G3YK Date: 05-Apr-2024 11:46:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
159 Pentachlorophenol_T	266	3.562	3.562	0.000	0	1211076	NR	NR	
160 DFTPP									
161 Benzidine_T	184	4.698	4.698	0.000	0	6977801	NR	NR	e
162 4,4'-DDE	246	4.879	4.879	0.000	0	131	NR	NR	
163 4,4'-DDD	235	5.155	5.155	0.000	0	461	NR	NR	
164 4,4'-DDT	235	5.297	5.297	0.000	0	3308522	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
e - Potential Peak Saturated

Reagents:

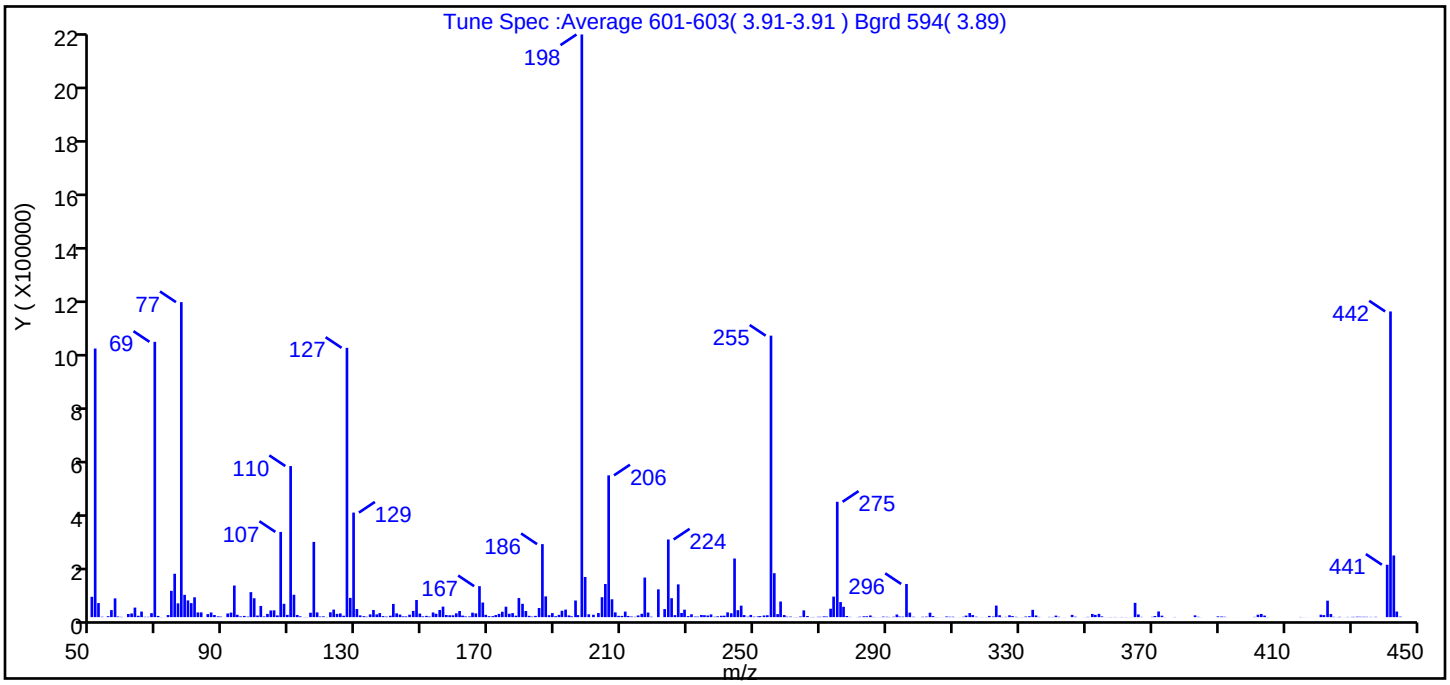
MS-DFTPP_RVE_00003 Amount Added: 500.00 Units: uL

MS Tune Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524001.D
Injection Date: 05-Apr-2024 10:11:55 Instrument ID: SMS_3
Lims ID: DFTPP
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E
Tune Method: DFTPP Method 8270

160 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	46.1
68	<2% of mass 69	0.7 (1.5)
69	Present	47.2
70	<2% of mass 69	0.2 (0.4)
127	40-60% of mass 198	46.2
197	<1% of mass 198	0.3
199	5-9% of mass 198	6.9
275	10-30% of mass 198	19.8
365	>1% of mass 198	2.5
441	Present but less than mass 443	9.0 (85.0)
442	>40% of mass 198	52.5
443	17-23% of mass 442	10.6 (20.2)

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524001.D\SMS_3 8270 RVE.rslt\sp
Injection Date: 05-Apr-2024 10:11:55
Spectrum: Tune Spec :Average 601-603(3.91-3.91) Bgrd 594(3.89)
Base Peak: 197.90
Minimum % Base Peak: 0
Number of Points: 355

m/z	Y	m/z	Y	m/z	Y	m/z	Y
50.00	76112	141.00	49504	233.00	1993	323.00	43264
51.00	1004992	142.00	14292	234.00	8146	324.00	7091
52.00	52712	143.00	9712	235.00	7399	325.00	739
53.00	1556	144.00	2964	236.00	6053	326.00	1132
55.00	3560	145.00	2839	237.00	10180	327.00	6913
56.00	26392	146.00	9109	238.00	1353	328.00	3895
57.00	70192	147.00	23416	239.00	3183	329.00	1241
58.00	2406	148.00	64056	240.00	5202	330.00	330
59.00	1072	149.00	13340	241.00	5418	331.00	369
60.00	90	150.00	2909	242.00	17968	332.00	2335
61.00	11756	151.00	4951	243.00	14529	333.00	3601
62.00	13816	152.00	2331	244.00	219392	334.00	27224
63.00	35704	153.00	17504	245.00	26072	335.00	6167
64.00	5095	154.00	12580	246.00	42984	336.00	963
65.00	20912	155.00	26824	247.00	7689	339.00	900
66.00	1287	156.00	39368	248.00	1616	340.00	653
67.00	1227	157.00	8043	249.00	8408	341.00	5773
68.00	15009	158.00	7036	250.00	1780	342.00	1556
69.00	1030080	159.00	7084	251.00	2667	343.00	141
70.00	4554	160.00	14232	252.00	3794	344.00	269
71.00	516	161.00	22992	253.00	6210	346.00	8521
72.00	148	162.00	5750	254.00	7116	347.00	1649
73.00	7966	163.00	2719	255.00	1053184	348.00	71
74.00	98480	164.00	2773	256.00	164416	350.00	344
75.00	162304	165.00	16688	257.00	11365	351.00	1035
76.00	51704	166.00	14086	258.00	58544	352.00	12060
77.00	1178624	167.00	115856	259.00	7814	353.00	8506
78.00	83480	168.00	54648	260.00	1821	354.00	12302
79.00	62640	169.00	8677	261.00	2034	355.00	2829
80.00	52536	170.00	3652	262.00	389	356.00	260
81.00	74232	171.00	3834	263.00	492	357.00	334
82.00	17568	172.00	7810	264.00	2398	358.00	583
83.00	17800	173.00	12295	265.00	25304	359.00	728

Report Date: 08-Apr-2024 09:01:28 Chrom Revision: 2.3 23-Feb-2024 16:51:14
Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524001.D\SMS_3 8270 RVE.rslt\sp
Injection Date: 05-Apr-2024 10:11:55
Spectrum: Tune Spec :Average 601-603(3.91-3.91) Bgrd 594(3.89)
Base Peak: 197.90
Minimum % Base Peak: 0
Number of Points: 355

m/z	Y	m/z	Y	m/z	Y	m/z	Y
84.00	80	174.00	20296	266.00	4100	360.00	173
85.00	11271	175.00	39096	267.00	458	361.00	691
86.00	17384	176.00	12715	268.00	707	362.00	449
87.00	7925	177.00	15081	269.00	1278	363.00	222
88.00	2939	178.00	5370	270.00	1203	364.00	338
89.00	1974	179.00	71480	271.00	2833	365.00	53528
91.00	13651	180.00	49824	272.00	2266	366.00	10009
92.00	17024	181.00	23064	273.00	31472	367.00	955
93.00	118296	182.00	4968	274.00	76904	370.00	1198
94.00	8862	183.00	1925	275.00	431616	371.00	4162
95.00	2816	184.00	4782	276.00	56464	372.00	21304
96.00	4599	185.00	34272	277.00	38720	373.00	5476
97.00	1915	186.00	273216	278.00	4340	374.00	429
98.00	93560	187.00	77664	279.00	925	377.00	696
99.00	70616	188.00	7245	281.00	329	383.00	6680
100.00	6082	189.00	15188	282.00	1556	384.00	1301
101.00	41864	190.00	3564	283.00	3038	385.00	262
102.00	2664	191.00	8492	284.00	3277	390.00	2955
103.00	12065	192.00	23928	285.00	6208	391.00	2356
104.00	24952	193.00	28272	286.00	931	392.00	1447
105.00	25472	194.00	6528	287.00	410	393.00	160
106.00	6557	195.00	3245	288.00	321	395.00	87
107.00	318912	196.00	62208	289.00	2031	397.00	69
108.00	49928	197.00	7574	290.00	1432	401.00	976
109.00	8631	198.00	2180096	291.00	703	402.00	9092
110.00	565312	199.00	150336	292.00	1680	403.00	11945
111.00	83832	200.00	10614	293.00	9908	404.00	5845
112.00	8198	201.00	8973	294.00	2140	405.00	563
113.00	3091	203.00	15369	295.00	1816	415.00	701
114.00	485	204.00	74576	296.00	124136	416.00	244
115.00	469	205.00	123976	297.00	16848	417.00	232
116.00	16568	206.00	530496	298.00	1581	418.00	82
117.00	281472	207.00	66800	299.00	203	421.00	9095
118.00	17728	208.00	17864	300.00	183	422.00	7682

Report Date: 08-Apr-2024 09:01:28 Chrom Revision: 2.3 23-Feb-2024 16:51:14
Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524001.D\SMS_3 8270 RVE.rslt\sp
Injection Date: 05-Apr-2024 10:11:55
Spectrum: Tune Spec :Average 601-603(3.91-3.91) Bgrd 594(3.89)
Base Peak: 197.90
Minimum % Base Peak: 0
Number of Points: 355

m/z	Y	m/z	Y	m/z	Y	m/z	Y
119.00	2242	209.00	4919	301.00	1511	423.00	61648
120.00	3016	210.00	4646	302.00	1968	424.00	11587
121.00	640	211.00	20712	303.00	16640	425.00	1118
122.00	18192	212.00	4489	304.00	3930	426.00	473
123.00	28248	213.00	2295	305.00	537	427.00	1207
124.00	12155	214.00	1219	306.00	240	428.00	252
125.00	13760	215.00	6345	307.00	215	429.00	870
126.00	5247	216.00	12612	308.00	2533	430.00	930
127.00	1007552	217.00	148096	309.00	1545	431.00	1025
128.00	72088	218.00	17232	310.00	1590	432.00	1827
129.00	391168	219.00	1620	311.00	179	433.00	1471
130.00	30568	221.00	104056	312.00	319	434.00	1414
131.00	6683	223.00	30200	313.00	1394	435.00	1304
132.00	3666	224.00	290560	314.00	5760	436.00	946
133.00	1619	225.00	70880	315.00	15408	438.00	1235
134.00	10359	226.00	7575	316.00	7737	438.00	137
135.00	26856	227.00	122664	317.00	1557	441.00	196096
136.00	10219	228.00	15695	318.00	151	442.00	1143808
137.00	15162	229.00	27904	319.00	317	443.00	230720
138.00	3924	230.00	3981	320.00	371	444.00	20896
139.00	2114	231.00	10746	321.00	4574	445.00	1801
140.00	5322	232.00	2155	322.00	2269		

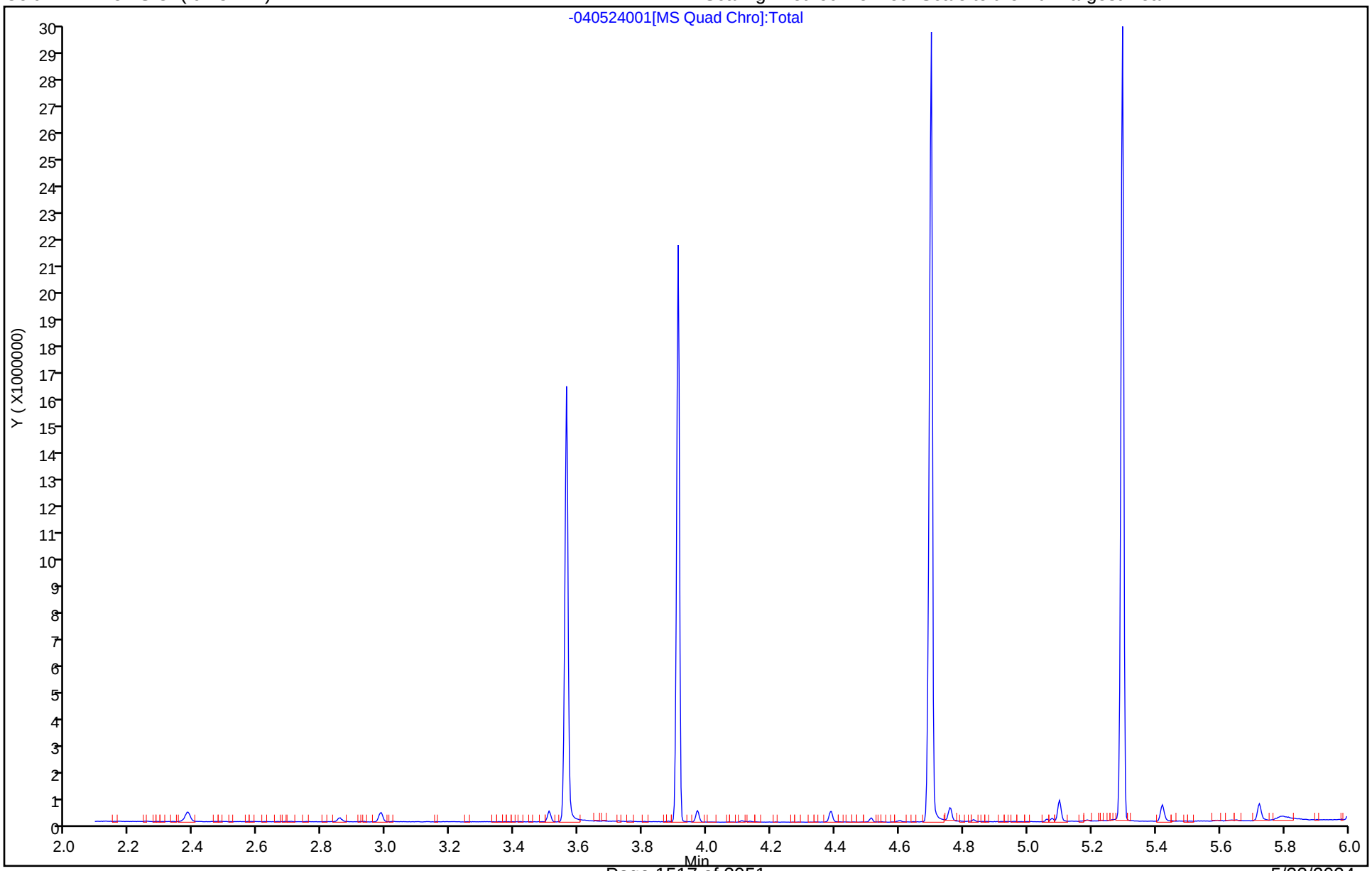
Report Date: 08-Apr-2024 09:01:28 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524001.D

Injection Date:	05-Apr-2024 10:11:55	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	DFTPP			Worklist Smp#:	1
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



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4:40:30 AM

Breakdown Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524001.D
Injection Date: 05-Apr-2024 10:11:55 Instrument ID: SMS_3
Lims ID: DFTPP
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E

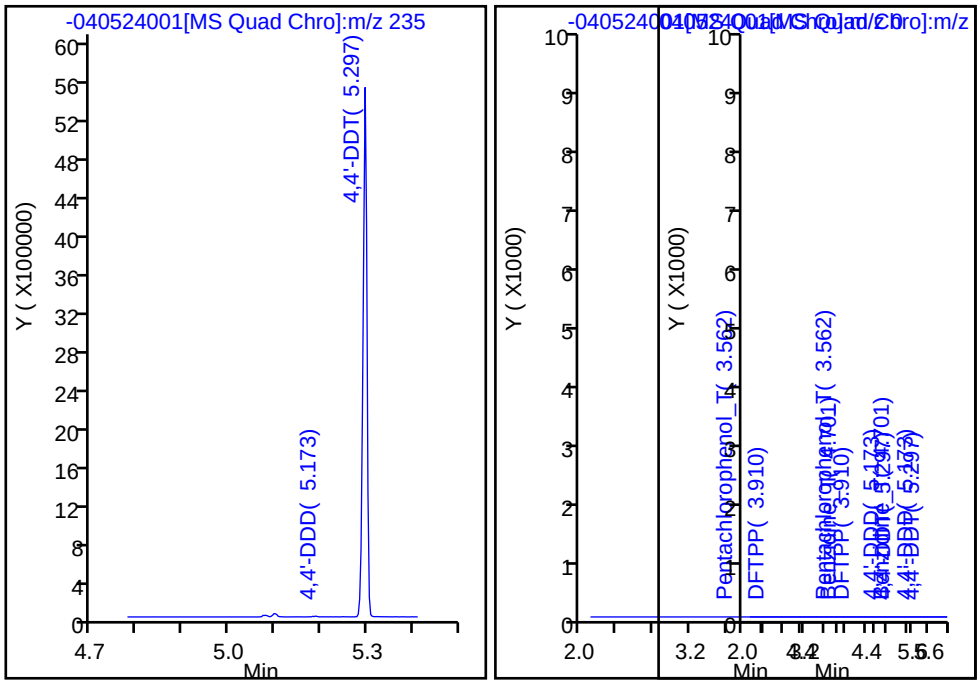
164 4,4'-DDT, Detector: MS Quad

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

164 4,4'-DDT, Area = 3308522
163 4,4'-DDD, Area = 461
162 4,4'-DDE, Area = 131

%Breakdown: 0.02%, <= 20.00%
Passed



Peak Tailing Report

Eurofins Denver

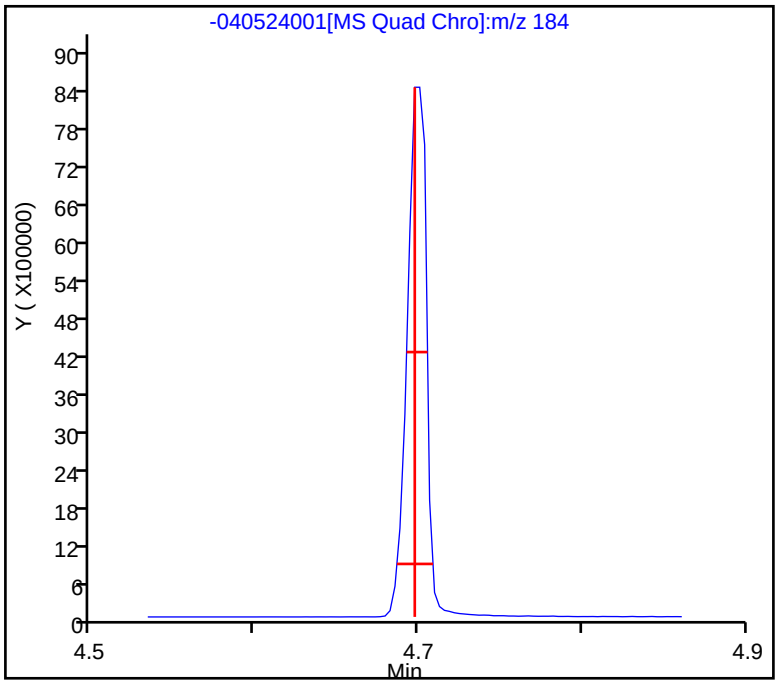
Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524001.D
Injection Date: 05-Apr-2024 10:11:55 Instrument ID: SMS_3
Lims ID: DFTPP
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E

161 Benzidine_T, Detector: MS Quad

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.011 (min.)
Front Width = 0.011 (min.)

Tailing Factor = 1.00, Max. Tailing <= 2.00
Passed



Peak Tailing Report

Eurofins Denver

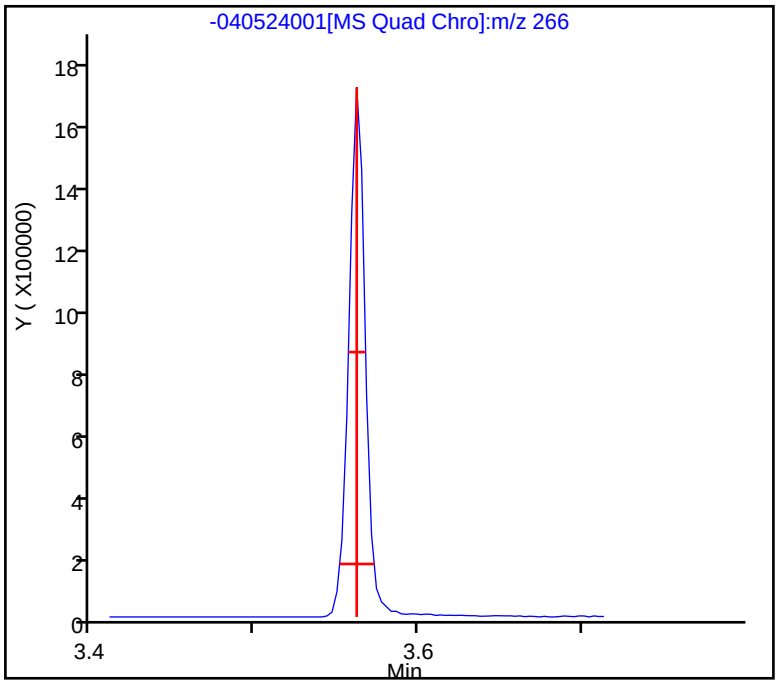
Data File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524001.D
Injection Date: 05-Apr-2024 10:11:55 Instrument ID: SMS_3
Lims ID: DFTPP
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E

159 Pentachlorophenol_T, Detector: MS Quad

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.011 (min.)
Front Width = 0.010 (min.)

Tailing Factor = 1.10, Max. Tailing <= 2.00
Passed



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424001b.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 14-May-2024 11:08:19 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: DFTPP
Operator ID: DM Instrument ID: SMS_3

Method: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 15-May-2024 10:45:52 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1641

First Level Reviewer: G3YK Date: 14-May-2024 11:15:34

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
159 Pentachlorophenol_T	266	3.526	3.526	0.000	0	478049	NR	NR	
160 DFTPP									
161 Benzidine_T	184	4.667	4.667	0.000	0	3260412	NR	NR	
162 4,4'-DDE	246	5.070	5.070	0.000	0	275	NR	NR	
163 4,4'-DDD	235	5.140	5.140	0.000	0	131	NR	NR	
164 4,4'-DDT	235	5.261	5.261	0.000	0	1484429	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

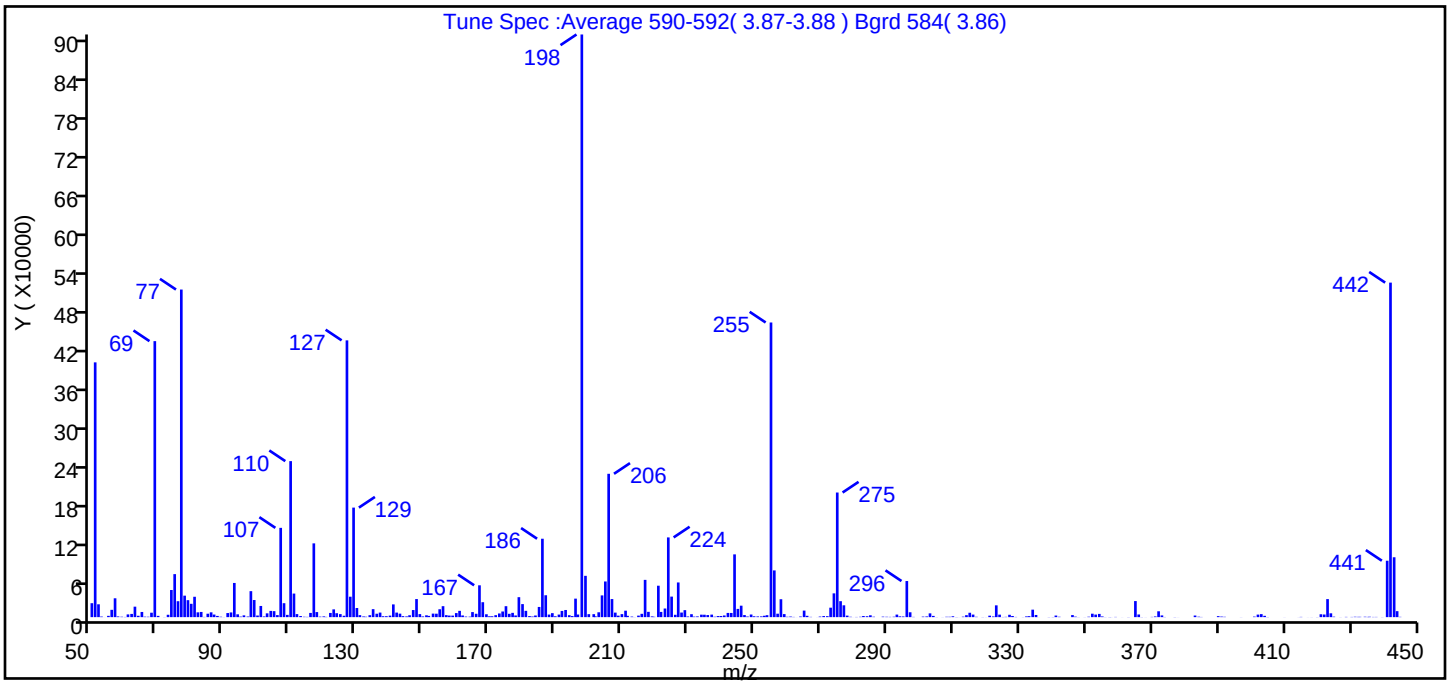
MS-DFTPP_RVE_00003 Amount Added: 500.00 Units: uL

MS Tune Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424001b.D
Injection Date: 14-May-2024 11:08:19 Instrument ID: SMS_3
Lims ID: DFTPP
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E
Tune Method: DFTPP Method 8270

160 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	43.7
68	<2% of mass 69	0.8 (1.6)
69	Present	47.4
70	<2% of mass 69	0.2 (0.5)
127	40-60% of mass 198	47.5
197	<1% of mass 198	0.4
199	5-9% of mass 198	7.1
275	10-30% of mass 198	21.4
365	>1% of mass 198	2.8
441	Present but less than mass 443	9.7 (94.2)
442	>40% of mass 198	57.4
443	17-23% of mass 442	10.3 (17.9)

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424001b.D\SMS_3 8270 RVE.rslt\s
Injection Date: 14-May-2024 11:08:19
Spectrum: Tune Spec :Average 590-592(3.87-3.88) Bgrd 584(3.86)
Base Peak: 197.90
Minimum % Base Peak: 0
Number of Points: 349

m/z	Y	m/z	Y	m/z	Y	m/z	Y
50.00	21784	139.00	1469	227.00	54176	322.00	1040
51.00	397888	140.00	2391	228.00	7170	323.00	18424
52.00	20064	141.00	19912	229.00	10916	324.00	3895
53.00	905	142.00	7120	230.00	1032	325.00	249
54.00	50	143.00	5459	231.00	4599	326.00	454
55.00	2040	144.00	1545	232.00	817	327.00	3688
56.00	11437	145.00	1128	233.00	1152	328.00	1801
57.00	29448	146.00	2930	234.00	3880	329.00	330
58.00	1127	147.00	11080	235.00	3776	331.00	142
59.00	642	148.00	28248	236.00	3241	332.00	1137
60.00	298	149.00	4757	237.00	3956	333.00	1524
61.00	4261	150.00	1123	238.00	654	334.00	11680
62.00	5036	151.00	2861	239.00	1714	335.00	3383
63.00	16358	152.00	1962	240.00	1805	336.00	75
64.00	2137	153.00	5525	241.00	2592	339.00	197
65.00	8089	154.00	5372	242.00	6578	340.00	231
66.00	738	155.00	12336	243.00	6542	341.00	2481
67.00	642	156.00	17120	244.00	98040	342.00	602
68.00	6924	157.00	3099	245.00	12863	346.00	3228
69.00	431040	158.00	2458	246.00	17896	347.00	793
70.00	1994	159.00	2402	247.00	3242	348.00	149
72.00	160	160.00	6350	248.00	985	350.00	120
73.00	3716	161.00	9845	249.00	4109	351.00	663
74.00	42376	162.00	2618	250.00	1314	352.00	5364
75.00	67184	163.00	897	251.00	1123	353.00	4027
76.00	24888	164.00	771	252.00	1183	354.00	5055
77.00	511616	165.00	7904	253.00	2167	355.00	1078
78.00	33552	166.00	5275	254.00	3062	356.00	142
79.00	26512	167.00	49728	255.00	460160	357.00	207
80.00	20824	168.00	23312	256.00	72976	358.00	91
81.00	31816	169.00	4502	257.00	5376	359.00	351
82.00	7502	170.00	1373	258.00	27984	361.00	71
83.00	8111	171.00	1363	259.00	4770	363.00	186

Report Date: 15-May-2024 10:45:53 Chrom Revision: 2.3 14-May-2024 14:23:08
Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424001b.D\SMS_3 8270 RVE.rslt\s
Injection Date: 14-May-2024 11:08:19
Spectrum: Tune Spec :Average 590-592(3.87-3.88) Bgrd 584(3.86)
Base Peak: 197.90
Minimum % Base Peak: 0
Number of Points: 349

m/z	Y	m/z	Y	m/z	Y	m/z	Y
84.00	349	172.00	3074	260.00	577	365.00	25088
85.00	5366	173.00	5727	261.00	920	366.00	4152
86.00	7505	174.00	8824	262.00	358	367.00	198
87.00	4031	175.00	17112	263.00	60	368.00	89
88.00	1914	176.00	5189	264.00	958	370.00	385
89.00	634	177.00	6708	265.00	10231	371.00	1072
90.00	124	178.00	2611	266.00	2084	372.00	9158
91.00	6380	179.00	31176	267.00	404	373.00	2690
92.00	7340	180.00	20360	269.00	71	374.00	270
93.00	53392	181.00	9842	270.00	907	377.00	204
94.00	4413	182.00	1660	271.00	1682	378.00	70
95.00	840	183.00	935	272.00	1511	383.00	2507
96.00	2785	184.00	2546	273.00	14765	384.00	695
97.00	951	185.00	15921	274.00	37144	385.00	308
98.00	40584	186.00	122464	275.00	194624	390.00	1560
99.00	26728	187.00	34192	276.00	24920	391.00	880
100.00	2542	188.00	4017	277.00	18480	392.00	543
101.00	17456	189.00	6263	278.00	2381	397.00	114
102.00	1075	190.00	1331	279.00	568	401.00	853
103.00	5954	191.00	3984	280.00	59	402.00	3974
104.00	9749	192.00	9698	281.00	300	403.00	4701
105.00	9384	193.00	11180	282.00	560	404.00	2061
106.00	3209	194.00	3051	283.00	1744	405.00	235
107.00	139456	195.00	1666	284.00	1430	410.00	88
108.00	21776	196.00	28904	285.00	2889	414.00	89
109.00	3527	197.00	4092	286.00	647	415.00	380
110.00	243648	198.00	909952	289.00	771	417.00	71
111.00	36808	199.00	64512	290.00	586	418.00	109
112.00	4752	200.00	4665	291.00	416	420.00	160
113.00	1755	202.00	4649	292.00	654	421.00	4499
114.00	587	202.00	1218	293.00	3993	422.00	4116
115.00	409	203.00	7578	294.00	1246	423.00	28184
116.00	6572	204.00	33960	295.00	1030	424.00	5993
117.00	115216	205.00	55704	296.00	56392	425.00	741

Report Date: 15-May-2024 10:45:53 Chrom Revision: 2.3 14-May-2024 14:23:08
Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424001b.D\SMS_3 8270 RVE.rslt\s
Injection Date: 14-May-2024 11:08:19
Spectrum: Tune Spec :Average 590-592(3.87-3.88) Bgrd 584(3.86)
Base Peak: 197.90
Minimum % Base Peak: 0
Number of Points: 349

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	7909	206.00	223872	297.00	7613	427.00	118
119.00	782	207.00	28224	298.00	370	429.00	392
120.00	1170	208.00	7070	301.00	843	429.00	53
121.00	413	209.00	2331	302.00	1081	430.00	333
122.00	6547	210.00	4719	303.00	5911	431.00	605
123.00	12135	211.00	10077	304.00	1937	432.00	450
124.00	6129	212.00	2080	305.00	141	433.00	488
125.00	4739	213.00	873	307.00	109	434.00	631
126.00	2155	214.00	140	308.00	575	435.00	379
127.00	432256	215.00	2391	309.00	575	436.00	610
128.00	31904	216.00	5203	310.00	1350	437.00	331
129.00	171072	217.00	58200	311.00	212	438.00	358
130.00	14253	218.00	8290	312.00	63	440.00	151
131.00	3140	219.00	1141	313.00	754	441.00	88096
132.00	1053	220.00	567	314.00	3079	442.00	522432
133.00	637	221.00	49088	315.00	6847	443.00	93520
134.00	3036	222.00	8150	316.00	4001	444.00	9338
135.00	12479	223.00	13484	317.00	556	445.00	454
136.00	5325	224.00	124520	319.00	178		
137.00	7127	225.00	32072	320.00	90		
138.00	1420	226.00	3674	321.00	2268		

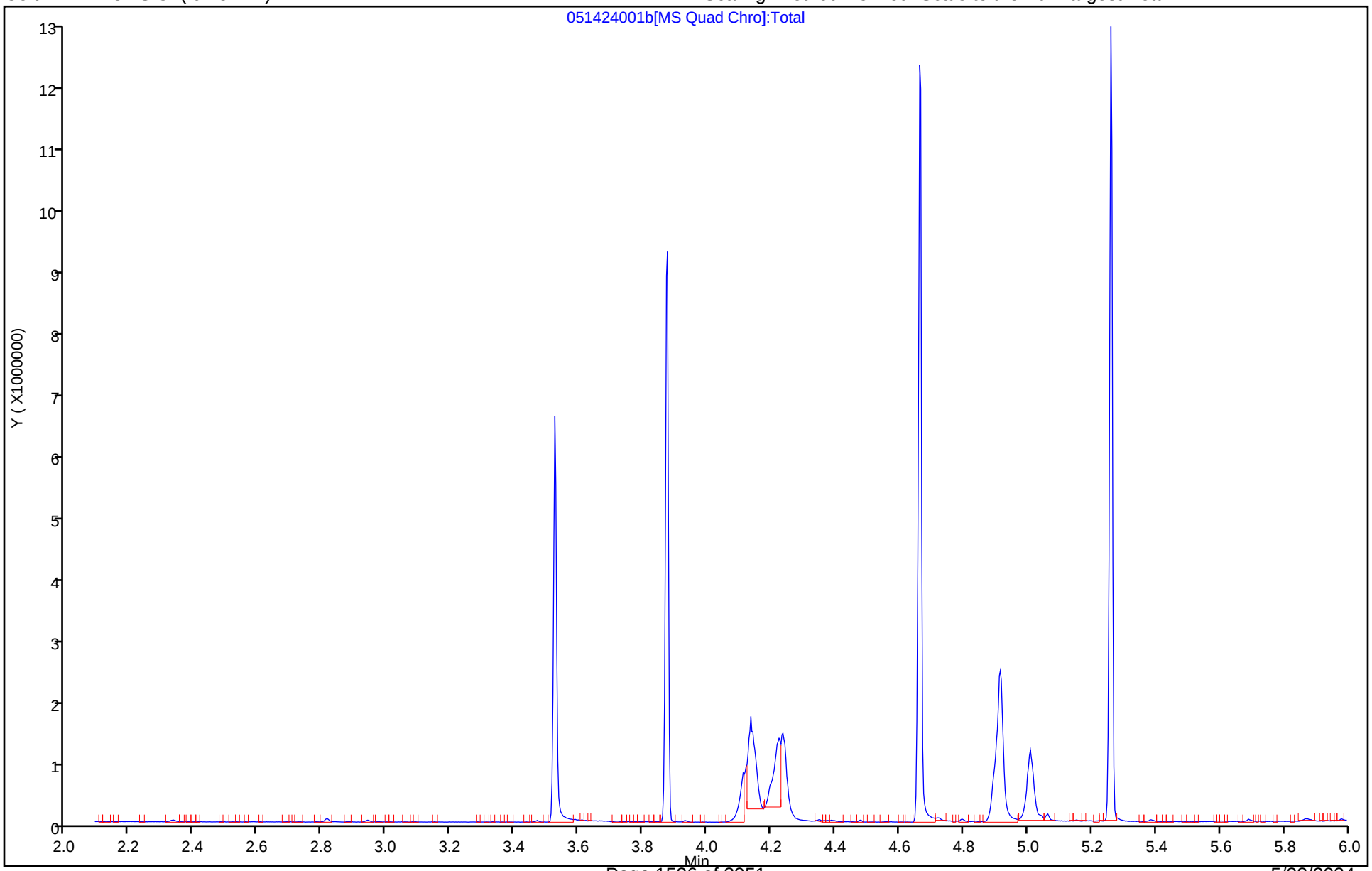
Report Date: 15-May-2024 10:45:53 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424001b.D

Injection Date:	14-May-2024 11:08:19	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	DFTPP			Worklist Smp#:	2
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Breakdown Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424001b.D
Injection Date: 14-May-2024 11:08:19 Instrument ID: SMS_3
Lims ID: DFTPP
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E

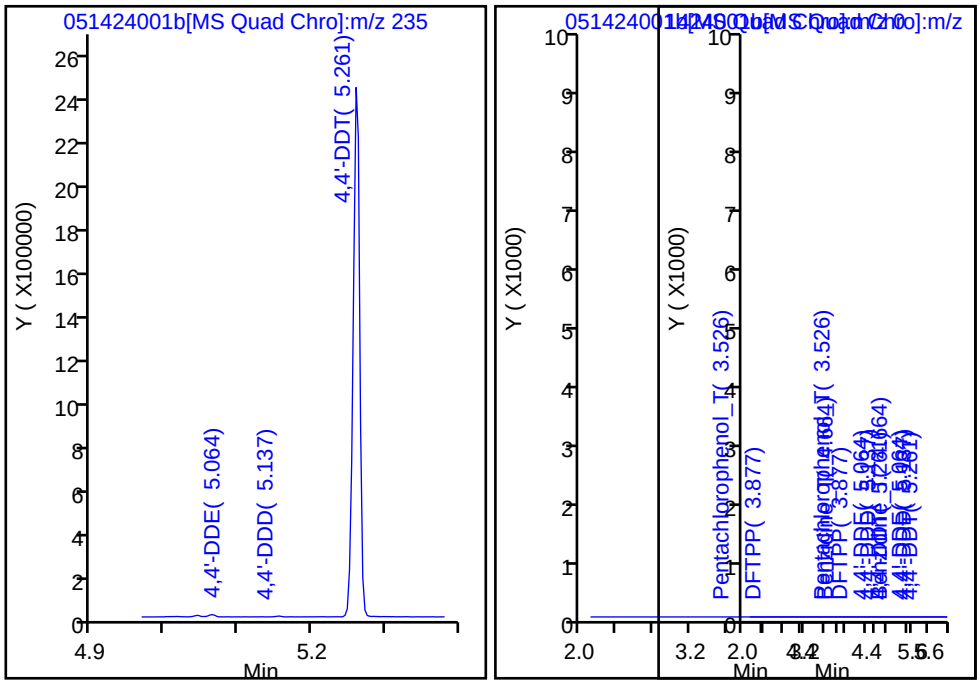
164 4,4'-DDT, Detector: MS Quad

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

164 4,4'-DDT, Area = 1484429
163 4,4'-DDD, Area = 131
162 4,4'-DDE, Area = 275

%Breakdown: 0.03%, <= 20.00%
Passed



Peak Tailing Report

Eurofins Denver

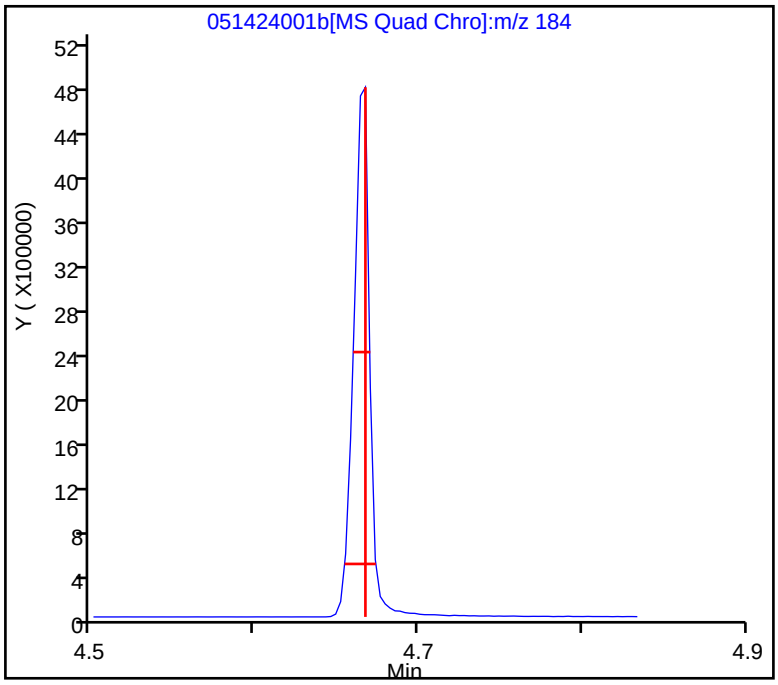
Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424001b.D
Injection Date: 14-May-2024 11:08:19 Instrument ID: SMS_3
Lims ID: DFTPP
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E

161 Benzidine_T, Detector: MS Quad

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.006 (min.)
Front Width = 0.013 (min.)

Tailing Factor = 0.46, Max. Tailing <= 2.00
Passed



Peak Tailing Report

Eurofins Denver

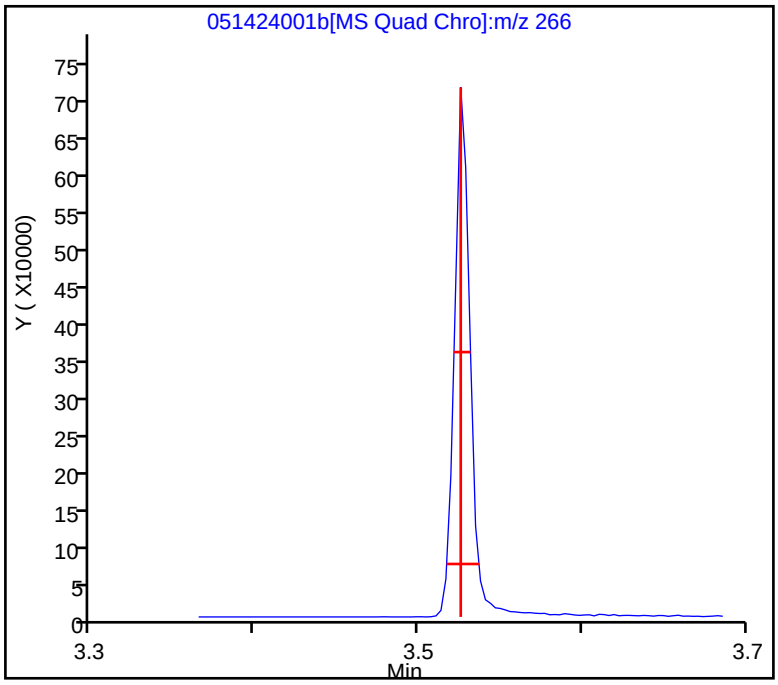
Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424001b.D
Injection Date: 14-May-2024 11:08:19 Instrument ID: SMS_3
Lims ID: DFTPP
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E

159 Pentachlorophenol_T, Detector: MS Quad

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.011 (min.)
Front Width = 0.009 (min.)

Tailing Factor = 1.22, Max. Tailing <= 2.00
Passed



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-653130/1-A

Matrix: Water | Lab File ID: SMS_3-051424007a.D

Analysis Method: 8270E | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/13/2024 11:32

Sample wt/vol: 250(mL) | Date Analyzed: 05/14/2024 13:11

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: DB-5MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 653283 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-95-4	2,4,5-Trichlorophenol	8.0	U	10	8.0	2.6
88-06-2	2,4,6-Trichlorophenol	8.0	U	10	8.0	2.3
120-83-2	2,4-Dichlorophenol	8.0	U	10	8.0	3.0
105-67-9	2,4-Dimethylphenol	8.0	U	10	8.0	1.4
51-28-5	2,4-Dinitrophenol	20	U	30	20	13
121-14-2	2,4-Dinitrotoluene	8.0	U	10	8.0	1.4
606-20-2	2,6-Dinitrotoluene	8.0	U	10	8.0	1.4
95-57-8	2-Chlorophenol	8.0	U	10	8.0	2.6
95-48-7	2-Methylphenol	8.0	U	10	8.0	0.77
88-75-5	2-Nitrophenol	8.0	U	10	8.0	3.5
15831-10-4	3 & 4 Methylphenol	8.0	U	10	8.0	2.2
534-52-1	4,6-Dinitro-2-methylphenol	30	U	50	30	4.0
59-50-7	4-Chloro-3-methylphenol	8.0	U	10	8.0	1.7
100-02-7	4-Nitrophenol	13	U	25	13	9.1
117-81-7	Bis(2-ethylhexyl) phthalate	8.0	U	10	8.0	3.3
85-68-7	Butyl benzyl phthalate	3.2	U	4.0	3.2	1.5
84-66-2	Diethyl phthalate	3.2	U	4.0	3.2	1.4
131-11-3	Dimethyl phthalate	3.2	U	4.0	3.2	0.75
84-74-2	Di-n-butyl phthalate	3.2	U	4.0	3.2	2.1
117-84-0	Di-n-octyl phthalate	8.0	U	10	8.0	3.6
98-95-3	Nitrobenzene	8.0	U	10	8.0	1.3
87-86-5	Pentachlorophenol	48	U	50	48	20
108-95-2	Phenol	8.0	U	10	8.0	0.92

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	88		43-140
321-60-8	2-Fluorobiphenyl	72		44-119
367-12-4	2-Fluorophenol (Surr)	45		19-119
4165-60-0	Nitrobenzene-d5 (Surr)	78		44-120
4165-62-2	Phenol-d5 (Surr)	31		10-115
1718-51-0	Terphenyl-d14 (Surr)	120		50-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424007a.D
Lims ID: MB 280-653130/1-A
Client ID:
Sample Type: MB
Inject. Date: 14-May-2024 13:11:57 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-653130/1-A
Operator ID: DM Instrument ID: SMS_3

Method: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 15-May-2024 10:46:00 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1641

First Level Reviewer: G3YK Date: 14-May-2024 15:17:35

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	115	3.987	3.987	0.000	98	187162	8.00	8.00	
* 2 Naphthalene-d8	136	5.153	5.155	-0.002	99	1025788	8.00	8.00	
* 3 Acenaphthene-d10	164	6.845	6.847	-0.002	94	537845	8.00	8.00	
* 4 Phenanthrene-d10	188	8.297	8.299	-0.001	97	915213	8.00	8.00	
* 5 Chrysene-d12	240	11.055	11.052	0.003	99	569647	8.00	8.00	
* 6 Perylene-d12	264	13.286	13.290	-0.004	98	567767	8.00	8.00	
$ 7 2-Fluorophenol	112	2.911	2.911	0.000	96	437913	25.0	11.2	
$ 8 Phenol-d5	99	3.711	3.718	-0.007	0	403051	25.0	7.71	
$ 9 Nitrobenzene-d5	82	4.489	4.495	-0.006	91	908242	25.0	19.4	
$ 10 2-Fluorobiphenyl	172	6.210	6.212	-0.002	100	1145836	25.0	17.9	
$ 11 2,4,6-Tribromophenol	330	7.623	7.625	-0.002	91	204906	25.0	22.0	
$ 12 Terphenyl-d14	244	9.897	9.897	0.000	98	1649114	25.0	30.1	
13 N-Nitrosodimethylamine	74		1.854					ND	
14 Pyridine	79		1.874					ND	U
15 2-Picoline	93		2.417					ND	
16 N-Nitrosomethylethylamine	88		2.515					ND	7
18 Methyl methanesulfonate	80		2.766					ND	U
17 Acrylamide	71		2.831					ND	U
19 N-Nitrosodiethylamine	102		3.078					ND	
20 Ethyl methanesulfonate	79		3.344					ND	
21 Benzaldehyde	77		3.609					ND	
23 Aniline	93		3.707					ND	
22 Phenol	94		3.730					ND	7
24 Pentachloroethane	117		3.738					ND	
25 Bis(2-chloroethyl)ether	93		3.773					ND	7
26 2-Chlorophenol	128		3.814					ND	
27 n-Decane	43		3.863					ND	7
28 1,3-Dichlorobenzene	146		3.936					ND	7
29 1,4-Dichlorobenzene	146		4.003					ND	7
31 1,2-Dichlorobenzene	146		4.134					ND	7
30 Benzyl alcohol	79		4.136					ND	U

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
32 Indene	116		4.218					ND	
34 2,2'-oxybis[1-chloropropane]	45		4.248					ND	
33 2-Methylphenol	108		4.257					ND	
35 N-Nitrosopyrrolidine	100		4.346					ND	7
36 Acetophenone	105		4.363					ND	
37 N-Nitrosodi-n-propylamine	70		4.377					ND	
40 N-Nitrosomorpholine	56		4.387					ND	
42 2-Toluidine	106		4.395					ND	
38 3-Methylphenol	108		4.401					ND	
39 3 & 4 Methylphenol	108		4.401					ND	
41 4-Methylphenol	108		4.401					ND	
43 Hexachloroethane	117		4.438					ND	
44 Nitrobenzene	77		4.514					ND	
45 N-Nitrosopiperidine	114		4.654					ND	7
46 Isophorone	82		4.742					ND	
47 2-Nitrophenol	139		4.808					ND	
48 2,4-Dimethylphenol	107		4.883					ND	
50 o,o',o''-Triethylphosphorothioat	121		4.936					ND	
51 Bis(2-chloroethoxy)methane	93		4.963					ND	
52 2,4-Dichlorophenol	162		5.049					ND	
49 Benzoic acid	105		5.063					ND	MU
53 1,2,4-Trichlorobenzene	180		5.108					ND	
54 Naphthalene	128		5.177					ND	
55 4-Chloroaniline	127		5.251					ND	
56 2,6-Dichlorophenol	162		5.255					ND	
155 Hexachloropropene	213		5.261					ND	
57 Hexachlorobutadiene	225		5.304					ND	
58 Quinoline	129		5.496					ND	
59 Caprolactam	113		5.575					ND	U
60 N-Nitrosodi-n-butylamine	84		5.585					ND	
61 4-Chloro-3-methylphenol	107		5.749					ND	
62 Safrole, Total	162		5.777					ND	
63 2-Methylnaphthalene	141		5.845					ND	
64 1-Methylnaphthalene	142		5.937					ND	
65 Hexachlorocyclopentadiene	237		5.996					ND	
66 1,2,4,5-Tetrachlorobenzene	216		6.004					ND	
67 Isosafrole Peak 1	162		6.059					ND	
68 2,4,6-Trichlorophenol	196		6.133					ND	
69 2,4,5-Trichlorophenol	196		6.173					ND	
70 Isosafrole Peak 2	162		6.279					ND	
71 1,1'-Biphenyl	154		6.304					ND	7
72 2-Chloronaphthalene	162		6.310					ND	
73 1-Chloronaphthalene	162		6.328					ND	
74 2-Nitroaniline	138		6.433					ND	
75 1,4-Naphthoquinone	158		6.492					ND	
76 1,4-Dinitrobenzene	168		6.573					ND	
77 Dimethyl phthalate	163		6.631					ND	
78 1,3-Dinitrobenzene	168		6.645					ND	
79 2,6-Dinitrotoluene	165		6.680					ND	
80 Acenaphthylene	152		6.710					ND	
81 3-Nitroaniline	65		6.839					ND	
82 Acenaphthene	153		6.882					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
83 2,4-Dinitrophenol	184		6.939					ND	
84 Pentachlorobenzene	250		7.008					ND	
86 Dibenzofuran	168		7.053					ND	
85 4-Nitrophenol	65		7.059					ND	
87 2,4-Dinitrotoluene	165		7.066					ND	
88 1-Naphthylamine	143		7.133					ND	
89 2,3,4,6-Tetrachlorophenol	232		7.186					ND	
90 2-Naphthylamine	143		7.214					ND	
91 Diethyl phthalate	149		7.329					ND	7
92 Hexadecane	57		7.355					ND	7
93 Fluorene	166		7.388					ND	
94 Thionazin	97		7.396					ND	
95 4-Chlorophenyl phenyl ether	204		7.407					ND	
96 N-Nitro-o-toluidine	152		7.421					ND	
97 4-Nitroaniline	138		7.443					ND	
98 4,6-Dinitro-2-methylphenol	198		7.464					ND	
99 Diphenylamine	169		7.531					ND	U
100 N-Nitrosodiphenylamine	168		7.531					ND	7
102 1,2-Diphenylhydrazine	77		7.562					ND	7
101 Azobenzene	77		7.562					ND	7
103 Sulfotepp	322		7.715					ND	
104 1,3,5-Trinitrobenzene	213		7.813					ND	
105 Diallate Peak 1	86		7.821					ND	
106 Phorate	121		7.829					ND	
107 Phenacetin	108		7.864					ND	
108 4-Bromophenyl phenyl ether	248		7.884					ND	
109 Diallate Peak 2	86		7.902					ND	
110 Hexachlorobenzene	284		7.915					ND	
111 Dimethoate	87		7.994					ND	
112 Atrazine	200		8.082					ND	
114 Pentachloronitrobenzene	237		8.127					ND	
113 Pentachlorophenol	266		8.127					ND	
115 4-Aminobiphenyl	169		8.143					ND	7
116 Pronamide	173		8.227					ND	
156 n-Octadecane	57		8.268					ND	7
117 Phenanthrene	178		8.323					ND	7
118 Dinoseb	211		8.329					ND	
119 Disulfoton	88		8.345					ND	
120 Anthracene	178		8.374					ND	7
121 Carbazole	167		8.552					ND	
123 Methyl parathion	109		8.707					ND	
122 Alachlor	45		8.707					ND	
124 Di-n-butyl phthalate	149	8.936	8.940	-0.004	98	9927		0.0881	
157 Ethyl Parathion	97		9.099					ND	
125 4-Nitroquinoline-1-oxide	190		9.099					ND	
126 Methapyrilene	58		9.201					ND	
158 Isodrin	193		9.338					ND	
127 Fluoranthene	202		9.489					ND	
128 Benzidine	184		9.658					ND	
129 Pyrene	202		9.707					ND	7
130 Aramite Peak 1	185		9.909					ND	
131 Aramite Peak 2	185		9.991					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
132 p-Dimethylamino azobenzene	120		10.044					ND	U
133 Chlorobenzilate	251		10.103					ND	
134 Famphur	218		10.369					ND	
135 3,3'-Dimethylbenzidine	212		10.407					ND	
136 Butyl benzyl phthalate	149		10.450					ND	
137 2-Acetylaminofluorene	181		10.699					ND	
138 Benzo[a]anthracene	228		11.046					ND	7
139 3,3'-Dichlorobenzidine	252		11.061					ND	
140 4,4'-Methylene bis(2-chloroanil	231		11.075					ND	
141 Chrysene	228		11.097					ND	7
142 Bis(2-ethylhexyl) phthalate	149		11.222					ND	
143 6-Methylchrysene	242		11.747					ND	
144 Di-n-octyl phthalate	149		12.243					ND	
145 Benzo[b]fluoranthene	252		12.659					ND	
146 7,12-Dimethylbenz(a)anthracene	256		12.663					ND	
147 Benzo[k]fluoranthene	252		12.706					ND	
148 Benzo[a]pyrene	252		13.196					ND	7
149 3-Methylcholanthrene	268		13.843					ND	
150 Dibenz[a,h]acridine	279		14.829					ND	
151 Dibenz[a,j]acridine	279		14.929					ND	
152 Indeno[1,2,3-cd]pyrene	276		15.201					ND	
153 Dibenz(a,h)anthracene	278		15.278					ND	
154 Benzo[g,h,i]perylene	276		15.658					ND	
209 1,4-Dioxane	88		0.000					ND	
159 Pentachlorophenol_T	266		3.526					ND	
161 Benzidine_T	184		4.667					ND	
162 4,4'-DDE	246		5.070					ND	
163 4,4'-DDD	235		5.140					ND	
164 4,4'-DDT	235		5.261					ND	
S 165 Aramite, Total	185		15.470					ND	7
S 166 Diallate	86		15.500					ND	7
S 169 Total Cresols	108		15.500					ND	7
S 167 Isosafrole	162		15.500					ND	7
S 168 Methyl Phenols,Total	108		15.500					ND	7
S 170 TPAH	1		0.000					ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

Reagents:

MS-IS-RVE_00005 Amount Added: 30.00 Units: uL Run Reagent

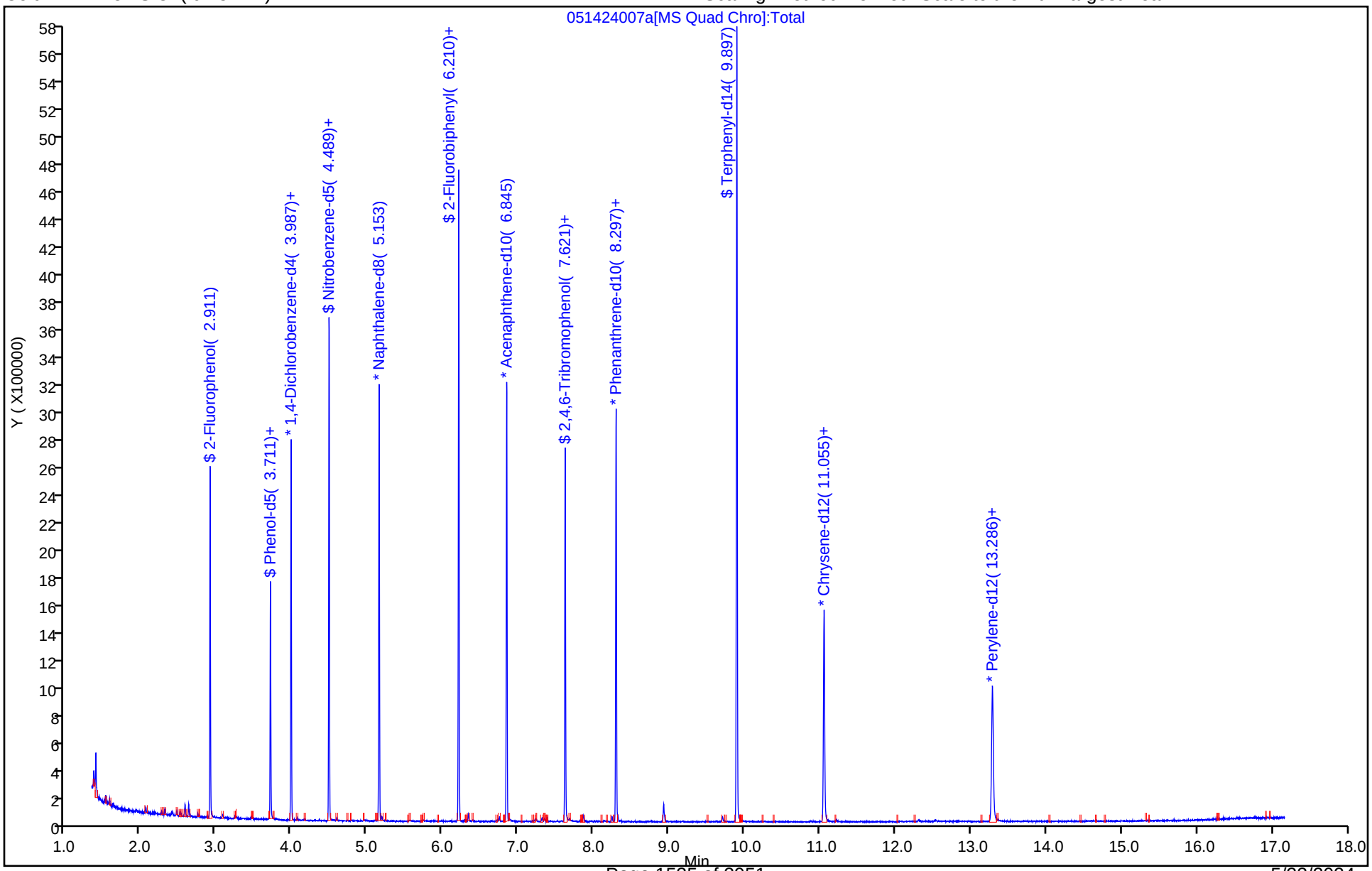
Report Date: 15-May-2024 10:46:23 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424007a.D

Injection Date:	14-May-2024 13:11:57	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	MB 280-653130/1-A			Worklist Smp#:	7
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424007a.D
Lims ID: MB 280-653130/1-A
Client ID:
Sample Type: MB
Inject. Date: 14-May-2024 13:11:57 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-653130/1-A
Operator ID: DM Instrument ID: SMS_3

Method: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 15-May-2024 10:46:00 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1641

First Level Reviewer: G3YK Date: 14-May-2024 15:17:35

Compound	Amount Added	Amount Recovered	% Rec.
$ 7 2-Fluorophenol	25.0	11.2	44.66
$ 8 Phenol-d5	25.0	7.71	30.84
$ 9 Nitrobenzene-d5	25.0	19.4	77.72
$ 10 2-Fluorobiphenyl	25.0	17.9	71.59
$ 11 2,4,6-Tribromophenol	25.0	22.0	87.99
$ 12 Terphenyl-d14	25.0	30.1	120.22

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-653130/2-A

Matrix: Water | Lab File ID: SMS_3-051424008a.D

Analysis Method: 8270E | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/13/2024 11:32

Sample wt/vol: 250(mL) | Date Analyzed: 05/14/2024 13:34

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: DB-5MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 653283 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-95-4	2,4,5-Trichlorophenol	68.0		10	8.0	2.6
88-06-2	2,4,6-Trichlorophenol	68.3		10	8.0	2.3
120-83-2	2,4-Dichlorophenol	59.2		10	8.0	3.0
105-67-9	2,4-Dimethylphenol	52.6		10	8.0	1.4
51-28-5	2,4-Dinitrophenol	123		30	20	13
121-14-2	2,4-Dinitrotoluene	67.1		10	8.0	1.4
606-20-2	2,6-Dinitrotoluene	71.1		10	8.0	1.4
95-57-8	2-Chlorophenol	52.8		10	8.0	2.6
95-48-7	2-Methylphenol	51.6		10	8.0	0.77
88-75-5	2-Nitrophenol	58.5		10	8.0	3.5
15831-10-4	3 & 4 Methylphenol	53.9	M	10	8.0	2.2
534-52-1	4,6-Dinitro-2-methylphenol	137		50	30	4.0
59-50-7	4-Chloro-3-methylphenol	59.3		10	8.0	1.7
100-02-7	4-Nitrophenol	75.5		25	13	9.1
117-81-7	Bis(2-ethylhexyl) phthalate	73.1		10	8.0	3.3
85-68-7	Butyl benzyl phthalate	71.5		4.0	3.2	1.5
84-66-2	Diethyl phthalate	66.7		4.0	3.2	1.4
131-11-3	Dimethyl phthalate	64.0		4.0	3.2	0.75
84-74-2	Di-n-butyl phthalate	78.8		4.0	3.2	2.1
117-84-0	Di-n-octyl phthalate	68.2		10	8.0	3.6
98-95-3	Nitrobenzene	57.9		10	8.0	1.3
87-86-5	Pentachlorophenol	133		50	48	20
108-95-2	Phenol	27.5		10	8.0	0.92

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	92		43-140
321-60-8	2-Fluorobiphenyl	84		44-119
367-12-4	2-Fluorophenol (Surr)	47		19-119
4165-60-0	Nitrobenzene-d5 (Surr)	77		44-120
4165-62-2	Phenol-d5 (Surr)	34		10-115
1718-51-0	Terphenyl-d14 (Surr)	106		50-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424008a.D
Lims ID: LCS 280-653130/2-A
Client ID:
Sample Type: LCS
Inject. Date: 14-May-2024 13:34:30 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-653130/2-A
Operator ID: DM Instrument ID: SMS_3

Method: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 15-May-2024 10:46:00 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1641

First Level Reviewer: G3YK Date: 14-May-2024 15:22:42

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	115	3.987	3.987	0.000	97	184258	8.00	8.00	
* 2 Naphthalene-d8	136	5.157	5.155	0.002	99	1004632	8.00	8.00	
* 3 Acenaphthene-d10	164	6.847	6.847	0.000	94	497943	8.00	8.00	
* 4 Phenanthrene-d10	188	8.301	8.299	0.002	97	795991	8.00	8.00	
* 5 Chrysene-d12	240	11.059	11.052	0.007	95	624459	8.00	8.00	
* 6 Perylene-d12	264	13.292	13.290	0.002	97	546419	8.00	8.00	Ma
$ 7 2-Fluorophenol	112	2.913	2.911	0.002	95	458102	25.0	11.9	
$ 8 Phenol-d5	99	3.715	3.718	-0.003	0	443687	25.0	8.62	
$ 9 Nitrobenzene-d5	82	4.495	4.495	0.000	92	881756	25.0	19.3	
$ 10 2-Fluorobiphenyl	172	6.212	6.212	0.000	99	1241968	25.0	21.0	
$ 11 2,4,6-Tribromophenol	330	7.625	7.625	0.000	89	187187	25.0	23.1	
$ 12 Terphenyl-d14	244	9.897	9.897	0.000	97	1599504	25.0	26.6	
13 N-Nitrosodimethylamine	74	1.854	1.854	0.000	94	266827	20.0	9.24	
14 Pyridine	79	1.880	1.874	0.006	90	431000	40.0	12.5	
15 2-Picoline	93	2.421	2.417	0.004	94	478590	20.0	10.2	
16 N-Nitrosomethylethylamine	88	2.515	2.515	0.000	91	281579	20.0	13.3	M
18 Methyl methanesulfonate	80	2.762	2.766	-0.004	87	348147	20.0	12.7	
17 Acrylamide	71	2.756	2.831	-0.075	26	513	20.0	1.41	
19 N-Nitrosodiethylamine	102	3.074	3.078	-0.004	91	278799	20.0	14.1	
20 Ethyl methanesulfonate	79	3.340	3.344	-0.004	97	561918	20.0	15.7	
21 Benzaldehyde	77	3.607	3.609	-0.002	93	481905	20.0	12.7	
23 Aniline	93	3.705	3.707	-0.002	96	591921	20.0	9.81	
22 Phenol	94	3.726	3.730	-0.004	98	411125	20.0	6.88	
24 Pentachloroethane	117	3.738	3.738	0.000	95	160681	20.0	9.27	
25 Bis(2-chloroethyl)ether	93	3.770	3.773	-0.003	91	657026	20.0	14.4	
26 2-Chlorophenol	128	3.813	3.814	-0.001	94	505775	20.0	13.2	
27 n-Decane	43	3.860	3.863	-0.002	88	466199	20.0	8.87	
28 1,3-Dichlorobenzene	146	3.934	3.936	-0.002	95	420531	20.0	10.3	
29 1,4-Dichlorobenzene	146	4.001	4.003	-0.002	90	433060	20.0	10.2	
31 1,2-Dichlorobenzene	146	4.134	4.134	0.000	93	431961	20.0	11.0	
30 Benzyl alcohol	79	4.130	4.136	-0.006	90	480443	20.0	12.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
32 Indene	116	4.213	4.218	-0.005	90	804244	20.0	11.8	
34 2,2'-oxybis[1-chloropropane]	45	4.250	4.248	0.002	95	1047388	20.0	13.5	a
33 2-Methylphenol	108	4.260	4.257	0.004	97	468841	20.0	12.9	
35 N-Nitrosopyrrolidine	100	4.346	4.346	0.000	90	310915	20.0	14.6	
36 Acetophenone	105	4.360	4.363	-0.003	93	823721	20.0	14.4	
37 N-Nitrosodi-n-propylamine	70	4.375	4.377	-0.002	87	515377	20.0	15.3	
40 N-Nitrosomorpholine	56	4.387	4.387	0.000	92	448800	20.0	15.3	
42 2-Toluidine	106	4.393	4.395	-0.002	95	717767	20.0	12.2	
38 3-Methylphenol	108	4.401	4.401	0.000	77	511609	20.0	13.5	a
39 3 & 4 Methylphenol	108	4.401	4.401	0.000	0	511609	20.0	13.5	a
41 4-Methylphenol	108	4.401	4.401	0.000	85	511609	20.0	13.5	a
43 Hexachloroethane	117	4.436	4.438	-0.002	96	215647	20.0	10.8	
44 Nitrobenzene	77	4.512	4.514	-0.002	91	696319	20.0	14.5	
45 N-Nitrosopiperidine	114	4.654	4.654	0.000	83	291808	20.0	15.6	
46 Isophorone	82	4.738	4.742	-0.004	98	1311554	20.0	15.2	
47 2-Nitrophenol	139	4.806	4.808	-0.002	94	277605	20.0	14.6	
48 2,4-Dimethylphenol	107	4.883	4.883	0.000	98	426992	20.0	13.2	
50 o,o',o''-Triethylphosphorothioat	121	4.938	4.936	0.002	95	236336	20.0	14.3	
51 Bis(2-chloroethoxy)methane	93	4.961	4.963	-0.002	94	838251	20.0	15.7	
52 2,4-Dichlorophenol	162	5.048	5.049	-0.001	98	433697	20.0	14.8	
49 Benzoic acid	105	4.991	5.063	-0.072	92	139021	20.0	5.35	Ma
53 1,2,4-Trichlorobenzene	180	5.108	5.108	0.000	93	406259	20.0	12.4	
54 Naphthalene	128	5.177	5.177	0.000	98	1350622	20.0	13.6	
55 4-Chloroaniline	127	5.249	5.251	-0.003	94	570872	20.0	13.6	
56 2,6-Dichlorophenol	162	5.253	5.255	-0.002	92	429006	20.0	14.7	
155 Hexachloropropene	213	5.259	5.261	-0.002	90	227076	20.0	9.51	
57 Hexachlorobutadiene	225	5.302	5.304	-0.002	98	232308	20.0	11.7	
58 Quinoline	129	5.498	5.496	0.002	94	1013781	20.0	15.8	
59 Caprolactam	113	5.573	5.575	-0.002	72	49925	20.0	5.42	a
60 N-Nitrosodi-n-butylamine	84	5.583	5.585	-0.002	94	469487	20.0	18.3	
61 4-Chloro-3-methylphenol	107	5.751	5.749	0.002	96	497251	20.0	14.8	
62 Safrole, Total	162	5.777	5.777	0.000	83	354283	20.0	14.2	
63 2-Methylnaphthalene	141	5.843	5.845	-0.002	93	749197	20.0	13.9	
64 1-Methylnaphthalene	142	5.934	5.937	-0.003	94	815748	20.0	13.9	
65 Hexachlorocyclopentadiene	237	5.998	5.996	0.002	98	479313	40.0	29.9	
66 1,2,4,5-Tetrachlorobenzene	216	6.004	6.004	0.000	99	460105	20.0	15.6	
67 Isosafrole Peak 1	162	6.059	6.059	0.000	0	64940	3.20	2.33	
68 2,4,6-Trichlorophenol	196	6.132	6.133	-0.001	96	327743	20.0	17.1	
69 2,4,5-Trichlorophenol	196	6.177	6.173	0.004	94	345547	20.0	17.0	
70 Isosafrole Peak 2	162	6.279	6.279	0.000	0	362942	16.8	12.3	
71 1,1'-Biphenyl	154	6.304	6.304	0.000	97	1045736	20.0	15.7	
72 2-Chloronaphthalene	162	6.310	6.310	0.000	98	905274	20.0	16.5	
73 1-Chloronaphthalene	162	6.328	6.328	0.000	96	811856	20.0	14.3	
74 2-Nitroaniline	138	6.431	6.433	-0.003	80	340839	20.0	17.2	
75 1,4-Naphthoquinone	158	6.494	6.492	0.002	79	422182	20.0	21.8	
76 1,4-Dinitrobenzene	168	6.573	6.573	0.000	88	156204	20.0	17.8	
77 Dimethyl phthalate	163	6.626	6.631	-0.005	96	990471	20.0	16.0	
78 1,3-Dinitrobenzene	168	6.643	6.645	-0.002	83	183821	20.0	17.0	
79 2,6-Dinitrotoluene	165	6.678	6.680	-0.002	91	254626	20.0	17.8	
80 Acenaphthylene	152	6.708	6.710	-0.002	99	1274740	20.0	15.4	
81 3-Nitroaniline	65	6.835	6.839	-0.004	88	495590	20.0	17.2	
82 Acenaphthene	153	6.880	6.882	-0.002	96	842689	20.0	15.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
83 2,4-Dinitrophenol	184	6.937	6.939	-0.002	78	240493	40.0	30.9	
84 Pentachlorobenzene	250	7.006	7.008	-0.002	97	354080	20.0	14.7	
86 Dibenzofuran	168	7.051	7.053	-0.002	97	1175845	20.0	15.4	
85 4-Nitrophenol	65	7.061	7.059	0.002	91	322585	40.0	18.9	
87 2,4-Dinitrotoluene	165	7.063	7.066	-0.003	89	328280	20.0	16.8	
88 1-Naphthylamine	143	7.135	7.133	0.002	98	663172	20.0	12.7	
89 2,3,4,6-Tetrachlorophenol	232	7.188	7.186	0.002	75	259756	20.0	16.7	
90 2-Naphthylamine	143	7.214	7.214	0.000	95	733325	20.0	12.8	
91 Diethyl phthalate	149	7.325	7.329	-0.004	96	1070731	20.0	16.7	
92 Hexadecane	57	7.355	7.355	0.000	87	985745	20.0	17.4	
93 Fluorene	166	7.386	7.388	-0.002	94	951629	20.0	16.0	
94 Thionazin	97	7.402	7.396	0.006	77	312205	20.0	17.8	
95 4-Chlorophenyl phenyl ether	204	7.406	7.407	0.000	94	467712	20.0	16.4	
96 N-Nitro-o-toluidine	152	7.419	7.421	-0.002	90	282706	20.0	16.7	
97 4-Nitroaniline	138	7.439	7.443	-0.004	83	265999	20.0	16.4	
98 4,6-Dinitro-2-methylphenol	198	7.461	7.464	-0.003	86	356342	40.0	34.2	
99 Diphenylamine	169	7.527	7.531	-0.004	93	701352	17.0	14.1	
100 N-Nitrosodiphenylamine	168	7.529	7.531	-0.002	64	450320	20.0	16.7	
102 1,2-Diphenylhydrazine	77	7.559	7.562	-0.003	42	1483214	20.2	18.3	
101 Azobenzene	77	7.559	7.562	-0.003	97	1483214	20.0	18.1	
103 Sulfotepp	322	7.715	7.715	0.000	79	123272	20.0	16.4	
104 1,3,5-Trinitrobenzene	213	7.819	7.813	0.006	74	101056	20.0	18.2	
105 Diallate Peak 1	86	7.821	7.821	0.000	0	432447	17.0	13.0	
106 Phorate	121	7.827	7.829	-0.002	94	219165	20.0	17.2	
107 Phenacetin	108	7.864	7.864	0.000	91	561666	20.0	18.4	
108 4-Bromophenyl phenyl ether	248	7.884	7.884	0.000	73	266436	20.0	17.1	
109 Diallate Peak 2	86	7.904	7.902	0.002	0	150483	3.00	4.48	
110 Hexachlorobenzene	284	7.917	7.915	0.002	92	293804	20.0	16.3	
111 Dimethoate	87	7.994	7.994	0.000	97	524834	20.0	19.7	
112 Atrazine	200	8.080	8.082	-0.002	85	228185	20.0	16.5	
114 Pentachloronitrobenzene	237	8.127	8.127	0.000	65	153495	20.0	20.2	
113 Pentachlorophenol	266	8.129	8.127	0.002	88	373183	40.0	33.3	
115 4-Aminobiphenyl	169	8.141	8.143	-0.002	90	529709	20.0	8.80	
116 Pronamide	173	8.227	8.227	0.000	91	459797	20.0	17.6	
156 n-Octadecane	57	8.268	8.268	0.000	91	1065842	20.0	19.8	
117 Phenanthrene	178	8.325	8.323	0.002	99	1336750	20.0	17.1	
118 Dinoseb	211	8.329	8.329	0.000	93	228842	20.0	18.6	
119 Disulfoton	88	8.343	8.345	-0.002	98	717470	20.0	18.2	
120 Anthracene	178	8.374	8.374	0.000	98	1343166	20.0	17.1	
121 Carbazole	167	8.552	8.552	0.000	96	1306717	20.0	17.4	
123 Methyl parathion	109	8.707	8.707	0.000	90	427639	20.0	21.4	
124 Di-n-butyl phthalate	149	8.939	8.940	-0.001	100	1931725	20.0	19.7	
157 Ethyl Parathion	97	9.099	9.099	0.000	82	312508	20.0	21.1	
125 4-Nitroquinoline-1-oxide	190	9.099	9.099	0.000	90	131069	20.0	16.8	
126 Methapyrilene	58	9.199	9.201	-0.002	98	447504	20.0	8.05	
158 Isodrin	193	9.336	9.338	-0.002	91	208352	20.0	19.6	
127 Fluoranthene	202	9.489	9.489	0.000	99	1611232	20.0	19.0	
128 Benzidine	184	9.656	9.658	-0.002	99	32919	40.0	1.83	
129 Pyrene	202	9.705	9.707	-0.002	97	1710868	20.0	18.5	
130 Aramite Peak 1	185	9.909	9.909	0.000	0	74929	10.2	9.54	
131 Aramite Peak 2	185	9.989	9.991	-0.002	0	151117	9.80	8.41	
132 p-Dimethylamino azobenzene	120	10.044	10.044	0.000	93	440686	20.0	15.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
133 Chlorobenzilate	251	10.105	10.103	0.002	86	410573	20.0	17.0	
134 Famphur	218	10.366	10.369	-0.003	86	450610	20.0	16.0	
135 3,3'-Dimethylbenzidine	212	10.405	10.407	-0.002	98	32638	20.0	0.6821	
136 Butyl benzyl phthalate	149	10.448	10.450	-0.002	96	776294	20.0	17.9	
137 2-Acetylaminofluorene	181	10.697	10.699	-0.002	95	496732	20.0	15.1	
138 Benzo[a]anthracene	228	11.050	11.046	0.004	99	1386137	20.0	17.6	
139 3,3'-Dichlorobenzidine	252	11.063	11.061	0.002	76	930430	40.0	33.7	
140 4,4'-Methylene bis(2-chloroanil	231	11.077	11.075	0.002	90	227259	20.0	14.2	
141 Chrysene	228	11.095	11.097	-0.002	97	1391927	20.0	18.3	
142 Bis(2-ethylhexyl) phthalate	149	11.224	11.222	0.002	97	1053118	20.0	18.3	
143 6-Methylchrysene	242	11.744	11.747	-0.003	99	879921	20.0	15.7	
144 Di-n-octyl phthalate	149	12.249	12.243	0.006	99	1573830	20.0	17.1	
145 Benzo[b]fluoranthene	252	12.659	12.659	0.000	98	1249686	20.0	20.6	Ma
146 7,12-Dimethylbenz(a)anthracene	256	12.671	12.663	0.008	87	551801	20.0	18.5	
147 Benzo[k]fluoranthene	252	12.708	12.706	0.002	99	1218356	20.0	19.2	a
148 Benzo[a]pyrene	252	13.194	13.196	-0.002	79	1037020	20.0	18.5	a
149 3-Methylcholanthrene	268	13.841	13.843	-0.002	92	196438	20.0	8.41	M
150 Dibenz[a,h]acridine	279	14.829	14.829	0.000	92	671685	20.0	15.9	Ma
151 Dibenz[a,j]acridine	279	14.925	14.929	-0.004	96	741821	20.2	16.4	Ma
152 Indeno[1,2,3-cd]pyrene	276	15.201	15.201	0.000	97	844370	20.0	15.7	
153 Dibenz(a,h)anthracene	278	15.274	15.278	-0.004	95	831912	20.0	16.8	a
154 Benzo[g,h,i]perylene	276	15.658	15.658	0.000	97	917751	20.0	17.6	a
209 1,4-Dioxane	88		0.000				ND	ND	
S 165 Aramite, Total	185				0		20.0	18.0	
S 166 Diallate	86				0		20.0	17.5	
S 167 Isosafrole	162				0		20.0	14.6	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-IS-RVE_00005 Amount Added: 30.00 Units: uL Run Reagent

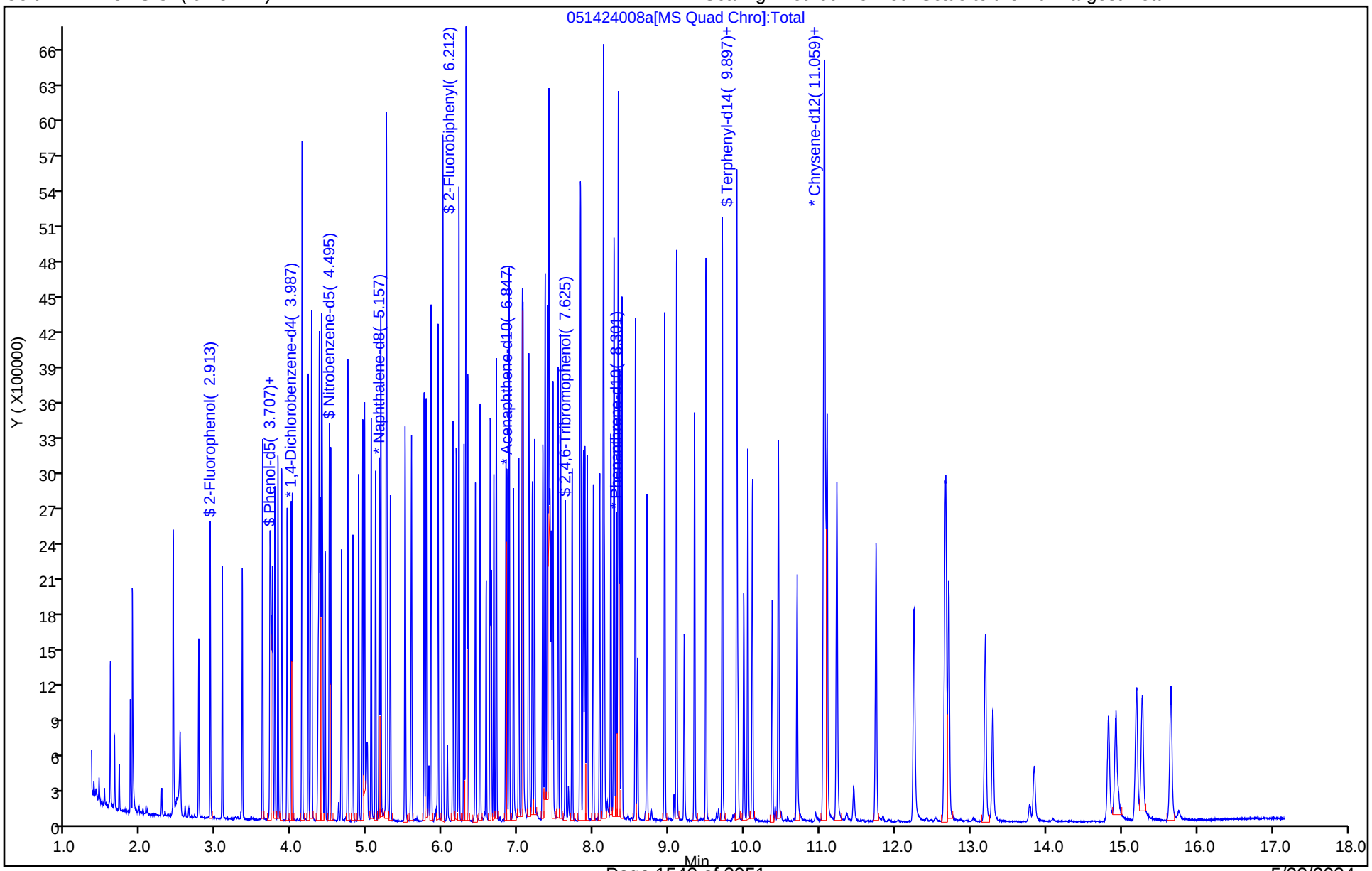
Report Date: 15-May-2024 10:46:27 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424008a.D

Injection Date:	14-May-2024 13:34:30	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	LCS 280-653130/2-A			Worklist Smp#:	8
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424008a.D
Lims ID: LCS 280-653130/2-A
Client ID:
Sample Type: LCS
Inject. Date: 14-May-2024 13:34:30 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-653130/2-A
Operator ID: DM Instrument ID: SMS_3

Method: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 15-May-2024 10:46:00 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1641

First Level Reviewer: G3YK Date: 14-May-2024 15:22:42

Compound	Amount Added	Amount Recovered	% Rec.
$ 7 2-Fluorophenol	25.0	11.9	47.45
$ 8 Phenol-d5	25.0	8.62	34.48
$ 9 Nitrobenzene-d5	25.0	19.3	77.05
$ 10 2-Fluorobiphenyl	25.0	21.0	83.82
$ 11 2,4,6-Tribromophenol	25.0	23.1	92.42
$ 12 Terphenyl-d14	25.0	26.6	106.37

Eurofins Denver

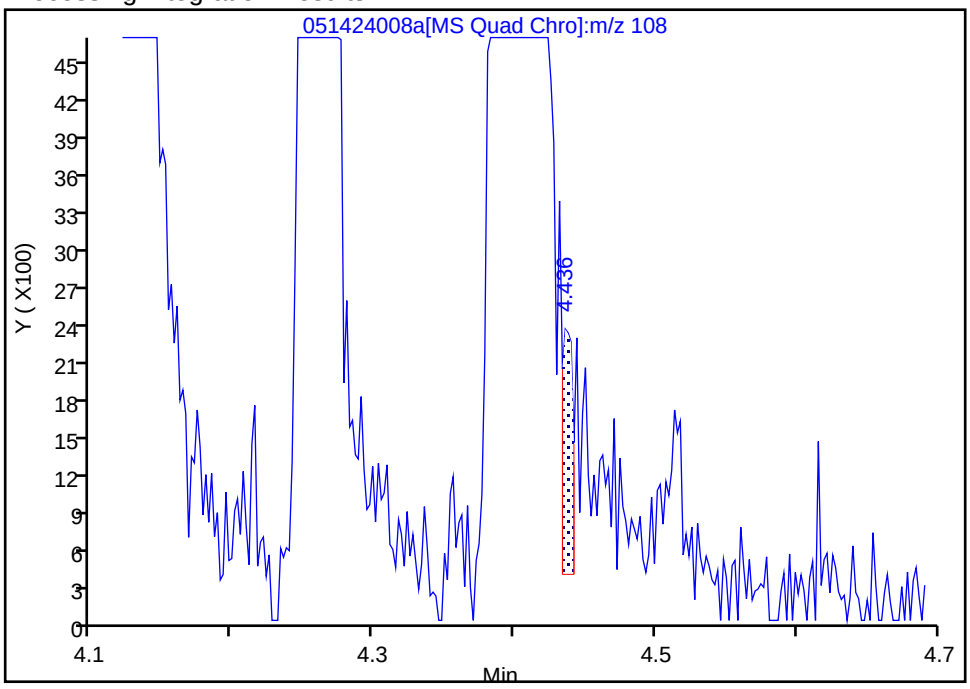
Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424008a.D
Injection Date: 14-May-2024 13:34:30 Instrument ID: SMS_3
Lims ID: LCS 280-653130/2-A
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E
Column: DB-5MS UI (0.18 mm) Detector MS Quad

39 3 & 4 Methylphenol, CAS: 15831-10-4

Signal: 1

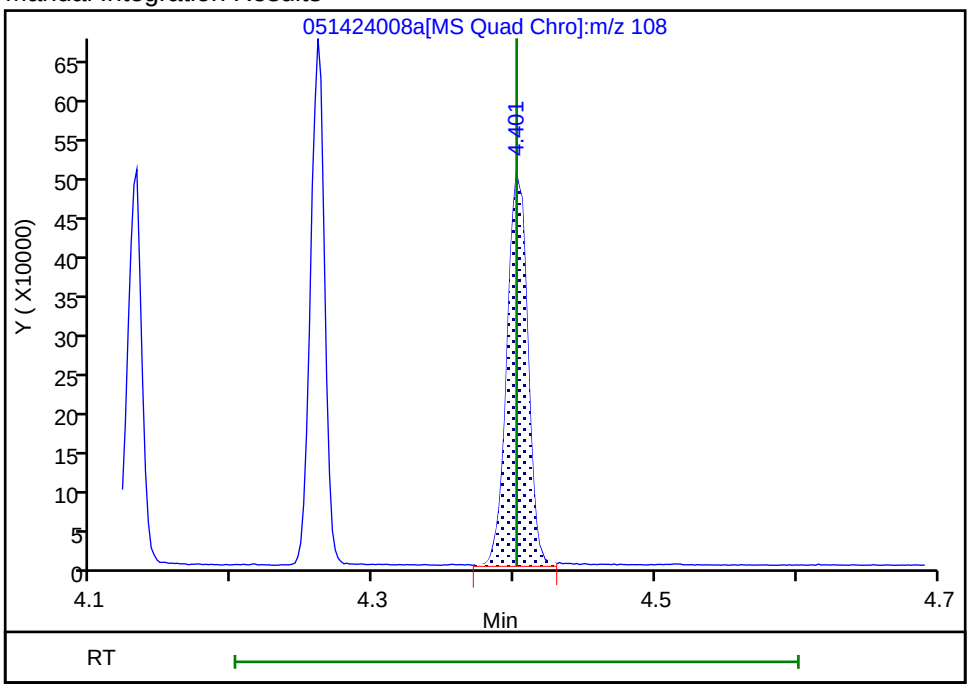
Processing Integration Results

RT: 4.44
Area: 1041
Amount: 0.027431
Amount Units: ug/ml



Manual Integration Results

RT: 4.40
Area: 511609
Amount: 13.481241
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 15:19:24 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Denver

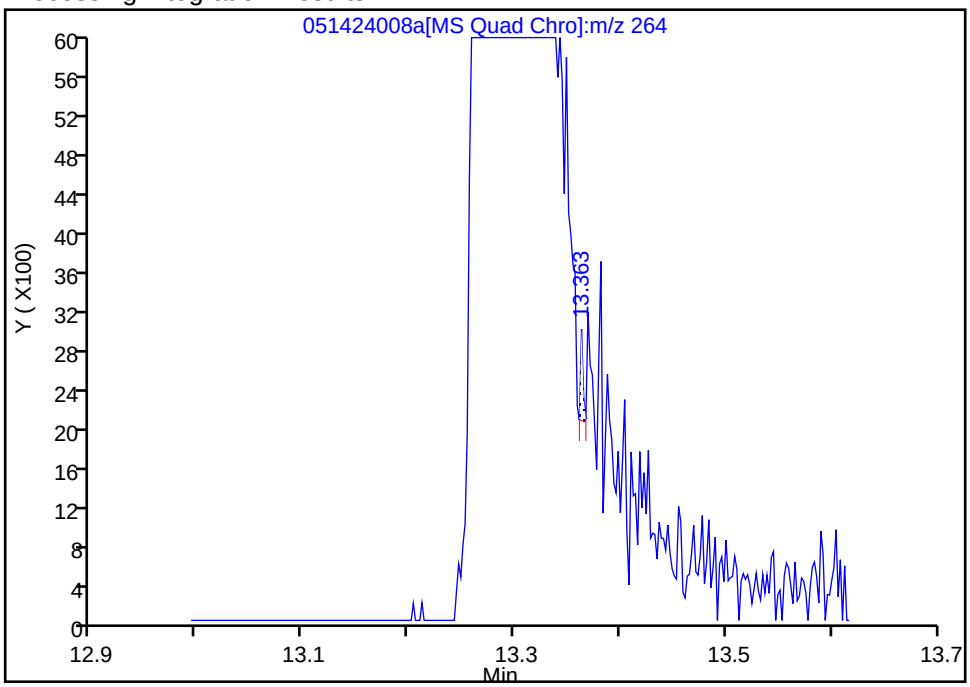
Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424008a.D
Injection Date: 14-May-2024 13:34:30 Instrument ID: SMS_3
Lims ID: LCS 280-653130/2-A
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E
Column: DB-5MS UI (0.18 mm) Detector MS Quad

* 6 Perylene-d12, CAS: 1520-96-3

Signal: 1

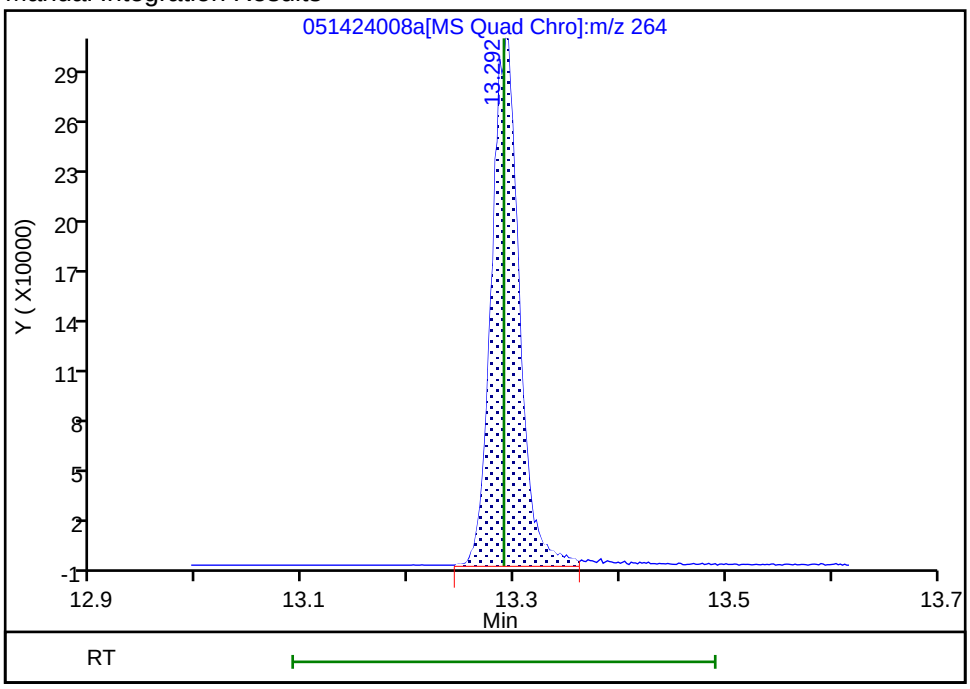
Processing Integration Results

RT: 13.36
Area: 151
Amount: 8.000000
Amount Units: ug/ml



Manual Integration Results

RT: 13.29
Area: 546419
Amount: 8.000000
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 15:18:40 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-653130/3-A

Matrix: Water | Lab File ID: SMS_3-051424009a.D

Analysis Method: 8270E | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/13/2024 11:32

Sample wt/vol: 250(mL) | Date Analyzed: 05/14/2024 13:57

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: DB-5MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 653283 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-95-4	2,4,5-Trichlorophenol	63.3		10	8.0	2.6
88-06-2	2,4,6-Trichlorophenol	63.5		10	8.0	2.3
120-83-2	2,4-Dichlorophenol	57.0		10	8.0	3.0
105-67-9	2,4-Dimethylphenol	46.9		10	8.0	1.4
51-28-5	2,4-Dinitrophenol	113		30	20	13
121-14-2	2,4-Dinitrotoluene	57.4		10	8.0	1.4
606-20-2	2,6-Dinitrotoluene	60.7		10	8.0	1.4
95-57-8	2-Chlorophenol	52.5		10	8.0	2.6
95-48-7	2-Methylphenol	49.0		10	8.0	0.77
88-75-5	2-Nitrophenol	56.7		10	8.0	3.5
15831-10-4	3 & 4 Methylphenol	50.7	M	10	8.0	2.2
534-52-1	4,6-Dinitro-2-methylphenol	124		50	30	4.0
59-50-7	4-Chloro-3-methylphenol	53.2		10	8.0	1.7
100-02-7	4-Nitrophenol	57.4	Q	25	13	9.1
117-81-7	Bis(2-ethylhexyl) phthalate	64.9		10	8.0	3.3
85-68-7	Butyl benzyl phthalate	62.7		4.0	3.2	1.5
84-66-2	Diethyl phthalate	57.1		4.0	3.2	1.4
131-11-3	Dimethyl phthalate	56.2		4.0	3.2	0.75
84-74-2	Di-n-butyl phthalate	62.0	Q	4.0	3.2	2.1
117-84-0	Di-n-octyl phthalate	65.3		10	8.0	3.6
98-95-3	Nitrobenzene	52.8		10	8.0	1.3
87-86-5	Pentachlorophenol	123		50	48	20
108-95-2	Phenol	25.5		10	8.0	0.92

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	86		43-140
321-60-8	2-Fluorobiphenyl	75		44-119
367-12-4	2-Fluorophenol (Surr)	45		19-119
4165-60-0	Nitrobenzene-d5 (Surr)	70		44-120
4165-62-2	Phenol-d5 (Surr)	31		10-115
1718-51-0	Terphenyl-d14 (Surr)	90		50-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424009a.D
Lims ID: LCSD 280-653130/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 14-May-2024 13:57:03 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-653130/3-A
Operator ID: DM Instrument ID: SMS_3

Method: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 15-May-2024 10:46:00 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1641

First Level Reviewer: G3YK Date: 14-May-2024 15:32:13

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	115	3.989	3.987	0.002	96	242782	8.00	8.00	
* 2 Naphthalene-d8	136	5.157	5.155	0.002	100	1331727	8.00	8.00	
* 3 Acenaphthene-d10	164	6.849	6.847	0.002	94	670187	8.00	8.00	
* 4 Phenanthrene-d10	188	8.299	8.299	0.001	97	1037924	8.00	8.00	
* 5 Chrysene-d12	240	11.059	11.052	0.007	91	709380	8.00	8.00	
* 6 Perylene-d12	264	13.288	13.290	-0.002	97	584096	8.00	8.00	
$ 7 2-Fluorophenol	112	2.915	2.911	0.004	94	578689	25.0	11.4	
$ 8 Phenol-d5	99	3.715	3.718	-0.003	0	533688	25.0	7.87	
$ 9 Nitrobenzene-d5	82	4.493	4.495	-0.002	89	1065514	25.0	17.6	
$ 10 2-Fluorobiphenyl	172	6.212	6.212	0.000	99	1492703	25.0	18.7	
$ 11 2,4,6-Tribromophenol	330	7.627	7.625	0.002	92	226264	25.0	21.4	
$ 12 Terphenyl-d14	244	9.897	9.897	0.000	97	1541090	25.0	22.6	
13 N-Nitrosodimethylamine	74	1.856	1.854	0.002	94	320232	20.0	8.42	
14 Pyridine	79	1.882	1.874	0.008	94	545512	40.0	12.1	
15 2-Picoline	93	2.423	2.417	0.006	94	571053	20.0	9.22	
16 N-Nitrosomethylethylamine	88	2.519	2.515	0.004	89	330539	20.0	11.9	M
18 Methyl methanesulfonate	80	2.764	2.766	-0.002	86	413383	20.0	11.5	
17 Acrylamide	71	2.756	2.831	-0.075	20	782	20.0	1.42	
19 N-Nitrosodiethylamine	102	3.077	3.078	-0.002	96	345485	20.0	13.3	
20 Ethyl methanesulfonate	79	3.342	3.344	-0.002	97	654208	20.0	13.9	
21 Benzaldehyde	77	3.609	3.609	0.000	95	550852	20.0	11.0	
23 Aniline	93	3.705	3.707	-0.002	97	724855	20.0	9.12	
22 Phenol	94	3.726	3.730	-0.004	98	502290	20.0	6.38	
24 Pentachloroethane	117	3.740	3.738	0.002	96	210918	20.0	9.23	
25 Bis(2-chloroethyl)ether	93	3.771	3.773	-0.002	94	809477	20.0	13.4	
26 2-Chlorophenol	128	3.813	3.814	-0.001	96	661830	20.0	13.1	
27 n-Decane	43	3.862	3.863	0.000	86	511757	20.0	7.39	
28 1,3-Dichlorobenzene	146	3.934	3.936	-0.002	96	564273	20.0	10.5	
29 1,4-Dichlorobenzene	146	4.003	4.003	0.000	91	574764	20.0	10.3	
31 1,2-Dichlorobenzene	146	4.134	4.134	0.000	94	568731	20.0	11.0	
30 Benzyl alcohol	79	4.132	4.136	-0.004	92	567656	20.0	11.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
32 Indene	116	4.216	4.218	-0.002	91	1032327	20.0	11.5	
34 2,2'-oxybis[1-chloropropane]	45	4.248	4.248	0.000	94	1083175	20.0	10.6	
33 2-Methylphenol	108	4.261	4.257	0.005	96	586588	20.0	12.3	
35 N-Nitrosopyrrolidine	100	4.348	4.346	0.002	97	365101	20.0	13.0	
36 Acetophenone	105	4.361	4.363	-0.002	95	1002935	20.0	13.3	
37 N-Nitrosodi-n-propylamine	70	4.375	4.377	-0.002	82	598080	20.0	13.5	
40 N-Nitrosomorpholine	56	4.389	4.387	0.002	87	484187	20.0	12.5	
42 2-Toluidine	106	4.393	4.395	-0.002	97	843535	20.0	10.9	
38 3-Methylphenol	108	4.401	4.401	0.000	84	633452	20.0	12.7	
39 3 & 4 Methylphenol	108	4.401	4.401	0.000	0	633452	20.0	12.7	a
41 4-Methylphenol	108	4.401	4.401	0.000	86	633452	20.0	12.7	a
43 Hexachloroethane	117	4.436	4.438	-0.002	97	287164	20.0	10.9	
44 Nitrobenzene	77	4.512	4.514	-0.002	88	842800	20.0	13.2	
45 N-Nitrosopiperidine	114	4.655	4.654	0.001	87	352527	20.0	14.2	
46 Isophorone	82	4.740	4.742	-0.002	98	1538293	20.0	13.4	
47 2-Nitrophenol	139	4.806	4.808	-0.002	97	356514	20.0	14.2	
48 2,4-Dimethylphenol	107	4.883	4.883	0.000	98	503801	20.0	11.7	
50 o,o',o''-Triethylphosphorothioat	121	4.938	4.936	0.002	93	291979	20.0	13.3	
51 Bis(2-chloroethoxy)methane	93	4.961	4.963	-0.002	96	1005616	20.0	14.2	
52 2,4-Dichlorophenol	162	5.049	5.049	0.000	97	553918	20.0	14.3	
49 Benzoic acid	105	4.987	5.063	-0.076	91	151658	20.0	4.63	M
53 1,2,4-Trichlorobenzene	180	5.106	5.108	-0.002	93	534701	20.0	12.3	
54 Naphthalene	128	5.177	5.177	0.000	98	1685421	20.0	12.8	
55 4-Chloroaniline	127	5.249	5.251	-0.002	95	641911	20.0	11.5	
56 2,6-Dichlorophenol	162	5.253	5.255	-0.002	93	550073	20.0	14.2	
155 Hexachloropropene	213	5.261	5.261	0.000	89	296911	20.0	9.38	
57 Hexachlorobutadiene	225	5.304	5.304	0.000	98	309996	20.0	11.8	
58 Quinoline	129	5.498	5.496	0.002	95	1121289	20.0	13.2	
59 Caprolactam	113	5.577	5.575	0.002	69	59119	20.0	4.96	
60 N-Nitrosodi-n-butylamine	84	5.583	5.585	-0.002	95	552924	20.0	16.3	
61 4-Chloro-3-methylphenol	107	5.751	5.749	0.002	95	591005	20.0	13.3	
62 Safrole, Total	162	5.777	5.777	0.000	86	438495	20.0	13.3	
63 2-Methylnaphthalene	141	5.845	5.845	0.000	92	945748	20.0	13.2	
64 1-Methylnaphthalene	142	5.935	5.937	-0.002	93	1050244	20.0	13.5	
65 Hexachlorocyclopentadiene	237	5.996	5.996	0.000	96	624725	40.0	28.9	
66 1,2,4,5-Tetrachlorobenzene	216	6.004	6.004	0.000	97	605816	20.0	15.2	
67 Isosafrole Peak 1	162	6.061	6.059	0.002	0	78513	3.20	2.09	
68 2,4,6-Trichlorophenol	196	6.133	6.133	0.000	95	410382	20.0	15.9	
69 2,4,5-Trichlorophenol	196	6.175	6.173	0.002	94	432918	20.0	15.8	
70 Isosafrole Peak 2	162	6.282	6.279	0.003	0	454964	16.8	11.4	
71 1,1'-Biphenyl	154	6.304	6.304	0.000	97	1328067	20.0	14.8	
72 2-Chloronaphthalene	162	6.312	6.310	0.002	97	1143074	20.0	15.4	
73 1-Chloronaphthalene	162	6.329	6.328	0.001	97	1007254	20.0	13.2	
74 2-Nitroaniline	138	6.431	6.433	-0.002	79	406102	20.0	15.2	
75 1,4-Naphthoquinone	158	6.494	6.492	0.002	82	509757	20.0	19.6	
76 1,4-Dinitrobenzene	168	6.574	6.573	0.001	88	190605	20.0	16.1	
77 Dimethyl phthalate	163	6.629	6.631	-0.002	97	1170895	20.0	14.0	
78 1,3-Dinitrobenzene	168	6.645	6.645	0.000	85	218072	20.0	15.0	
79 2,6-Dinitrotoluene	165	6.676	6.680	-0.004	89	292598	20.0	15.2	
80 Acenaphthylene	152	6.710	6.710	0.000	99	1527188	20.0	13.7	
81 3-Nitroaniline	65	6.835	6.839	-0.004	90	509357	20.0	13.1	
82 Acenaphthene	153	6.882	6.882	0.000	95	1034235	20.0	14.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
83 2,4-Dinitrophenol	184	6.937	6.939	-0.002	82	295661	40.0	28.3	
84 Pentachlorobenzene	250	7.006	7.008	-0.002	97	439300	20.0	13.5	
86 Dibenzofuran	168	7.051	7.053	-0.002	97	1454563	20.0	14.2	
85 4-Nitrophenol	65	7.061	7.059	0.002	89	325611	40.0	14.4	
87 2,4-Dinitrotoluene	165	7.066	7.066	0.000	88	377469	20.0	14.3	
88 1-Naphthylamine	143	7.137	7.133	0.004	98	703548	20.0	10.0	
89 2,3,4,6-Tetrachlorophenol	232	7.186	7.186	0.000	74	333913	20.0	15.9	
90 2-Naphthylamine	143	7.217	7.214	0.003	96	818005	20.0	10.6	
91 Diethyl phthalate	149	7.325	7.329	-0.004	97	1233397	20.0	14.3	
92 Hexadecane	57	7.355	7.355	0.000	86	1071769	20.0	14.1	
93 Fluorene	166	7.386	7.388	-0.002	95	1200781	20.0	15.0	
94 Thionazin	97	7.402	7.396	0.006	78	356885	20.0	15.1	
95 4-Chlorophenyl phenyl ether	204	7.406	7.407	0.000	93	608892	20.0	15.8	
96 N-Nitro-o-toluidine	152	7.421	7.421	0.000	92	330936	20.0	14.5	a
97 4-Nitroaniline	138	7.439	7.443	-0.004	82	310786	20.0	14.3	
98 4,6-Dinitro-2-methylphenol	198	7.462	7.464	-0.002	81	431949	40.0	30.9	
99 Diphenylamine	169	7.529	7.531	-0.002	94	845624	17.0	12.6	
100 N-Nitrosodiphenylamine	168	7.529	7.531	-0.002	64	539646	20.0	14.9	
102 1,2-Diphenylhydrazine	77	7.560	7.562	-0.002	42	1677382	20.2	15.9	a
101 Azobenzene	77	7.560	7.562	-0.002	97	1677382	20.0	15.7	
103 Sulfotepp	322	7.715	7.715	0.000	78	145428	20.0	14.9	
104 1,3,5-Trinitrobenzene	213	7.819	7.813	0.006	86	121564	20.0	16.9	
105 Diallate Peak 1	86	7.819	7.821	-0.002	0	477611	17.0	11.0	
106 Phorate	121	7.827	7.829	-0.002	95	253459	20.0	15.2	
107 Phenacetin	108	7.862	7.864	-0.002	91	599252	20.0	15.0	
108 4-Bromophenyl phenyl ether	248	7.882	7.884	-0.002	70	325665	20.0	16.1	
109 Diallate Peak 2	86	7.903	7.902	0.001	0	169468	3.00	3.87	
110 Hexachlorobenzene	284	7.915	7.915	0.000	93	369387	20.0	15.8	
111 Dimethoate	87	7.994	7.994	0.000	97	555708	20.0	16.0	
112 Atrazine	200	8.078	8.082	-0.004	88	272053	20.0	15.1	
114 Pentachloronitrobenzene	237	8.127	8.127	0.000	59	179852	20.0	18.1	
113 Pentachlorophenol	266	8.127	8.127	0.000	89	449041	40.0	30.8	
115 4-Aminobiphenyl	169	8.141	8.143	-0.002	88	637352	20.0	8.12	
116 Pronamide	173	8.225	8.227	-0.002	90	511293	20.0	15.0	
156 n-Octadecane	57	8.268	8.268	0.000	90	1122806	20.0	16.0	
117 Phenanthrene	178	8.321	8.323	-0.002	98	1613095	20.0	15.8	
118 Dinoseb	211	8.327	8.329	-0.002	94	268707	20.0	16.9	
119 Disulfoton	88	8.344	8.345	-0.001	97	768742	20.0	14.9	
120 Anthracene	178	8.372	8.374	-0.002	98	1617393	20.0	15.8	
121 Carbazole	167	8.552	8.552	0.000	96	1481190	20.0	15.1	
123 Methyl parathion	109	8.705	8.707	-0.002	93	441167	20.0	17.0	
124 Di-n-butyl phthalate	149	8.940	8.940	0.000	100	1980280	20.0	15.5	
157 Ethyl Parathion	97	9.097	9.099	-0.002	82	312812	20.0	16.2	
125 4-Nitroquinoline-1-oxide	190	9.097	9.099	-0.002	80	131924	20.0	13.4	
126 Methapyrilene	58	9.199	9.201	-0.002	98	462219	20.0	6.38	
158 Isodrin	193	9.336	9.338	-0.002	92	221347	20.0	15.9	
127 Fluoranthene	202	9.487	9.489	-0.002	99	1601413	20.0	14.5	
128 Benzidine	184	9.654	9.658	-0.004	100	204693	40.0	4.39	
129 Pyrene	202	9.705	9.707	-0.002	97	1688500	20.0	16.1	
130 Aramite Peak 1	185	9.911	9.909	0.002	0	71624	10.2	8.03	
131 Aramite Peak 2	185	9.989	9.991	-0.002	0	150261	9.80	7.36	
132 p-Dimethylamino azobenzene	120	10.042	10.044	-0.002	92	439689	20.0	13.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
133 Chlorobenzilate	251	10.105	10.103	0.002	86	408179	20.0	14.9	
134 Famphur	218	10.365	10.369	-0.004	86	388914	20.0	12.1	
135 3,3'-Dimethylbenzidine	212	10.403	10.407	-0.004	99	138836	20.0	2.55	
136 Butyl benzyl phthalate	149	10.448	10.450	-0.002	96	773181	20.0	15.7	
137 2-Acetylaminofluorene	181	10.695	10.699	-0.004	95	493541	20.0	13.3	
138 Benzo[a]anthracene	228	11.048	11.046	0.002	99	1403625	20.0	15.7	
139 3,3'-Dichlorobenzidine	252	11.059	11.061	-0.002	75	941119	40.0	30.0	
140 4,4'-Methylene bis(2-chloroanil	231	11.075	11.075	0.000	92	236374	20.0	13.0	
141 Chrysene	228	11.095	11.097	-0.002	97	1359883	20.0	15.7	
142 Bis(2-ethylhexyl) phthalate	149	11.222	11.222	0.000	97	1062636	20.0	16.2	
143 6-Methylchrysene	242	11.743	11.747	-0.004	99	868673	20.0	13.7	
144 Di-n-octyl phthalate	149	12.247	12.243	0.004	99	1607630	20.0	16.3	
145 Benzo[b]fluoranthene	252	12.659	12.659	0.000	98	1203177	20.0	18.6	Ma
146 7,12-Dimethylbenz(a)anthracene	256	12.669	12.663	0.006	88	506391	20.0	15.8	
147 Benzo[k]fluoranthene	252	12.704	12.706	-0.002	99	1204042	20.0	17.8	a
148 Benzo[a]pyrene	252	13.192	13.196	-0.004	85	1010933	20.0	16.9	a
149 3-Methylcholanthrene	268	13.841	13.843	-0.002	93	185143	20.0	7.42	
150 Dibenz[a,h]acridine	279	14.823	14.829	-0.006	91	645124	20.0	14.3	M
151 Dibenz[a,j]acridine	279	14.923	14.929	-0.006	96	713311	20.2	14.7	M
152 Indeno[1,2,3-cd]pyrene	276	15.195	15.201	-0.006	97	878506	20.0	15.3	
153 Dibenz(a,h)anthracene	278	15.272	15.278	-0.006	95	812554	20.0	15.4	a
154 Benzo[g,h,i]perylene	276	15.652	15.658	-0.006	96	888878	20.0	16.0	
209 1,4-Dioxane	88		0.000				ND	ND	
S 165 Aramite, Total	185				0		20.0	15.4	
S 166 Diallate	86				0		20.0	14.9	
S 167 Isosafrole	162				0		20.0	13.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-IS-RVE_00005 Amount Added: 30.00 Units: uL Run Reagent

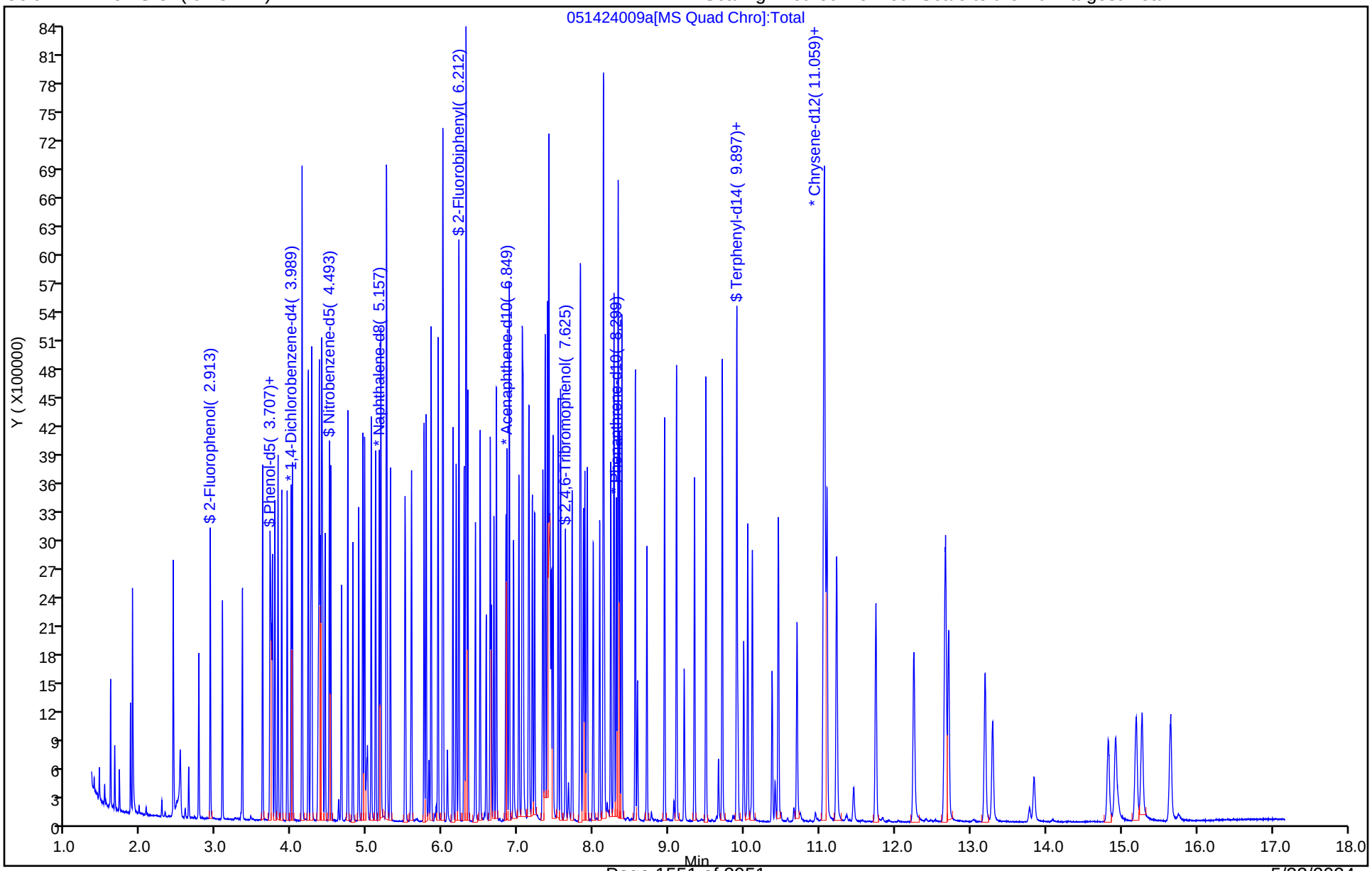
Report Date: 15-May-2024 10:46:37 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424009a.D

Injection Date:	14-May-2024 13:57:03	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	LCSD 280-653130/3-A			Worklist Smp#:	9
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424009a.D
Lims ID: LCSD 280-653130/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 14-May-2024 13:57:03 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-653130/3-A
Operator ID: DM Instrument ID: SMS_3

Method: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 15-May-2024 10:46:00 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1641

First Level Reviewer: G3YK Date: 14-May-2024 15:32:13

Compound	Amount Added	Amount Recovered	% Rec.
$ 7 2-Fluorophenol	25.0	11.4	45.49
$ 8 Phenol-d5	25.0	7.87	31.48
$ 9 Nitrobenzene-d5	25.0	17.6	70.23
$ 10 2-Fluorobiphenyl	25.0	18.7	74.85
$ 11 2,4,6-Tribromophenol	25.0	21.4	85.67
$ 12 Terphenyl-d14	25.0	22.6	90.21

Manual Integration/User Assign Peak Report

Eurofins Denver

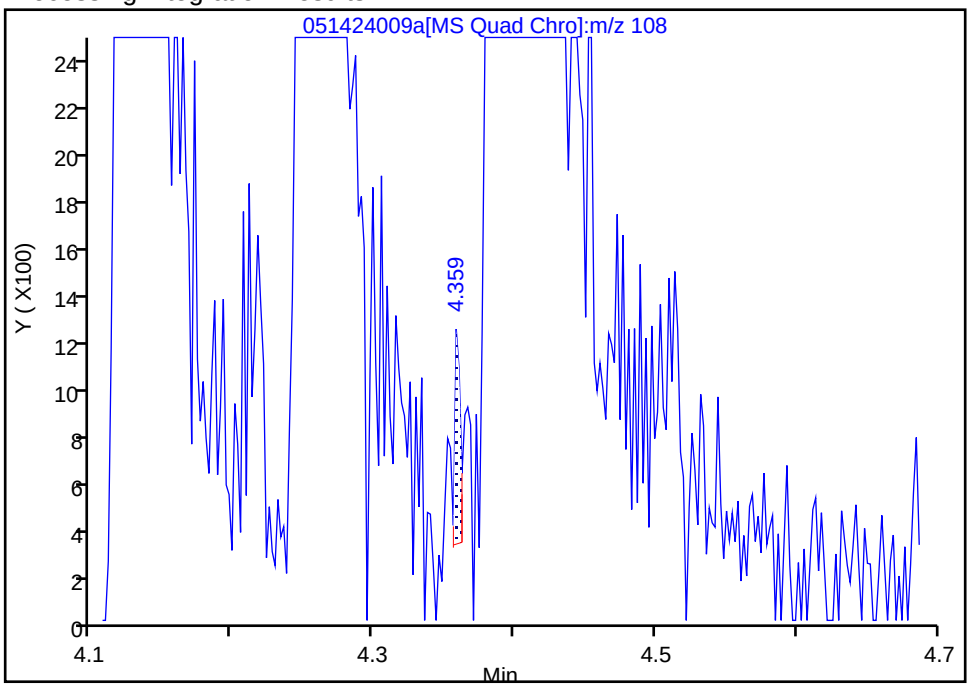
Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424009a.D
Injection Date: 14-May-2024 13:57:03 Instrument ID: SMS_3
Lims ID: LCSD 280-653130/3-A
Client ID:
Operator ID: DM ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: SMS_3 8270 RVE Limit Group: MSSV - 8270 D_E
Column: DB-5MS UI (0.18 mm) Detector MS Quad

39 3 & 4 Methylphenol, CAS: 15831-10-4

Signal: 1

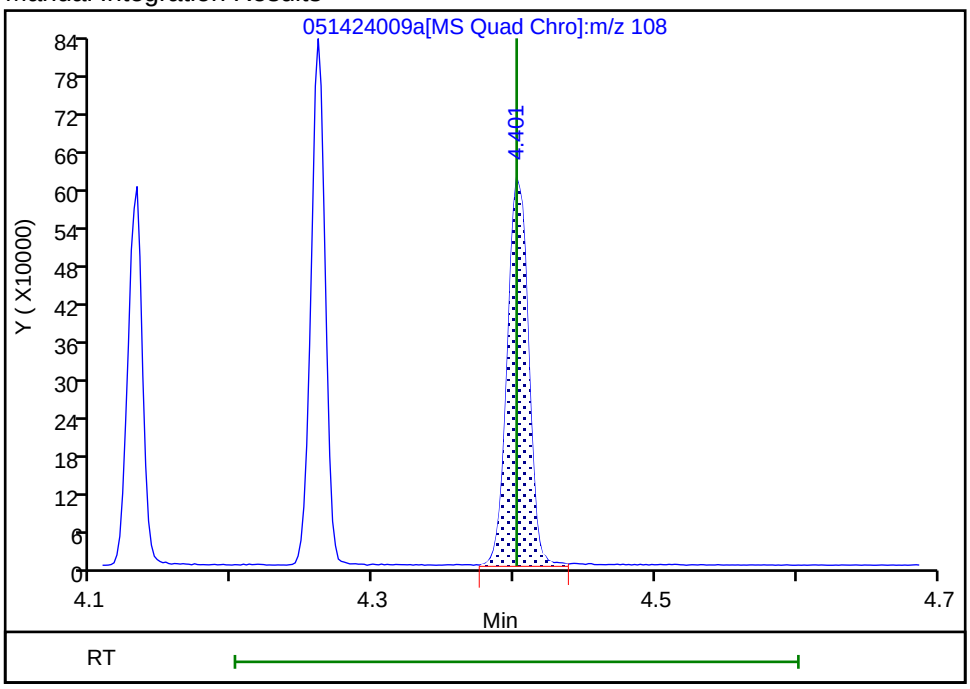
Processing Integration Results

RT: 4.36
Area: 244
Amount: 0.004880
Amount Units: ug/ml



Manual Integration Results

RT: 4.40
Area: 633452
Amount: 12.668211
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 15:25:44 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MS | Lab Sample ID: 280-191098-1 MS

Matrix: Water | Lab File ID: SMS_3-051424015a.D

Analysis Method: 8270E | Date Collected: 05/06/2024 10:16

Extract. Method: 3510C | Date Extracted: 05/13/2024 11:32

Sample wt/vol: 246.3(mL) | Date Analyzed: 05/14/2024 16:12

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: DB-5MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 653283 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-95-4	2,4,5-Trichlorophenol	73.9		10	8.1	2.6
88-06-2	2,4,6-Trichlorophenol	75.0		10	8.1	2.4
120-83-2	2,4-Dichlorophenol	67.8		10	8.1	3.1
105-67-9	2,4-Dimethylphenol	53.5		10	8.1	1.4
51-28-5	2,4-Dinitrophenol	138		30	20	13
121-14-2	2,4-Dinitrotoluene	71.6		10	8.1	1.5
606-20-2	2,6-Dinitrotoluene	74.1		10	8.1	1.4
95-57-8	2-Chlorophenol	62.4		10	8.1	2.6
95-48-7	2-Methylphenol	60.0		10	8.1	0.78
88-75-5	2-Nitrophenol	68.0		10	8.1	3.5
15831-10-4	3 & 4 Methylphenol	62.4	M	10	8.1	2.2
534-52-1	4,6-Dinitro-2-methylphenol	154		51	30	4.1
59-50-7	4-Chloro-3-methylphenol	62.8		10	8.1	1.7
100-02-7	4-Nitrophenol	74.3		25	13	9.2
117-81-7	Bis(2-ethylhexyl) phthalate	78.3		10	8.1	3.4
85-68-7	Butyl benzyl phthalate	76.4		4.1	3.2	1.6
84-66-2	Diethyl phthalate	69.4		4.1	3.2	1.4
131-11-3	Dimethyl phthalate	66.6		4.1	3.2	0.76
84-74-2	Di-n-butyl phthalate	74.5		4.1	3.2	2.1
117-84-0	Di-n-octyl phthalate	79.3		10	8.1	3.7
98-95-3	Nitrobenzene	61.8		10	8.1	1.3
87-86-5	Pentachlorophenol	141		51	49	20
108-95-2	Phenol	33.0		10	8.1	0.93

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	97		43-140
321-60-8	2-Fluorobiphenyl	88		44-119
367-12-4	2-Fluorophenol (Surr)	56		19-119
4165-60-0	Nitrobenzene-d5 (Surr)	82		44-120
4165-62-2	Phenol-d5 (Surr)	41		10-115
1718-51-0	Terphenyl-d14 (Surr)	99		50-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424015a.D
Lims ID: 280-191098-F-1-A MS
Client ID: DET-003-240401-GW
Sample Type: MS
Inject. Date: 14-May-2024 16:12:19 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-F-1-A MS
Operator ID: DM Instrument ID: SMS_3

Method: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 15-May-2024 10:46:00 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1641

First Level Reviewer: G3YK Date: 14-May-2024 16:58:33

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	115	3.987	3.987	0.000	97	203475	8.00	8.00	
* 2 Naphthalene-d8	136	5.157	5.155	0.002	100	1147490	8.00	8.00	
* 3 Acenaphthene-d10	164	6.849	6.847	0.002	94	590533	8.00	8.00	
* 4 Phenanthrene-d10	188	8.299	8.299	0.001	97	980850	8.00	8.00	
* 5 Chrysene-d12	240	11.061	11.052	0.009	97	714581	8.00	8.00	
* 6 Perylene-d12	264	13.290	13.290	0.000	97	616434	8.00	8.00	
$ 7 2-Fluorophenol	112	2.915	2.911	0.004	94	602330	25.0	14.1	
$ 8 Phenol-d5	99	3.715	3.718	-0.003	0	583891	25.0	10.3	
$ 9 Nitrobenzene-d5	82	4.495	4.495	0.000	89	1067184	25.0	20.4	
$ 10 2-Fluorobiphenyl	172	6.212	6.212	0.000	99	1540977	25.0	21.9	
$ 11 2,4,6-Tribromophenol	330	7.625	7.625	0.000	91	241746	25.0	24.2	
$ 12 Terphenyl-d14	244	9.897	9.897	0.000	97	1698293	25.0	24.7	
13 N-Nitrosodimethylamine	74	1.850	1.854	-0.004	92	335582	20.0	10.5	
14 Pyridine	79	1.876	1.874	0.002	95	542599	40.0	14.2	
15 2-Picoline	93	2.419	2.417	0.002	94	550454	20.0	10.6	
16 N-Nitrosomethylethylamine	88	2.513	2.515	-0.002	91	345428	20.0	14.8	M
18 Methyl methanesulfonate	80	2.760	2.766	-0.006	86	405637	20.0	13.4	
17 Acrylamide	71	2.752	2.831	-0.079	27	1511	20.0	1.46	
19 N-Nitrosodiethylamine	102	3.074	3.078	-0.004	95	346424	20.0	15.9	
20 Ethyl methanesulfonate	79	3.340	3.344	-0.004	97	645535	20.0	16.4	
21 Benzaldehyde	77	3.609	3.609	0.000	96	636716	20.0	15.2	
23 Aniline	93	3.705	3.707	-0.002	97	631279	20.0	9.48	
22 Phenol	94	3.728	3.730	-0.002	97	537061	20.0	8.14	
24 Pentachloroethane	117	3.738	3.738	0.000	96	225813	20.0	11.8	
25 Bis(2-chloroethyl)ether	93	3.771	3.773	-0.002	93	799888	20.0	15.9	
26 2-Chlorophenol	128	3.813	3.814	-0.001	95	649761	20.0	15.4	
27 n-Decane	43	3.860	3.863	-0.002	86	582550	20.0	10.0	
28 1,3-Dichlorobenzene	146	3.934	3.936	-0.002	96	644417	20.0	14.3	
29 1,4-Dichlorobenzene	146	4.003	4.003	0.000	92	660563	20.0	14.1	
31 1,2-Dichlorobenzene	146	4.132	4.134	-0.002	93	630573	20.0	14.5	
30 Benzyl alcohol	79	4.132	4.136	-0.004	91	564651	20.0	13.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
32 Indene	116	4.214	4.218	-0.004	91	1115372	20.0	14.8	
34 2,2'-oxybis[1-chloropropane]	45	4.248	4.248	0.000	95	1069887	20.0	12.5	a
33 2-Methylphenol	108	4.261	4.257	0.005	95	592406	20.0	14.8	
35 N-Nitrosopyrrolidine	100	4.346	4.346	0.000	97	369075	20.0	15.7	
36 Acetophenone	105	4.361	4.363	-0.002	95	1013025	20.0	16.1	
37 N-Nitrosodi-n-propylamine	70	4.375	4.377	-0.002	81	603461	20.0	16.2	
40 N-Nitrosomorpholine	56	4.387	4.387	0.000	93	457955	20.0	14.1	
42 2-Toluidine	106	4.395	4.395	0.000	92	841932	20.0	12.9	
38 3-Methylphenol	108	4.405	4.401	0.004	94	643962	20.0	15.4	a
39 3 & 4 Methylphenol	108	4.405	4.401	0.004	0	643962	20.0	15.4	a
41 4-Methylphenol	108	4.405	4.401	0.004	88	643962	20.0	15.4	a
43 Hexachloroethane	117	4.438	4.438	0.000	97	321623	20.0	14.6	
44 Nitrobenzene	77	4.512	4.514	-0.002	88	837000	20.0	15.2	
45 N-Nitrosopiperidine	114	4.655	4.654	0.001	89	362354	20.0	17.0	
46 Isophorone	82	4.738	4.742	-0.004	98	1549008	20.0	15.7	
47 2-Nitrophenol	139	4.806	4.808	-0.002	97	362929	20.0	16.7	
48 2,4-Dimethylphenol	107	4.883	4.883	0.000	98	488138	20.0	13.2	
50 o,o',o''-Triethylphosphorothioat	121	4.936	4.936	0.000	94	292675	20.0	15.5	
51 Bis(2-chloroethoxy)methane	93	4.961	4.963	-0.002	96	1009135	20.0	16.5	
52 2,4-Dichlorophenol	162	5.049	5.049	0.000	97	559021	20.0	16.7	
49 Benzoic acid	105	4.993	5.063	-0.070	91	218353	20.0	6.88	
53 1,2,4-Trichlorobenzene	180	5.108	5.108	0.000	94	577414	20.0	15.4	
54 Naphthalene	128	5.177	5.177	0.000	98	1789214	20.0	15.8	
55 4-Chloroaniline	127	5.251	5.251	0.000	95	640086	20.0	13.3	
56 2,6-Dichlorophenol	162	5.253	5.255	-0.002	94	555655	20.0	16.6	
155 Hexachloropropene	213	5.261	5.261	0.000	90	301545	20.0	11.1	
57 Hexachlorobutadiene	225	5.304	5.304	0.000	97	346362	20.0	15.3	
58 Quinoline	129	5.500	5.496	0.004	95	1070458	20.0	14.6	
59 Caprolactam	113	5.577	5.575	0.002	49	61698	20.0	5.77	
60 N-Nitrosodi-n-butylamine	84	5.583	5.585	-0.002	95	559266	20.0	19.1	
61 4-Chloro-3-methylphenol	107	5.751	5.749	0.002	96	592771	20.0	15.5	
62 Safrole, Total	162	5.777	5.777	0.000	90	446544	20.0	15.7	
63 2-Methylnaphthalene	141	5.843	5.845	-0.002	92	993102	20.0	16.1	
64 1-Methylnaphthalene	142	5.937	5.937	0.000	94	1099423	20.0	16.4	
65 Hexachlorocyclopentadiene	237	5.998	5.996	0.002	97	601539	40.0	31.6	
66 1,2,4,5-Tetrachlorobenzene	216	6.002	6.004	-0.002	98	624700	20.0	17.8	
67 Isosafrole Peak 1	162	6.061	6.059	0.002	0	80265	3.20	2.43	
68 2,4,6-Trichlorophenol	196	6.133	6.133	0.000	94	421010	20.0	18.5	
69 2,4,5-Trichlorophenol	196	6.177	6.173	0.004	94	439044	20.0	18.2	
70 Isosafrole Peak 2	162	6.280	6.279	0.001	0	458009	16.8	13.0	
71 1,1'-Biphenyl	154	6.304	6.304	0.000	95	1390411	20.0	17.6	
72 2-Chloronaphthalene	162	6.312	6.310	0.002	97	1169608	20.0	17.9	
73 1-Chloronaphthalene	162	6.331	6.328	0.003	98	1021541	20.0	15.1	
74 2-Nitroaniline	138	6.433	6.433	0.000	79	416444	20.0	17.7	
75 1,4-Naphthoquinone	158	6.494	6.492	0.002	83	538156	20.0	23.5	
76 1,4-Dinitrobenzene	168	6.574	6.573	0.001	89	199008	20.0	19.1	
77 Dimethyl phthalate	163	6.629	6.631	-0.002	97	1204226	20.0	16.4	
78 1,3-Dinitrobenzene	168	6.643	6.645	-0.002	88	230683	20.0	18.0	
79 2,6-Dinitrotoluene	165	6.676	6.680	-0.004	91	310387	20.0	18.3	
80 Acenaphthylene	152	6.710	6.710	0.000	99	1590398	20.0	16.2	
81 3-Nitroaniline	65	6.837	6.839	-0.002	89	517781	20.0	15.1	
82 Acenaphthene	153	6.880	6.882	-0.002	95	1095341	20.0	17.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
83 2,4-Dinitrophenol	184	6.937	6.939	-0.002	83	316511	40.0	34.0	
84 Pentachlorobenzene	250	7.006	7.008	-0.002	97	419292	20.0	14.7	
86 Dibenzofuran	168	7.053	7.053	0.000	98	1524789	20.0	16.9	
85 4-Nitrophenol	65	7.063	7.059	0.004	88	370291	40.0	18.3	
87 2,4-Dinitrotoluene	165	7.063	7.066	-0.003	87	408937	20.0	17.6	
88 1-Naphthylamine	143	7.135	7.133	0.002	98	556843	20.0	9.01	
89 2,3,4,6-Tetrachlorophenol	232	7.186	7.186	0.000	75	338320	20.0	18.3	
90 2-Naphthylamine	143	7.217	7.214	0.003	96	786465	20.0	11.6	
91 Diethyl phthalate	149	7.327	7.329	-0.002	97	1301319	20.0	17.1	
92 Hexadecane	57	7.355	7.355	0.000	87	1093423	20.0	16.3	
93 Fluorene	166	7.386	7.388	-0.002	95	1246901	20.0	17.7	
94 Thionazin	97	7.400	7.396	0.004	77	370057	20.0	17.7	
95 4-Chlorophenyl phenyl ether	204	7.406	7.407	0.000	93	619155	20.0	18.3	
96 N-Nitro-o-toluidine	152	7.421	7.421	0.000	92	353748	20.0	17.6	
97 4-Nitroaniline	138	7.439	7.443	-0.004	82	334412	20.0	17.4	
98 4,6-Dinitro-2-methylphenol	198	7.462	7.464	-0.002	81	469610	40.0	37.9	
99 Diphenylamine	169	7.529	7.531	-0.002	97	880964	17.0	14.9	
100 N-Nitrosodiphenylamine	168	7.529	7.531	-0.002	69	560904	20.0	17.5	
102 1,2-Diphenylhydrazine	77	7.560	7.562	-0.002	42	1743077	20.2	17.5	a
101 Azobenzene	77	7.560	7.562	-0.002	97	1743077	20.0	17.3	
103 Sulfotepp	322	7.715	7.715	0.000	79	157657	20.0	17.0	
104 1,3,5-Trinitrobenzene	213	7.817	7.813	0.004	78	137295	20.0	19.9	
105 Diallate Peak 1	86	7.819	7.821	-0.002	0	493157	17.0	12.0	
106 Phorate	121	7.827	7.829	-0.002	95	265713	20.0	16.9	
107 Phenacetin	108	7.864	7.864	0.000	91	683664	20.0	18.2	
108 4-Bromophenyl phenyl ether	248	7.882	7.884	-0.002	69	350316	20.0	18.3	
109 Diallate Peak 2	86	7.903	7.902	0.001	0	177385	3.00	4.29	
110 Hexachlorobenzene	284	7.917	7.915	0.002	94	400351	20.0	18.1	
111 Dimethoate	87	7.994	7.994	0.000	97	644176	20.0	19.7	
112 Atrazine	200	8.080	8.082	-0.002	88	280255	20.0	16.4	
114 Pentachloronitrobenzene	237	8.129	8.127	0.002	69	186356	20.0	19.9	
113 Pentachlorophenol	266	8.129	8.127	0.002	89	478602	40.0	34.7	
115 4-Aminobiphenyl	169	8.141	8.143	-0.002	90	737923	20.0	9.95	
116 Pronamide	173	8.225	8.227	-0.002	90	580666	20.0	18.1	
156 n-Octadecane	57	8.268	8.268	0.000	89	1157121	20.0	17.4	
117 Phenanthrene	178	8.323	8.323	0.000	98	1738359	20.0	18.0	
118 Dinoseb	211	8.327	8.329	-0.002	95	302239	20.0	19.8	
119 Disulfoton	88	8.343	8.345	-0.002	96	815240	20.0	16.7	
120 Anthracene	178	8.374	8.374	0.000	98	1748665	20.0	18.1	
121 Carbazole	167	8.552	8.552	0.000	96	1675419	20.0	18.1	
123 Methyl parathion	109	8.705	8.707	-0.002	91	507457	20.0	20.7	
122 Alachlor	45		8.707					ND	
124 Di-n-butyl phthalate	149	8.940	8.940	0.000	100	2215816	20.0	18.3	
157 Ethyl Parathion	97	9.099	9.099	0.000	81	352208	20.0	19.3	
125 4-Nitroquinoline-1-oxide	190	9.099	9.099	0.000	92	151362	20.0	15.8	
126 Methapyrilene	58	9.211	9.201	0.010	98	130948	20.0	1.91	
158 Isodrin	193	9.338	9.338	0.000	92	211294	20.0	16.1	
127 Fluoranthene	202	9.489	9.489	0.000	99	1873832	20.0	17.9	
128 Benzidine	184	9.660	9.658	0.002	25	677	40.0	1.27	
129 Pyrene	202	9.705	9.707	-0.002	97	1959215	20.0	18.6	
130 Aramite Peak 1	185	9.911	9.909	0.002	0	87904	10.2	9.78	
131 Aramite Peak 2	185	9.989	9.991	-0.002	0	181422	9.80	8.83	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
132 p-Dimethylamino azobenzene	120	10.044	10.044	0.000	92	515730	20.0	15.8	
133 Chlorobenzilate	251	10.103	10.103	0.000	85	480441	20.0	17.4	
134 Famphur	218	10.369	10.369	0.000	86	614240	20.0	19.0	
135 3,3'-Dimethylbenzidine	212	10.409	10.407	0.002	97	19950	20.0	0.3644	
136 Butyl benzyl phthalate	149	10.448	10.450	-0.002	96	935442	20.0	18.8	
137 2-Acetylaminofluorene	181	10.697	10.699	-0.002	94	636268	20.0	16.7	
138 Benzo[a]anthracene	228	11.046	11.046	0.000	99	1705693	20.0	18.9	
139 3,3'-Dichlorobenzidine	252	11.061	11.061	0.000	76	1128206	40.0	35.7	
140 4,4'-Methylene bis(2-chloroanil	231	11.075	11.075	0.000	93	274693	20.0	15.1	
141 Chrysene	228	11.093	11.097	-0.004	97	1537690	20.0	17.6	
142 Bis(2-ethylhexyl) phthalate	149	11.220	11.222	-0.002	98	1271649	20.0	19.3	
143 6-Methylchrysene	242	11.745	11.747	-0.002	98	978653	20.0	15.3	
144 Di-n-octyl phthalate	149	12.245	12.243	0.002	99	2041671	20.0	19.5	
145 Benzo[b]fluoranthene	252	12.657	12.659	-0.002	98	1440358	20.0	21.1	
146 7,12-Dimethylbenz(a)anthracene	256	12.667	12.663	0.004	88	565632	20.0	16.8	
147 Benzo[k]fluoranthene	252	12.706	12.706	0.000	99	1419581	20.0	19.9	
148 Benzo[a]pyrene	252	13.194	13.196	-0.002	81	1240039	20.0	19.6	
149 3-Methylcholanthrene	268	13.839	13.843	-0.004	93	214295	20.0	8.13	
150 Dibenz[a,h]acridine	279	14.825	14.829	-0.004	91	824060	20.0	17.3	Ma
151 Dibenz[a,j]acridine	279	14.921	14.929	-0.008	96	833377	20.2	16.3	Ma
152 Indeno[1,2,3-cd]pyrene	276	15.201	15.201	0.000	98	1123960	20.0	18.5	
153 Dibenz(a,h)anthracene	278	15.272	15.278	-0.006	95	1011468	20.0	18.2	
154 Benzo[g,h,i]perylene	276	15.654	15.658	-0.004	98	1079341	20.0	18.4	
209 1,4-Dioxane	88		0.000				ND	ND	
159 Pentachlorophenol_T	266		3.526					ND	
161 Benzidine_T	184		4.667					ND	
162 4,4'-DDE	246	5.261	5.070	0.191	0	8892		NR	
163 4,4'-DDD	235		5.140					ND	
164 4,4'-DDT	235		5.261					ND	
S 165 Aramite, Total	185				0		20.0	18.6	
S 166 Diallate	86				0		20.0	16.3	
S 169 Total Cresols	108		15.500					ND	7
S 167 Isosafrole	162				0		20.0	15.5	
S 168 Methyl Phenols,Total	108				0			30.1	
S 170 TPAH	1				0			291.7	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

ND - Not Detected or Marked ND

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

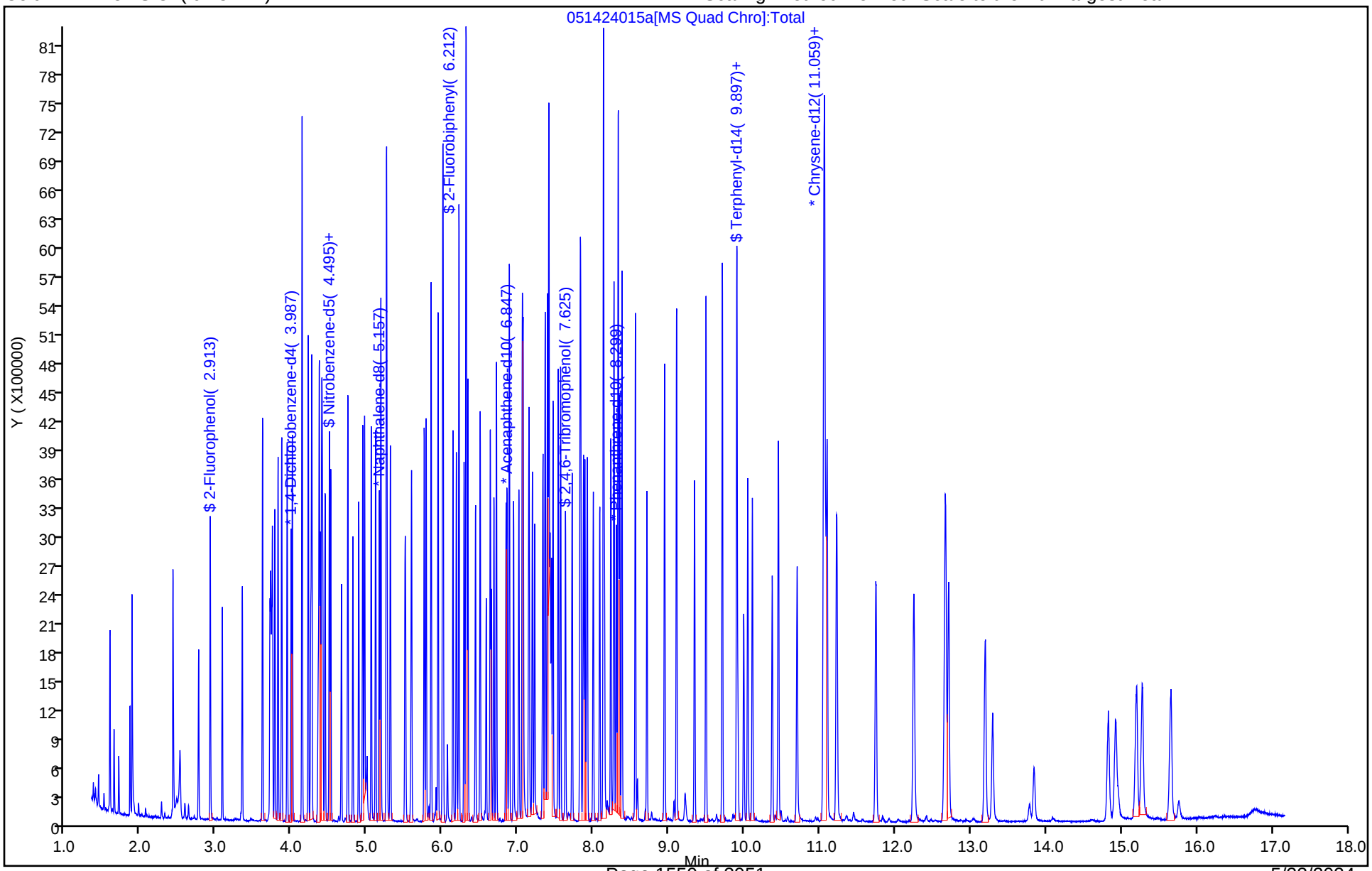
MS-IS-RVE_00005 Amount Added: 30.00 Units: uL Run Reagent

Report Date: 15-May-2024 10:47:06 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424015a.D				
Injection Date:	14-May-2024 16:12:19	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	280-191098-F-1-A MS			Worklist Smp#:	15
Client ID:	DET-003-240401-GW				
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424015a.D
Lims ID: 280-191098-F-1-A MS
Client ID: DET-003-240401-GW
Sample Type: MS
Inject. Date: 14-May-2024 16:12:19 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-F-1-A MS
Operator ID: DM Instrument ID: SMS_3

Method: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 15-May-2024 10:46:00 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1641

First Level Reviewer: G3YK Date: 14-May-2024 16:58:33

Compound	Amount Added	Amount Recovered	% Rec.
$ 7 2-Fluorophenol	25.0	14.1	56.50
$ 8 Phenol-d5	25.0	10.3	41.09
$ 9 Nitrobenzene-d5	25.0	20.4	81.64
$ 10 2-Fluorobiphenyl	25.0	21.9	87.69
$ 11 2,4,6-Tribromophenol	25.0	24.2	96.86
$ 12 Terphenyl-d14	25.0	24.7	98.69

Manual Integration/User Assign Peak Report

Eurofins Denver

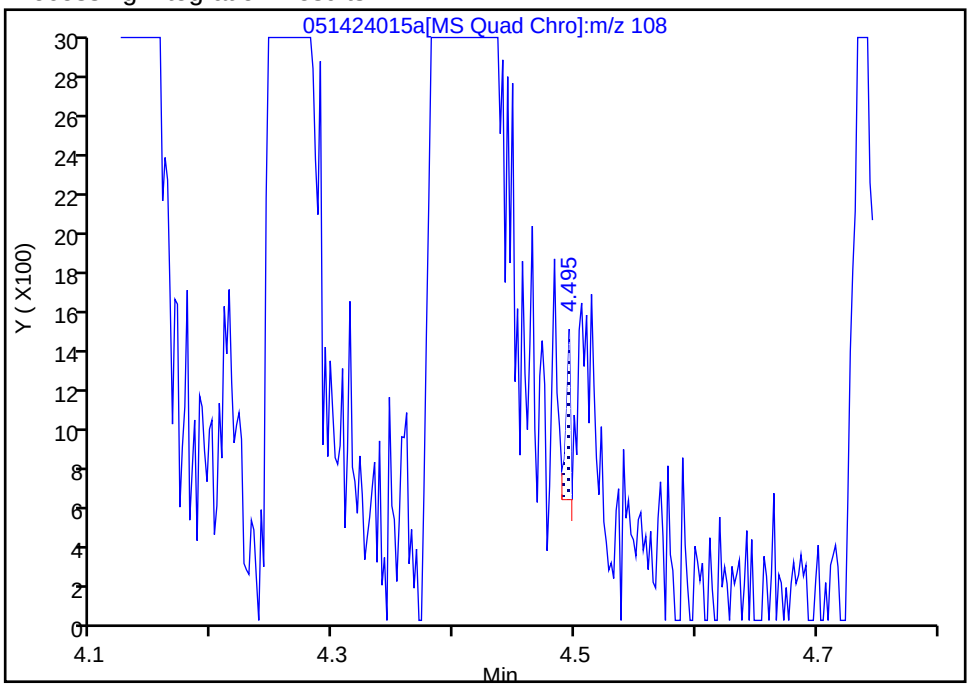
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424015a.D				
Injection Date:	14-May-2024 16:12:19	Instrument ID:	SMS_3		
Lims ID:	280-191098-F-1-A MS				
Client ID:	DET-003-240401-GW				
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	15
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

39 3 & 4 Methylphenol, CAS: 15831-10-4

Signal: 1

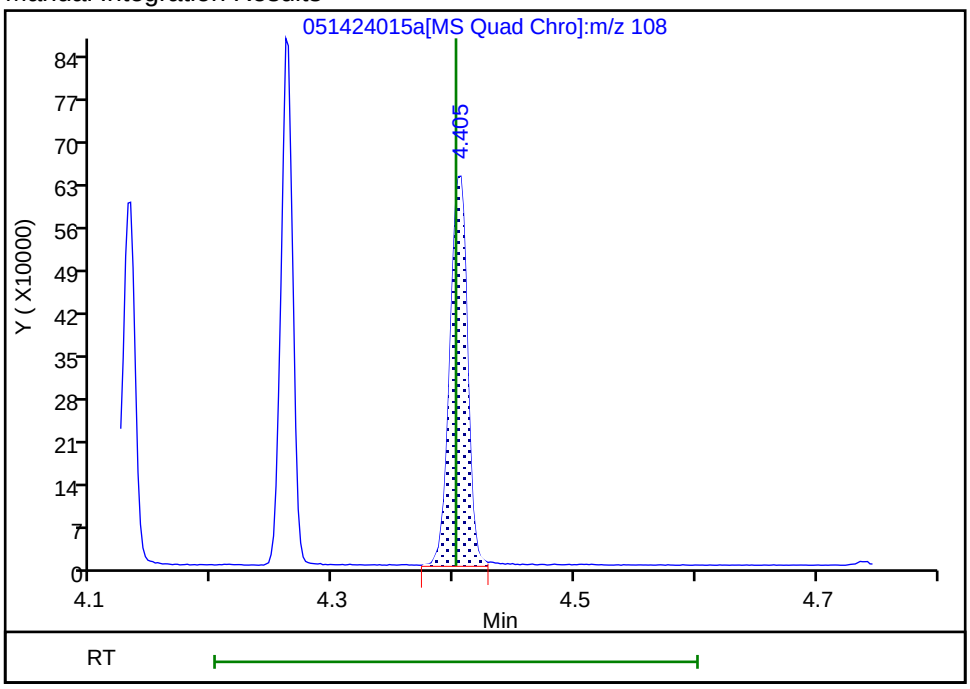
Processing Integration Results

RT: 4.50
Area: 207
Amount: 0.004939
Amount Units: ug/ml



Manual Integration Results

RT: 4.41
Area: 643962
Amount: 15.366227
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 16:46:41 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MSD | Lab Sample ID: 280-191098-1 MSD

Matrix: Water | Lab File ID: SMS_3-051424016a.D

Analysis Method: 8270E | Date Collected: 05/06/2024 10:16

Extract. Method: 3510C | Date Extracted: 05/13/2024 11:32

Sample wt/vol: 241.1(mL) | Date Analyzed: 05/14/2024 16:34

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: DB-5MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 653283 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-95-4	2,4,5-Trichlorophenol	83.8		10	8.3	2.7
88-06-2	2,4,6-Trichlorophenol	82.9		10	8.3	2.4
120-83-2	2,4-Dichlorophenol	76.3		10	8.3	3.1
105-67-9	2,4-Dimethylphenol	64.6		10	8.3	1.4
51-28-5	2,4-Dinitrophenol	167		31	21	13
121-14-2	2,4-Dinitrotoluene	75.7		10	8.3	1.5
606-20-2	2,6-Dinitrotoluene	81.8		10	8.3	1.5
95-57-8	2-Chlorophenol	68.1		10	8.3	2.7
95-48-7	2-Methylphenol	64.7		10	8.3	0.80
88-75-5	2-Nitrophenol	77.2		10	8.3	3.6
15831-10-4	3 & 4 Methylphenol	68.7	M	10	8.3	2.3
534-52-1	4,6-Dinitro-2-methylphenol	161		52	31	4.2
59-50-7	4-Chloro-3-methylphenol	70.9		10	8.3	1.8
100-02-7	4-Nitrophenol	76.3		26	13	9.4
117-81-7	Bis(2-ethylhexyl) phthalate	89.7		10	8.3	3.4
85-68-7	Butyl benzyl phthalate	86.2		4.1	3.3	1.6
84-66-2	Diethyl phthalate	75.2		4.1	3.3	1.4
131-11-3	Dimethyl phthalate	74.8		4.1	3.3	0.78
84-74-2	Di-n-butyl phthalate	79.5		4.1	3.3	2.2
117-84-0	Di-n-octyl phthalate	86.7		10	8.3	3.7
98-95-3	Nitrobenzene	68.0		10	8.3	1.3
87-86-5	Pentachlorophenol	160		52	50	21
108-95-2	Phenol	34.9		10	8.3	0.95

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	112		43-140
321-60-8	2-Fluorobiphenyl	100		44-119
367-12-4	2-Fluorophenol (Surr)	59		19-119
4165-60-0	Nitrobenzene-d5 (Surr)	89		44-120
4165-62-2	Phenol-d5 (Surr)	44		10-115
1718-51-0	Terphenyl-d14 (Surr)	113		50-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424016a.D
Lims ID: 280-191098-J-1-A MSD
Client ID: DET-003-240401-GW
Sample Type: MSD
Inject. Date: 14-May-2024 16:34:48 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-J-1-A MSD
Operator ID: DM Instrument ID: SMS_3

Method: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 15-May-2024 10:46:00 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1641

First Level Reviewer: G3YK Date: 14-May-2024 17:02:58

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	115	3.987	3.987	0.000	96	248748	8.00	8.00	
* 2 Naphthalene-d8	136	5.157	5.155	0.002	100	1373677	8.00	8.00	
* 3 Acenaphthene-d10	164	6.849	6.847	0.002	92	697829	8.00	8.00	
* 4 Phenanthrene-d10	188	8.299	8.299	0.001	97	1079730	8.00	8.00	
* 5 Chrysene-d12	240	11.059	11.052	0.007	92	698461	8.00	8.00	
* 6 Perylene-d12	264	13.290	13.290	0.000	97	615652	8.00	8.00	M
$ 7 2-Fluorophenol	112	2.917	2.911	0.006	94	771958	25.0	14.8	
$ 8 Phenol-d5	99	3.718	3.718	0.000	0	763092	25.0	11.0	
$ 9 Nitrobenzene-d5	82	4.495	4.495	0.000	89	1391451	25.0	22.2	
$ 10 2-Fluorobiphenyl	172	6.212	6.212	0.000	99	2084450	25.0	25.1	
$ 11 2,4,6-Tribromophenol	330	7.625	7.625	0.000	92	306856	25.0	27.9	
$ 12 Terphenyl-d14	244	9.899	9.897	0.002	98	1902918	25.0	28.3	
13 N-Nitrosodimethylamine	74	1.860	1.854	0.006	92	470799	20.0	12.1	
14 Pyridine	79	1.884	1.874	0.010	96	739955	40.0	15.8	
15 2-Picoline	93	2.425	2.417	0.008	94	760594	20.0	12.0	
16 N-Nitrosomethylethylamine	88	2.519	2.515	0.004	90	466850	20.0	16.4	M
18 Methyl methanesulfonate	80	2.766	2.766	0.000	86	558373	20.0	15.1	
17 Acrylamide	71	2.756	2.831	-0.075	29	2554	20.0	1.48	
19 N-Nitrosodiethylamine	102	3.079	3.078	0.001	95	460977	20.0	17.3	
20 Ethyl methanesulfonate	79	3.344	3.344	0.000	98	866782	20.0	18.0	
21 Benzaldehyde	77	3.609	3.609	0.000	97	822338	20.0	16.0	
23 Aniline	93	3.707	3.707	0.000	97	881550	20.0	10.8	
22 Phenol	94	3.728	3.730	-0.002	98	678714	20.0	8.41	
24 Pentachloroethane	117	3.740	3.738	0.002	96	305518	20.0	13.1	
25 Bis(2-chloroethyl)ether	93	3.773	3.773	0.000	93	1055443	20.0	17.1	
26 2-Chlorophenol	128	3.813	3.814	-0.001	96	849009	20.0	16.4	
27 n-Decane	43	3.862	3.863	0.000	85	679001	20.0	9.56	
28 1,3-Dichlorobenzene	146	3.934	3.936	-0.002	96	783947	20.0	14.2	
29 1,4-Dichlorobenzene	146	4.003	4.003	0.000	92	816450	20.0	14.2	
31 1,2-Dichlorobenzene	146	4.134	4.134	0.000	94	783467	20.0	14.7	
30 Benzyl alcohol	79	4.132	4.136	-0.004	91	753519	20.0	14.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
32 Indene	116	4.216	4.218	-0.002	89	1405542	20.0	15.2	
34 2,2'-oxybis[1-chloropropane]	45	4.250	4.248	0.002	96	1386976	20.0	13.2	a
33 2-Methylphenol	108	4.265	4.257	0.009	96	764964	20.0	15.6	
35 N-Nitrosopyrrolidine	100	4.350	4.346	0.004	97	506521	20.0	17.6	
36 Acetophenone	105	4.361	4.363	-0.002	95	1323990	20.0	17.2	
37 N-Nitrosodi-n-propylamine	70	4.379	4.377	0.002	80	782888	20.0	17.2	
40 N-Nitrosomorpholine	56	4.391	4.387	0.004	87	623817	20.0	15.7	
42 2-Toluidine	106	4.395	4.395	0.000	97	1197815	20.0	15.0	
38 3-Methylphenol	108	4.406	4.401	0.005	80	847998	20.0	16.6	a
39 3 & 4 Methylphenol	108	4.406	4.401	0.005	0	847998	20.0	16.6	a
41 4-Methylphenol	108	4.406	4.401	0.005	87	847998	20.0	16.6	a
43 Hexachloroethane	117	4.438	4.438	0.000	97	392236	20.0	14.5	
44 Nitrobenzene	77	4.514	4.514	0.000	87	1078539	20.0	16.4	
45 N-Nitrosopiperidine	114	4.657	4.654	0.003	88	480991	20.0	18.8	
46 Isophorone	82	4.740	4.742	-0.002	98	2057406	20.0	17.4	
47 2-Nitrophenol	139	4.806	4.808	-0.002	97	483263	20.0	18.6	
48 2,4-Dimethylphenol	107	4.883	4.883	0.000	97	690987	20.0	15.6	
50 o,o',o''-Triethylphosphorothioat	121	4.938	4.936	0.002	93	393354	20.0	17.4	
51 Bis(2-chloroethoxy)methane	93	4.961	4.963	-0.002	97	1332400	20.0	18.2	
52 2,4-Dichlorophenol	162	5.049	5.049	0.000	97	737721	20.0	18.4	
49 Benzoic acid	105	5.002	5.063	-0.061	89	282436	20.0	7.34	
53 1,2,4-Trichlorobenzene	180	5.108	5.108	0.000	94	712006	20.0	15.9	
54 Naphthalene	128	5.177	5.177	0.000	98	2236596	20.0	16.5	
55 4-Chloroaniline	127	5.251	5.251	0.000	95	932998	20.0	16.2	
56 2,6-Dichlorophenol	162	5.253	5.255	-0.002	93	725318	20.0	18.1	
155 Hexachloropropene	213	5.259	5.261	-0.002	90	435589	20.0	13.3	
57 Hexachlorobutadiene	225	5.304	5.304	0.000	98	406317	20.0	15.0	
58 Quinoline	129	5.498	5.496	0.002	96	1574489	20.0	17.9	Ma
59 Caprolactam	113	5.583	5.575	0.008	44	89841	20.0	6.77	
60 N-Nitrosodi-n-butylamine	84	5.585	5.585	0.000	93	741994	20.0	21.2	
61 4-Chloro-3-methylphenol	107	5.753	5.749	0.004	96	784340	20.0	17.1	
62 Safrole, Total	162	5.779	5.777	0.002	87	603974	20.0	17.7	
63 2-Methylnaphthalene	141	5.845	5.845	0.000	93	1258533	20.0	17.0	
64 1-Methylnaphthalene	142	5.937	5.937	0.000	93	1374065	20.0	17.1	
65 Hexachlorocyclopentadiene	237	5.996	5.996	0.000	96	754048	40.0	33.4	
66 1,2,4,5-Tetrachlorobenzene	216	6.004	6.004	0.000	97	773199	20.0	18.6	
67 Isosafrole Peak 1	162	6.059	6.059	0.000	0	108675	3.20	2.78	
68 2,4,6-Trichlorophenol	196	6.135	6.133	0.002	94	537790	20.0	20.0	
69 2,4,5-Trichlorophenol	196	6.178	6.173	0.005	93	576002	20.0	20.2	
70 Isosafrole Peak 2	162	6.282	6.279	0.003	0	616038	16.8	14.8	
71 1,1'-Biphenyl	154	6.304	6.304	0.000	96	1796928	20.0	19.3	
72 2-Chloronaphthalene	162	6.312	6.310	0.002	98	1570549	20.0	20.4	
73 1-Chloronaphthalene	162	6.331	6.328	0.003	98	1334674	20.0	16.7	
74 2-Nitroaniline	138	6.435	6.433	0.002	80	542664	20.0	19.5	
75 1,4-Naphthoquinone	158	6.494	6.492	0.002	85	697791	20.0	25.7	
76 1,4-Dinitrobenzene	168	6.576	6.573	0.003	89	259819	20.0	21.1	
77 Dimethyl phthalate	163	6.631	6.631	0.000	97	1564833	20.0	18.0	
78 1,3-Dinitrobenzene	168	6.645	6.645	0.000	86	288360	20.0	19.0	
79 2,6-Dinitrotoluene	165	6.678	6.680	-0.002	93	396013	20.0	19.7	
80 Acenaphthylene	152	6.710	6.710	0.000	99	2039328	20.0	17.6	
81 3-Nitroaniline	65	6.837	6.839	-0.002	91	663282	20.0	16.4	
82 Acenaphthene	153	6.880	6.882	-0.002	95	1406765	20.0	18.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
83 2,4-Dinitrophenol	184	6.939	6.939	0.000	84	445338	40.0	40.2	
84 Pentachlorobenzene	250	7.006	7.008	-0.002	98	608396	20.0	18.0	
86 Dibenzofuran	168	7.053	7.053	0.000	98	1918370	20.0	18.0	
85 4-Nitrophenol	65	7.064	7.059	0.005	81	439933	40.0	18.4	
87 2,4-Dinitrotoluene	165	7.066	7.066	0.000	89	500528	20.0	18.3	
88 1-Naphthylamine	143	7.137	7.133	0.004	98	712047	20.0	9.75	
89 2,3,4,6-Tetrachlorophenol	232	7.186	7.186	0.000	74	433170	20.0	19.9	
90 2-Naphthylamine	143	7.217	7.214	0.003	96	1114898	20.0	13.9	
91 Diethyl phthalate	149	7.325	7.329	-0.004	97	1631232	20.0	18.1	
92 Hexadecane	57	7.355	7.355	0.000	87	1356635	20.0	17.1	
93 Fluorene	166	7.386	7.388	-0.002	96	1563764	20.0	18.7	
94 Thionazin	97	7.404	7.396	0.008	79	469938	20.0	19.1	
95 4-Chlorophenyl phenyl ether	204	7.406	7.407	0.000	93	763429	20.0	19.1	
96 N-Nitro-o-toluidine	152	7.423	7.421	0.002	93	439731	20.0	18.6	
97 4-Nitroaniline	138	7.441	7.443	-0.002	82	391549	20.0	17.3	
98 4,6-Dinitro-2-methylphenol	198	7.464	7.464	0.000	82	567511	40.0	38.8	
99 Diphenylamine	169	7.531	7.531	0.000	95	1094567	17.0	15.7	
100 N-Nitrosodiphenylamine	168	7.531	7.531	0.000	83	691933	20.0	18.3	
102 1,2-Diphenylhydrazine	77	7.562	7.562	0.000	41	2139187	20.2	19.5	a
101 Azobenzene	77	7.562	7.562	0.000	97	2139187	20.0	19.3	
103 Sulfotepp	322	7.715	7.715	0.000	80	201472	20.0	19.8	
104 1,3,5-Trinitrobenzene	213	7.821	7.813	0.008	73	159972	20.0	21.0	
105 Diallate Peak 1	86	7.821	7.821	0.000	0	617403	17.0	13.7	
106 Phorate	121	7.829	7.829	0.000	95	333102	20.0	19.2	
107 Phenacetin	108	7.866	7.864	0.002	92	797856	20.0	19.3	
108 4-Bromophenyl phenyl ether	248	7.882	7.884	-0.002	68	420359	20.0	19.9	
109 Diallate Peak 2	86	7.905	7.902	0.003	0	221062	3.00	4.85	
110 Hexachlorobenzene	284	7.915	7.915	0.000	93	482871	20.0	19.8	
111 Dimethoate	87	7.996	7.994	0.002	96	715708	20.0	19.8	
112 Atrazine	200	8.080	8.082	-0.002	89	301775	20.0	16.1	
114 Pentachloronitrobenzene	237	8.129	8.127	0.002	58	232582	20.0	22.5	
113 Pentachlorophenol	266	8.129	8.127	0.002	89	588409	40.0	38.6	
115 4-Aminobiphenyl	169	8.143	8.143	0.000	90	936082	20.0	11.5	
116 Pronamide	173	8.227	8.227	0.000	91	673015	20.0	19.0	
156 n-Octadecane	57	8.270	8.268	0.002	89	1424084	20.0	19.5	
117 Phenanthrene	178	8.325	8.323	0.002	98	2041010	20.0	19.2	
118 Dinoseb	211	8.329	8.329	0.000	96	369521	20.0	21.8	
119 Disulfoton	88	8.344	8.345	-0.001	97	977803	20.0	18.2	
120 Anthracene	178	8.376	8.374	0.002	98	2091023	20.0	19.6	
121 Carbazole	167	8.554	8.552	0.002	96	1869179	20.0	18.3	
123 Methyl parathion	109	8.707	8.707	0.000	91	571730	20.0	21.1	
122 Alachlor	45		8.707					ND	
124 Di-n-butyl phthalate	149	8.940	8.940	0.000	100	2547613	20.0	19.2	
157 Ethyl Parathion	97	9.099	9.099	0.000	82	396099	20.0	19.7	
125 4-Nitroquinoline-1-oxide	190	9.099	9.099	0.000	74	176085	20.0	16.6	
126 Methapyrilene	58	9.203	9.201	0.002	98	576360	20.0	7.65	
158 Isodrin	193	9.338	9.338	0.000	93	271687	20.0	18.8	
127 Fluoranthene	202	9.491	9.489	0.002	98	2068862	20.0	17.9	
128 Benzidine	184	9.654	9.658	-0.004	99	152224	40.0	3.62	
129 Pyrene	202	9.707	9.707	0.000	97	2160636	20.0	20.9	
130 Aramite Peak 1	185	9.909	9.909	0.000	0	100823	10.2	11.5	
131 Aramite Peak 2	185	9.991	9.991	0.000	0	192919	9.80	9.60	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
132 p-Dimethylamino azobenzene	120	10.044	10.044	0.000	92	572791	20.0	17.9	
133 Chlorobenzilate	251	10.105	10.103	0.002	85	535482	20.0	19.9	
134 Famphur	218	10.367	10.369	-0.002	85	507378	20.0	16.1	
135 3,3'-Dimethylbenzidine	212	10.407	10.407	0.000	99	127688	20.0	2.39	
136 Butyl benzyl phthalate	149	10.448	10.450	-0.002	96	1009649	20.0	20.8	
137 2-Acetylaminofluorene	181	10.695	10.699	-0.004	95	679144	20.0	18.1	
138 Benzo[a]anthracene	228	11.048	11.046	0.002	99	1814707	20.0	20.6	
139 3,3'-Dichlorobenzidine	252	11.061	11.061	0.000	75	1230103	40.0	39.8	
140 4,4'-Methylene bis(2-chloroanil	231	11.077	11.075	0.002	93	306491	20.0	17.2	
141 Chrysene	228	11.095	11.097	-0.002	98	1663157	20.0	19.5	
142 Bis(2-ethylhexyl) phthalate	149	11.220	11.222	-0.002	98	1394251	20.0	21.6	
143 6-Methylchrysene	242	11.743	11.747	-0.004	99	1088320	20.0	17.4	
144 Di-n-octyl phthalate	149	12.245	12.243	0.002	99	2184801	20.0	20.9	
145 Benzo[b]fluoranthene	252	12.657	12.659	-0.002	98	1529215	20.0	22.4	Ma
146 7,12-Dimethylbenz(a)anthracene	256	12.669	12.663	0.006	90	623067	20.0	18.5	
147 Benzo[k]fluoranthene	252	12.708	12.706	0.002	99	1474786	20.0	20.7	a
148 Benzo[a]pyrene	252	13.190	13.196	-0.006	80	1303346	20.0	20.6	
149 3-Methylcholanthrene	268	13.839	13.843	-0.004	94	231369	20.0	8.79	Ma
150 Dibenz[a,h]acridine	279	14.823	14.829	-0.006	91	846919	20.0	17.8	
151 Dibenz[a,j]acridine	279	14.921	14.929	-0.008	96	895335	20.2	17.5	Ma
152 Indeno[1,2,3-cd]pyrene	276	15.197	15.201	-0.004	98	1163217	20.0	19.2	
153 Dibenz(a,h)anthracene	278	15.274	15.278	-0.004	95	1097250	20.0	19.7	a
154 Benzo[g,h,i]perylene	276	15.654	15.658	-0.004	96	1149098	20.0	19.6	
209 1,4-Dioxane	88		0.000				ND	ND	
159 Pentachlorophenol_T	266		3.526					ND	
161 Benzidine_T	184		4.667					ND	
162 4,4'-DDE	246	5.259	5.070	0.189	0	13356		NR	
163 4,4'-DDD	235		5.140					ND	
164 4,4'-DDT	235	5.306	5.261	0.045	0	69		NR	
S 165 Aramite, Total	185				0		20.0	21.1	
S 166 Diallate	86				0		20.0	18.5	
S 169 Total Cresols	108		15.500					ND	7
S 167 Isosafrole	162				0		20.0	17.6	
S 168 Methyl Phenols,Total	108				0			32.2	
S 170 TPAH	1				0			311.7	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

ND - Not Detected or Marked ND

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-IS-RVE_00005 Amount Added: 30.00 Units: uL Run Reagent

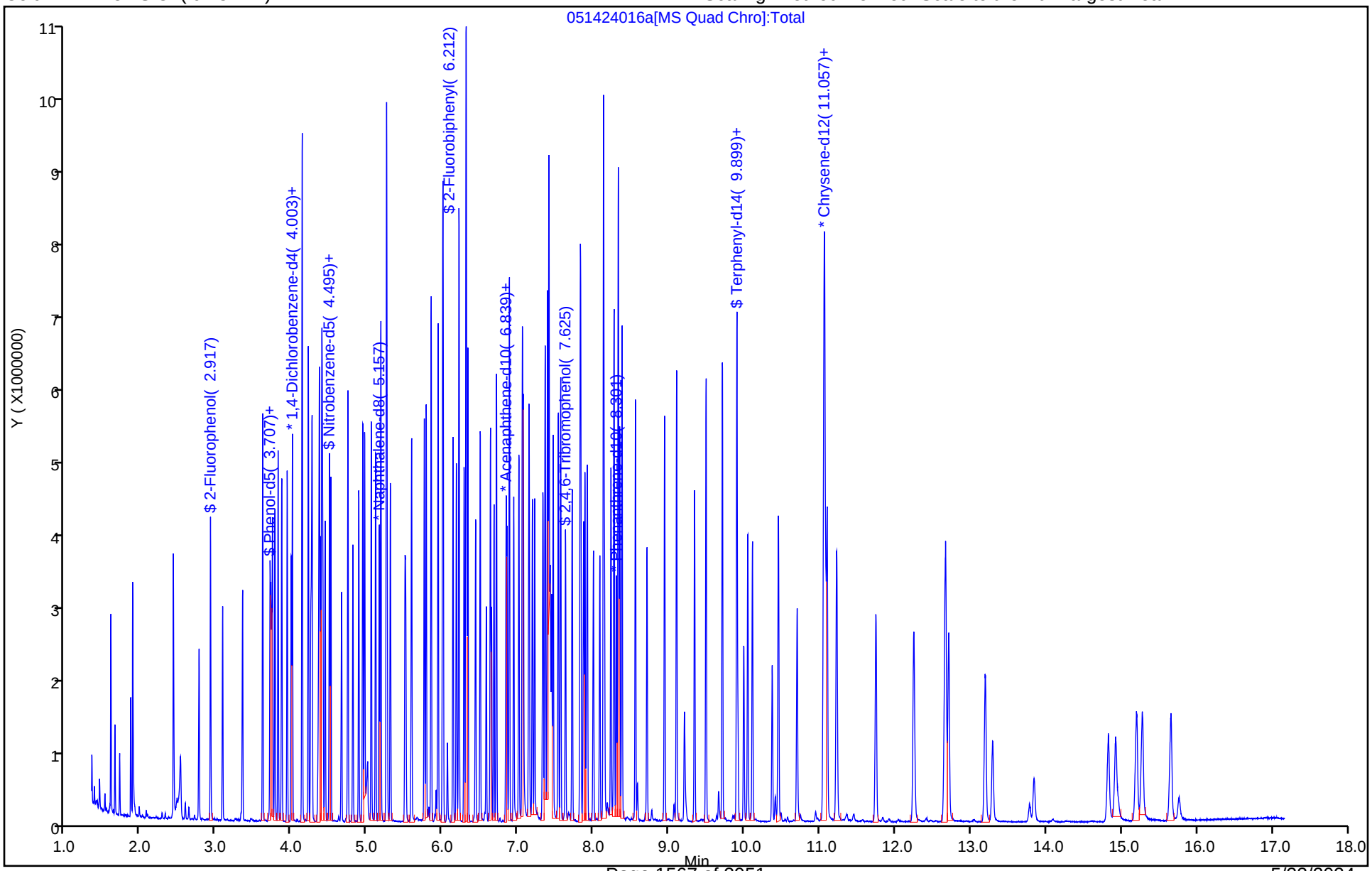
Report Date: 15-May-2024 10:47:15 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424016a.D

Injection Date:	14-May-2024 16:34:48	Instrument ID:	SMS_3	Operator ID:	DM
Lims ID:	280-191098-J-1-A MSD			Worklist Smp#:	16
Client ID:	DET-003-240401-GW				
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		

Column: DB-5MS UI (0.18 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424016a.D
Lims ID: 280-191098-J-1-A MSD
Client ID: DET-003-240401-GW
Sample Type: MSD
Inject. Date: 14-May-2024 16:34:48 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-J-1-A MSD
Operator ID: DM Instrument ID: SMS_3

Method: \\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3 8270 RVE.m
Limit Group: MSSV - 8270 D_E
Method Label: 8270E/625
Last Update: 15-May-2024 10:46:00 Calib Date: 05-Apr-2024 14:15:49
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_3\20240405-131929.b\SMS_3-040524013.D

Column 1 : DB-5MS UI (0.18 mm) Det: MS Quad
Process Host: CTX1641

First Level Reviewer: G3YK Date: 14-May-2024 17:02:58

Compound	Amount Added	Amount Recovered	% Rec.
$ 7 2-Fluorophenol	25.0	14.8	59.23
$ 8 Phenol-d5	25.0	11.0	43.93
$ 9 Nitrobenzene-d5	25.0	22.2	88.92
$ 10 2-Fluorobiphenyl	25.0	25.1	100.38
$ 11 2,4,6-Tribromophenol	25.0	27.9	111.69
$ 12 Terphenyl-d14	25.0	28.3	113.13

Manual Integration/User Assign Peak Report

Eurofins Denver

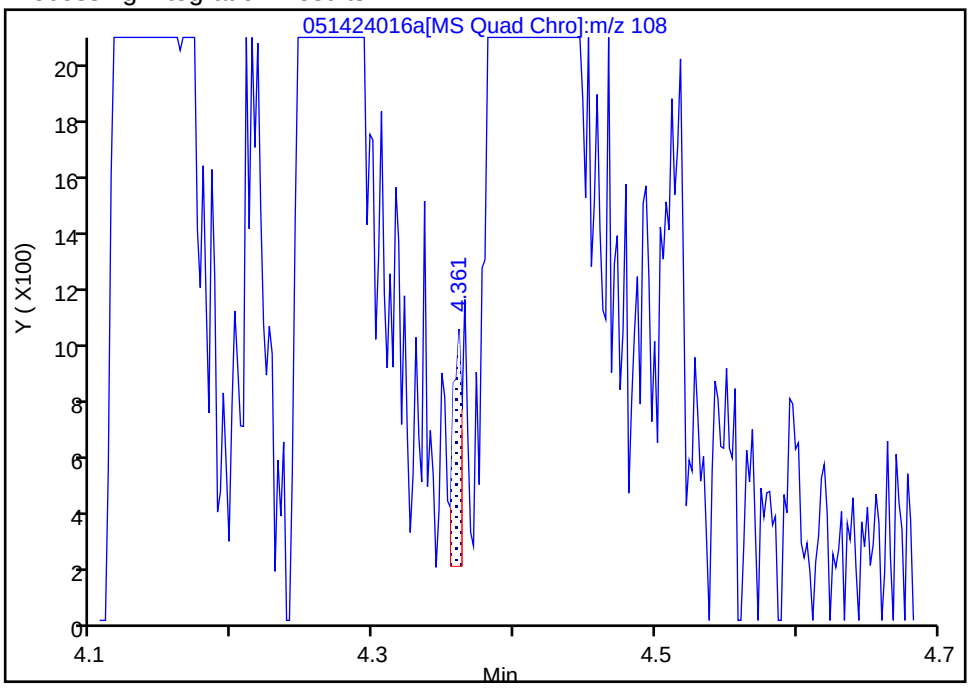
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424016a.D				
Injection Date:	14-May-2024 16:34:48	Instrument ID:	SMS_3		
Lims ID:	280-191098-J-1-A MSD				
Client ID:	DET-003-240401-GW				
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	16
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

39 3 & 4 Methylphenol, CAS: 15831-10-4

Signal: 1

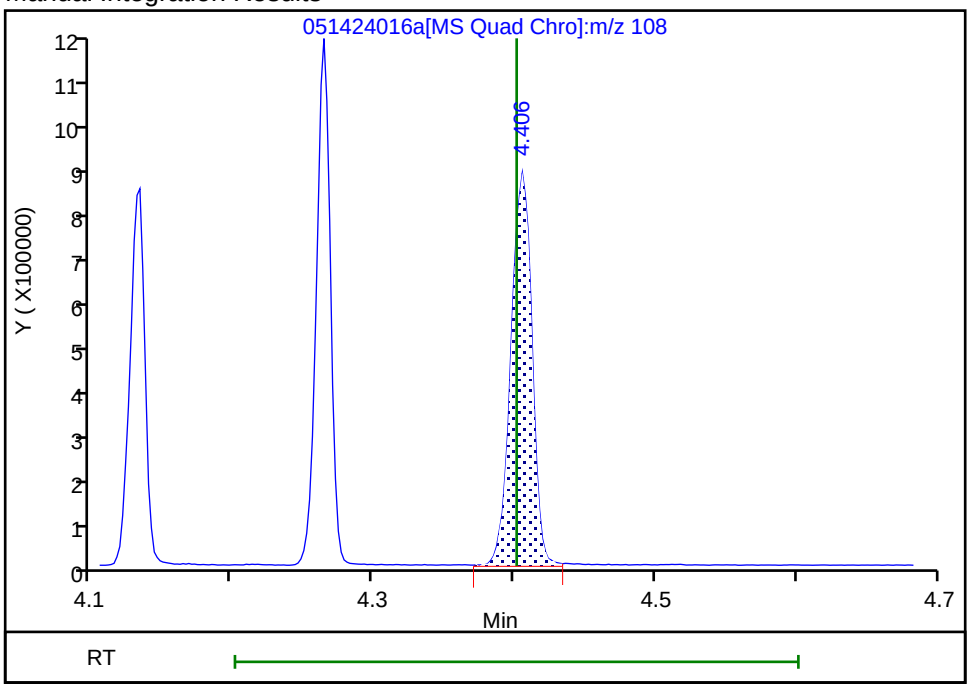
Processing Integration Results

RT: 4.36
Area: 354
Amount: 0.006910
Amount Units: ug/ml



Manual Integration Results

RT: 4.41
Area: 847998
Amount: 16.552107
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 17:00:08 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Eurofins Denver

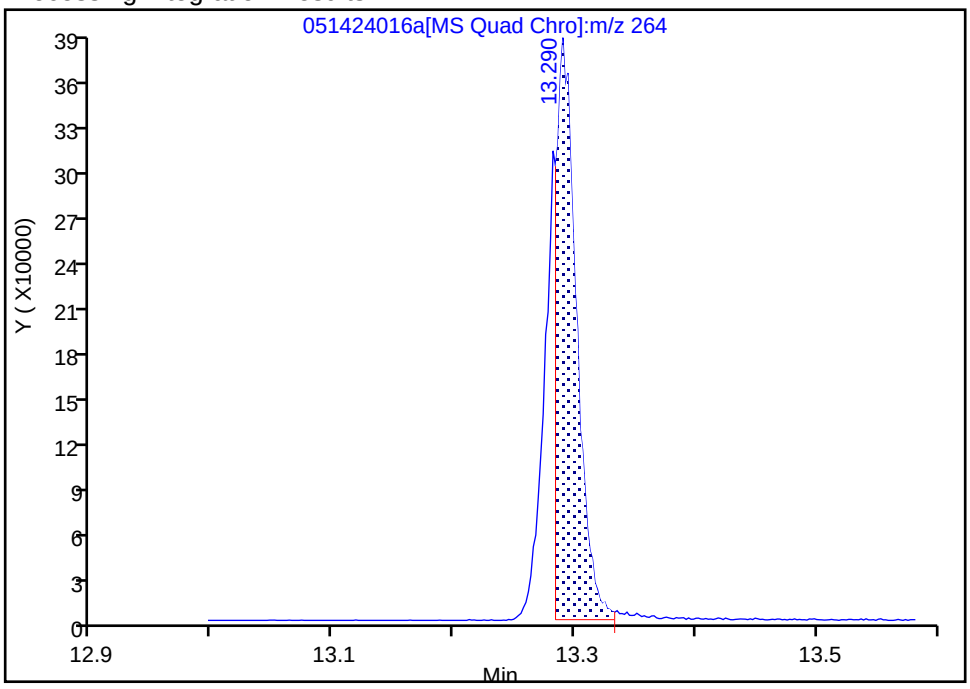
Data File:	\\chromfs\Denver\ChromData\SMS_3\20240514-133352.b\SMS_3-051424016a.D				
Injection Date:	14-May-2024 16:34:48	Instrument ID:	SMS_3		
Lims ID:	280-191098-J-1-A MSD				
Client ID:	DET-003-240401-GW				
Operator ID:	DM	ALS Bottle#:	0	Worklist Smp#:	16
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	SMS_3 8270 RVE	Limit Group:	MSSV - 8270 D_E		
Column:	DB-5MS UI (0.18 mm)	Detector	MS Quad		

* 6 Perylene-d12, CAS: 1520-96-3

Signal: 1

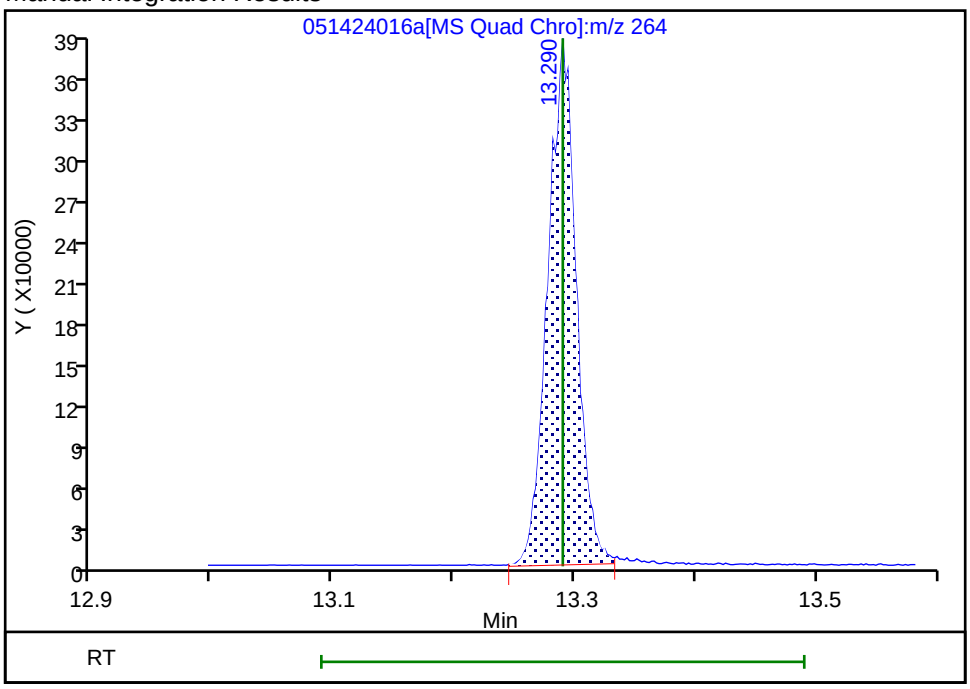
Processing Integration Results

RT: 13.29
Area: 440714
Amount: 8.000000
Amount Units: ug/ml



Manual Integration Results

RT: 13.29
Area: 615652
Amount: 8.000000
Amount Units: ug/ml



Reviewer: G3YK, 14-May-2024 16:59:27 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SMS_3 Start Date: 03/12/2024 09:08

Analysis Batch Number: 645672 End Date: 03/13/2024 14:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-645672/1		03/12/2024 09:08	1		DB-5MS 0.25(mm)
STD500 280-645672/2 IC		03/12/2024 09:35	1		DB-5MS 0.25(mm)
STD400 280-645672/3 IC		03/12/2024 09:57	1		DB-5MS 0.25(mm)
STD300 280-645672/4 IC		03/12/2024 10:19	1		DB-5MS 0.25(mm)
STD200 280-645672/5 IC		03/12/2024 10:42	1		DB-5MS 0.25(mm)
STD125 280-645672/6 IC		03/12/2024 11:04	1		DB-5MS 0.25(mm)
STD050 280-645672/7 IC		03/12/2024 11:26	1		DB-5MS 0.25(mm)
STD025 280-645672/8 IC		03/12/2024 11:49	1		DB-5MS 0.25(mm)
STD010 280-645672/11 IC		03/12/2024 12:11	1		DB-5MS 0.25(mm)
DFTPP 280-645672/12		03/13/2024 10:04	1	SMS_3-031324001.D	DB-5MS 0.25(mm)
ICV 280-645672/9		03/13/2024 13:07	1	SMS_3-031324002a.D	DB-5MS 0.25(mm)
ICV2		03/13/2024 14:16	1	SMS_3-031324003a.D	DB-5MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SMS_3 Start Date: 03/13/2024 10:04

Analysis Batch Number: 645747 End Date: 03/14/2024 09:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-645747/1		03/13/2024 10:04	1		DB-5MS 0.25(mm)
STD500 280-645747/2 IC		03/13/2024 14:38	1		DB-5MS 0.25(mm)
STD400 280-645747/3 IC		03/13/2024 15:00	1		DB-5MS 0.25(mm)
STD300 280-645747/4 IC		03/13/2024 15:22	1		DB-5MS 0.25(mm)
STD200 280-645747/5 IC		03/13/2024 15:45	1		DB-5MS 0.25(mm)
STD125 280-645747/6 IC		03/13/2024 16:07	1		DB-5MS 0.25(mm)
STD050 280-645747/7 IC		03/13/2024 16:29	1		DB-5MS 0.25(mm)
STD025 280-645747/8 IC		03/13/2024 16:51	1		DB-5MS 0.25(mm)
DFTPP 280-645747/11		03/14/2024 08:53	1	SMS_3-031424001.D	DB-5MS 0.25(mm)
ICV 280-645747/10		03/14/2024 09:04	1	SMS_3-031424002.D	DB-5MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SMS_3 Start Date: 04/05/2024 10:11

Analysis Batch Number: 648459 End Date: 04/05/2024 14:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-648459/1		04/05/2024 10:11	1	SMS_3-040524001.D	DB-5MS 0.25(mm)
ICIS 280-648459/2		04/05/2024 11:38	1	SMS_3-040524006.D	DB-5MS 0.25(mm)
STD500 280-648459/3 IC		04/05/2024 12:00	1	SMS_3-040524007.D	DB-5MS 0.25(mm)
STD400 280-648459/4 IC		04/05/2024 12:23	1	SMS_3-040524008.D	DB-5MS 0.25(mm)
STD300 280-648459/5 IC		04/05/2024 12:45	1	SMS_3-040524009.D	DB-5MS 0.25(mm)
STD125 280-648459/6 IC		04/05/2024 13:08	1	SMS_3-040524010.D	DB-5MS 0.25(mm)
STD050 280-648459/7 IC		04/05/2024 13:30	1	SMS_3-040524011.D	DB-5MS 0.25(mm)
STD025 280-648459/8 IC		04/05/2024 13:53	1	SMS_3-040524012.D	DB-5MS 0.25(mm)
STD010 280-648459/9 IC		04/05/2024 14:15	1	SMS_3-040524013.D	DB-5MS 0.25(mm)
ICV 280-648459/10		04/05/2024 14:38	1	SMS_3-040524014.D	DB-5MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SMS_3 Start Date: 05/14/2024 11:08

Analysis Batch Number: 653283 End Date: 05/14/2024 22:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-653283/2		05/14/2024 11:08	1	SMS_3-051424001 b.D	DB-5MS 0.25(mm)
CCV 280-653283/4		05/14/2024 11:41	1	SMS_3-051424003 a.D	DB-5MS 0.25(mm)
CCVIS 280-653283/3		05/14/2024 12:04	1	SMS_3-051424004 a.D	DB-5MS 0.25(mm)
CCV 280-653283/5		05/14/2024 12:26	1	SMS_3-051424005 a.D	DB-5MS 0.25(mm)
CCVL 280-653283/6		05/14/2024 12:49	1		DB-5MS 0.25(mm)
MB 280-653130/1-A		05/14/2024 13:11	1	SMS_3-051424007 a.D	DB-5MS 0.25(mm)
LCS 280-653130/2-A		05/14/2024 13:34	1	SMS_3-051424008 a.D	DB-5MS 0.25(mm)
LCSD 280-653130/3-A		05/14/2024 13:57	1	SMS_3-051424009 a.D	DB-5MS 0.25(mm)
ZZZZZ		05/14/2024 14:19	1		DB-5MS 0.25(mm)
ZZZZZ		05/14/2024 14:42	2		DB-5MS 0.25(mm)
ZZZZZ		05/14/2024 15:04	1		DB-5MS 0.25(mm)
ZZZZZ		05/14/2024 15:27	1		DB-5MS 0.25(mm)
280-191098-1	DET-003-240401-GW	05/14/2024 15:49	1	SMS_3-051424014 a.D	DB-5MS 0.25(mm)
280-191098-1 MS	DET-003-240401-GW MS	05/14/2024 16:12	1	SMS_3-051424015 a.D	DB-5MS 0.25(mm)
280-191098-1 MSD	DET-003-240401-GW MSD	05/14/2024 16:34	1	SMS_3-051424016 a.D	DB-5MS 0.25(mm)
280-191098-2	DET-003-240402-GW	05/14/2024 16:57	1	SMS_3-051424017 a.D	DB-5MS 0.25(mm)
280-191098-5	DET-004-240401-GW	05/14/2024 17:19	1	SMS_3-051424018 a.D	DB-5MS 0.25(mm)
ZZZZZ		05/14/2024 17:42	1		DB-5MS 0.25(mm)
ZZZZZ		05/14/2024 18:04	1		DB-5MS 0.25(mm)
ZZZZZ		05/14/2024 18:27	1		DB-5MS 0.25(mm)
ZZZZZ		05/14/2024 18:49	1		DB-5MS 0.25(mm)
ZZZZZ		05/14/2024 19:12	1		DB-5MS 0.25(mm)
ZZZZZ		05/14/2024 19:34	1		DB-5MS 0.25(mm)
ZZZZZ		05/14/2024 19:57	1		DB-5MS 0.25(mm)
ZZZZZ		05/14/2024 20:19	1		DB-5MS 0.25(mm)
ZZZZZ		05/14/2024 20:42	1		DB-5MS 0.25(mm)
ZZZZZ		05/14/2024 21:04	1		DB-5MS 0.25(mm)
ZZZZZ		05/14/2024 21:27	1		DB-5MS 0.25(mm)
CCVC 280-653283/31		05/14/2024 21:49	1	SMS_3-051424030 a.D	DB-5MS 0.25(mm)
CCVC 280-653283/32		05/14/2024 22:11	1	SMS_3-051424031 a.D	DB-5MS 0.25(mm)
CCVC 280-653283/33		05/14/2024 22:34	1	SMS_3-051424032 a.D	DB-5MS 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 645672 Batch Start Date: 03/12/24 09:08 Batch Analyst: Mondragon, Dana C

Batch Method: 8270E Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	MS-AP9-ICV1 00003	MS-AP9-ICV2 00006	MS-DFTPP_RVE 00003	MS-IS-RVE 00005	MS-RVAP9-ICV3 00001
ICV 280-645672/9		8270E			1.0 mL	50 uL	50 uL		30 uL	
DFTPP 280-645672/12		8270E			1.0 mL			500 uL	30 uL	
ICV2		8270E			1.0 mL				30 uL	500 uL

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 645747 Batch Start Date: 03/13/24 10:04 Batch Analyst: Mondragon, Dana C

Batch Method: 8270E Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	MS-DFTPP_RVE 00003	MS-FAB-ICV 00003	MS-IS-RVE 00005		
ICV 280-645747/10		8270E			1.0 mL		50 uL	30 uL		
DFTPP 280-645747/11		8270E				500 uL		30 uL		

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 648459 Batch Start Date: 04/05/24 10:11 Batch Analyst: Mondragon, Dana C

Batch Method: 8270E Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	MS-DFTPP_RVE 00003	MS-HSL-ICV1 00010	MS-HSL-ICV2 00004	MS-IS-RVE 00005	MS-RVHSL-WS 00006	
DFTPP 280-648459/1		8270E			500 uL					
ICIS 280-648459/2		8270E						30 uL	200 uL	
STD500 280-648459/3 IC		8270E						30 uL	500 uL	
STD400 280-648459/4 IC		8270E						30 uL	400 uL	
STD300 280-648459/5 IC		8270E						30 uL	300 uL	
STD125 280-648459/6 IC		8270E						30 uL	125 uL	
STD050 280-648459/7 IC		8270E						30 uL	50 uL	
STD025 280-648459/8 IC		8270E						30 uL	25 uL	
STD010 280-648459/9 IC		8270E						30 uL	10 uL	
ICV 280-648459/10		8270E				50 uL	50 uL	30 uL		

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 653130 Batch Start Date: 05/13/24 11:32 Batch Analyst: Najera, Diego

Batch Method: 3510C Batch End Date: 05/13/24 17:25

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	ReceivedpH	8270_AP9_LCS 00118
MB 280-653130/1		3510C, 8270E					250 mL	1 mL	5 SU	
LCS 280-653130/2		3510C, 8270E					250 mL	1 mL	5 SU	0.25 mL
LCSD 280-653130/3		3510C, 8270E					250 mL	1 mL	5 SU	0.25 mL
280-191098-G-1	DET-003-240401-GW	3510C, 8270E	Water	T	425.9 g	177.6 g	248.3 mL	1 mL	6 SU	
280-191098-F-1 MS	DET-003-240401-GW	3510C, 8270E	Water	T	423.5 g	177.2 g	246.3 mL	1 mL	6 SU	0.25 mL
280-191098-J-1 MSD	DET-003-240401-GW	3510C, 8270E	Water	T	420.0 g	178.9 g	241.1 mL	1 mL	7 SU	0.25 mL
280-191098-C-2	DET-003-240402-GW	3510C, 8270E	Water	T	424.9 g	178.9 g	246 mL	1 mL	7 SU	
280-191098-E-5	DET-004-240401-GW	3510C, 8270E	Water	T	411.3 g	177.6 g	233.7 mL	1 mL	6 SU	

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	8270_LCS_Main 00095	8270_LCS_Supp 00606	8270Surrogate 00175			
MB 280-653130/1		3510C, 8270E					0.25 mL			
LCS 280-653130/2		3510C, 8270E			0.25 mL	0.25 mL	0.25 mL			
LCSD 280-653130/3		3510C, 8270E			0.25 mL	0.25 mL	0.25 mL			
280-191098-G-1	DET-003-240401-GW	3510C, 8270E	Water	T			0.25 mL			
280-191098-F-1 MS	DET-003-240401-GW	3510C, 8270E	Water	T	0.25 mL	0.25 mL	0.25 mL			
280-191098-J-1 MSD	DET-003-240401-GW	3510C, 8270E	Water	T	0.25 mL	0.25 mL	0.25 mL			
280-191098-C-2	DET-003-240402-GW	3510C, 8270E	Water	T			0.25 mL			
280-191098-E-5	DET-004-240401-GW	3510C, 8270E	Water	T			0.25 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 653130 Batch Start Date: 05/13/24 11:32 Batch Analyst: Najera, Diego

Batch Method: 3510C Batch End Date: 05/13/24 17:25

Batch Notes	
Method/Fraction	3510C_LVI/8270_LVI
Balance ID	834419814
Balance is Level? (Y/N)	yes
pH Indicator ID	HC316719
Pipette/Syringe/Dispenser ID	Nexia
Analyst ID - Extraction	DN GS
Reagent Water ID	N. ELGA
Analyst ID - Spike Analyst	DN
Analyst ID - Spike Witness Analyst	REVIEWER:GS
Sufficient Volume for Batch QC	YES
Acid Used for pH Adjustment ID	1:1 H2SO4_00119
Base Used to Adjust pH ID	10N NaOH_00200
NaCl ID	Baked_NaCl_00028
Prep Solvent ID	Mecl2_Cycl_00637
Prep Solvent Volume Used	90 mL
Glass Wool ID	Glass_Wool_OP_00005
Na2SO4 ID	Na2SO4_00151
Analyst ID - Concentration	DN
Equipment ID - Concentration 1	Buchi: 3 , 4
Concentration 1 Uncorrected Temperature	BASE: 55 COVER:50 Degrees C
Concentration 1 Corrected Temperature	BASE: 55 COVER:50 Degrees C
Pipette Tip Lot ID	B10705329S
Batch Comment	DV-OP-0006/0007

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8270E_SIM_DOD5

Semivolatile Organic Compounds (GC/MS SIM)

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5Sil MS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	NBZ #	2MN #	FBP #	FLN #	TPHL #
DET-003-240401-GW	280-191098-1	85	74	77	89	90
DET-003-240402-GW	280-191098-2	84	73	78	88	90
DET-004-240401-GW	280-191098-5	93	81	89	86	90
	MB 280-652726/1-A	93	85	87	97	101
	LCS 280-652726/2-A	86	76	77	90	92
	LCSD 280-652726/3-A	95	86	87	96	97
DET-003-240401-GW MS	280-191098-1 MS	69	65	64	83	84
DET-003-240401-GW MSD	280-191098-1 MSD	89	77	77	89	87

	QC LIMITS
NBZ = Nitrobenzene-d5 (Surr)	55-111
2MN = 2-methylnaphthalene-d10	15-113
FBP = 2-Fluorobiphenyl	53-106
FLN = Fluoranthene-d10	42-131
TPHL = Terphenyl-d14 (Surr)	58-132

Column to be used to flag recovery values

FORM II 8270E SIM

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: SMS_2-051024004.D

Lab ID: LCS 280-652726/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
2-Methylnaphthalene	0.900	0.608	68	39-114	
Acenaphthene	0.900	0.678	75	48-114	
Acenaphthylene	0.900	0.682	76	35-121	
Anthracene	0.900	0.734	82	53-119	
Benzo[a]anthracene	0.900	0.734	82	59-120	
Benzo[a]pyrene	0.900	0.696	77	53-120	
Benzo[b]fluoranthene	0.900	0.722	80	53-126	
Benzo[g,h,i]perylene	0.900	0.690	77	44-128	
Benzo[k]fluoranthene	0.900	0.758	84	54-125	
Chrysene	0.900	0.748	83	57-120	
Dibenz(a,h)anthracene	0.900	0.569	63	44-131	
Fluoranthene	0.900	0.777	86	58-120	
Fluorene	0.900	0.683	76	50-118	
Indeno[1,2,3-cd]pyrene	0.900	0.687	76	48-130	
Naphthalene	0.900	0.612	68	43-114	
Phenanthrene	0.900	0.775	86	53-115	
Pyrene	0.900	0.777	86	53-121	

Column to be used to flag recovery and RPD values

FORM III 8270E SIM

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: SMS_2-051024005.D

Lab ID: LCSD 280-652726/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2-Methylnaphthalene	0.900	0.732	81	18	20	39-114	
Acenaphthene	0.900	0.799	89	17	20	48-114	
Acenaphthylene	0.900	0.799	89	16	20	35-121	
Anthracene	0.900	0.847	94	14	20	53-119	
Benzo[a]anthracene	0.900	0.802	89	9	20	59-120	
Benzo[a]pyrene	0.900	0.799	89	14	20	53-120	
Benzo[b]fluoranthene	0.900	0.844	94	16	20	53-126	
Benzo[g,h,i]perylene	0.900	0.836	93	19	20	44-128	
Benzo[k]fluoranthene	0.900	0.834	93	10	20	54-125	
Chrysene	0.900	0.884	98	17	20	57-120	
Dibenz(a,h)anthracene	0.900	0.766	85	29	20	44-131	Q
Fluoranthene	0.900	0.852	95	9	20	58-120	
Fluorene	0.900	0.831	92	20	20	50-118	
Indeno[1,2,3-cd]pyrene	0.900	0.836	93	19	20	48-130	
Naphthalene	0.900	0.705	78	14	20	43-114	
Phenanthrene	0.900	0.849	94	9	20	53-115	
Pyrene	0.900	0.855	95	10	20	53-121	

Column to be used to flag recovery and RPD values

FORM III 8270E SIM

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: SMS_2-051024012.D

Lab ID: 280-191098-1 MS Client ID: DET-003-240401-GW MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
2-Methylnaphthalene	0.906	0.075 U	0.523	58	39-114	
Acenaphthene	0.906	0.019 J	0.576	62	48-114	
Acenaphthylene	0.906	0.075 U	0.582	64	35-121	
Anthracene	0.906	0.075 U	0.673	74	53-119	
Benzo[a]anthracene	0.906	0.075 U	0.643	71	59-120	
Benzo[a]pyrene	0.906	0.075 U	0.580	64	53-120	
Benzo[b]fluoranthene	0.906	0.075 U	0.629	69	53-126	
Benzo[g,h,i]perylene	0.906	0.075 U	0.620	68	44-128	
Benzo[k]fluoranthene	0.906	0.075 U	0.637	70	54-125	
Chrysene	0.906	0.075 U	0.739	82	57-120	
Dibenz(a,h)anthracene	0.906	0.075 U	0.433	48	44-131	
Fluoranthene	0.906	0.075 U	0.717	79	58-120	
Fluorene	0.906	0.075 U	0.633	70	50-118	
Indeno[1,2,3-cd]pyrene	0.906	0.075 U	0.577	64	48-130	
Naphthalene	0.906	0.075 U	0.526	58	43-114	
Phenanthrene	0.906	0.063 J	0.692	69	53-115	
Pyrene	0.906	0.075 U	0.710	78	53-121	

Column to be used to flag recovery and RPD values

FORM III 8270E SIM

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: SMS_2-051024013.D

Lab ID: 280-191098-1 MSD Client ID: DET-003-240401-GW MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2-Methylnaphthalene	0.909	0.606	67	15	20	39-114	
Acenaphthene	0.909	0.688	74	18	20	48-114	
Acenaphthylene	0.909	0.684	75	16	20	35-121	
Anthracene	0.909	0.726	80	8	20	53-119	
Benzo[a]anthracene	0.909	0.700	77	8	20	59-120	
Benzo[a]pyrene	0.909	0.640	70	10	20	53-120	
Benzo[b]fluoranthene	0.909	0.691	76	9	20	53-126	
Benzo[g,h,i]perylene	0.909	0.663	73	7	20	44-128	
Benzo[k]fluoranthene	0.909	0.709	78	11	20	54-125	
Chrysene	0.909	0.831	91	12	20	57-120	
Dibenz(a,h)anthracene	0.909	0.493	54	13	20	44-131	
Fluoranthene	0.909	0.771	85	7	20	58-120	
Fluorene	0.909	0.711	78	12	20	50-118	
Indeno[1,2,3-cd]pyrene	0.909	0.621	68	7	20	48-130	
Naphthalene	0.909	0.625	69	17	20	43-114	
Phenanthrene	0.909	0.755	76	9	20	53-115	
Pyrene	0.909	0.764	84	7	20	53-121	

Column to be used to flag recovery and RPD values

FORM III 8270E SIM

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab File ID: SMS_2-051024003.D Lab Sample ID: MB 280-652726/1-A

Matrix: Water Date Extracted: 05/09/2024 10:54

Instrument ID: SMS_2 Date Analyzed: 05/10/2024 08:41

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-652726/2-A	SMS_2-051024004.D	05/10/2024 09:00
	LCSD 280-652726/3-A	SMS_2-051024005.D	05/10/2024 09:20
DET-003-240401-GW	280-191098-1	SMS_2-051024011.D	05/10/2024 11:16
DET-003-240401-GW MS	280-191098-1 MS	SMS_2-051024012.D	05/10/2024 11:35
DET-003-240401-GW MSD	280-191098-1 MSD	SMS_2-051024013.D	05/10/2024 11:54
DET-003-240402-GW	280-191098-2	SMS_2-051024014.D	05/10/2024 12:13
DET-004-240401-GW	280-191098-5	SMS_2-051024015.D	05/10/2024 12:33

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab File ID: SMS_2-050824001A.D DFTPP Injection Date: 05/08/2024

Instrument ID: SMS_2 DFTPP Injection Time: 12:20

Analysis Batch No.: 652518

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	41.6	
68	Less than 2.0 % of mass 69	0.9	(1.6) 1
69	Mass 69 relative abundance	55.2	
70	Less than 2.0 % of mass 69	0.4	(0.7) 1
127	40.0 - 60.0 % of mass 198	56.7	
197	Less than 1.0 % of mass 198	0.4	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.9	
275	10.0 - 30.0 % of mass 198	23.3	
365	Greater than 1.0 % of mass 198	3.4	
441	Present but less than mass 443	18.0	(82.4) 3
442	Greater than 40.0 % of mass 198	113.7	
443	17.0 - 23.0 % of mass 442	21.8	(19.2) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICIS 280-652518/2	SMS_2-0508240	05/08/2024	12:29
	STD20 280-652518/3	SMS_2-0508240	05/08/2024	12:49
	STD50 280-652518/4	SMS_2-0508240	05/08/2024	13:08
	STD100 280-652518/5	SMS_2-0508240	05/08/2024	13:28
	STD1000 280-652518/6	SMS_2-0508240	05/08/2024	13:47
	STD2500 280-652518/7	SMS_2-0508240	05/08/2024	14:07
	STD5000 280-652518/8	SMS_2-0508240	05/08/2024	14:27
	ICV 280-652518/9	SMS_2-0508240	05/08/2024	14:46
	ICV 280-652518/10	SMS_2-0508240	05/08/2024	15:06

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab File ID: SMS_2-051024001.D DFTPP Injection Date: 05/10/2024

Instrument ID: SMS_2 DFTPP Injection Time: 08:12

Analysis Batch No.: 652894

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	39.8	
68	Less than 2.0 % of mass 69	0.8	(1.5) 1
69	Mass 69 relative abundance	51.7	
70	Less than 2.0 % of mass 69	0.3	(0.6) 1
127	40.0 - 60.0 % of mass 198	54.0	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.2	
275	10.0 - 30.0 % of mass 198	23.6	
365	Greater than 1.0 % of mass 198	3.4	
441	Present but less than mass 443	19.8	(80.1) 3
442	Greater than 40.0 % of mass 198	125.5	
443	17.0 - 23.0 % of mass 442	24.7	(19.7) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 280-652894/3	SMS_2-0510240	05/10/2024	8:21
	MB 280-652726/1-A	SMS_2-0510240	05/10/2024	8:41
	LCS 280-652726/2-A	SMS_2-0510240	05/10/2024	9:00
	LCSD 280-652726/3-A	SMS_2-0510240	05/10/2024	9:20
DET-003-240401-GW	280-191098-1	SMS_2-0510240	05/10/2024	11:16
DET-003-240401-GW MS	280-191098-1 MS	SMS_2-0510240	05/10/2024	11:35
DET-003-240401-GW MSD	280-191098-1 MSD	SMS_2-0510240	05/10/2024	11:54
DET-003-240402-GW	280-191098-2	SMS_2-0510240	05/10/2024	12:13
DET-004-240401-GW	280-191098-5	SMS_2-0510240	05/10/2024	12:33
	CCVC 280-652894/19	SMS_2-0510240	05/10/2024	13:30

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Sample No.: ICIS 280-652518/2 Date Analyzed: 05/08/2024 12:29

Instrument ID: SMS_2 GC Column: Rxi-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): SMS_2-050824002A.D Heated Purge: (Y/N) N

Calibration ID: 93097

		ANT		PHN		CRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		57717	6.79	62317	8.25	43710	11.02
UPPER LIMIT		115434	7.29	124634	8.75	87420	11.52
LOWER LIMIT		28859	6.29	31159	7.75	21855	10.52
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-652518/9		58609	6.79	62839	8.24	42124	11.01
ICV 280-652518/10		57220	6.79	59766	8.24	41412	11.01
CCVIS 280-652894/3		55258	6.79	60855	8.24	41919	11.01

ANT = Acenaphthene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Sample No.: CCVIS 280-652894/3 Date Analyzed: 05/10/2024 08:21

Instrument ID: SMS_2 GC Column: Rxi-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): SMS_2-051024002.D Heated Purge: (Y/N) N

Calibration ID: 93097

		ANT		PHN		CRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		55258	6.79	60855	8.24	41919	11.01
UPPER LIMIT		110516	7.29	121710	8.74	83838	11.51
LOWER LIMIT		27629	6.29	30428	7.74	20960	10.51
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 280-652726/1-A		55755	6.79	58916	8.24	41345	11.01
LCS 280-652726/2-A		58408	6.78	62316	8.24	43265	11.00
LCSD 280-652726/3-A		52491	6.79	56432	8.24	38455	11.00
280-191098-1	DET-003-240401-GW	54444	6.79	58339	8.24	38944	11.00
280-191098-1 MS	DET-003-240401-GW MS	59151	6.79	64547	8.24	43121	11.00
280-191098-1 MSD	DET-003-240401-GW MSD	55645	6.78	59654	8.24	38726	11.00
280-191098-2	DET-003-240402-GW	53969	6.79	56923	8.24	36622	11.00
280-191098-5	DET-004-240401-GW	52505	6.79	56459	8.24	36891	11.00
CCVC 280-652894/19		57368	6.79	62865	8.24	39983	11.00

ANT = Acenaphthene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW | Lab Sample ID: 280-191098-1

Matrix: Water | Lab File ID: SMS_2-051024011.D

Analysis Method: 8270E SIM | Date Collected: 05/06/2024 10:16

Extract. Method: 3510C | Date Extracted: 05/09/2024 10:54

Sample wt/vol: 268.2(mL) | Date Analyzed: 05/10/2024 11:16

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 652894 | Units: ng/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
7297-45-2	2-methylnaphthalene-d10	74		15-113
93951-69-0	Fluoranthene-d10	89		42-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW | Lab Sample ID: 280-191098-1

Matrix: Water | Lab File ID: SMS_2-051024011.D

Analysis Method: 8270E SIM | Date Collected: 05/06/2024 10:16

Extract. Method: 3510C | Date Extracted: 05/09/2024 10:54

Sample wt/vol: 268.2(mL) | Date Analyzed: 05/10/2024 11:16

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 652894 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
91-57-6	2-Methylnaphthalene	0.075	U M	0.093	0.075	0.020
83-32-9	Acenaphthene	0.019	J	0.093	0.075	0.0039
208-96-8	Acenaphthylene	0.075	U M	0.093	0.075	0.0048
120-12-7	Anthracene	0.075	U M	0.093	0.075	0.029
56-55-3	Benzo[a]anthracene	0.075	U M	0.093	0.075	0.026
50-32-8	Benzo[a]pyrene	0.075	U M	0.093	0.075	0.023
205-99-2	Benzo[b]fluoranthene	0.075	U M	0.093	0.075	0.037
191-24-2	Benzo[g,h,i]perylene	0.075	U M	0.093	0.075	0.035
207-08-9	Benzo[k]fluoranthene	0.075	U	0.093	0.075	0.021
218-01-9	Chrysene	0.075	U M	0.093	0.075	0.031
53-70-3	Dibenz(a,h)anthracene	0.075	U Q	0.093	0.075	0.026
206-44-0	Fluoranthene	0.075	U M	0.093	0.075	0.045
86-73-7	Fluorene	0.075	U M	0.093	0.075	0.018
193-39-5	Indeno[1,2,3-cd]pyrene	0.075	U M	0.093	0.075	0.037
91-20-3	Naphthalene	0.075	U M	0.093	0.075	0.021
85-01-8	Phenanthrene	0.063	J	0.093	0.075	0.046
129-00-0	Pyrene	0.075	U M	0.093	0.075	0.042

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	77		53-106
4165-60-0	Nitrobenzene-d5 (Surr)	85		55-111
1718-51-0	Terphenyl-d14 (Surr)	90		58-132

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024011.D
Lims ID: 280-191098-E-1-A
Client ID: DET-003-240401-GW
Sample Type: Client
Inject. Date: 10-May-2024 11:16:12 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-E-1-A
Operator ID: MB Instrument ID: SMS_2

Method: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 11-May-2024 12:01:32 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: FP7E Date: 11-May-2024 11:57:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ml	Flags
* 1 Acenaphthene-d10	164	6.789	6.789	0.000	75	54444	400.0	
* 2 Phenanthrene-d10	188	8.244	8.244	0.000	98	58339	400.0	
* 3 Chrysene-d12	240	11.002	11.006	-0.004	56	38944	400.0	
$ 4 Nitrobenzene-d5	82	4.410	4.419	-0.009	97	41362	424.2	
$ 5 2-methylnaphthalene-d10	152	5.746	5.754	-0.008	0	50718	366.6	
$ 6 2-Fluorobiphenyl	172	6.150	6.157	-0.007	0	84715	387.0	
$ 7 Fluoranthene-d10	212	9.415	9.420	-0.005	89	60263	446.9	
$ 8 Terphenyl-d14	244	9.848	9.853	-0.005	0	46465	447.7	
38 1,4-Dioxane	88		1.501				ND	
9 N-Nitrosodiethylamine	102		2.983				ND	U
10 N-Nitrosodi-n-propylamine	70		4.290				ND	U
11 Naphthalene	128	5.107	5.107	0.000	1	995	3.92	a
12 2-Methylnaphthalene	141	5.776	5.784	-0.008	0	522	3.70	a
13 1-Methylnaphthalene	142	5.874	5.874	0.000	0	440	2.83	a
14 Acenaphthylene	152	6.638	6.638	0.000	0	220	0.9144	a
15 Acenaphthene	153	6.809	6.820	-0.011	17	831	5.02	
16 Dibenzofuran	168	6.991	6.991	0.000	77	967	4.16	
17 Fluorene	166	7.324	7.332	-0.008	80	491	3.94	Ma
18 Phenanthrene	178	8.264	8.264	0.000	0	2910	16.9	
19 Anthracene	178	8.313	8.318	-0.005	1	750	4.44	a
20 Fluoranthene	202	9.434	9.438	-0.004	25	1707	8.93	a
21 Pyrene	202	9.653	9.652	0.001	0	1241	6.23	a
22 Benzo[a]anthracene	228	10.992	10.996	-0.004	10	500	3.03	a
23 Chrysene	228	11.037	11.041	-0.004	0	553	3.31	a
24 Benzo[b]fluoranthene	252	12.597	12.599	-0.002	0	292	1.72	a
25 Benzo[k]fluoranthene	252		12.646				ND	
26 Benzo[a]pyrene	252	13.099	13.101	-0.002	0	187	1.18	a
27 Indeno[1,2,3-cd]pyrene	276	14.382	14.385	-0.003	1	175	1.09	a
28 Dibenz(a,h)anthracene	278		14.422				ND	
29 Benzo[g,h,i]perylene	276	14.632	14.634	-0.002	0	177	1.03	a
30 Dimethyl phthalate	163		0.000				ND	
31 N-Nitrosodimethylamine	42		0.000				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ml	Flags
32 N-Nitrosodiphenylamine	169		0.000				ND	
33 Di-n-butyl phthalate	149		0.000				ND	
34 Diethyl phthalate	149		0.000				ND	
35 Butyl benzyl phthalate	149		0.000				ND	
36 Di-n-octyl phthalate	149		0.000				ND	
37 Pentachlorophenol_T	266		2.096				ND	
40 Benzidine_T	184		3.000				ND	
42 4,4'-DDE	246		3.103				ND	
41 4,4'-DDD	235		3.349				ND	
43 4,4'-DDT	235		3.527				ND	
S 44 TPAH	1				0		68.2	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

U - Marked Undetected

a - User Assigned ID

Reagents:

MS-SIM IS_00059 Amount Added: 100.00 Units: uL Run Reagent

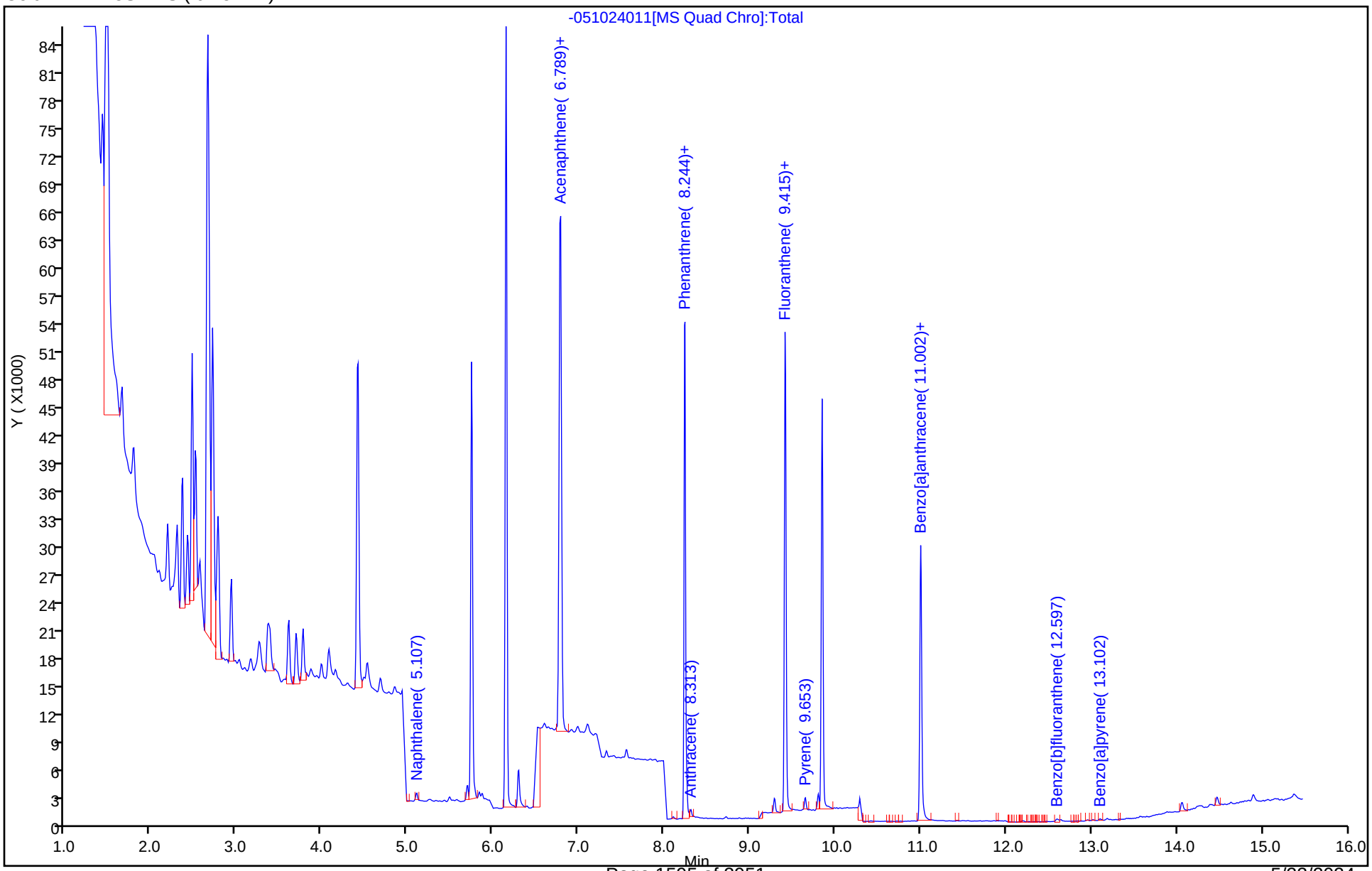
Report Date: 11-May-2024 12:01:48 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024011.D

Injection Date:	10-May-2024 11:16:12	Instrument ID:	SMS_2	Operator ID:	MB
Lims ID:	280-191098-E-1-A	Lab Sample ID:	280-191098-1	Worklist Smp#:	12
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

Column: Rxi-5Sil MS (0.25 mm)



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024011.D
Lims ID: 280-191098-E-1-A
Client ID: DET-003-240401-GW
Sample Type: Client
Inject. Date: 10-May-2024 11:16:12 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-E-1-A
Operator ID: MB Instrument ID: SMS_2

Method: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 11-May-2024 12:01:32 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: FP7E Date: 11-May-2024 11:57:58

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Nitrobenzene-d5	500.5	424.2	84.76
$ 5 2-methylnaphthalene-d10	493.9	366.6	74.22
$ 6 2-Fluorobiphenyl	499.9	387.0	77.42
$ 7 Fluoranthene-d10	500.0	446.9	89.39
$ 8 Terphenyl-d14	500.0	447.7	89.54

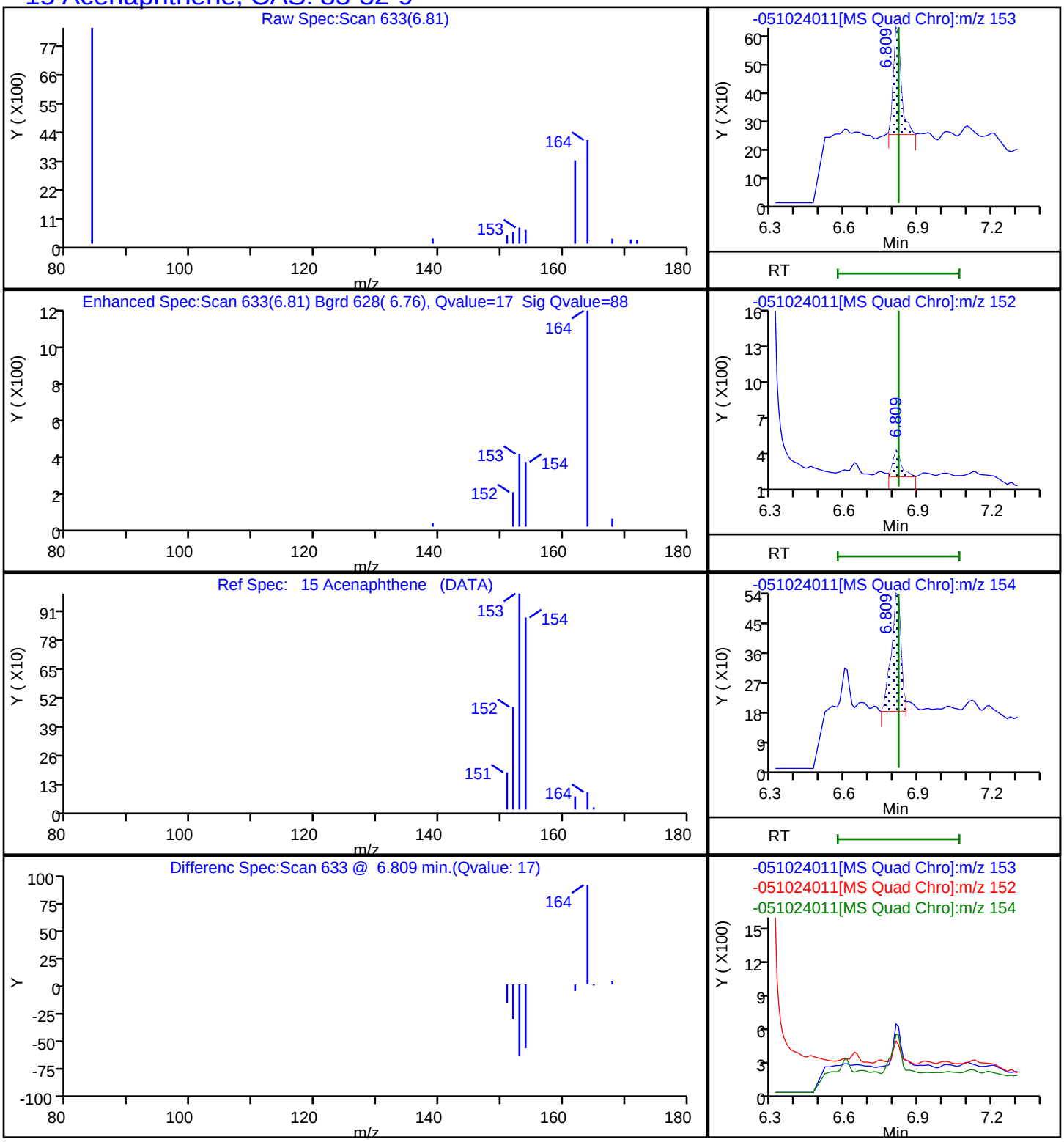
Report Date: 11-May-2024 12:01:48 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024011.D

Injection Date:	10-May-2024 11:16:12	Instrument ID:	SMS_2
Lims ID:	280-191098-E-1-A	Lab Sample ID:	280-191098-1
Client ID:	DET-003-240401-GW		
Operator ID:	MB	ALS Bottle#:	0 Worklist Smp#: 12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN

15 Acenaphthene, CAS: 83-32-9



5/23/2024
4:40:30 AM

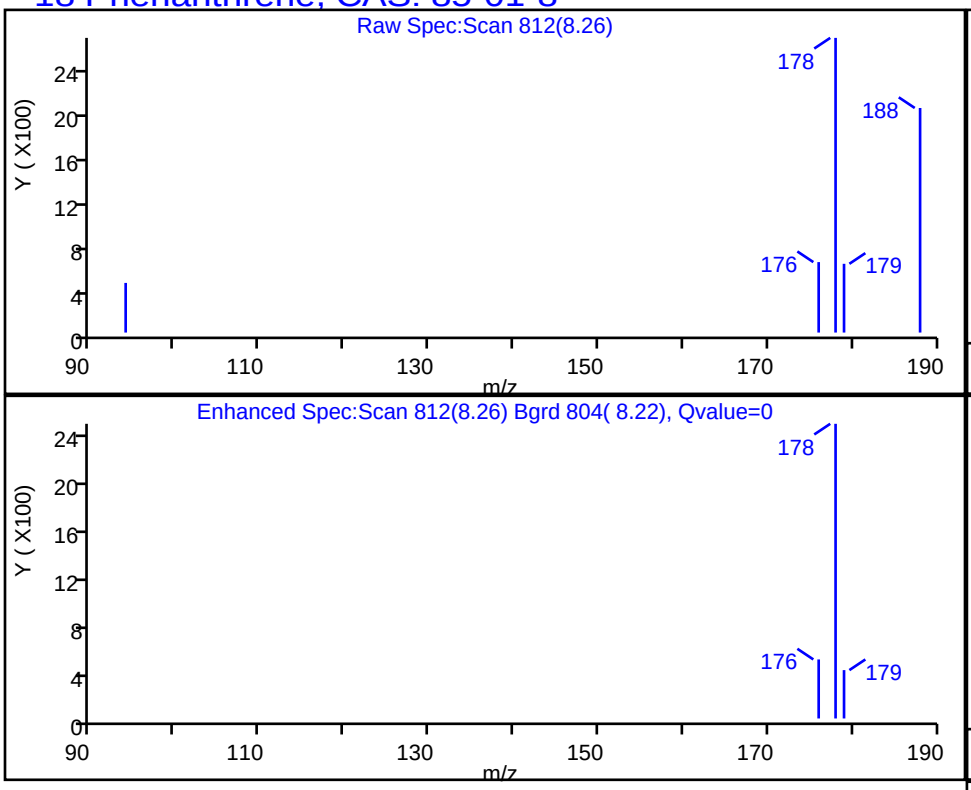
Report Date: 11-May-2024 12:01:48 Chrom Revision: 2.3 01-May-2024 15:52:26

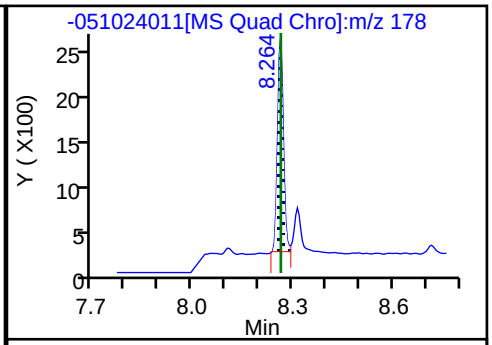
Eurofins Denver

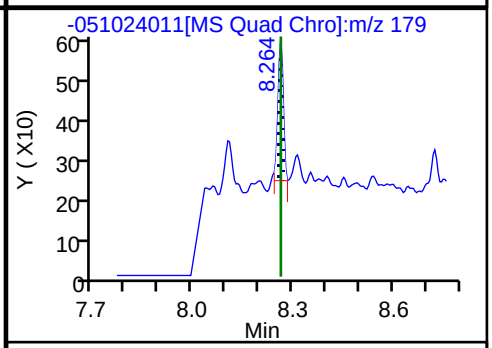
Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024011.D

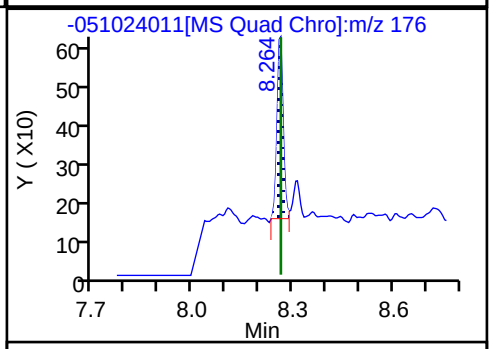
Injection Date:	10-May-2024 11:16:12	Instrument ID:	SMS_2
Lims ID:	280-191098-E-1-A	Lab Sample ID:	280-191098-1
Client ID:	DET-003-240401-GW		
Operator ID:	MB	ALS Bottle#:	0 Worklist Smp#: 12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN

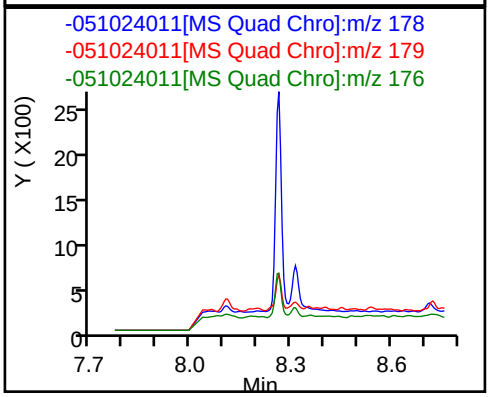
18 Phenanthrene, CAS: 85-01-8











Manual Integration/User Assign Peak Report

Eurofins Denver

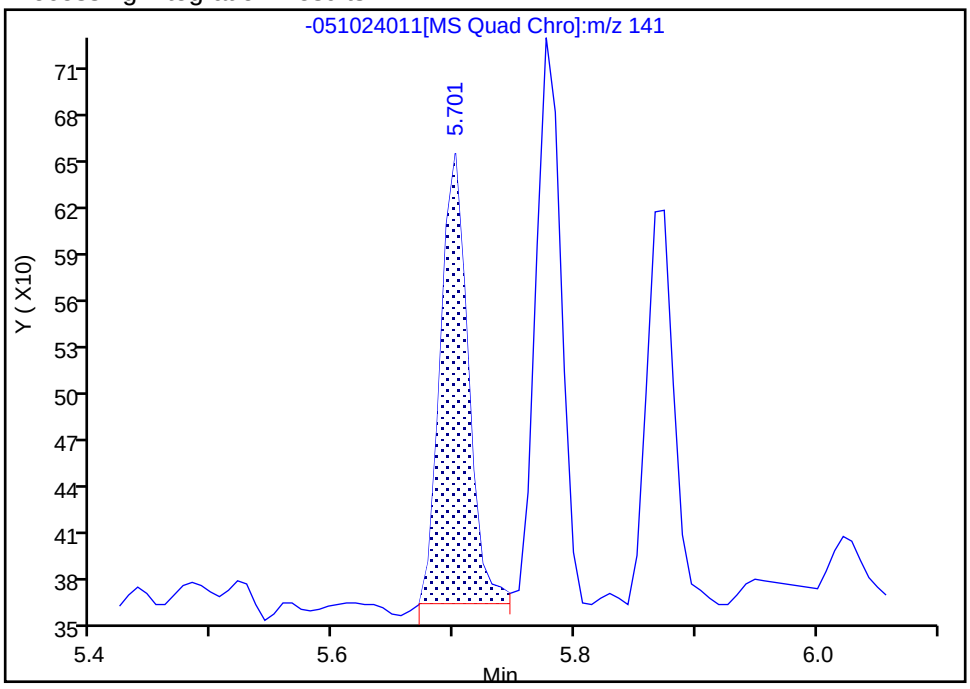
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024011.D				
Injection Date:	10-May-2024 11:16:12	Instrument ID:	SMS_2		
Lims ID:	280-191098-E-1-A	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

12 2-Methylnaphthalene, CAS: 91-57-6

Signal: 1

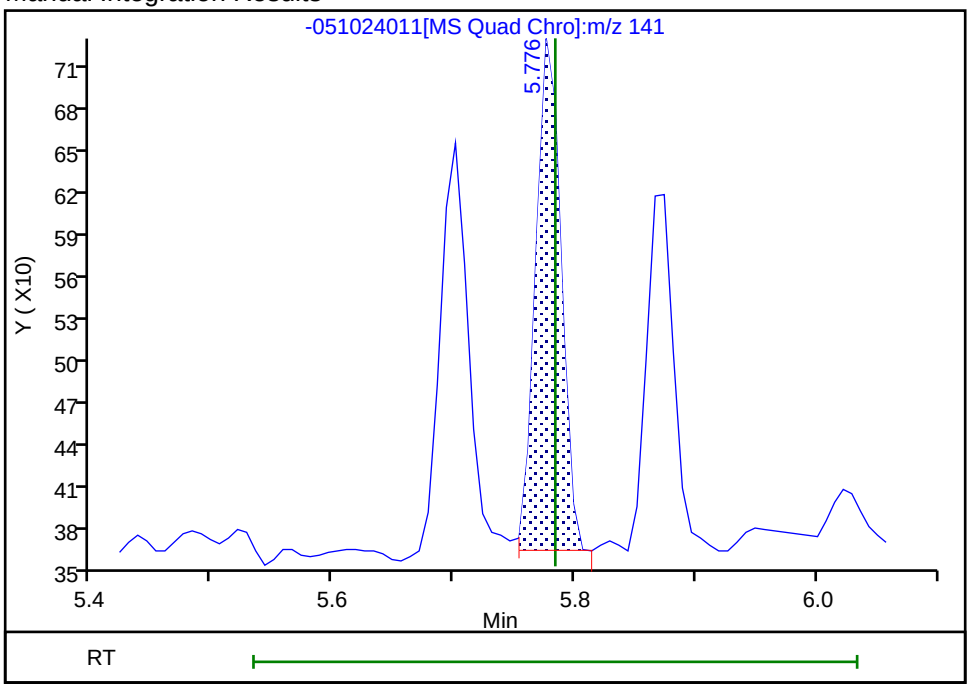
Processing Integration Results

RT: 5.70
Area: 456
Amount: 3.235373
Amount Units: ng/ml



Manual Integration Results

RT: 5.78
Area: 522
Amount: 3.703650
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:57:27 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

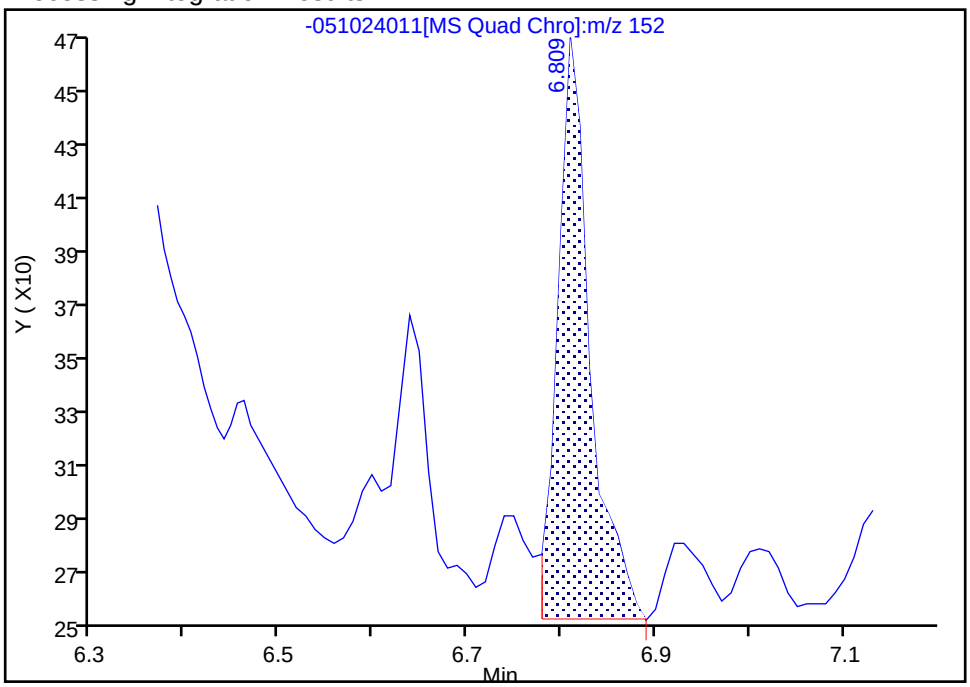
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024011.D				
Injection Date:	10-May-2024 11:16:12	Instrument ID:	SMS_2		
Lims ID:	280-191098-E-1-A	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

14 Acenaphthylene, CAS: 208-96-8

Signal: 1

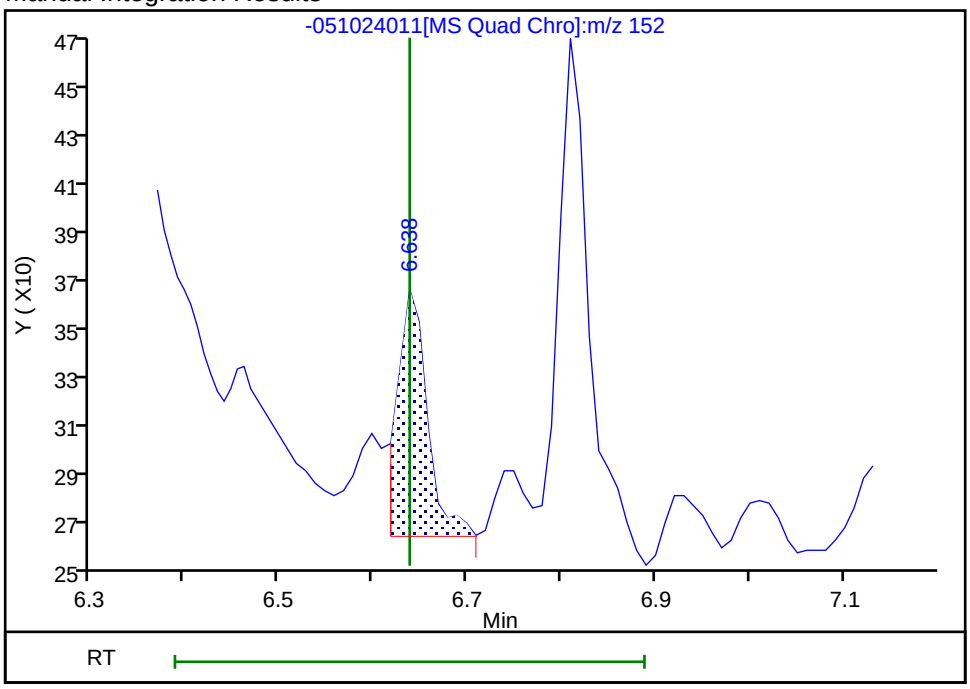
Processing Integration Results

RT: 6.81
Area: 510
Amount: 2.119845
Amount Units: ng/ml



Manual Integration Results

RT: 6.64
Area: 220
Amount: 0.914443
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:57:32 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

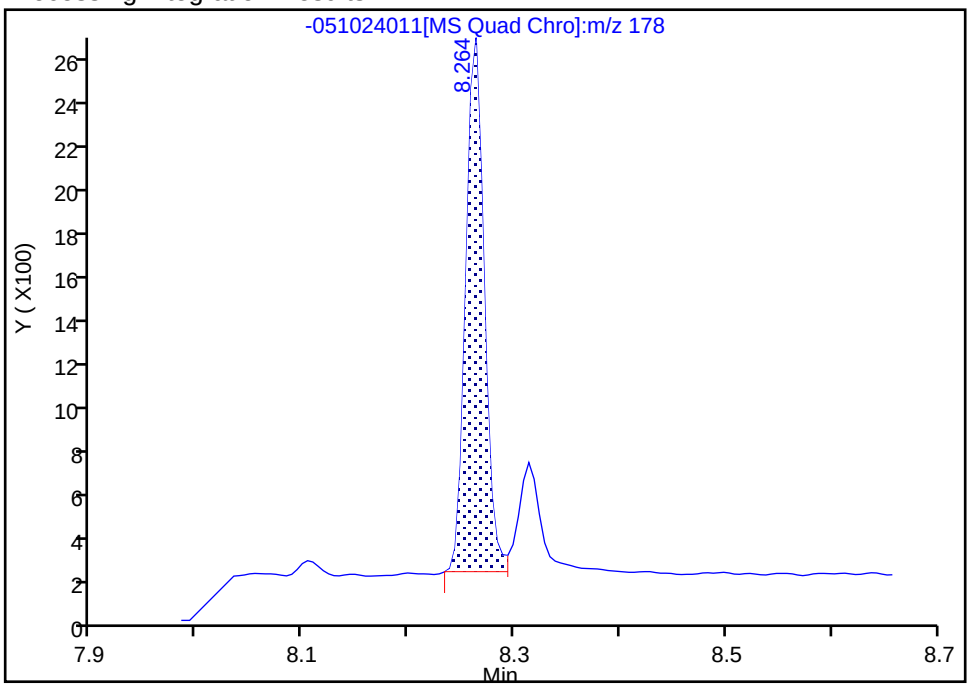
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024011.D				
Injection Date:	10-May-2024 11:16:12	Instrument ID:	SMS_2		
Lims ID:	280-191098-E-1-A	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

19 Anthracene, CAS: 120-12-7

Signal: 1

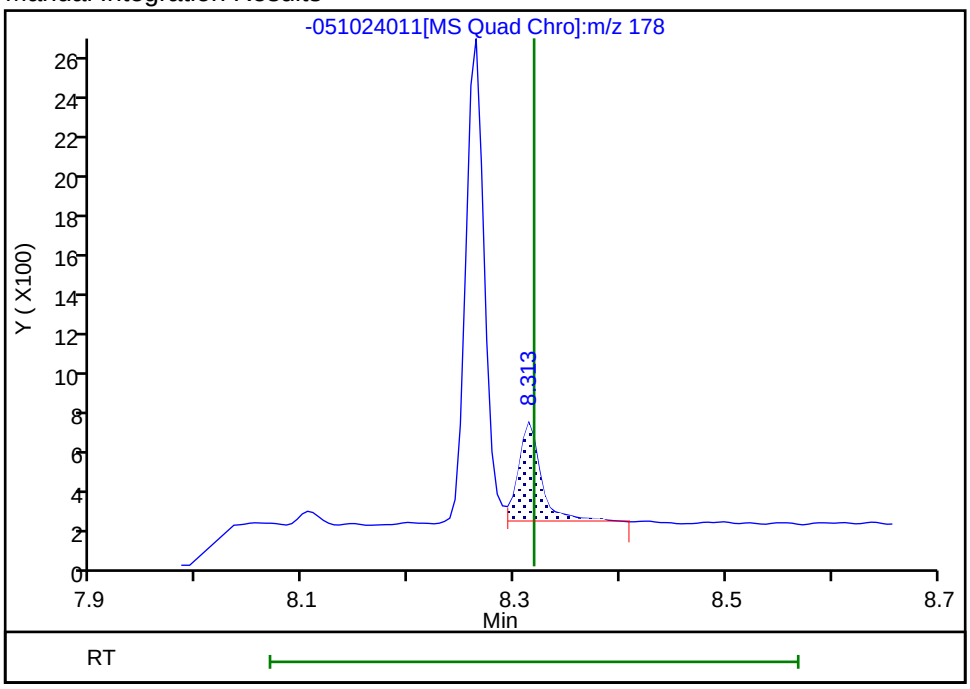
Processing Integration Results

RT: 8.26
Area: 2910
Amount: 17.232278
Amount Units: ng/ml



Manual Integration Results

RT: 8.31
Area: 750
Amount: 4.441309
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:57:40 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Baseline

Eurofins Denver

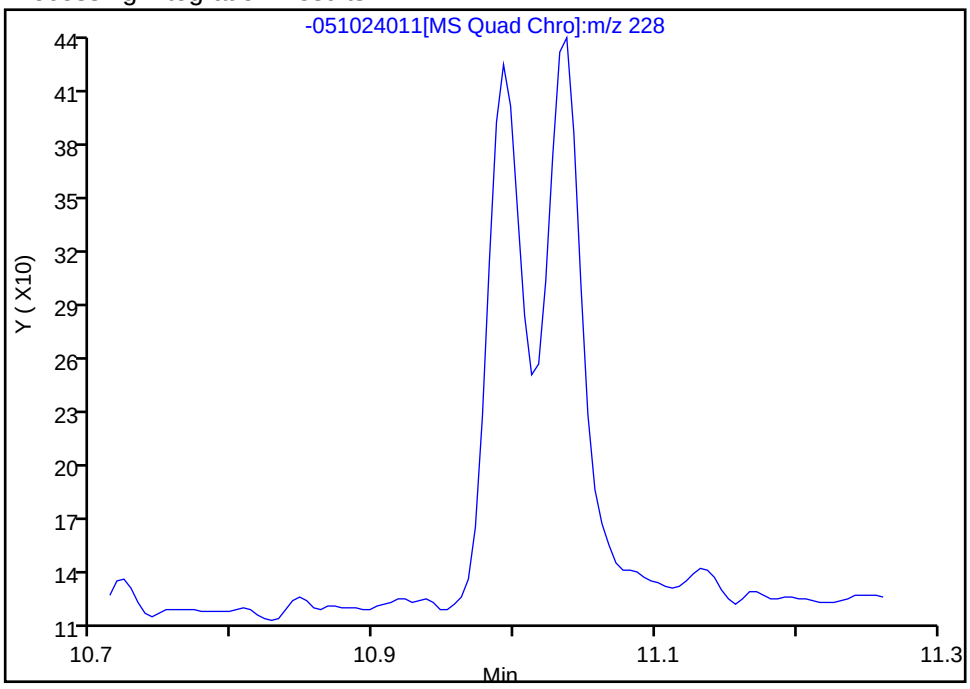
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024011.D				
Injection Date:	10-May-2024 11:16:12	Instrument ID:	SMS_2		
Lims ID:	280-191098-E-1-A	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

22 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

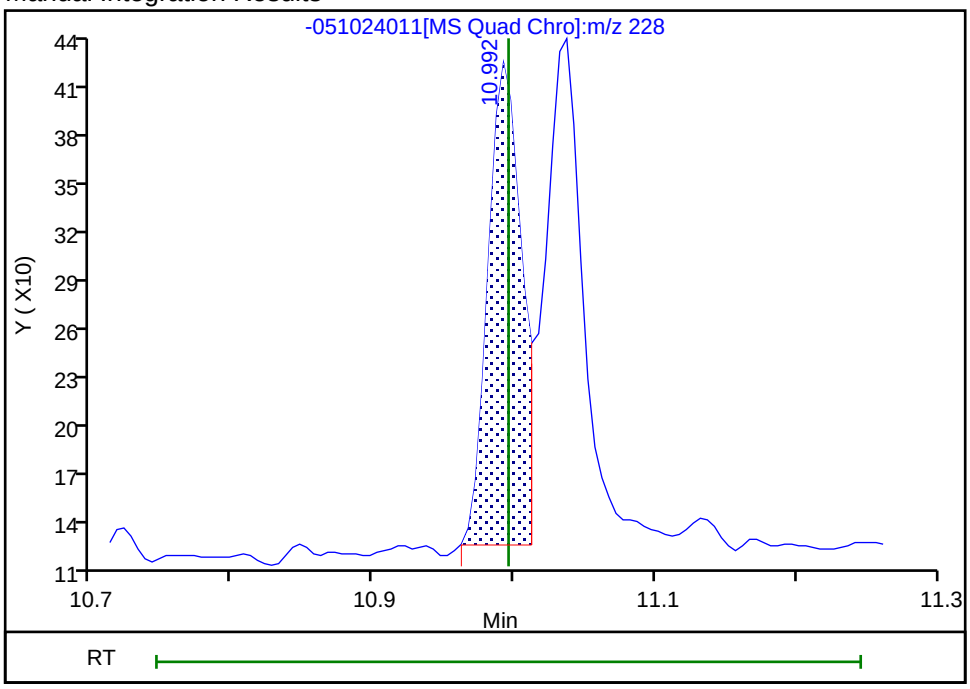
Not Detected
Expected RT: 11.00

Processing Integration Results



Manual Integration Results

RT: 10.99
Area: 500
Amount: 3.026372
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:57:45 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

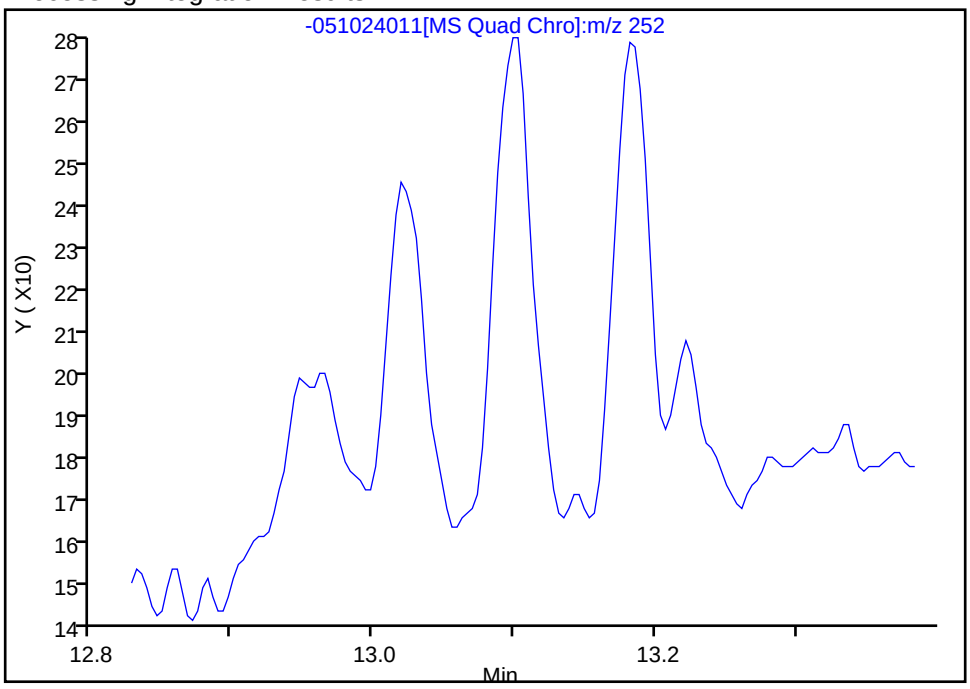
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024011.D				
Injection Date:	10-May-2024 11:16:12	Instrument ID:	SMS_2		
Lims ID:	280-191098-E-1-A	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

26 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

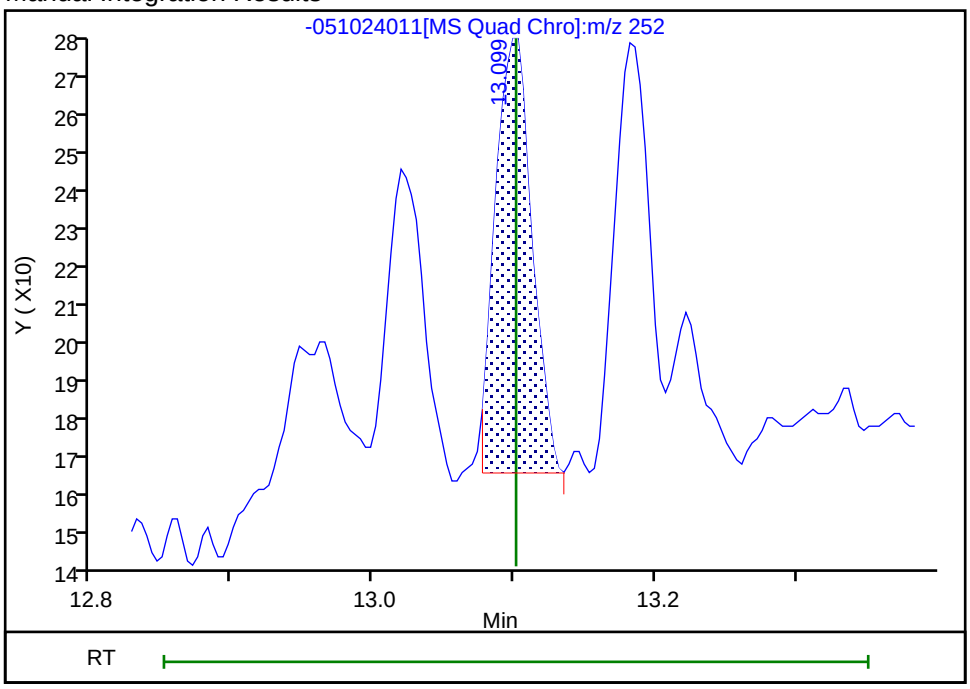
Not Detected
Expected RT: 13.10

Processing Integration Results



Manual Integration Results

RT: 13.10
Area: 187
Amount: 1.180686
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:57:52 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

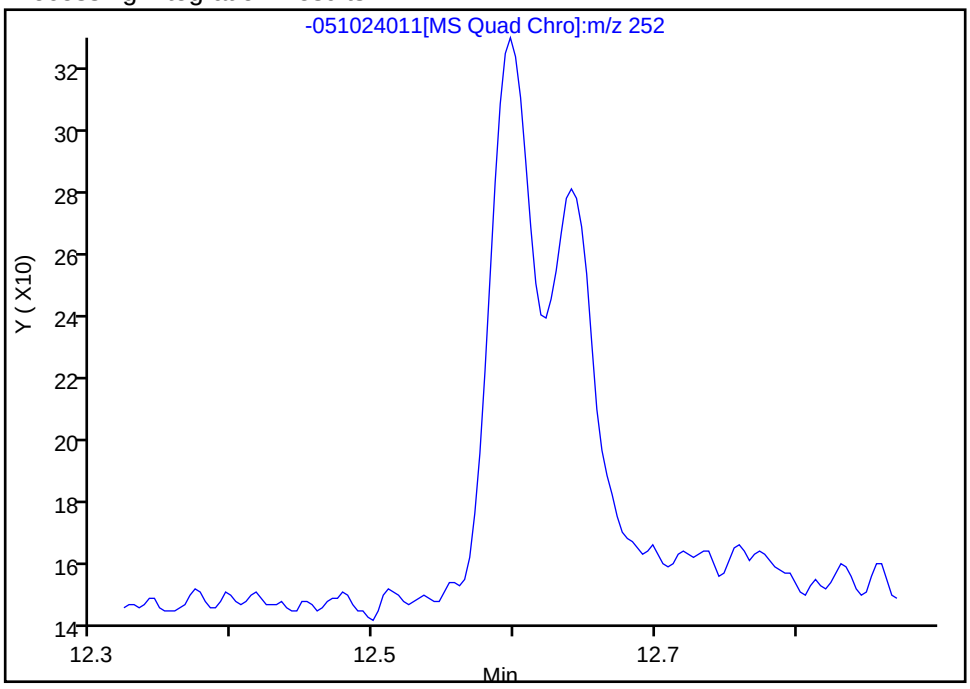
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024011.D				
Injection Date:	10-May-2024 11:16:12	Instrument ID:	SMS_2		
Lims ID:	280-191098-E-1-A	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

24 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

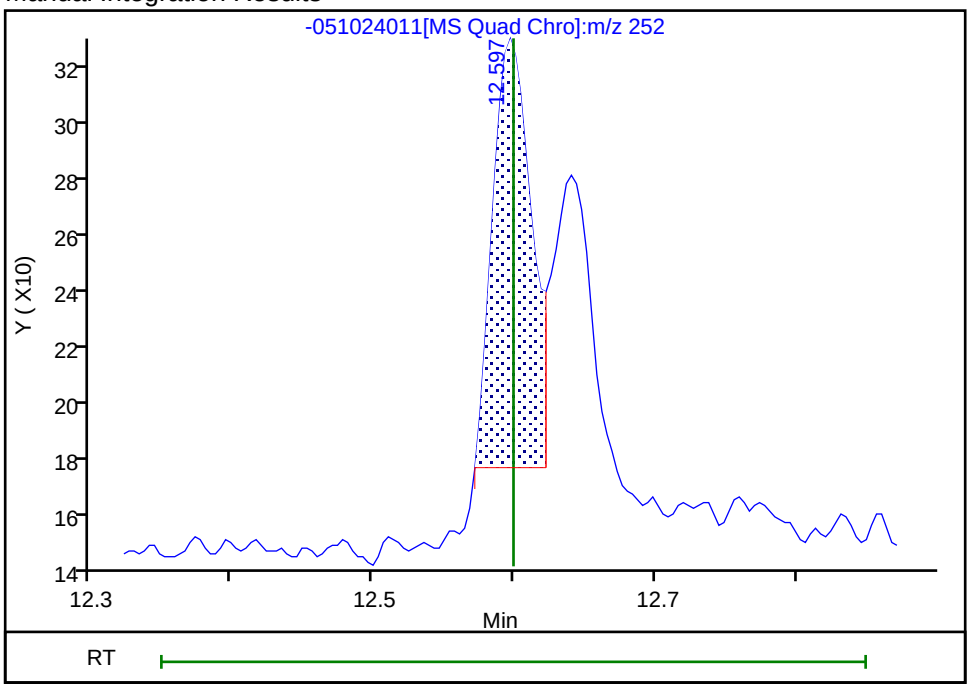
Not Detected
Expected RT: 12.60

Processing Integration Results



Manual Integration Results

RT: 12.60
Area: 292
Amount: 1.717354
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:57:47 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

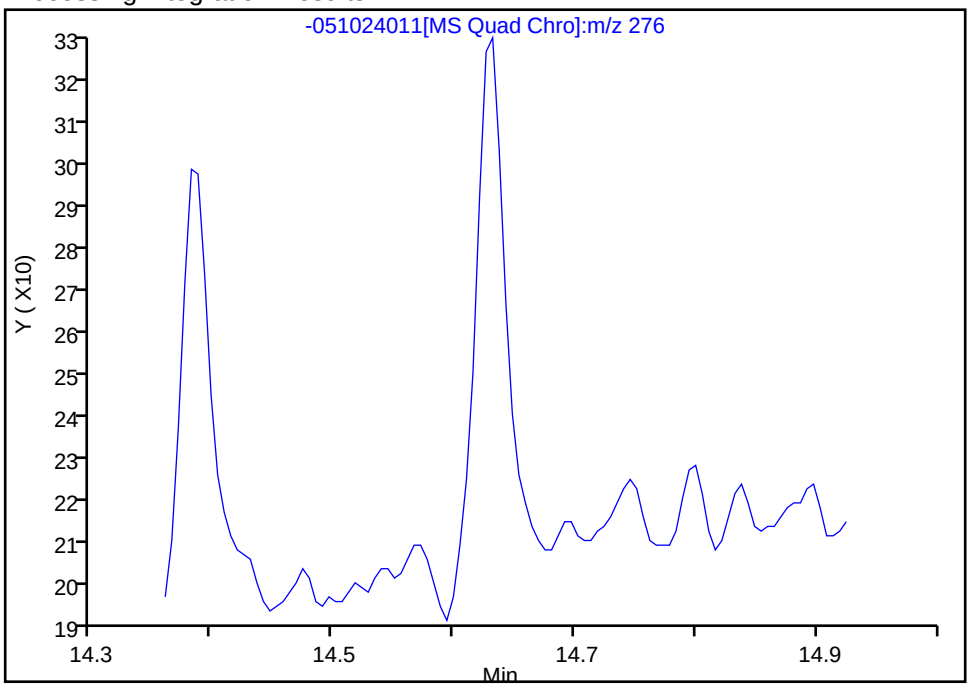
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024011.D				
Injection Date:	10-May-2024 11:16:12	Instrument ID:	SMS_2		
Lims ID:	280-191098-E-1-A	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

29 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

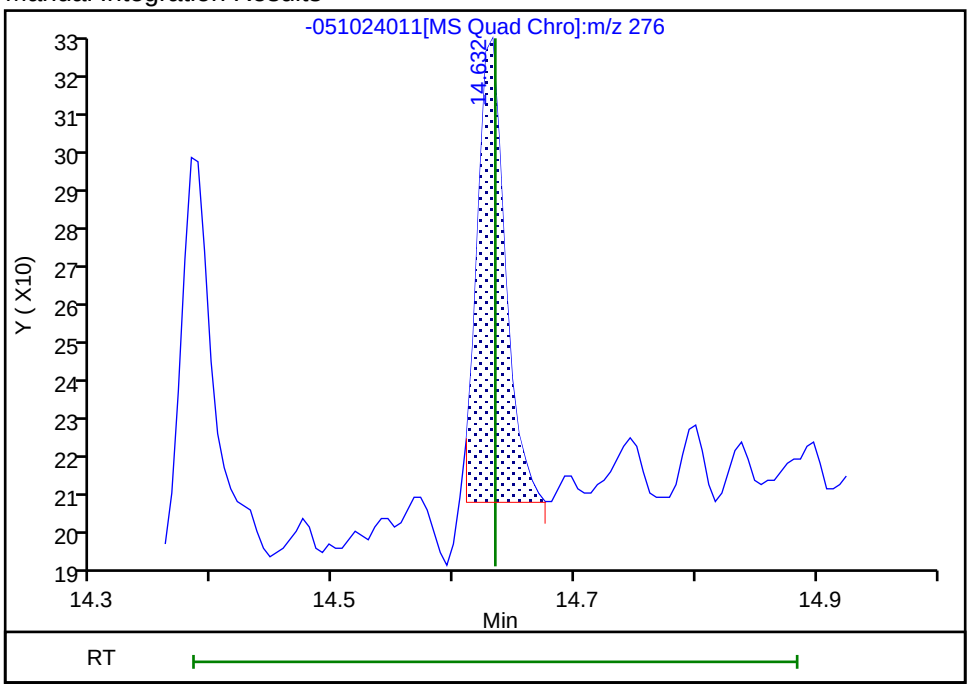
Not Detected
Expected RT: 14.63

Processing Integration Results



Manual Integration Results

RT: 14.63
Area: 177
Amount: 1.032912
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:57:57 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

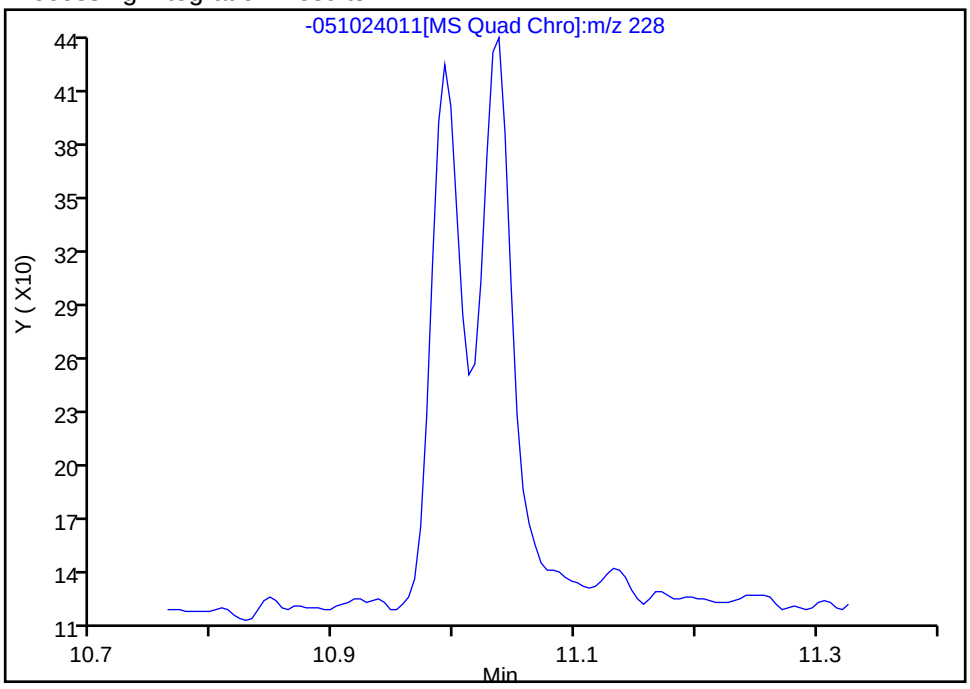
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024011.D				
Injection Date:	10-May-2024 11:16:12	Instrument ID:	SMS_2		
Lims ID:	280-191098-E-1-A	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

23 Chrysene, CAS: 218-01-9

Signal: 1

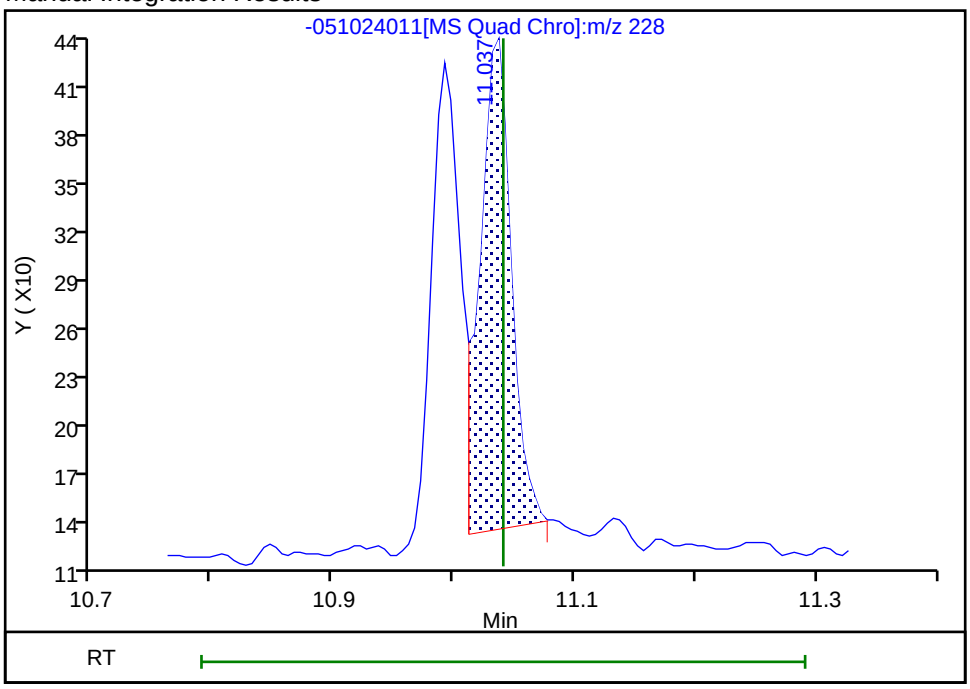
Not Detected
Expected RT: 11.04

Processing Integration Results



Manual Integration Results

RT: 11.04
Area: 553
Amount: 3.311789
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:57:46 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

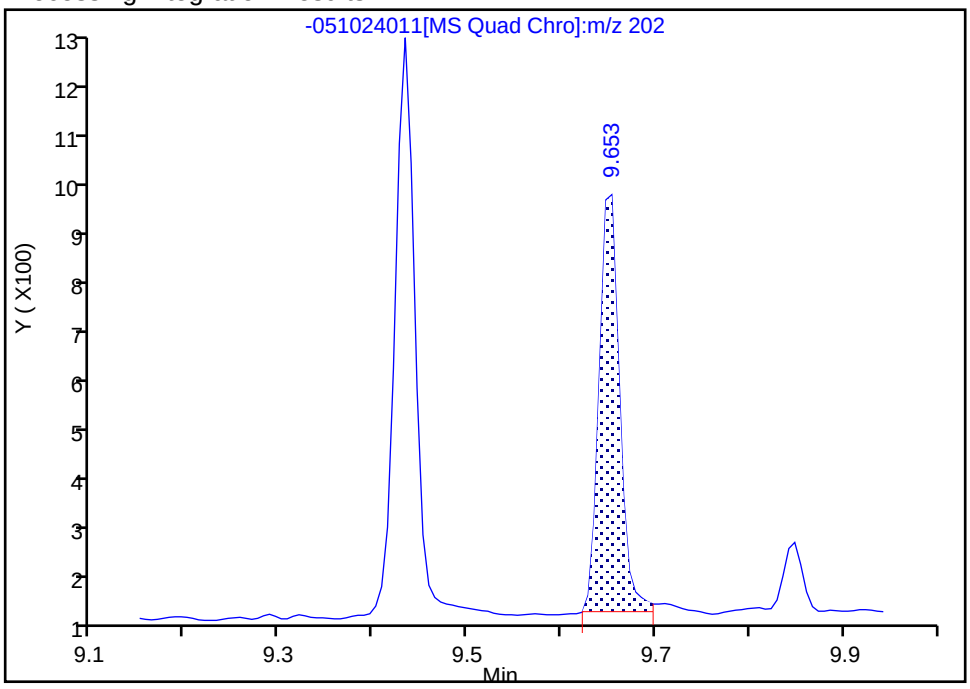
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024011.D				
Injection Date:	10-May-2024 11:16:12	Instrument ID:	SMS_2		
Lims ID:	280-191098-E-1-A	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

20 Fluoranthene, CAS: 206-44-0

Signal: 1

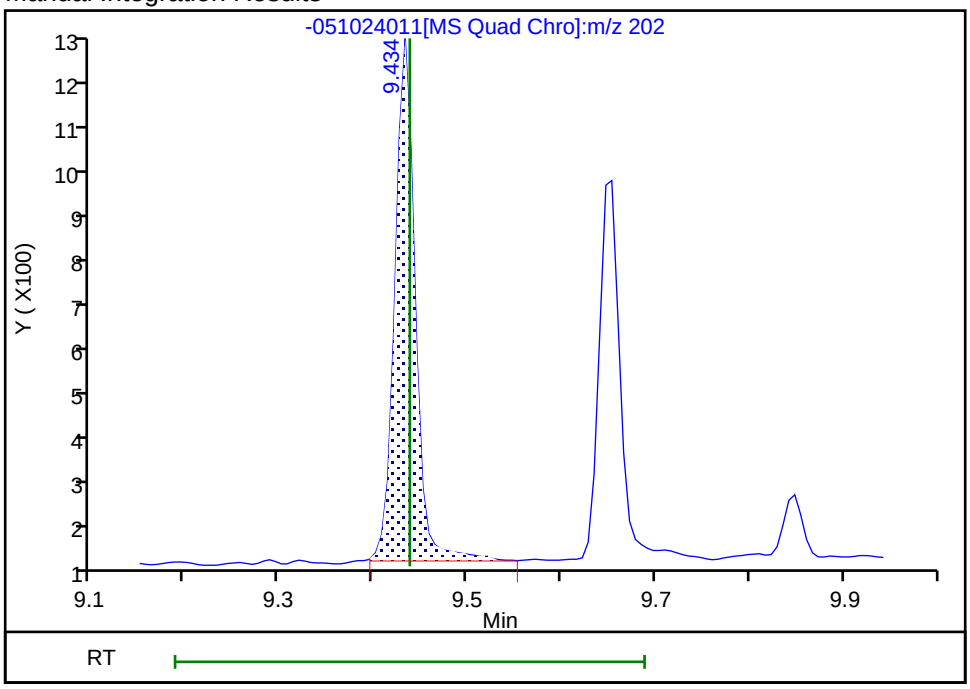
Processing Integration Results

RT: 9.65
Area: 1241
Amount: 6.495707
Amount Units: ng/ml



Manual Integration Results

RT: 9.43
Area: 1707
Amount: 8.934869
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:57:42 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

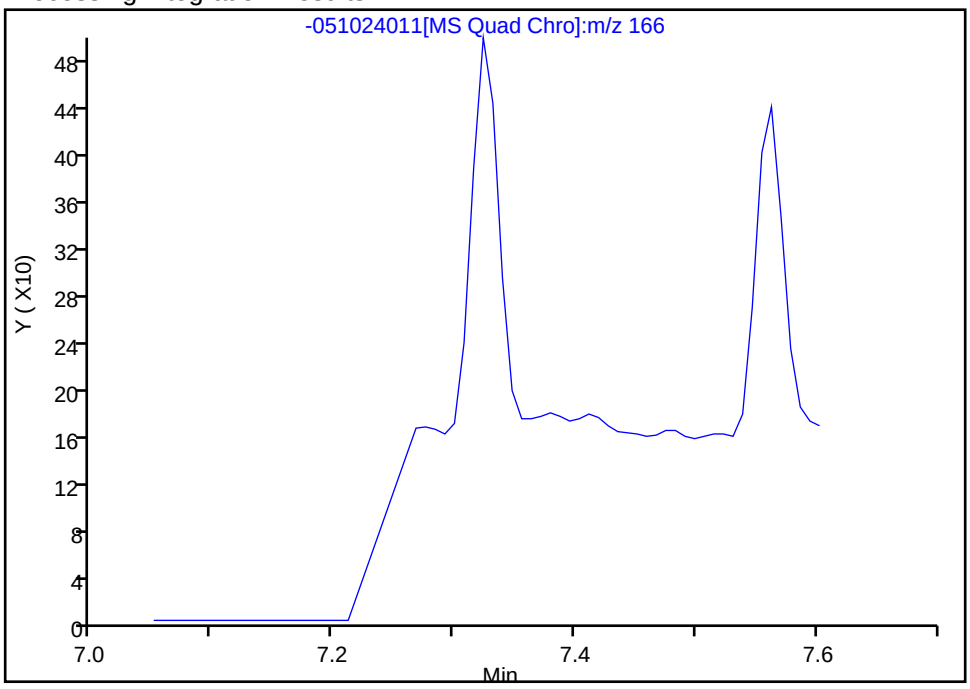
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024011.D				
Injection Date:	10-May-2024 11:16:12	Instrument ID:	SMS_2		
Lims ID:	280-191098-E-1-A	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

17 Fluorene, CAS: 86-73-7

Signal: 1

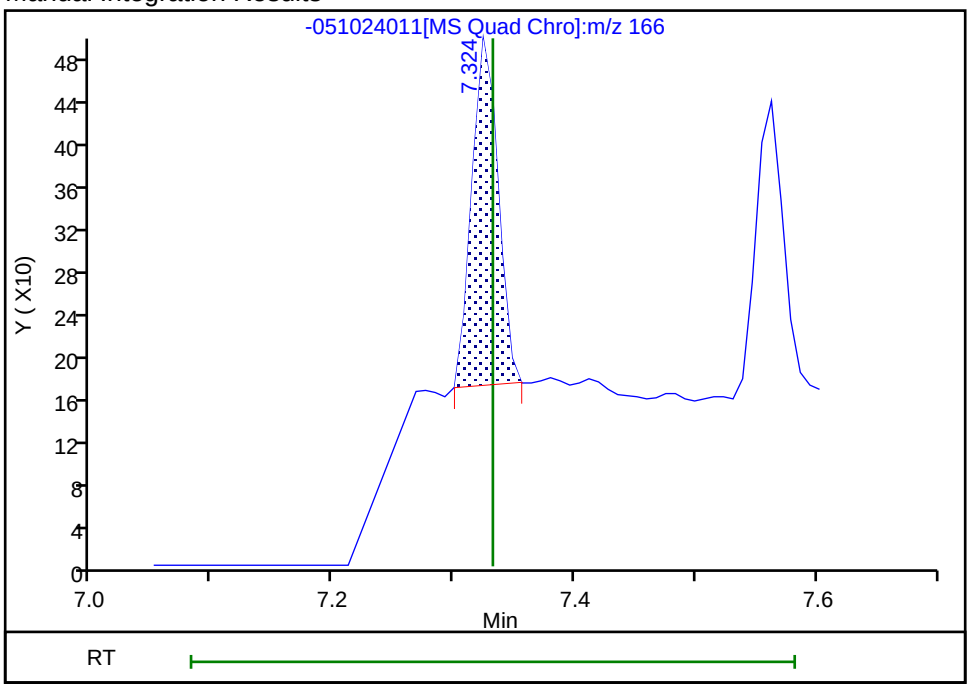
Not Detected
Expected RT: 7.33

Processing Integration Results



Manual Integration Results

RT: 7.32
Area: 491
Amount: 3.942463
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:57:38 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

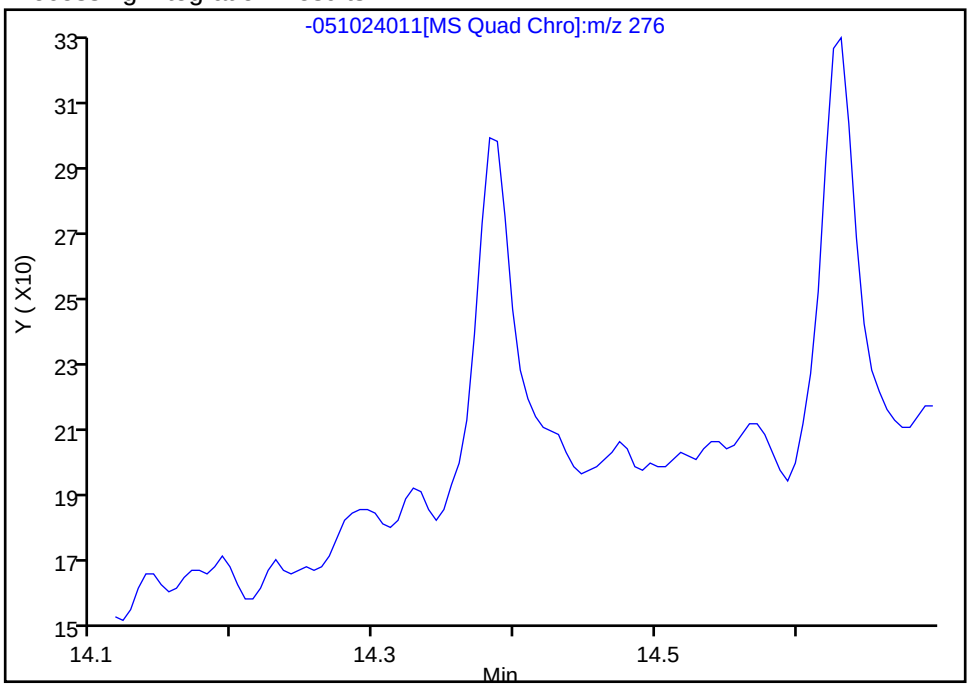
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024011.D				
Injection Date:	10-May-2024 11:16:12	Instrument ID:	SMS_2		
Lims ID:	280-191098-E-1-A	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

27 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

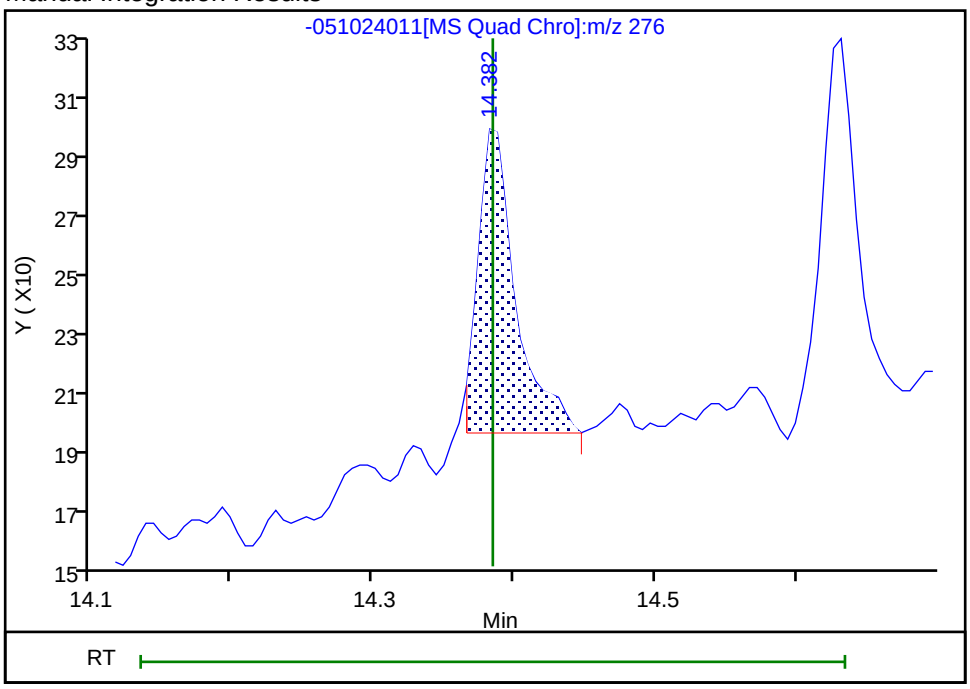
Not Detected
Expected RT: 14.38

Processing Integration Results



Manual Integration Results

RT: 14.38
Area: 175
Amount: 1.092909
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:57:54 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

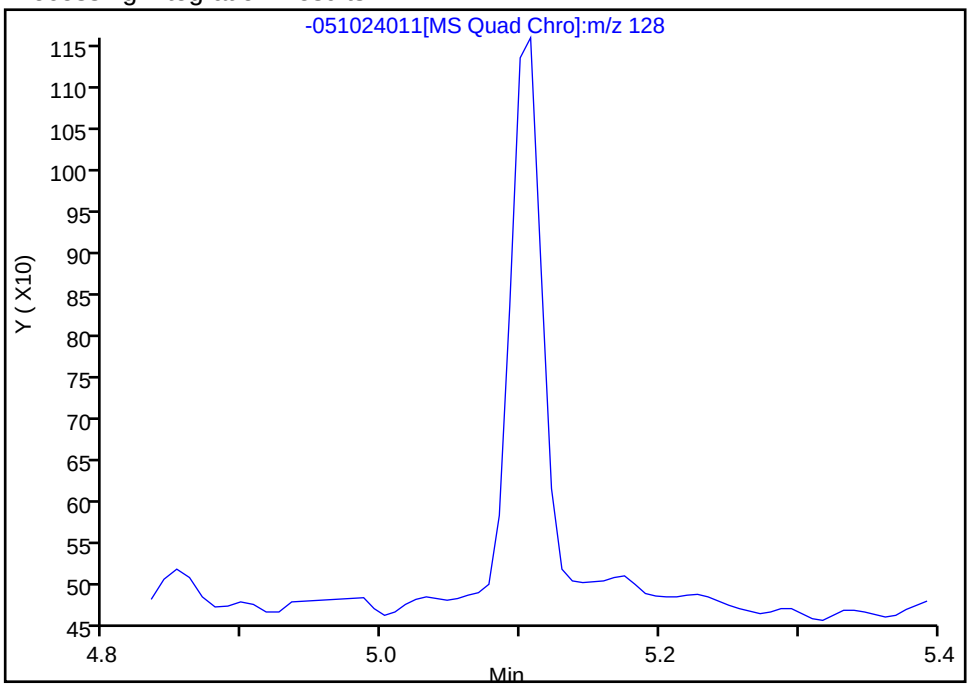
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024011.D				
Injection Date:	10-May-2024 11:16:12	Instrument ID:	SMS_2		
Lims ID:	280-191098-E-1-A	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

11 Naphthalene, CAS: 91-20-3

Signal: 1

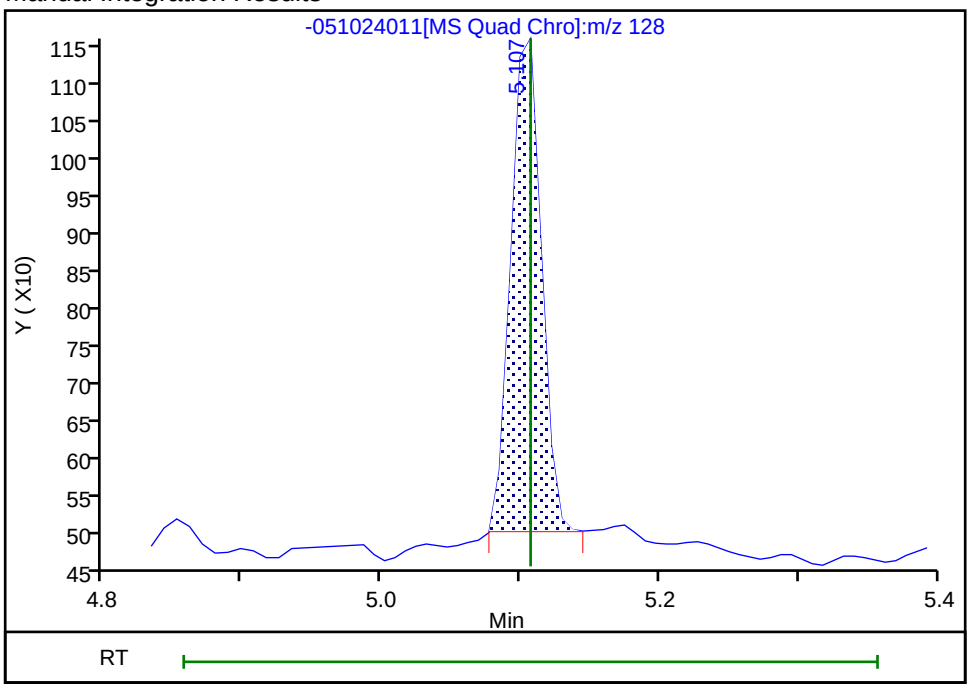
Not Detected
Expected RT: 5.11

Processing Integration Results



Manual Integration Results

RT: 5.11
Area: 995
Amount: 3.919726
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:57:25 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

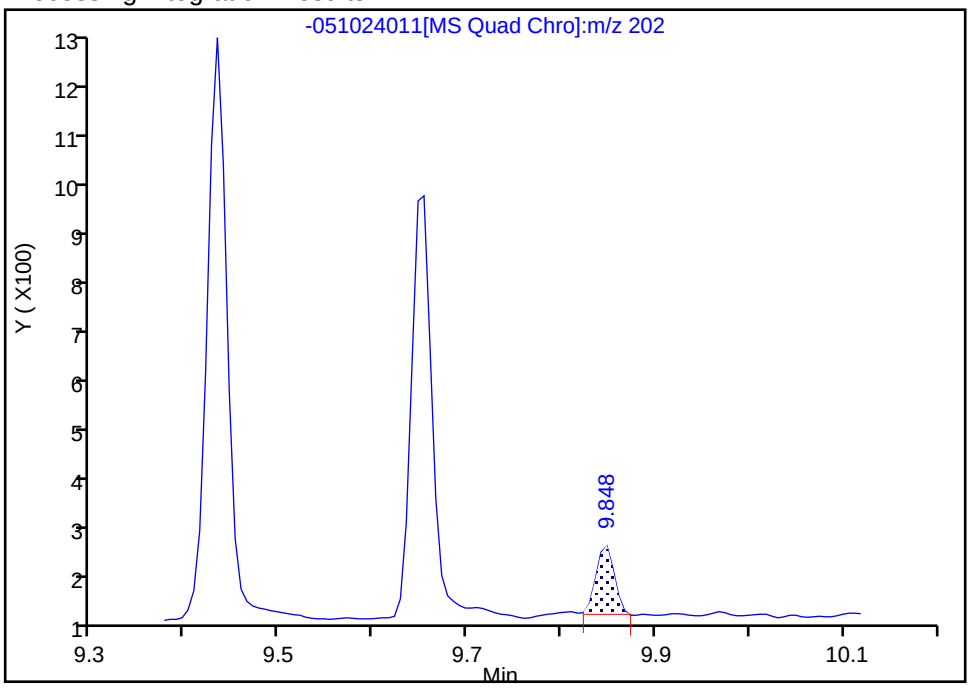
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024011.D				
Injection Date:	10-May-2024 11:16:12	Instrument ID:	SMS_2		
Lims ID:	280-191098-E-1-A	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

21 Pyrene, CAS: 129-00-0

Signal: 1

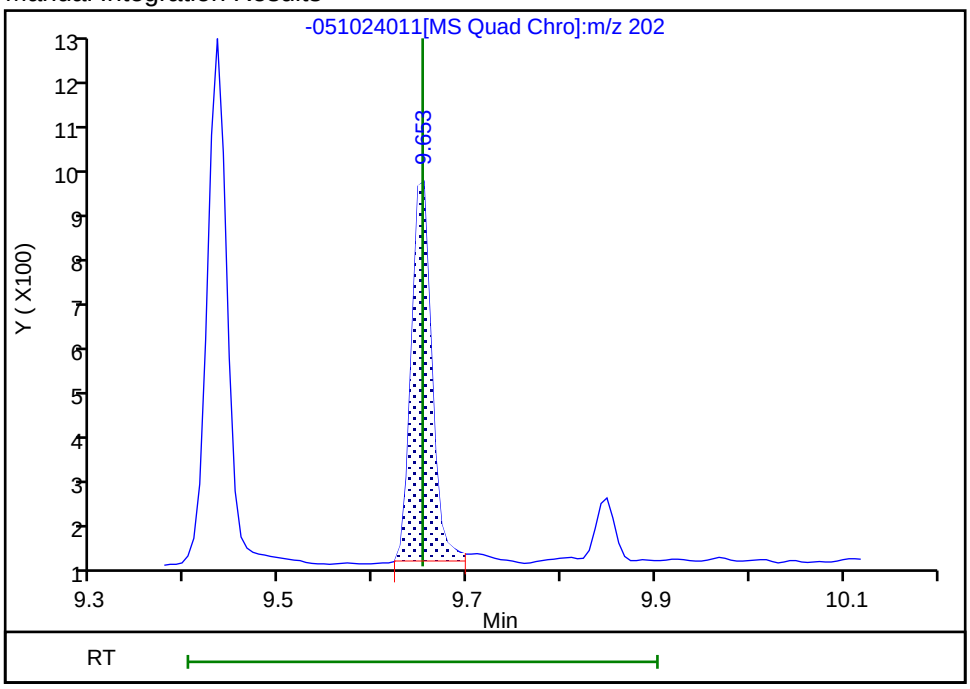
Processing Integration Results

RT: 9.85
Area: 186
Amount: 0.934217
Amount Units: ng/ml



Manual Integration Results

RT: 9.65
Area: 1241
Amount: 6.233138
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:57:44 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Baseline

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240402-GW | Lab Sample ID: 280-191098-2

Matrix: Water | Lab File ID: SMS_2-051024014.D

Analysis Method: 8270E SIM | Date Collected: 05/06/2024 10:16

Extract. Method: 3510C | Date Extracted: 05/09/2024 10:54

Sample wt/vol: 245.4(mL) | Date Analyzed: 05/10/2024 12:13

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 652894 | Units: ng/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
7297-45-2	2-methylnaphthalene-d10	73		15-113
93951-69-0	Fluoranthene-d10	88		42-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240402-GW | Lab Sample ID: 280-191098-2

Matrix: Water | Lab File ID: SMS_2-051024014.D

Analysis Method: 8270E SIM | Date Collected: 05/06/2024 10:16

Extract. Method: 3510C | Date Extracted: 05/09/2024 10:54

Sample wt/vol: 245.4(mL) | Date Analyzed: 05/10/2024 12:13

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 652894 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
91-57-6	2-Methylnaphthalene	0.031	J	0.10	0.081	0.022
83-32-9	Acenaphthene	0.029	J	0.10	0.081	0.0043
208-96-8	Acenaphthylene	0.081	U M	0.10	0.081	0.0052
120-12-7	Anthracene	0.081	U M	0.10	0.081	0.031
56-55-3	Benzo[a]anthracene	0.081	U M	0.10	0.081	0.029
50-32-8	Benzo[a]pyrene	0.081	U	0.10	0.081	0.025
205-99-2	Benzo[b]fluoranthene	0.081	U M	0.10	0.081	0.040
191-24-2	Benzo[g,h,i]perylene	0.081	U	0.10	0.081	0.038
207-08-9	Benzo[k]fluoranthene	0.081	U	0.10	0.081	0.023
218-01-9	Chrysene	0.081	U M	0.10	0.081	0.034
53-70-3	Dibenz(a,h)anthracene	0.081	U Q	0.10	0.081	0.028
206-44-0	Fluoranthene	0.081	U M	0.10	0.081	0.050
86-73-7	Fluorene	0.081	U M	0.10	0.081	0.020
193-39-5	Indeno[1,2,3-cd]pyrene	0.081	U	0.10	0.081	0.040
91-20-3	Naphthalene	0.030	J	0.10	0.081	0.023
85-01-8	Phenanthrene	0.081	U	0.10	0.081	0.050
129-00-0	Pyrene	0.081	U	0.10	0.081	0.046

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	78		53-106
4165-60-0	Nitrobenzene-d5 (Surr)	84		55-111
1718-51-0	Terphenyl-d14 (Surr)	90		58-132

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024014.D
Lims ID: 280-191098-B-2-A
Client ID: DET-003-240402-GW
Sample Type: Client
Inject. Date: 10-May-2024 12:13:52 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-B-2-A
Operator ID: MB Instrument ID: SMS_2

Method: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 11-May-2024 12:01:32 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: FP7E Date: 11-May-2024 11:59:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ml	Flags
* 1 Acenaphthene-d10	164	6.789	6.789	0.000	75	53969	400.0	
* 2 Phenanthrene-d10	188	8.244	8.244	0.000	98	56923	400.0	
* 3 Chrysene-d12	240	11.001	11.006	-0.005	56	36622	400.0	
$ 4 Nitrobenzene-d5	82	4.410	4.419	-0.009	97	40725	421.4	
$ 5 2-methylnaphthalene-d10	152	5.746	5.754	-0.008	0	49286	359.4	
$ 6 2-Fluorobiphenyl	172	6.150	6.157	-0.007	0	84172	387.9	
$ 7 Fluoranthene-d10	212	9.415	9.420	-0.005	89	57722	438.7	
$ 8 Terphenyl-d14	244	9.848	9.853	-0.005	0	45652	450.8	
38 1,4-Dioxane	88		1.501				ND	
9 N-Nitrosodiethylamine	102		2.983				ND	U
10 N-Nitrosodi-n-propylamine	70		4.290				ND	U
11 Naphthalene	128	5.107	5.107	0.000	1	1865	7.41	
12 2-Methylnaphthalene	141	5.776	5.784	-0.008	0	1070	7.66	
13 1-Methylnaphthalene	142	5.874	5.874	0.000	0	841	5.46	
14 Acenaphthylene	152	6.638	6.638	0.000	0	276	1.16	a
15 Acenaphthene	153	6.809	6.820	-0.011	16	1160	7.08	
16 Dibenzofuran	168	6.991	6.991	0.000	78	1173	5.09	
17 Fluorene	166	7.324	7.332	-0.008	80	586	4.75	a
18 Phenanthrene	178	8.264	8.264	0.000	0	1981	11.8	
19 Anthracene	178	8.313	8.318	-0.005	1	466	2.83	a
20 Fluoranthene	202	9.433	9.438	-0.005	21	978	5.25	a
21 Pyrene	202	9.647	9.652	-0.005	0	719	3.70	
22 Benzo[a]anthracene	228	10.996	10.996	0.000	10	402	2.59	a
23 Chrysene	228	11.036	11.041	-0.005	0	395	2.52	a
24 Benzo[b]fluoranthene	252	12.596	12.599	-0.003	0	189	1.18	a
25 Benzo[k]fluoranthene	252		12.646				ND	
26 Benzo[a]pyrene	252		13.101				ND	
27 Indeno[1,2,3-cd]pyrene	276		14.385				ND	
28 Dibenz(a,h)anthracene	278		14.422				ND	
29 Benzo[g,h,i]perylene	276		14.634				ND	
30 Dimethyl phthalate	163		0.000				ND	
31 N-Nitrosodimethylamine	42		0.000				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ml	Flags
32 N-Nitrosodiphenylamine	169		0.000				ND	
33 Di-n-butyl phthalate	149		0.000				ND	
34 Diethyl phthalate	149		0.000				ND	
35 Butyl benzyl phthalate	149		0.000				ND	
36 Di-n-octyl phthalate	149		0.000				ND	
37 Pentachlorophenol_T	266		2.096				ND	
39 DFTPP								
40 Benzidine_T	184		3.000				ND	
42 4,4'-DDE	246		3.103				ND	
41 4,4'-DDD	235		3.349				ND	
43 4,4'-DDT	235		3.527				ND	
S 44 TPAH	1				0		63.4	

QC Flag Legend

Processing Flags

Review Flags

U - Marked Undetected

a - User Assigned ID

Reagents:

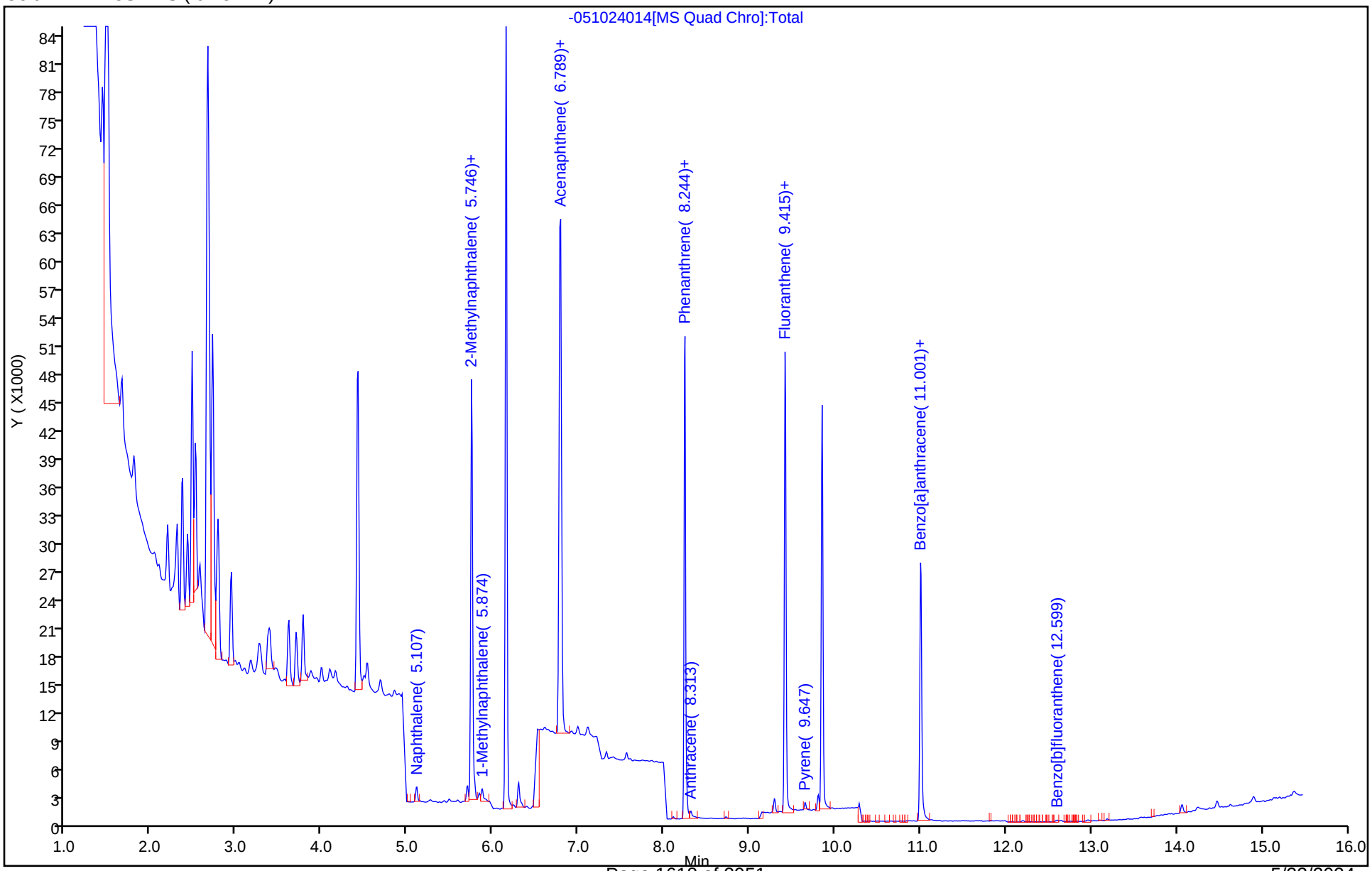
MS-SIM IS_00059 Amount Added: 100.00 Units: uL Run Reagent

Report Date: 11-May-2024 12:01:54 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024014.D				
Injection Date:	10-May-2024 12:13:52	Instrument ID:	SMS_2	Operator ID:	MB
Lims ID:	280-191098-B-2-A	Lab Sample ID:	280-191098-2	Worklist Smp#:	15
Client ID:	DET-003-240402-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

Column: Rxi-5Sil MS (0.25 mm)



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024014.D
Lims ID: 280-191098-B-2-A
Client ID: DET-003-240402-GW
Sample Type: Client
Inject. Date: 10-May-2024 12:13:52 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-B-2-A
Operator ID: MB Instrument ID: SMS_2

Method: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 11-May-2024 12:01:32 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: FP7E Date: 11-May-2024 11:59:05

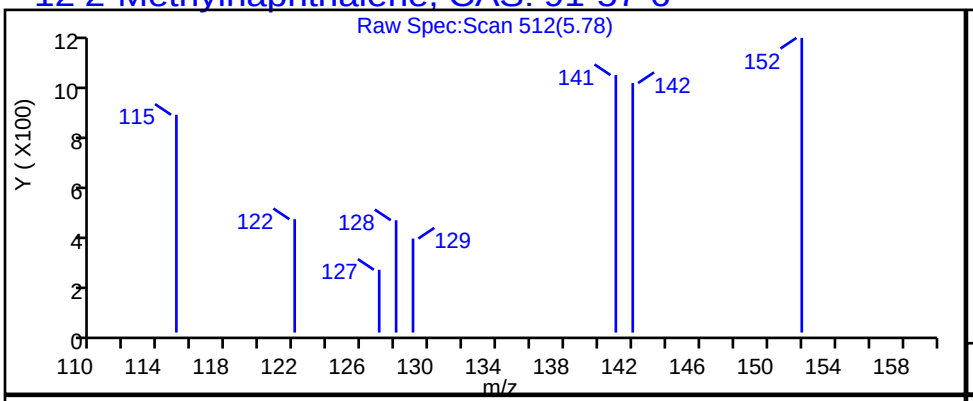
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Nitrobenzene-d5	500.5	421.4	84.19
$ 5 2-methylnaphthalene-d10	493.9	359.4	72.76
$ 6 2-Fluorobiphenyl	499.9	387.9	77.60
$ 7 Fluoranthene-d10	500.0	438.7	87.75
$ 8 Terphenyl-d14	500.0	450.8	90.16

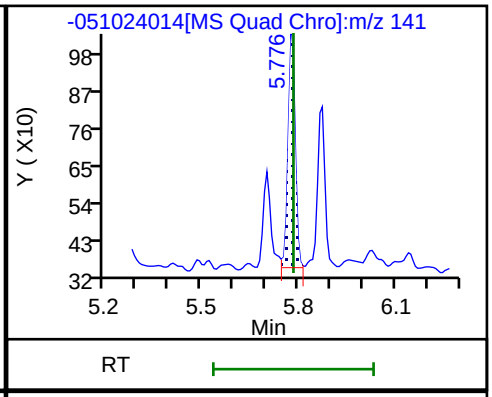
Eurofins Denver

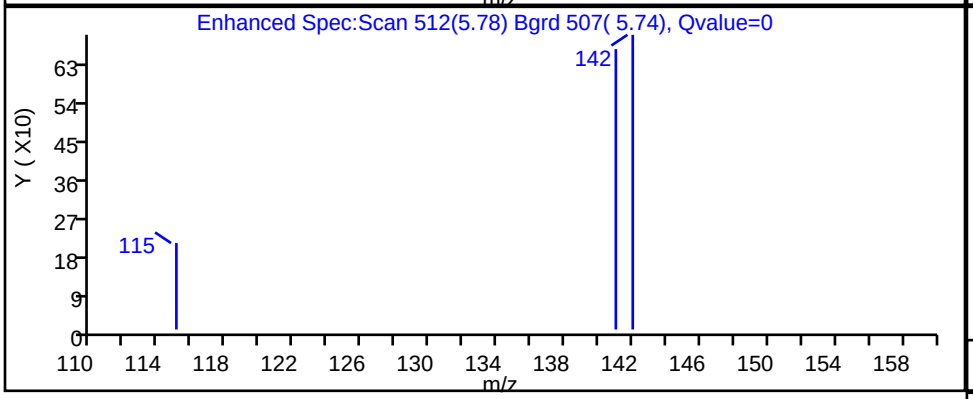
Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024014.D

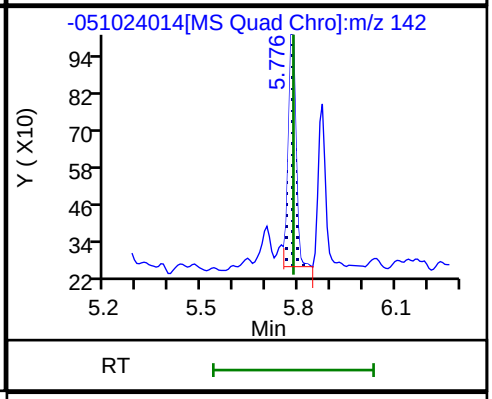
Injection Date:	10-May-2024 12:13:52	Instrument ID:	SMS_2		
Lims ID:	280-191098-B-2-A	Lab Sample ID:	280-191098-2		
Client ID:	DET-003-240402-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

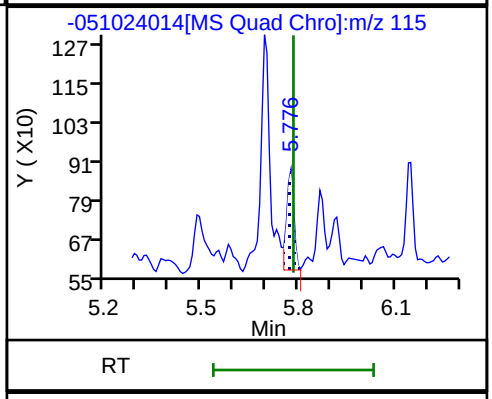
12 2-Methylnaphthalene, CAS: 91-57-6

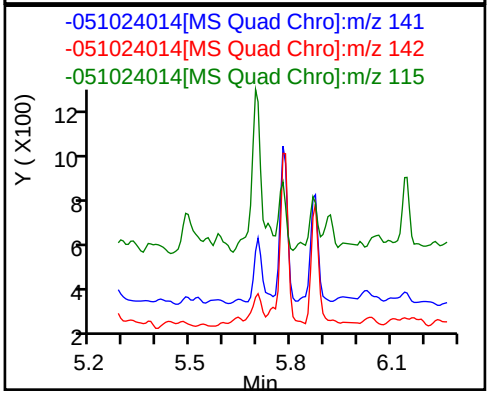












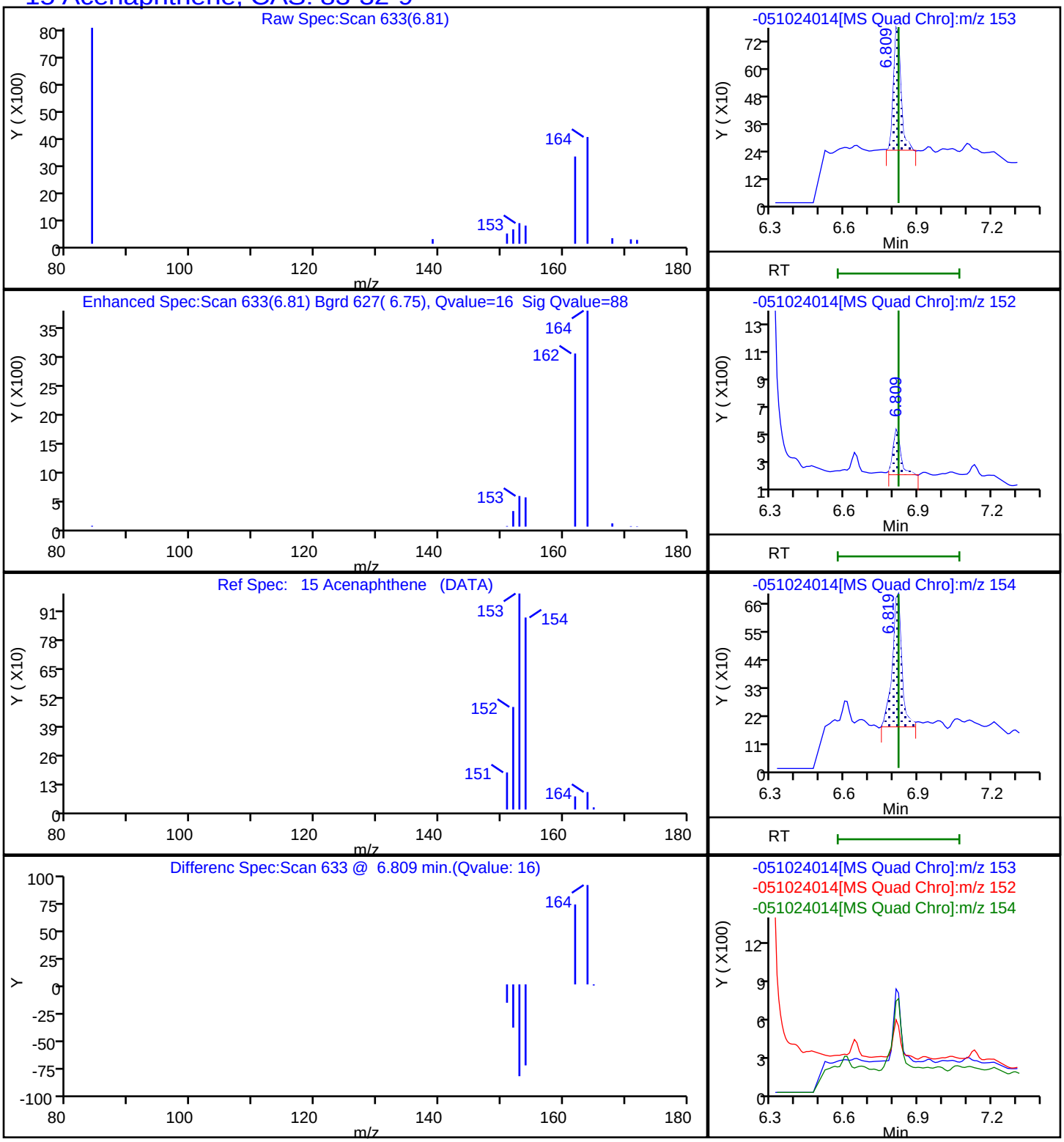
Report Date: 11-May-2024 12:01:54 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024014.D

Injection Date:	10-May-2024 12:13:52	Instrument ID:	SMS_2
Lims ID:	280-191098-B-2-A	Lab Sample ID:	280-191098-2
Client ID:	DET-003-240402-GW		
Operator ID:	MB	ALS Bottle#:	0 Worklist Smp#: 15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN

15 Acenaphthene, CAS: 83-32-9



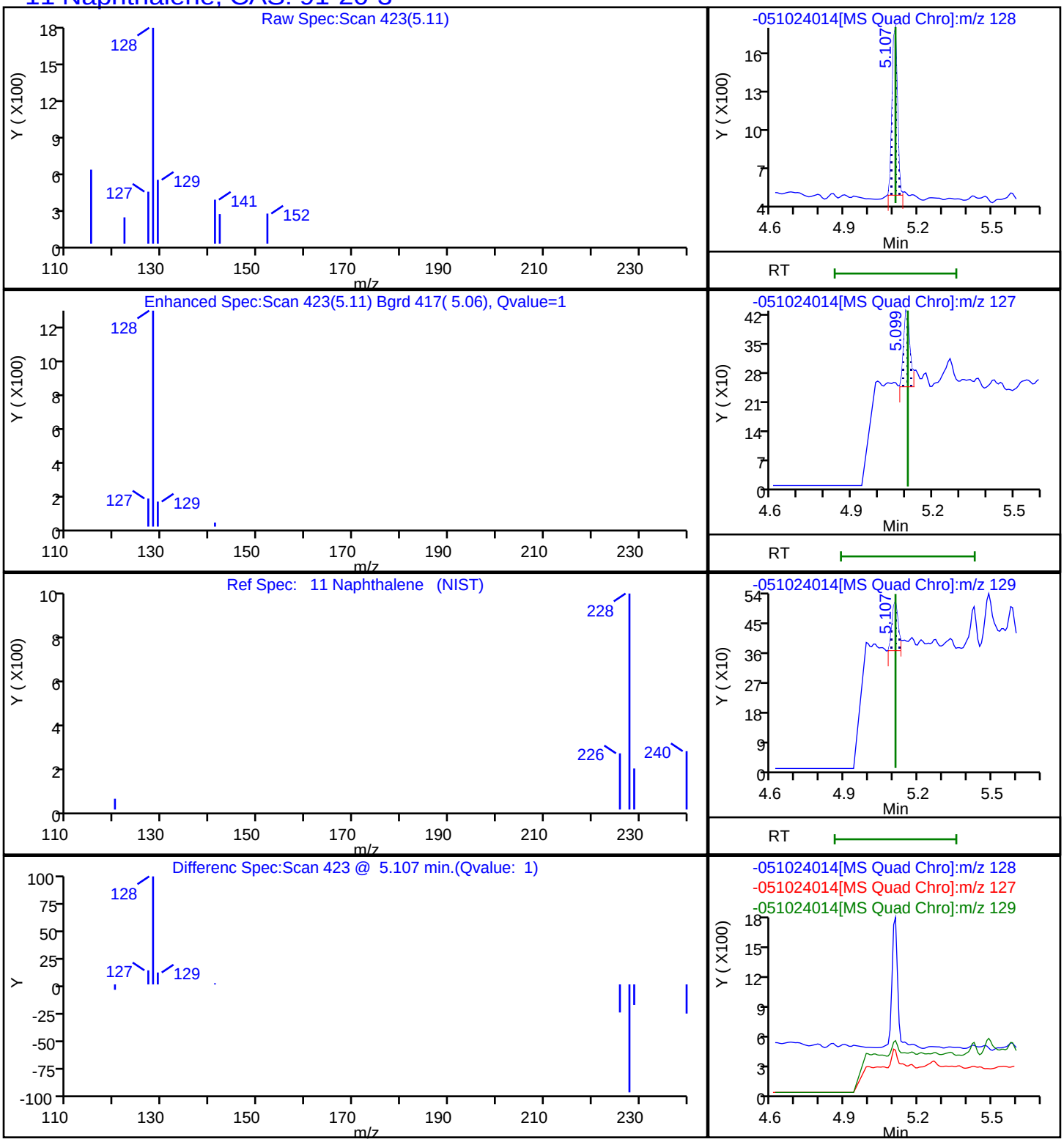
Report Date: 11-May-2024 12:01:54 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024014.D

Injection Date:	10-May-2024 12:13:52	Instrument ID:	SMS_2		
Lims ID:	280-191098-B-2-A	Lab Sample ID:	280-191098-2		
Client ID:	DET-003-240402-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

11 Naphthalene, CAS: 91-20-3



Manual Integration/User Assign Peak Report

Eurofins Denver

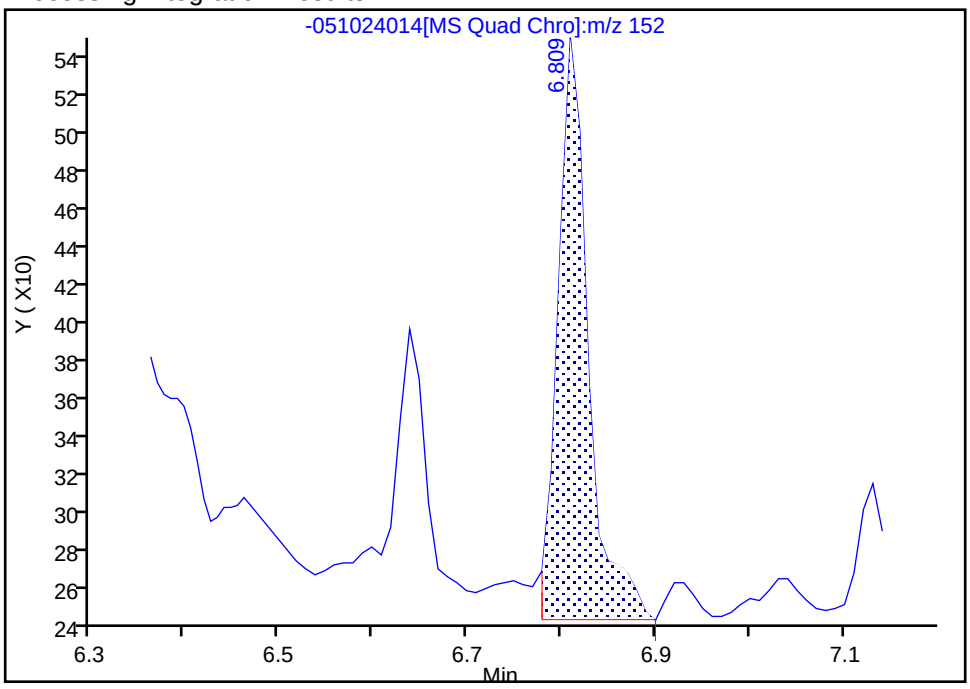
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024014.D				
Injection Date:	10-May-2024 12:13:52	Instrument ID:	SMS_2		
Lims ID:	280-191098-B-2-A	Lab Sample ID:	280-191098-2		
Client ID:	DET-003-240402-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

14 Acenaphthylene, CAS: 208-96-8

Signal: 1

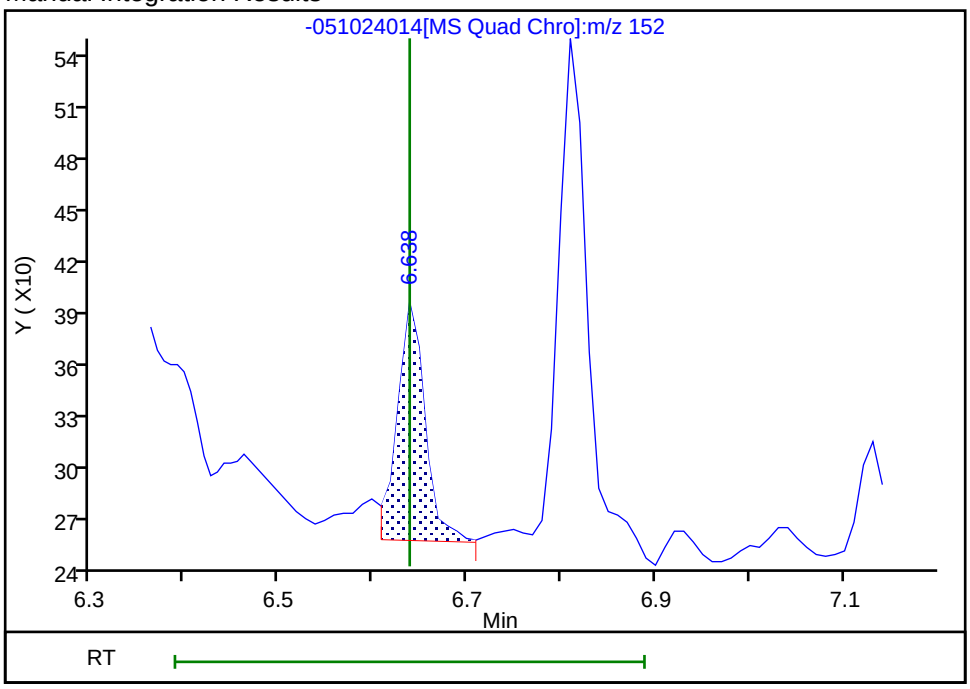
Processing Integration Results

RT: 6.81
Area: 666
Amount: 2.792632
Amount Units: ng/ml



Manual Integration Results

RT: 6.64
Area: 276
Amount: 1.157307
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:58:48 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

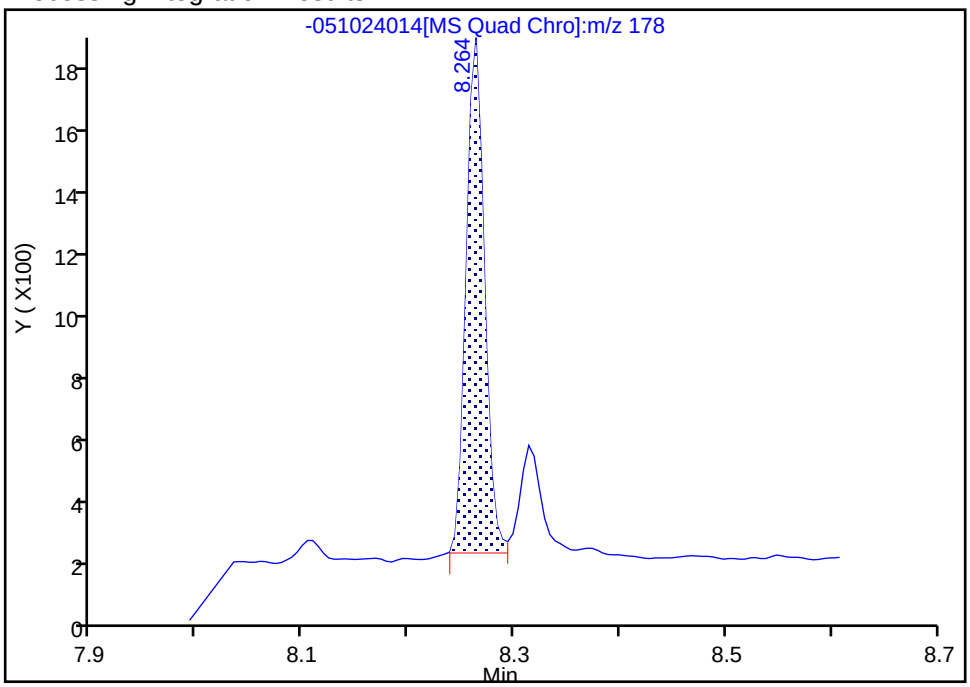
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024014.D				
Injection Date:	10-May-2024 12:13:52	Instrument ID:	SMS_2		
Lims ID:	280-191098-B-2-A	Lab Sample ID:	280-191098-2		
Client ID:	DET-003-240402-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

19 Anthracene, CAS: 120-12-7

Signal: 1

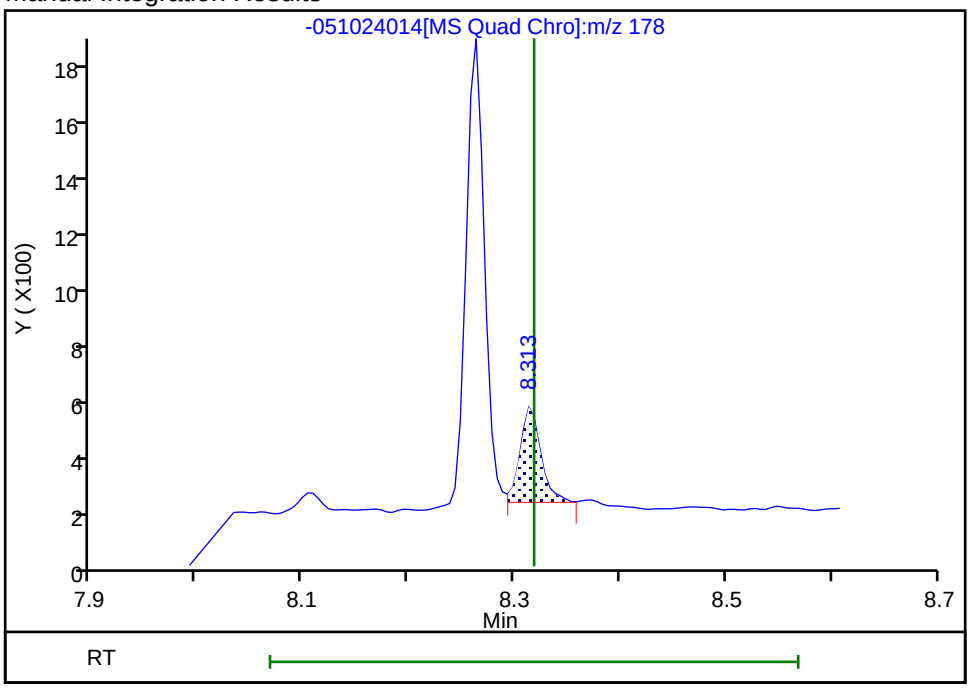
Processing Integration Results

RT: 8.26
Area: 1981
Amount: 12.022793
Amount Units: ng/ml



Manual Integration Results

RT: 8.31
Area: 466
Amount: 2.828179
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:58:53 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

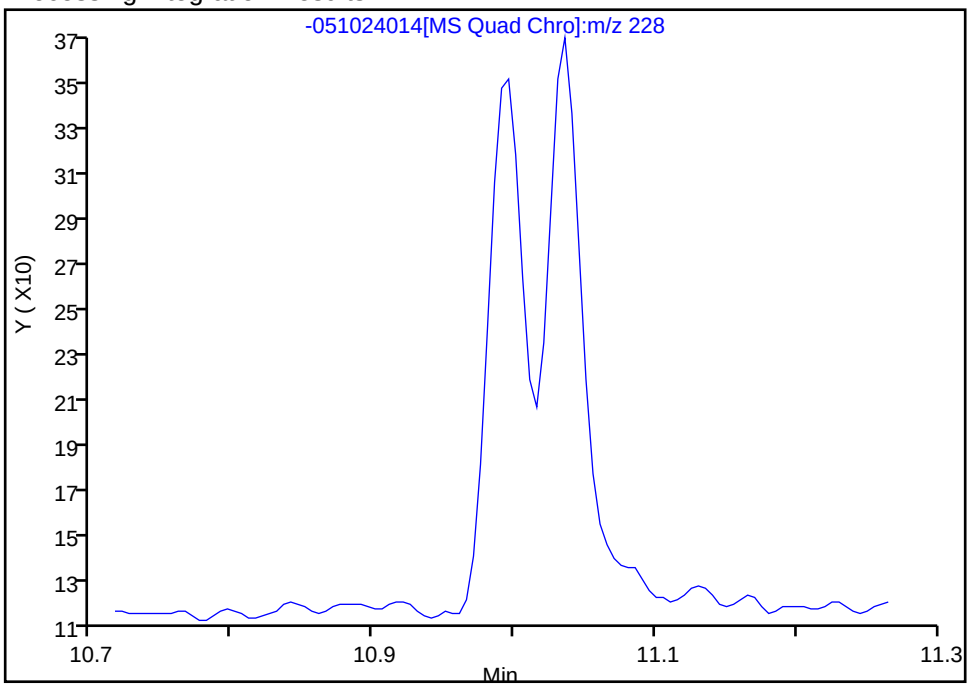
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024014.D				
Injection Date:	10-May-2024 12:13:52	Instrument ID:	SMS_2		
Lims ID:	280-191098-B-2-A	Lab Sample ID:	280-191098-2		
Client ID:	DET-003-240402-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

22 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

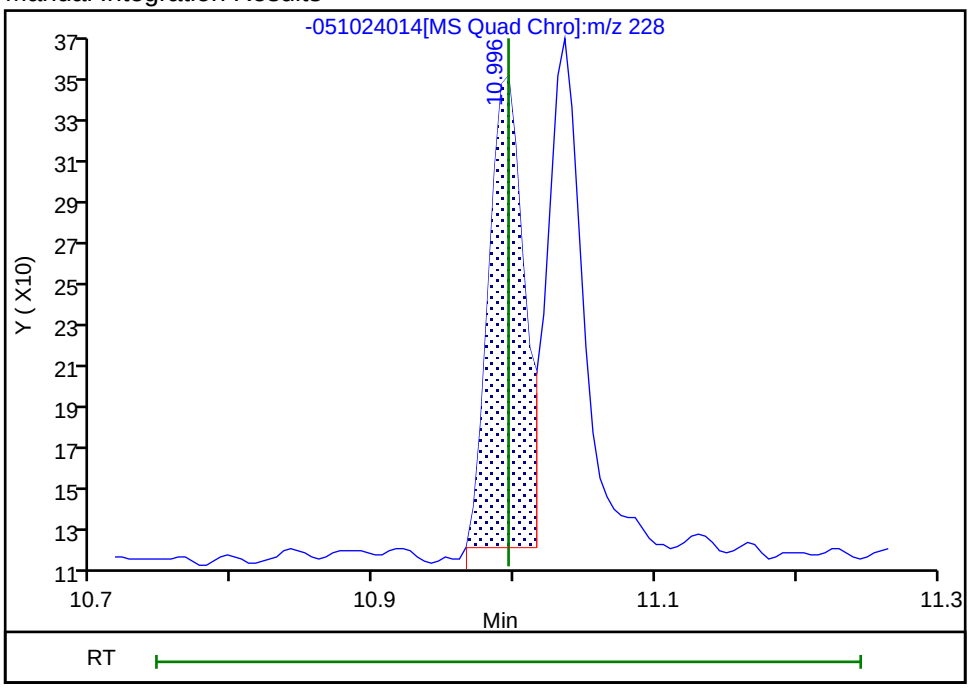
Not Detected
Expected RT: 11.00

Processing Integration Results



Manual Integration Results

RT: 11.00
Area: 402
Amount: 2.587479
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:58:56 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

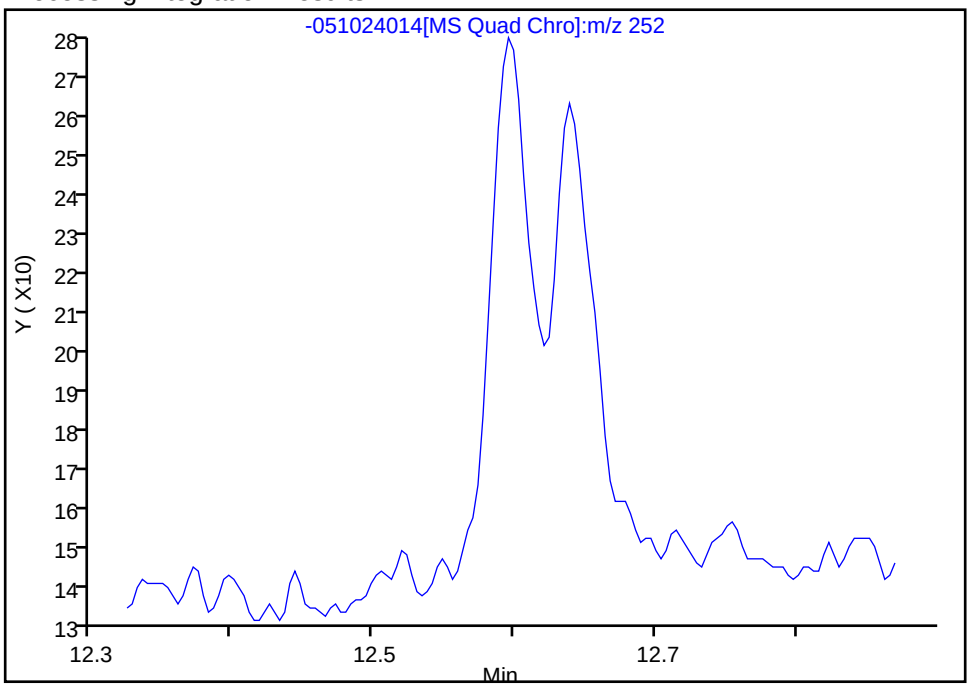
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024014.D				
Injection Date:	10-May-2024 12:13:52	Instrument ID:	SMS_2		
Lims ID:	280-191098-B-2-A	Lab Sample ID:	280-191098-2		
Client ID:	DET-003-240402-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

24 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

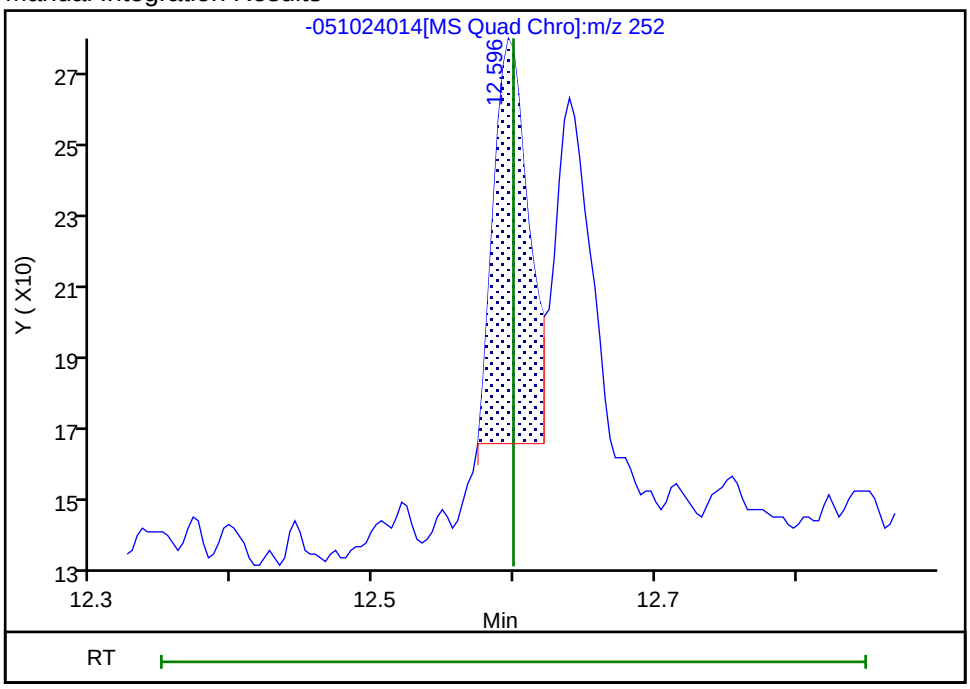
Not Detected
Expected RT: 12.60

Processing Integration Results



Manual Integration Results

RT: 12.60
Area: 189
Amount: 1.182054
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:58:59 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

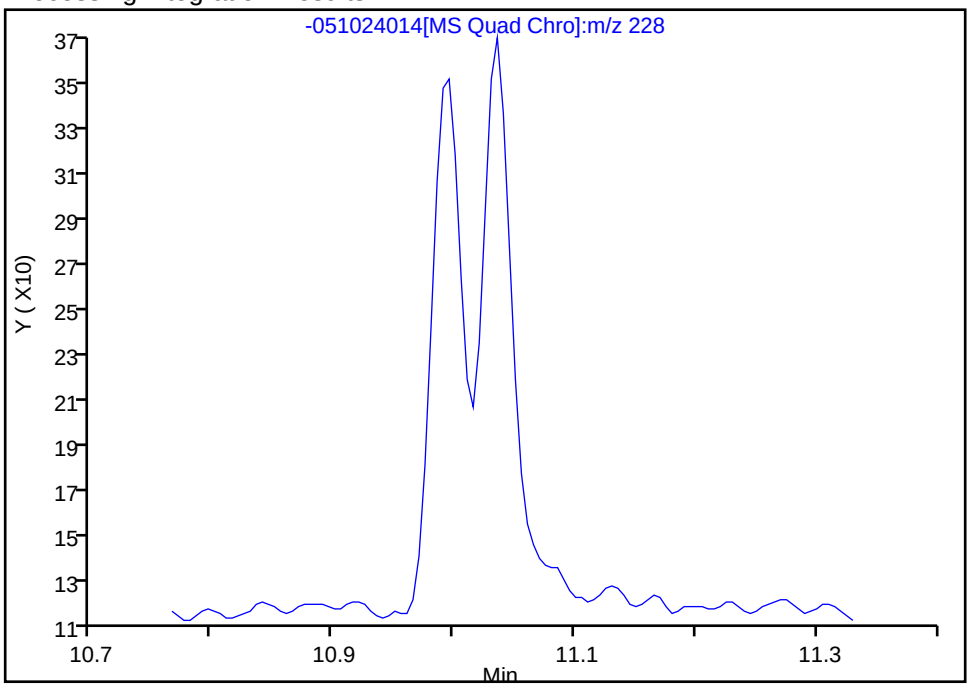
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024014.D				
Injection Date:	10-May-2024 12:13:52	Instrument ID:	SMS_2		
Lims ID:	280-191098-B-2-A	Lab Sample ID:	280-191098-2		
Client ID:	DET-003-240402-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

23 Chrysene, CAS: 218-01-9

Signal: 1

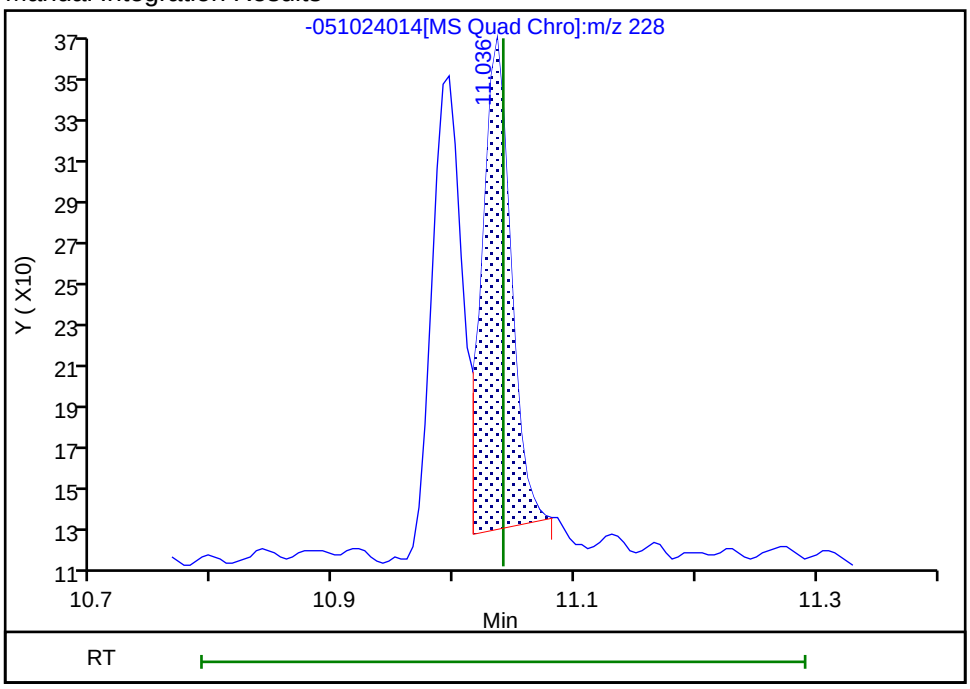
Not Detected
Expected RT: 11.04

Processing Integration Results



Manual Integration Results

RT: 11.04
Area: 395
Amount: 2.515551
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:58:57 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

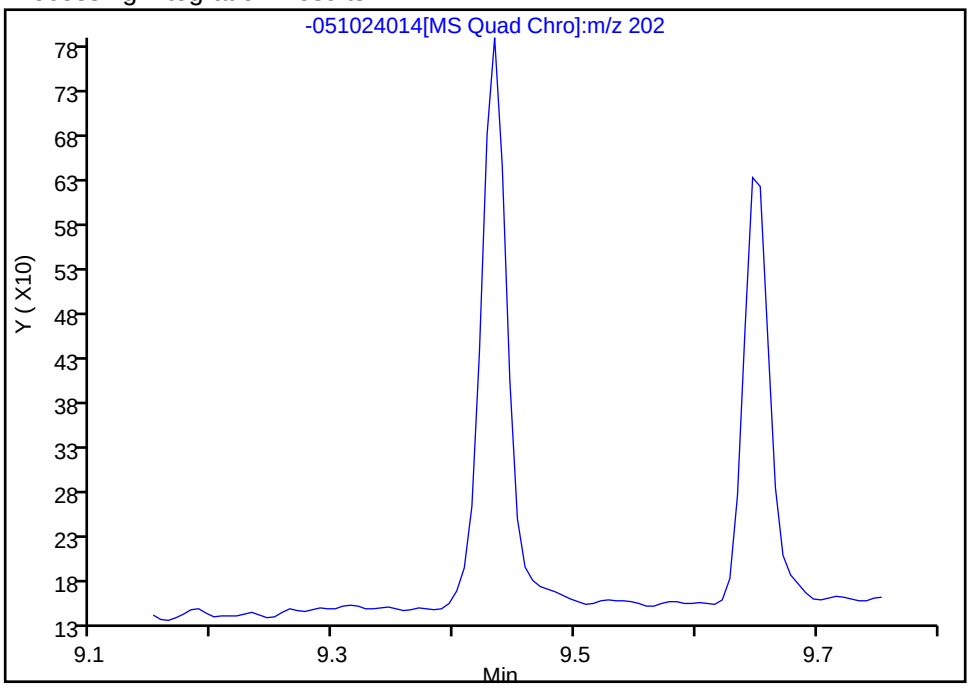
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024014.D				
Injection Date:	10-May-2024 12:13:52	Instrument ID:	SMS_2		
Lims ID:	280-191098-B-2-A	Lab Sample ID:	280-191098-2		
Client ID:	DET-003-240402-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

20 Fluoranthene, CAS: 206-44-0

Signal: 1

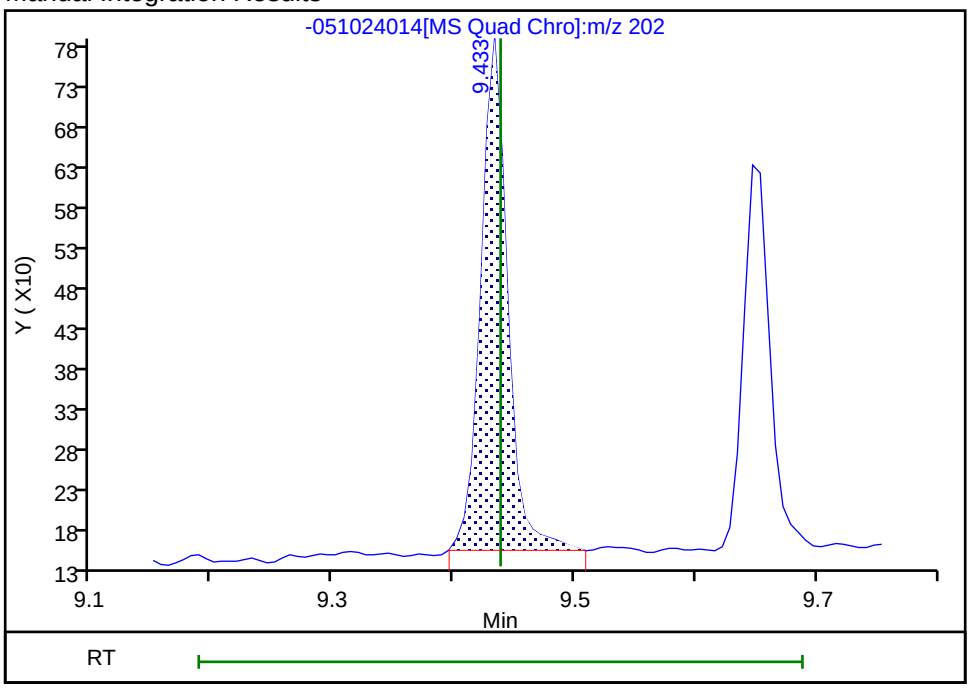
Not Detected
Expected RT: 9.44

Processing Integration Results



Manual Integration Results

RT: 9.43
Area: 978
Amount: 5.246440
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:58:54 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

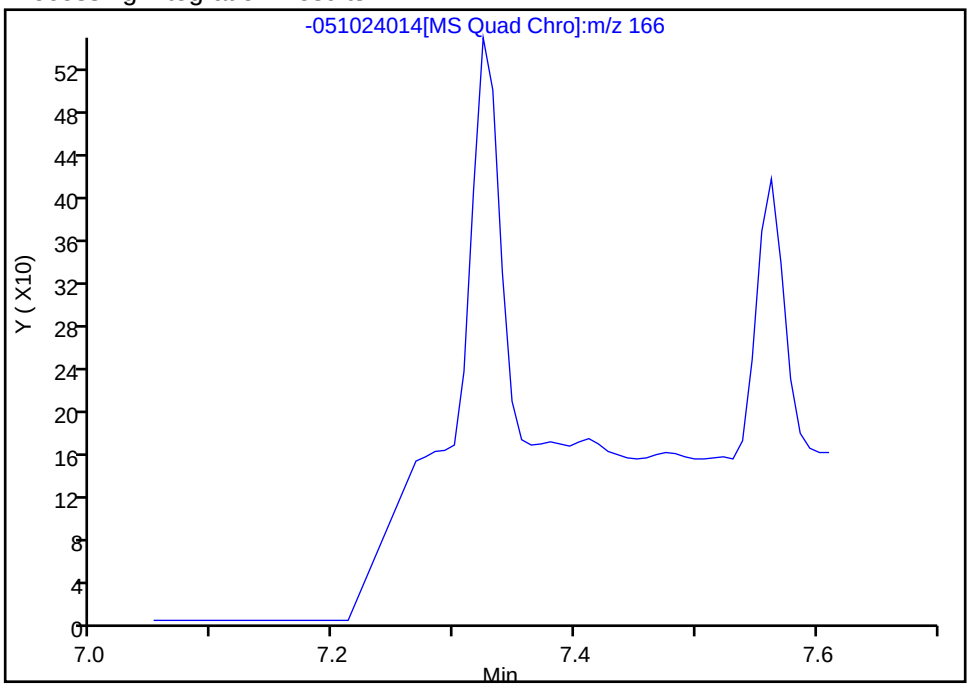
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024014.D				
Injection Date:	10-May-2024 12:13:52	Instrument ID:	SMS_2		
Lims ID:	280-191098-B-2-A	Lab Sample ID:	280-191098-2		
Client ID:	DET-003-240402-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

17 Fluorene, CAS: 86-73-7

Signal: 1

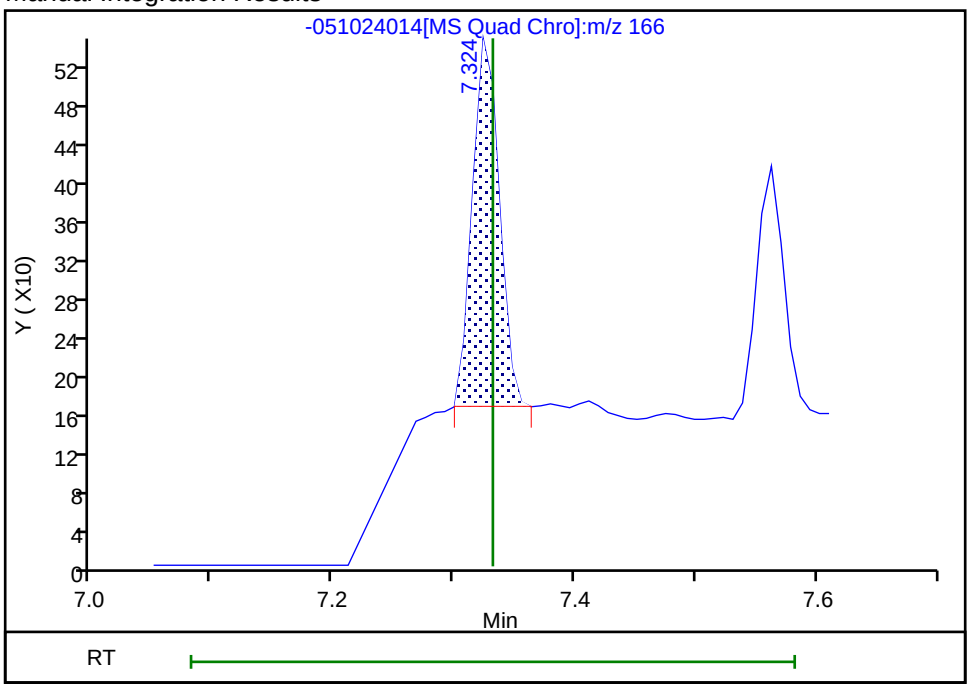
Not Detected
Expected RT: 7.33

Processing Integration Results



Manual Integration Results

RT: 7.32
Area: 586
Amount: 4.746674
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:58:51 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-004-240401-GW | Lab Sample ID: 280-191098-5

Matrix: Water | Lab File ID: SMS_2-051024015.D

Analysis Method: 8270E SIM | Date Collected: 05/06/2024 10:35

Extract. Method: 3510C | Date Extracted: 05/09/2024 10:54

Sample wt/vol: 235.3(mL) | Date Analyzed: 05/10/2024 12:33

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 652894 | Units: ng/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
7297-45-2	2-methylnaphthalene-d10	81		15-113
93951-69-0	Fluoranthene-d10	86		42-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-004-240401-GW | Lab Sample ID: 280-191098-5

Matrix: Water | Lab File ID: SMS_2-051024015.D

Analysis Method: 8270E SIM | Date Collected: 05/06/2024 10:35

Extract. Method: 3510C | Date Extracted: 05/09/2024 10:54

Sample wt/vol: 235.3(mL) | Date Analyzed: 05/10/2024 12:33

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 652894 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
91-57-6	2-Methylnaphthalene	0.085	U M	0.11	0.085	0.023
83-32-9	Acenaphthene	0.012	J	0.11	0.085	0.0045
208-96-8	Acenaphthylene	0.0072	J M	0.11	0.085	0.0054
120-12-7	Anthracene	0.085	U	0.11	0.085	0.033
56-55-3	Benzo[a]anthracene	0.085	U M	0.11	0.085	0.030
50-32-8	Benzo[a]pyrene	0.085	U	0.11	0.085	0.026
205-99-2	Benzo[b]fluoranthene	0.085	U	0.11	0.085	0.042
191-24-2	Benzo[g,h,i]perylene	0.085	U	0.11	0.085	0.040
207-08-9	Benzo[k]fluoranthene	0.085	U	0.11	0.085	0.024
218-01-9	Chrysene	0.085	U M	0.11	0.085	0.035
53-70-3	Dibenz(a,h)anthracene	0.085	U Q	0.11	0.085	0.029
206-44-0	Fluoranthene	0.085	U	0.11	0.085	0.052
86-73-7	Fluorene	0.085	U M	0.11	0.085	0.020
193-39-5	Indeno[1,2,3-cd]pyrene	0.085	U	0.11	0.085	0.042
91-20-3	Naphthalene	0.085	U M	0.11	0.085	0.024
85-01-8	Phenanthrene	0.085	U	0.11	0.085	0.052
129-00-0	Pyrene	0.085	U	0.11	0.085	0.048

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	89		53-106
4165-60-0	Nitrobenzene-d5 (Surr)	93		55-111
1718-51-0	Terphenyl-d14 (Surr)	90		58-132

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024015.D
Lims ID: 280-191098-I-5-A
Client ID: DET-004-240401-GW
Sample Type: Client
Inject. Date: 10-May-2024 12:33:05 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-I-5-A
Operator ID: MB Instrument ID: SMS_2

Method: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 11-May-2024 12:01:32 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: FP7E Date: 11-May-2024 11:59:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ml	Flags
* 1 Acenaphthene-d10	164	6.789	6.789	0.000	75	52505	400.0	
* 2 Phenanthrene-d10	188	8.243	8.244	-0.001	98	56459	400.0	
* 3 Chrysene-d12	240	11.002	11.006	-0.004	56	36891	400.0	
$ 4 Nitrobenzene-d5	82	4.410	4.419	-0.009	97	43594	463.6	
$ 5 2-methylnaphthalene-d10	152	5.746	5.754	-0.008	0	53589	401.6	
$ 6 2-Fluorobiphenyl	172	6.150	6.157	-0.007	0	93997	445.2	
$ 7 Fluoranthene-d10	212	9.414	9.420	-0.006	89	56101	429.9	
$ 8 Terphenyl-d14	244	9.848	9.853	-0.005	0	45012	448.1	
38 1,4-Dioxane	88		1.501				ND	
9 N-Nitrosodiethylamine	102		2.983				ND	U
10 N-Nitrosodi-n-propylamine	70		4.290				ND	U
11 Naphthalene	128	5.107	5.107	0.000	1	670	2.74	a
12 2-Methylnaphthalene	141	5.776	5.784	-0.008	0	430	3.16	a
13 1-Methylnaphthalene	142	5.874	5.874	0.000	0	421	2.81	a
14 Acenaphthylene	152	6.638	6.638	0.000	0	394	1.70	a
15 Acenaphthene	153	6.809	6.820	-0.011	61	448	2.81	
16 Dibenzofuran	168	6.990	6.991	-0.001	78	825	3.68	
17 Fluorene	166	7.324	7.332	-0.008	78	318	2.65	Ma
18 Phenanthrene	178	8.263	8.264	-0.001	0	908	5.44	
19 Anthracene	178	8.313	8.318	-0.005	1	438	2.68	
20 Fluoranthene	202	9.433	9.438	-0.005	21	880	4.76	
21 Pyrene	202	9.653	9.652	0.001	0	755	3.92	
22 Benzo[a]anthracene	228	10.997	10.996	0.001	9	387	2.47	a
23 Chrysene	228	11.037	11.041	-0.004	0	461	2.91	a
24 Benzo[b]fluoranthene	252		12.599				ND	
25 Benzo[k]fluoranthene	252		12.646				ND	
26 Benzo[a]pyrene	252		13.101				ND	
27 Indeno[1,2,3-cd]pyrene	276		14.385				ND	
28 Dibenz(a,h)anthracene	278		14.422				ND	
29 Benzo[g,h,i]perylene	276		14.634				ND	
30 Dimethyl phthalate	163		0.000				ND	
31 N-Nitrosodimethylamine	42		0.000				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ml	Flags
32 N-Nitrosodiphenylamine	169		0.000				ND	
33 Di-n-butyl phthalate	149		0.000				ND	
34 Diethyl phthalate	149		0.000				ND	
35 Butyl benzyl phthalate	149		0.000				ND	
36 Di-n-octyl phthalate	149		0.000				ND	
37 Pentachlorophenol_T	266		2.096				ND	
39 DFTPP								
40 Benzidine_T	184		3.000				ND	
42 4,4'-DDE	246		3.103				ND	
41 4,4'-DDD	235		3.349				ND	
43 4,4'-DDT	235		3.527				ND	
S 44 TPAH	1				0		38.1	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

U - Marked Undetected

a - User Assigned ID

Reagents:

MS-SIM IS_00059 Amount Added: 100.00 Units: uL Run Reagent

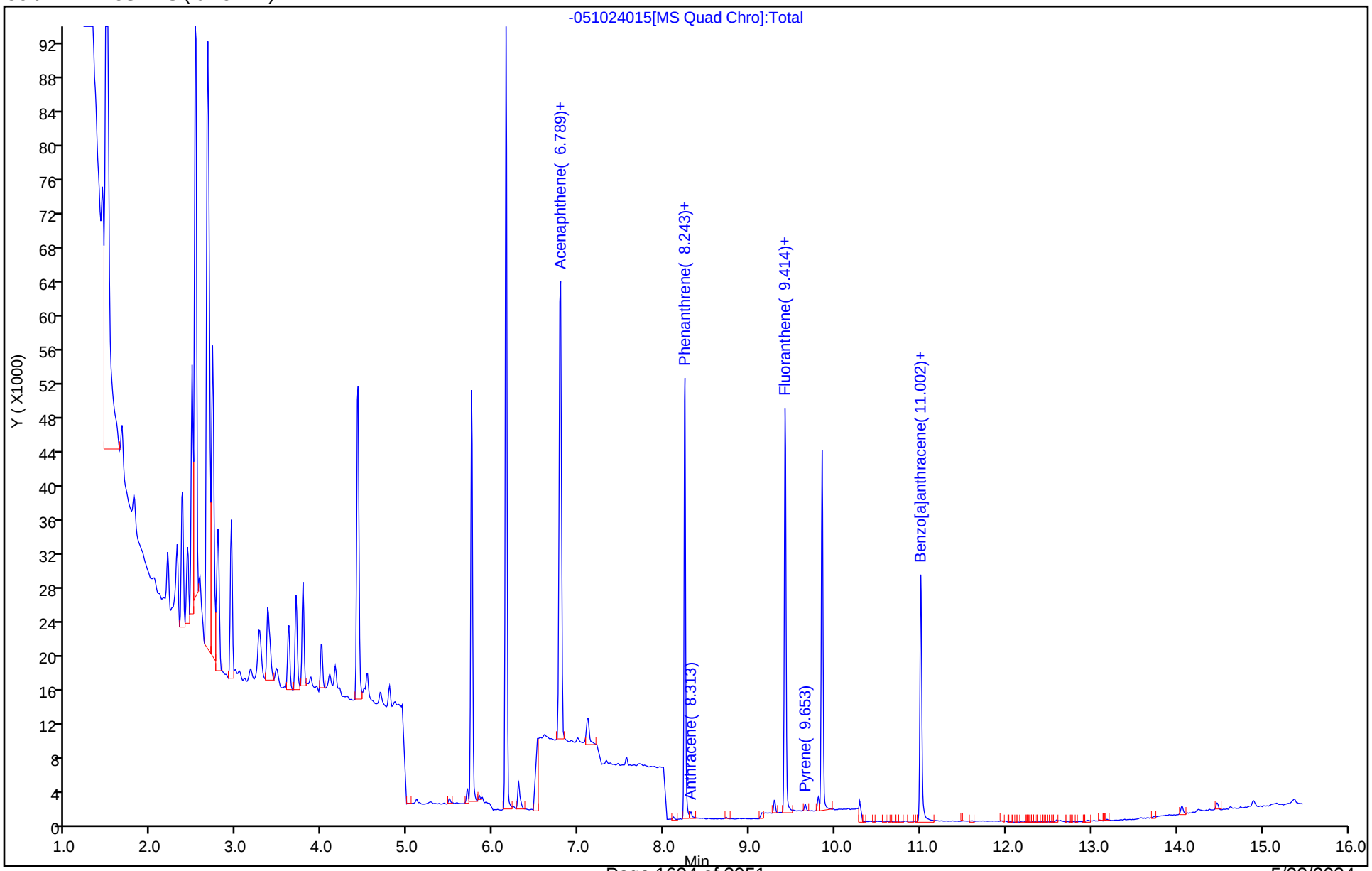
Report Date: 11-May-2024 12:01:56 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024015.D

Injection Date:	10-May-2024 12:33:05	Instrument ID:	SMS_2	Operator ID:	MB
Lims ID:	280-191098-I-5-A	Lab Sample ID:	280-191098-5	Worklist Smp#:	16
Client ID:	DET-004-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

Column: Rxi-5Sil MS (0.25 mm)



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024015.D
Lims ID: 280-191098-I-5-A
Client ID: DET-004-240401-GW
Sample Type: Client
Inject. Date: 10-May-2024 12:33:05 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-I-5-A
Operator ID: MB Instrument ID: SMS_2

Method: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 11-May-2024 12:01:32 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: FP7E Date: 11-May-2024 11:59:38

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Nitrobenzene-d5	500.5	463.6	92.64
$ 5 2-methylnaphthalene-d10	493.9	401.6	81.32
$ 6 2-Fluorobiphenyl	499.9	445.2	89.08
$ 7 Fluoranthene-d10	500.0	429.9	85.98
$ 8 Terphenyl-d14	500.0	448.1	89.63

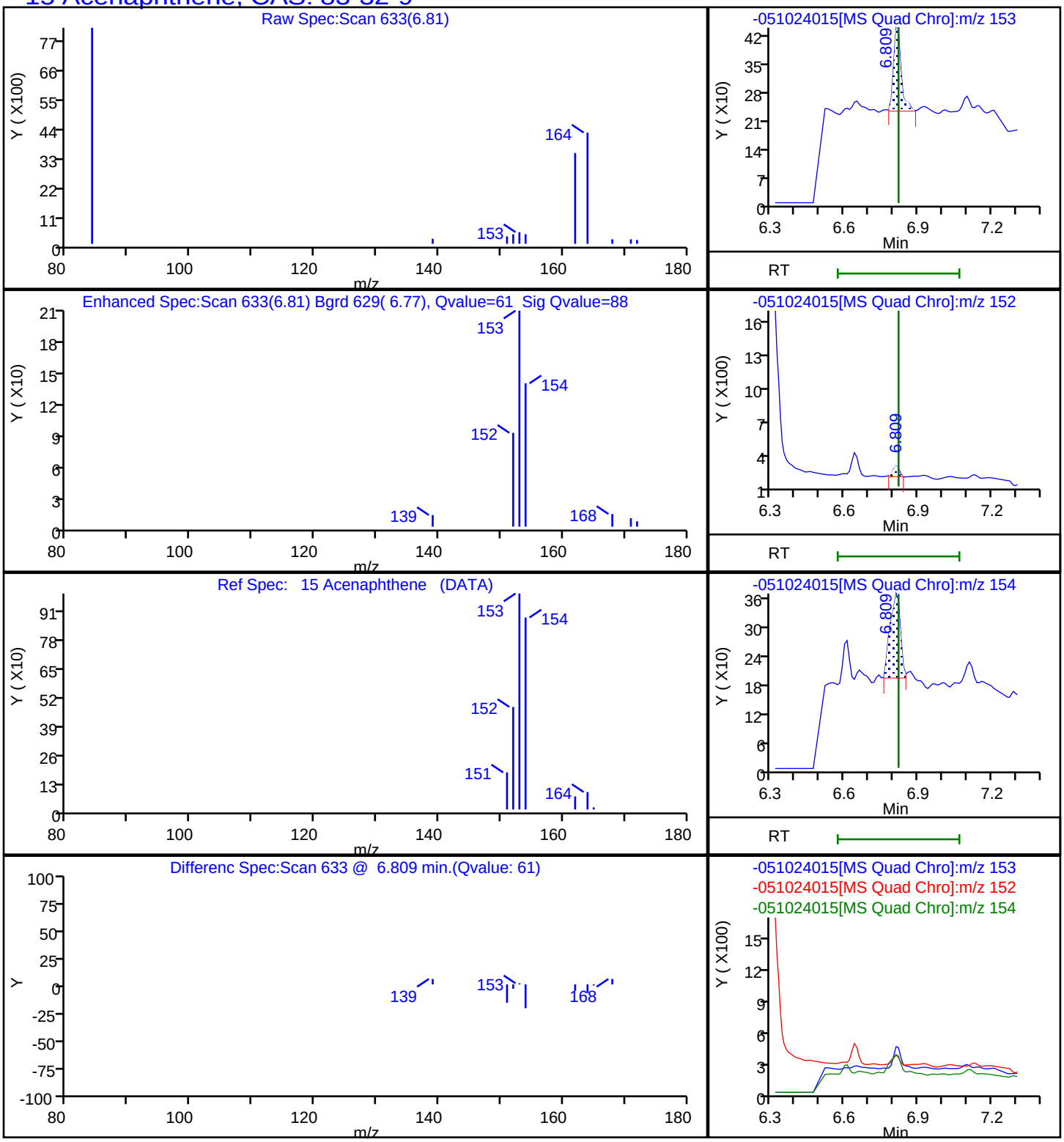
Report Date: 11-May-2024 12:01:56 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024015.D

Injection Date:	10-May-2024 12:33:05	Instrument ID:	SMS_2		
Lims ID:	280-191098-I-5-A	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

15 Acenaphthene, CAS: 83-32-9



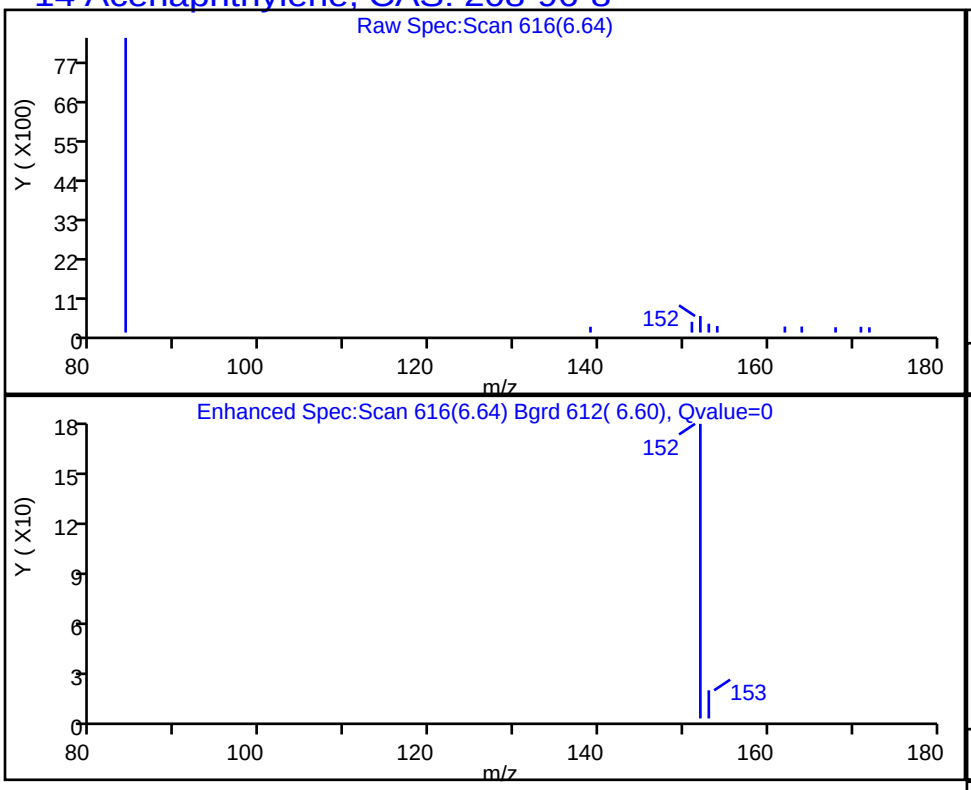
Report Date: 11-May-2024 12:01:56 Chrom Revision: 2.3 01-May-2024 15:52:26

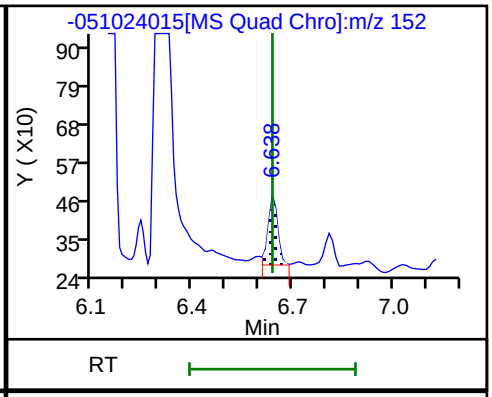
Eurofins Denver

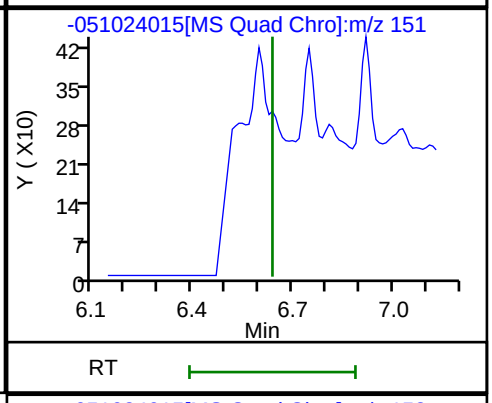
Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024015.D

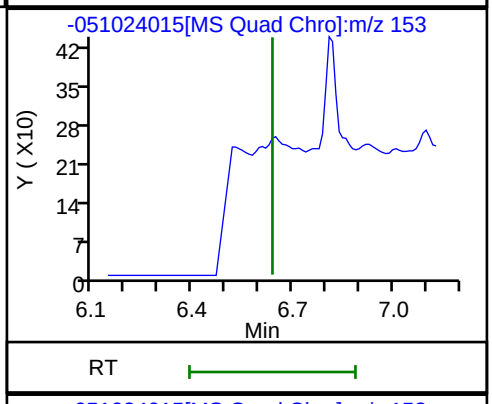
Injection Date:	10-May-2024 12:33:05	Instrument ID:	SMS_2
Lims ID:	280-191098-I-5-A	Lab Sample ID:	280-191098-5
Client ID:	DET-004-240401-GW		
Operator ID:	MB	ALS Bottle#:	0 Worklist Smp#: 16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN

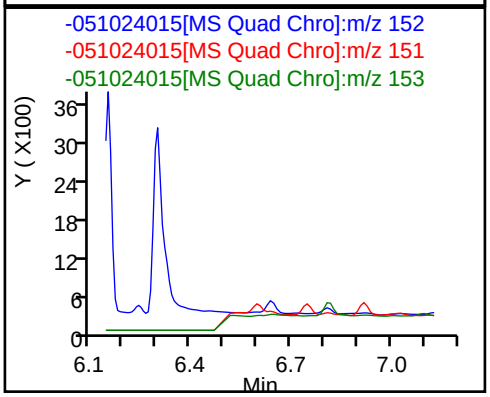
14 Acenaphthylene, CAS: 208-96-8











Manual Integration/User Assign Peak Report

Eurofins Denver

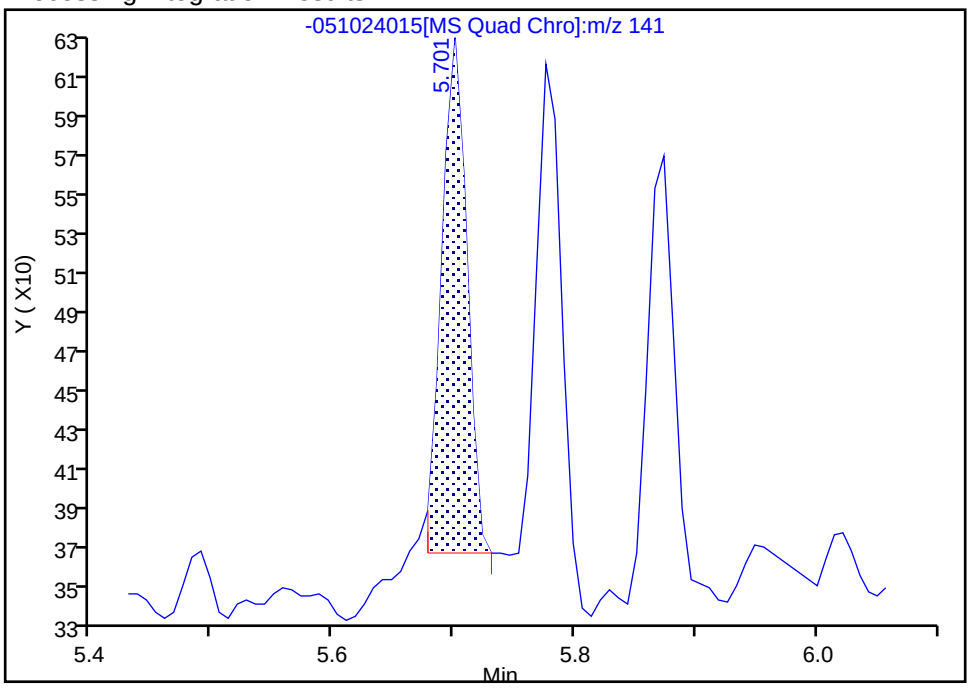
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024015.D				
Injection Date:	10-May-2024 12:33:05	Instrument ID:	SMS_2		
Lims ID:	280-191098-I-5-A	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

12 2-Methylnaphthalene, CAS: 91-57-6

Signal: 1

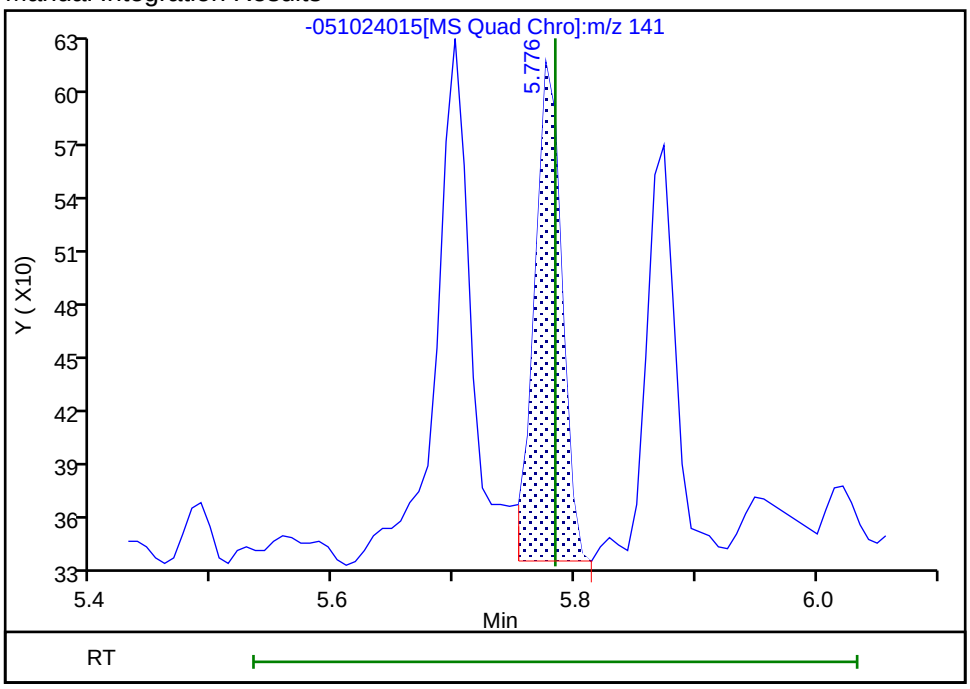
Processing Integration Results

RT: 5.70
Area: 369
Amount: 2.714783
Amount Units: ng/ml



Manual Integration Results

RT: 5.78
Area: 430
Amount: 3.163569
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:59:16 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

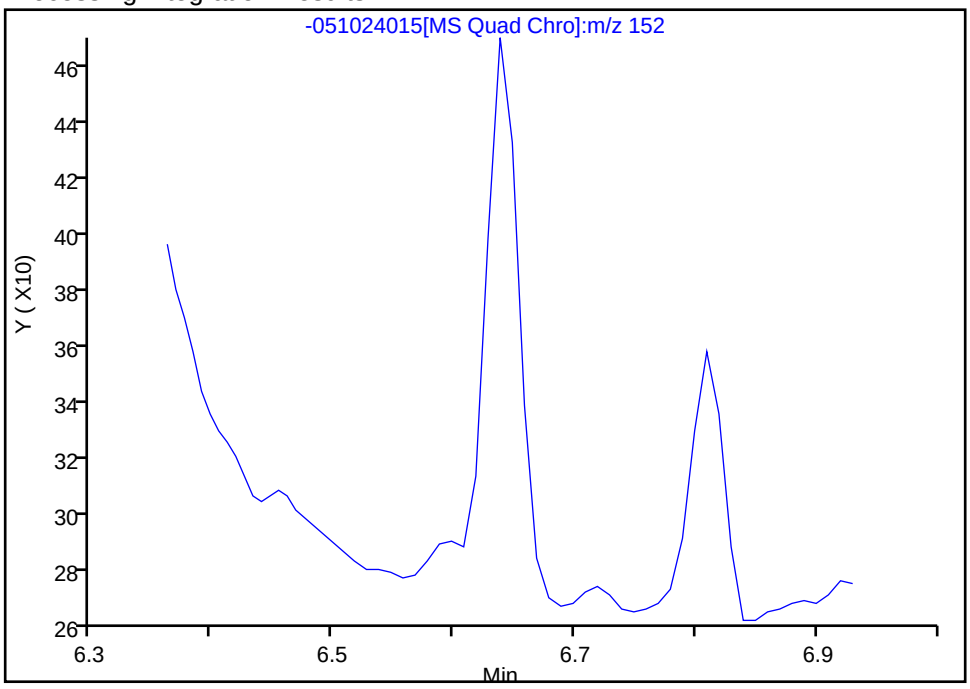
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024015.D				
Injection Date:	10-May-2024 12:33:05	Instrument ID:	SMS_2		
Lims ID:	280-191098-I-5-A	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

14 Acenaphthylene, CAS: 208-96-8

Signal: 1

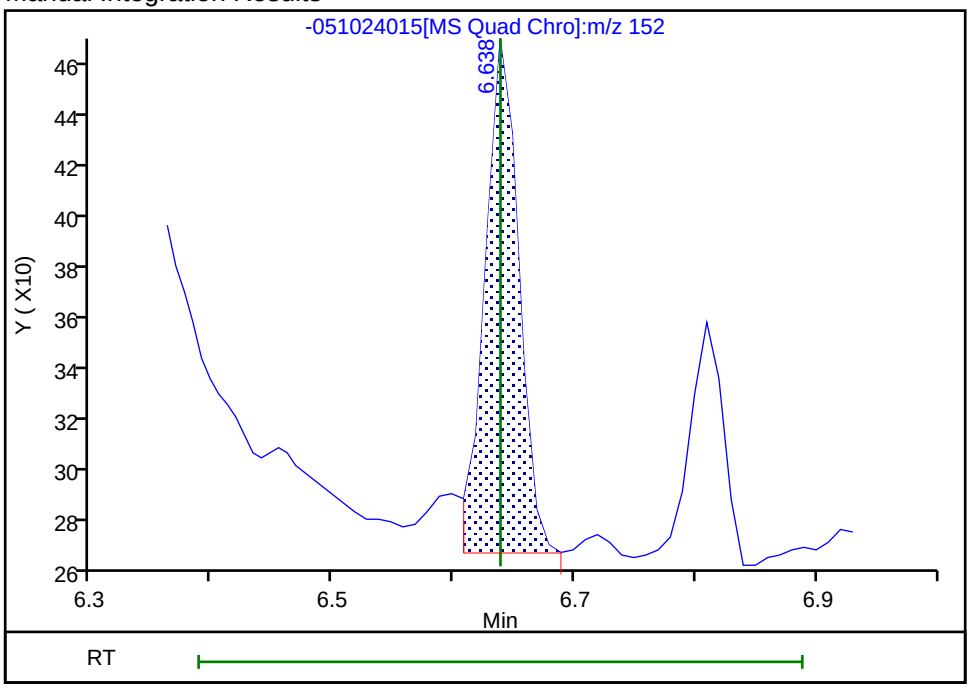
Not Detected
Expected RT: 6.64

Processing Integration Results



Manual Integration Results

RT: 6.64
Area: 394
Amount: 1.698163
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:59:18 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Eurofins Denver

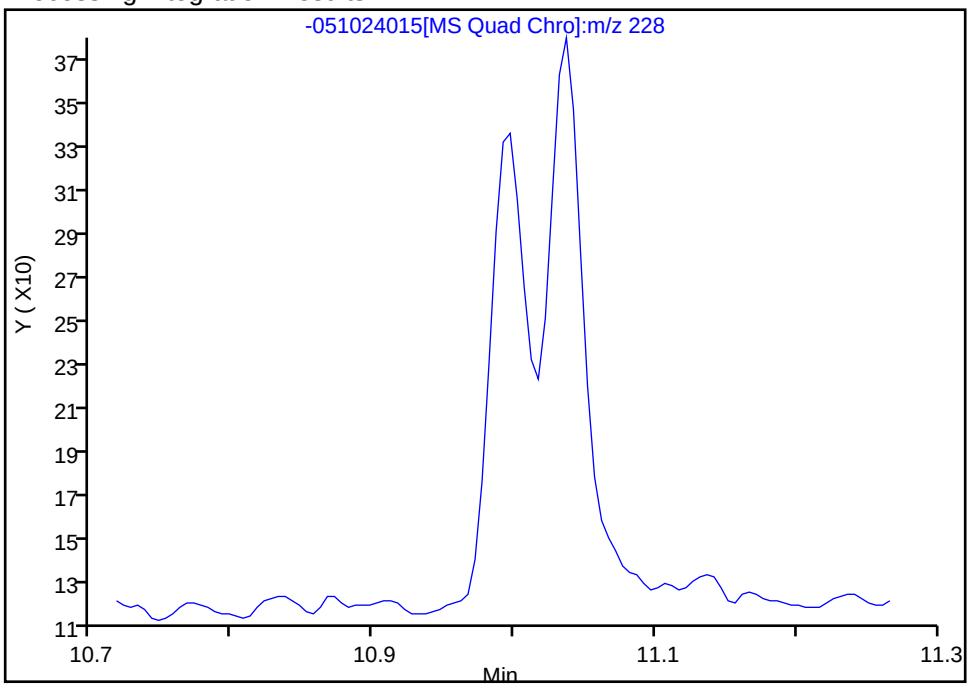
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024015.D				
Injection Date:	10-May-2024 12:33:05	Instrument ID:	SMS_2		
Lims ID:	280-191098-I-5-A	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

22 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

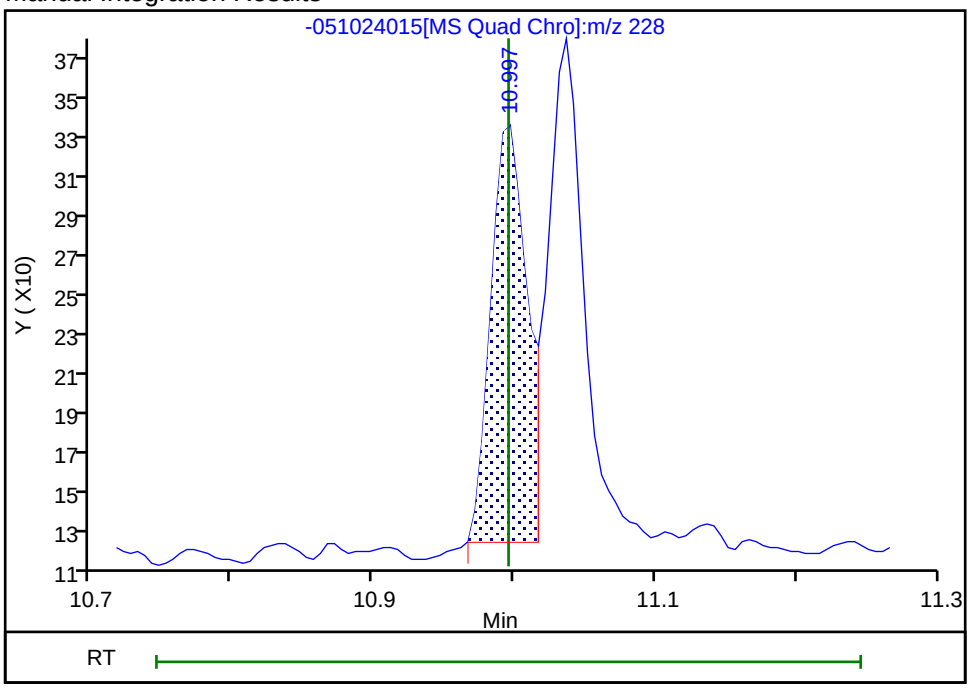
Not Detected
Expected RT: 11.00

Processing Integration Results



Manual Integration Results

RT: 11.00
Area: 387
Amount: 2.472768
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:59:30 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

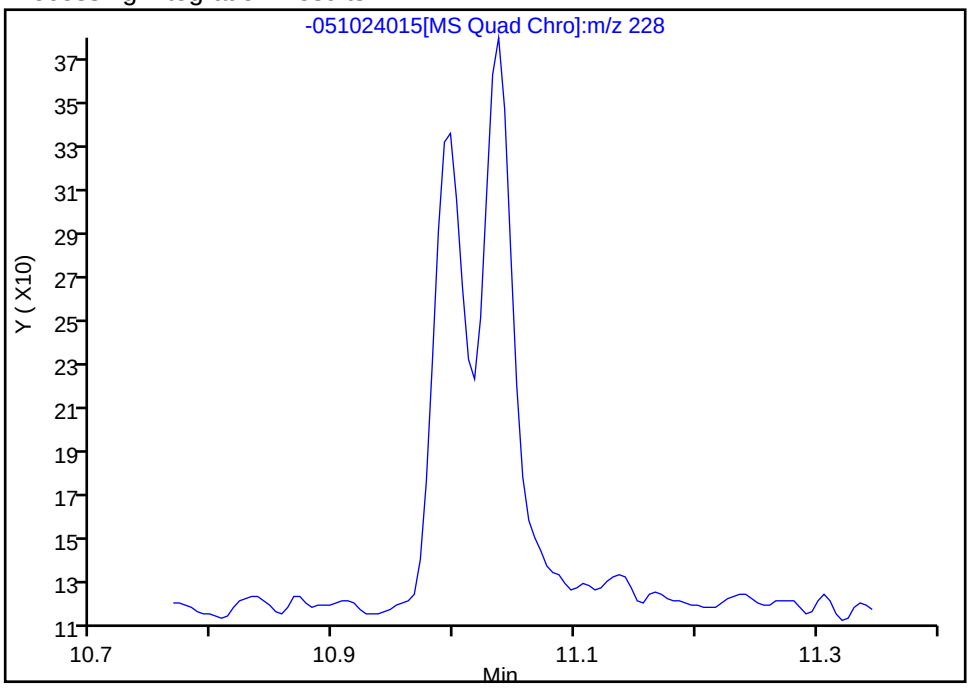
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024015.D				
Injection Date:	10-May-2024 12:33:05	Instrument ID:	SMS_2		
Lims ID:	280-191098-I-5-A	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

23 Chrysene, CAS: 218-01-9

Signal: 1

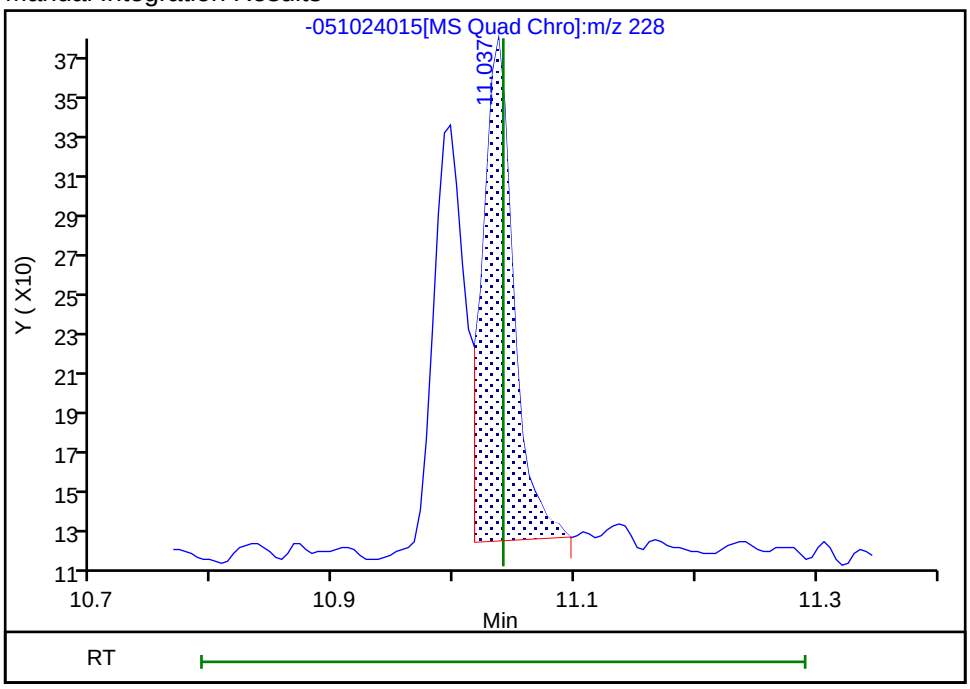
Not Detected
Expected RT: 11.04

Processing Integration Results



Manual Integration Results

RT: 11.04
Area: 461
Amount: 2.914463
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:59:31 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

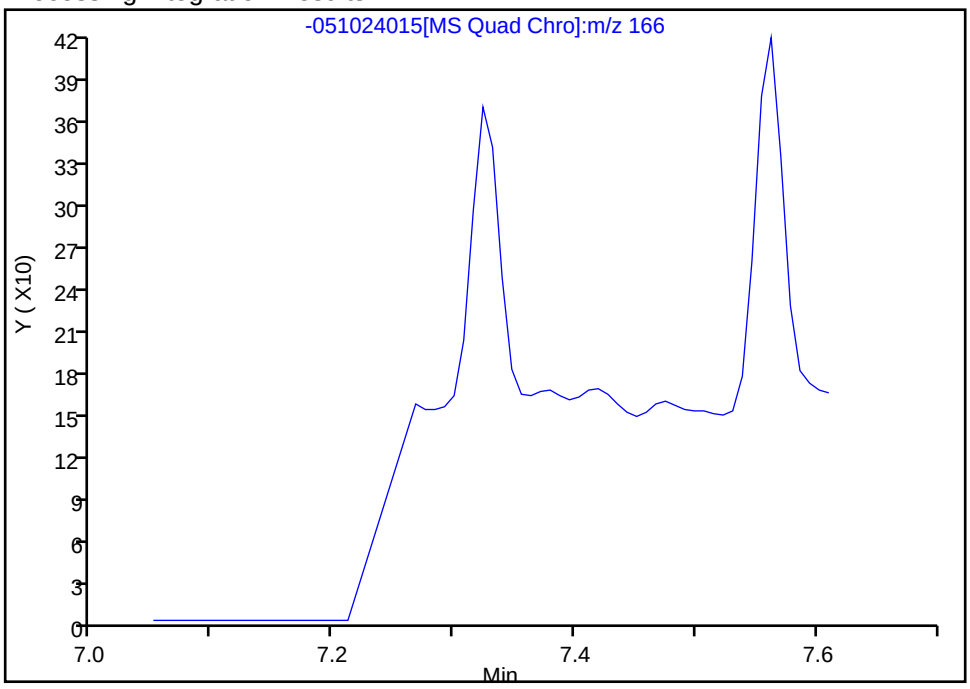
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024015.D				
Injection Date:	10-May-2024 12:33:05	Instrument ID:	SMS_2		
Lims ID:	280-191098-I-5-A	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

17 Fluorene, CAS: 86-73-7

Signal: 1

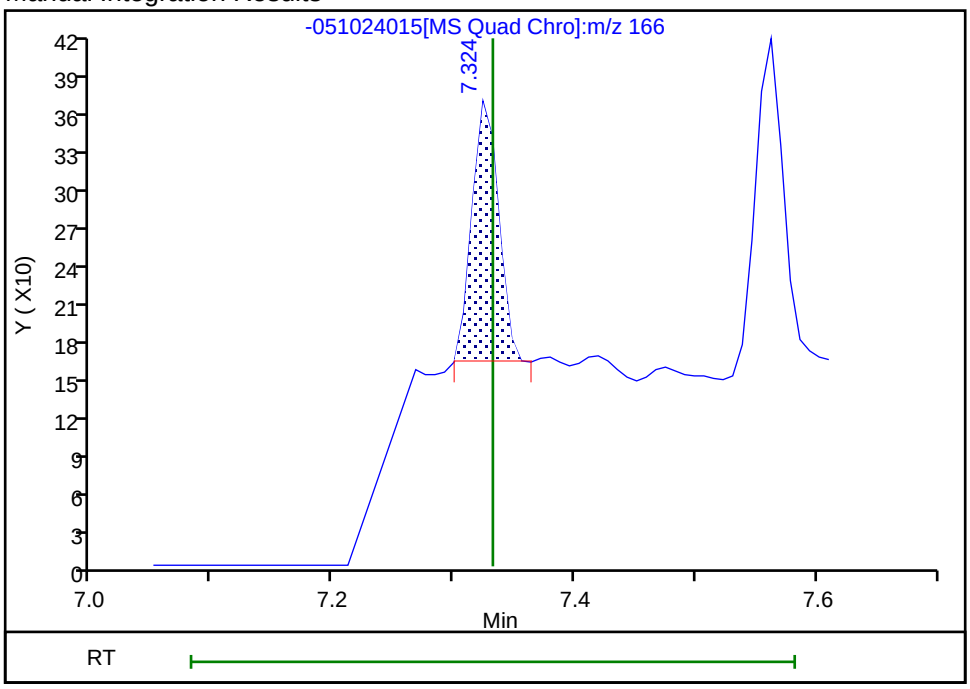
Not Detected
Expected RT: 7.33

Processing Integration Results



Manual Integration Results

RT: 7.32
Area: 318
Amount: 2.647662
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:59:26 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

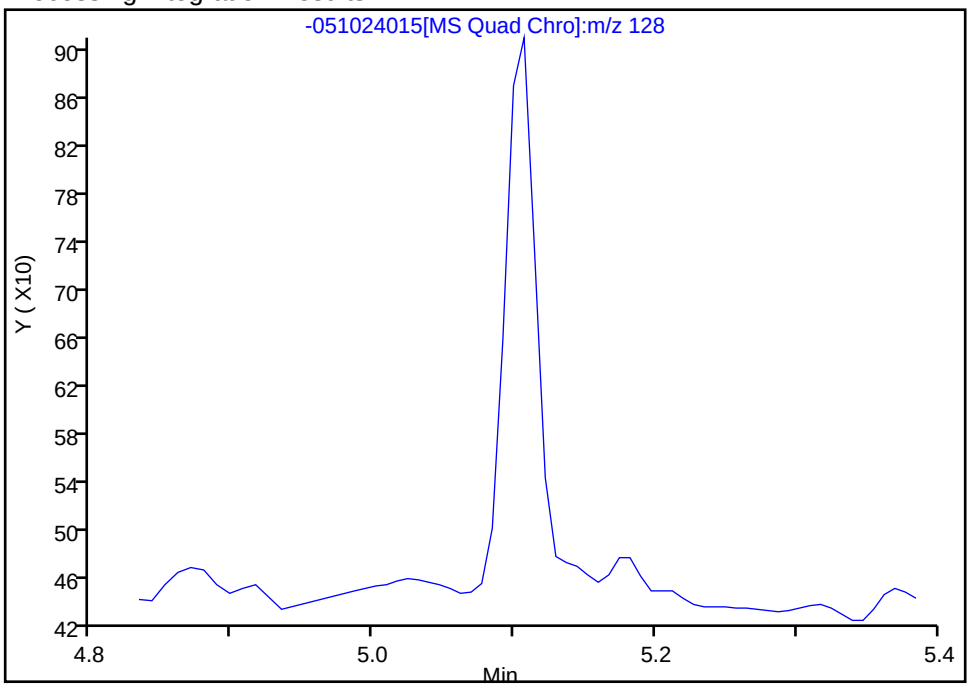
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024015.D				
Injection Date:	10-May-2024 12:33:05	Instrument ID:	SMS_2		
Lims ID:	280-191098-I-5-A	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

11 Naphthalene, CAS: 91-20-3

Signal: 1

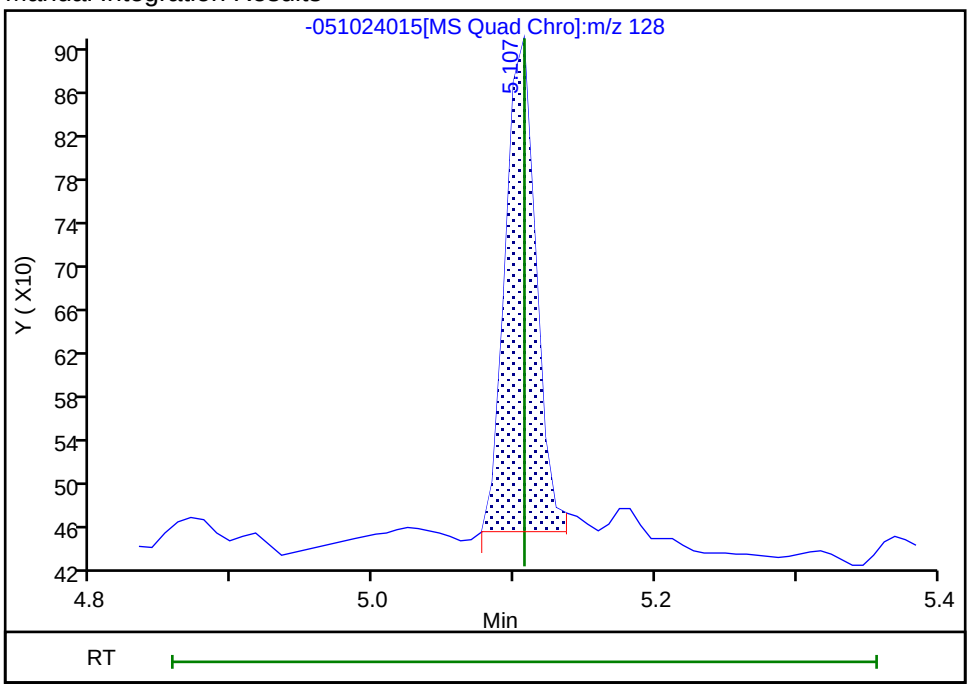
Not Detected
Expected RT: 5.11

Processing Integration Results



Manual Integration Results

RT: 5.11
Area: 670
Amount: 2.736887
Amount Units: ng/ml



Reviewer: FP7E, 11-May-2024 11:59:14 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 652518

SDG No.:

Instrument ID: SMS_2 GC Column: Rxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/08/2024 12:29 Calibration End Date: 05/08/2024 14:27 Calibration ID: 93097

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD20 280-652518/3	SMS_2-050824003.D
Level 2	STD50 280-652518/4	SMS_2-050824004.D
Level 3	STD100 280-652518/5	SMS_2-050824005.D
Level 4	ICIS 280-652518/2	SMS_2-050824002A.D
Level 5	STD1000 280-652518/6	SMS_2-050824006.D
Level 6	STD2500 280-652518/7	SMS_2-050824007.D
Level 7	STD5000 280-652518/8	SMS_2-050824008.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Naphthalene	1.9160 1.8085	2.0702 1.6593	1.8181	1.7597	2.0232	Ave		1.8650			0.7000	7.8		15.0			
2-Methylnaphthalene	1.0509 0.9974	1.1735 0.9365	1.0031	0.9675	1.1195	Ave		1.0355			0.4000	8.2		15.0			
1-Methylnaphthalene	1.1748 1.1234	1.2603 1.0483	1.0856	1.0529	1.2416	Ave		1.1410			0.0500	7.6		15.0			
Acenaphthylene	1.8237 1.7562	1.8935 1.6135	1.7127	1.6481	1.9253	Ave		1.7676			0.9000	6.7		15.0			
Acenaphthene	1.2532 1.1998	1.3340 1.1153	1.1480	1.1297	1.3262	Ave		1.2152			0.9000	7.5		15.0			
Fluorene	0.9050 0.8980	1.0688 0.8458	0.8863	0.8162	0.9850	Ave		0.9150			0.9000	9.4		15.0			
Phenanthrene	1.2751 1.1654	1.3218 1.0872	1.0771	1.0779	1.2669	Ave		1.1816			0.7000	8.9		15.0			
Anthracene	1.2250 1.1538	1.2765 1.0868	1.0465	1.0571	1.2592	Ave		1.1578			0.7000	8.4		15.0			
Fluoranthene	1.4855 1.2530	1.4845 1.1695	1.1965	1.1831	1.3975	Ave		1.3099			0.6000	10.8		15.0			
Pyrene	1.5415 1.3022	1.5546 1.2234	1.2578	1.2447	1.4316	Ave		1.3651			0.6000	10.4		15.0			
Benzo[a]anthracene	1.8879 1.6917	1.8397 1.6175	1.5193	1.5478	1.7746	Ave		1.6969			0.8000	8.4		15.0			
Chrysene	1.9185 1.7011	1.9061 1.6637	1.5487	1.4860	1.7813	Ave		1.7151			0.7000	9.7		15.0			
Benzo[b]fluoranthene	1.9607 1.7196	1.9618 1.6386	1.5719	1.5386	1.8335	Ave		1.7464			0.7000	10.1		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 652518

SDG No.:

Instrument ID: SMS_2 GC Column: Rxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/08/2024 12:29 Calibration End Date: 05/08/2024 14:27 Calibration ID: 93097

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Benzo[k]fluoranthene	1.9218 1.7595	1.9332 1.7430	1.6140	1.6023	1.8541	Ave		1.7754			0.7000	7.6		15.0			
Benzo[a]pyrene	1.6973 1.6370	1.7984 1.5778	1.4606	1.4734	1.7429	Ave		1.6268			0.7000	8.0		15.0			
Indeno[1,2,3-cd]pyrene	1.6066 1.6747	1.8004 1.6300	1.5139	1.5176	1.7694	Ave		1.6446			0.5000	6.8		15.0			
Dibenz(a,h)anthracene	1.4568 1.6096	1.6646 1.5616	1.3368	1.4339	1.6999	Ave		1.5376			0.4000	8.6		15.0			
Benzo[g,h,i]perylene	1.9377 1.7545	1.9562 1.7005	1.5393	1.5594	1.8728	Ave		1.7601			0.5000	9.7		15.0			
Nitrobenzene-d5 (Surr)	0.6524 0.7520	0.7675 0.7117	0.6679	0.6687	0.7939	Ave		0.7163				7.8		15.0			
2-methylnaphthalene-d10	1.0540 0.9932	1.1018 0.9261	0.9740	0.9503	1.1162	Ave		1.0165				7.4		15.0			
2-Fluorobiphenyl	1.7108 1.5349	1.8229 1.4374	1.5332	1.4912	1.7279	Ave		1.6083				9.0		15.0			
Fluoranthene-d10	0.9830 0.9141	1.0254 0.8744	0.8440	0.8445	0.9868	Ave		0.9246				8.0		15.0			
Terphenyl-d14 (Surr)	0.8164 0.6755	0.8119 0.6319	0.6615	0.6362	0.7478	Ave		0.7116				11.2		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 652518

SDG No.:

Instrument ID: SMS_2 | GC Column: Rxi-5Sil M ID: 0.25(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/08/2024 12:29 | Calibration End Date: 05/08/2024 14:27 | Calibration ID: 93097

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD20 280-652518/3	SMS_2-050824003.D
Level 2	STD50 280-652518/4	SMS_2-050824004.D
Level 3	STD100 280-652518/5	SMS_2-050824005.D
Level 4	ICIS 280-652518/2	SMS_2-050824002A.D
Level 5	STD1000 280-652518/6	SMS_2-050824006.D
Level 6	STD2500 280-652518/7	SMS_2-050824007.D
Level 7	STD5000 280-652518/8	SMS_2-050824008.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Naphthalene	ANT	Ave	5475 679062	15432 1268221	23517	126955	291113	20.0 2500	50.0 5000	100	500	1000
2-Methylnaphthalene	ANT	Ave	3003 374508	8748 715800	12975	69801	161089	20.0 2500	50.0 5000	100	500	1000
1-Methylnaphthalene	ANT	Ave	3357 421822	9395 801243	14042	75962	178659	20.0 2500	50.0 5000	100	500	1000
Acenaphthylene	ANT	Ave	5211 659410	14115 1233219	22154	118905	277036	20.0 2500	50.0 5000	100	500	1000
Acenaphthene	ANT	Ave	3581 450510	9944 852401	14850	81503	190829	20.0 2500	50.0 5000	100	500	1000
Fluorene	ANT	Ave	2586 337190	7967 646422	11464	58889	141730	20.0 2500	50.0 5000	100	500	1000
Phenanthrene	PHN	Ave	3739 473853	10221 898170	15057	83966	198037	20.0 2500	50.0 5000	100	500	1000
Anthracene	PHN	Ave	3592 469150	9871 897834	14630	82344	196823	20.0 2500	50.0 5000	100	500	1000
Fluoranthene	PHN	Ave	4356 509475	11479 966133	16726	92156	218441	20.0 2500	50.0 5000	100	500	1000
Pyrene	PHN	Ave	4520 529464	12021 1010663	17584	96960	223776	20.0 2500	50.0 5000	100	500	1000
Benzo[a]anthracene	CRY	Ave	4020 447448	10212 842608	15134	84568	190501	20.0 2500	50.0 5000	100	500	1000
Chrysene	CRY	Ave	4085 449928	10581 866681	15427	81190	191222	20.0 2500	50.0 5000	100	500	1000
Benzo[b]fluoranthene	CRY	Ave	4175 454827	10890 853588	15658	84066	196817	20.0 2500	50.0 5000	100	500	1000
Benzo[k]fluoranthene	CRY	Ave	4092 465388	10731 907977	16077	87545	199032	20.0 2500	50.0 5000	100	500	1000
Benzo[a]pyrene	CRY	Ave	3614 432965	9983 821926	14549	80504	187098	20.0 2500	50.0 5000	100	500	1000
Indeno[1,2,3-cd]pyrene	CRY	Ave	3421	9994	15080	82917	189936	20.0	50.0	100	500	1000

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 652518

SDG No.:

Instrument ID: SMS_2 | GC Column: Rxi-5Sil M ID: 0.25(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/08/2024 12:29 | Calibration End Date: 05/08/2024 14:27 | Calibration ID: 93097

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			442939	849113				2500	5000			
Dibenz(a,h)anthracene	CRY	Ave	3102 425733	9240 813477	13316	78346	182476	20.0 2500	50.0 5000	100	500	1000
Benzo[g,h,i]perylene	CRY	Ave	4126 464066	10859 885814	15333	85200	201045	20.0 2500	50.0 5000	100	500	1000
Nitrobenzene-d5 (Surr)	ANT	Ave	1866 282663	5727 544489	8648	48293	114354	20.0 2503	50.1 5005	100	501	1001
2-methylnaphthalene-d10	ANT	Ave	2975 368363	8113 699224	12445	67722	158651	19.8 2470	49.4 4939	98.8	494	988
2-Fluorobiphenyl	ANT	Ave	4887 576139	13585 1098279	19826	107553	248556	20.0 2499	50.0 4999	100.0	500	1000
Fluoranthene-d10	PHN	Ave	2882 371651	7928 722327	11798	65773	154228	20.0 2500	50.0 5000	100.0	500	1000
Terphenyl-d14 (Surr)	PHN	Ave	2394 274672	6278 522006	9247	49560	116895	20.0 2500	50.0 5000	100	500	1000

Curve Type Legend:
Ave = Average ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824002A.D
Lims ID: ICIS
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 08-May-2024 12:29:50 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS
Operator ID: MB Instrument ID: SMS_2
Sublist: chrom-SMS_2_8270SIM*sub1

Method: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 08-May-2024 14:51:49 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1681

First Level Reviewer: FP7E Date: 08-May-2024 12:52:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 Acenaphthene-d10	164	6.789	6.789	0.000	74	57717	400.0	400.0	
* 2 Phenanthrene-d10	188	8.248	8.248	0.000	98	62317	400.0	400.0	
* 3 Chrysene-d12	240	11.020	11.020	0.000	83	43710	400.0	400.0	
$ 4 Nitrobenzene-d5	82	4.419	4.419	0.000	95	48293	500.5	467.2	
$ 5 2-methylnaphthalene-d10	152	5.753	5.753	0.000	0	67722	493.9	461.7	
$ 6 2-Fluorobiphenyl	172	6.157	6.157	0.000	0	107553	499.9	463.5	
$ 7 Fluoranthene-d10	212	9.426	9.426	0.000	95	65773	500.0	456.6	
$ 8 Terphenyl-d14	244	9.859	9.859	0.000	0	49560	500.0	447.0	
38 1,4-Dioxane	88	1.501	1.501	0.000	0	15555	500.0	513.2	M
9 N-Nitrosodiethylamine	102	2.983	2.983	0.000	99	19741	501.8	468.4	
10 N-Nitrosodi-n-propylamine	70	4.290	4.290	0.000	88	30035	500.0	455.0	
11 Naphthalene	128	5.107	5.107	0.000	1	126955	500.0	471.8	
12 2-Methylnaphthalene	141	5.783	5.783	0.000	0	69801	500.0	467.2	
13 1-Methylnaphthalene	142	5.874	5.874	0.000	0	75962	500.0	461.4	
14 Acenaphthylene	152	6.648	6.648	0.000	0	118905	500.0	466.2	
15 Acenaphthene	153	6.819	6.819	0.000	98	81503	500.0	464.8	
16 Dibenzofuran	168	7.000	7.000	0.000	78	114321	500.0	463.5	
17 Fluorene	166	7.332	7.332	0.000	82	58889	500.0	446.0	
18 Phenanthrene	178	8.273	8.273	0.000	0	83966	500.0	456.1	
19 Anthracene	178	8.323	8.323	0.000	1	82344	500.0	456.5	
20 Fluoranthene	202	9.444	9.444	0.000	92	92156	500.0	451.6	
21 Pyrene	202	9.658	9.658	0.000	0	96960	500.0	455.9	
22 Benzo[a]anthracene	228	11.005	11.005	0.000	98	84568	500.0	456.1	
23 Chrysene	228	11.050	11.050	0.000	0	81190	500.0	433.2	
24 Benzo[b]fluoranthene	252	12.613	12.613	0.000	0	84066	500.0	440.5	
25 Benzo[k]fluoranthene	252	12.660	12.660	0.000	0	87545	500.0	451.2	
26 Benzo[a]pyrene	252	13.119	13.119	0.000	0	80504	500.0	452.9	
27 Indeno[1,2,3-cd]pyrene	276	14.401	14.401	0.000	1	82917	500.0	461.4	
28 Dibenz(a,h)anthracene	278	14.438	14.438	0.000	0	78346	500.0	466.3	
29 Benzo[g,h,i]perylene	276	14.645	14.645	0.000	0	85200	500.0	443.0	
30 Dimethyl phthalate	163		0.000				ND	ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
31 N-Nitrosodimethylamine	42		0.000				ND	ND	
32 N-Nitrosodiphenylamine	169		0.000				ND	ND	
33 Di-n-butyl phthalate	149		0.000				ND	ND	
34 Diethyl phthalate	149		0.000				ND	ND	
35 Butyl benzyl phthalate	149		0.000				ND	ND	
36 Di-n-octyl phthalate	149		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MS-SIM-CAL WS_00006	Amount Added: 50.00	Units: uL	
MS-SIM IS_00059	Amount Added: 100.00	Units: uL	Run Reagent

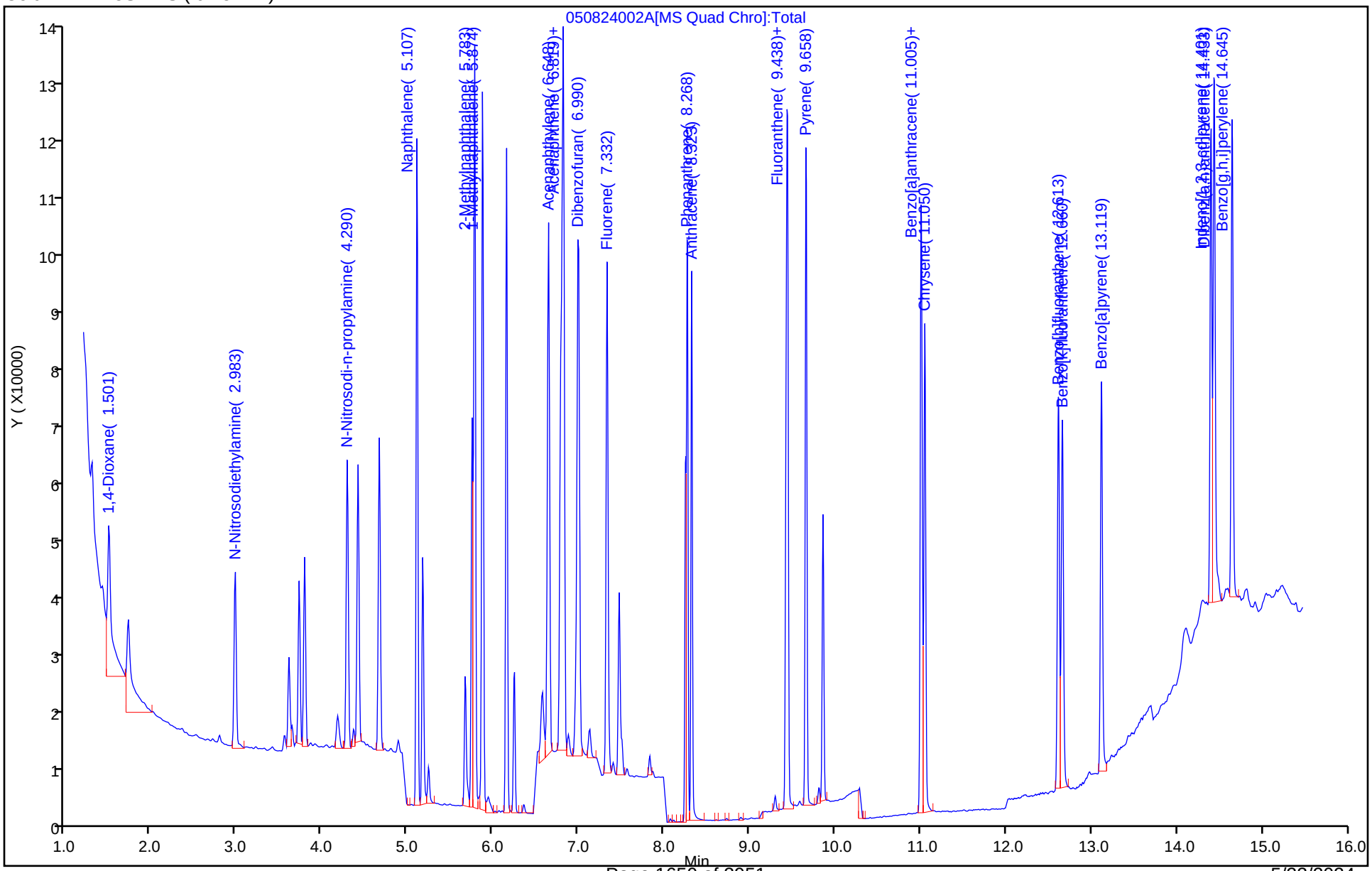
Report Date: 08-May-2024 14:51:49 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824002A.D

Injection Date:	08-May-2024 12:29:50	Instrument ID:	SMS_2	Operator ID:	MB
Lims ID:	ICIS			Worklist Smp#:	2
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

Column: Rxi-5Sil MS (0.25 mm)



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824003.D
Lims ID: STD20
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 08-May-2024 12:49:16 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD20
Operator ID: MB Instrument ID: SMS_2
Sublist: chrom-SMS_2_8270SIM*sub1

Method: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 08-May-2024 14:51:52 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1681

First Level Reviewer: FP7E Date: 08-May-2024 13:08:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 Acenaphthene-d10	164	6.789	6.789	0.000	74	57149	400.0	400.0	
* 2 Phenanthrene-d10	188	8.248	8.248	0.000	98	58645	400.0	400.0	
* 3 Chrysene-d12	240	11.012	11.020	-0.008	59	42586	400.0	400.0	
$ 4 Nitrobenzene-d5	82	4.419	4.419	0.000	94	1866	20.0	18.2	
$ 5 2-methylnaphthalene-d10	152	5.753	5.753	0.000	0	2975	19.8	20.5	
$ 6 2-Fluorobiphenyl	172	6.157	6.157	0.000	0	4887	20.0	21.3	
$ 7 Fluoranthene-d10	212	9.421	9.426	-0.005	93	2882	20.0	21.3	
$ 8 Terphenyl-d14	244	9.854	9.859	-0.005	0	2394	20.0	22.9	
38 1,4-Dioxane	88		1.501				ND	ND	
9 N-Nitrosodiethylamine	102	2.983	2.983	0.000	82	849	20.1	20.3	
10 N-Nitrosodi-n-propylamine	70	4.290	4.290	0.000	91	1264	20.0	19.3	a
11 Naphthalene	128	5.107	5.107	0.000	1	5475	20.0	20.5	
12 2-Methylnaphthalene	141	5.784	5.783	0.001	0	3003	20.0	20.3	
13 1-Methylnaphthalene	142	5.874	5.874	0.000	0	3357	20.0	20.6	
14 Acenaphthylene	152	6.648	6.648	0.000	0	5211	20.0	20.6	
15 Acenaphthene	153	6.819	6.819	0.000	89	3581	20.0	20.6	
16 Dibenzofuran	168	7.001	7.000	0.001	76	5009	20.0	20.5	
17 Fluorene	166	7.332	7.332	0.000	82	2586	20.0	19.8	M
18 Phenanthrene	178	8.268	8.273	-0.005	0	3739	20.0	21.6	
19 Anthracene	178	8.318	8.323	-0.005	1	3592	20.0	21.2	
20 Fluoranthene	202	9.440	9.444	-0.004	93	4356	20.0	22.7	
21 Pyrene	202	9.660	9.658	0.002	0	4520	20.0	22.6	
22 Benzo[a]anthracene	228	11.002	11.005	-0.003	24	4020	20.0	22.3	
23 Chrysene	228	11.047	11.050	-0.003	0	4085	20.0	22.4	
24 Benzo[b]fluoranthene	252	12.608	12.613	-0.005	0	4175	20.0	22.5	a
25 Benzo[k]fluoranthene	252	12.655	12.660	-0.005	0	4092	20.0	21.6	a
26 Benzo[a]pyrene	252	13.113	13.119	-0.006	0	3614	20.0	20.9	a
27 Indeno[1,2,3-cd]pyrene	276	14.393	14.401	-0.008	1	3421	20.0	19.5	a
28 Dibenz(a,h)anthracene	278	14.436	14.438	-0.002	0	3102	20.0	18.9	a
29 Benzo[g,h,i]perylene	276	14.642	14.645	-0.003	0	4126	20.0	22.0	a
30 Dimethyl phthalate	163		0.000				ND	ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
31 N-Nitrosodimethylamine	42		0.000				ND	ND	
32 N-Nitrosodiphenylamine	169		0.000				ND	ND	
33 Di-n-butyl phthalate	149		0.000				ND	ND	
34 Diethyl phthalate	149		0.000				ND	ND	
35 Butyl benzyl phthalate	149		0.000				ND	ND	
36 Di-n-octyl phthalate	149		0.000				ND	ND	
S 44 TPAH	1				0			380.6	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-SIM-CAL WS_00006	Amount Added: 2.00	Units: uL	
MS-SIM IS_00059	Amount Added: 100.00	Units: uL	Run Reagent

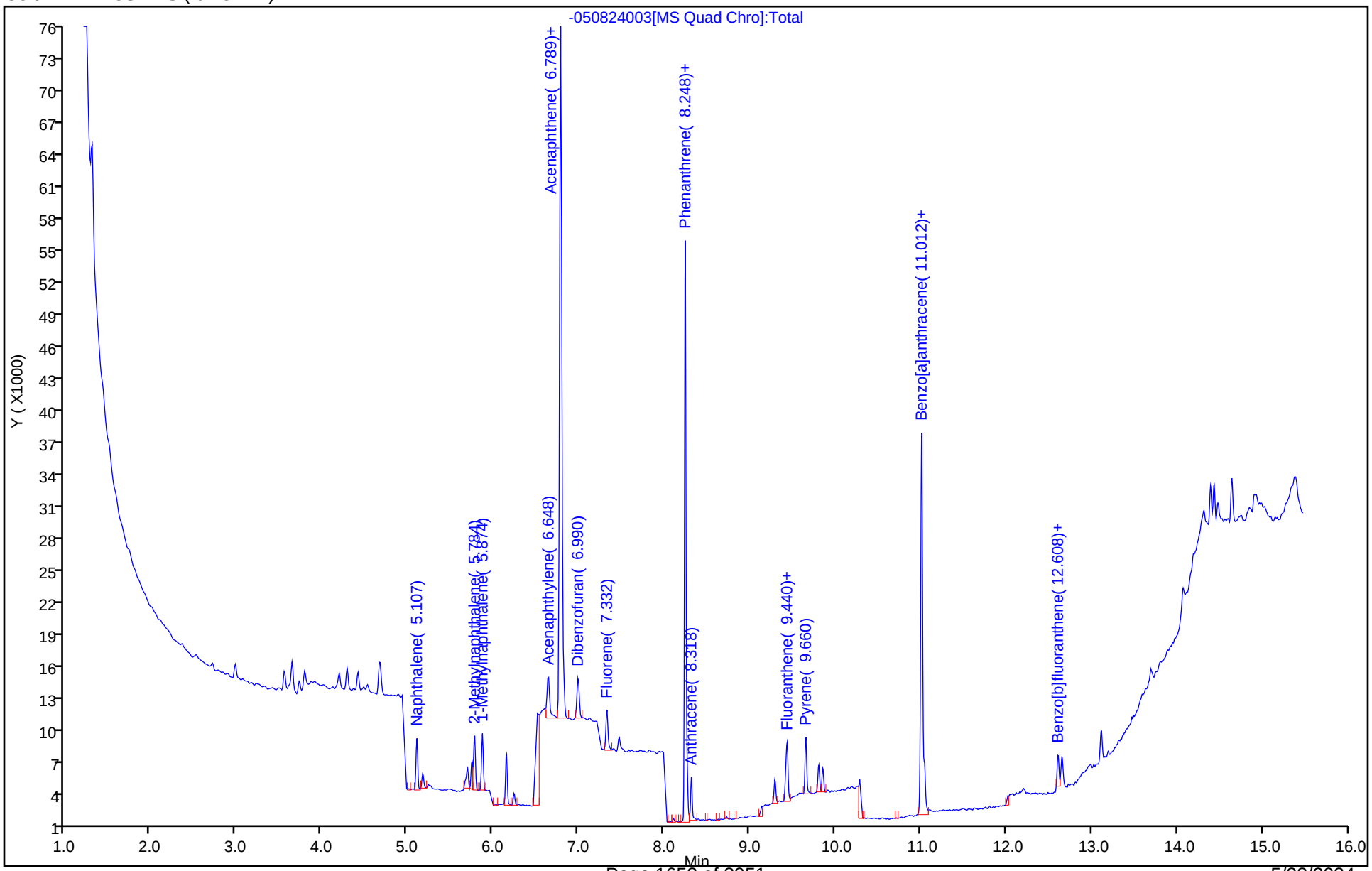
Report Date: 08-May-2024 14:51:52 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824003.D

Injection Date:	08-May-2024 12:49:16	Instrument ID:	SMS_2	Operator ID:	MB
Lims ID:	STD20			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

Column: Rxi-5Sil MS (0.25 mm)



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

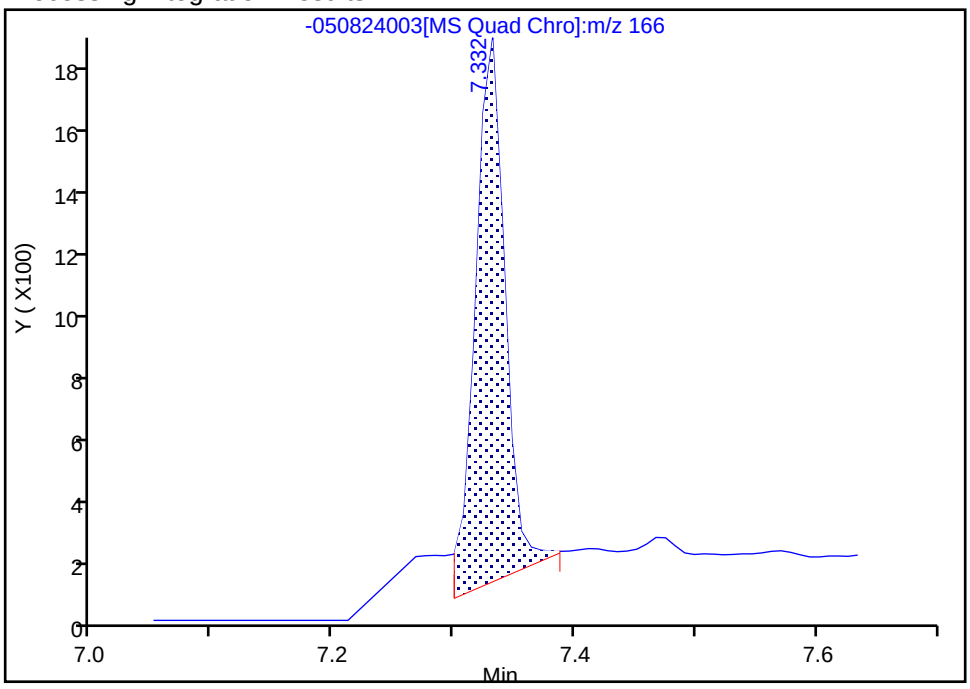
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824003.D				
Injection Date:	08-May-2024 12:49:16	Instrument ID:	SMS_2		
Lims ID:	STD20				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

17 Fluorene, CAS: 86-73-7

Signal: 1

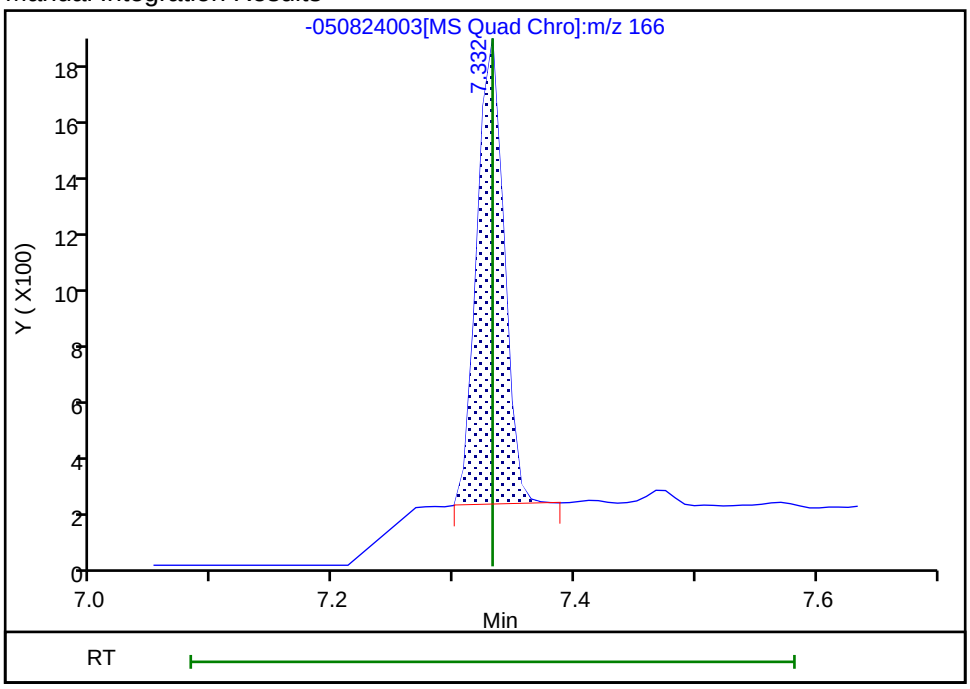
Processing Integration Results

RT: 7.33
Area: 3027
Amount: 20.000000
Amount Units: ng/ml



Manual Integration Results

RT: 7.33
Area: 2586
Amount: 19.781353
Amount Units: ng/ml



Reviewer: FP7E, 08-May-2024 13:07:55 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

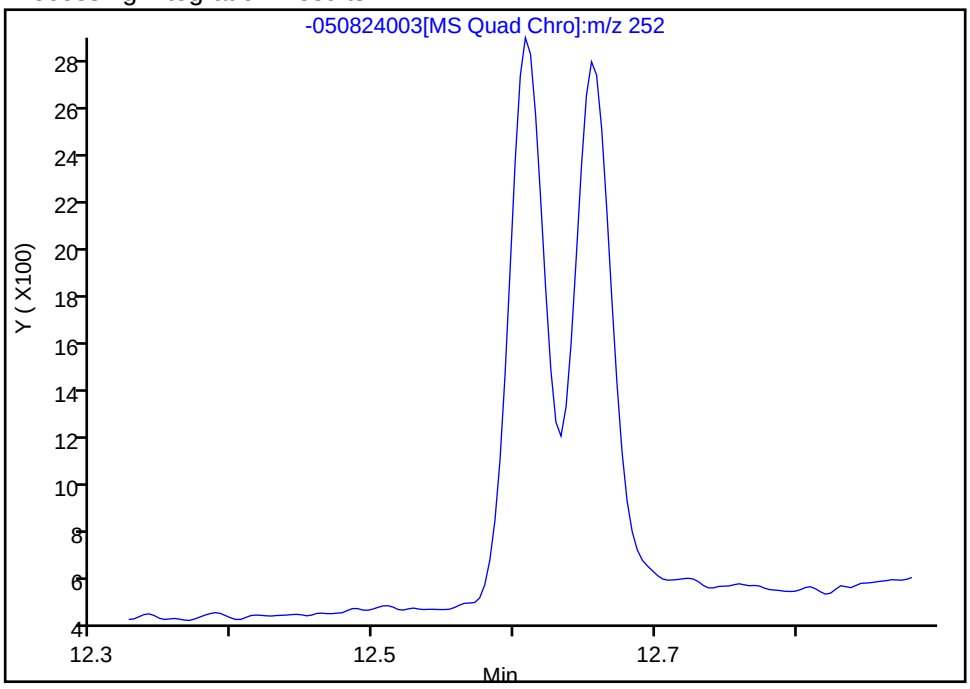
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824003.D				
Injection Date:	08-May-2024 12:49:16	Instrument ID:	SMS_2		
Lims ID:	STD20				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

24 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

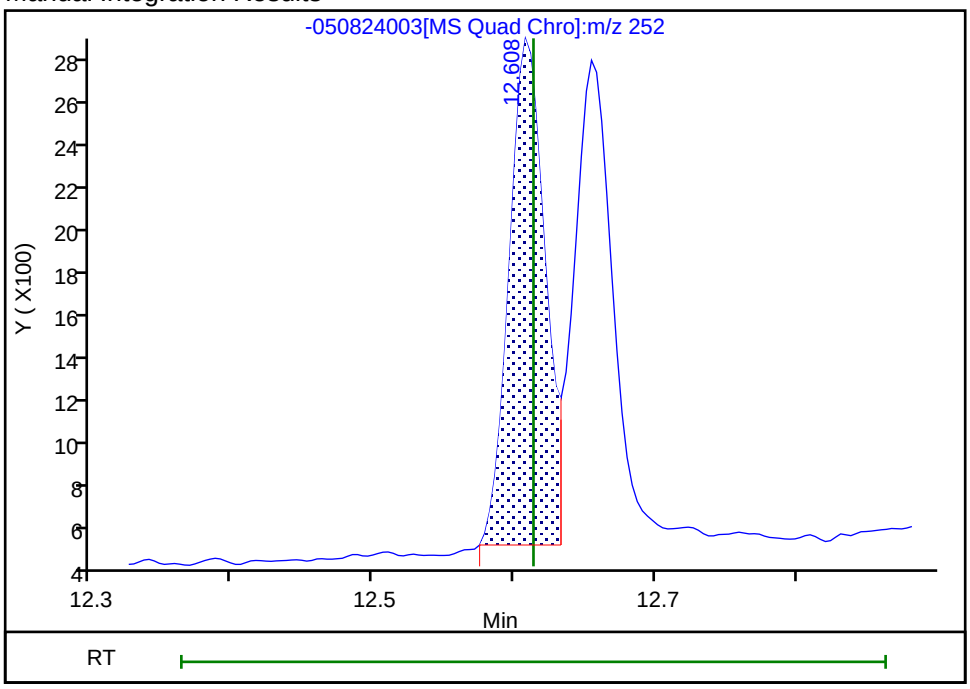
Not Detected
Expected RT: 12.61

Processing Integration Results



Manual Integration Results

RT: 12.61
Area: 4175
Amount: 22.454700
Amount Units: ng/ml



Reviewer: FP7E, 08-May-2024 13:08:02 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline

Eurofins Denver

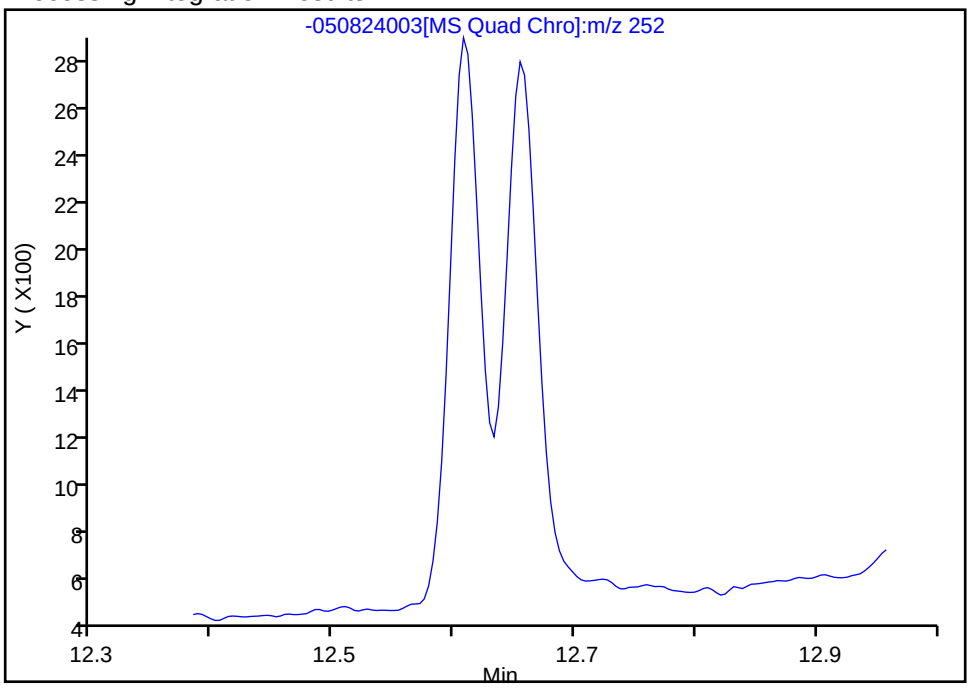
Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824003.D
Injection Date: 08-May-2024 12:49:16 Instrument ID: SMS_2
Lims ID: STD20
Client ID:
Operator ID: MB ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_2_8270SIM Limit Group: MSSV - 8270C-SIM
Column: Rxi-5Sil MS (0.25 mm) Detector MS SCAN

25 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

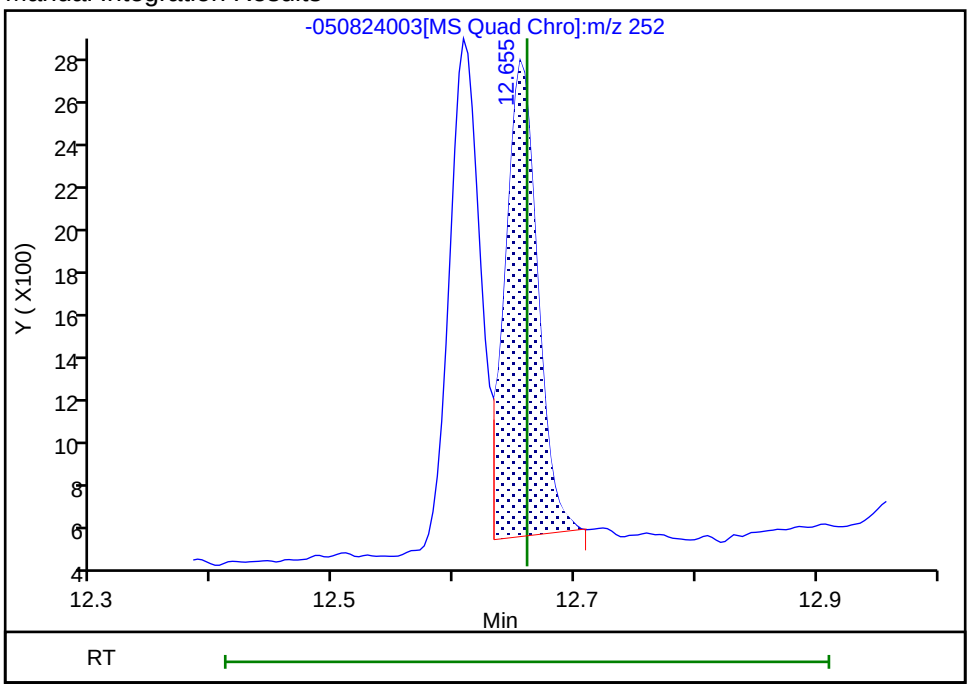
Not Detected
Expected RT: 12.66

Processing Integration Results



Manual Integration Results

RT: 12.65
Area: 4092
Amount: 21.648652
Amount Units: ng/ml



Reviewer: FP7E, 08-May-2024 13:08:03 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline

Eurofins Denver

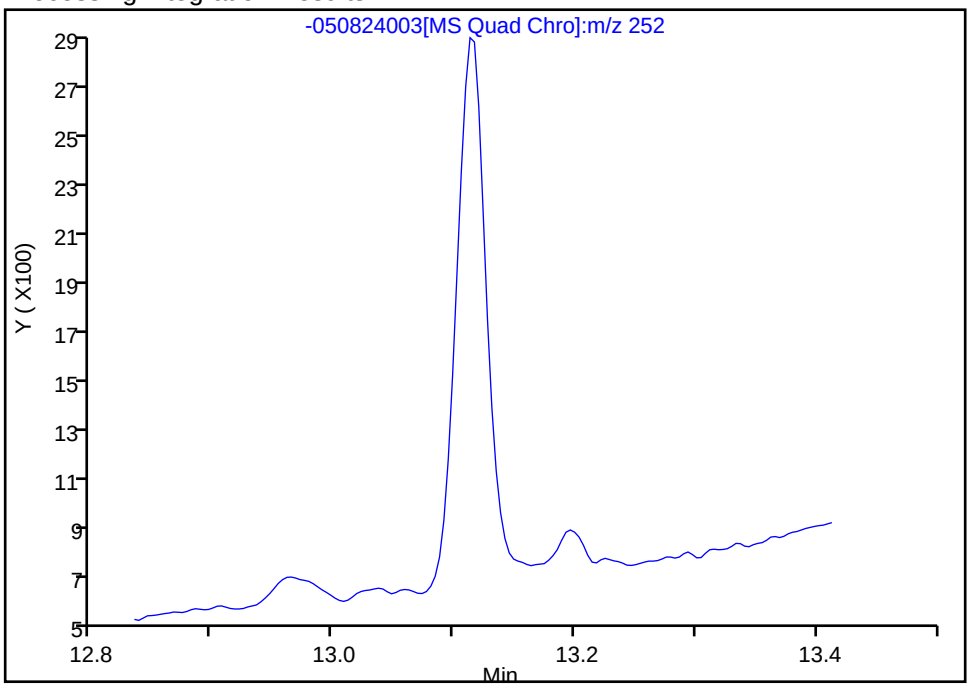
Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824003.D
Injection Date: 08-May-2024 12:49:16 Instrument ID: SMS_2
Lims ID: STD20
Client ID:
Operator ID: MB ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_2_8270SIM Limit Group: MSSV - 8270C-SIM
Column: Rxi-5Sil MS (0.25 mm) Detector MS SCAN

26 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

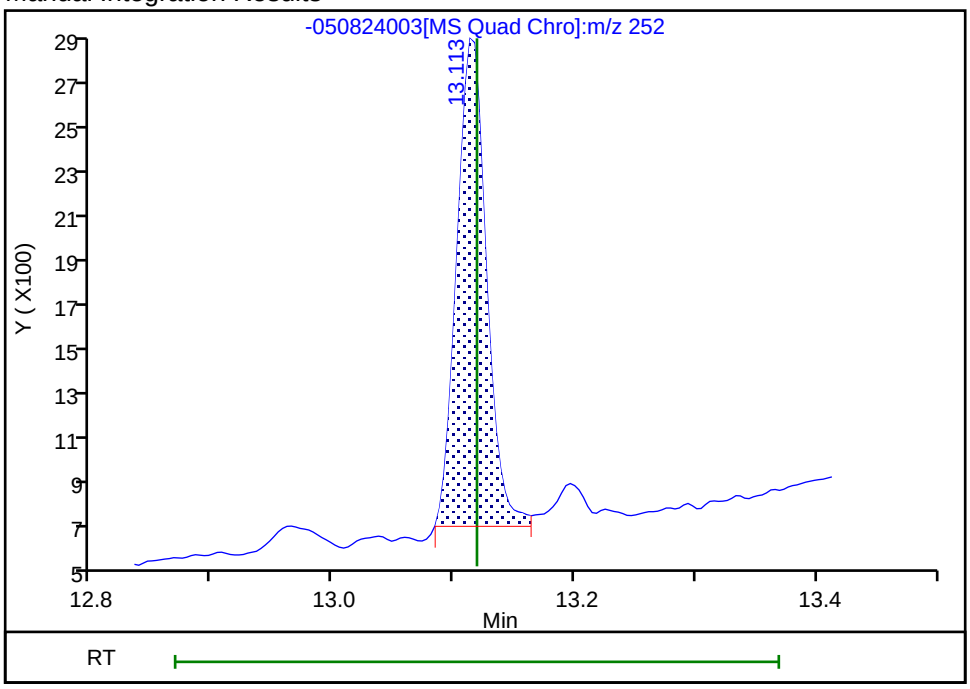
Not Detected
Expected RT: 13.12

Processing Integration Results



Manual Integration Results

RT: 13.11
Area: 3614
Amount: 20.866748
Amount Units: ng/ml



Reviewer: FP7E, 08-May-2024 13:08:04 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

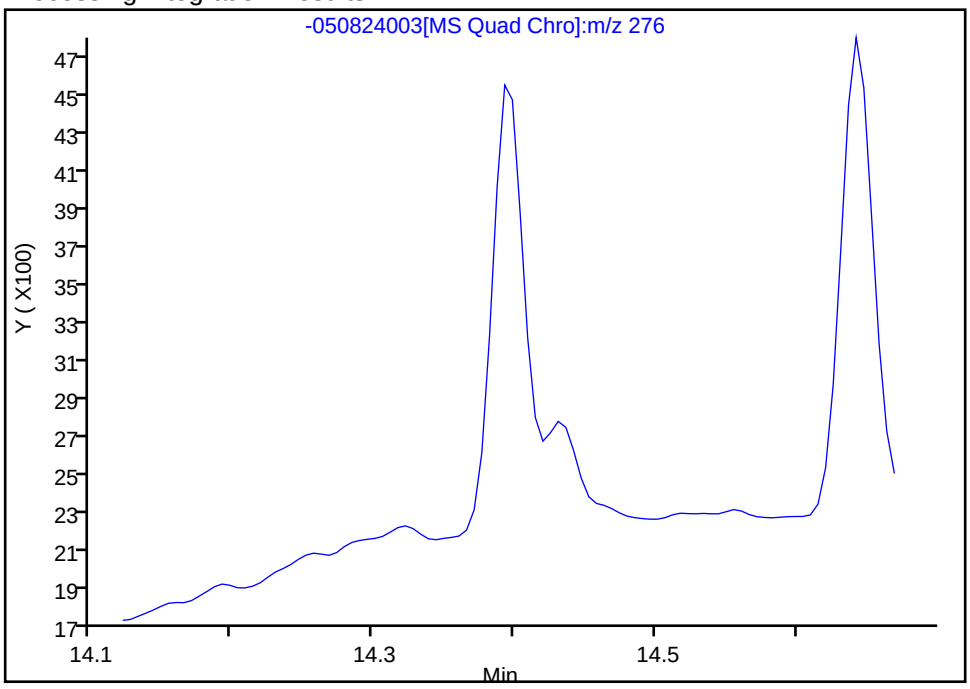
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824003.D				
Injection Date:	08-May-2024 12:49:16	Instrument ID:	SMS_2		
Lims ID:	STD20				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

27 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

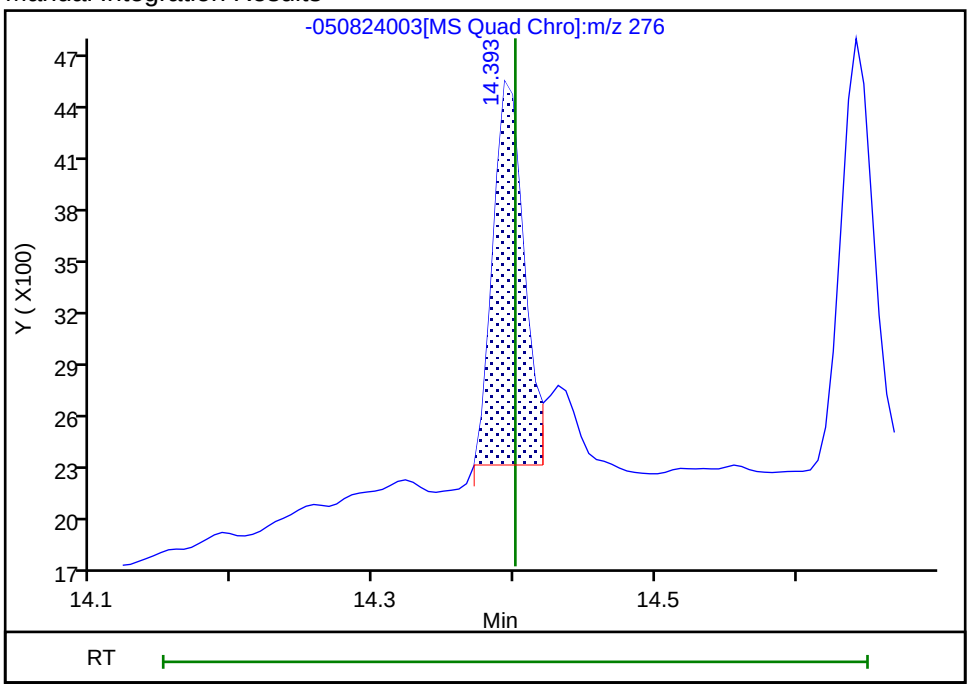
Not Detected
Expected RT: 14.40

Processing Integration Results



Manual Integration Results

RT: 14.39
Area: 3421
Amount: 19.537669
Amount Units: ng/ml



Reviewer: FP7E, 08-May-2024 13:08:06 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

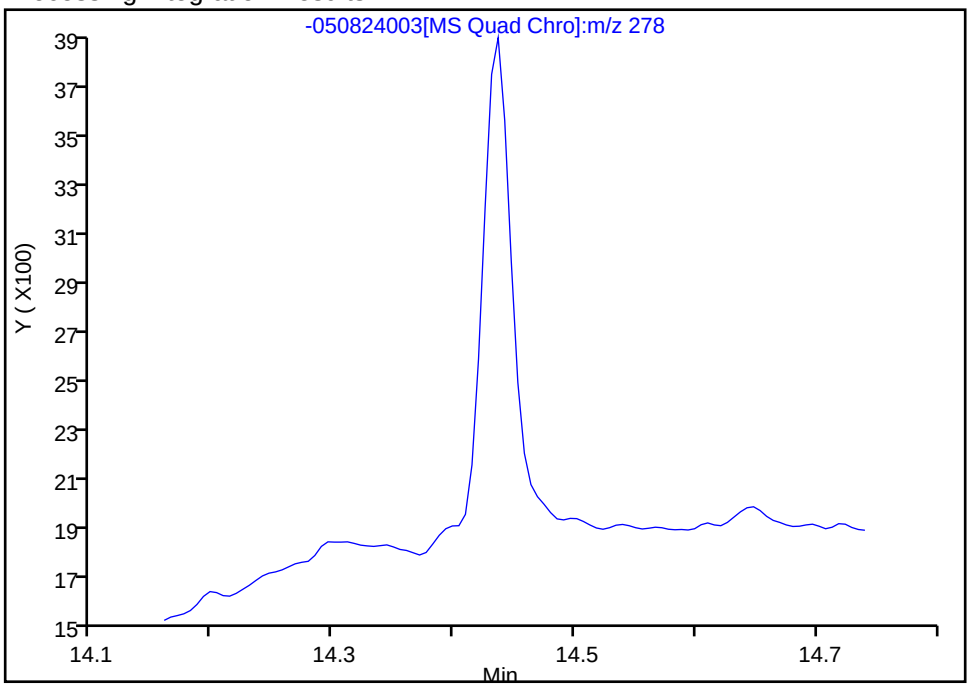
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824003.D				
Injection Date:	08-May-2024 12:49:16	Instrument ID:	SMS_2		
Lims ID:	STD20				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

28 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

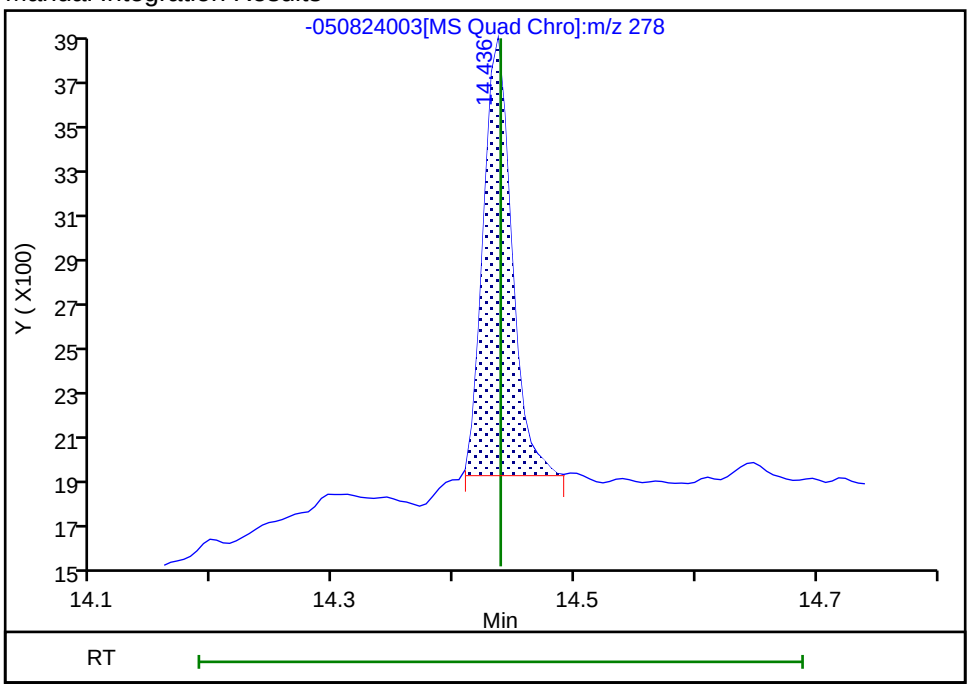
Not Detected
Expected RT: 14.44

Processing Integration Results



Manual Integration Results

RT: 14.44
Area: 3102
Amount: 18.949235
Amount Units: ng/ml



Reviewer: FP7E, 08-May-2024 13:08:07 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

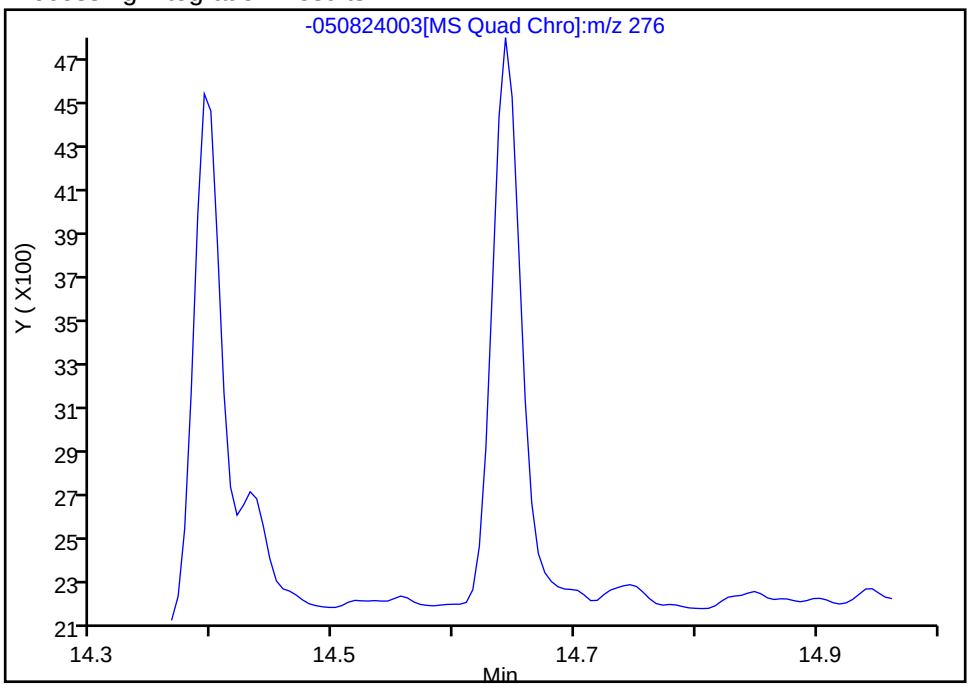
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824003.D				
Injection Date:	08-May-2024 12:49:16	Instrument ID:	SMS_2		
Lims ID:	STD20				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

29 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

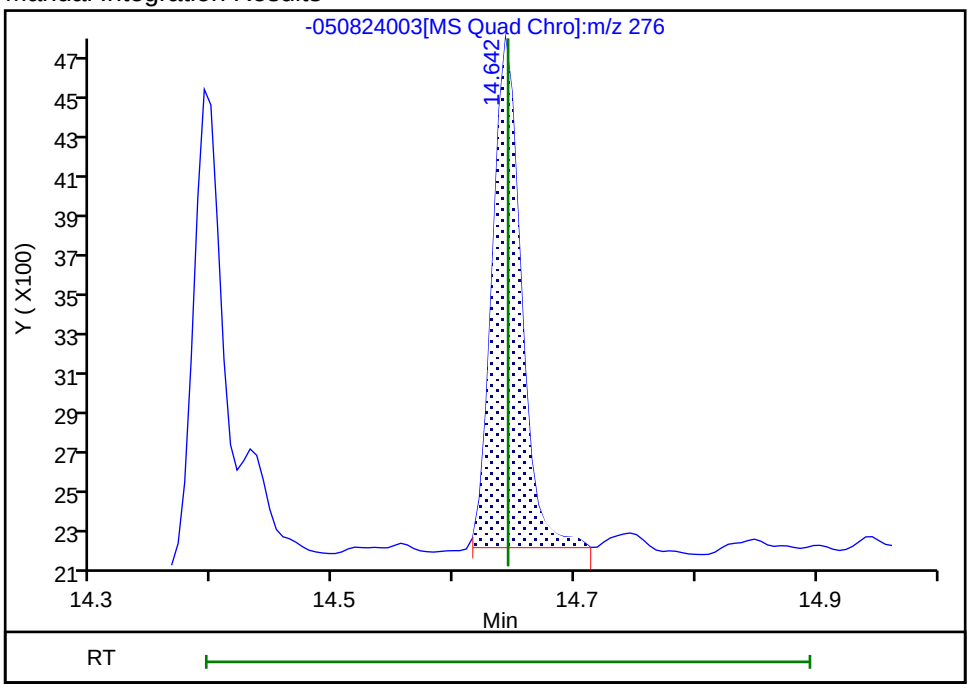
Not Detected
Expected RT: 14.64

Processing Integration Results



Manual Integration Results

RT: 14.64
Area: 4126
Amount: 22.018769
Amount Units: ng/ml



Reviewer: FP7E, 08-May-2024 13:08:09 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824004.D
Lims ID: STD50
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 08-May-2024 13:08:44 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD50
Operator ID: MB Instrument ID: SMS_2
Sublist: chrom-SMS_2_8270SIM*sub1

Method: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 08-May-2024 14:51:54 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1681

First Level Reviewer: FP7E Date: 08-May-2024 13:34:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 Acenaphthene-d10	164	6.789	6.789	0.000	75	59636	400.0	400.0	
* 2 Phenanthrene-d10	188	8.248	8.248	0.000	98	61862	400.0	400.0	
* 3 Chrysene-d12	240	11.010	11.020	-0.010	62	44408	400.0	400.0	
$ 4 Nitrobenzene-d5	82	4.419	4.419	0.000	95	5727	50.1	53.6	
$ 5 2-methylnaphthalene-d10	152	5.753	5.753	0.000	0	8113	49.4	53.5	
$ 6 2-Fluorobiphenyl	172	6.157	6.157	0.000	0	13585	50.0	56.7	
$ 7 Fluoranthene-d10	212	9.419	9.426	-0.007	94	7928	50.0	55.4	
$ 8 Terphenyl-d14	244	9.853	9.859	-0.006	0	6278	50.0	57.0	
38 1,4-Dioxane	88	1.509	1.501	0.008	0	1227	50.0	39.2	M
9 N-Nitrosodiethylamine	102	2.982	2.983	-0.001	96	2347	50.2	53.9	
10 N-Nitrosodi-n-propylamine	70	4.290	4.290	0.000	90	3717	50.0	54.5	
11 Naphthalene	128	5.106	5.107	-0.001	1	15432	50.0	55.5	
12 2-Methylnaphthalene	141	5.783	5.783	0.000	0	8748	50.0	56.7	
13 1-Methylnaphthalene	142	5.873	5.874	-0.001	0	9395	50.0	55.2	
14 Acenaphthylene	152	6.648	6.648	0.000	0	14115	50.0	53.6	
15 Acenaphthene	153	6.819	6.819	0.000	81	9944	50.0	54.9	
16 Dibenzofuran	168	6.990	7.000	-0.010	71	13846	50.0	54.3	
17 Fluorene	166	7.332	7.332	0.000	83	7967	50.0	58.4	
18 Phenanthrene	178	8.268	8.273	-0.005	0	10221	50.0	55.9	
19 Anthracene	178	8.318	8.323	-0.005	1	9871	50.0	55.1	
20 Fluoranthene	202	9.438	9.444	-0.006	93	11479	50.0	56.7	
21 Pyrene	202	9.658	9.658	0.000	0	12021	50.0	56.9	
22 Benzo[a]anthracene	228	11.000	11.005	-0.005	44	10212	50.0	54.2	
23 Chrysene	228	11.045	11.050	-0.005	0	10581	50.0	55.6	
24 Benzo[b]fluoranthene	252	12.606	12.613	-0.007	0	10890	50.0	56.2	a
25 Benzo[k]fluoranthene	252	12.653	12.660	-0.007	0	10731	50.0	54.4	a
26 Benzo[a]pyrene	252	13.112	13.119	-0.007	0	9983	50.0	55.3	a
27 Indeno[1,2,3-cd]pyrene	276	14.395	14.401	-0.006	1	9994	50.0	54.7	a
28 Dibenz(a,h)anthracene	278	14.433	14.438	-0.005	0	9240	50.0	54.1	a
29 Benzo[g,h,i]perylene	276	14.639	14.645	-0.006	0	10859	50.0	55.6	a
30 Dimethyl phthalate	163		0.000				ND	ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
31 N-Nitrosodimethylamine	42		0.000				ND	ND	
32 N-Nitrosodiphenylamine	169		0.000				ND	ND	
33 Di-n-butyl phthalate	149		0.000				ND	ND	
34 Diethyl phthalate	149		0.000				ND	ND	
35 Butyl benzyl phthalate	149		0.000				ND	ND	
36 Di-n-octyl phthalate	149		0.000				ND	ND	
S 44 TPAH	1				0			999.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-SIM-CAL WS_00006	Amount Added: 5.00	Units: uL	
MS-SIM IS_00059	Amount Added: 100.00	Units: uL	Run Reagent

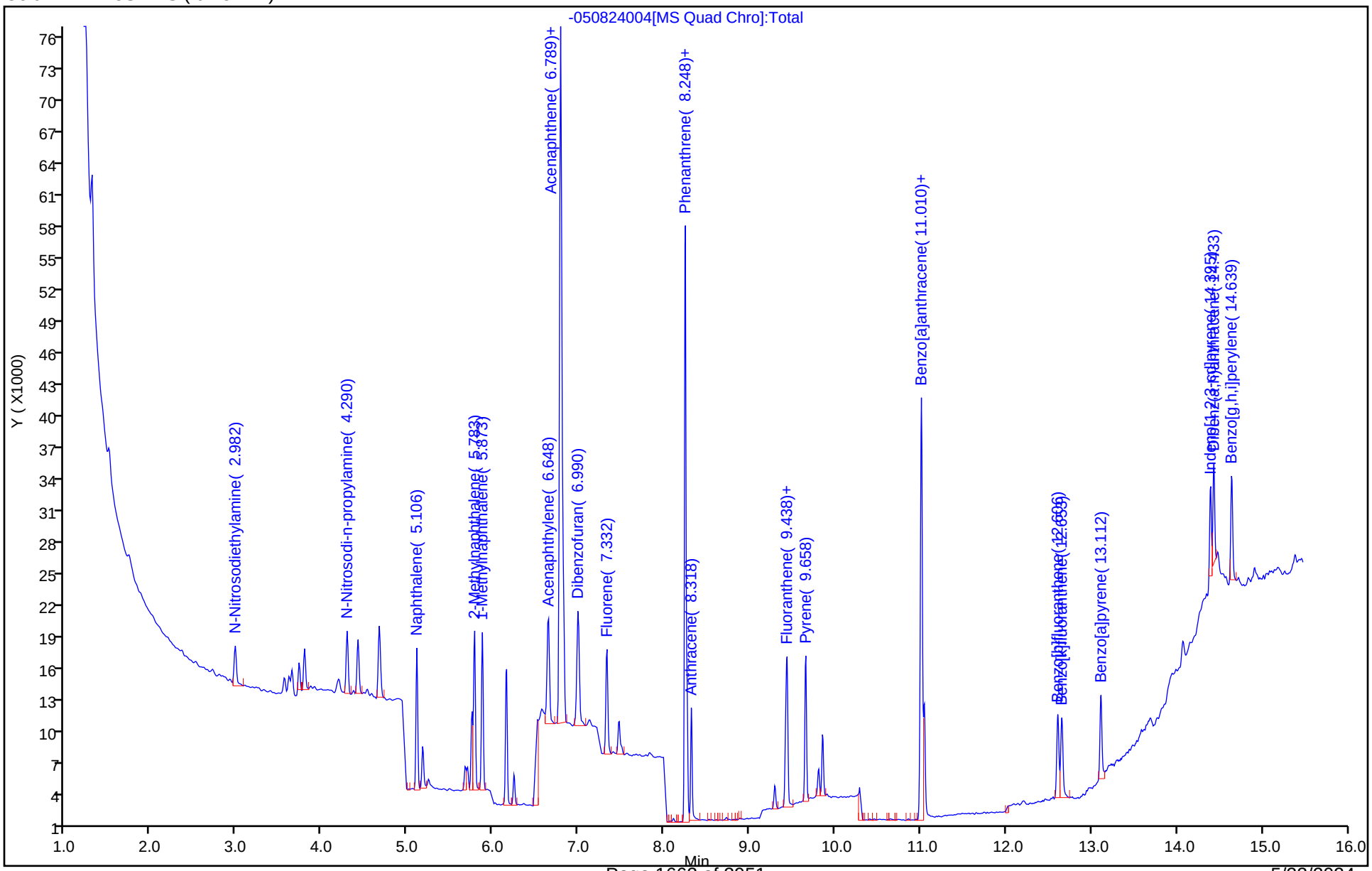
Report Date: 08-May-2024 14:51:54 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824004.D

Injection Date:	08-May-2024 13:08:44	Instrument ID:	SMS_2	Operator ID:	MB
Lims ID:	STD50			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

Column: Rxi-5Sil MS (0.25 mm)



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

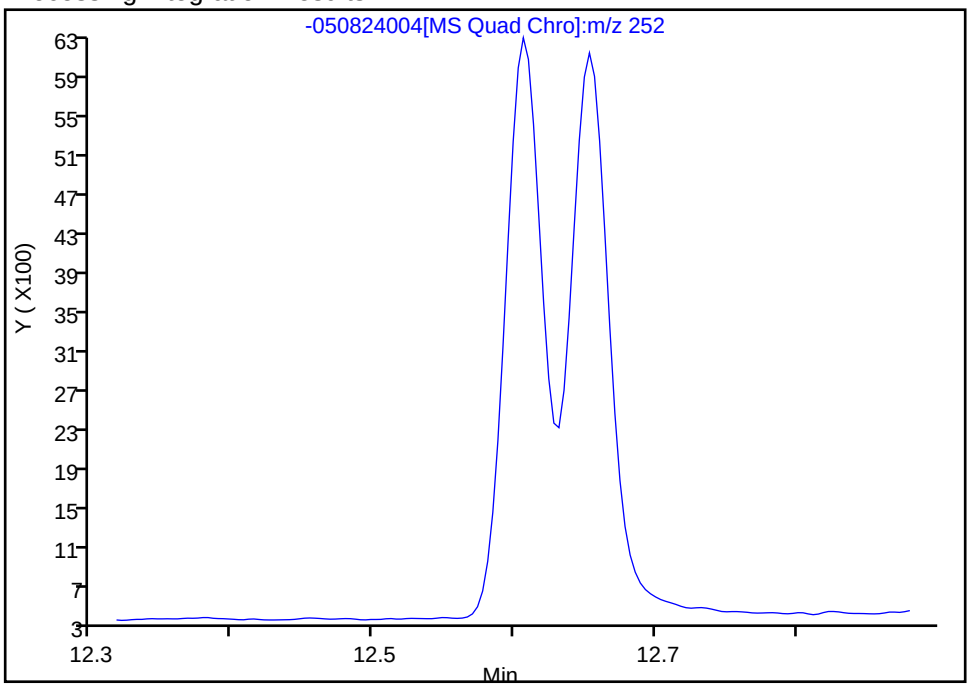
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824004.D				
Injection Date:	08-May-2024 13:08:44	Instrument ID:	SMS_2		
Lims ID:	STD50				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

24 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

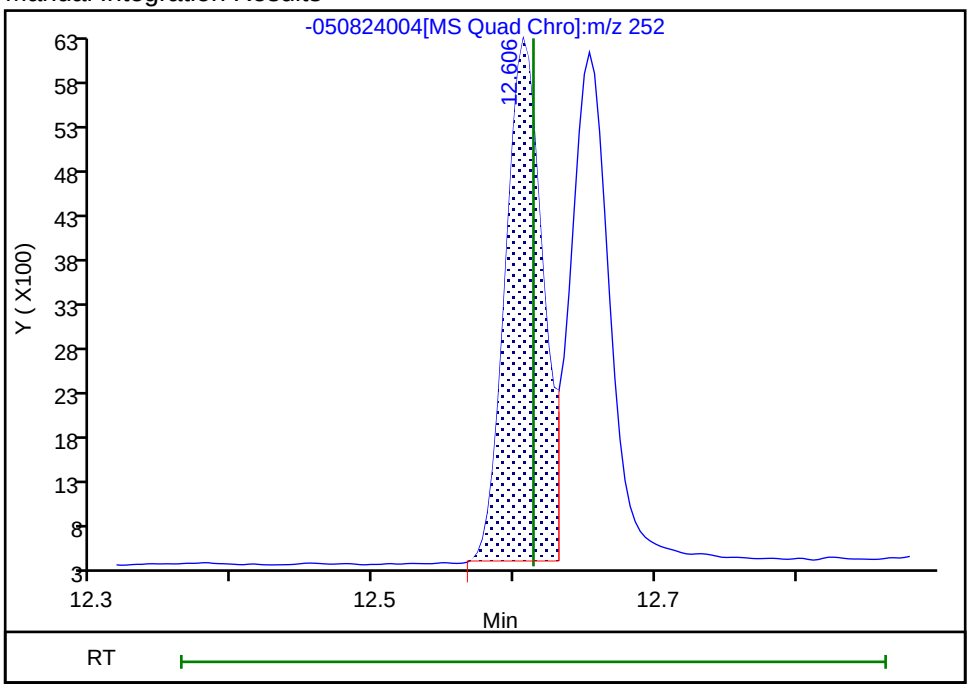
Not Detected
Expected RT: 12.61

Processing Integration Results



Manual Integration Results

RT: 12.61
Area: 10890
Amount: 56.167396
Amount Units: ng/ml



Reviewer: FP7E, 08-May-2024 13:33:52 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

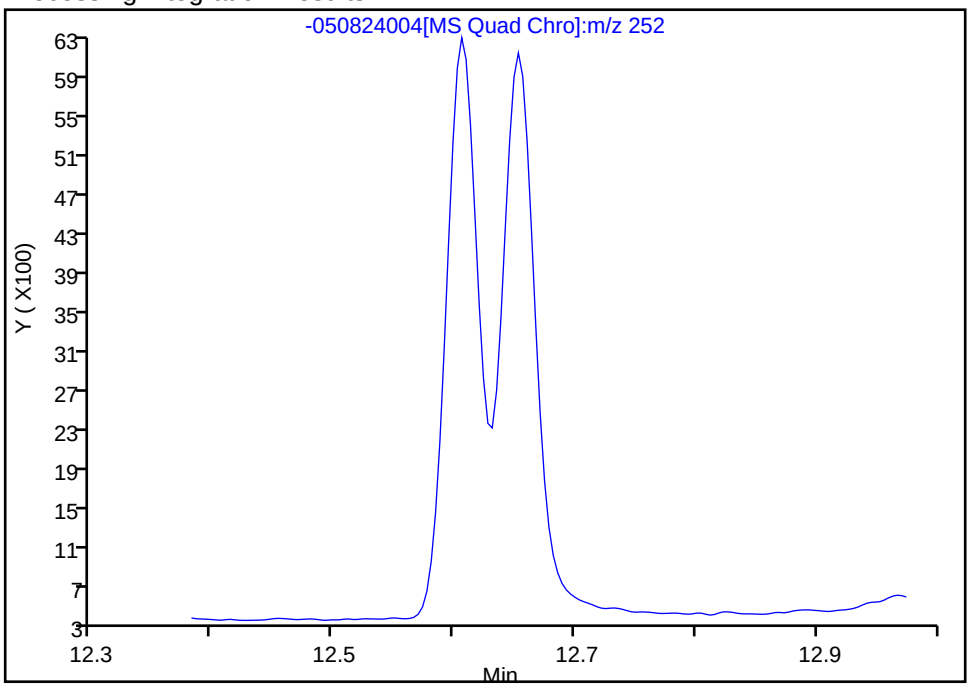
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824004.D				
Injection Date:	08-May-2024 13:08:44	Instrument ID:	SMS_2		
Lims ID:	STD50				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

25 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

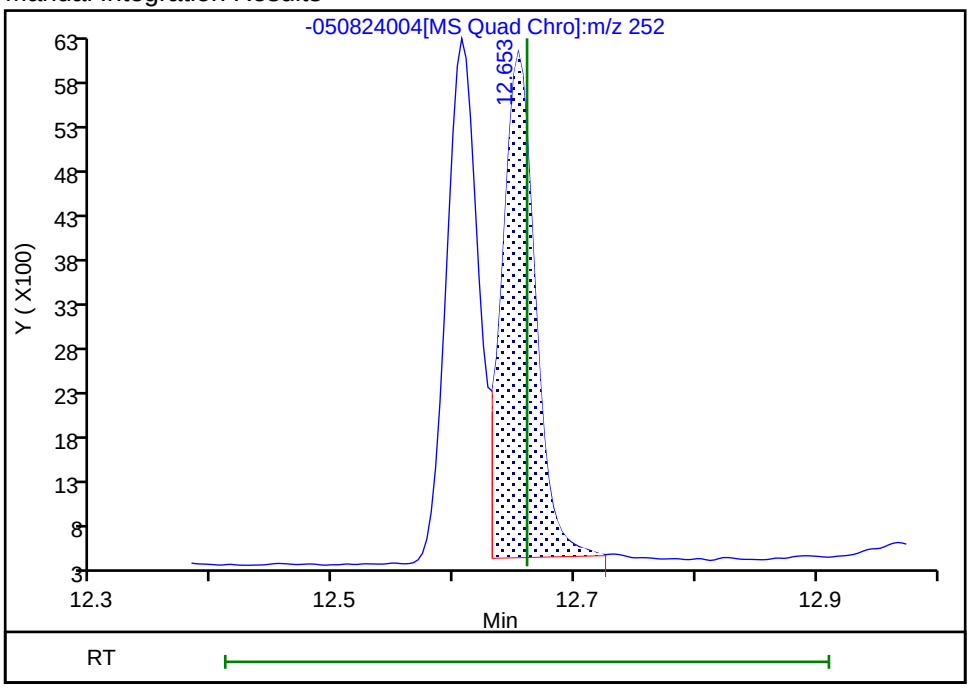
Not Detected
Expected RT: 12.66

Processing Integration Results



Manual Integration Results

RT: 12.65
Area: 10731
Amount: 54.442878
Amount Units: ng/ml



Reviewer: FP7E, 08-May-2024 13:33:53 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

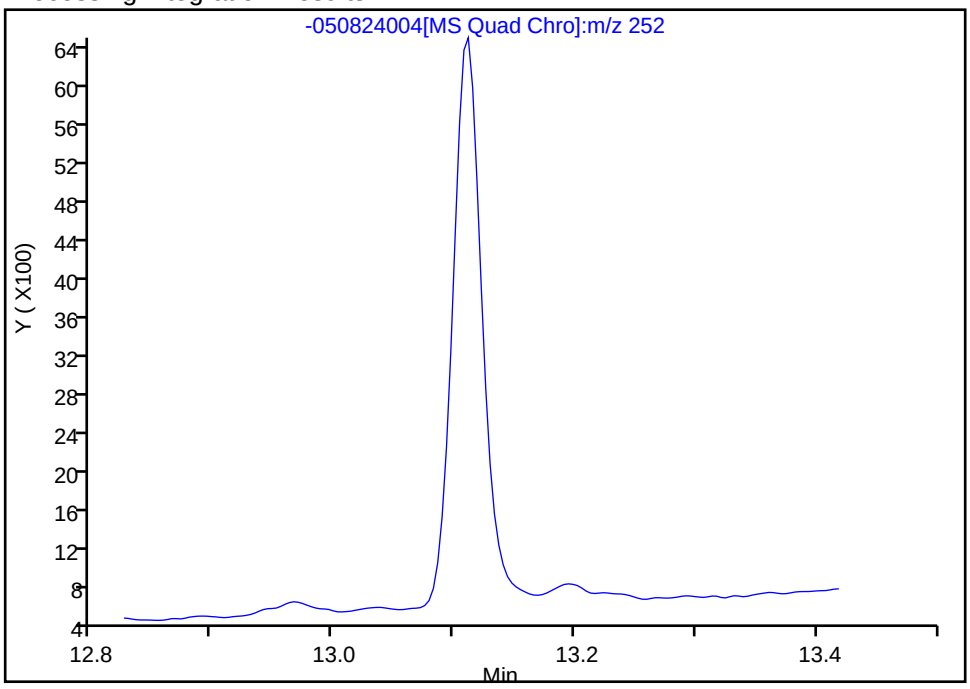
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824004.D				
Injection Date:	08-May-2024 13:08:44	Instrument ID:	SMS_2		
Lims ID:	STD50				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

26 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

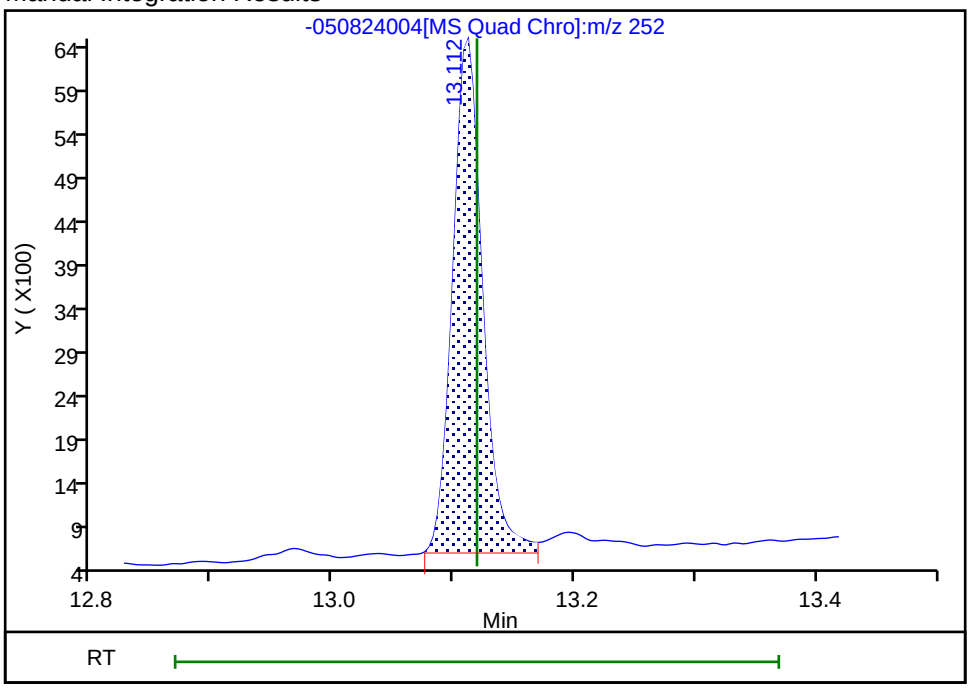
Not Detected
Expected RT: 13.12

Processing Integration Results



Manual Integration Results

RT: 13.11
Area: 9983
Amount: 55.275584
Amount Units: ng/ml



Reviewer: FP7E, 08-May-2024 13:33:55 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

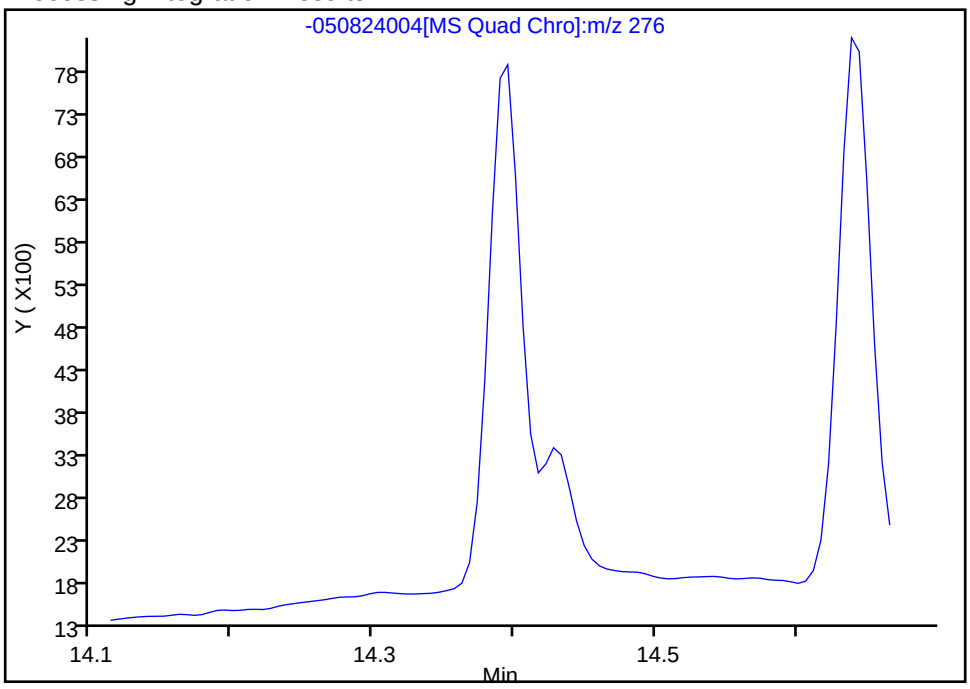
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824004.D				
Injection Date:	08-May-2024 13:08:44	Instrument ID:	SMS_2		
Lims ID:	STD50				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

27 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

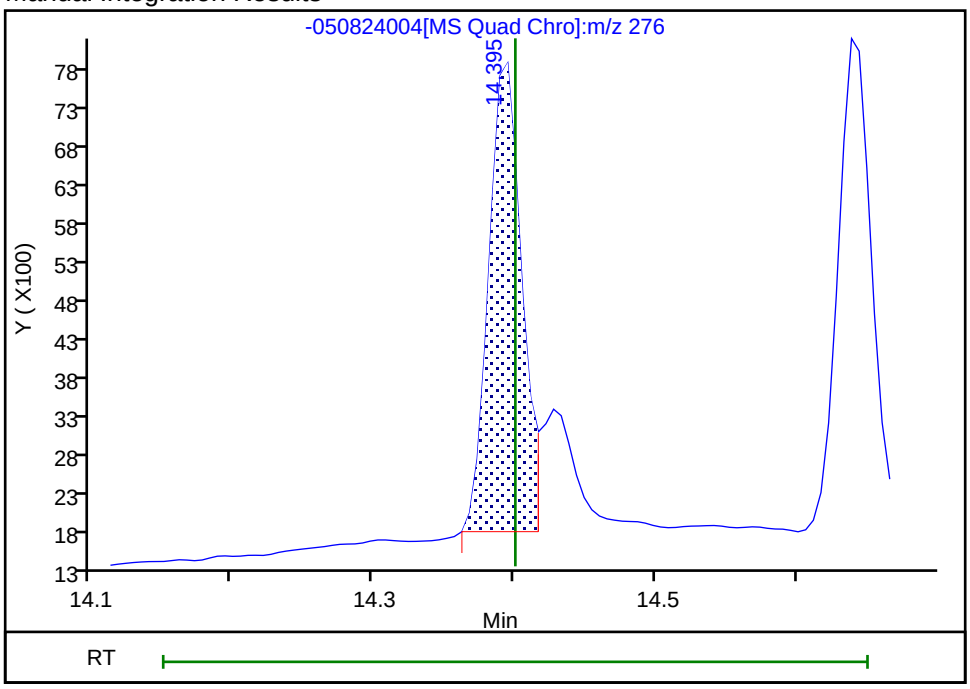
Not Detected
Expected RT: 14.40

Processing Integration Results



Manual Integration Results

RT: 14.40
Area: 9994
Amount: 54.734940
Amount Units: ng/ml



Reviewer: FP7E, 08-May-2024 13:33:56 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

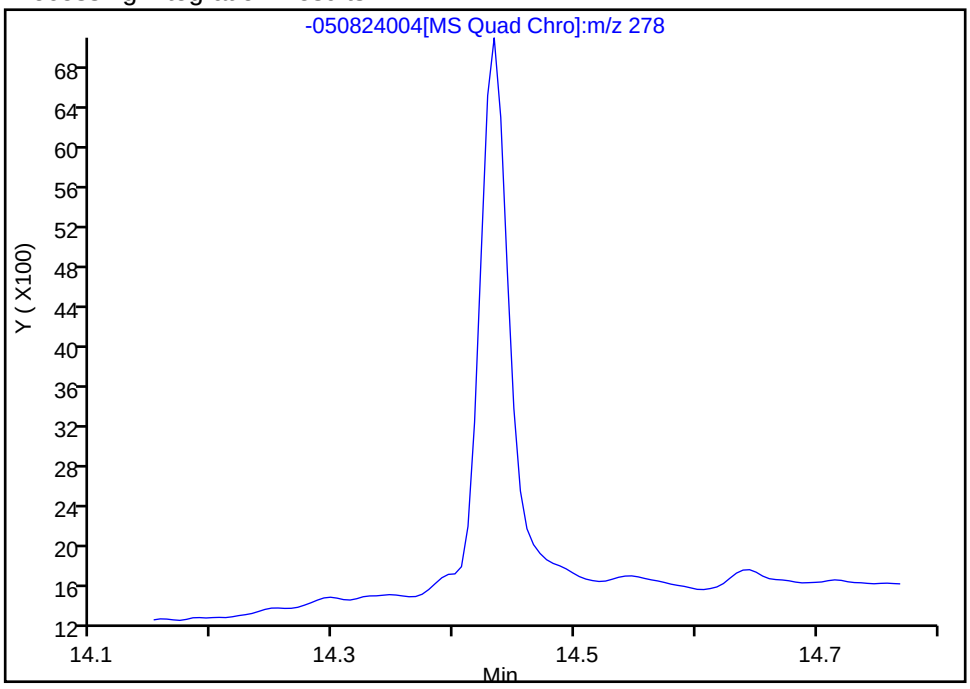
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824004.D				
Injection Date:	08-May-2024 13:08:44	Instrument ID:	SMS_2		
Lims ID:	STD50				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

28 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

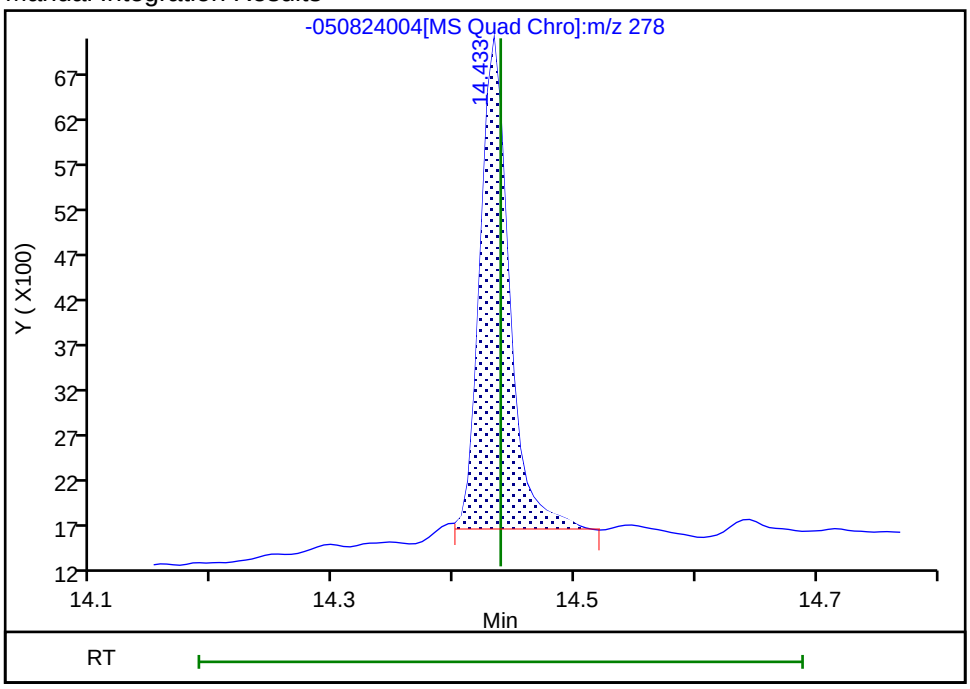
Not Detected
Expected RT: 14.44

Processing Integration Results



Manual Integration Results

RT: 14.43
Area: 9240
Amount: 54.128687
Amount Units: ng/ml



Reviewer: FP7E, 08-May-2024 13:33:58 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

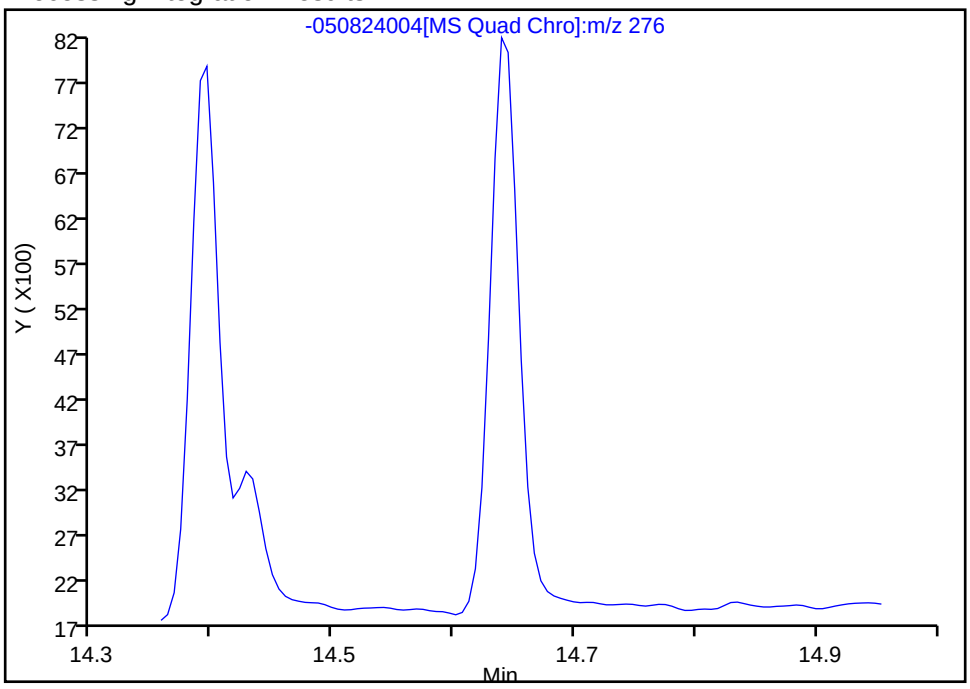
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824004.D				
Injection Date:	08-May-2024 13:08:44	Instrument ID:	SMS_2		
Lims ID:	STD50				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

29 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

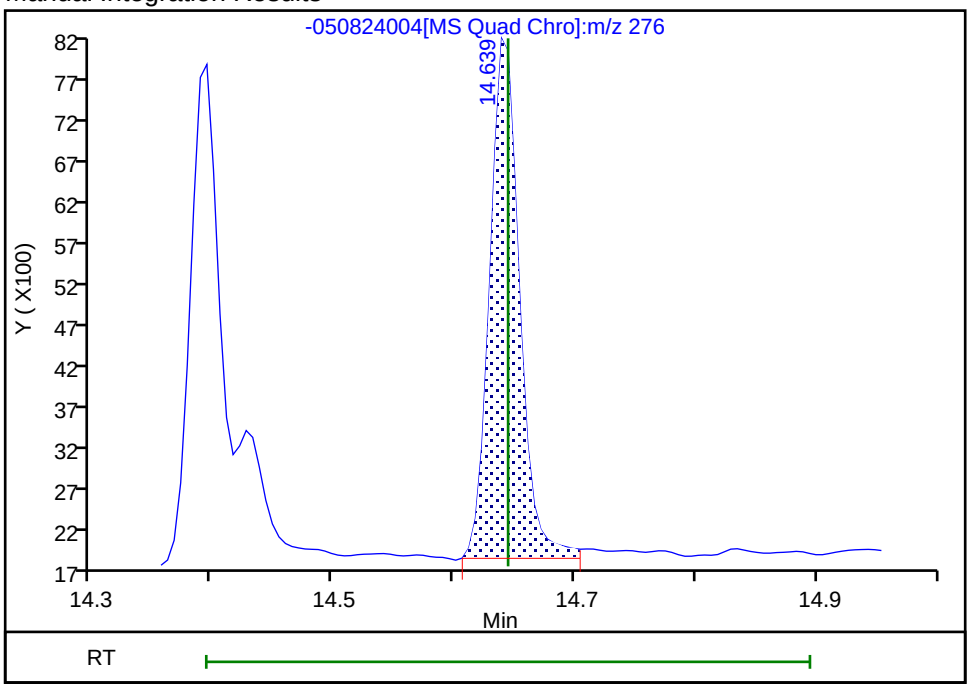
Not Detected
Expected RT: 14.64

Processing Integration Results



Manual Integration Results

RT: 14.64
Area: 10859
Amount: 55.572416
Amount Units: ng/ml



Reviewer: FP7E, 08-May-2024 13:33:59 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824005.D
Lims ID: STD100
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 08-May-2024 13:28:12 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD100
Operator ID: MB Instrument ID: SMS_2
Sublist: chrom-SMS_2_8270SIM*sub1

Method: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 08-May-2024 14:51:57 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1681

First Level Reviewer: FP7E Date: 08-May-2024 13:52:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 Acenaphthene-d10	164	6.784	6.789	-0.005	73	51740	400.0	400.0	
* 2 Phenanthrene-d10	188	8.245	8.248	-0.003	98	55918	400.0	400.0	
* 3 Chrysene-d12	240	11.014	11.020	-0.006	63	39844	400.0	400.0	
$ 4 Nitrobenzene-d5	82	4.419	4.419	0.000	94	8648	100.1	93.3	
$ 5 2-methylnaphthalene-d10	152	5.755	5.753	0.002	0	12445	98.8	94.6	
$ 6 2-Fluorobiphenyl	172	6.151	6.157	-0.006	0	19826	100.0	95.3	
$ 7 Fluoranthene-d10	212	9.424	9.426	-0.002	98	11798	100.0	91.3	
$ 8 Terphenyl-d14	244	9.857	9.859	-0.002	0	9247	100.0	93.0	
38 1,4-Dioxane	88	1.501	1.501	0.000	0	2296	100.0	84.5	M
9 N-Nitrosodiethylamine	102	2.983	2.983	0.000	98	3580	100.4	94.7	
10 N-Nitrosodi-n-propylamine	70	4.290	4.290	0.000	91	5485	100.0	92.7	
11 Naphthalene	128	5.109	5.107	0.002	1	23517	100.0	97.5	
12 2-Methylnaphthalene	141	5.778	5.783	-0.005	0	12975	100.0	96.9	
13 1-Methylnaphthalene	142	5.875	5.874	0.001	0	14042	100.0	95.1	
14 Acenaphthylene	152	6.643	6.648	-0.005	0	22154	100.0	96.9	
15 Acenaphthene	153	6.814	6.819	-0.005	94	14850	100.0	94.5	
16 Dibenzofuran	168	6.995	7.000	-0.005	76	20755	100.0	93.9	
17 Fluorene	166	7.329	7.332	-0.003	81	11464	100.0	96.9	
18 Phenanthrene	178	8.265	8.273	-0.008	0	15057	100.0	91.2	
19 Anthracene	178	8.320	8.323	-0.003	1	14630	100.0	90.4	
20 Fluoranthene	202	9.436	9.444	-0.008	95	16726	100.0	91.3	
21 Pyrene	202	9.656	9.658	-0.002	0	17584	100.0	92.1	
22 Benzo[a]anthracene	228	10.999	11.005	-0.006	77	15134	100.0	89.5	
23 Chrysene	228	11.044	11.050	-0.006	0	15427	100.0	90.3	
24 Benzo[b]fluoranthene	252	12.608	12.613	-0.005	0	15658	100.0	90.0	a
25 Benzo[k]fluoranthene	252	12.651	12.660	-0.009	0	16077	100.0	90.9	a
26 Benzo[a]pyrene	252	13.110	13.119	-0.009	0	14549	100.0	89.8	a
27 Indeno[1,2,3-cd]pyrene	276	14.392	14.401	-0.009	1	15080	100.0	92.1	
28 Dibenz(a,h)anthracene	278	14.429	14.438	-0.009	0	13316	100.0	86.9	a
29 Benzo[g,h,i]perylene	276	14.641	14.645	-0.004	0	15333	100.0	87.5	
30 Dimethyl phthalate	163		0.000				ND	ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
31 N-Nitrosodimethylamine	42		0.000				ND	ND	
32 N-Nitrosodiphenylamine	169		0.000				ND	ND	
33 Di-n-butyl phthalate	149		0.000				ND	ND	
34 Diethyl phthalate	149		0.000				ND	ND	
35 Butyl benzyl phthalate	149		0.000				ND	ND	
36 Di-n-octyl phthalate	149		0.000				ND	ND	
S 44 TPAH	1				0			1659.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-SIM-CAL WS_00006	Amount Added: 10.00	Units: uL	
MS-SIM IS_00059	Amount Added: 100.00	Units: uL	Run Reagent

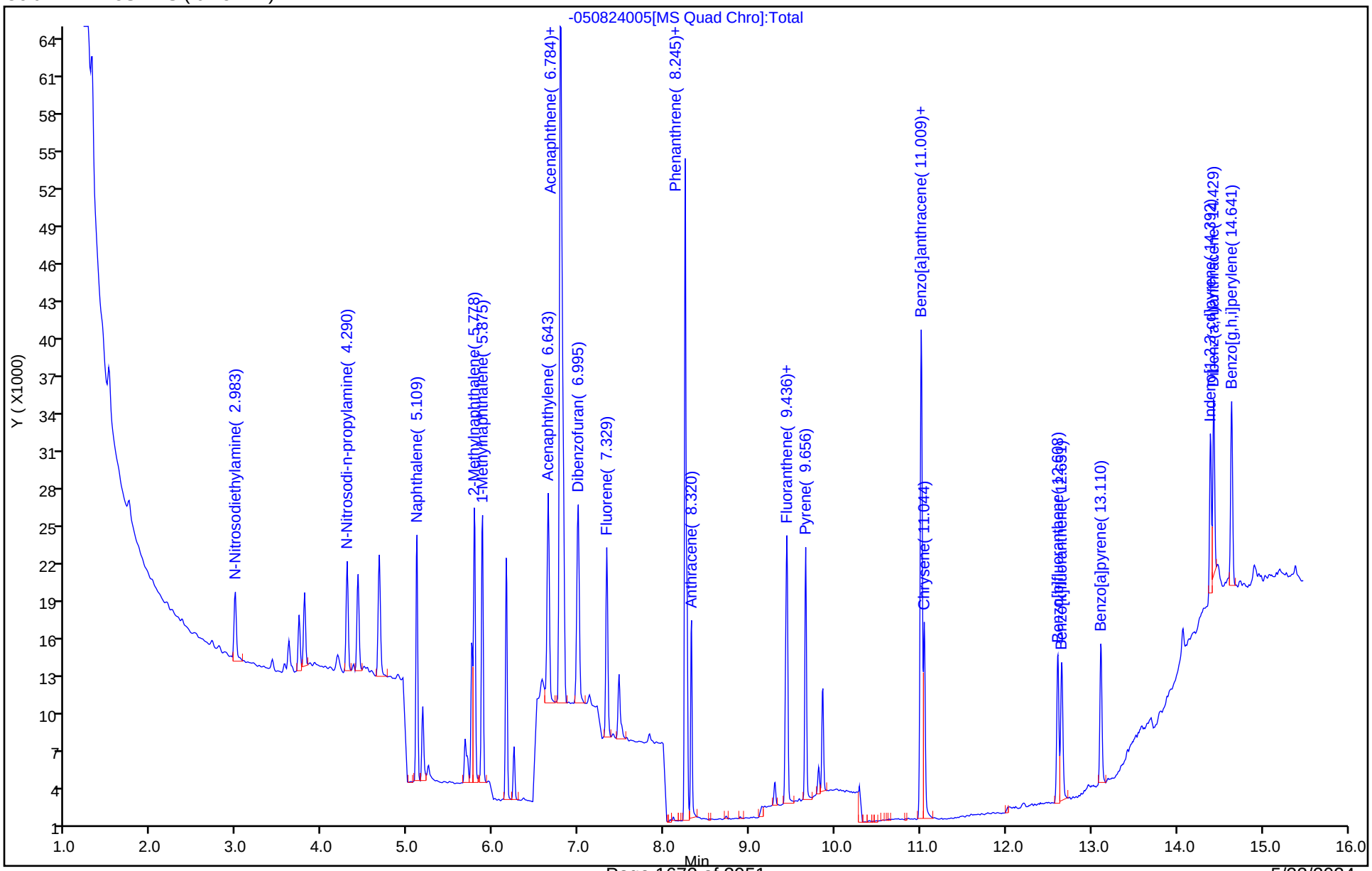
Report Date: 08-May-2024 14:51:57 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824005.D

Injection Date:	08-May-2024 13:28:12	Instrument ID:	SMS_2	Operator ID:	MB
Lims ID:	STD100			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

Column: Rxi-5Sil MS (0.25 mm)



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

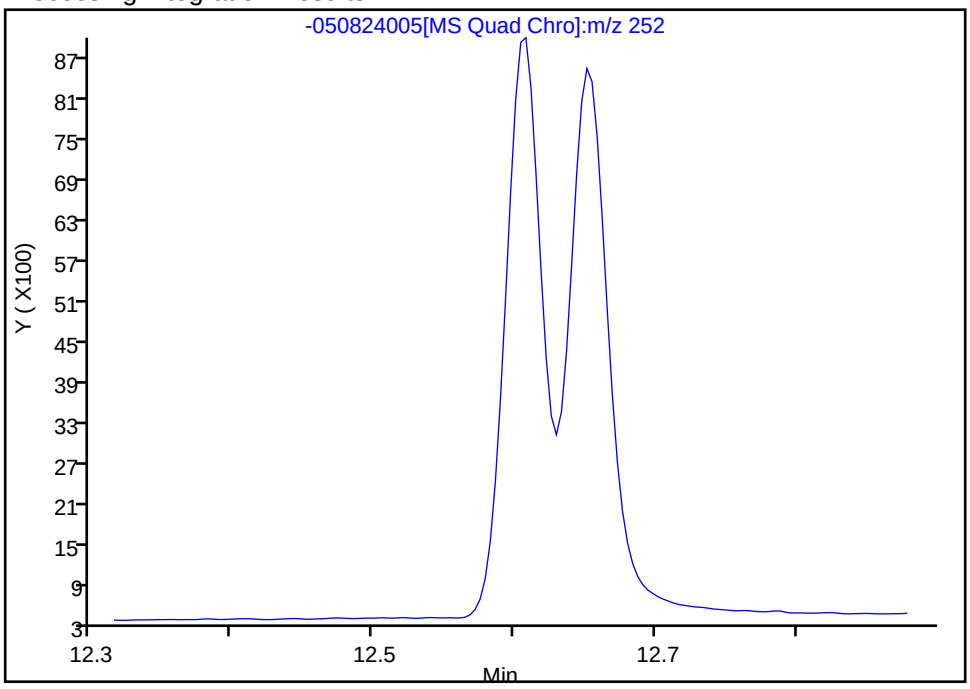
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824005.D				
Injection Date:	08-May-2024 13:28:12	Instrument ID:	SMS_2		
Lims ID:	STD100				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

24 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

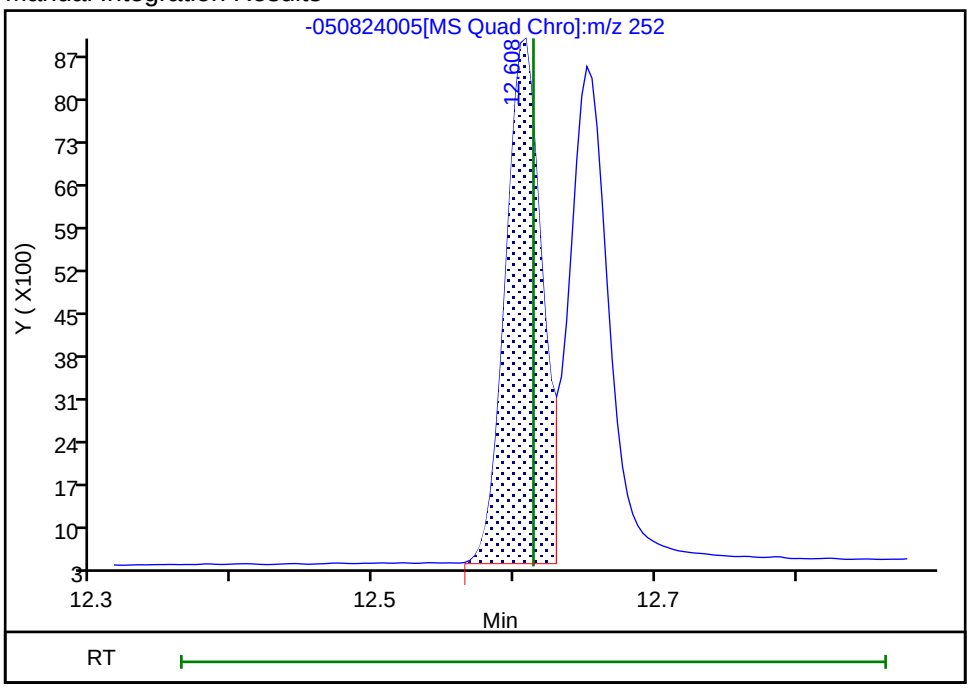
Not Detected
Expected RT: 12.61

Processing Integration Results



Manual Integration Results

RT: 12.61
Area: 15658
Amount: 90.010046
Amount Units: ng/ml



Reviewer: FP7E, 08-May-2024 13:46:05 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

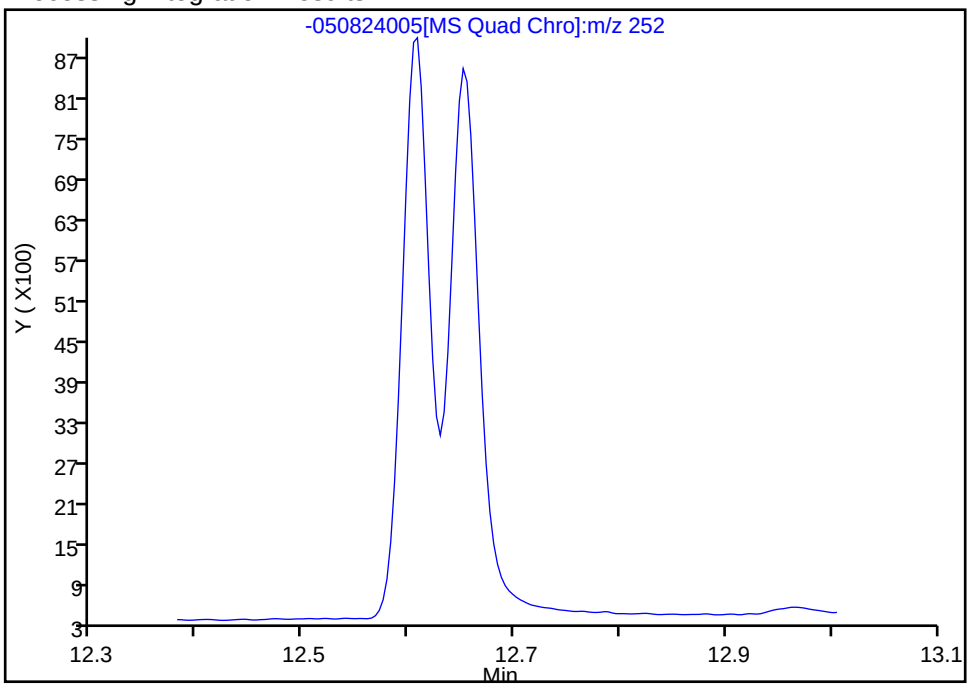
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824005.D				
Injection Date:	08-May-2024 13:28:12	Instrument ID:	SMS_2		
Lims ID:	STD100				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

25 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

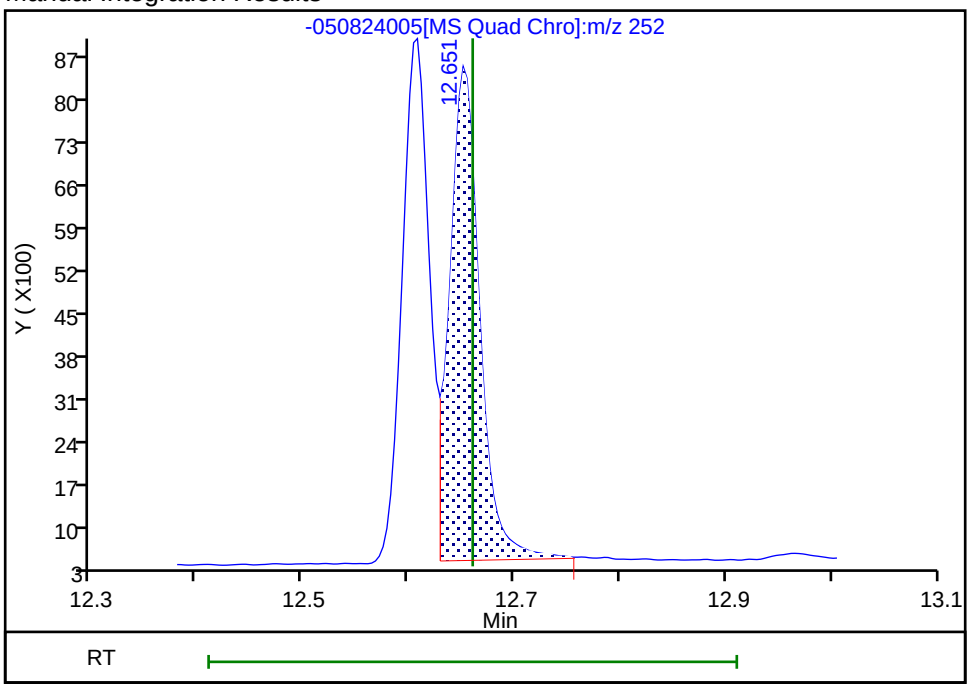
Not Detected
Expected RT: 12.66

Processing Integration Results



Manual Integration Results

RT: 12.65
Area: 16077
Amount: 90.908433
Amount Units: ng/ml



Reviewer: FP7E, 08-May-2024 13:46:07 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

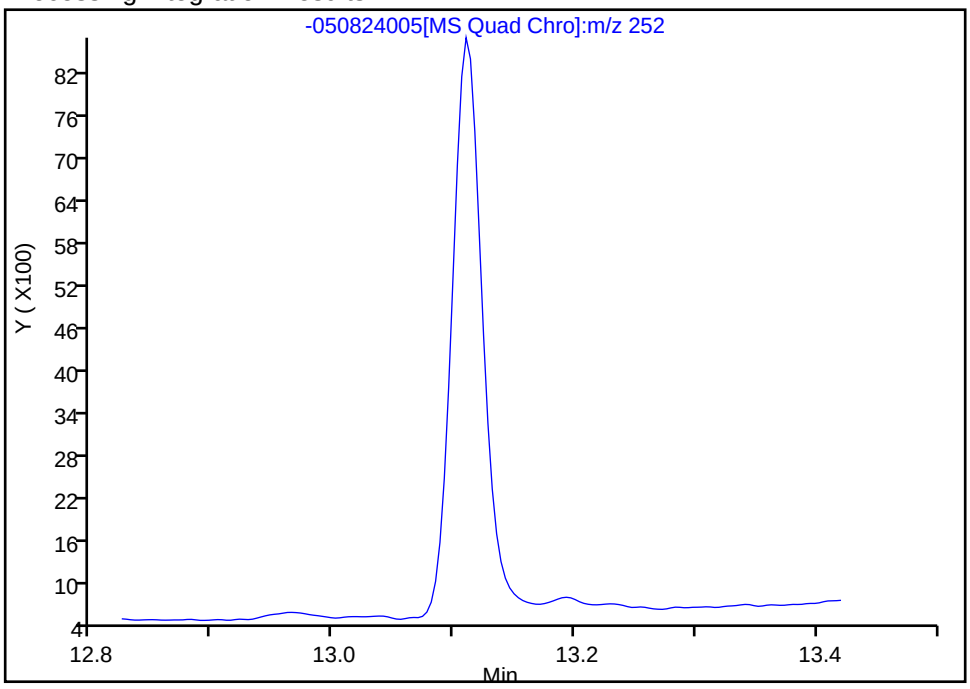
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824005.D				
Injection Date:	08-May-2024 13:28:12	Instrument ID:	SMS_2		
Lims ID:	STD100				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

26 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

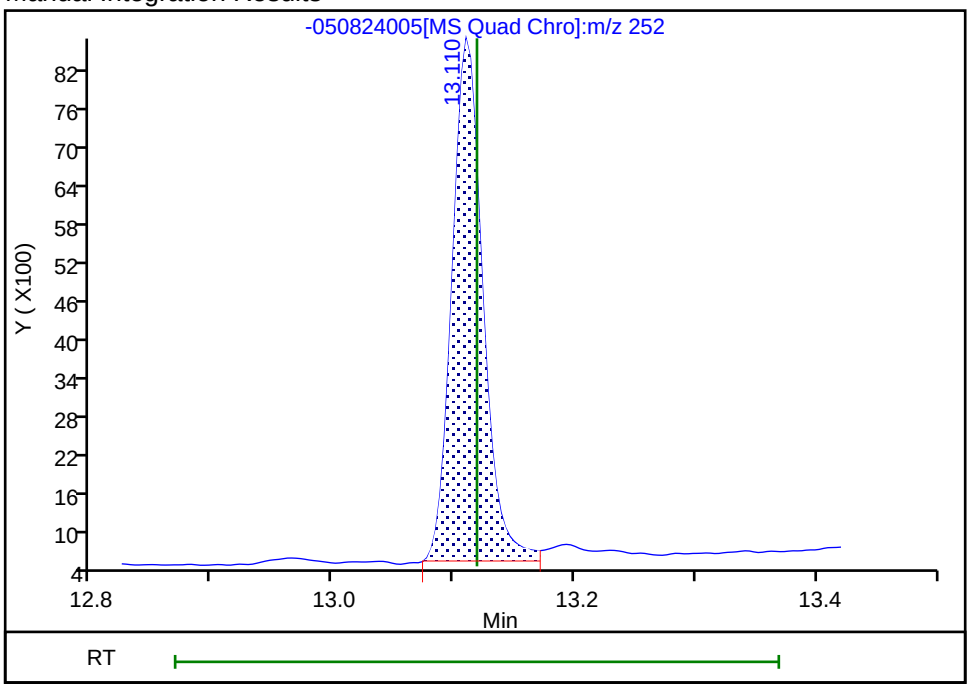
Not Detected
Expected RT: 13.12

Processing Integration Results



Manual Integration Results

RT: 13.11
Area: 14549
Amount: 89.784981
Amount Units: ng/ml



Reviewer: FP7E, 08-May-2024 13:46:08 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

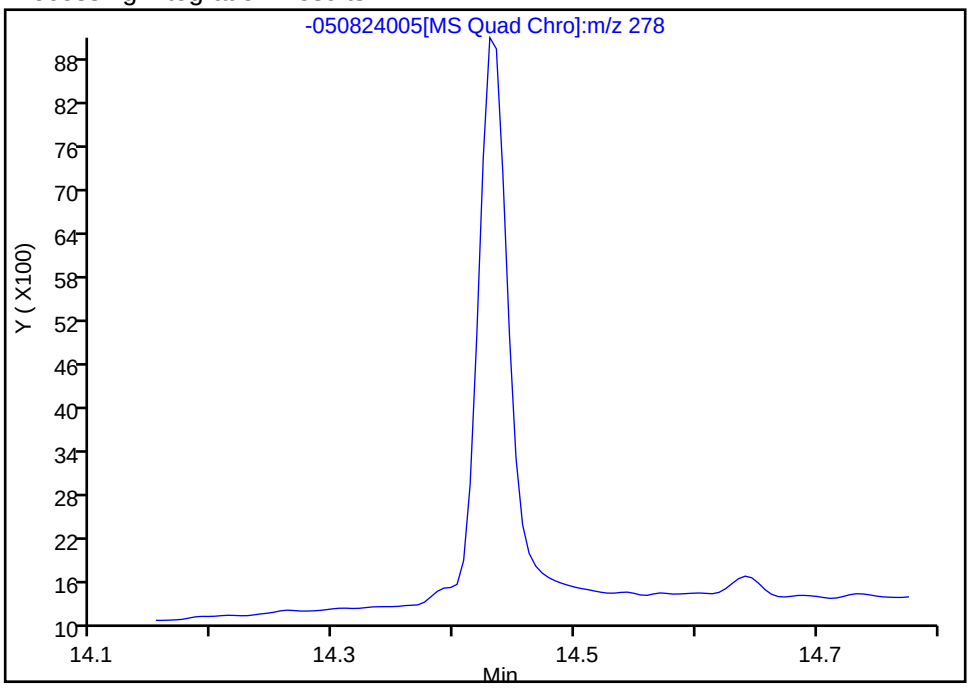
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824005.D				
Injection Date:	08-May-2024 13:28:12	Instrument ID:	SMS_2		
Lims ID:	STD100				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

28 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

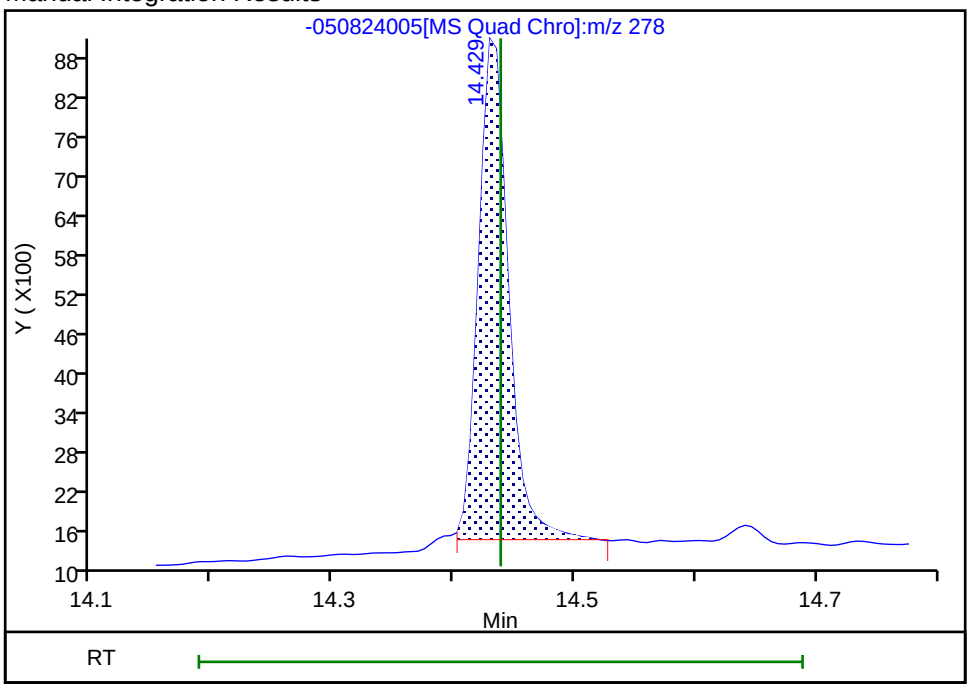
Not Detected
Expected RT: 14.44

Processing Integration Results



Manual Integration Results

RT: 14.43
Area: 13316
Amount: 86.941593
Amount Units: ng/ml



Reviewer: FP7E, 08-May-2024 13:46:10 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824006.D
Lims ID: STD1000
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 08-May-2024 13:47:38 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD1000
Operator ID: MB Instrument ID: SMS_2
Sublist: chrom-SMS_2_8270SIM*sub1

Method: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 08-May-2024 14:51:59 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1681

First Level Reviewer: FP7E Date: 08-May-2024 14:14:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 Acenaphthene-d10	164	6.787	6.789	-0.002	78	57556	400.0	400.0	
* 2 Phenanthrene-d10	188	8.248	8.248	0.000	99	62525	400.0	400.0	
* 3 Chrysene-d12	240	11.011	11.020	-0.009	78	42939	400.0	400.0	
$ 4 Nitrobenzene-d5	82	4.419	4.419	0.000	94	114354	1001.0	1109.5	
$ 5 2-methylnaphthalene-d10	152	5.753	5.753	0.000	0	158651	987.8	1084.7	
$ 6 2-Fluorobiphenyl	172	6.150	6.157	-0.007	0	248556	999.7	1074.0	
$ 7 Fluoranthene-d10	212	9.420	9.426	-0.006	96	154228	999.9	1067.1	
$ 8 Terphenyl-d14	244	9.854	9.859	-0.005	0	116895	1000.0	1050.9	
38 1,4-Dioxane	88	1.501	1.501	0.000	0	37228	1000.0	1231.8	M
9 N-Nitrosodiethylamine	102	2.983	2.983	0.000	99	46488	1003.5	1106.0	
10 N-Nitrosodi-n-propylamine	70	4.290	4.290	0.000	91	73677	1000.0	1119.3	
11 Naphthalene	128	5.107	5.107	0.000	1	291113	1000.0	1084.8	
12 2-Methylnaphthalene	141	5.784	5.783	0.001	0	161089	1000.0	1081.1	
13 1-Methylnaphthalene	142	5.874	5.874	0.000	0	178659	1000.0	1088.2	
14 Acenaphthylene	152	6.646	6.648	-0.002	0	277036	1000.0	1089.3	
15 Acenaphthene	153	6.817	6.819	-0.002	97	190829	1000.0	1091.4	
16 Dibenzofuran	168	6.998	7.000	-0.002	77	266795	1000.0	1084.7	
17 Fluorene	166	7.331	7.332	-0.001	83	141730	1000.0	1076.5	
18 Phenanthrene	178	8.268	8.273	-0.005	0	198037	1000.0	1072.2	
19 Anthracene	178	8.318	8.323	-0.005	1	196823	1000.0	1087.5	
20 Fluoranthene	202	9.439	9.444	-0.005	92	218441	1000.0	1066.8	
21 Pyrene	202	9.653	9.658	-0.005	0	223776	1000.0	1048.7	
22 Benzo[a]anthracene	228	10.996	11.005	-0.009	93	190501	1000.0	1045.8	
23 Chrysene	228	11.041	11.050	-0.009	0	191222	1000.0	1038.6	
24 Benzo[b]fluoranthene	252	12.604	12.613	-0.009	0	196817	1000.0	1049.9	
25 Benzo[k]fluoranthene	252	12.651	12.660	-0.009	0	199032	1000.0	1044.3	
26 Benzo[a]pyrene	252	13.109	13.119	-0.010	0	187098	1000.0	1071.4	
27 Indeno[1,2,3-cd]pyrene	276	14.393	14.401	-0.008	1	189936	1000.0	1075.8	
28 Dibenz(a,h)anthracene	278	14.431	14.438	-0.007	0	182476	1000.0	1105.5	
29 Benzo[g,h,i]perylene	276	14.637	14.645	-0.008	0	201045	1000.0	1064.1	
30 Dimethyl phthalate	163		0.000				ND	ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
31 N-Nitrosodimethylamine	42		0.000				ND	ND	
32 N-Nitrosodiphenylamine	169		0.000				ND	ND	
33 Di-n-butyl phthalate	149		0.000				ND	ND	
34 Diethyl phthalate	149		0.000				ND	ND	
35 Butyl benzyl phthalate	149		0.000				ND	ND	
36 Di-n-octyl phthalate	149		0.000				ND	ND	
S 44 TPAH	1				0			19282	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MS-SIM-CAL WS_00006	Amount Added: 100.00	Units: uL	
MS-SIM IS_00059	Amount Added: 100.00	Units: uL	Run Reagent

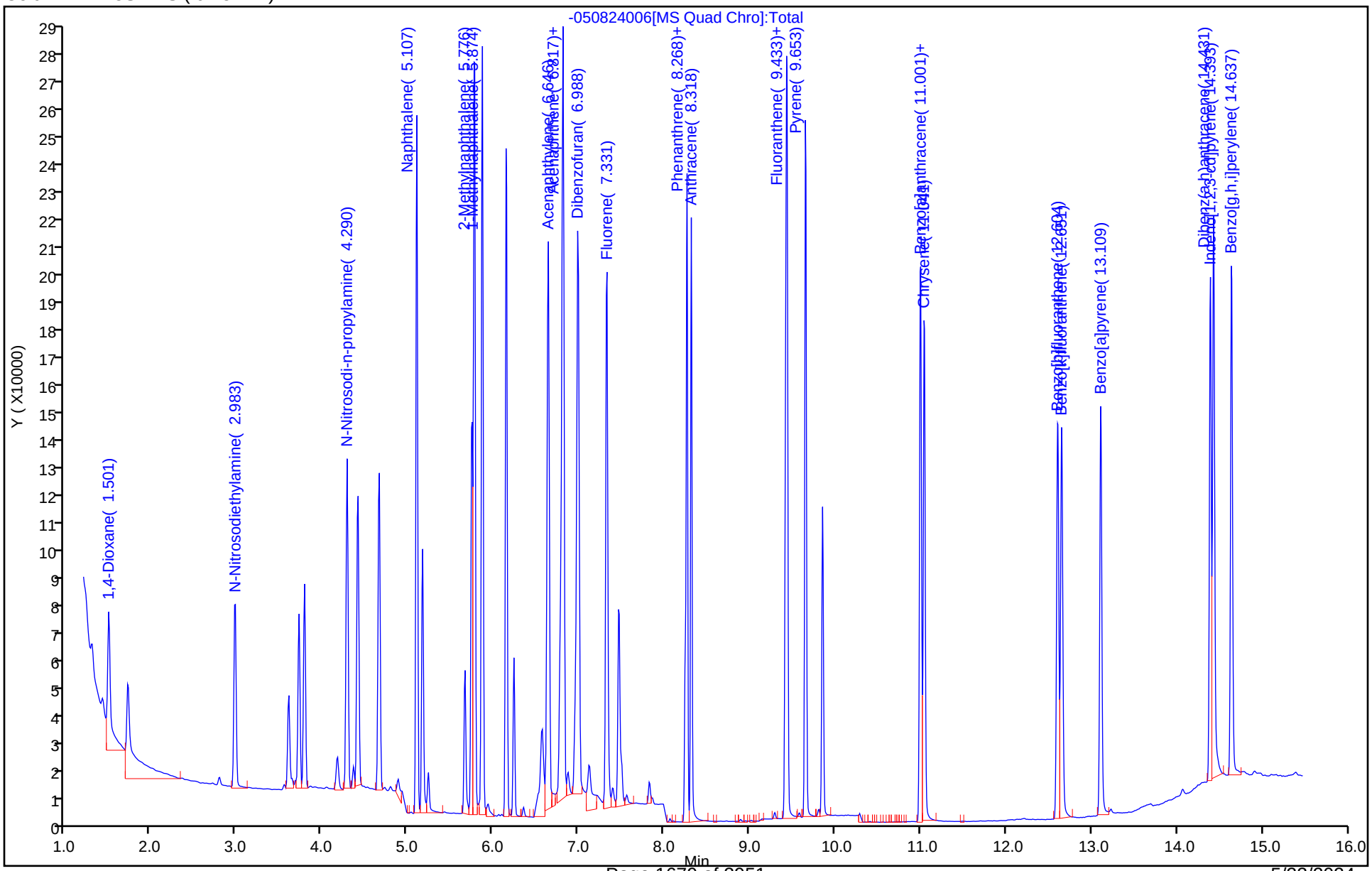
Report Date: 08-May-2024 14:51:59 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824006.D

Injection Date:	08-May-2024 13:47:38	Instrument ID:	SMS_2	Operator ID:	MB
Lims ID:	STD1000			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

Column: Rxi-5Sil MS (0.25 mm)



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824007.D
Lims ID: STD2500
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 08-May-2024 14:07:02 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD2500
Operator ID: MB Instrument ID: SMS_2
Sublist: chrom-SMS_2_8270SIM*sub1

Method: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 08-May-2024 14:52:01 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1681

First Level Reviewer: FP7E Date: 08-May-2024 14:35:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 Acenaphthene-d10	164	6.789	6.789	0.000	82	60077	400.0	400.0	
* 2 Phenanthrene-d10	188	8.244	8.248	-0.004	99	65057	400.0	400.0	
* 3 Chrysene-d12	240	11.011	11.020	-0.009	64	42319	400.0	400.0	
$ 4 Nitrobenzene-d5	82	4.419	4.419	0.000	93	282663	2502.5	2627.4	
$ 5 2-methylnaphthalene-d10	152	5.753	5.753	0.000	0	368363	2469.5	2412.8	
$ 6 2-Fluorobiphenyl	172	6.150	6.157	-0.007	0	576139	2499.3	2385.1	
$ 7 Fluoranthene-d10	212	9.420	9.426	-0.006	95	371651	2499.8	2471.5	
$ 8 Terphenyl-d14	244	9.853	9.859	-0.006	0	274672	2500.0	2373.2	
38 1,4-Dioxane	88	1.501	1.501	-0.001	0	86807	2500.0	2751.6	M
9 N-Nitrosodiethylamine	102	2.983	2.983	0.000	99	109984	2508.8	2506.9	
10 N-Nitrosodi-n-propylamine	70	4.290	4.290	0.000	91	175085	2500.0	2548.4	
11 Naphthalene	128	5.107	5.107	0.000	1	679062	2500.0	2424.3	
12 2-Methylnaphthalene	141	5.783	5.783	0.000	0	374508	2500.0	2408.0	
13 1-Methylnaphthalene	142	5.874	5.874	0.000	0	421822	2500.0	2461.5	
14 Acenaphthylene	152	6.638	6.648	-0.010	0	659410	2500.0	2483.9	
15 Acenaphthene	153	6.820	6.819	0.001	94	450510	2500.0	2468.4	
16 Dibenzofuran	168	6.991	7.000	-0.009	78	641794	2500.0	2499.9	
17 Fluorene	166	7.332	7.332	0.000	84	337190	2500.0	2453.6	
18 Phenanthrene	178	8.269	8.273	-0.004	0	473853	2500.0	2465.6	
19 Anthracene	178	8.319	8.323	-0.004	1	469150	2500.0	2491.3	
20 Fluoranthene	202	9.439	9.444	-0.006	93	509475	2500.0	2391.3	
21 Pyrene	202	9.652	9.658	-0.006	0	529464	2500.0	2384.7	
22 Benzo[a]anthracene	228	10.996	11.005	-0.009	92	447448	2500.0	2492.3	
23 Chrysene	228	11.046	11.050	-0.004	0	449928	2500.0	2479.6	
24 Benzo[b]fluoranthene	252	12.607	12.613	-0.006	0	454827	2500.0	2461.7	
25 Benzo[k]fluoranthene	252	12.650	12.660	-0.010	0	465388	2500.0	2477.7	
26 Benzo[a]pyrene	252	13.108	13.119	-0.011	0	432965	2500.0	2515.7	
27 Indeno[1,2,3-cd]pyrene	276	14.392	14.401	-0.009	1	442939	2500.0	2545.6	
28 Dibenz(a,h)anthracene	278	14.430	14.438	-0.008	0	425733	2500.0	2617.1	
29 Benzo[g,h,i]perylene	276	14.641	14.645	-0.004	0	464066	2500.0	2492.2	
30 Dimethyl phthalate	163		0.000				ND	ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
31 N-Nitrosodimethylamine	42		0.000				ND	ND	
32 N-Nitrosodiphenylamine	169		0.000				ND	ND	
33 Di-n-butyl phthalate	149		0.000				ND	ND	
34 Diethyl phthalate	149		0.000				ND	ND	
35 Butyl benzyl phthalate	149		0.000				ND	ND	
36 Di-n-octyl phthalate	149		0.000				ND	ND	
S 44 TPAH	1				0			44514	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MS-SIM-CAL WS_00006	Amount Added: 250.00	Units: uL	
MS-SIM IS_00059	Amount Added: 100.00	Units: uL	Run Reagent

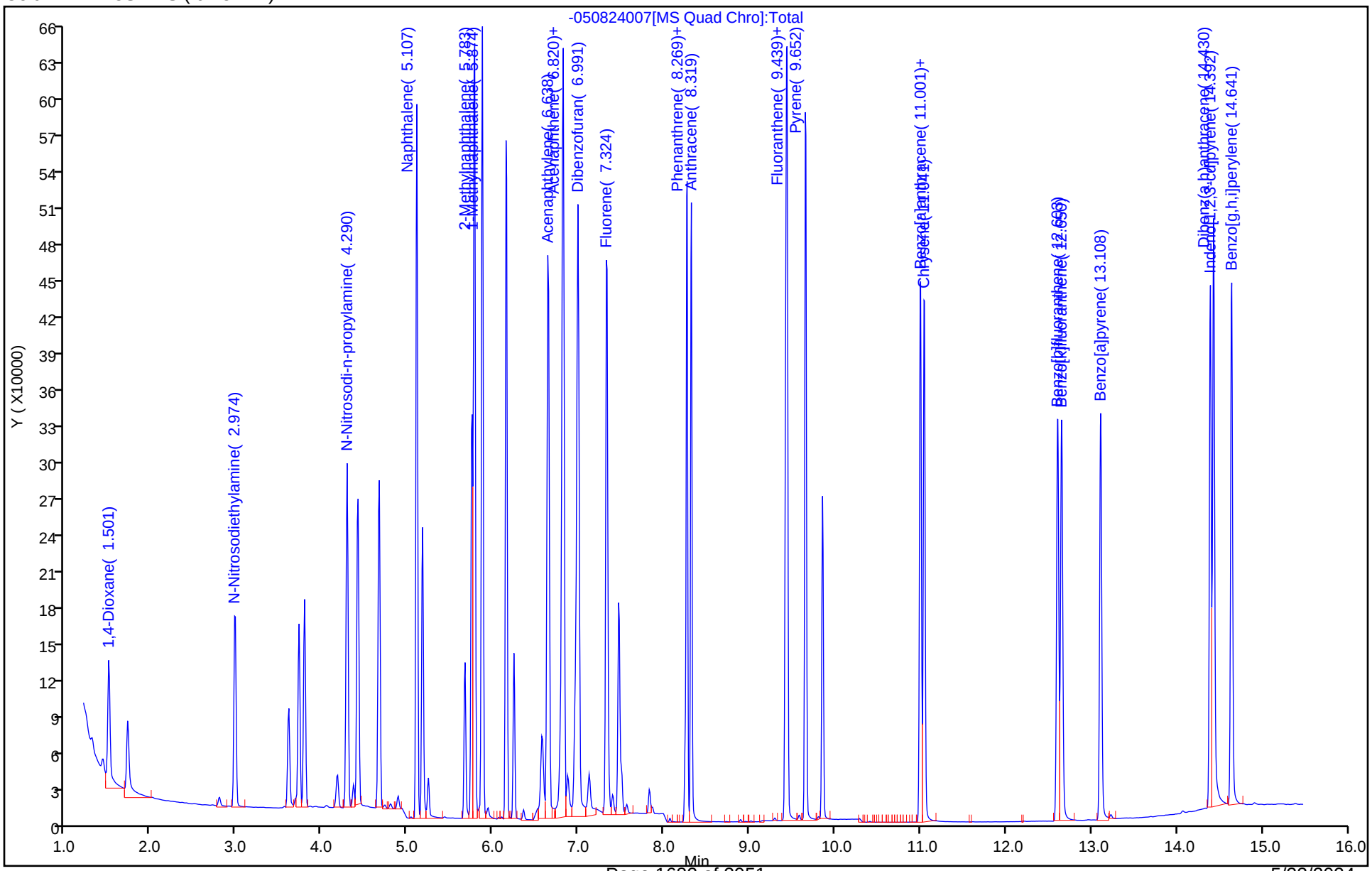
Report Date: 08-May-2024 14:52:01 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824007.D

Injection Date:	08-May-2024 14:07:02	Instrument ID:	SMS_2	Operator ID:	MB
Lims ID:	STD2500			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

Column: Rxi-5Sil MS (0.25 mm)



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D
Lims ID: STD5000
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 08-May-2024 14:27:22 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD5000
Operator ID: MB Instrument ID: SMS_2
Sublist: chrom-SMS_2_8270SIM*sub1

Method: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 08-May-2024 14:52:03 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1681

First Level Reviewer: FP7E Date: 08-May-2024 14:47:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 Acenaphthene-d10	164	6.790	6.789	0.001	74	61145	400.0	400.0	
* 2 Phenanthrene-d10	188	8.249	8.248	0.001	91	66090	400.0	400.0	
* 3 Chrysene-d12	240	11.011	11.020	-0.009	59	41674	400.0	400.0	
$ 4 Nitrobenzene-d5	82	4.419	4.419	0.000	93	544489	5005.0	4972.7	
$ 5 2-methylnaphthalene-d10	152	5.753	5.753	0.000	0	699224	4939.0	4499.9	
$ 6 2-Fluorobiphenyl	172	6.157	6.157	0.000	0	1098279	4998.5	4467.2	
$ 7 Fluoranthene-d10	212	9.420	9.426	-0.006	94	722327	4999.5	4728.3	
$ 8 Terphenyl-d14	244	9.853	9.859	-0.006	0	522006	5000.0	4439.8	
38 1,4-Dioxane	88	1.501	1.501	0.000	0	162539	5000.0	5062.2	M
9 N-Nitrosodiethylamine	102	2.983	2.983	0.000	98	209108	5017.5	4683.0	
10 N-Nitrosodi-n-propylamine	70	4.290	4.290	0.000	90	338179	5000.0	4836.2	
11 Naphthalene	128	5.107	5.107	0.000	1	1268221	5000.0	4448.5	
12 2-Methylnaphthalene	141	5.784	5.783	0.001	0	715800	5000.0	4522.1	
13 1-Methylnaphthalene	142	5.874	5.874	0.000	0	801243	5000.0	4593.9	
14 Acenaphthylene	152	6.649	6.648	0.001	0	1233219	5000.0	4564.2	
15 Acenaphthene	153	6.820	6.819	0.001	95	852401	5000.0	4588.9	
16 Dibenzofuran	168	6.991	7.000	-0.009	77	1224813	5000.0	4687.5	
17 Fluorene	166	7.332	7.332	0.000	83	646422	5000.0	4621.6	
18 Phenanthrene	178	8.269	8.273	-0.004	0	898170	5000.0	4600.4	
19 Anthracene	178	8.319	8.323	-0.004	1	897834	5000.0	4693.2	
20 Fluoranthene	202	9.439	9.444	-0.005	93	966133	5000.0	4463.9	
21 Pyrene	202	9.659	9.658	0.001	0	1010663	5000.0	4480.9	
22 Benzo[a]anthracene	228	11.001	11.005	-0.004	92	842608	5000.0	4766.0	
23 Chrysene	228	11.046	11.050	-0.004	0	866681	5000.0	4850.3	
24 Benzo[b]fluoranthene	252	12.607	12.613	-0.006	0	853588	5000.0	4691.4	
25 Benzo[k]fluoranthene	252	12.654	12.660	-0.006	0	907977	5000.0	4908.8	
26 Benzo[a]pyrene	252	13.112	13.119	-0.007	0	821926	5000.0	4849.5	
27 Indeno[1,2,3-cd]pyrene	276	14.394	14.401	-0.007	1	849113	5000.0	4955.5	
28 Dibenz(a,h)anthracene	278	14.432	14.438	-0.006	0	813477	5000.0	5078.0	
29 Benzo[g,h,i]perylene	276	14.638	14.645	-0.007	0	885814	5000.0	4830.7	
30 Dimethyl phthalate	163		0.000				ND	ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
31 N-Nitrosodimethylamine	42		0.000				ND	ND	
32 N-Nitrosodiphenylamine	169		0.000				ND	ND	
33 Di-n-butyl phthalate	149		0.000				ND	ND	
34 Diethyl phthalate	149		0.000				ND	ND	
35 Butyl benzyl phthalate	149		0.000				ND	ND	
36 Di-n-octyl phthalate	149		0.000				ND	ND	
S 44 TPAH	1				0			84508	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MS-SIM-CAL WS_00006	Amount Added: 500.00	Units: uL	
MS-SIM IS_00059	Amount Added: 100.00	Units: uL	Run Reagent

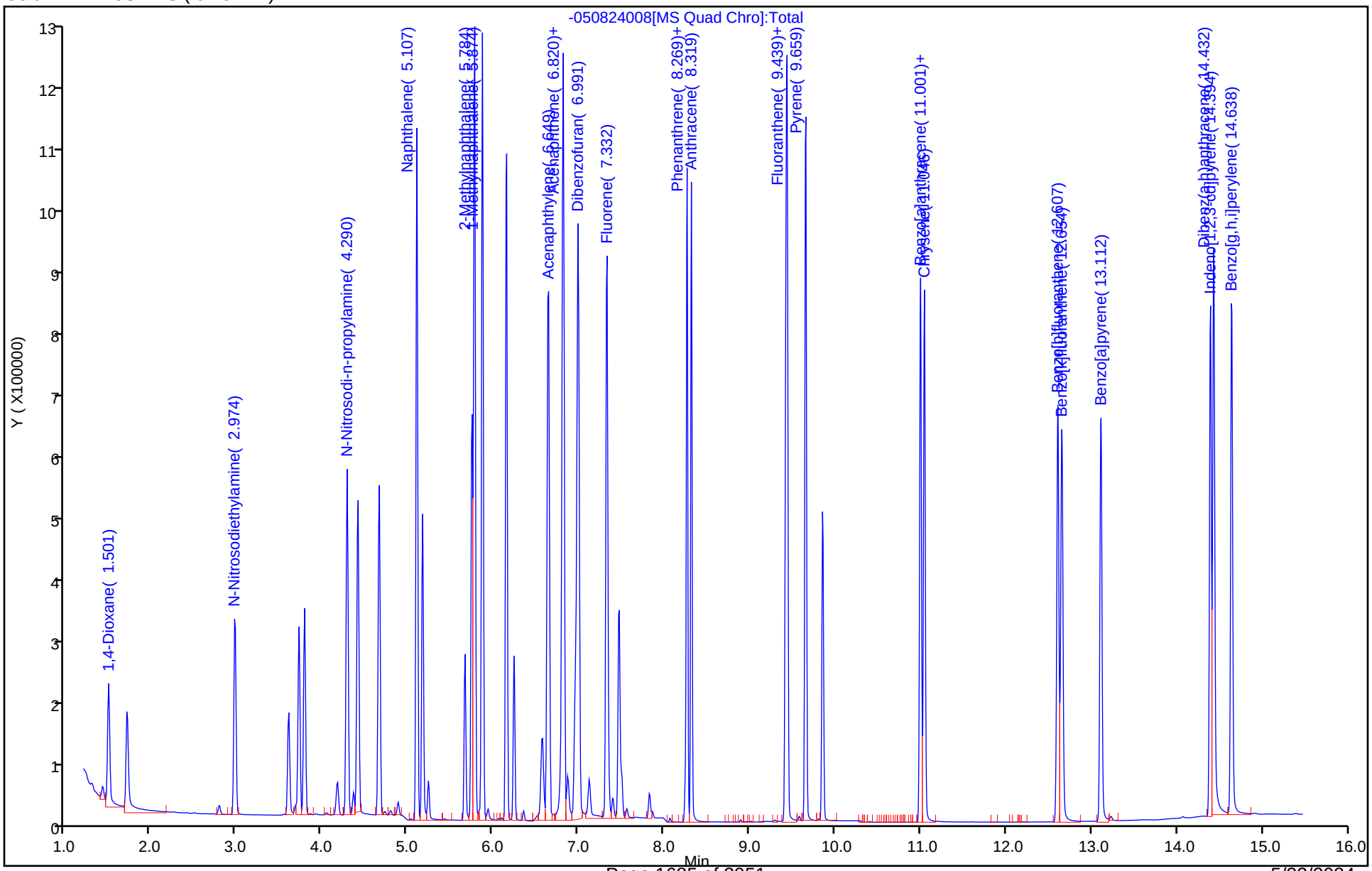
Report Date: 08-May-2024 14:52:03 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Injection Date:	08-May-2024 14:27:22	Instrument ID:	SMS_2	Operator ID:	MB
Lims ID:	STD5000			Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

Column: Rxi-5Sil MS (0.25 mm)



5/23/2024
4:40:30 AM

Calibration / Nitrobenzene-d5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

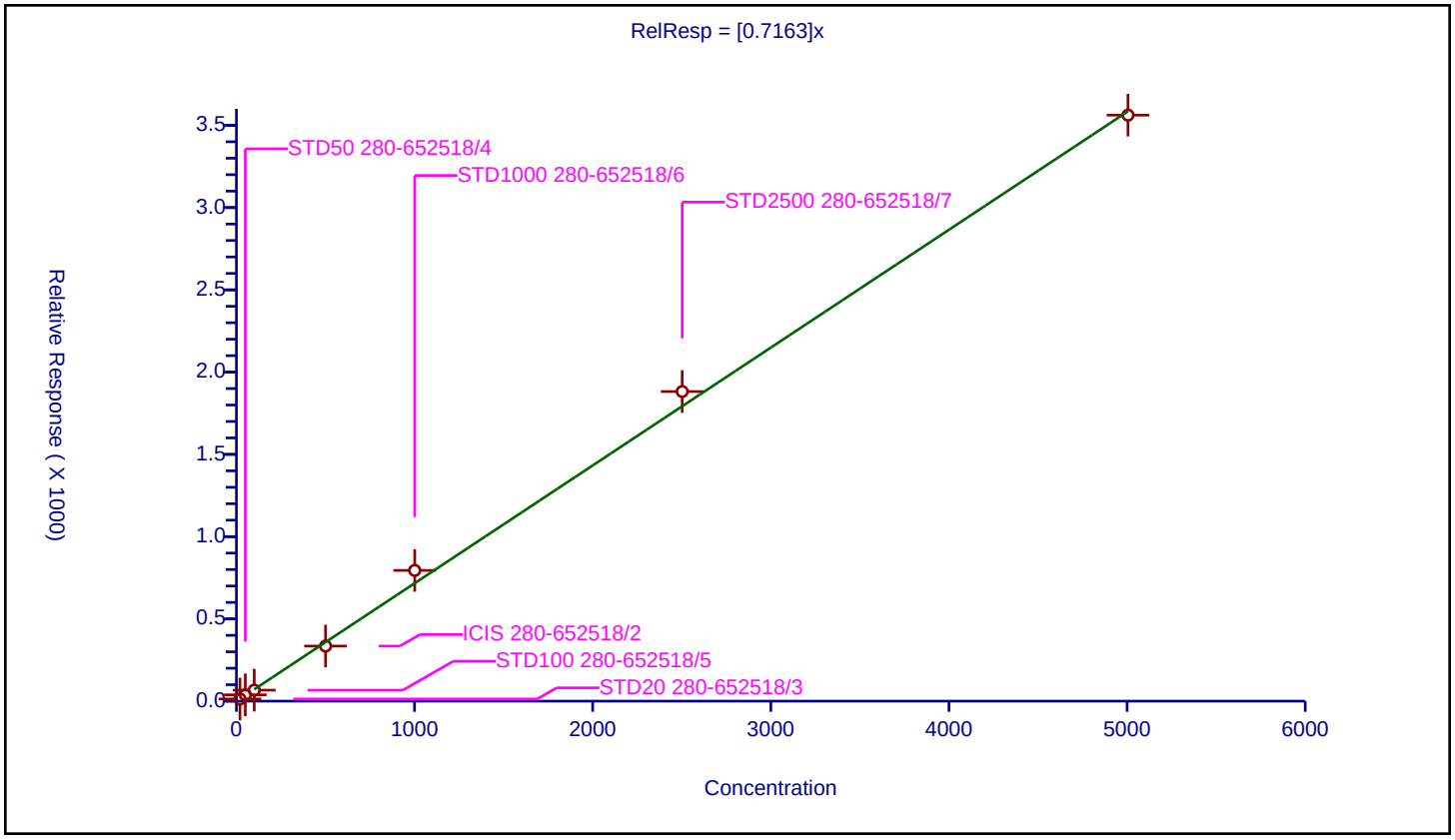
Curve Coefficients

Intercept:	0
Slope:	0.7163

Error Coefficients

Relative Standard Deviation:	7.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	20.02	13.060596	400.0	57149.0	0.652377	Y
2	STD50 280-652518/4	50.05	38.413039	400.0	59636.0	0.767493	Y
3	STD100 280-652518/5	100.1	66.857364	400.0	51740.0	0.667906	Y
4	ICIS 280-652518/2	500.5	334.68822	400.0	57717.0	0.668708	Y
5	STD1000 280-652518/6	1001.0	794.732087	400.0	57556.0	0.793938	Y
6	STD2500 280-652518/7	2502.5	1882.004761	400.0	60077.0	0.75205	Y
7	STD5000 280-652518/8	5005.0	3561.952735	400.0	61145.0	0.711679	Y



Calibration / Naphthalene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

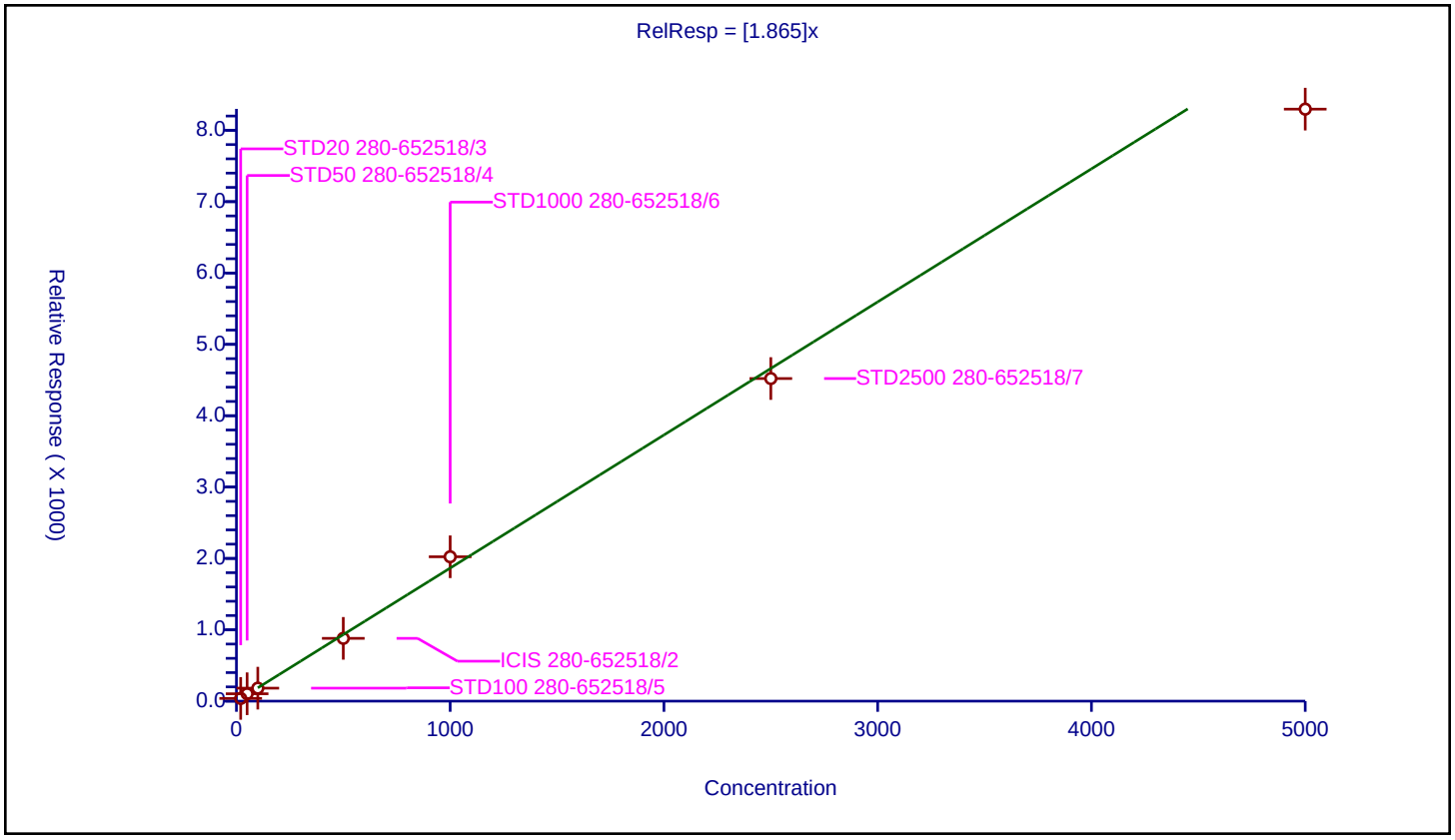
Curve Coefficients

Intercept:	0
Slope:	1.865

Error Coefficients

Relative Standard Deviation:	7.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	20.0	38.320881	400.0	57149.0	1.916044	Y
2	STD50 280-652518/4	50.0	103.507948	400.0	59636.0	2.070159	Y
3	STD100 280-652518/5	100.0	181.809045	400.0	51740.0	1.81809	Y
4	ICIS 280-652518/2	500.0	879.84476	400.0	57717.0	1.75969	Y
5	STD1000 280-652518/6	1000.0	2023.163528	400.0	57556.0	2.023164	Y
6	STD2500 280-652518/7	2500.0	4521.277694	400.0	60077.0	1.808511	Y
7	STD5000 280-652518/8	5000.0	8296.482133	400.0	61145.0	1.659296	Y



5/23/2024
4:40:30 AM

Calibration / 2-methylnaphthalene-d10

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

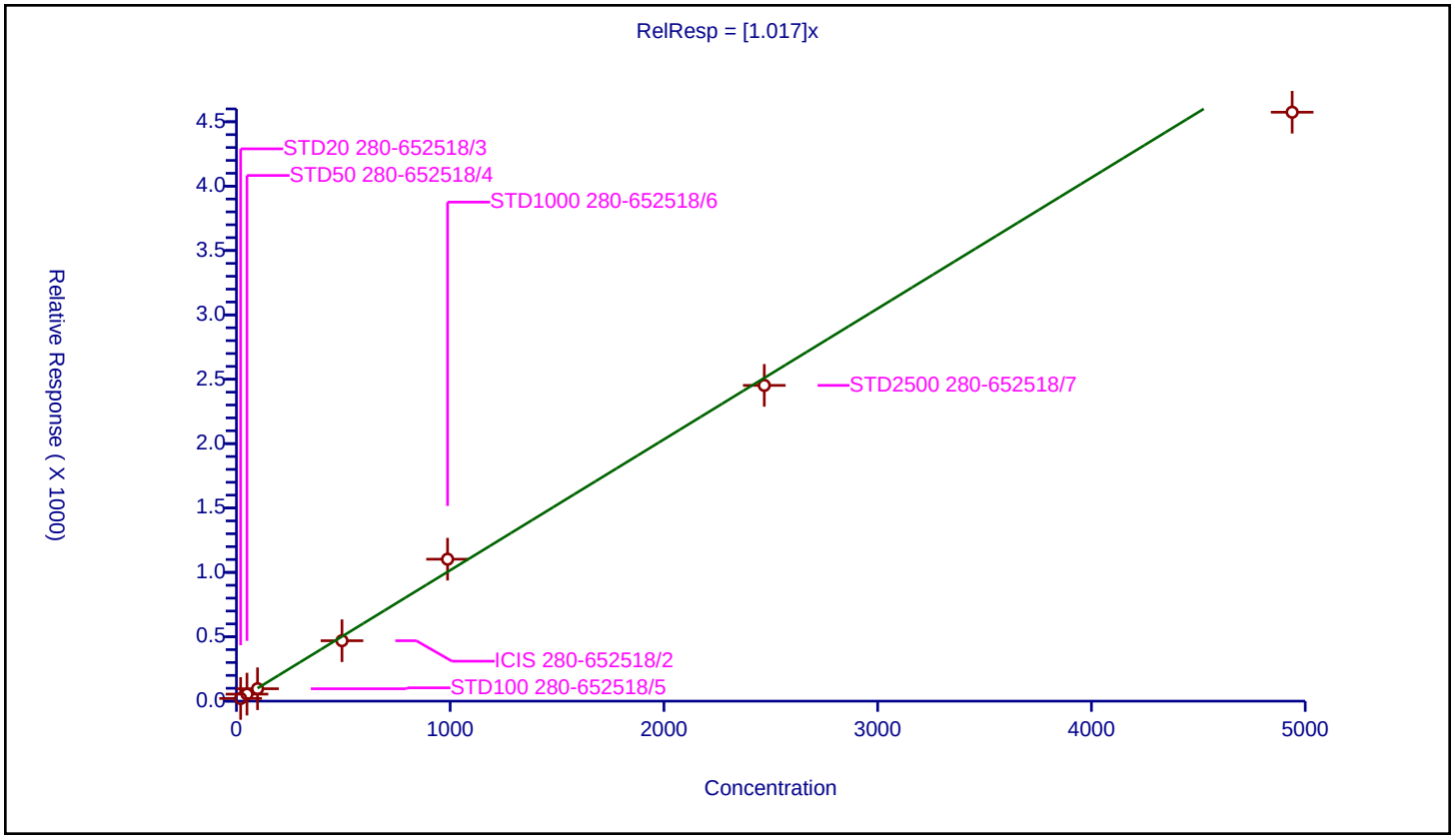
Curve Coefficients

Intercept:	0
Slope:	1.017

Error Coefficients

Relative Standard Deviation:	7.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	19.756	20.822762	400.0	57149.0	1.053997	Y
2	STD50 280-652518/4	49.39	54.416795	400.0	59636.0	1.101778	Y
3	STD100 280-652518/5	98.78	96.211828	400.0	51740.0	0.974001	Y
4	ICIS 280-652518/2	493.9	469.338323	400.0	57717.0	0.95027	Y
5	STD1000 280-652518/6	987.8	1102.585308	400.0	57556.0	1.116203	Y
6	STD2500 280-652518/7	2469.5	2452.605823	400.0	60077.0	0.993159	Y
7	STD5000 280-652518/8	4939.0	4574.202306	400.0	61145.0	0.926139	Y



5/23/2024
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Calibration / 2-Methylnaphthalene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

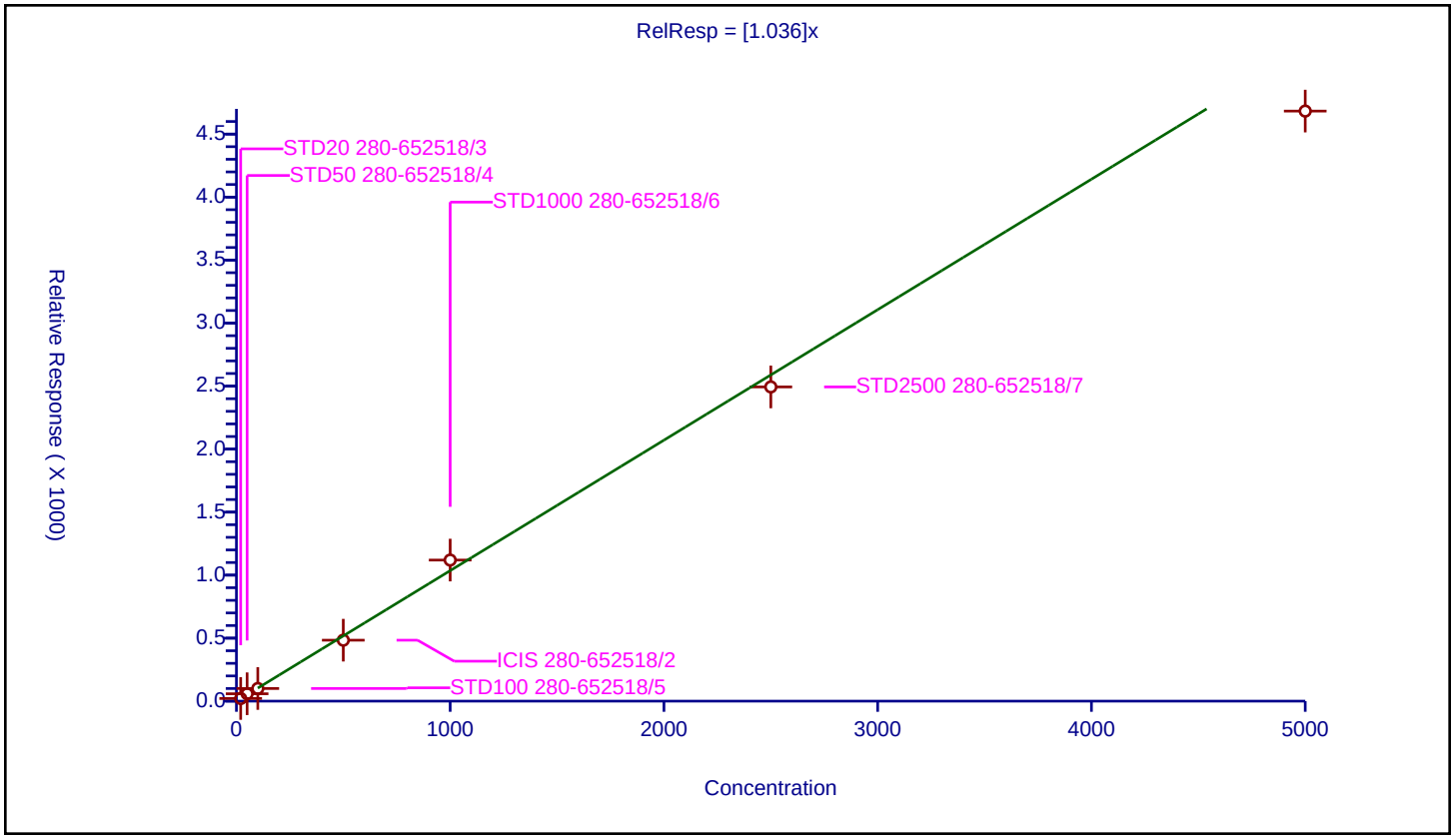
Curve Coefficients

Intercept:	0
Slope:	1.036

Error Coefficients

Relative Standard Deviation:	8.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	20.0	21.01874	400.0	57149.0	1.050937	Y
2	STD50 280-652518/4	50.0	58.675968	400.0	59636.0	1.173519	Y
3	STD100 280-652518/5	100.0	100.309239	400.0	51740.0	1.003092	Y
4	ICIS 280-652518/2	500.0	483.746556	400.0	57717.0	0.967493	Y
5	STD1000 280-652518/6	1000.0	1119.528807	400.0	57556.0	1.119529	Y
6	STD2500 280-652518/7	2500.0	2493.519983	400.0	60077.0	0.997408	Y
7	STD5000 280-652518/8	5000.0	4682.639627	400.0	61145.0	0.936528	Y



Calibration / 1-Methylnaphthalene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

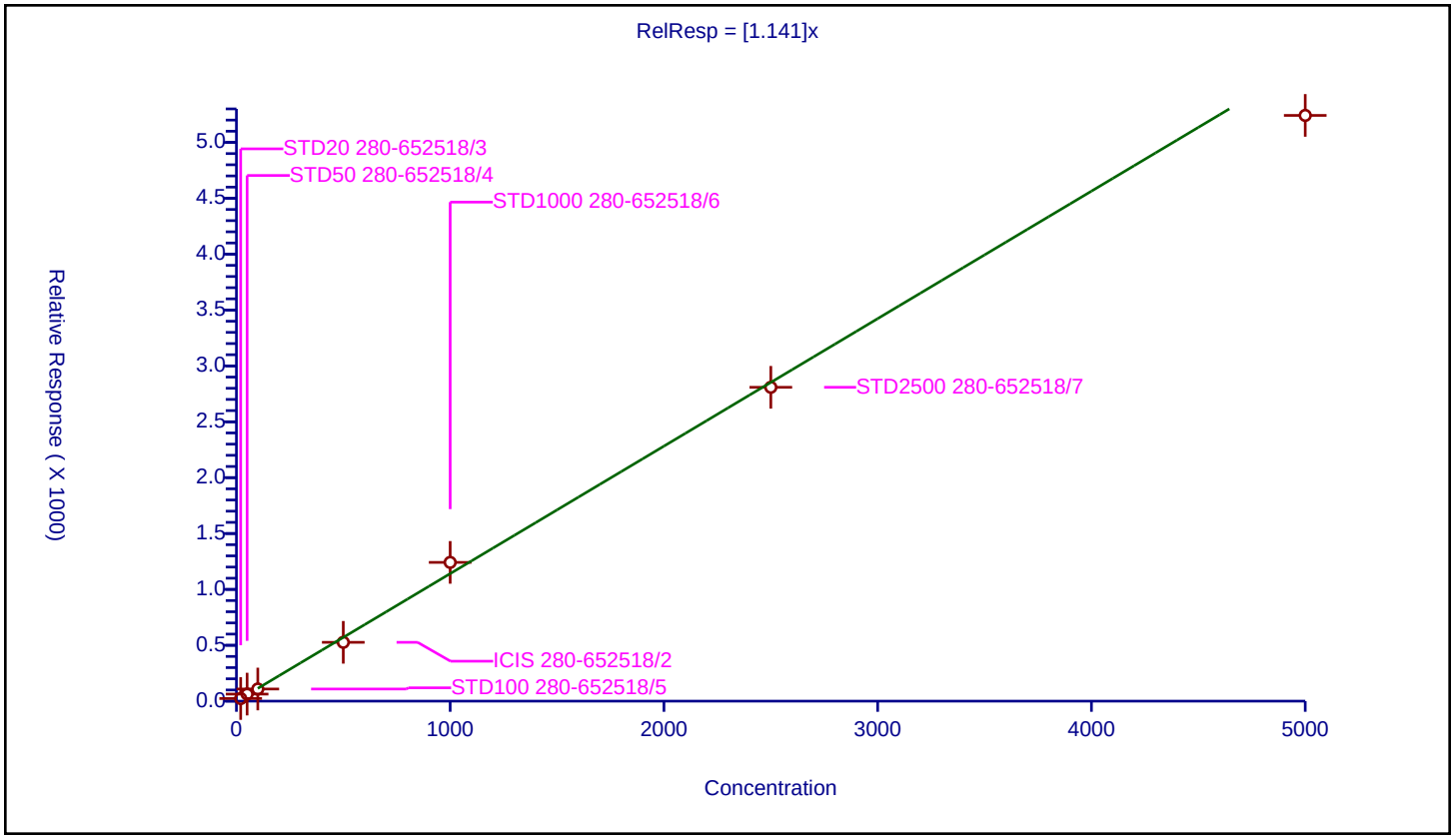
Curve Coefficients

Intercept:	0
Slope:	1.141

Error Coefficients

Relative Standard Deviation:	7.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	20.0	23.496474	400.0	57149.0	1.174824	Y
2	STD50 280-652518/4	50.0	63.015628	400.0	59636.0	1.260313	Y
3	STD100 280-652518/5	100.0	108.558175	400.0	51740.0	1.085582	Y
4	ICIS 280-652518/2	500.0	526.444548	400.0	57717.0	1.052889	Y
5	STD1000 280-652518/6	1000.0	1241.635972	400.0	57556.0	1.241636	Y
6	STD2500 280-652518/7	2500.0	2808.542371	400.0	60077.0	1.123417	Y
7	STD5000 280-652518/8	5000.0	5241.592935	400.0	61145.0	1.048319	Y



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Calibration / 2-Fluorobiphenyl

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

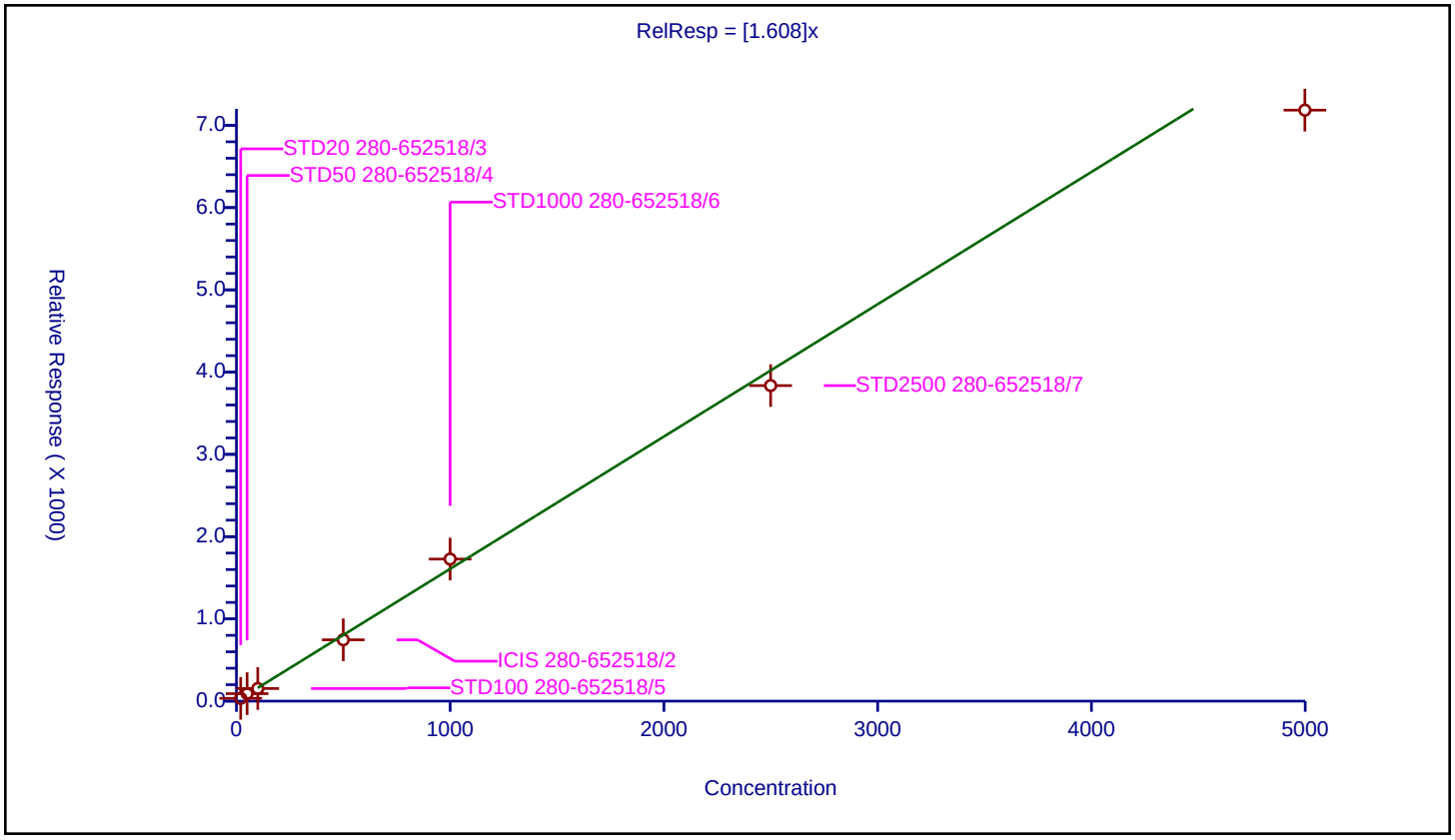
Curve Coefficients

Intercept:	0
Slope:	1.608

Error Coefficients

Relative Standard Deviation:	9.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	19.994	34.205323	400.0	57149.0	1.710779	Y
2	STD50 280-652518/4	49.985	91.119458	400.0	59636.0	1.822936	Y
3	STD100 280-652518/5	99.97	153.274063	400.0	51740.0	1.533201	Y
4	ICIS 280-652518/2	499.85	745.381777	400.0	57717.0	1.491211	Y
5	STD1000 280-652518/6	999.7	1727.402877	400.0	57556.0	1.727921	Y
6	STD2500 280-652518/7	2499.25	3836.003795	400.0	60077.0	1.534862	Y
7	STD5000 280-652518/8	4998.5	7184.751002	400.0	61145.0	1.437381	Y



Calibration / Acenaphthylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

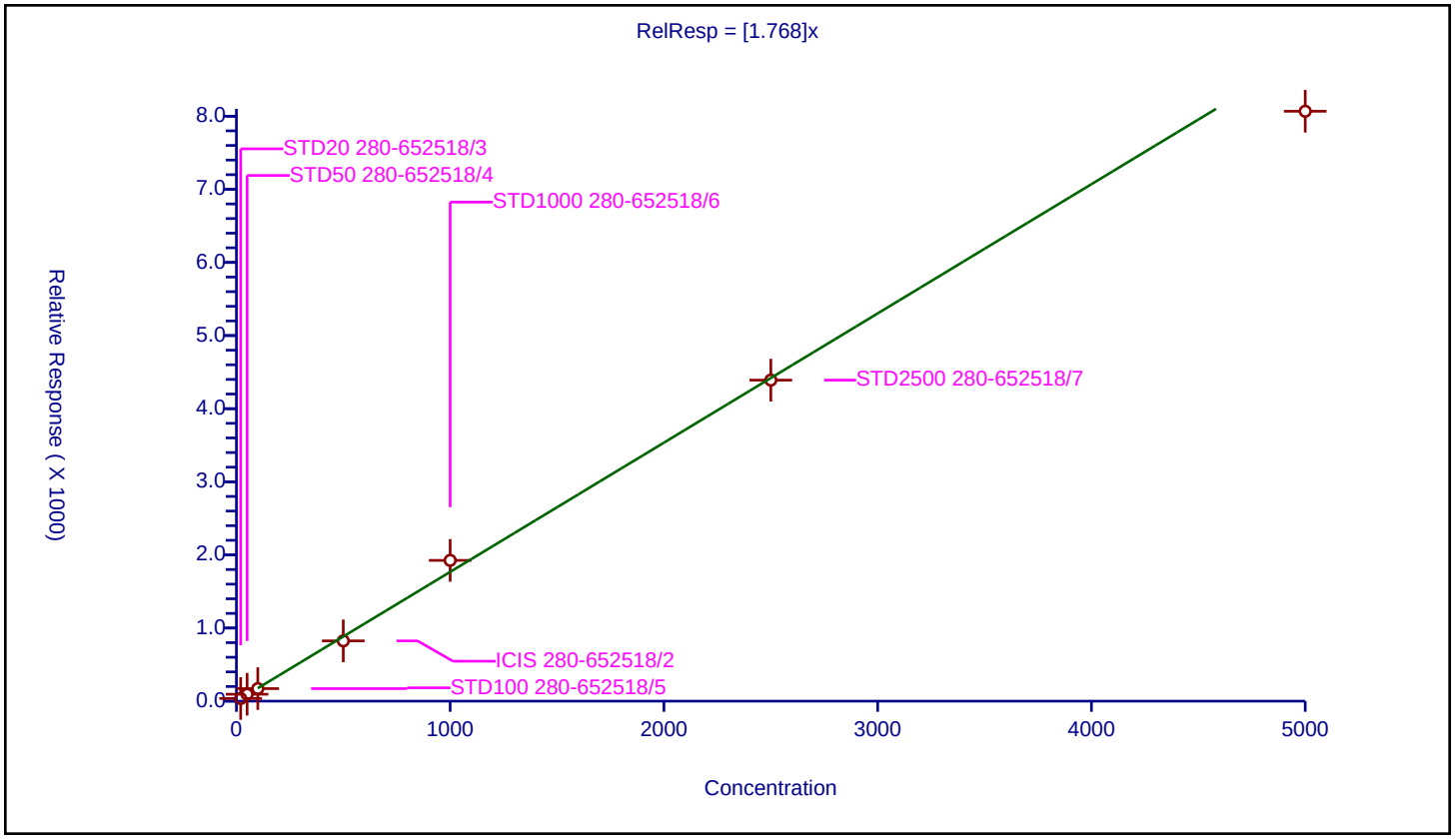
Curve Coefficients

Intercept:	0
Slope:	1.768

Error Coefficients

Relative Standard Deviation:	6.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	20.0	36.473079	400.0	57149.0	1.823654	Y
2	STD50 280-652518/4	50.0	94.674358	400.0	59636.0	1.893487	Y
3	STD100 280-652518/5	100.0	171.271743	400.0	51740.0	1.712717	Y
4	ICIS 280-652518/2	500.0	824.055304	400.0	57717.0	1.648111	Y
5	STD1000 280-652518/6	1000.0	1925.331851	400.0	57556.0	1.925332	Y
6	STD2500 280-652518/7	2500.0	4390.432279	400.0	60077.0	1.756173	Y
7	STD5000 280-652518/8	5000.0	8067.505111	400.0	61145.0	1.613501	Y



Calibration / Acenaphthene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

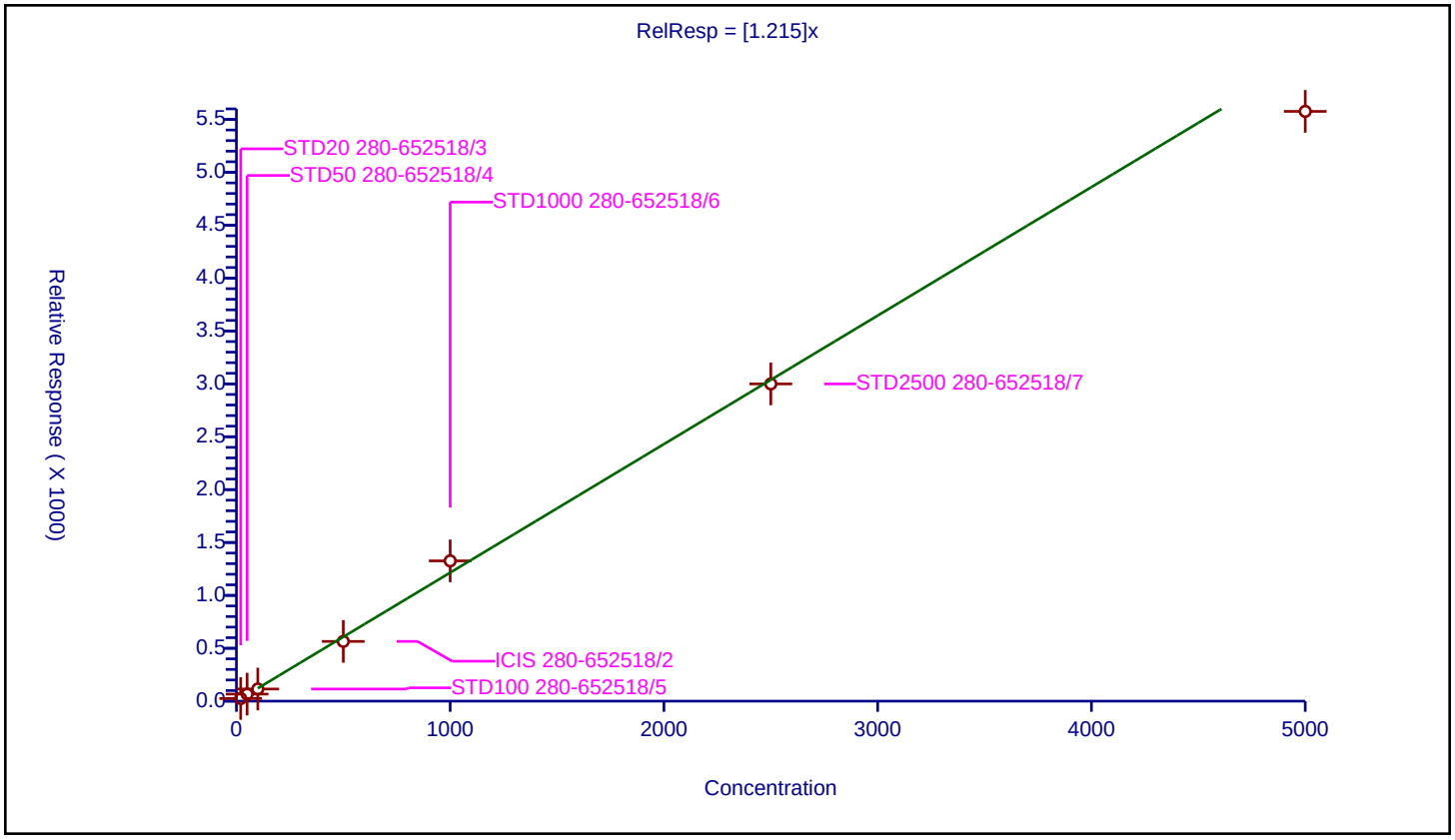
Curve Coefficients

Intercept:	0
Slope:	1.215

Error Coefficients

Relative Standard Deviation:	7.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	20.0	25.064306	400.0	57149.0	1.253215	Y
2	STD50 280-652518/4	50.0	66.697968	400.0	59636.0	1.333959	Y
3	STD100 280-652518/5	100.0	114.804793	400.0	51740.0	1.148048	Y
4	ICIS 280-652518/2	500.0	564.845713	400.0	57717.0	1.129691	Y
5	STD1000 280-652518/6	1000.0	1326.214469	400.0	57556.0	1.326214	Y
6	STD2500 280-652518/7	2500.0	2999.550577	400.0	60077.0	1.19982	Y
7	STD5000 280-652518/8	5000.0	5576.259711	400.0	61145.0	1.115252	Y



Calibration / Fluorene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

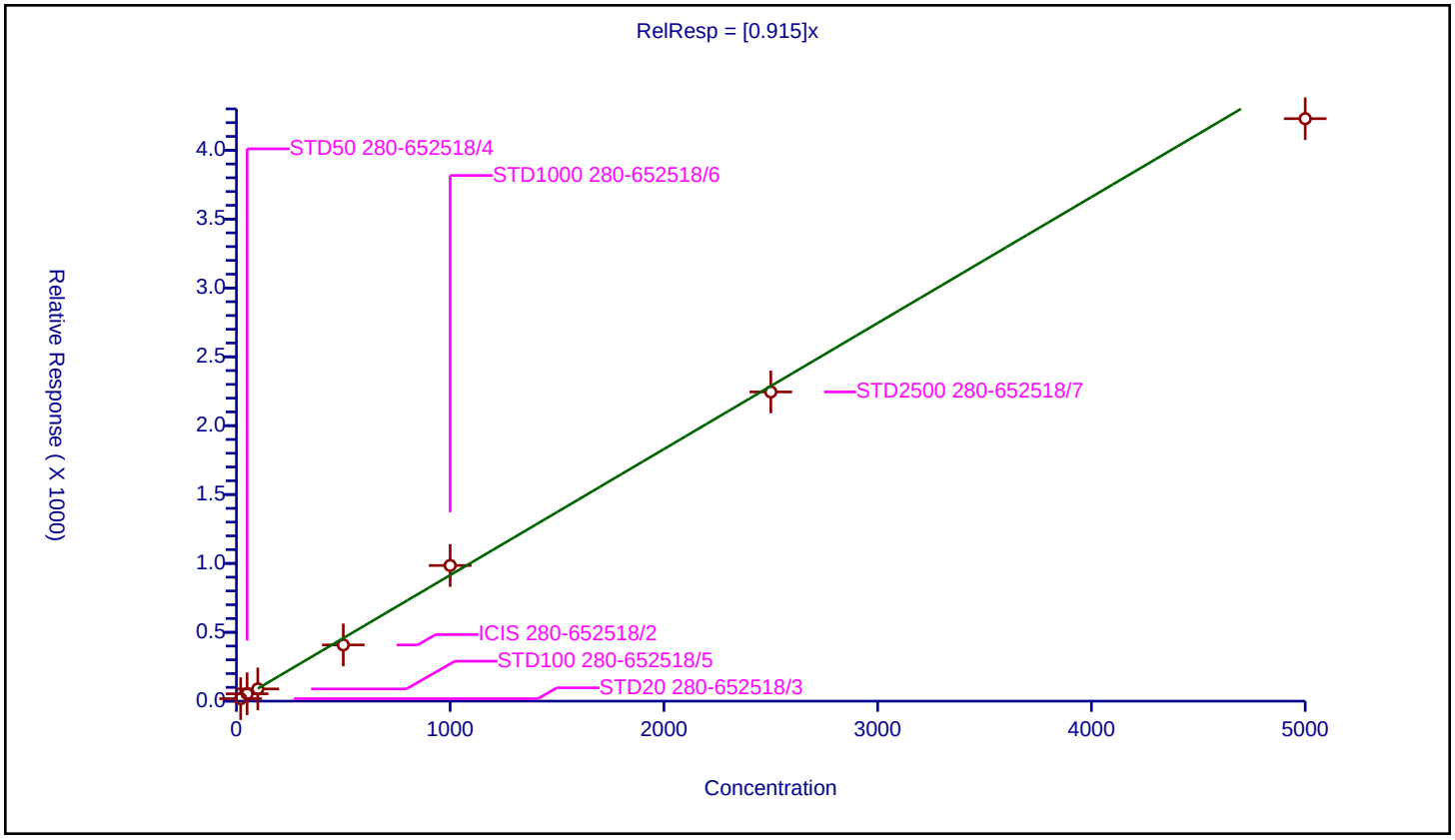
Curve Coefficients

Intercept:	0
Slope:	0.915

Error Coefficients

Relative Standard Deviation:	9.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	20.0	18.100054	400.0	57149.0	0.905003	Y
2	STD50 280-652518/4	50.0	53.437521	400.0	59636.0	1.06875	Y
3	STD100 280-652518/5	100.0	88.627754	400.0	51740.0	0.886278	Y
4	ICIS 280-652518/2	500.0	408.12239	400.0	57717.0	0.816245	Y
5	STD1000 280-652518/6	1000.0	984.988533	400.0	57556.0	0.984989	Y
6	STD2500 280-652518/7	2500.0	2245.052183	400.0	60077.0	0.898021	Y
7	STD5000 280-652518/8	5000.0	4228.780767	400.0	61145.0	0.845756	Y



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Calibration / Phenanthrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

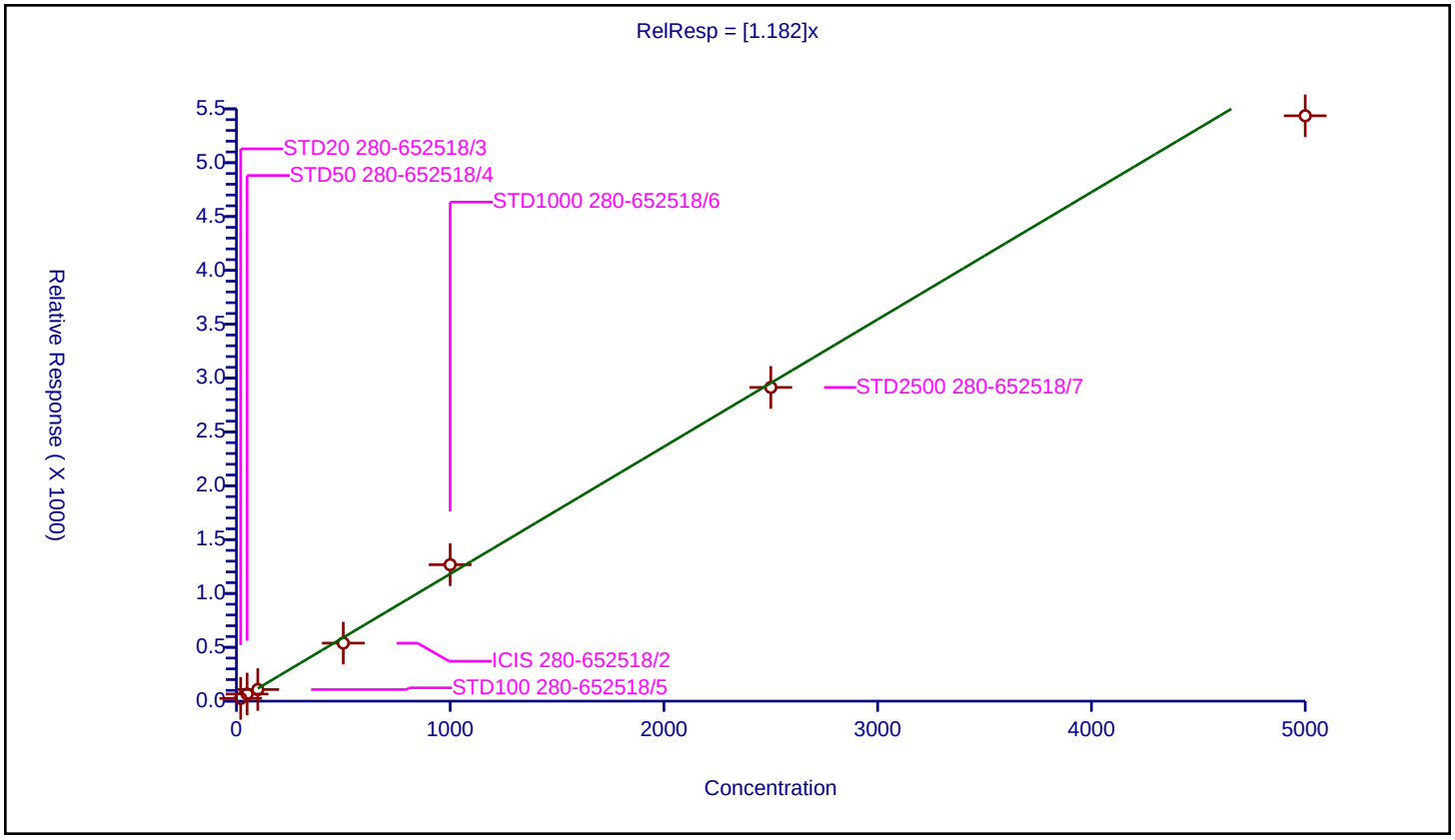
Curve Coefficients

Intercept:	0
Slope:	1.182

Error Coefficients

Relative Standard Deviation:	8.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	20.0	25.5026	400.0	58645.0	1.27513	Y
2	STD50 280-652518/4	50.0	66.089037	400.0	61862.0	1.321781	Y
3	STD100 280-652518/5	100.0	107.707715	400.0	55918.0	1.077077	Y
4	ICIS 280-652518/2	500.0	538.960476	400.0	62317.0	1.077921	Y
5	STD1000 280-652518/6	1000.0	1266.930028	400.0	62525.0	1.26693	Y
6	STD2500 280-652518/7	2500.0	2913.463578	400.0	65057.0	1.165385	Y
7	STD5000 280-652518/8	5000.0	5436.041761	400.0	66090.0	1.087208	Y



Calibration / Anthracene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

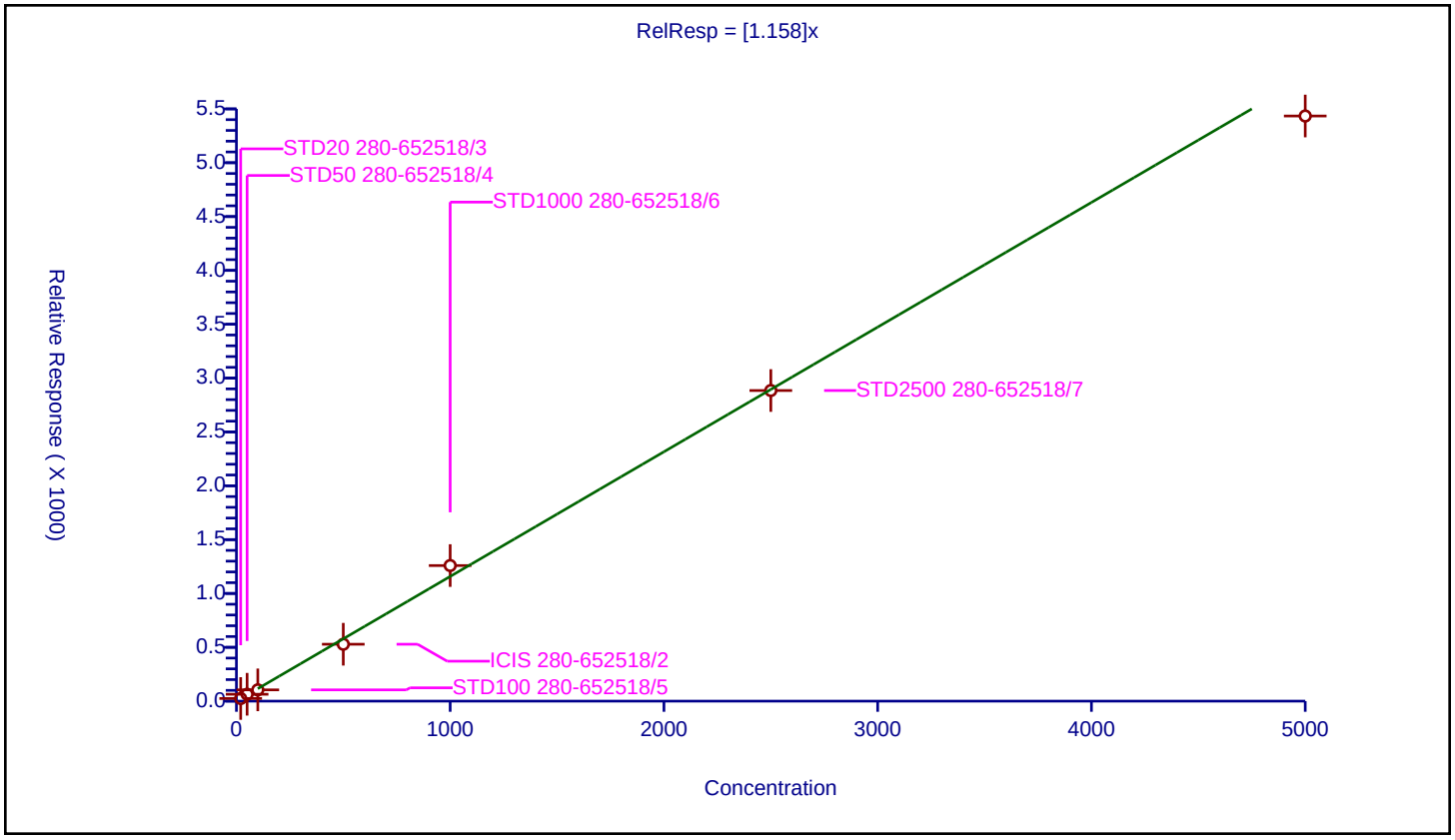
Curve Coefficients

Intercept:	0
Slope:	1.158

Error Coefficients

Relative Standard Deviation:	8.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	20.0	24.499957	400.0	58645.0	1.224998	Y
2	STD50 280-652518/4	50.0	63.825935	400.0	61862.0	1.276519	Y
3	STD100 280-652518/5	100.0	104.653242	400.0	55918.0	1.046532	Y
4	ICIS 280-652518/2	500.0	528.549192	400.0	62317.0	1.057098	Y
5	STD1000 280-652518/6	1000.0	1259.163535	400.0	62525.0	1.259164	Y
6	STD2500 280-652518/7	2500.0	2884.547397	400.0	65057.0	1.153819	Y
7	STD5000 280-652518/8	5000.0	5434.008171	400.0	66090.0	1.086802	Y



Calibration / Fluoranthene-d10

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

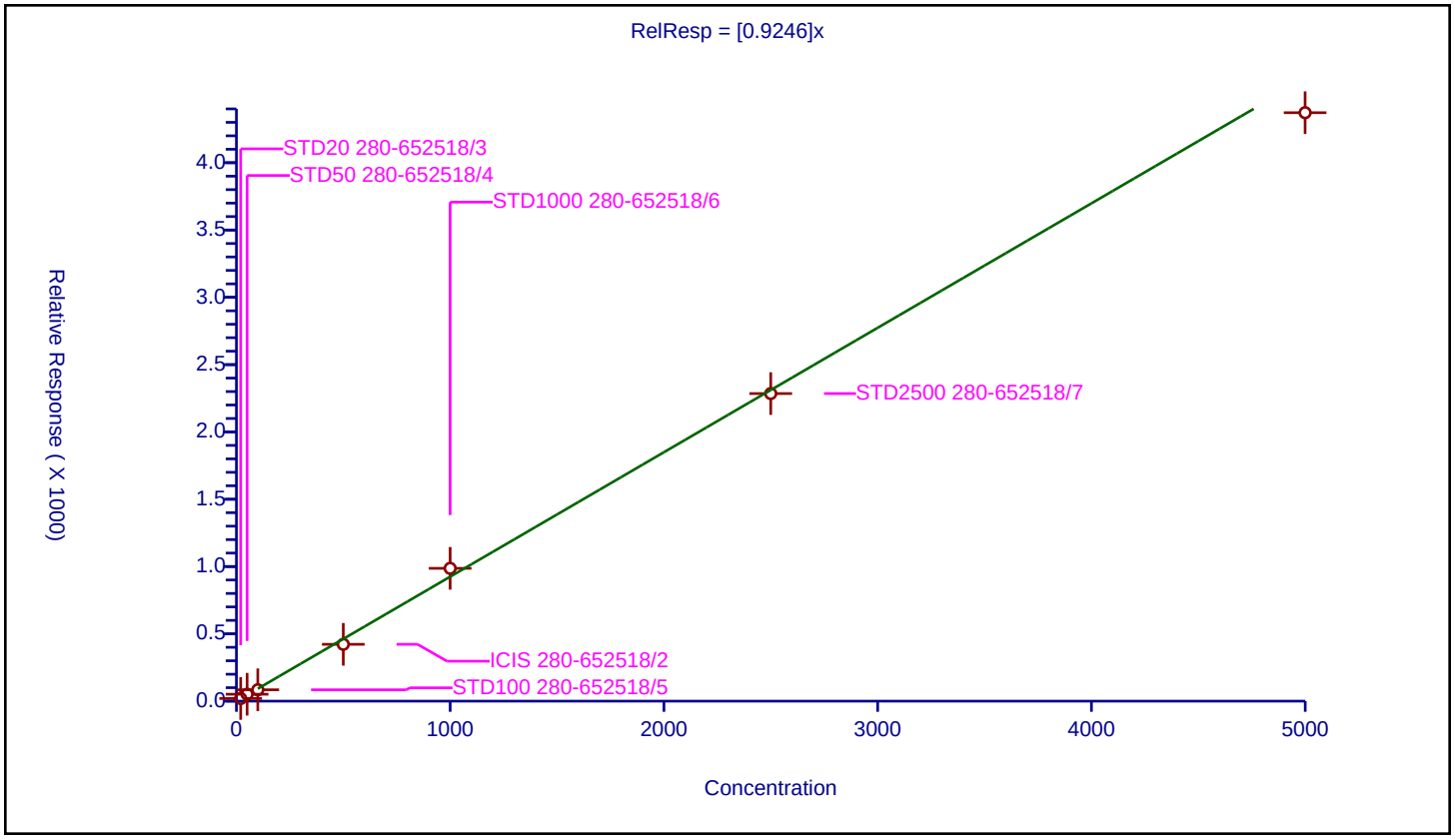
Curve Coefficients

Intercept:	0
Slope:	0.9246

Error Coefficients

Relative Standard Deviation:	8.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	19.998	19.65726	400.0	58645.0	0.982961	Y
2	STD50 280-652518/4	49.995	51.262487	400.0	61862.0	1.025352	Y
3	STD100 280-652518/5	99.99	84.395007	400.0	55918.0	0.844034	Y
4	ICIS 280-652518/2	499.95	422.183353	400.0	62317.0	0.844451	Y
5	STD1000 280-652518/6	999.9	986.664534	400.0	62525.0	0.986763	Y
6	STD2500 280-652518/7	2499.75	2285.079238	400.0	65057.0	0.914123	Y
7	STD5000 280-652518/8	4999.5	4371.777879	400.0	66090.0	0.874443	Y



Calibration / Fluoranthene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

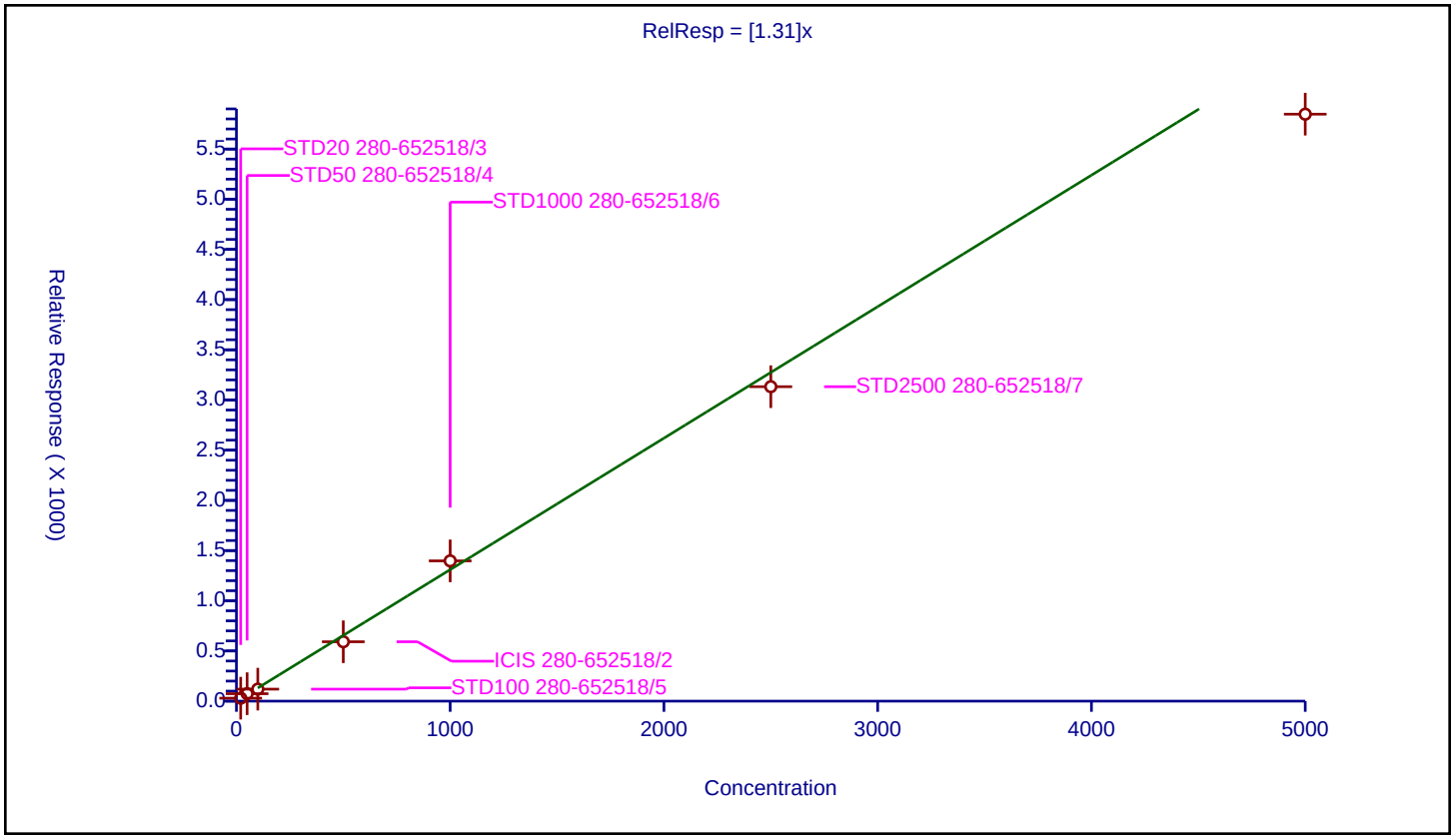
Curve Coefficients

Intercept:	0
Slope:	1.31

Error Coefficients

Relative Standard Deviation:	10.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	20.0	29.710973	400.0	58645.0	1.485549	Y
2	STD50 280-652518/4	50.0	74.223271	400.0	61862.0	1.484465	Y
3	STD100 280-652518/5	100.0	119.646625	400.0	55918.0	1.196466	Y
4	ICIS 280-652518/2	500.0	591.530401	400.0	62317.0	1.183061	Y
5	STD1000 280-652518/6	1000.0	1397.463415	400.0	62525.0	1.397463	Y
6	STD2500 280-652518/7	2500.0	3132.483822	400.0	65057.0	1.252994	Y
7	STD5000 280-652518/8	5000.0	5847.377818	400.0	66090.0	1.169476	Y



Calibration / Pyrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

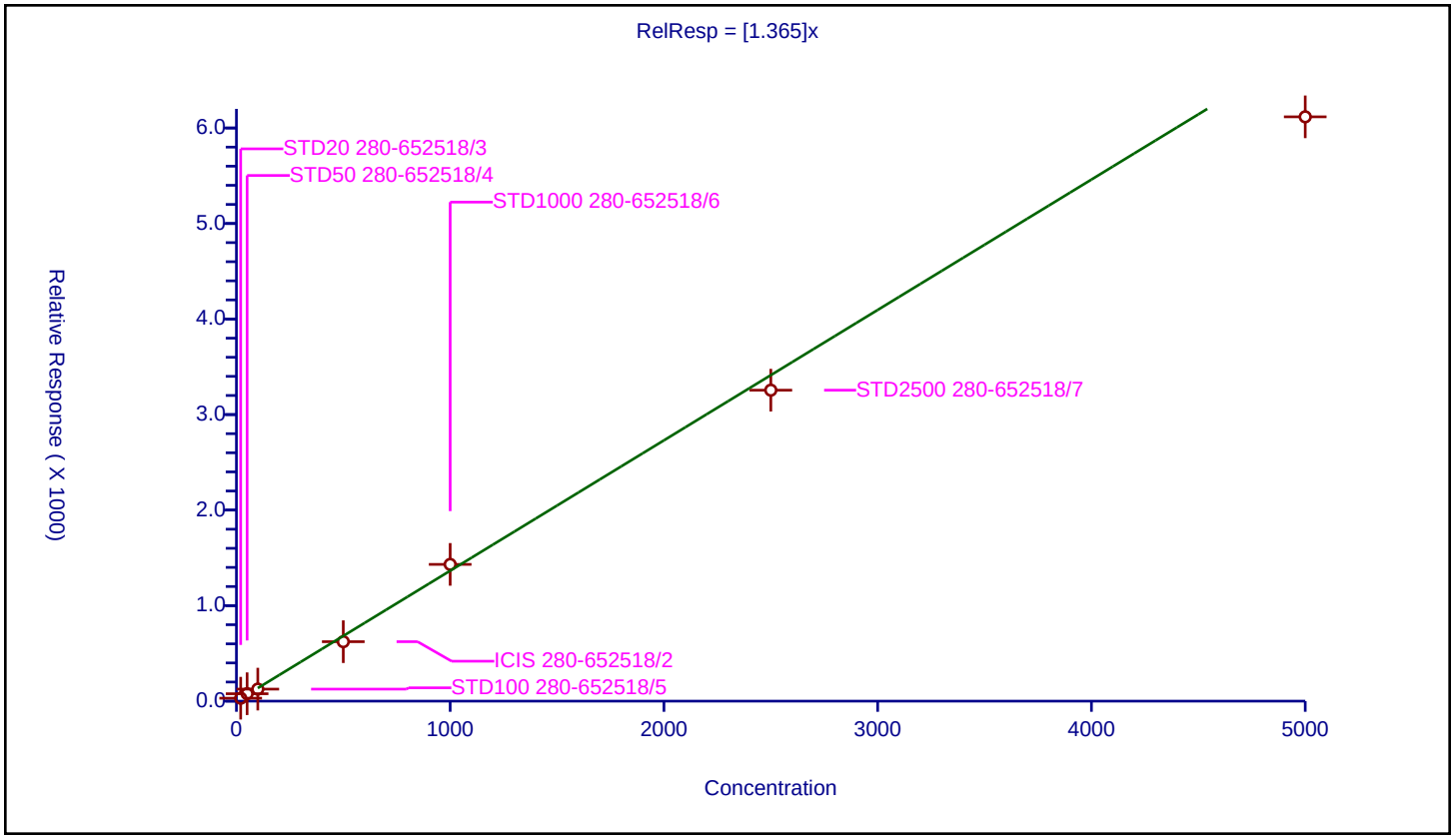
Curve Coefficients

Intercept:	0
Slope:	1.365

Error Coefficients

Relative Standard Deviation:	10.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	20.0	30.829568	400.0	58645.0	1.541478	Y
2	STD50 280-652518/4	50.0	77.727846	400.0	61862.0	1.554557	Y
3	STD100 280-652518/5	100.0	125.784184	400.0	55918.0	1.257842	Y
4	ICIS 280-652518/2	500.0	622.366288	400.0	62317.0	1.244733	Y
5	STD1000 280-652518/6	1000.0	1431.593762	400.0	62525.0	1.431594	Y
6	STD2500 280-652518/7	2500.0	3255.385278	400.0	65057.0	1.302154	Y
7	STD5000 280-652518/8	5000.0	6116.889091	400.0	66090.0	1.223378	Y



Calibration / Terphenyl-d14

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

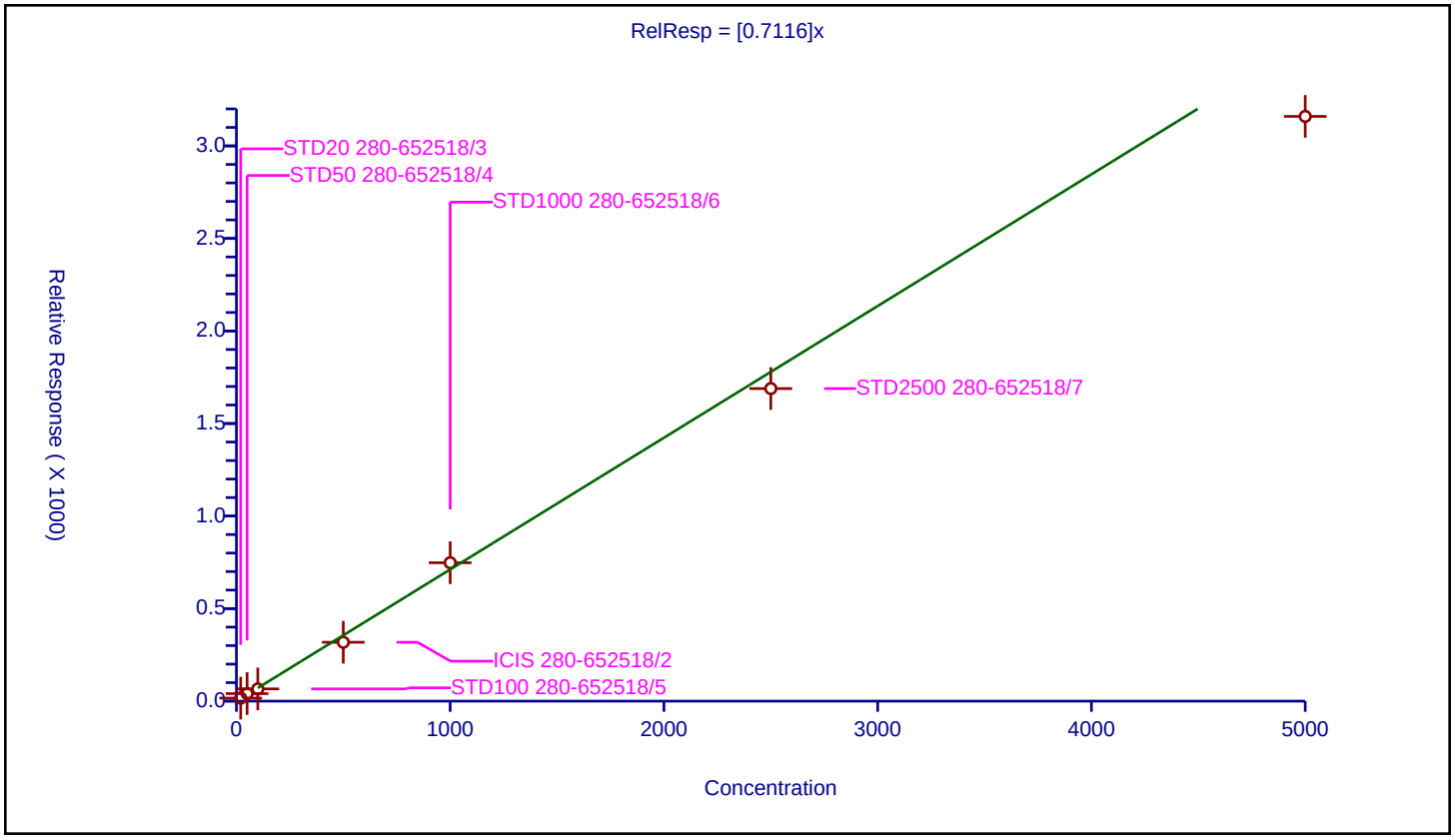
Curve Coefficients

Intercept:	0
Slope:	0.7116

Error Coefficients

Relative Standard Deviation:	11.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	20.0	16.328758	400.0	58645.0	0.816438	Y
2	STD50 280-652518/4	50.0	40.593579	400.0	61862.0	0.811872	Y
3	STD100 280-652518/5	100.0	66.146858	400.0	55918.0	0.661469	Y
4	ICIS 280-652518/2	500.0	318.115442	400.0	62317.0	0.636231	Y
5	STD1000 280-652518/6	1000.0	747.828868	400.0	62525.0	0.747829	Y
6	STD2500 280-652518/7	2500.0	1688.808276	400.0	65057.0	0.675523	Y
7	STD5000 280-652518/8	5000.0	3159.364503	400.0	66090.0	0.631873	Y



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Calibration / Benzo[a]anthracene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

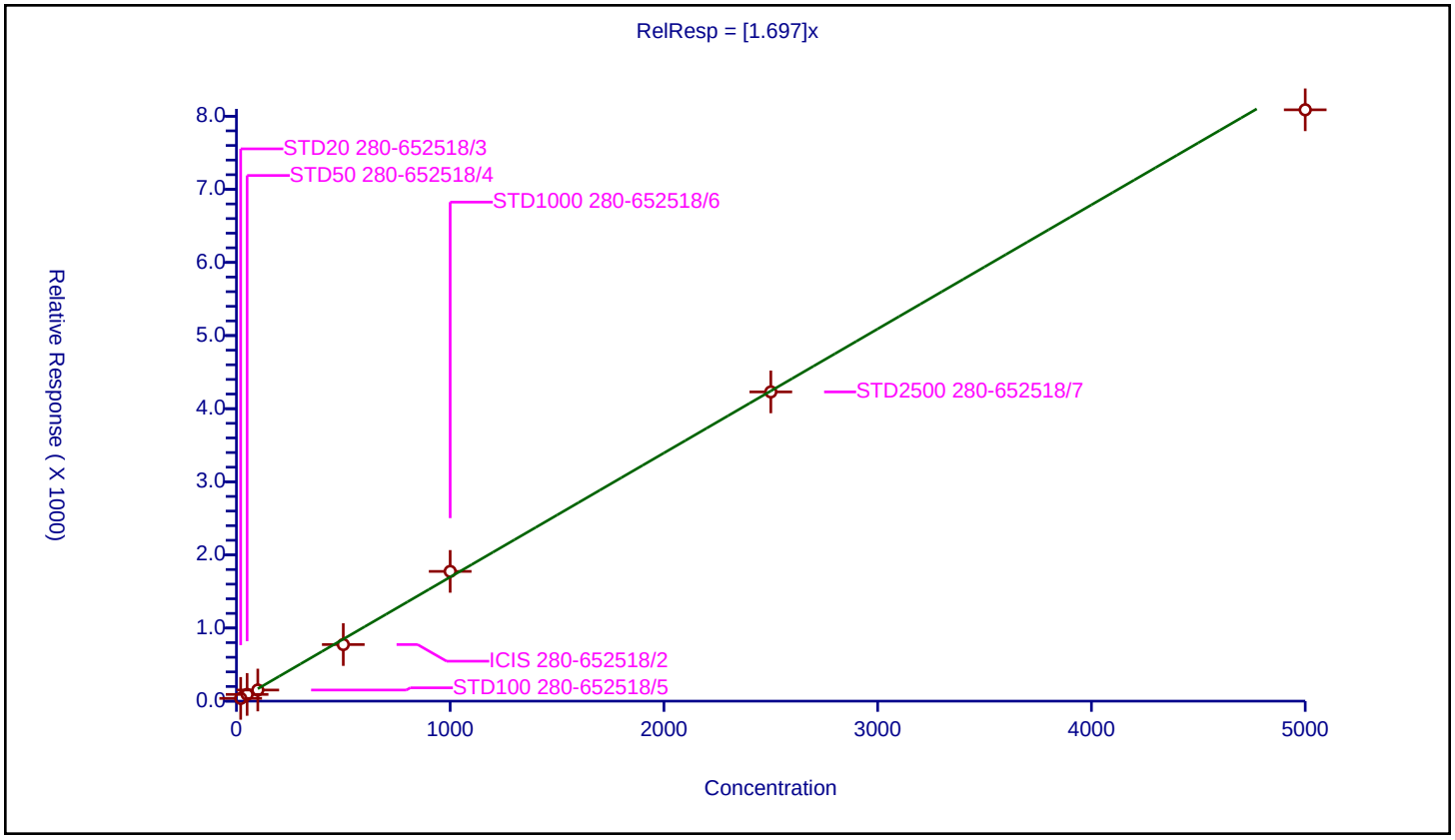
Curve Coefficients

Intercept:	0
Slope:	1.697

Error Coefficients

Relative Standard Deviation:	8.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	20.0	37.758888	400.0	42586.0	1.887944	Y
2	STD50 280-652518/4	50.0	91.983426	400.0	44408.0	1.839669	Y
3	STD100 280-652518/5	100.0	151.932537	400.0	39844.0	1.519325	Y
4	ICIS 280-652518/2	500.0	773.900709	400.0	43710.0	1.547801	Y
5	STD1000 280-652518/6	1000.0	1774.619809	400.0	42939.0	1.77462	Y
6	STD2500 280-652518/7	2500.0	4229.287081	400.0	42319.0	1.691715	Y
7	STD5000 280-652518/8	5000.0	8087.61338	400.0	41674.0	1.617523	Y



Calibration / Chrysene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

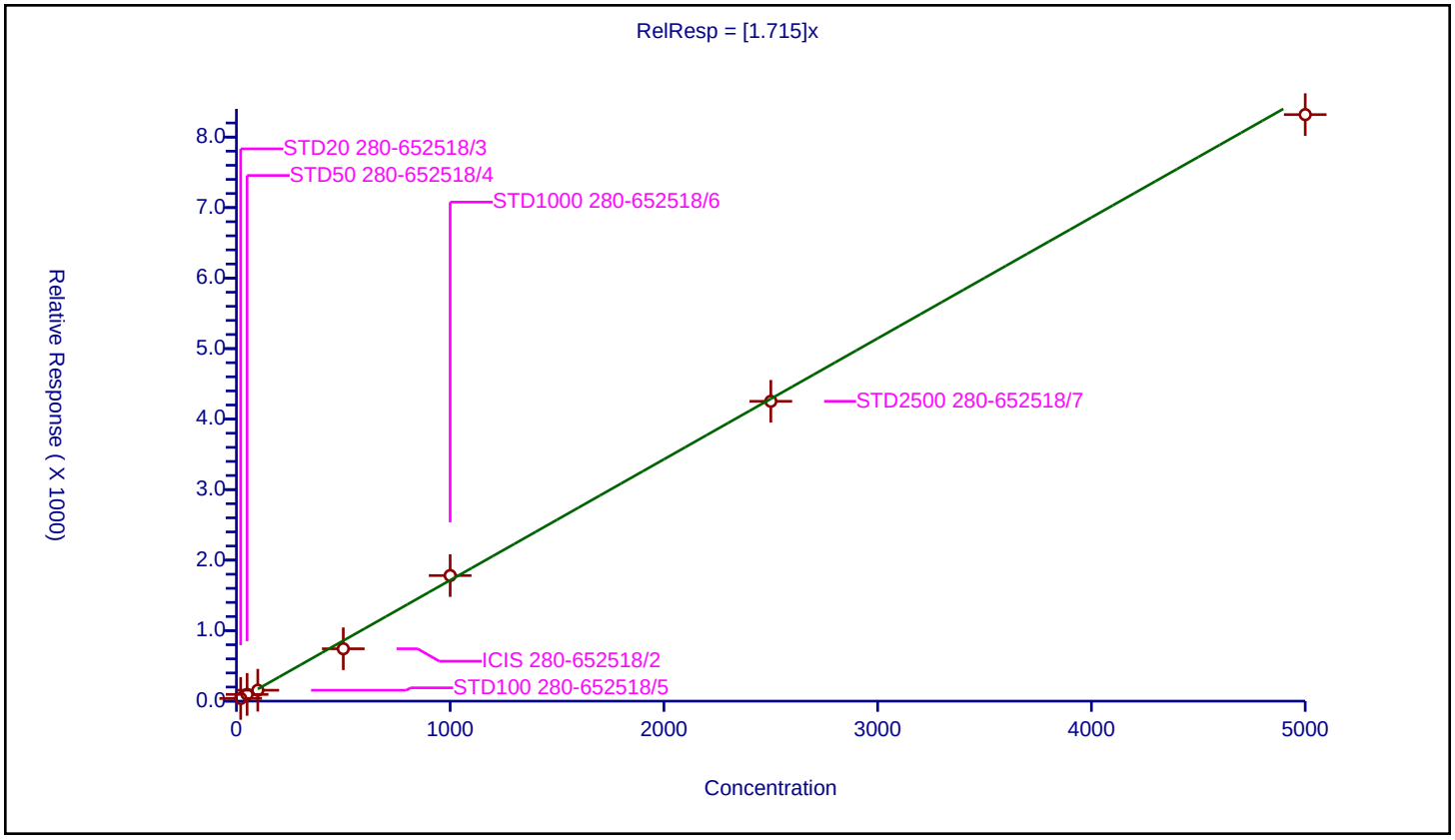
Curve Coefficients

Intercept:	0
Slope:	1.715

Error Coefficients

Relative Standard Deviation:	9.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	20.0	38.369417	400.0	42586.0	1.918471	Y
2	STD50 280-652518/4	50.0	95.307152	400.0	44408.0	1.906143	Y
3	STD100 280-652518/5	100.0	154.874009	400.0	39844.0	1.54874	Y
4	ICIS 280-652518/2	500.0	742.987875	400.0	43710.0	1.485976	Y
5	STD1000 280-652518/6	1000.0	1781.336314	400.0	42939.0	1.781336	Y
6	STD2500 280-652518/7	2500.0	4252.728089	400.0	42319.0	1.701091	Y
7	STD5000 280-652518/8	5000.0	8318.673513	400.0	41674.0	1.663735	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

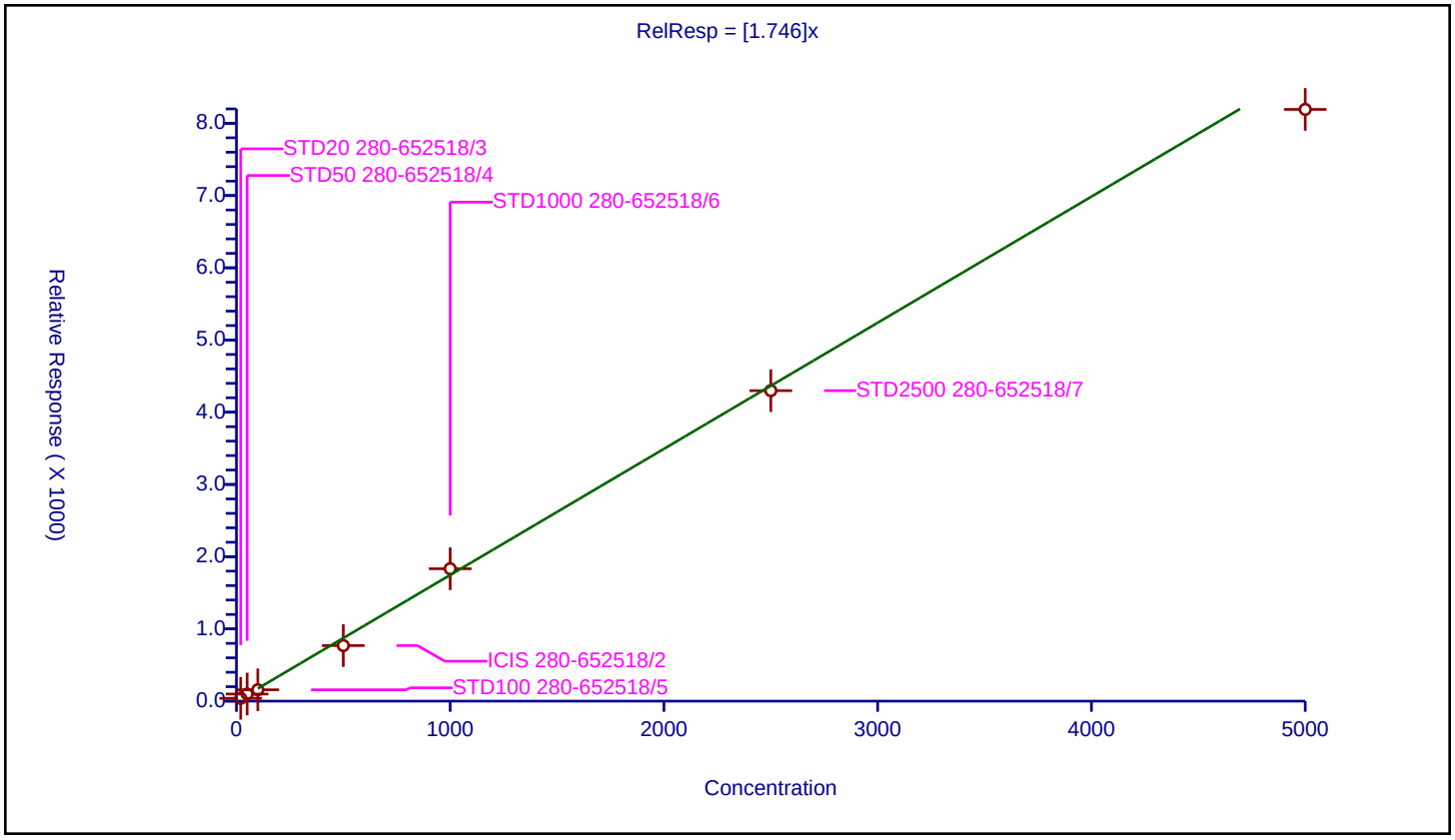
Curve Coefficients

Intercept:	0
Slope:	1.746

Error Coefficients

Relative Standard Deviation:	10.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	20.0	39.214765	400.0	42586.0	1.960738	Y
2	STD50 280-652518/4	50.0	98.090434	400.0	44408.0	1.961809	Y
3	STD100 280-652518/5	100.0	157.193053	400.0	39844.0	1.571931	Y
4	ICIS 280-652518/2	500.0	769.306795	400.0	43710.0	1.538614	Y
5	STD1000 280-652518/6	1000.0	1833.456764	400.0	42939.0	1.833457	Y
6	STD2500 280-652518/7	2500.0	4299.033531	400.0	42319.0	1.719613	Y
7	STD5000 280-652518/8	5000.0	8193.002832	400.0	41674.0	1.638601	Y



Calibration / Benzo[k]fluoranthene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

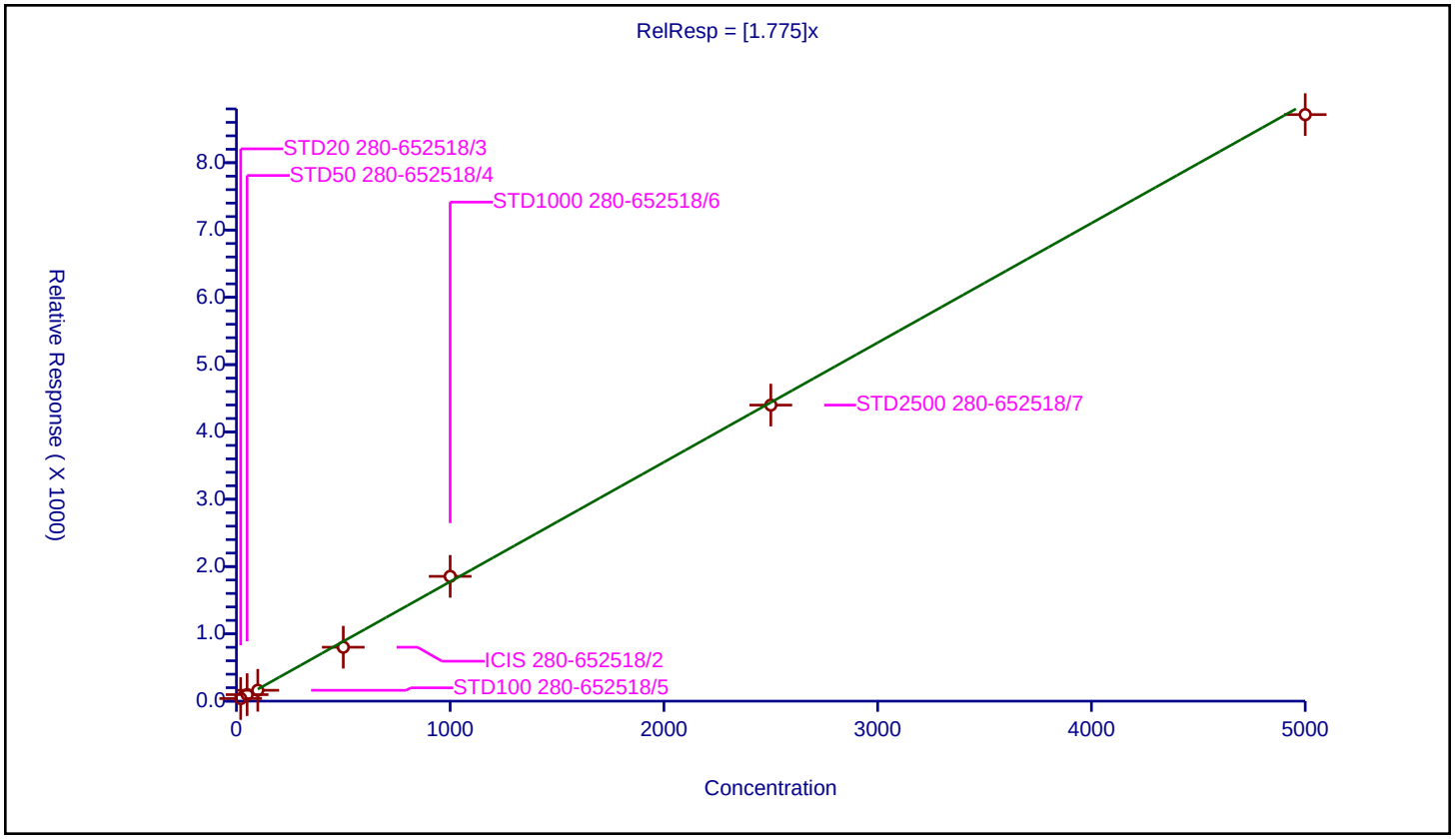
Curve Coefficients

Intercept:	0
Slope:	1.775

Error Coefficients

Relative Standard Deviation:	7.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	20.0	38.435166	400.0	42586.0	1.921758	Y
2	STD50 280-652518/4	50.0	96.65826	400.0	44408.0	1.933165	Y
3	STD100 280-652518/5	100.0	161.399458	400.0	39844.0	1.613995	Y
4	ICIS 280-652518/2	500.0	801.143903	400.0	43710.0	1.602288	Y
5	STD1000 280-652518/6	1000.0	1854.090687	400.0	42939.0	1.854091	Y
6	STD2500 280-652518/7	2500.0	4398.856306	400.0	42319.0	1.759543	Y
7	STD5000 280-652518/8	5000.0	8715.045352	400.0	41674.0	1.743009	Y



Calibration / Benzo[a]pyrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

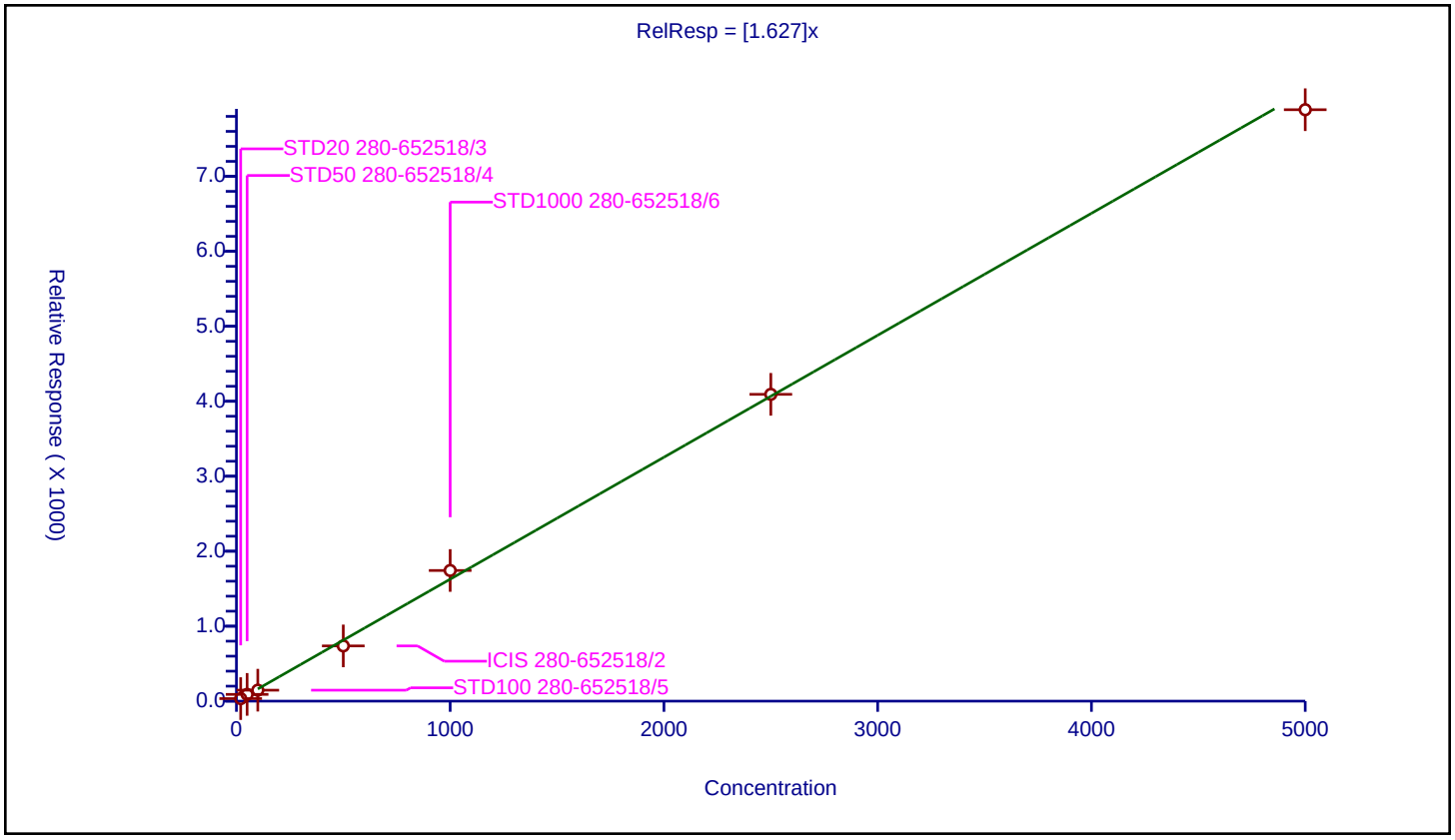
Curve Coefficients

Intercept:	0
Slope:	1.627

Error Coefficients

Relative Standard Deviation:	8.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	20.0	33.945428	400.0	42586.0	1.697271	Y
2	STD50 280-652518/4	50.0	89.920735	400.0	44408.0	1.798415	Y
3	STD100 280-652518/5	100.0	146.059633	400.0	39844.0	1.460596	Y
4	ICIS 280-652518/2	500.0	736.710135	400.0	43710.0	1.47342	Y
5	STD1000 280-652518/6	1000.0	1742.919025	400.0	42939.0	1.742919	Y
6	STD2500 280-652518/7	2500.0	4092.393488	400.0	42319.0	1.636957	Y
7	STD5000 280-652518/8	5000.0	7889.101118	400.0	41674.0	1.57782	Y



Calibration / Indeno[1,2,3-cd]pyrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

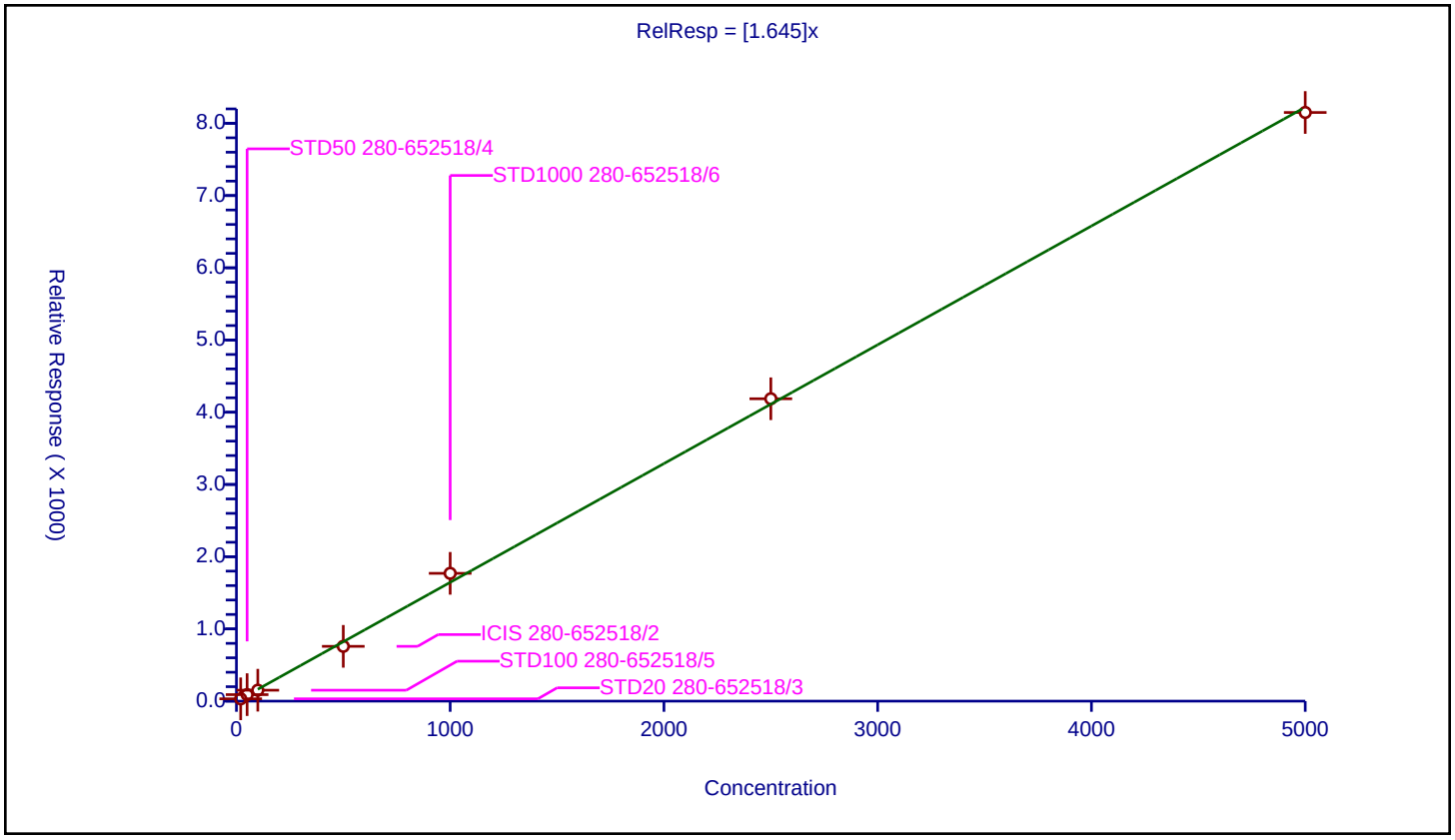
Curve Coefficients

Intercept:	0
Slope:	1.645

Error Coefficients

Relative Standard Deviation:	6.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	20.0	32.132626	400.0	42586.0	1.606631	Y
2	STD50 280-652518/4	50.0	90.019816	400.0	44408.0	1.800396	Y
3	STD100 280-652518/5	100.0	151.390423	400.0	39844.0	1.513904	Y
4	ICIS 280-652518/2	500.0	758.792038	400.0	43710.0	1.517584	Y
5	STD1000 280-652518/6	1000.0	1769.356529	400.0	42939.0	1.769357	Y
6	STD2500 280-652518/7	2500.0	4186.667927	400.0	42319.0	1.674667	Y
7	STD5000 280-652518/8	5000.0	8150.050391	400.0	41674.0	1.63001	Y



Calibration / Dibenz(a,h)anthracene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

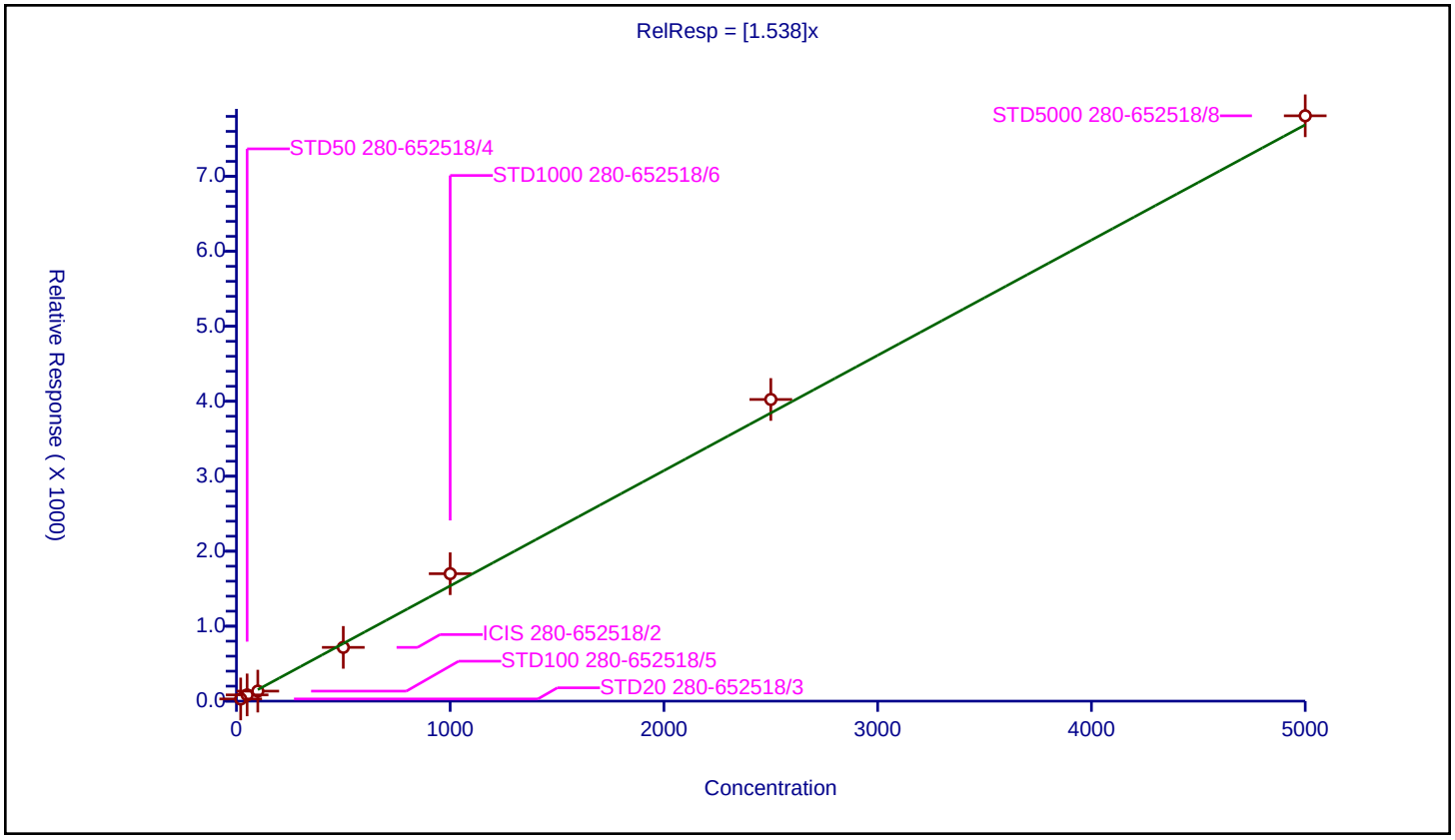
Curve Coefficients

Intercept:	0
Slope:	1.538

Error Coefficients

Relative Standard Deviation:	8.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	20.0	29.136336	400.0	42586.0	1.456817	Y
2	STD50 280-652518/4	50.0	83.228247	400.0	44408.0	1.664565	Y
3	STD100 280-652518/5	100.0	133.681357	400.0	39844.0	1.336814	Y
4	ICIS 280-652518/2	500.0	716.961794	400.0	43710.0	1.433924	Y
5	STD1000 280-652518/6	1000.0	1699.862596	400.0	42939.0	1.699863	Y
6	STD2500 280-652518/7	2500.0	4024.036485	400.0	42319.0	1.609615	Y
7	STD5000 280-652518/8	5000.0	7808.004991	400.0	41674.0	1.561601	Y



Calibration / Benzo[g,h,i]perylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

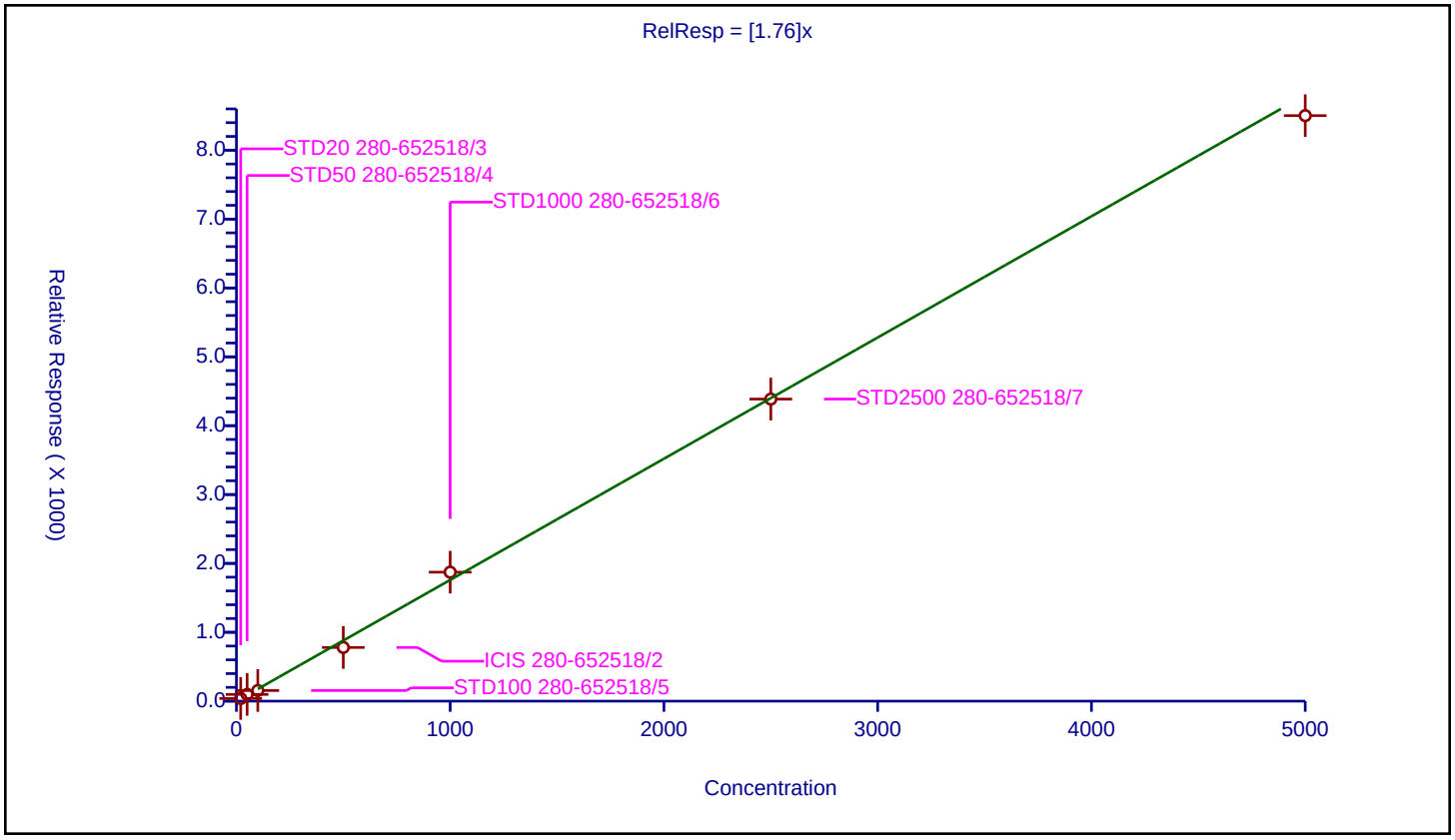
Curve Coefficients

Intercept:	0
Slope:	1.76

Error Coefficients

Relative Standard Deviation:	9.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD20 280-652518/3	20.0	38.75452	400.0	42586.0	1.937726	Y
2	STD50 280-652518/4	50.0	97.811205	400.0	44408.0	1.956224	Y
3	STD100 280-652518/5	100.0	153.930328	400.0	39844.0	1.539303	Y
4	ICIS 280-652518/2	500.0	779.684283	400.0	43710.0	1.559369	Y
5	STD1000 280-652518/6	1000.0	1872.84287	400.0	42939.0	1.872843	Y
6	STD2500 280-652518/7	2500.0	4386.360736	400.0	42319.0	1.754544	Y
7	STD5000 280-652518/8	5000.0	8502.317992	400.0	41674.0	1.700464	Y



FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID (1): ICIS 280-652518/2 Instrument ID (1): SMS_2

GC Column (1): Rxi-5Sil MS ID: 0.25(mm) Date Analyzed (1): 05/08/2024 12:29

ANALYTE	RT	RESOLUTION (%)
Benzo[b]fluoranthene	12.61	30.10

Resolution Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824002A.D				
Injection Date:	08-May-2024 12:29:50	Instrument ID:	SMS_2		
Lims ID:	ICIS				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

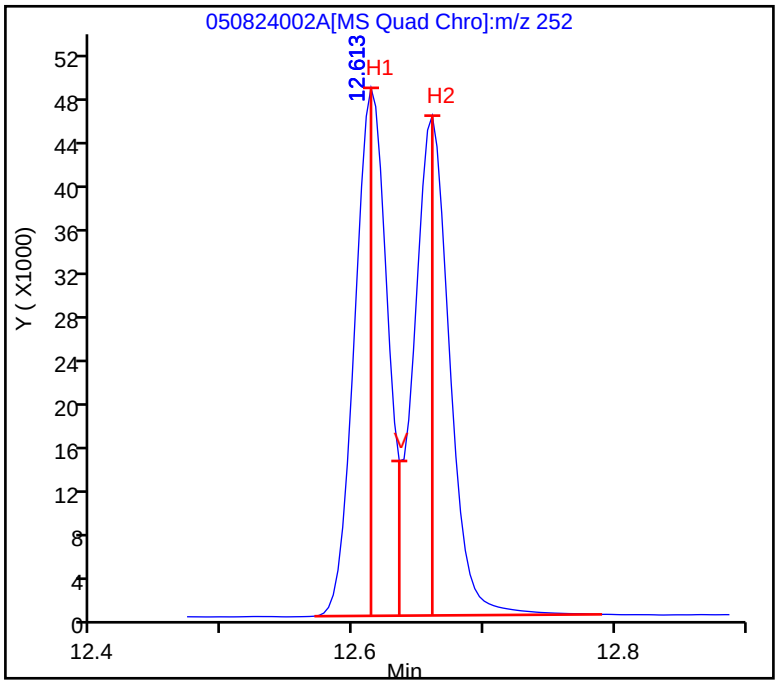
24 Benzo[b]fluoranthene - 25 Benzo[k]fluoranthene

SW-846 Method

Version D: %R = (V / ((H1 + H2)/2)) * 100

V (Valley Height) = 14011
H1(24 Benzo[b]fluoranthen) = 47827
H2(25 Benzo[k]fluoranthen) = 45276

Version D: %R = 30.1 <= 50.0
Passed



FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID (1): ICV 280-652518/9 Instrument ID (1): SMS_2

GC Column (1): Rxi-5Sil MS ID: 0.25(mm) Date Analyzed (1): 05/08/2024 14:46

ANALYTE	RT	RESOLUTION (%)
Benzo[b]fluoranthene	12.60	30.40

Resolution Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824009.D				
Injection Date:	08-May-2024 14:46:46	Instrument ID:	SMS_2		
Lims ID:	ICV				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

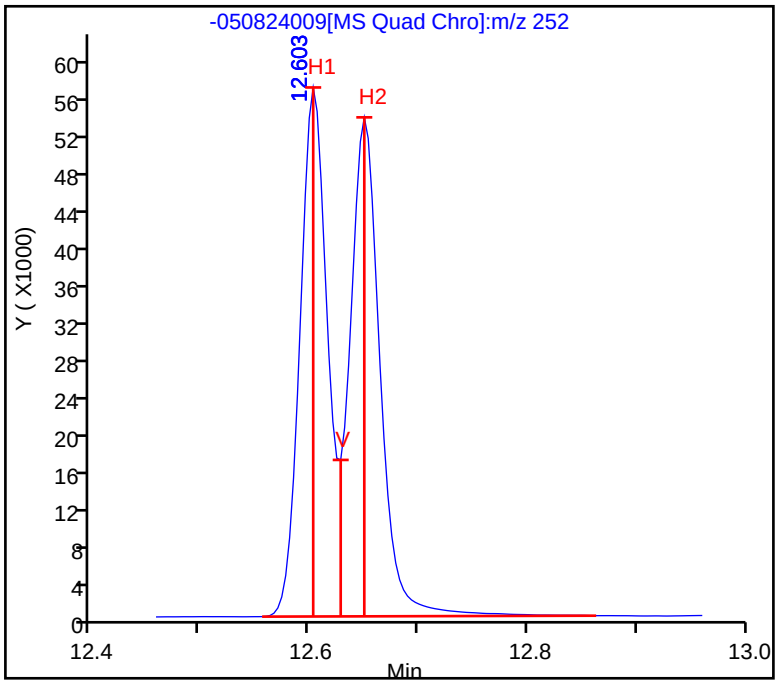
24 Benzo[b]fluoranthene - 25 Benzo[k]fluoranthene

SW-846 Method

Version D: %R = (V / ((H1 + H2)/2)) * 100

V (Valley Height) = 16846
H1(24 Benzo[b]fluoranthen) = 56952
H2(25 Benzo[k]fluoranthen) = 53720

Version D: %R = 30.4 <= 50.0
Passed



FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID (1): CCVIS 280-652894/3 Instrument ID (1): SMS_2

GC Column (1): Rxi-5Sil MS ID: 0.25(mm) Date Analyzed (1): 05/10/2024 08:21

ANALYTE	RT	RESOLUTION (%)
Benzo[b]fluoranthene	12.60	31.90

Resolution Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024002.D
Injection Date: 10-May-2024 08:21:56 Instrument ID: SMS_2
Lims ID: CCVIS
Client ID:
Operator ID: MB ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_2_8270SIM Limit Group: MSSV - 8270C-SIM

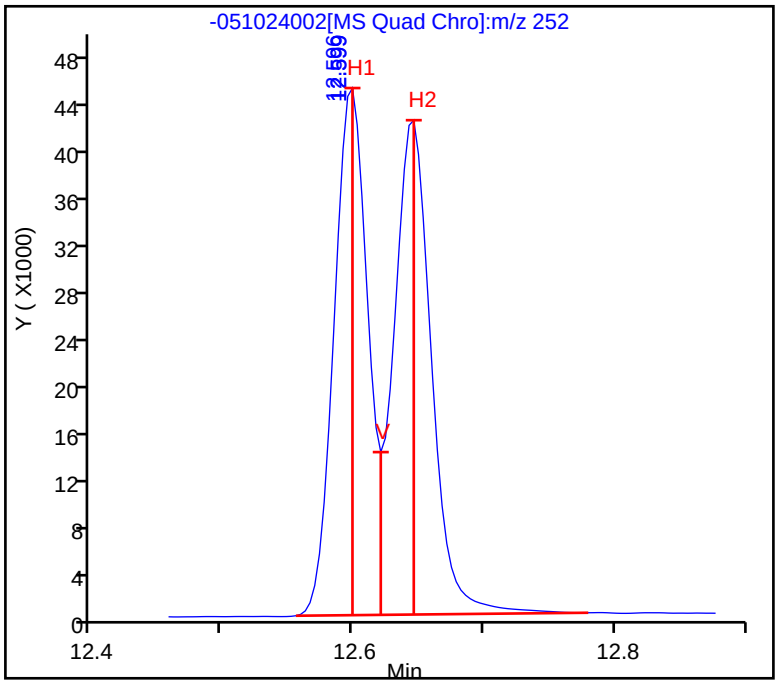
24 Benzo[b]fluoranthene - 25 Benzo[k]fluoranthene

SW-846 Method

Version D: %R = (V / ((H1 + H2)/2)) * 100

V (Valley Height) = 13727
H1(24 Benzo[b]fluoranthen) = 44453
H2(25 Benzo[k]fluoranthen) = 41688

Version D: %R = 31.9 <= 50.0
Passed



FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID (1): CCVC 280-652894/19 Instrument ID (1): SMS_2

GC Column (1): Rxi-5Sil MS ID: 0.25(mm) Date Analyzed (1): 05/10/2024 13:30

ANALYTE	RT	RESOLUTION (%)
Benzo[b]fluoranthene	12.59	35.60

Resolution Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024018.D
Injection Date: 10-May-2024 13:30:49 Instrument ID: SMS_2
Lims ID: CCVC
Client ID:
Operator ID: MB ALS Bottle#: 0 Worklist Smp#: 19
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_2_8270SIM Limit Group: MSSV - 8270C-SIM

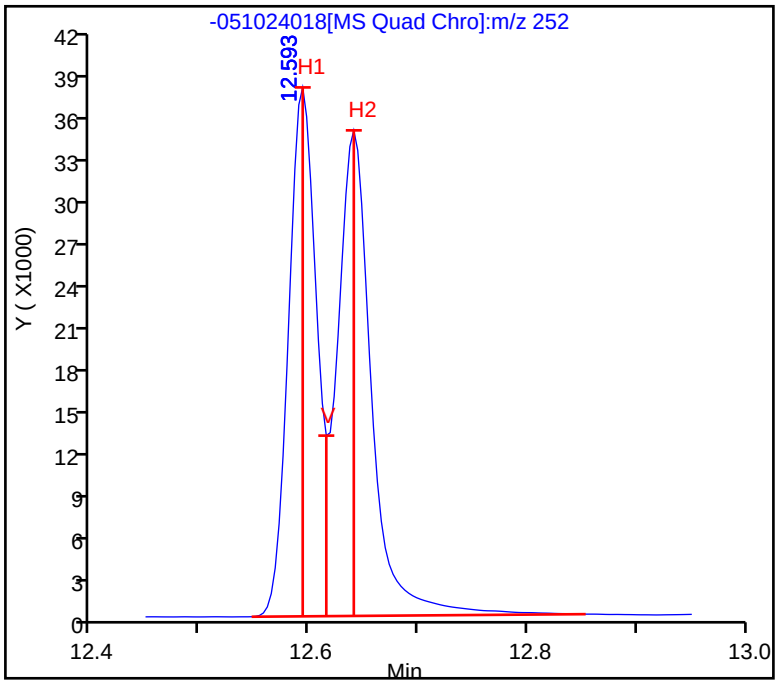
24 Benzo[b]fluoranthene - 25 Benzo[k]fluoranthene

SW-846 Method

Version D: %R = (V / ((H1 + H2)/2)) * 100

V (Valley Height) = 12939
H1(24 Benzo[b]fluoranthen) = 37906
H2(25 Benzo[k]fluoranthen) = 34801

Version D: %R = 35.6 <= 50.0
Passed



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICV 280-652518/9 | Calibration Date: 05/08/2024 14:46

Instrument ID: SMS_2 | Calib Start Date: 05/08/2024 12:29

GC Column: Rxi-5Sil MS ID: 0.25(mm) | Calib End Date: 05/08/2024 14:27

Lab File ID: SMS_2-050824009.D | Conc. Units: ng/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Naphthalene	Ave	1.865	2.104	0.7000	564000	500000	12.8	20.0
2-Methylnaphthalene	Ave	1.036	1.167	0.4000	564000	500000	12.7	20.0
1-Methylnaphthalene	Ave	1.141	1.309	0.0500	574000	500000	14.8	20.0
Acenaphthylene	Ave	1.768	2.083	0.9000	589000	500000	17.9	20.0
Acenaphthene	Ave	1.215	1.351	0.9000	556000	500000	11.2	20.0
Fluorene	Ave	0.9150	1.035	0.9000	566000	500000	13.1	20.0
Phenanthrene	Ave	1.182	1.327	0.7000	561000	500000	12.3	20.0
Anthracene	Ave	1.158	1.335	0.7000	576000	500000	15.3	20.0
Fluoranthene	Ave	1.310	1.443	0.6000	551000	500000	10.1	20.0
Pyrene	Ave	1.365	1.497	0.6000	548000	500000	9.6	20.0
Benzo[a]anthracene	Ave	1.697	1.844	0.8000	543000	500000	8.7	20.0
Chrysene	Ave	1.715	1.899	0.7000	554000	500000	10.7	20.0
Benzo[b]fluoranthene	Ave	1.746	1.926	0.7000	551000	500000	10.3	20.0
Benzo[k]fluoranthene	Ave	1.775	1.981	0.7000	558000	500000	11.6	20.0
Benzo[a]pyrene	Ave	1.627	1.834	0.7000	564000	500000	12.7	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.645	1.734	0.5000	527000	500000	5.4	20.0
Dibenz(a,h)anthracene	Ave	1.538	1.821	0.4000	592000	500000	18.4	20.0
Benzo[g,h,i]perylene	Ave	1.760	2.003	0.5000	569000	500000	13.8	20.0
Nitrobenzene-d5 (Surr)	Ave	0.7163	0.8116		567000	500000	13.3	20.0
2-methylnaphthalene-d10	Ave	1.017	1.142		562000	500000	12.3	35.0
2-Fluorobiphenyl	Ave	1.608	1.807		562000	500000	12.3	20.0
Fluoranthene-d10	Ave	0.9246	1.014		548000	500000	9.7	35.0
Terphenyl-d14 (Surr)	Ave	0.7116	0.7630		536000	500000	7.2	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824009.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 08-May-2024 14:46:46 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV
Operator ID: MB Instrument ID: SMS_2
Sublist:

Method: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 09-May-2024 07:57:30 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1679

First Level Reviewer: FP7E Date: 08-May-2024 15:08:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 Acenaphthene-d10	164	6.789	6.789	0.000	79	58609	400.0	400.0	
* 2 Phenanthrene-d10	188	8.244	8.248	-0.004	98	62839	400.0	400.0	
* 3 Chrysene-d12	240	11.011	11.020	-0.009	99	42124	400.0	400.0	
$ 4 Nitrobenzene-d5	82	4.410	4.419	-0.009	98	59458	500.0	566.5	
$ 5 2-methylnaphthalene-d10	152	5.754	5.753	0.001	0	83634	500.0	561.5	
$ 6 2-Fluorobiphenyl	172	6.150	6.157	-0.007	0	132356	500.0	561.6	
$ 7 Fluoranthene-d10	212	9.421	9.426	-0.005	98	79643	500.0	548.3	
$ 8 Terphenyl-d14	244	9.855	9.859	-0.004	0	59936	500.0	536.1	
38 1,4-Dioxane	88	1.501	1.501	0.000	0	19264	500.0	625.9	M
10 N-Nitrosodi-n-propylamine	70	4.290	4.290	0.000	93	38242	500.0	570.6	
11 Naphthalene	128	5.107	5.107	0.000	1	154151	500.0	564.1	
12 2-Methylnaphthalene	141	5.784	5.783	0.001	0	85501	500.0	563.5	
13 1-Methylnaphthalene	142	5.874	5.874	0.000	0	95930	500.0	573.8	
14 Acenaphthylene	152	6.638	6.648	-0.010	0	152621	500.0	589.3	
15 Acenaphthene	153	6.820	6.819	0.001	95	99002	500.0	556.0	
16 Dibenzofuran	168	6.991	7.000	-0.009	75	142439	500.0	568.7	
17 Fluorene	166	7.332	7.332	0.000	83	75833	500.0	565.6	
18 Phenanthrene	178	8.269	8.273	-0.004	0	104216	500.0	561.4	
19 Anthracene	178	8.319	8.323	-0.005	1	104836	500.0	576.4	
20 Fluoranthene	202	9.440	9.444	-0.004	91	113323	500.0	550.7	
21 Pyrene	202	9.654	9.658	-0.004	0	117564	500.0	548.2	
22 Benzo[a]anthracene	228	10.996	11.005	-0.009	96	97104	500.0	543.4	
23 Chrysene	228	11.041	11.050	-0.009	0	100002	500.0	553.7	
24 Benzo[b]fluoranthene	252	12.603	12.613	-0.010	0	101398	500.0	551.3	
25 Benzo[k]fluoranthene	252	12.650	12.660	-0.010	0	104302	500.0	557.9	
26 Benzo[a]pyrene	252	13.108	13.119	-0.011	0	96564	500.0	563.7	
27 Indeno[1,2,3-cd]pyrene	276	14.388	14.401	-0.013	1	91295	500.0	527.1	
28 Dibenz(a,h)anthracene	278	14.432	14.438	-0.006	0	95862	500.0	592.0	
29 Benzo[g,h,i]perylene	276	14.638	14.645	-0.007	0	105490	500.0	569.1	
30 Dimethyl phthalate	163		0.000				ND	ND	
31 N-Nitrosodimethylamine	42		0.000				ND	ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
32 N-Nitrosodiphenylamine	169		0.000				ND	ND	
33 Di-n-butyl phthalate	149		0.000				ND	ND	
34 Diethyl phthalate	149		0.000				ND	ND	
35 Butyl benzyl phthalate	149		0.000				ND	ND	
36 Di-n-octyl phthalate	149		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MS-SIM-ICV1_00004	Amount Added: 200.00	Units: uL	
MS-SIM IS_00059	Amount Added: 100.00	Units: uL	Run Reagent

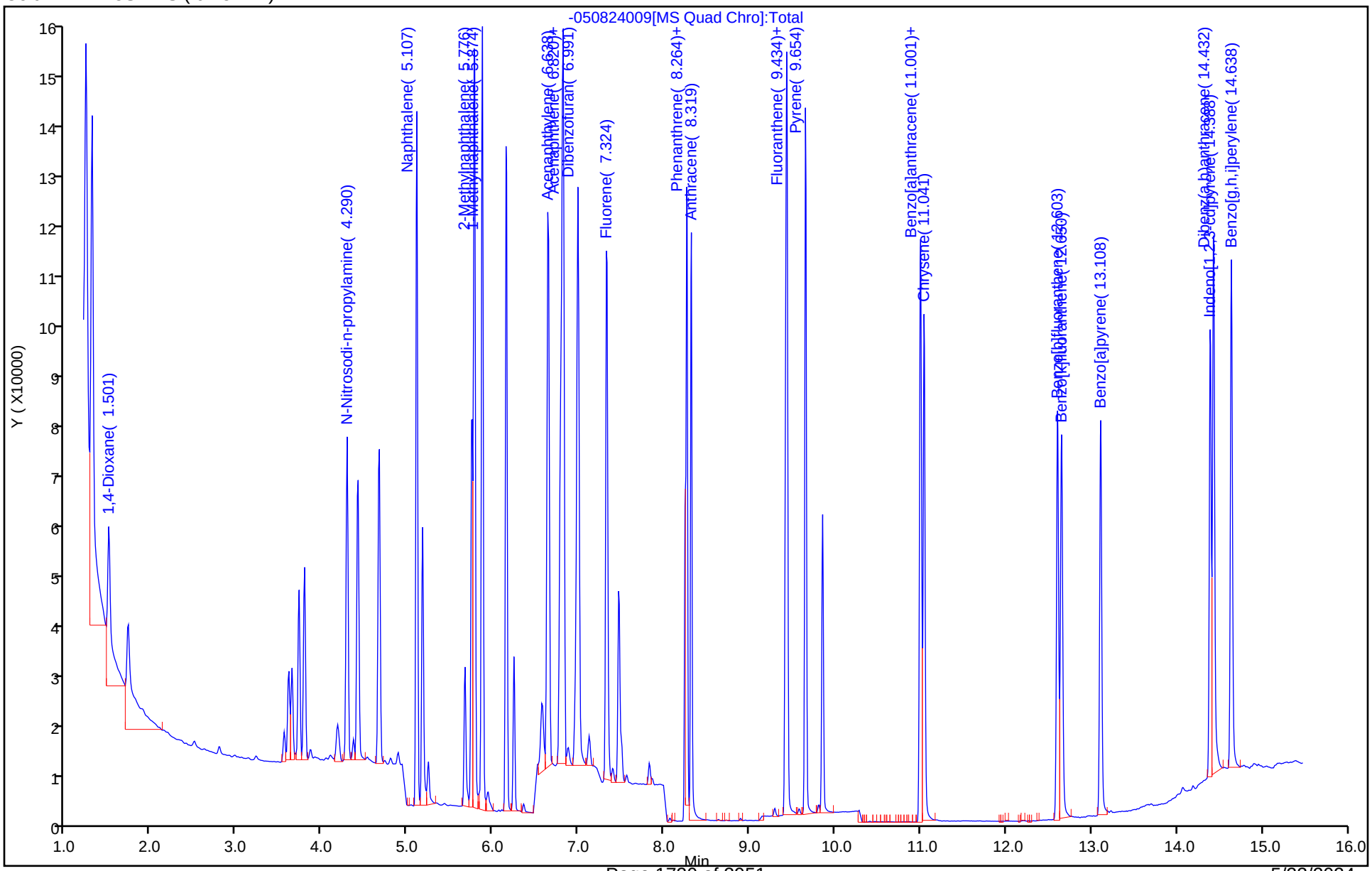
Report Date: 09-May-2024 07:57:33 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824009.D

Injection Date:	08-May-2024 14:46:46	Instrument ID:	SMS_2	Operator ID:	MB
Lims ID:	ICV			Worklist Smp#:	9
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

Column: Rxi-5Sil MS (0.25 mm)



5/23/2024
4:40:30 AM

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVIS 280-652894/3 | Calibration Date: 05/10/2024 08:21

Instrument ID: SMS_2 | Calib Start Date: 05/08/2024 12:29

GC Column: Rxi-5Sil MS ID: 0.25(mm) | Calib End Date: 05/08/2024 14:27

Lab File ID: SMS_2-051024002.D | Conc. Units: ng/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Naphthalene	Ave	1.865	1.826	0.7000	490000	500000	-2.1	20.0
2-Methylnaphthalene	Ave	1.036	1.005	0.4000	485000	500000	-3.0	20.0
1-Methylnaphthalene	Ave	1.141	1.115	0.0500	488000	500000	-2.3	20.0
Acenaphthylene	Ave	1.768	1.670	0.9000	472000	500000	-5.5	20.0
Acenaphthene	Ave	1.215	1.144	0.9000	471000	500000	-5.8	20.0
Fluorene	Ave	0.9150	0.8510*	0.9000	465000	500000	-7.0	20.0
Phenanthrene	Ave	1.182	1.104	0.7000	467000	500000	-6.6	20.0
Anthracene	Ave	1.158	1.096	0.7000	473000	500000	-5.3	20.0
Fluoranthene	Ave	1.310	1.218	0.6000	465000	500000	-7.0	20.0
Pyrene	Ave	1.365	1.291	0.6000	473000	500000	-5.4	20.0
Benzo[a]anthracene	Ave	1.697	1.557	0.8000	459000	500000	-8.2	20.0
Chrysene	Ave	1.715	1.574	0.7000	459000	500000	-8.2	20.0
Benzo[b]fluoranthene	Ave	1.746	1.546	0.7000	443000	500000	-11.5	20.0
Benzo[k]fluoranthene	Ave	1.775	1.622	0.7000	457000	500000	-8.6	20.0
Benzo[a]pyrene	Ave	1.627	1.510	0.7000	464000	500000	-7.2	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.645	1.482	0.5000	450000	500000	-9.9	20.0
Dibenz(a,h)anthracene	Ave	1.538	1.451	0.4000	472000	500000	-5.6	20.0
Benzo[g,h,i]perylene	Ave	1.760	1.580	0.5000	449000	500000	-10.3	20.0
Nitrobenzene-d5 (Surr)	Ave	0.7163	0.6976		487000	501000	-2.6	20.0
2-methylnaphthalene-d10	Ave	1.017	0.999		485000	494000	-1.7	35.0
2-Fluorobiphenyl	Ave	1.608	1.524		474000	500000	-5.2	20.0
Fluoranthene-d10	Ave	0.9246	0.8765		474000	500000	-5.2	35.0
Terphenyl-d14 (Surr)	Ave	0.7116	0.6706		471000	500000	-5.8	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 10-May-2024 08:21:56 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS
Operator ID: MB Instrument ID: SMS_2
Sublist: chrom-SMS_2_8270SIM*sub1

Method: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 11-May-2024 12:01:32 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: FP7E Date: 10-May-2024 08:42:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 Acenaphthene-d10	164	6.789	6.789	0.000	78	55258	400.0	400.0	
* 2 Phenanthrene-d10	188	8.244	8.244	0.000	98	60855	400.0	400.0	
* 3 Chrysene-d12	240	11.006	11.006	0.000	99	41919	400.0	400.0	
$ 4 Nitrobenzene-d5	82	4.419	4.419	0.000	94	48236	500.5	487.5	
$ 5 2-methylnaphthalene-d10	152	5.754	5.754	0.000	0	68147	493.9	485.3	
$ 6 2-Fluorobiphenyl	172	6.157	6.157	0.000	0	105235	499.9	473.6	
$ 7 Fluoranthene-d10	212	9.420	9.420	0.000	99	66669	500.0	474.0	
$ 8 Terphenyl-d14	244	9.853	9.853	0.000	0	51008	500.0	471.2	
38 1,4-Dioxane	88	1.501	1.501	0.000	0	15523	500.0	535.0	M
9 N-Nitrosodiethylamine	102	2.983	2.983	0.000	98	19668	501.8	487.4	
10 N-Nitrosodi-n-propylamine	70	4.290	4.290	0.000	91	30934	500.0	489.5	
11 Naphthalene	128	5.107	5.107	0.000	1	126125	500.0	489.5	
12 2-Methylnaphthalene	141	5.784	5.784	0.000	0	69405	500.0	485.2	
13 1-Methylnaphthalene	142	5.874	5.874	0.000	0	76995	500.0	488.5	
14 Acenaphthylene	152	6.638	6.638	0.000	0	115357	500.0	472.4	
15 Acenaphthene	153	6.820	6.820	0.000	96	79044	500.0	470.9	
16 Dibenzofuran	168	6.991	6.991	0.000	75	113777	500.0	481.8	
17 Fluorene	166	7.332	7.332	0.000	83	58782	500.0	465.0	
18 Phenanthrene	178	8.264	8.264	0.000	0	83985	500.0	467.2	
19 Anthracene	178	8.318	8.318	0.000	1	83395	500.0	473.4	
20 Fluoranthene	202	9.438	9.438	0.000	91	92641	500.0	464.9	
21 Pyrene	202	9.652	9.652	0.000	0	98226	500.0	473.0	
22 Benzo[a]anthracene	228	10.996	10.996	0.000	100	81591	500.0	458.8	
23 Chrysene	228	11.041	11.041	0.000	0	82454	500.0	458.8	
24 Benzo[b]fluoranthene	252	12.599	12.599	0.000	0	81025	500.0	442.7	
25 Benzo[k]fluoranthene	252	12.646	12.646	0.000	0	85013	500.0	456.9	
26 Benzo[a]pyrene	252	13.101	13.101	0.000	0	79106	500.0	464.0	
27 Indeno[1,2,3-cd]pyrene	276	14.385	14.385	0.000	1	77636	500.0	450.4	
28 Dibenz(a,h)anthracene	278	14.422	14.422	0.000	0	76048	500.0	471.9	
29 Benzo[g,h,i]perylene	276	14.634	14.634	0.000	0	82764	500.0	448.7	
30 Dimethyl phthalate	163		0.000				ND	ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
31 N-Nitrosodimethylamine	42		0.000				ND	ND	
32 N-Nitrosodiphenylamine	169		0.000				ND	ND	
33 Di-n-butyl phthalate	149		0.000				ND	ND	
34 Diethyl phthalate	149		0.000				ND	ND	
35 Butyl benzyl phthalate	149		0.000				ND	ND	
36 Di-n-octyl phthalate	149		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MS-SIM-CAL WS_00006	Amount Added: 50.00	Units: uL	
MS-SIM IS_00059	Amount Added: 100.00	Units: uL	Run Reagent

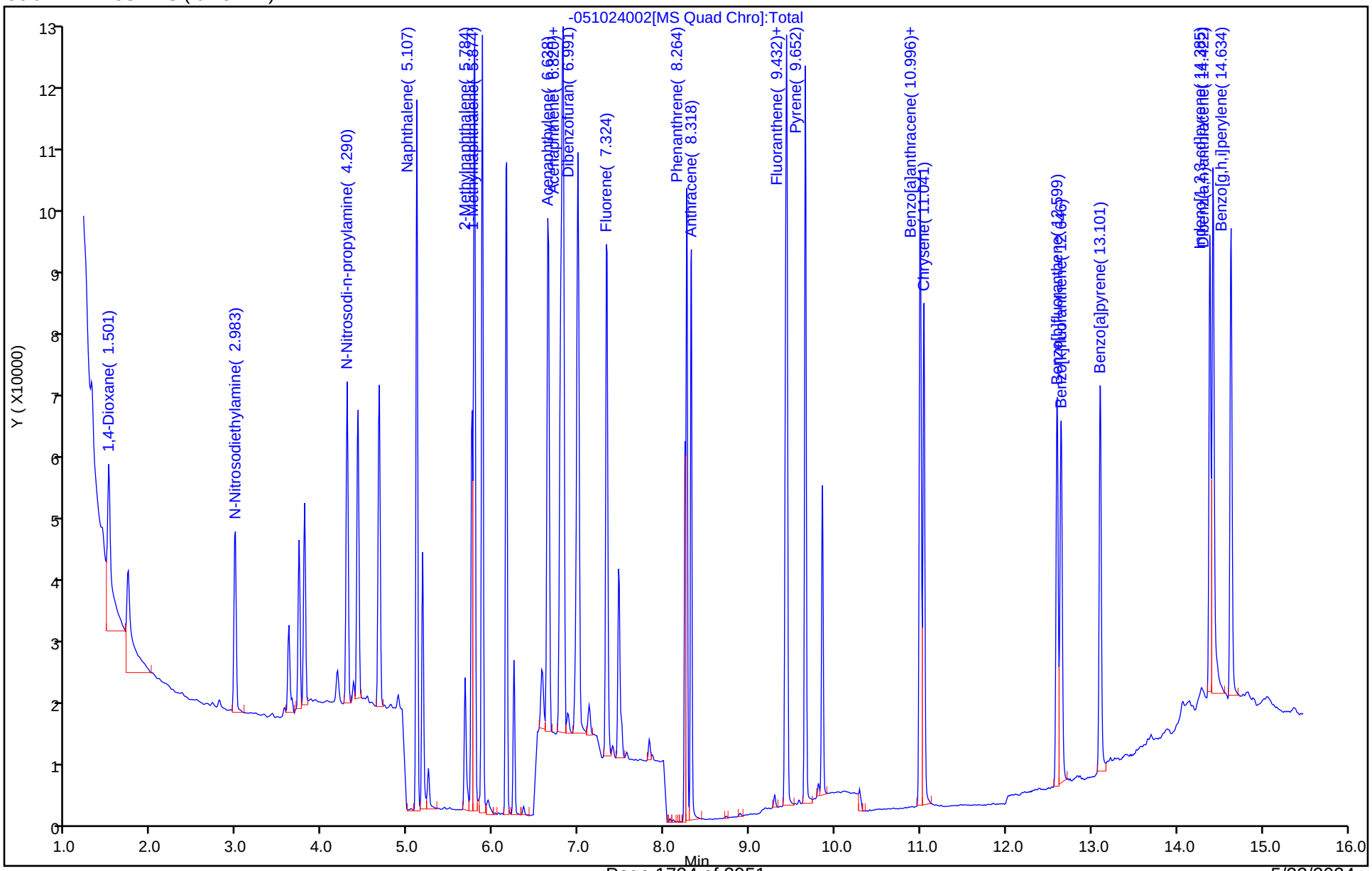
Report Date: 11-May-2024 12:01:33 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024002.D

Injection Date:	10-May-2024 08:21:56	Instrument ID:	SMS_2	Operator ID:	MB
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

Column: Rxi-5Sil MS (0.25 mm)



5/23/2024
4:40:30 AM

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVC 280-652894/19 | Calibration Date: 05/10/2024 13:30

Instrument ID: SMS_2 | Calib Start Date: 05/08/2024 12:29

GC Column: Rxi-5Sil MS ID: 0.25(mm) | Calib End Date: 05/08/2024 14:27

Lab File ID: SMS_2-051024018.D | Conc. Units: ng/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Naphthalene	Ave	1.865	1.864	0.7000	500000	500000	-0.0	50.0
2-Methylnaphthalene	Ave	1.036	1.013	0.4000	489000	500000	-2.2	50.0
1-Methylnaphthalene	Ave	1.141	1.105	0.0500	484000	500000	-3.1	50.0
Acenaphthylene	Ave	1.768	1.688	0.9000	477000	500000	-4.5	50.0
Acenaphthene	Ave	1.215	1.148	0.9000	472000	500000	-5.6	50.0
Fluorene	Ave	0.9150	0.8756*	0.9000	478000	500000	-4.3	50.0
Phenanthrene	Ave	1.182	1.117	0.7000	473000	500000	-5.5	50.0
Anthracene	Ave	1.158	1.070	0.7000	462000	500000	-7.6	50.0
Fluoranthene	Ave	1.310	1.182	0.6000	451000	500000	-9.8	50.0
Pyrene	Ave	1.365	1.211	0.6000	443000	500000	-11.3	50.0
Benzo[a]anthracene	Ave	1.697	1.392	0.8000	410000	500000	-18.0	50.0
Chrysene	Ave	1.715	1.625	0.7000	474000	500000	-5.2	50.0
Benzo[b]fluoranthene	Ave	1.746	1.366	0.7000	391000	500000	-21.8	50.0
Benzo[k]fluoranthene	Ave	1.775	1.552	0.7000	437000	500000	-12.6	50.0
Benzo[a]pyrene	Ave	1.627	1.248	0.7000	384000	500000	-23.3	50.0
Indeno[1,2,3-cd]pyrene	Ave	1.645	1.285	0.5000	391000	500000	-21.9	50.0
Dibenz(a,h)anthracene	Ave	1.538	1.332	0.4000	433000	500000	-13.4	50.0
Benzo[g,h,i]perylene	Ave	1.760	1.541	0.5000	438000	500000	-12.4	50.0
Nitrobenzene-d5 (Surr)	Ave	0.7163	0.6752		472000	501000	-5.7	50.0
2-methylnaphthalene-d10	Ave	1.017	1.001		487000	494000	-1.5	50.0
2-Fluorobiphenyl	Ave	1.608	1.571		488000	500000	-2.3	50.0
Fluoranthene-d10	Ave	0.9246	0.8140		440000	500000	-12.0	50.0
Terphenyl-d14 (Surr)	Ave	0.7116	0.6327		445000	500000	-11.1	50.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024018.D
Lims ID: CCVC
Client ID:
Sample Type: CCVC
Inject. Date: 10-May-2024 13:30:49 ALS Bottle#: 0 Worklist Smp#: 19
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCVC
Operator ID: MB Instrument ID: SMS_2
Sublist: chrom-SMS_2_8270SIM*sub1

Method: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 13-May-2024 12:19:28 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1617

First Level Reviewer: QKA3 Date: 13-May-2024 12:19:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 Acenaphthene-d10	164	6.789	6.789	0.000	84	57368	400.0	400.0	
* 2 Phenanthrene-d10	188	8.244	8.244	0.000	99	62865	400.0	400.0	
* 3 Chrysene-d12	240	11.002	11.002	0.000	96	39983	400.0	400.0	
$ 4 Nitrobenzene-d5	82	4.410	4.410	0.000	98	48467	500.5	471.8	
$ 5 2-methylnaphthalene-d10	152	5.746	5.746	0.000	0	70931	493.9	486.5	
$ 6 2-Fluorobiphenyl	172	6.150	6.150	0.000	0	112607	499.9	488.2	
$ 7 Fluoranthene-d10	212	9.415	9.415	0.000	96	63955	500.0	440.1	
$ 8 Terphenyl-d14	244	9.848	9.848	0.000	0	49717	500.0	444.5	
38 1,4-Dioxane	88	1.501	1.501	0.000	0	16950	500.0	562.7	M
9 N-Nitrosodiethylamine	102	2.983	2.983	0.000	97	19512	501.8	465.7	
10 N-Nitrosodi-n-propylamine	70	4.290	4.290	0.000	97	30007	500.0	457.4	
11 Naphthalene	128	5.107	5.107	0.000	1	133635	500.0	499.6	
12 2-Methylnaphthalene	141	5.776	5.776	0.000	0	72631	500.0	489.1	
13 1-Methylnaphthalene	142	5.874	5.874	0.000	0	79258	500.0	484.3	
14 Acenaphthylene	152	6.638	6.638	0.000	0	121048	500.0	477.5	
15 Acenaphthene	153	6.809	6.809	0.000	98	82296	500.0	472.2	
16 Dibenzofuran	168	6.991	6.991	0.000	78	122674	500.0	500.4	
17 Fluorene	166	7.324	7.324	0.000	81	62790	500.0	478.5	
18 Phenanthrene	178	8.264	8.264	0.000	0	87750	500.0	472.5	
19 Anthracene	178	8.313	8.313	0.000	1	84056	500.0	461.9	
20 Fluoranthene	202	9.433	9.433	0.000	91	92884	500.0	451.2	
21 Pyrene	202	9.647	9.647	0.000	0	95140	500.0	443.5	
22 Benzo[a]anthracene	228	10.992	10.992	0.000	99	69580	500.0	410.2	
23 Chrysene	228	11.037	11.037	0.000	0	81225	500.0	473.8	
24 Benzo[b]fluoranthene	252	12.593	12.593	0.000	0	68261	500.0	391.0	
25 Benzo[k]fluoranthene	252	12.640	12.640	0.000	0	77546	500.0	437.0	
26 Benzo[a]pyrene	252	13.099	13.099	0.000	0	62381	500.0	383.6	
27 Indeno[1,2,3-cd]pyrene	276	14.382	14.382	0.000	1	64200	500.0	390.5	
28 Dibenz(a,h)anthracene	278	14.420	14.420	0.000	0	66561	500.0	433.1	
29 Benzo[g,h,i]perylene	276	14.632	14.632	0.000	0	77033	500.0	437.9	
30 Dimethyl phthalate	163		0.000				ND	ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
31 N-Nitrosodimethylamine	42		0.000				ND	ND	
32 N-Nitrosodiphenylamine	169		0.000				ND	ND	
33 Di-n-butyl phthalate	149		0.000				ND	ND	
34 Diethyl phthalate	149		0.000				ND	ND	
35 Butyl benzyl phthalate	149		0.000				ND	ND	
36 Di-n-octyl phthalate	149		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MS-SIM-CAL WS_00006	Amount Added: 50.00	Units: uL	
MS-SIM IS_00059	Amount Added: 100.00	Units: uL	Run Reagent

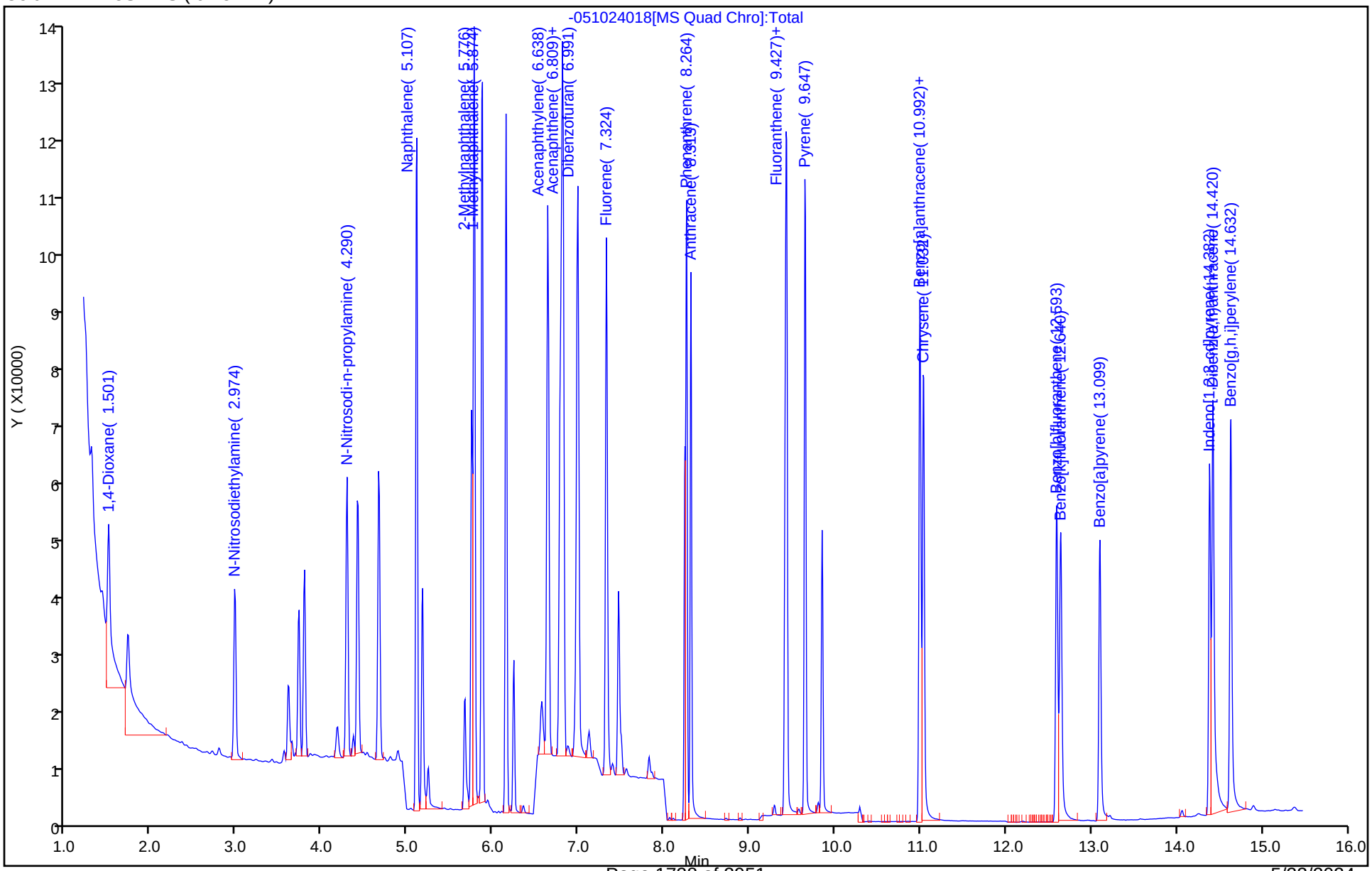
Report Date: 13-May-2024 12:19:29 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024018.D

Injection Date:	10-May-2024 13:30:49	Instrument ID:	SMS_2	Operator ID:	MB
Lims ID:	CCVC			Worklist Smp#:	19
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

Column: Rxi-5Sil MS (0.25 mm)



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824001A.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 08-May-2024 12:20:36 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: DFTPP
Operator ID: MB Instrument ID: SMS_2

Method: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 09-May-2024 07:57:30 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1679

First Level Reviewer: FP7E Date: 08-May-2024 12:28:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
37 Pentachlorophenol_T	266	2.097	2.097	0.000	0	708195	NR	NR	a
39 DFTPP									
40 Benzidine_T	184	3.006	3.006	0.000	5	3822259	NR	NR	a
41 4,4'-DDD	235	3.435	3.435	0.000	17	3814	NR	NR	
42 4,4'-DDE	246		3.527				ND	ND	U
43 4,4'-DDT	235	3.527	3.527	0.000	0	1560185	NR	NR	

QC Flag Legend

Processing Flags
- NR - Missing Quant Standard
- ND - Not Detected or Marked ND

Review Flags
- U - Marked Undetected
- a - User Assigned ID

Reagents:

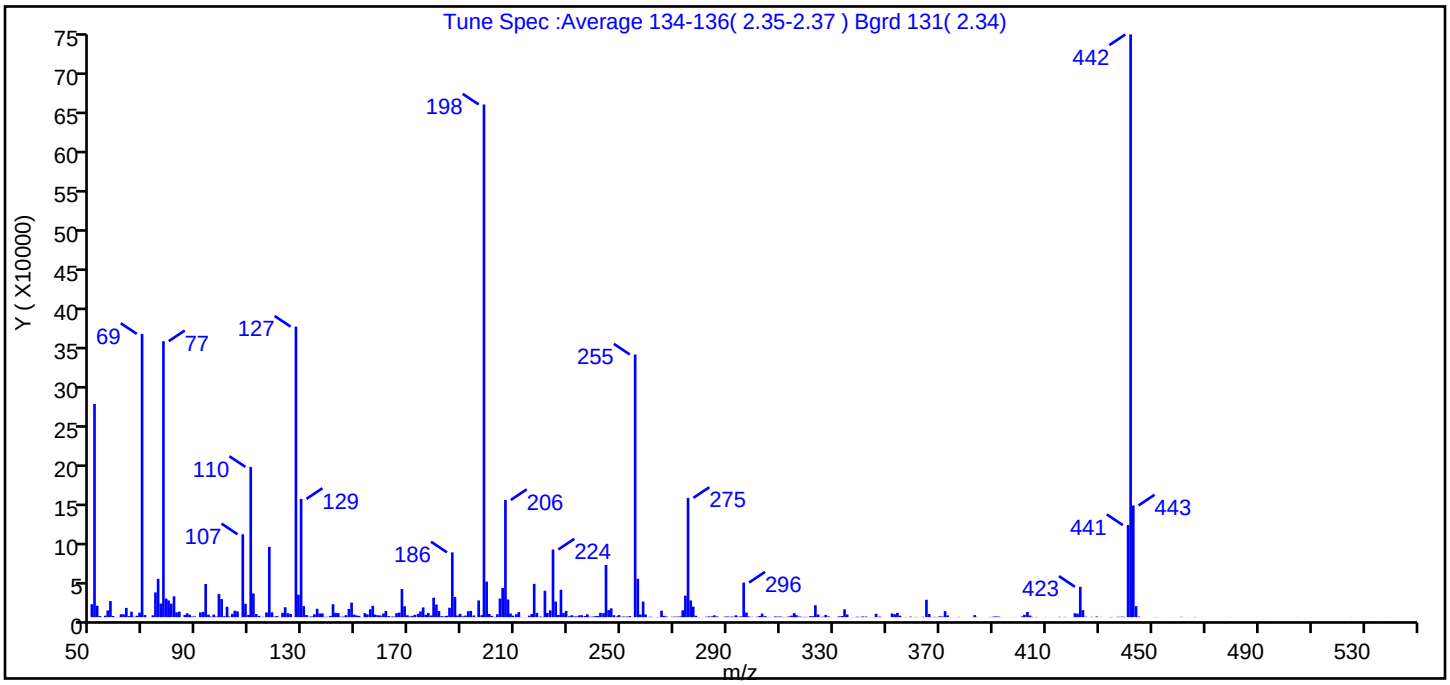
MS-DFTPP_00073 Amount Added: 0.50 Units: uL

MS Tune Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824001A.D
Injection Date: 08-May-2024 12:20:36 Instrument ID: SMS_2
Lims ID: DFTPP
Client ID:
Operator ID: MB ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_2_8270SIM Limit Group: MSSV - 8270C-SIM
Tune Method: DFTPP Method 8270

39 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	41.6
68	<2% of mass 69	0.9 (1.6)
69	Present	55.2
70	<2% of mass 69	0.4 (0.7)
127	40-60% of mass 198	56.7
197	<1% of mass 198	0.4
199	5-9% of mass 198	6.9
275	10-30% of mass 198	23.3
365	>1% of mass 198	3.4
441	Present but less than mass 443	18.0 (82.4)
442	>40% of mass 198	113.7
443	17-23% of mass 442	21.8 (19.2)

Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824001A.D\SMS_2_8270SIM.rslt\s
Injection Date: 08-May-2024 12:20:36
Spectrum: Tune Spec :Average 134-136(2.35-2.37) Bgrd 131(2.34)
Base Peak: 441.95
Minimum % Base Peak: 0
Number of Points: 375

m/z	Y	m/z	Y	m/z	Y	m/z	Y
50.00	16616	148.00	18712	243.00	5096	344.00	58
51.00	273984	149.00	3202	244.00	67072	345.00	177
52.00	14694	150.00	2009	245.00	8986	346.00	4345
53.00	1425	151.00	1611	246.00	11287	347.00	741
55.00	1859	153.00	5178	247.00	2466	348.00	173
56.00	8554	154.00	3533	248.00	888	352.00	4766
57.00	20632	155.00	10101	249.00	2662	353.00	3678
58.00	1464	156.00	14535	250.00	533	354.00	5521
59.00	115	157.00	3190	251.00	727	355.00	1837
60.00	221	158.00	2460	252.00	758	357.00	215
61.00	3650	159.00	2078	253.00	1319	359.00	677
62.00	3681	160.00	4654	255.00	337408	361.00	169
63.00	11871	161.00	7954	256.00	49352	361.00	276
64.00	1323	162.00	1360	257.00	3362	362.00	70
65.00	7074	163.00	634	258.00	20048	364.00	503
66.00	596	164.00	777	259.00	3477	364.00	70
67.00	1810	165.00	5095	260.00	326	365.00	22320
68.00	5754	166.00	5870	261.00	501	366.00	4028
69.00	363904	167.00	36104	262.00	19	367.00	220
70.00	2660	168.00	13979	263.00	156	368.00	373
72.00	21	169.00	2411	264.00	209	369.00	247
73.00	2357	170.00	1004	265.00	8217	370.00	1015
74.00	31760	171.00	1689	266.00	1655	371.00	800
75.00	49280	172.00	3038	267.00	752	372.00	7699
76.00	17504	173.00	4158	269.00	448	373.00	2212
77.00	354560	174.00	7358	270.00	678	374.00	114
78.00	23840	175.00	12515	271.00	763	377.00	320
79.00	21496	176.00	3008	272.00	1003	378.00	54
80.00	17240	177.00	5430	273.00	8811	382.00	203
81.00	26728	178.00	2107	274.00	27648	383.00	2635
82.00	6220	179.00	24976	275.00	153280	384.00	439
83.00	6977	180.00	16131	276.00	21472	385.00	71
85.00	2759	181.00	7809	277.00	13486	386.00	63

Report Date: 09-May-2024 07:57:31 Chrom Revision: 2.3 01-May-2024 15:52:26
Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824001A.D\SMS_2_8270SIM.rslt\s
Injection Date: 08-May-2024 12:20:36
Spectrum: Tune Spec :Average 134-136(2.35-2.37) Bgrd 131(2.34)
Base Peak: 441.95
Minimum % Base Peak: 0
Number of Points: 375

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	4946	182.00	1284	278.00	1737	389.00	273
87.00	3185	183.00	1115	279.00	204	390.00	598
88.00	831	184.00	1756	282.00	580	391.00	976
89.00	913	185.00	12084	283.00	1009	392.00	780
90.00	33	186.00	83240	284.00	970	393.00	162
91.00	6053	187.00	26032	285.00	2366	395.00	82
92.00	6746	188.00	2137	286.00	911	397.00	156
93.00	42584	189.00	4315	287.00	31	398.00	153
94.00	3177	190.00	1077	289.00	739	401.00	980
95.00	710	191.00	2003	290.00	836	402.00	3010
96.00	3282	192.00	7622	291.00	540	403.00	6559
97.00	741	193.00	8056	292.00	642	404.00	2062
98.00	29792	194.00	2160	293.00	2404	405.00	375
99.00	23232	195.00	228	294.00	659	406.00	356
100.00	1226	196.00	21472	295.00	951	410.00	157
101.00	13344	197.00	2541	296.00	44408	412.00	112
102.00	987	198.00	658688	297.00	5881	415.00	410
103.00	4169	199.00	45680	298.00	835	417.00	323
104.00	8229	200.00	3969	299.00	366	418.00	88
105.00	7371	201.00	1702	301.00	535	420.00	122
106.00	216	202.00	399	302.00	1467	420.00	116
107.00	106520	203.00	3657	303.00	4551	421.00	5015
108.00	17104	204.00	23864	304.00	1350	422.00	4509
109.00	2894	205.00	37560	305.00	395	423.00	39016
110.00	193024	206.00	150528	306.00	133	424.00	8974
111.00	30384	207.00	22656	308.00	924	425.00	640
112.00	3965	208.00	4781	309.00	704	426.00	50
113.00	1637	209.00	1962	310.00	787	427.00	411
114.00	309	210.00	3848	311.00	250	429.00	906
115.00	363	211.00	6513	312.00	295	431.00	317
116.00	6055	212.00	237	313.00	924	434.00	205
117.00	90376	213.00	82	314.00	1910	435.00	301
118.00	6204	214.00	96	315.00	5216	437.00	392
119.00	872	215.00	1858	316.00	2548	438.00	411

Report Date: 09-May-2024 07:57:31 Chrom Revision: 2.3 01-May-2024 15:52:26
Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824001A.D\SMS_2_8270SIM.rslt\s
Injection Date: 08-May-2024 12:20:36
Spectrum: Tune Spec :Average 134-136(2.35-2.37) Bgrd 131(2.34)
Base Peak: 441.95
Minimum % Base Peak: 0
Number of Points: 375

m/z	Y	m/z	Y	m/z	Y	m/z	Y
120.00	1351	216.00	4131	317.00	827	439.00	659
121.00	239	217.00	42784	318.00	342	440.00	352
122.00	5620	218.00	5503	319.00	289	441.00	118304
123.00	12721	219.00	682	320.00	333	442.00	748608
124.00	5067	220.00	479	321.00	1252	443.00	143552
125.00	4122	221.00	33928	322.00	1221	444.00	14146
127.00	373248	222.00	5433	323.00	15337	445.00	822
128.00	28800	223.00	8736	324.00	3392	451.00	214
129.00	151936	224.00	86960	325.00	393	452.00	111
130.00	14124	225.00	20000	326.00	645	457.00	86
131.00	2769	226.00	2836	327.00	2823	459.00	76
132.00	710	227.00	35200	328.00	973	461.00	420
133.00	959	228.00	5396	329.00	130	464.00	95
134.00	3597	229.00	8024	330.00	17	466.00	282
135.00	10781	230.00	1121	331.00	78	469.00	54
136.00	4669	231.00	2479	332.00	968	479.00	190
137.00	4830	232.00	909	333.00	1467	493.00	68
138.00	373	233.00	964	334.00	10137	504.00	71
139.00	488	234.00	2297	335.00	3419	505.00	82
140.00	1546	235.00	2436	336.00	111	510.00	57
141.00	16560	236.00	1485	337.00	158	525.00	109
142.00	5557	237.00	3672	338.00	285	533.00	106
143.00	5221	238.00	615	339.00	475	538.00	87
144.00	699	239.00	762	340.00	328	540.00	132
145.00	805	240.00	1271	341.00	890	548.00	64
146.00	2503	241.00	1460	342.00	789	550.00	62
147.00	10521	242.00	5559	343.00	151		

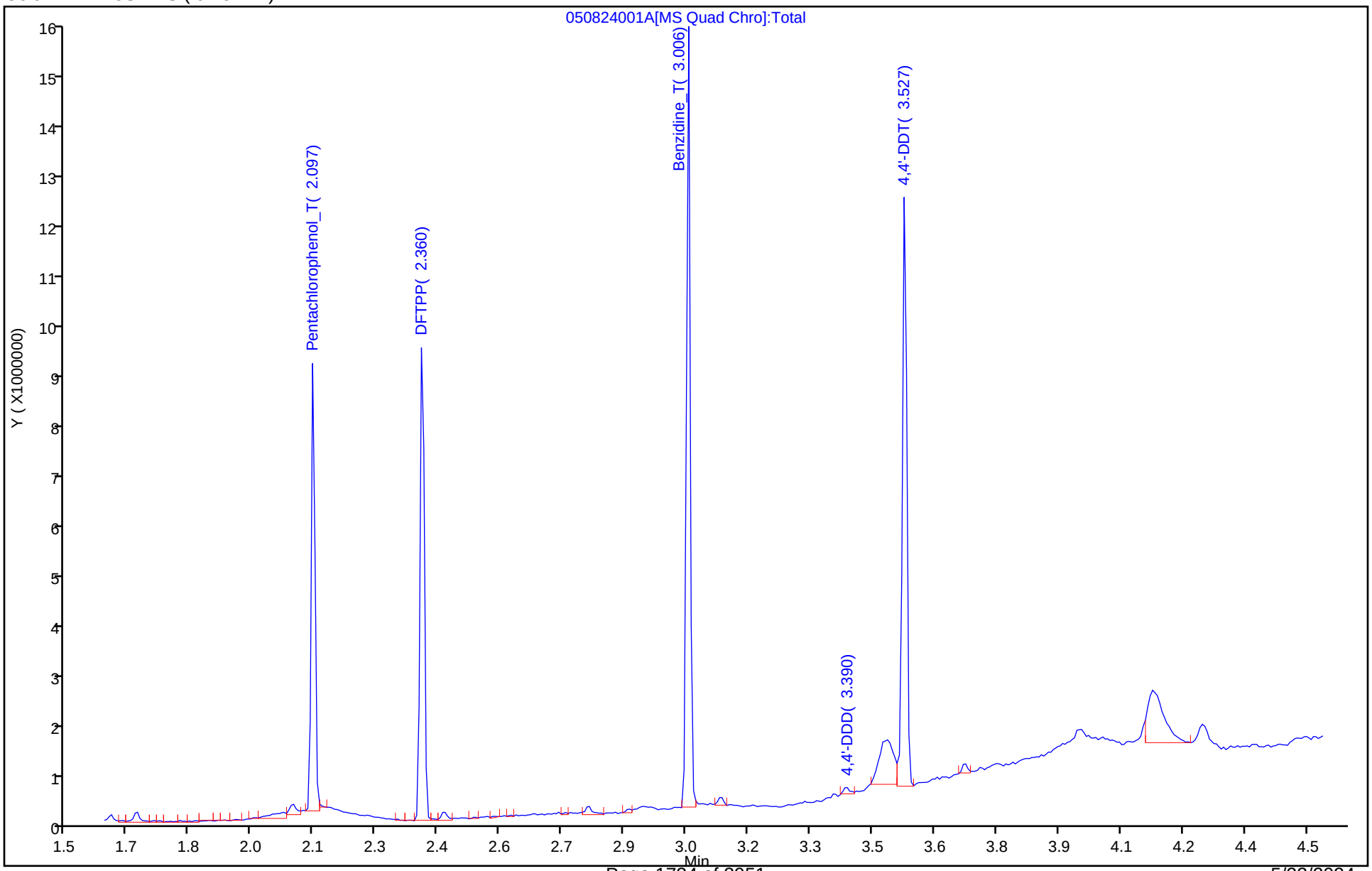
Report Date: 09-May-2024 07:57:31 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824001A.D

Injection Date:	08-May-2024 12:20:36	Instrument ID:	SMS_2	Operator ID:	MB
Lims ID:	DFTPP			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

Column: Rxi-5Sil MS (0.25 mm)



5/23/2024
4:40:30 AM

Breakdown Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824001A.D
Injection Date: 08-May-2024 12:20:36 Instrument ID: SMS_2
Lims ID: DFTPP
Client ID:
Operator ID: MB ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_2_8270SIM Limit Group: MSSV - 8270C-SIM

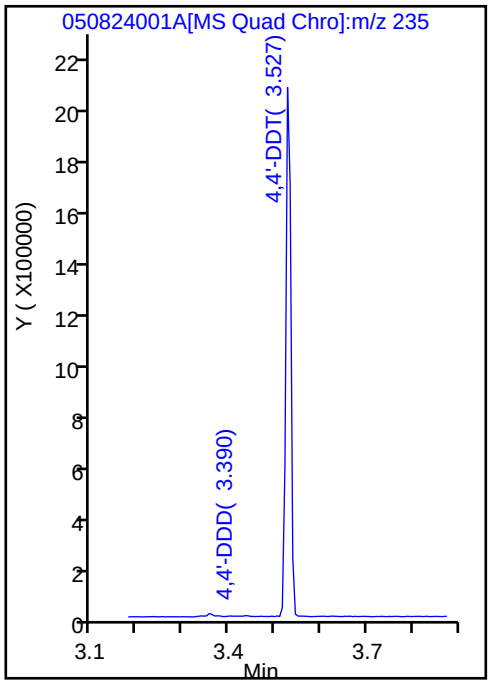
43 4,4'-DDT, Detector: MS Quad

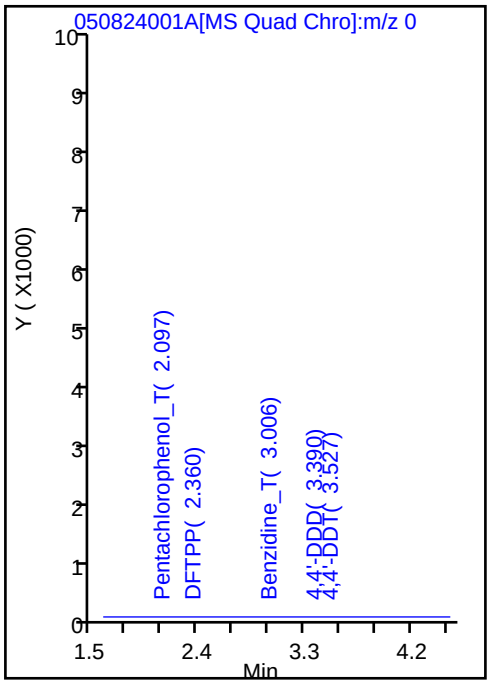
SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

43 4,4'-DDT, Area = 1560185
42 4,4'-DDE, Area = 0
41 4,4'-DDD, Area = 3814

%Breakdown: 0.24%, <= 20.00%
Passed





Peak Tailing Report

Eurofins Denver

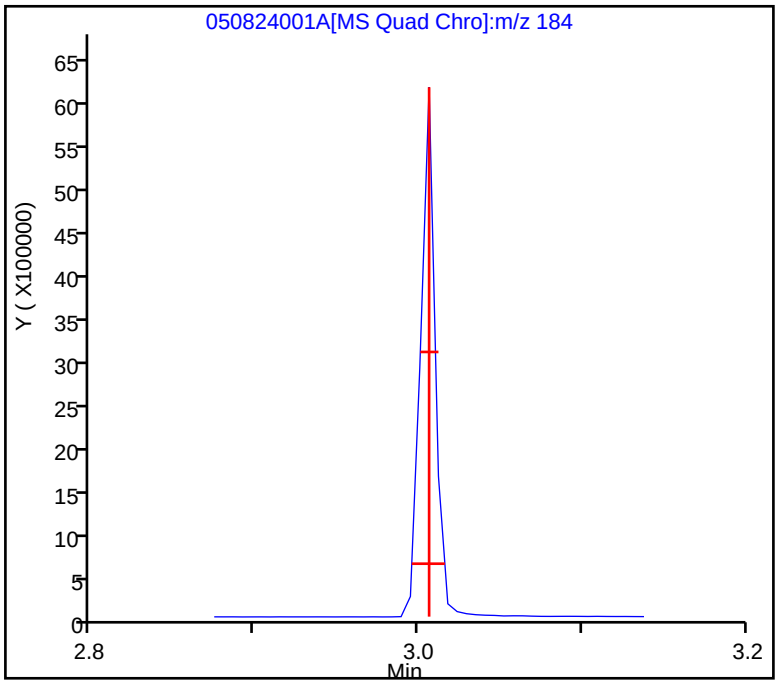
Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824001A.D
Injection Date: 08-May-2024 12:20:36 Instrument ID: SMS_2
Lims ID: DFTPP
Client ID:
Operator ID: MB ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_2_8270SIM Limit Group: MSSV - 8270C-SIM

40 Benzidine_T, Detector: MS Quad

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.010 (min.)
Front Width = 0.011 (min.)

Tailing Factor = 0.91, Max. Tailing <= 3.00
Passed



Peak Tailing Report

Eurofins Denver

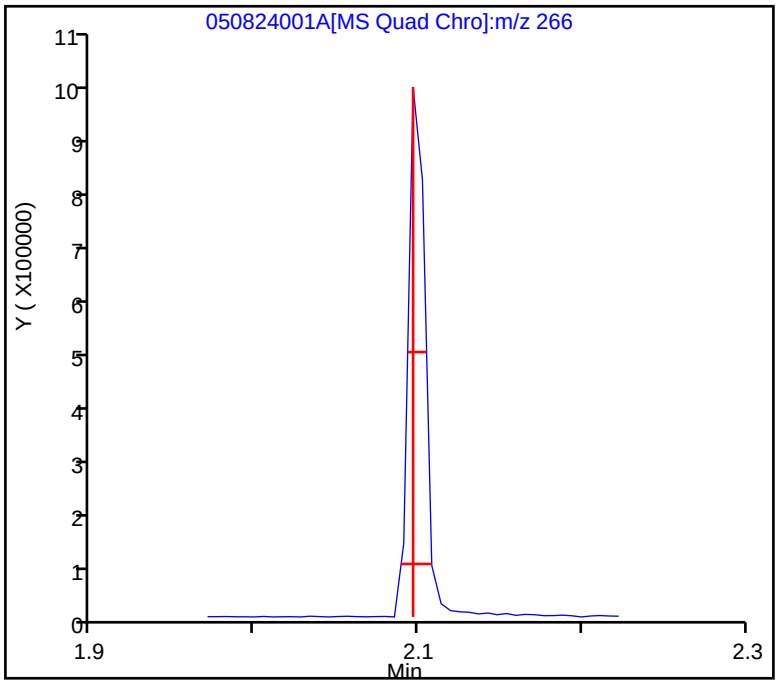
Data File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824001A.D
Injection Date: 08-May-2024 12:20:36 Instrument ID: SMS_2
Lims ID: DFTPP
Client ID:
Operator ID: MB ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_2_8270SIM Limit Group: MSSV - 8270C-SIM

37 Pentachlorophenol_T, Detector: MS Quad

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.011 (min.)
Front Width = 0.007 (min.)

Tailing Factor = 1.57, Max. Tailing <= 5.00
Passed



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024001.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 10-May-2024 08:12:54 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: DFTPP
Operator ID: MB Instrument ID: SMS_2

Method: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 11-May-2024 12:01:31 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: FP7E Date: 10-May-2024 08:42:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
37 Pentachlorophenol_T	266	2.096	2.096	0.000	0	740072	NR	NR	
39 DFTPP									
40 Benzidine_T	184	3.000	3.000	0.000	1	3847564	NR	NR	
42 4,4'-DDE	246		3.103				ND	ND	U
41 4,4'-DDD	235	3.349	3.349	0.000	49	7007	NR	NR	
43 4,4'-DDT	235	3.527	3.527	0.000	0	1579768	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
ND - Not Detected or Marked ND
Review Flags
U - Marked Undetected

Reagents:

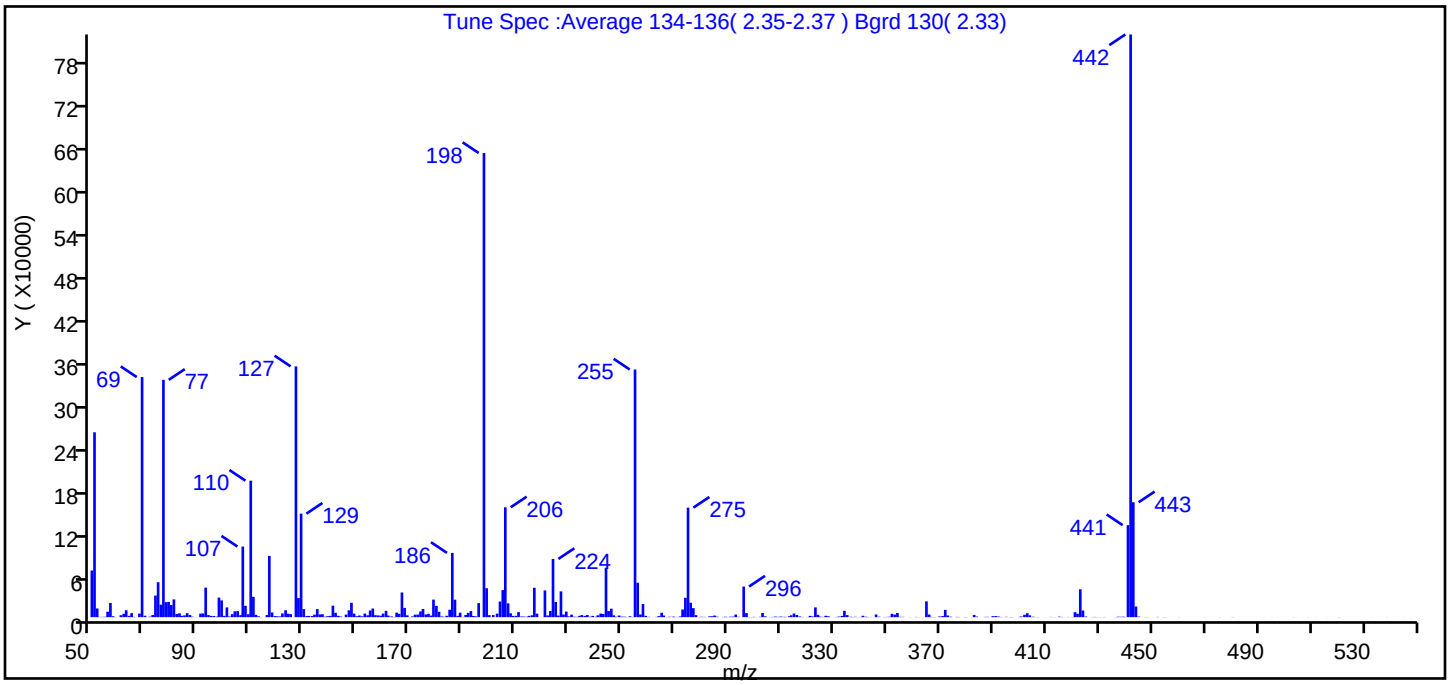
MS-DFTPP_00073 Amount Added: 0.50 Units: uL

MS Tune Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024001.D
Injection Date: 10-May-2024 08:12:54 Instrument ID: SMS_2
Lims ID: DFTPP
Client ID:
Operator ID: MB ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_2_8270SIM Limit Group: MSSV - 8270C-SIM
Tune Method: DFTPP Method 8270

39 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	39.8
68	<2% of mass 69	0.8 (1.5)
69	Present	51.7
70	<2% of mass 69	0.3 (0.6)
127	40-60% of mass 198	54.0
197	<1% of mass 198	0.0
199	5-9% of mass 198	6.2
275	10-30% of mass 198	23.6
365	>1% of mass 198	3.4
441	Present but less than mass 443	19.8 (80.1)
442	>40% of mass 198	125.5
443	17-23% of mass 442	24.7 (19.7)

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024001.D\SMS_2_8270SIM.rslt\sp
Injection Date: 10-May-2024 08:12:54
Spectrum: Tune Spec :Average 134-136(2.35-2.37) Bgrd 130(2.33)
Base Peak: 441.95
Minimum % Base Peak: 0
Number of Points: 380

m/z	Y	m/z	Y	m/z	Y	m/z	Y
50.00	65352	152.00	1235	250.00	729	354.00	5797
51.00	259136	153.00	5014	251.00	629	355.00	452
52.00	12151	154.00	2559	252.00	191	356.00	410
53.00	358	155.00	9319	253.00	1229	359.00	186
54.00	429	156.00	12044	254.00	254	361.00	316
55.00	559	157.00	2731	255.00	347136	362.00	89
56.00	7653	158.00	2389	256.00	48232	365.00	22120
57.00	19896	159.00	1988	257.00	3802	366.00	3693
58.00	1307	160.00	4964	258.00	18304	367.00	400
59.00	204	161.00	8871	259.00	1782	368.00	255
61.00	2678	162.00	2150	260.00	432	370.00	977
62.00	4718	163.00	1016	262.00	33	371.00	1538
63.00	9668	164.00	262	263.00	394	372.00	10210
64.00	1817	165.00	6275	264.00	1467	373.00	2297
65.00	5651	166.00	4639	265.00	6148	374.00	619
66.00	418	167.00	34576	266.00	2229	376.00	331
68.00	5009	168.00	12960	267.00	85	377.00	272
69.00	336512	169.00	2573	268.00	592	379.00	174
70.00	1975	170.00	164	269.00	568	380.00	194
72.00	738	171.00	1023	270.00	509	382.00	79
73.00	2934	172.00	3466	271.00	348	383.00	3063
74.00	30192	173.00	3602	272.00	1028	384.00	848
75.00	48992	174.00	7976	273.00	10719	387.00	369
76.00	17504	175.00	11482	274.00	27104	388.00	423
77.00	332672	176.00	3728	275.00	153472	390.00	435
78.00	20992	177.00	4663	276.00	20184	390.00	1313
79.00	21336	178.00	2192	277.00	12646	391.00	1516
80.00	16912	179.00	24592	278.00	2803	392.00	928
81.00	24872	180.00	15841	279.00	134	393.00	253
82.00	4544	181.00	7521	280.00	530	395.00	444
83.00	5385	182.00	961	281.00	347	397.00	227
84.00	1834	183.00	470	283.00	1135	397.00	189
85.00	2480	184.00	1917	284.00	1304	400.00	538

Report Date: 11-May-2024 12:01:32 Chrom Revision: 2.3 01-May-2024 15:52:26
Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024001.D\SMS_2_8270SIM.rslt\sp
Injection Date: 10-May-2024 08:12:54
Spectrum: Tune Spec :Average 134-136(2.35-2.37) Bgrd 130(2.33)
Base Peak: 441.95
Minimum % Base Peak: 0
Number of Points: 380

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	5609	185.00	10368	285.00	2237	401.00	828
87.00	2932	186.00	90072	286.00	696	402.00	3304
88.00	653	187.00	24464	288.00	281	403.00	5505
89.00	138	188.00	1758	289.00	536	404.00	2572
91.00	4914	189.00	6261	290.00	264	405.00	586
92.00	5154	190.00	296	291.00	632	406.00	125
93.00	41376	191.00	3069	292.00	758	407.00	182
94.00	2884	192.00	5909	293.00	3639	410.00	83
95.00	1756	193.00	8447	294.00	468	412.00	296
96.00	1474	194.00	1677	296.00	42888	413.00	185
97.00	793	195.00	1136	297.00	5729	415.00	690
98.00	27400	196.00	19656	298.00	207	416.00	285
99.00	23464	198.00	650624	299.00	182	417.00	93
100.00	1758	199.00	40560	300.00	380	418.00	236
101.00	13599	200.00	2796	301.00	92	420.00	244
102.00	989	201.00	2948	302.00	466	421.00	6962
103.00	4129	203.00	4884	303.00	5891	422.00	4753
104.00	8163	204.00	21888	304.00	1142	423.00	39080
105.00	8468	205.00	37928	306.00	242	424.00	9302
106.00	2797	206.00	153920	307.00	376	425.00	833
107.00	98920	207.00	19328	308.00	769	427.00	190
108.00	15892	208.00	5366	309.00	441	428.00	324
109.00	4052	209.00	1761	310.00	834	429.00	138
110.00	191296	210.00	1862	311.00	381	430.00	187
111.00	28520	211.00	7098	312.00	347	432.00	241
112.00	3269	212.00	871	313.00	1253	434.00	29
113.00	1230	213.00	795	314.00	2580	436.00	219
114.00	148	214.00	589	315.00	5099	437.00	619
116.00	2935	215.00	1813	316.00	2981	438.00	475
117.00	85888	216.00	2558	317.00	946	439.00	643
118.00	6605	217.00	41224	318.00	324	440.00	189
119.00	1455	218.00	4903	320.00	183	441.00	128952
120.00	1221	220.00	149	321.00	1760	442.00	816768
121.00	1059	221.00	37408	322.00	1011	443.00	161024

Report Date: 11-May-2024 12:01:32 Chrom Revision: 2.3 01-May-2024 15:52:26
Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024001.D\SMS_2_8270SIM.rslt\sp
Injection Date: 10-May-2024 08:12:54
Spectrum: Tune Spec :Average 134-136(2.35-2.37) Bgrd 130(2.33)
Base Peak: 441.95
Minimum % Base Peak: 0
Number of Points: 380

m/z	Y	m/z	Y	m/z	Y	m/z	Y
122.00	5200	222.00	2315	323.00	13634	444.00	14904
123.00	9689	223.00	8570	324.00	3268	445.00	754
124.00	4763	224.00	81584	325.00	784	448.00	175
125.00	4272	225.00	21256	326.00	321	448.00	175
127.00	351552	226.00	2204	327.00	1932	450.00	86
128.00	26744	227.00	36104	328.00	1256	452.00	302
129.00	145088	228.00	3654	330.00	106	454.00	180
130.00	11312	229.00	7817	331.00	391	455.00	161
131.00	1477	230.00	1115	332.00	778	460.00	155
132.00	1753	231.00	3455	333.00	1722	469.00	75
133.00	1588	232.00	668	334.00	8869	470.00	103
134.00	3474	233.00	393	335.00	2817	476.00	186
135.00	11315	234.00	1888	336.00	504	480.00	96
136.00	3797	235.00	2857	337.00	267	481.00	147
137.00	4103	236.00	1766	338.00	480	492.00	69
138.00	659	237.00	2941	339.00	147	495.00	67
139.00	1356	238.00	642	340.00	315	498.00	68
140.00	1778	239.00	1769	341.00	1951	503.00	121
141.00	16038	240.00	571	342.00	614	504.00	54
142.00	6108	241.00	2581	343.00	214	507.00	56
143.00	1852	242.00	5010	344.00	165	509.00	90
144.00	820	243.00	4349	346.00	3722	512.00	59
146.00	3519	244.00	69224	347.00	605	516.00	60
147.00	9601	245.00	8606	349.00	242	521.00	200
148.00	20112	246.00	11850	350.00	313	533.00	91
149.00	4971	247.00	2542	351.00	604	539.00	83
150.00	1340	248.00	565	352.00	4706	545.00	57
151.00	2315	249.00	2277	353.00	3579	548.00	50

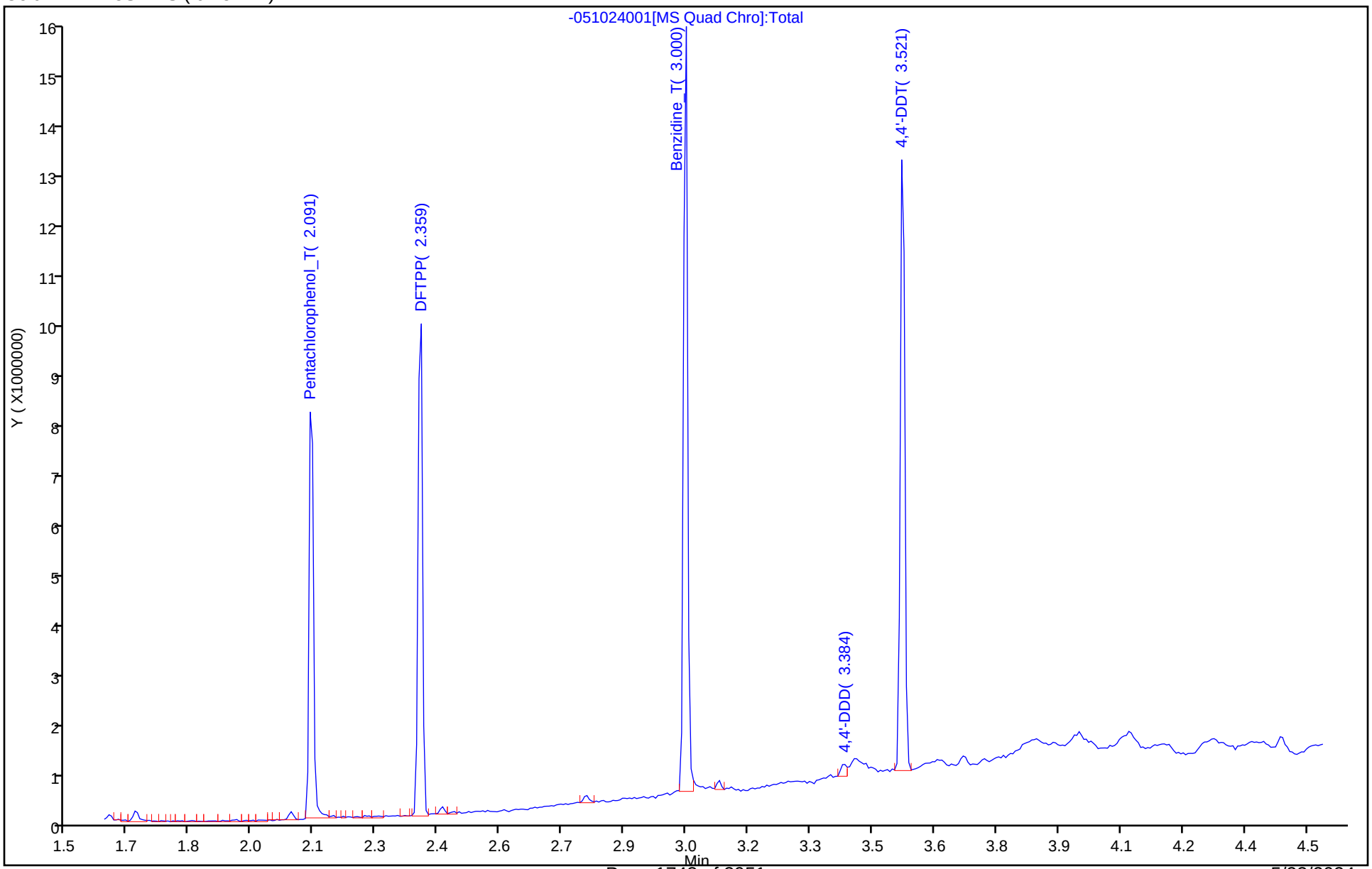
Report Date: 11-May-2024 12:01:32 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024001.D

Injection Date:	10-May-2024 08:12:54	Instrument ID:	SMS_2	Operator ID:	MB
Lims ID:	DFTPP			Worklist Smp#:	2
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

Column: Rxi-5Sil MS (0.25 mm)



5/23/2024
4:40:30 AM

Breakdown Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024001.D
Injection Date: 10-May-2024 08:12:54 Instrument ID: SMS_2
Lims ID: DFTPP
Client ID:
Operator ID: MB ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_2_8270SIM Limit Group: MSSV - 8270C-SIM

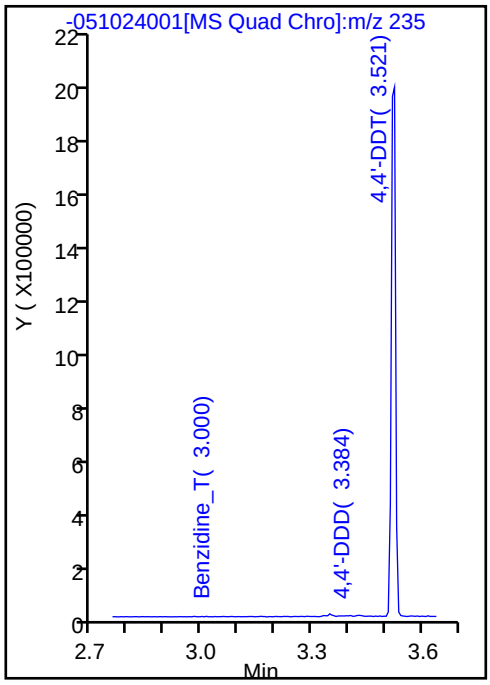
43 4,4'-DDT, Detector: MS Quad

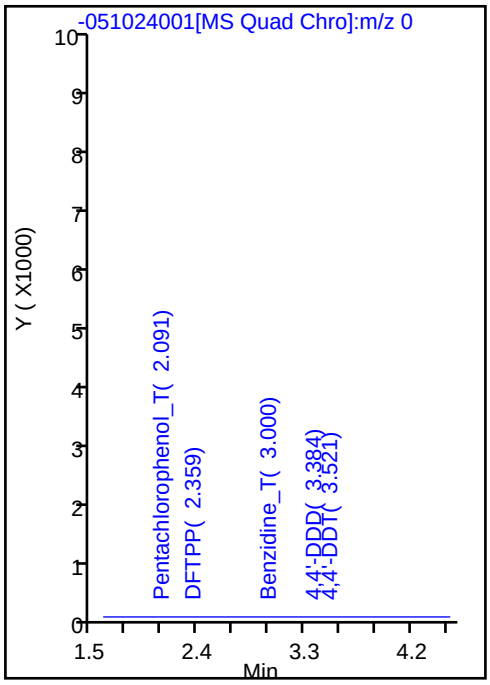
SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

43 4,4'-DDT, Area = 1579768
42 4,4'-DDE, Area = 0
41 4,4'-DDD, Area = 7007

%Breakdown: 0.44%, <= 20.00%
Passed





Peak Tailing Report

Eurofins Denver

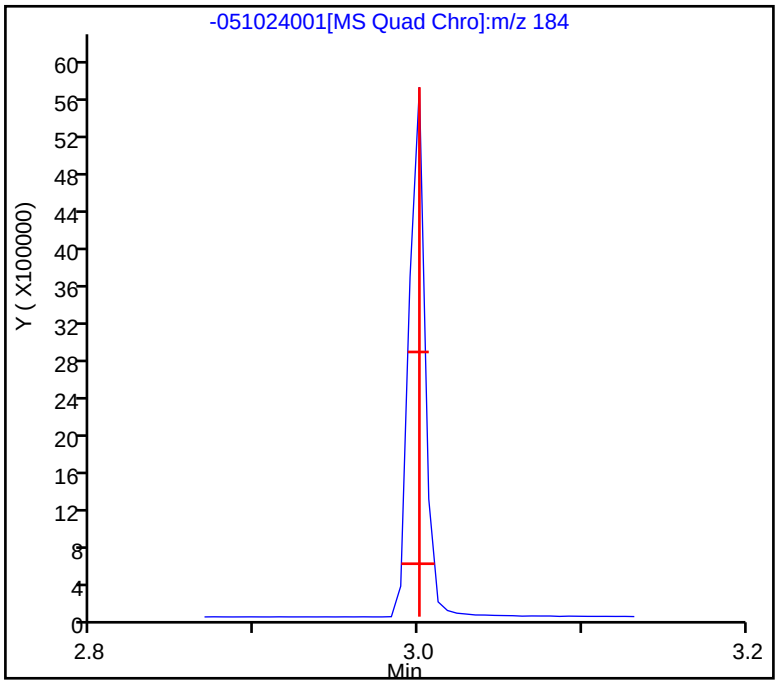
Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024001.D
Injection Date: 10-May-2024 08:12:54 Instrument ID: SMS_2
Lims ID: DFTPP
Client ID:
Operator ID: MB ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_2_8270SIM Limit Group: MSSV - 8270C-SIM

40 Benzidine_T, Detector: MS Quad

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.009 (min.)
Front Width = 0.011 (min.)

Tailing Factor = 0.82, Max. Tailing <= 3.00
Passed



Peak Tailing Report

Eurofins Denver

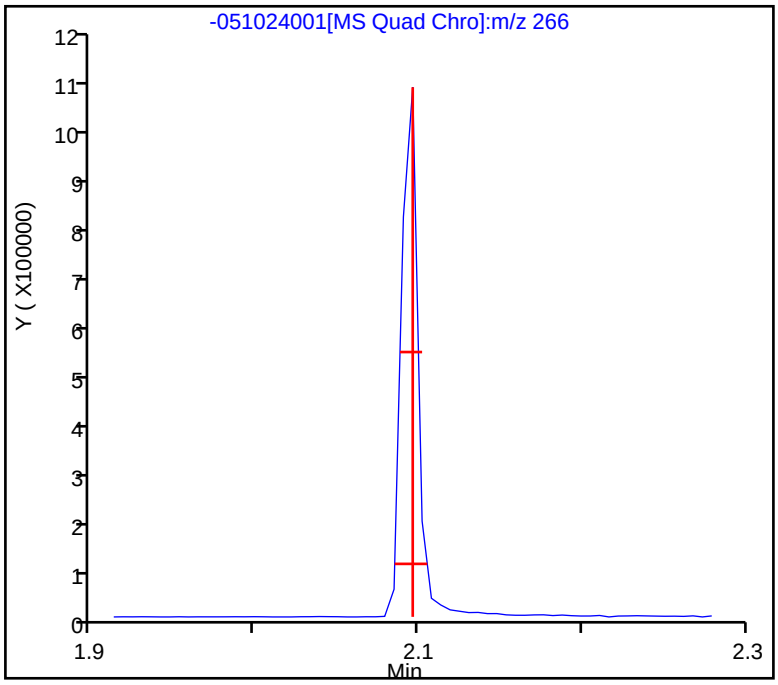
Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024001.D
Injection Date: 10-May-2024 08:12:54 Instrument ID: SMS_2
Lims ID: DFTPP
Client ID:
Operator ID: MB ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_2_8270SIM Limit Group: MSSV - 8270C-SIM

37 Pentachlorophenol_T, Detector: MS Quad

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.009 (min.)
Front Width = 0.011 (min.)

Tailing Factor = 0.82, Max. Tailing <= 5.00
Passed



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-652726/1-A

Matrix: Water | Lab File ID: SMS_2-051024003.D

Analysis Method: 8270E SIM | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/09/2024 10:54

Sample wt/vol: 250(mL) | Date Analyzed: 05/10/2024 08:41

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 652894 | Units: ng/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
7297-45-2	2-methylnaphthalene-d10	85		15-113
93951-69-0	Fluoranthene-d10	97		42-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-652726/1-A

Matrix: Water | Lab File ID: SMS_2-051024003.D

Analysis Method: 8270E SIM | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/09/2024 10:54

Sample wt/vol: 250(mL) | Date Analyzed: 05/10/2024 08:41

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 652894 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
91-57-6	2-Methylnaphthalene	0.0302	J	0.10	0.080	0.021
83-32-9	Acenaphthene	0.0156	J	0.10	0.080	0.0042
208-96-8	Acenaphthylene	0.00994	J M	0.10	0.080	0.0051
120-12-7	Anthracene	0.080	U M	0.10	0.080	0.031
56-55-3	Benzo[a]anthracene	0.080	U M	0.10	0.080	0.028
50-32-8	Benzo[a]pyrene	0.080	U	0.10	0.080	0.025
205-99-2	Benzo[b]fluoranthene	0.080	U	0.10	0.080	0.040
191-24-2	Benzo[g,h,i]perylene	0.080	U	0.10	0.080	0.037
207-08-9	Benzo[k]fluoranthene	0.080	U	0.10	0.080	0.023
218-01-9	Chrysene	0.080	U M	0.10	0.080	0.033
53-70-3	Dibenz(a,h)anthracene	0.080	U	0.10	0.080	0.028
206-44-0	Fluoranthene	0.080	U	0.10	0.080	0.049
86-73-7	Fluorene	0.080	U M	0.10	0.080	0.019
193-39-5	Indeno[1,2,3-cd]pyrene	0.080	U	0.10	0.080	0.039
91-20-3	Naphthalene	0.080	U M	0.10	0.080	0.023
85-01-8	Phenanthrene	0.080	U M	0.10	0.080	0.049
129-00-0	Pyrene	0.080	U	0.10	0.080	0.045

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	87		53-106
4165-60-0	Nitrobenzene-d5 (Surr)	93		55-111
1718-51-0	Terphenyl-d14 (Surr)	101		58-132

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024003.D
Lims ID: MB 280-652726/1-A
Client ID:
Sample Type: MB
Inject. Date: 10-May-2024 08:41:20 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-652726/1-A
Operator ID: MB Instrument ID: SMS_2

Method: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 11-May-2024 12:01:32 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: FP7E Date: 10-May-2024 09:16:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 Acenaphthene-d10	164	6.789	6.789	0.000	76	55755	400.0	400.0	
* 2 Phenanthrene-d10	188	8.243	8.244	-0.001	93	58916	400.0	400.0	
* 3 Chrysene-d12	240	11.007	11.006	0.001	57	41345	400.0	400.0	
$ 4 Nitrobenzene-d5	82	4.410	4.419	-0.009	97	46584	500.5	466.6	
$ 5 2-methylnaphthalene-d10	152	5.746	5.754	-0.008	0	59402	493.9	419.2	
$ 6 2-Fluorobiphenyl	172	6.150	6.157	-0.007	0	97160	499.9	433.4	
$ 7 Fluoranthene-d10	212	9.421	9.420	0.001	90	65981	500.0	484.5	
$ 8 Terphenyl-d14	244	9.848	9.853	-0.005	0	52693	500.0	502.7	
38 1,4-Dioxane	88		1.501					ND	
9 N-Nitrosodiethylamine	102		2.983					ND	U
10 N-Nitrosodi-n-propylamine	70		4.290					ND	U
11 Naphthalene	128	5.107	5.107	0.000	1	1229		4.73	a
12 2-Methylnaphthalene	141	5.776	5.784	-0.008	0	1089		7.54	
13 1-Methylnaphthalene	142	5.874	5.874	0.000	0	823		5.17	
14 Acenaphthylene	152	6.638	6.638	0.000	0	612		2.48	a
15 Acenaphthene	153	6.819	6.820	-0.001	77	660		3.90	
16 Dibenzofuran	168	6.990	6.991	-0.001	75	1107		4.65	
17 Fluorene	166	7.324	7.332	-0.008	83	447		3.50	Ma
18 Phenanthrene	178	8.263	8.264	-0.001	0	1132		6.50	a
19 Anthracene	178	8.313	8.318	-0.005	1	696		4.08	a
20 Fluoranthene	202	9.433	9.438	-0.005	20	1116		5.78	
21 Pyrene	202	9.653	9.652	0.001	0	940		4.68	
22 Benzo[a]anthracene	228	10.992	10.996	-0.004	10	469		2.67	a
23 Chrysene	228	11.037	11.041	-0.004	0	531		3.00	a
24 Benzo[b]fluoranthene	252		12.599					ND	
25 Benzo[k]fluoranthene	252		12.646					ND	
26 Benzo[a]pyrene	252		13.101					ND	
27 Indeno[1,2,3-cd]pyrene	276		14.385					ND	
28 Dibenz(a,h)anthracene	278		14.422					ND	
29 Benzo[g,h,i]perylene	276		14.634					ND	
30 Dimethyl phthalate	163		0.000					ND	
31 N-Nitrosodimethylamine	42		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
32 N-Nitrosodiphenylamine	169		0.000					ND	
33 Di-n-butyl phthalate	149		0.000					ND	
34 Diethyl phthalate	149		0.000					ND	
35 Butyl benzyl phthalate	149		0.000					ND	
36 Di-n-octyl phthalate	149		0.000					ND	
37 Pentachlorophenol_T	266		2.096					ND	
40 Benzidine_T	184		3.000					ND	
42 4,4'-DDE	246		3.103					ND	
41 4,4'-DDD	235		3.349					ND	
43 4,4'-DDT	235		3.527					ND	
S 44 TPAH	1				0			54.0	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

U - Marked Undetected

a - User Assigned ID

Reagents:

MS-SIM IS_00059 Amount Added: 100.00 Units: uL Run Reagent

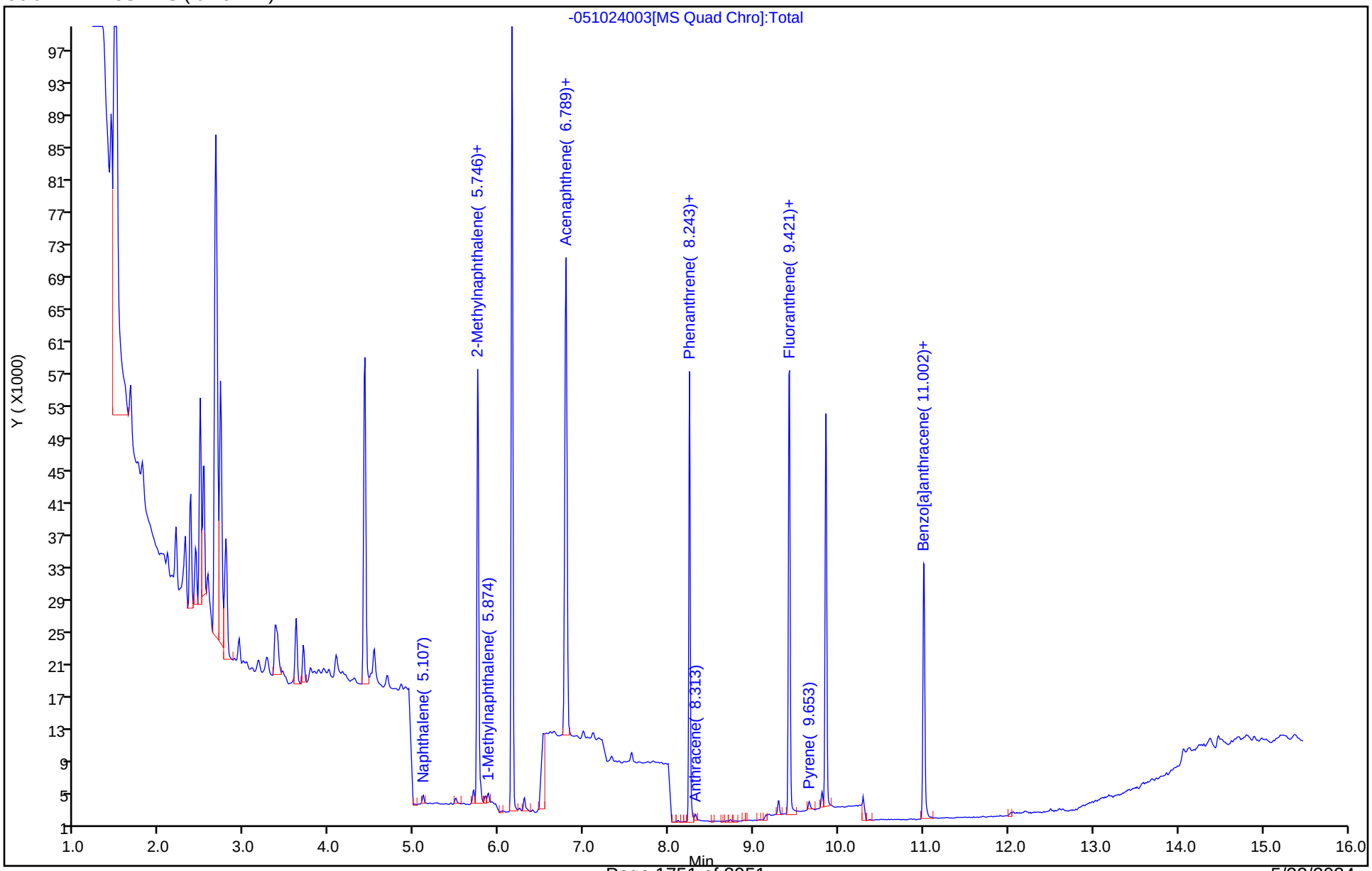
Report Date: 11-May-2024 12:01:34 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024003.D

Injection Date:	10-May-2024 08:41:20	Instrument ID:	SMS_2	Operator ID:	MB
Lims ID:	MB 280-652726/1-A			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

Column: Rxi-5Sil MS (0.25 mm)



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024003.D				
Lims ID:	MB 280-652726/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	10-May-2024 08:41:20	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 280-652726/1-A				
Operator ID:	MB	Instrument ID:	SMS_2		
Method:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2_8270SIM.m				
Limit Group:	MSSV - 8270C-SIM				
Last Update:	11-May-2024 12:01:32	Calib Date:	08-May-2024 14:27:22		
Integrator:	RTE	ID Type:	RT Order ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D				
Column 1 :	Rxi-5Sil MS (0.25 mm)		Det: MS SCAN		
Process Host:	CTX1615				

First Level Reviewer: FP7E Date: 10-May-2024 09:16:32

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Nitrobenzene-d5	500.5	466.6	93.22
$ 5 2-methylnaphthalene-d10	493.9	419.2	84.88
$ 6 2-Fluorobiphenyl	499.9	433.4	86.71
$ 7 Fluoranthene-d10	500.0	484.5	96.91
$ 8 Terphenyl-d14	500.0	502.7	100.55

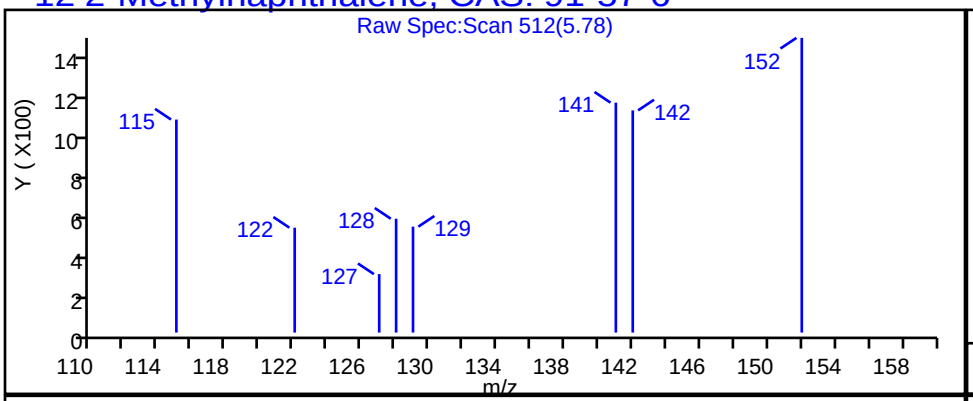
Report Date: 11-May-2024 12:01:34 Chrom Revision: 2.3 01-May-2024 15:52:26

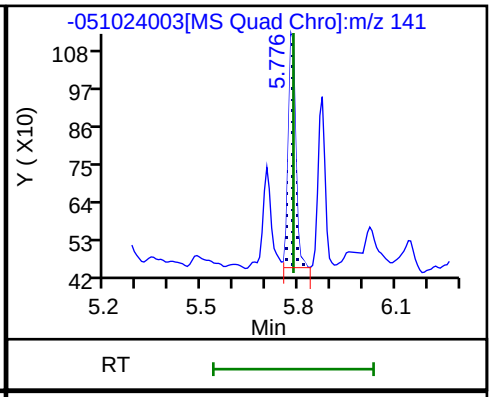
Eurofins Denver

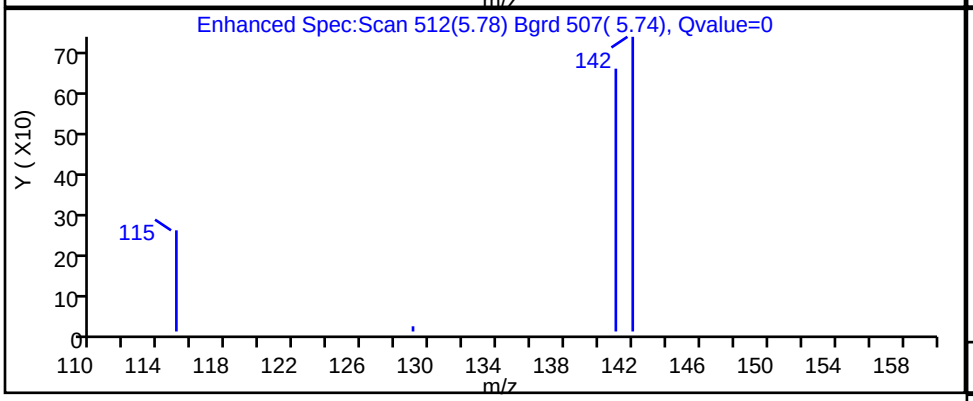
Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024003.D

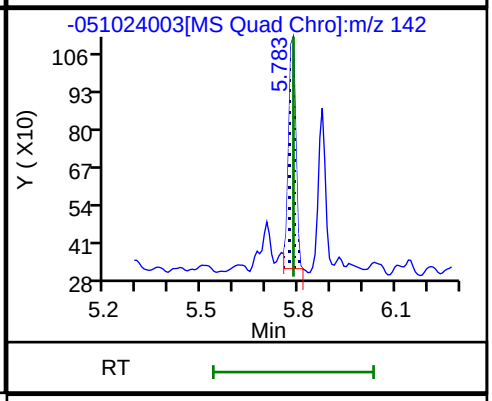
Injection Date:	10-May-2024 08:41:20	Instrument ID:	SMS_2		
Lims ID:	MB 280-652726/1-A				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

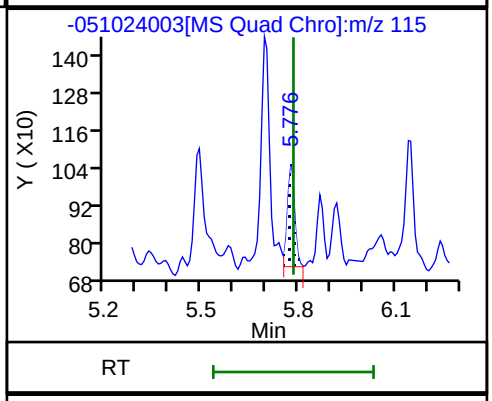
12 2-Methylnaphthalene, CAS: 91-57-6

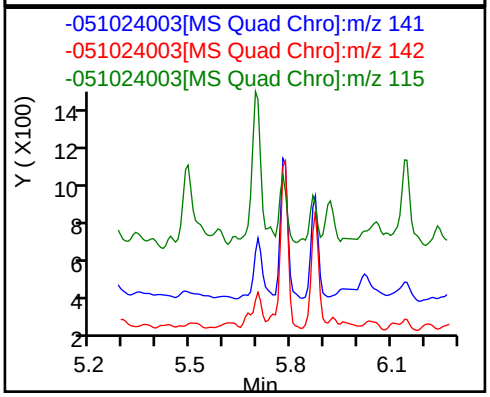












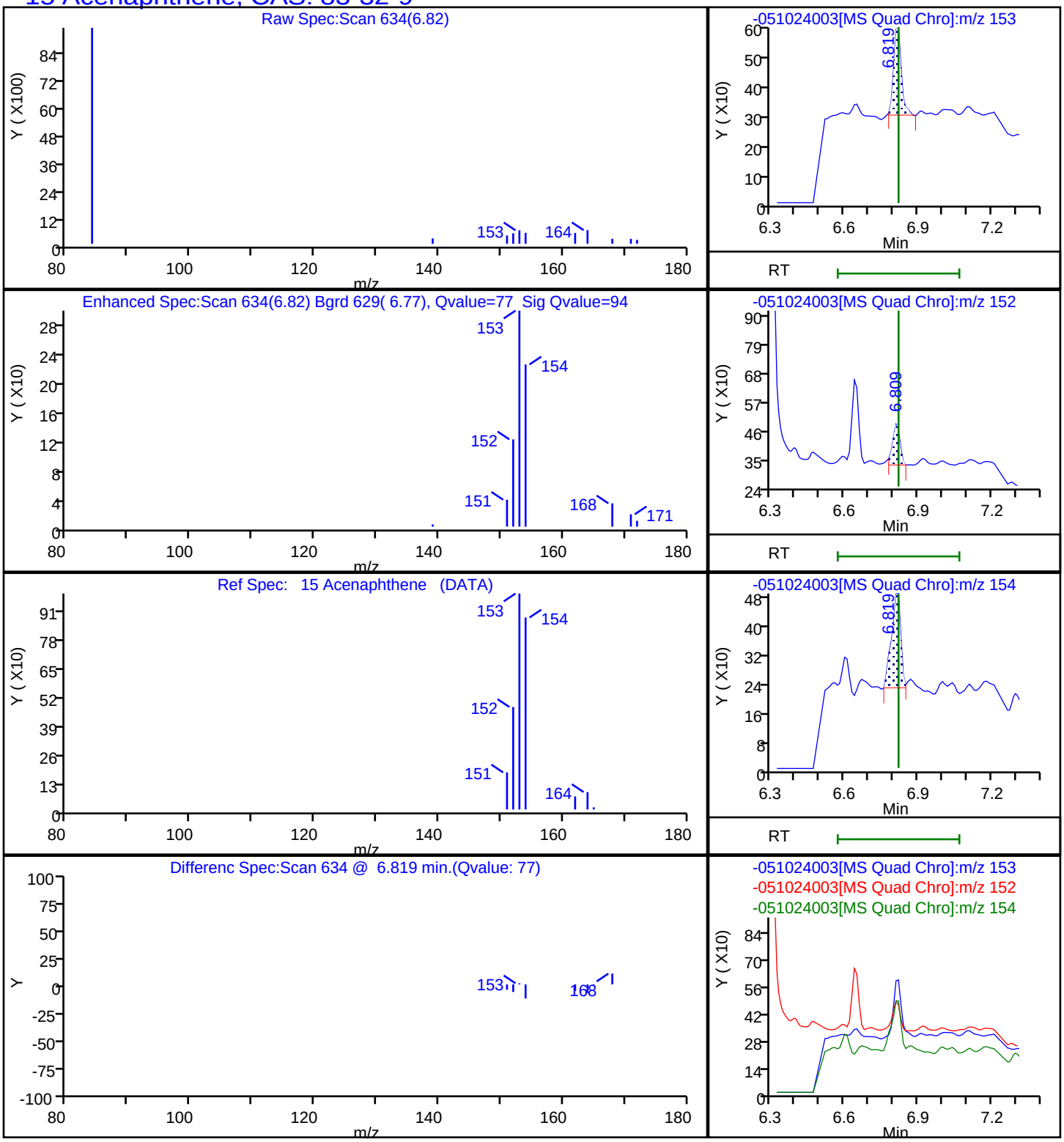
Report Date: 11-May-2024 12:01:34 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024003.D

Injection Date:	10-May-2024 08:41:20	Instrument ID:	SMS_2		
Lims ID:	MB 280-652726/1-A				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

15 Acenaphthene, CAS: 83-32-9



Report Date: 11-May-2024 12:01:34 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024003.D

Injection Date: 10-May-2024 08:41:20 Instrument ID: SMS_2

Lims ID: MB 280-652726/1-A

Client ID:

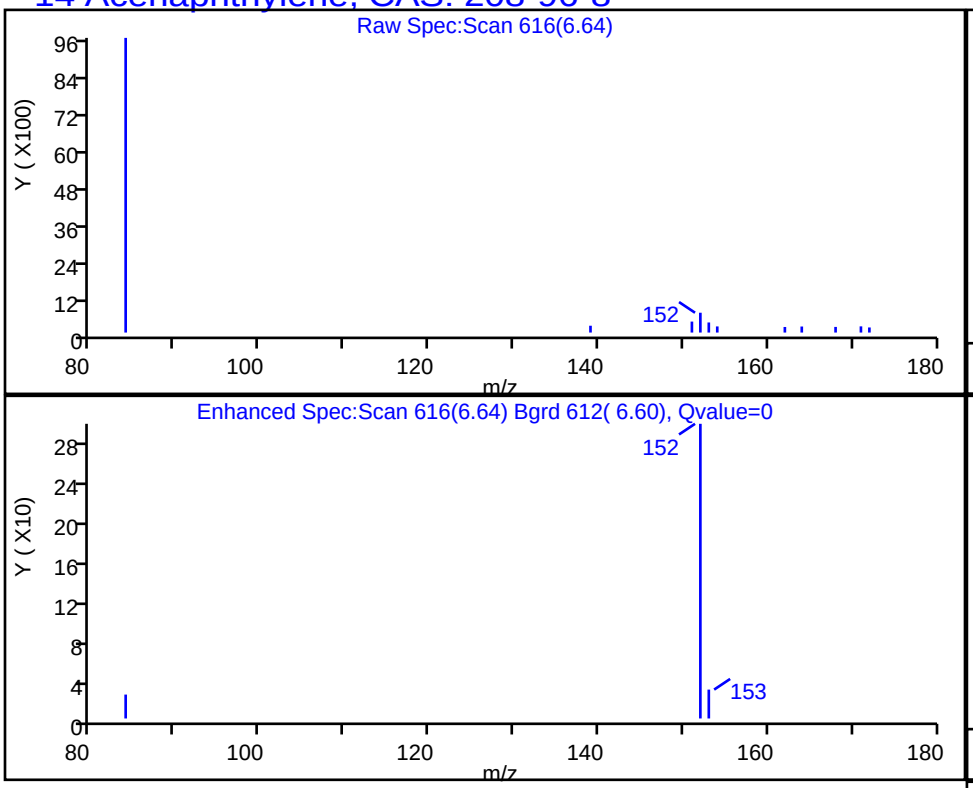
Operator ID: MB ALS Bottle#: 0 Worklist Smp#: 4

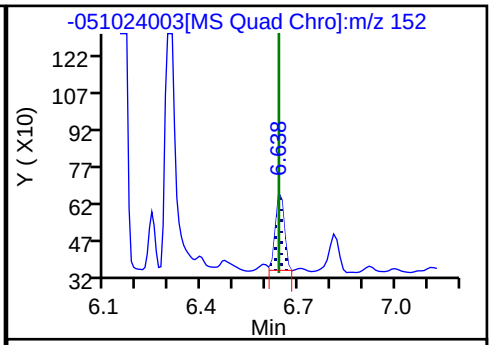
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: SMS_2_8270SIM Limit Group: MSSV - 8270C-SIM

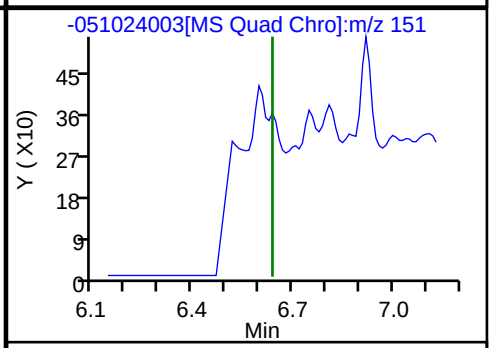
Column: Rxi-5Sil MS (0.25 mm) Detector MS SCAN

14 Acenaphthylene, CAS: 208-96-8

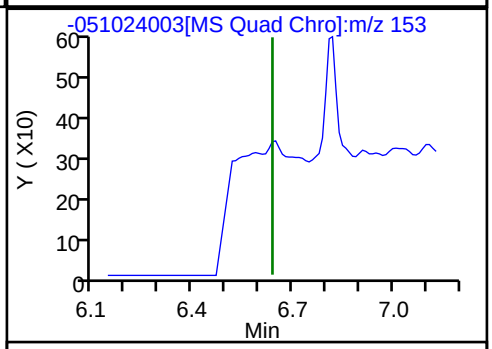




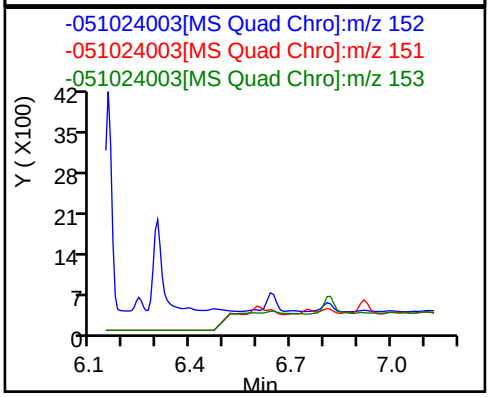
RT



RT



RT



Manual Integration/User Assign Peak Report

Eurofins Denver

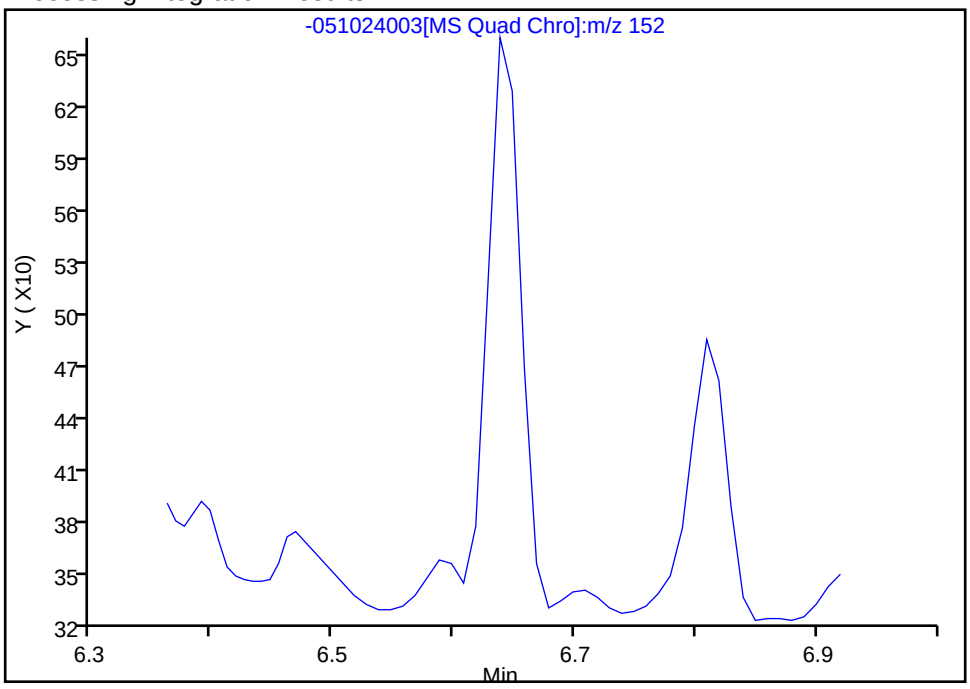
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024003.D				
Injection Date:	10-May-2024 08:41:20	Instrument ID:	SMS_2		
Lims ID:	MB 280-652726/1-A				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

14 Acenaphthylene, CAS: 208-96-8

Signal: 1

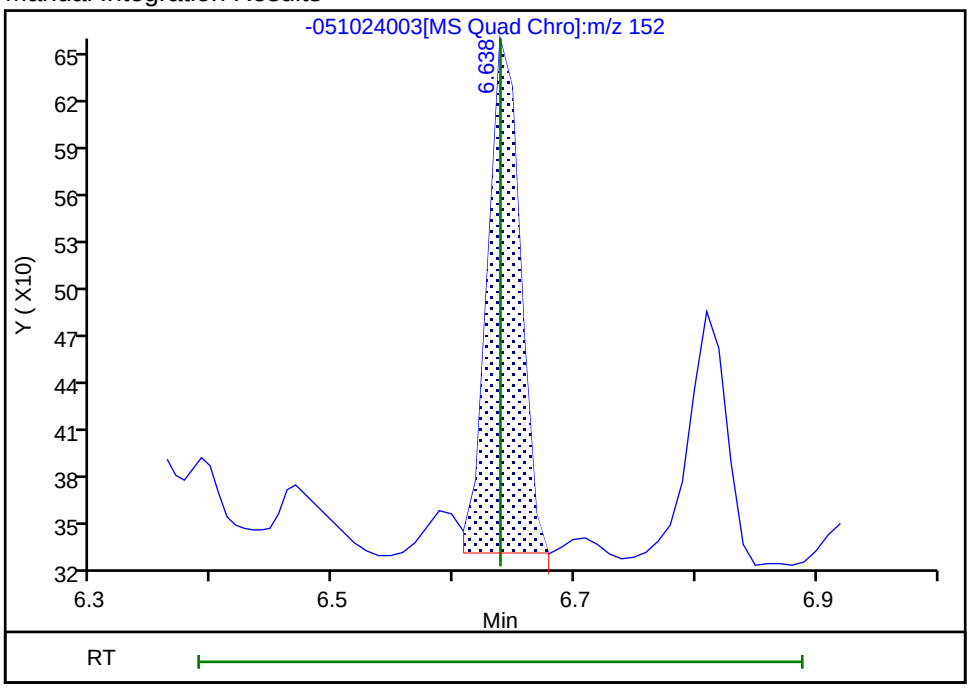
Not Detected
Expected RT: 6.64

Processing Integration Results



Manual Integration Results

RT: 6.64
Area: 612
Amount: 2.483999
Amount Units: ng/ml



Reviewer: FP7E, 10-May-2024 09:16:06 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

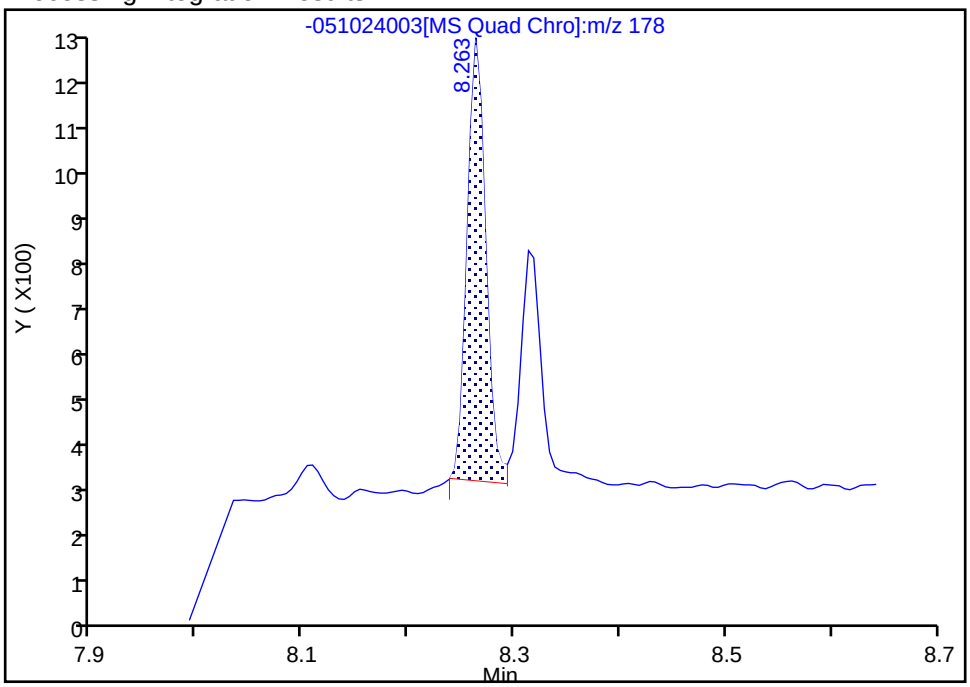
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024003.D				
Injection Date:	10-May-2024 08:41:20	Instrument ID:	SMS_2		
Lims ID:	MB 280-652726/1-A				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

19 Anthracene, CAS: 120-12-7

Signal: 1

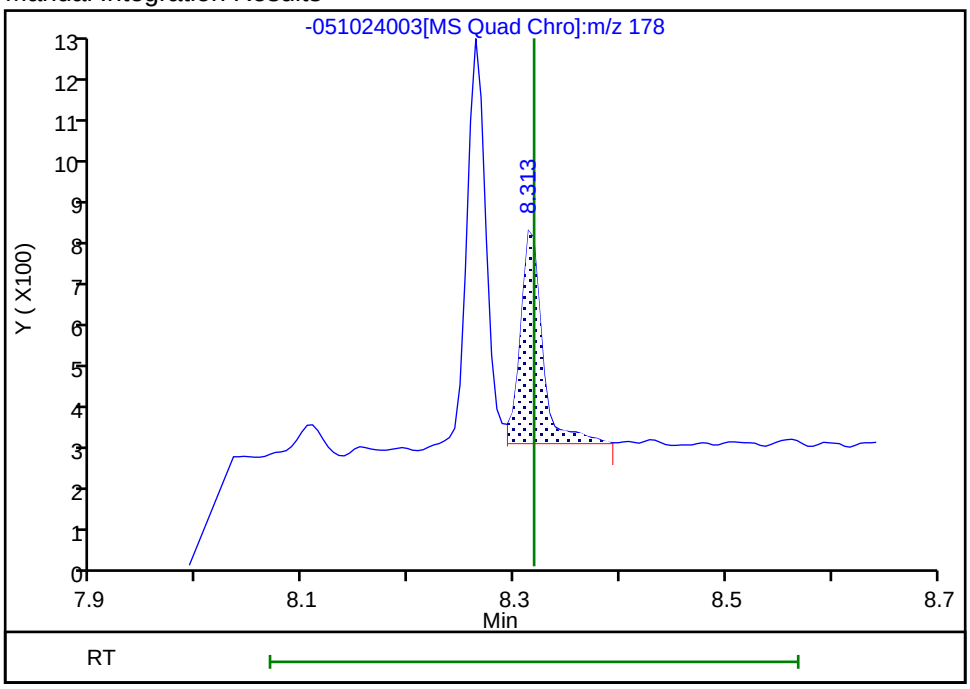
Processing Integration Results

RT: 8.26
Area: 1129
Amount: 6.620173
Amount Units: ng/ml



Manual Integration Results

RT: 8.31
Area: 696
Amount: 4.081170
Amount Units: ng/ml



Reviewer: FP7E, 10-May-2024 09:16:19 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline

Eurofins Denver

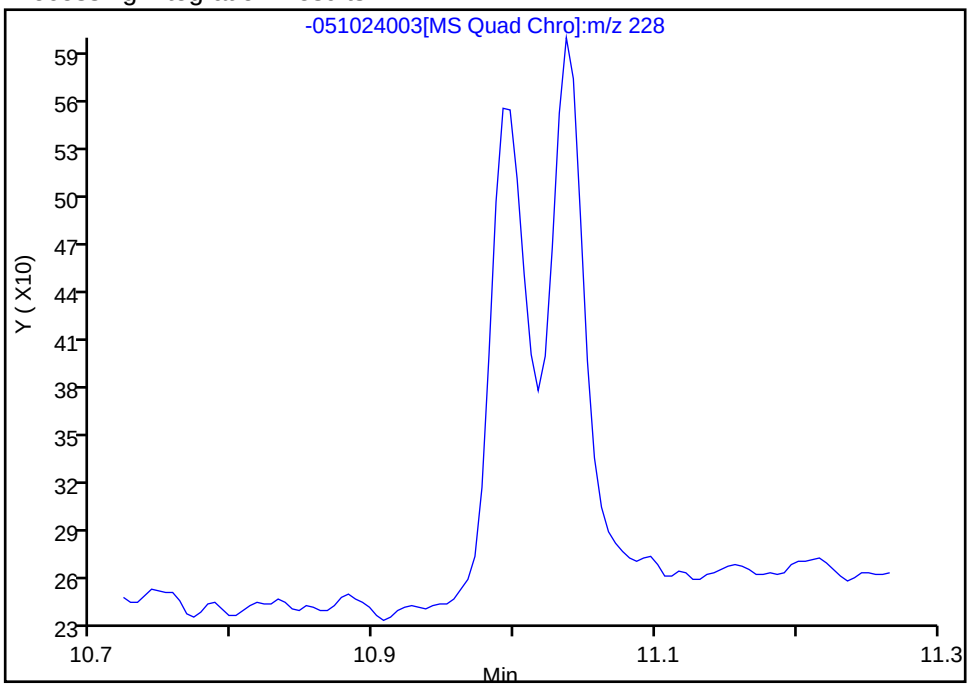
Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024003.D
Injection Date: 10-May-2024 08:41:20 Instrument ID: SMS_2
Lims ID: MB 280-652726/1-A
Client ID:
Operator ID: MB ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_2_8270SIM Limit Group: MSSV - 8270C-SIM
Column: Rxi-5Sil MS (0.25 mm) Detector MS SCAN

22 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

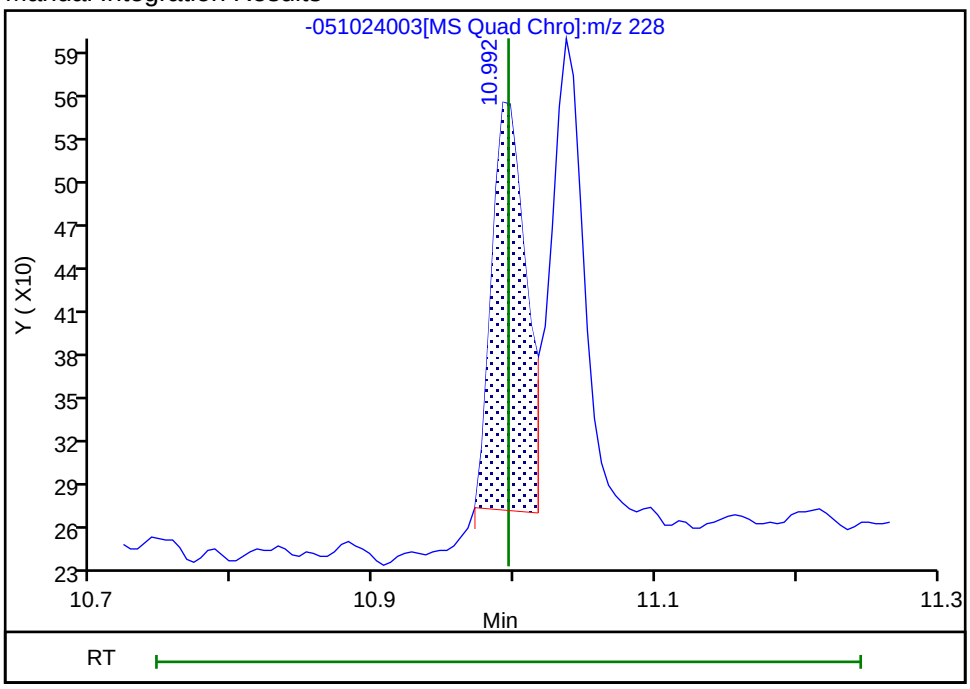
Not Detected
Expected RT: 11.00

Processing Integration Results



Manual Integration Results

RT: 10.99
Area: 469
Amount: 2.673885
Amount Units: ng/ml



Reviewer: FP7E, 10-May-2024 09:16:23 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

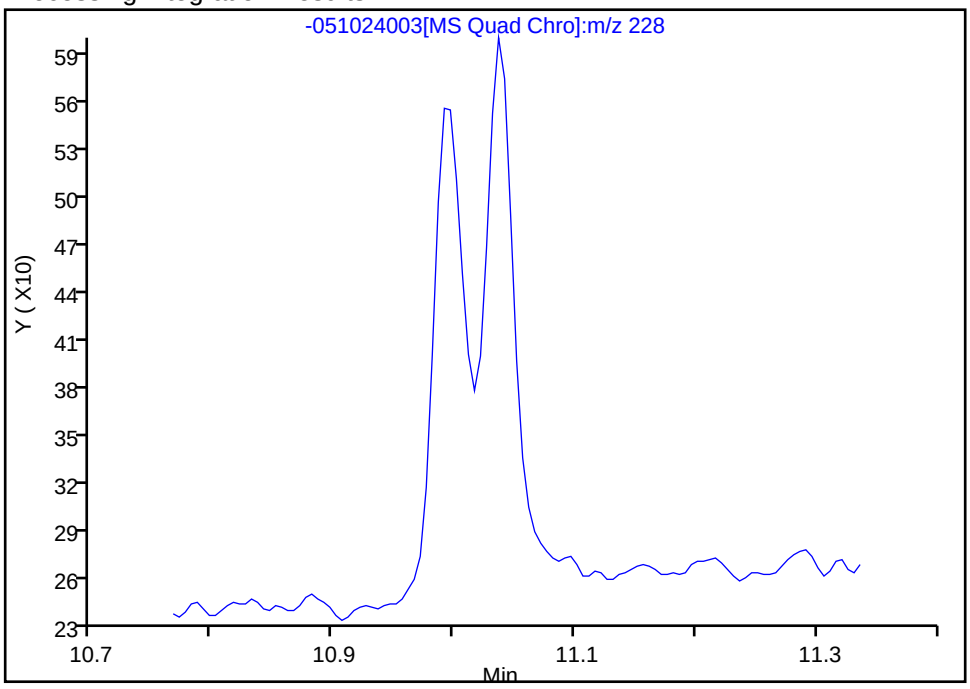
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024003.D				
Injection Date:	10-May-2024 08:41:20	Instrument ID:	SMS_2		
Lims ID:	MB 280-652726/1-A				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

23 Chrysene, CAS: 218-01-9

Signal: 1

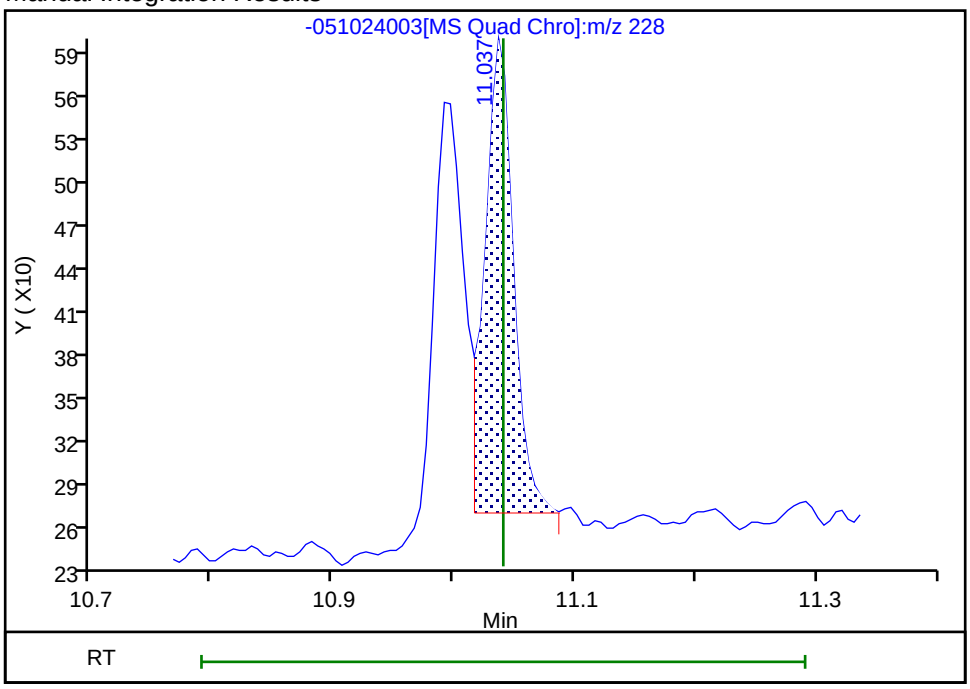
Not Detected
Expected RT: 11.04

Processing Integration Results



Manual Integration Results

RT: 11.04
Area: 531
Amount: 2.995364
Amount Units: ng/ml



Reviewer: FP7E, 10-May-2024 09:16:24 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

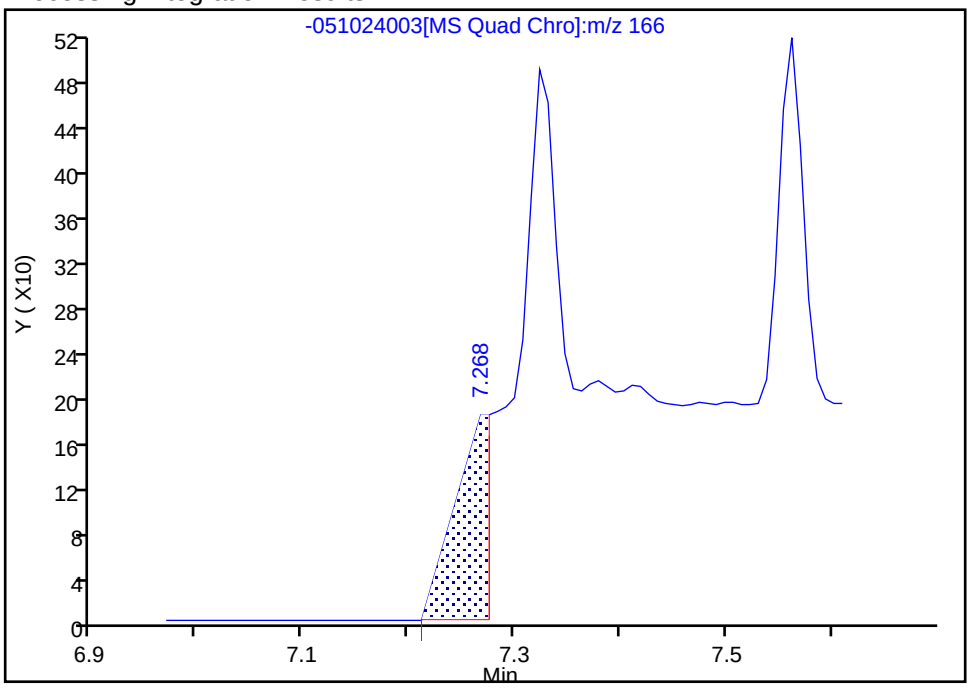
Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024003.D
Injection Date: 10-May-2024 08:41:20 Instrument ID: SMS_2
Lims ID: MB 280-652726/1-A
Client ID:
Operator ID: MB ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_2_8270SIM Limit Group: MSSV - 8270C-SIM
Column: Rxi-5Sil MS (0.25 mm) Detector MS SCAN

17 Fluorene, CAS: 86-73-7

Signal: 1

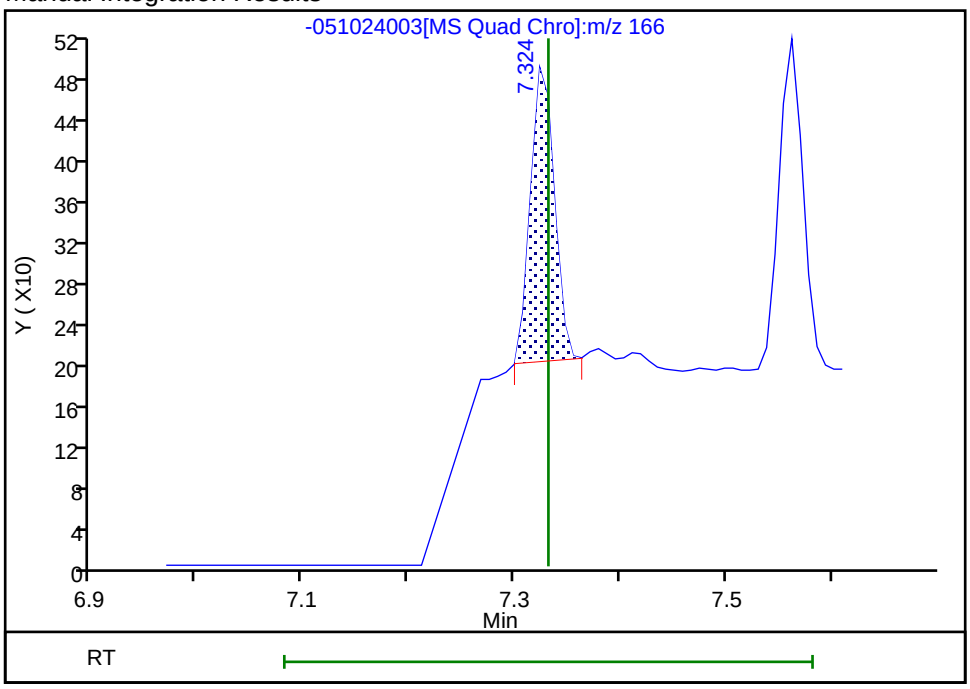
Processing Integration Results

RT: 7.27
Area: 391
Amount: 3.065696
Amount Units: ng/ml



Manual Integration Results

RT: 7.32
Area: 447
Amount: 3.504772
Amount Units: ng/ml



Reviewer: FP7E, 10-May-2024 09:16:14 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

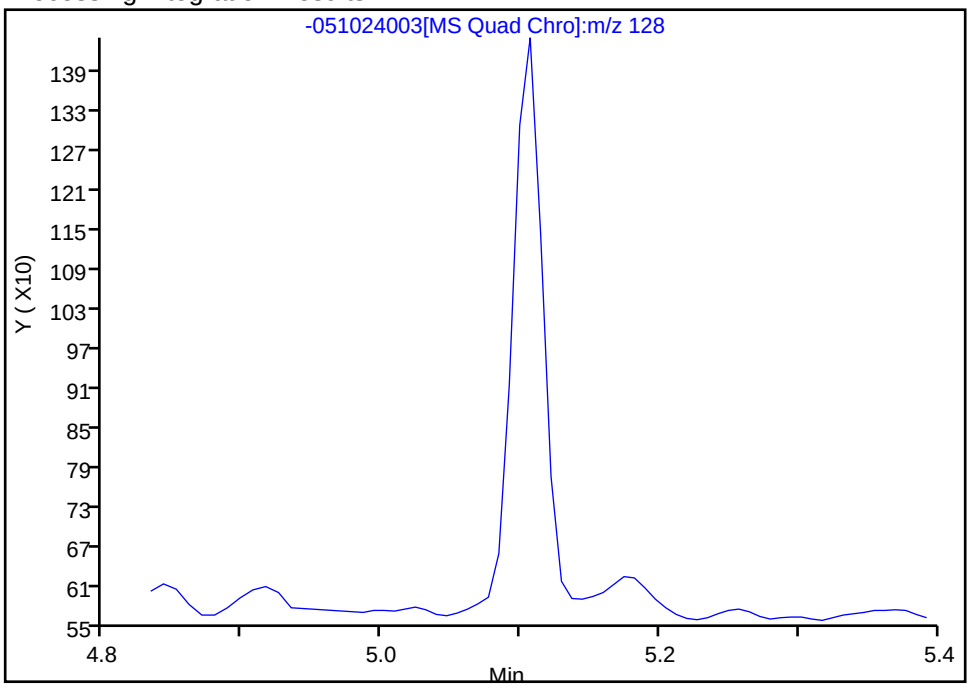
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024003.D				
Injection Date:	10-May-2024 08:41:20	Instrument ID:	SMS_2		
Lims ID:	MB 280-652726/1-A				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

11 Naphthalene, CAS: 91-20-3

Signal: 1

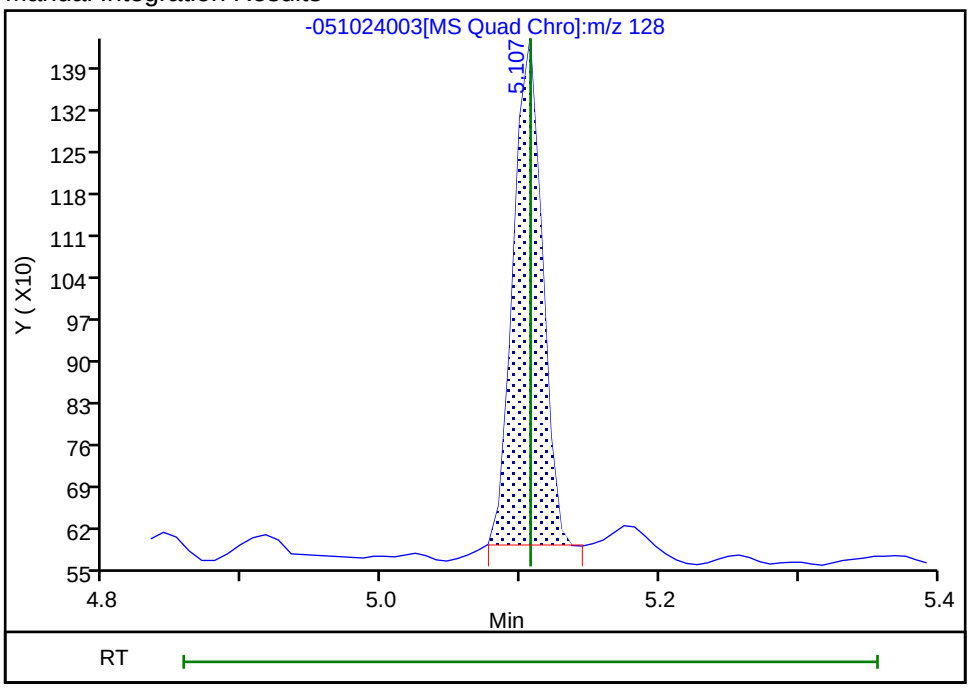
Not Detected
Expected RT: 5.11

Processing Integration Results



Manual Integration Results

RT: 5.11
Area: 1229
Amount: 4.727709
Amount Units: ng/ml



Reviewer: FP7E, 10-May-2024 09:16:02 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

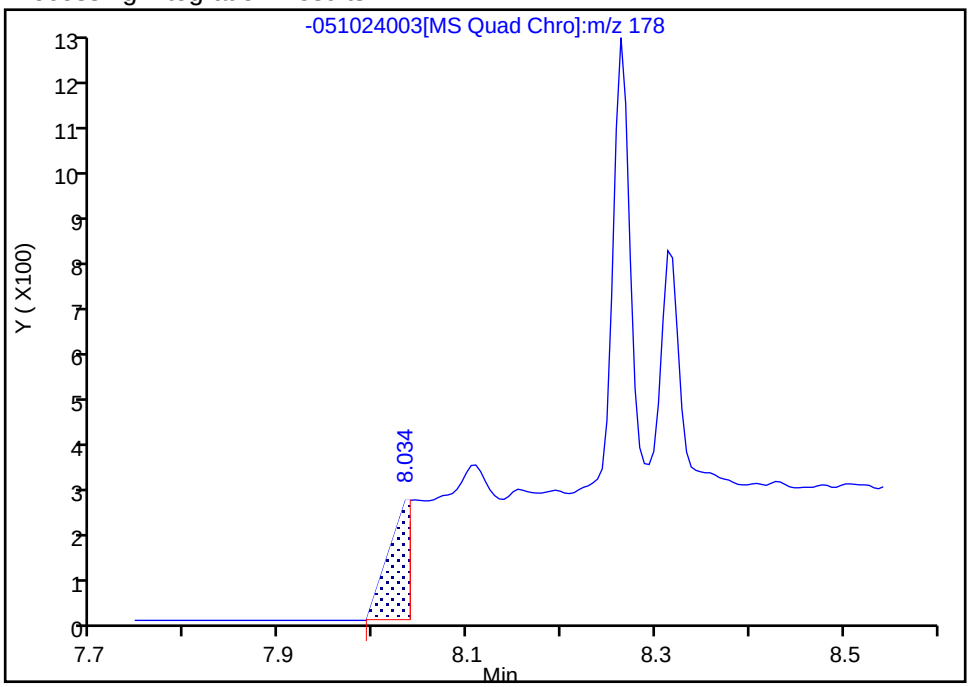
Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024003.D				
Injection Date:	10-May-2024 08:41:20	Instrument ID:	SMS_2		
Lims ID:	MB 280-652726/1-A				
Client ID:					
Operator ID:	MB	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

18 Phenanthrene, CAS: 85-01-8

Signal: 1

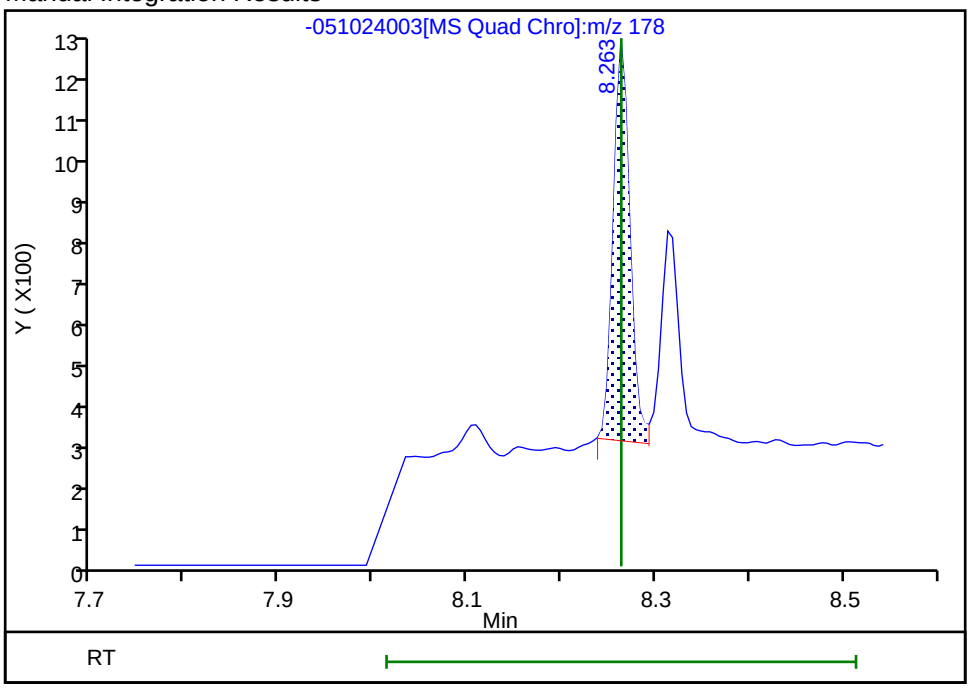
Processing Integration Results

RT: 8.03
Area: 385
Amount: 2.212100
Amount Units: ng/ml



Manual Integration Results

RT: 8.26
Area: 1132
Amount: 6.504149
Amount Units: ng/ml



Reviewer: FP7E, 10-May-2024 09:16:17 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Baseline

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-652726/2-A

Matrix: Water | Lab File ID: SMS_2-051024004.D

Analysis Method: 8270E SIM | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/09/2024 10:54

Sample wt/vol: 250(mL) | Date Analyzed: 05/10/2024 09:00

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 652894 | Units: ng/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
7297-45-2	2-methylnaphthalene-d10	76		15-113
93951-69-0	Fluoranthene-d10	90		42-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-652726/2-A

Matrix: Water | Lab File ID: SMS_2-051024004.D

Analysis Method: 8270E SIM | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/09/2024 10:54

Sample wt/vol: 250(mL) | Date Analyzed: 05/10/2024 09:00

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 652894 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
91-57-6	2-Methylnaphthalene	0.608		0.10	0.080	0.021
83-32-9	Acenaphthene	0.678		0.10	0.080	0.0042
208-96-8	Acenaphthylene	0.682		0.10	0.080	0.0051
120-12-7	Anthracene	0.734		0.10	0.080	0.031
56-55-3	Benzo[a]anthracene	0.734		0.10	0.080	0.028
50-32-8	Benzo[a]pyrene	0.696		0.10	0.080	0.025
205-99-2	Benzo[b]fluoranthene	0.722		0.10	0.080	0.040
191-24-2	Benzo[g,h,i]perylene	0.690		0.10	0.080	0.037
207-08-9	Benzo[k]fluoranthene	0.758		0.10	0.080	0.023
218-01-9	Chrysene	0.748		0.10	0.080	0.033
53-70-3	Dibenz(a,h)anthracene	0.569		0.10	0.080	0.028
206-44-0	Fluoranthene	0.777		0.10	0.080	0.049
86-73-7	Fluorene	0.683		0.10	0.080	0.019
193-39-5	Indeno[1,2,3-cd]pyrene	0.687		0.10	0.080	0.039
91-20-3	Naphthalene	0.612		0.10	0.080	0.023
85-01-8	Phenanthrene	0.775		0.10	0.080	0.049
129-00-0	Pyrene	0.777		0.10	0.080	0.045

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	77		53-106
4165-60-0	Nitrobenzene-d5 (Surr)	86		55-111
1718-51-0	Terphenyl-d14 (Surr)	92		58-132

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024004.D
Lims ID: LCS 280-652726/2-A
Client ID:
Sample Type: LCS
Inject. Date: 10-May-2024 09:00:47 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-652726/2-A
Operator ID: MB Instrument ID: SMS_2

Method: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 11-May-2024 12:01:32 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: FP7E Date: 10-May-2024 09:53:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 Acenaphthene-d10	164	6.783	6.789	-0.006	74	58408	400.0	400.0	
* 2 Phenanthrene-d10	188	8.241	8.244	-0.003	98	62316	400.0	400.0	
* 3 Chrysene-d12	240	11.004	11.006	-0.002	72	43265	400.0	400.0	
$ 4 Nitrobenzene-d5	82	4.410	4.419	-0.009	97	44774	500.5	428.1	
$ 5 2-methylnaphthalene-d10	152	5.747	5.754	-0.007	0	55364	493.9	373.0	
$ 6 2-Fluorobiphenyl	172	6.151	6.157	-0.006	0	90543	499.9	385.5	
$ 7 Fluoranthene-d10	212	9.417	9.420	-0.003	93	65019	500.0	451.4	
$ 8 Terphenyl-d14	244	9.850	9.853	-0.003	0	50856	500.0	458.7	
38 1,4-Dioxane	88	1.500	1.501	-0.001	0	2466	225.0	80.4	Ma
10 N-Nitrosodi-n-propylamine	70	4.290	4.290	0.000	93	12079	225.0	180.8	
11 Naphthalene	128	5.101	5.107	-0.006	1	41677	225.0	153.0	
12 2-Methylnaphthalene	141	5.777	5.784	-0.007	0	22996	225.0	152.1	
13 1-Methylnaphthalene	142	5.875	5.874	0.001	0	25832	225.0	155.0	
14 Acenaphthylene	152	6.642	6.638	0.004	0	44018	225.0	170.5	
15 Acenaphthene	153	6.814	6.820	-0.006	83	30057	225.0	169.4	
16 Dibenzofuran	168	6.995	6.991	0.004	78	42441	225.0	170.0	
17 Fluorene	166	7.326	7.332	-0.006	81	22822	225.0	170.8	
18 Phenanthrene	178	8.266	8.264	0.002	0	35644	225.0	193.6	
19 Anthracene	178	8.316	8.318	-0.002	1	33101	225.0	183.5	
20 Fluoranthene	202	9.436	9.438	-0.002	95	39651	225.0	194.3	
21 Pyrene	202	9.649	9.652	-0.003	0	41316	225.0	194.3	
22 Benzo[a]anthracene	228	10.989	10.996	-0.007	96	33672	225.0	183.5	
23 Chrysene	228	11.034	11.041	-0.007	0	34682	225.0	187.0	
24 Benzo[b]fluoranthene	252	12.595	12.599	-0.004	0	34111	225.0	180.6	
25 Benzo[k]fluoranthene	252	12.642	12.646	-0.004	0	36369	225.0	189.4	
26 Benzo[a]pyrene	252	13.097	13.101	-0.004	0	30627	225.0	174.1	
27 Indeno[1,2,3-cd]pyrene	276	14.383	14.385	-0.002	1	30562	225.0	171.8	
28 Dibenz(a,h)anthracene	278	14.421	14.422	-0.001	0	23673	225.0	142.3	
29 Benzo[g,h,i]perylene	276	14.627	14.634	-0.007	0	32827	225.0	172.4	
30 Dimethyl phthalate	163		0.000				ND	ND	
31 N-Nitrosodimethylamine	42		0.000				ND	ND	
32 N-Nitrosodiphenylamine	169		0.000				ND	ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
33 Di-n-butyl phthalate	149		0.000				ND	ND	
34 Diethyl phthalate	149		0.000				ND	ND	
35 Butyl benzyl phthalate	149		0.000				ND	ND	
36 Di-n-octyl phthalate	149		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-SIM IS_00059 Amount Added: 100.00 Units: uL Run Reagent

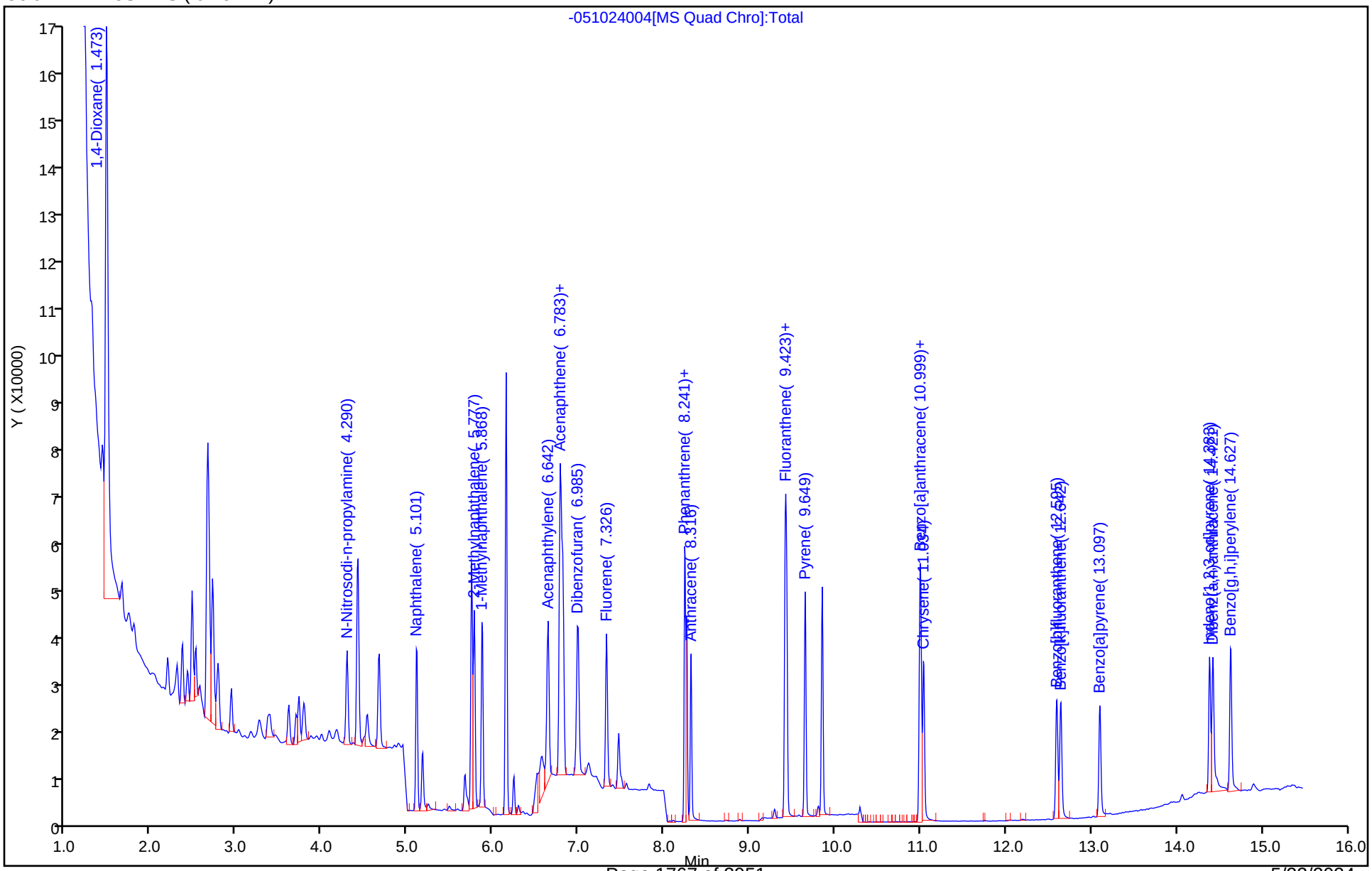
Report Date: 11-May-2024 12:01:35 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024004.D

Injection Date:	10-May-2024 09:00:47	Instrument ID:	SMS_2	Operator ID:	MB
Lims ID:	LCS 280-652726/2-A			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

Column: Rxi-5Sil MS (0.25 mm)



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024004.D
Lims ID: LCS 280-652726/2-A
Client ID:
Sample Type: LCS
Inject. Date: 10-May-2024 09:00:47 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-652726/2-A
Operator ID: MB Instrument ID: SMS_2

Method: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 11-May-2024 12:01:32 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: FP7E Date: 10-May-2024 09:53:11

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Nitrobenzene-d5	500.5	428.1	85.53
$ 5 2-methylnaphthalene-d10	493.9	373.0	75.52
$ 6 2-Fluorobiphenyl	499.9	385.5	77.13
$ 7 Fluoranthene-d10	500.0	451.4	90.29
$ 8 Terphenyl-d14	500.0	458.7	91.75

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-652726/3-A

Matrix: Water | Lab File ID: SMS_2-051024005.D

Analysis Method: 8270E SIM | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/09/2024 10:54

Sample wt/vol: 250(mL) | Date Analyzed: 05/10/2024 09:20

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 652894 | Units: ng/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
7297-45-2	2-methylnaphthalene-d10	86		15-113
93951-69-0	Fluoranthene-d10	96		42-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-652726/3-A

Matrix: Water | Lab File ID: SMS_2-051024005.D

Analysis Method: 8270E SIM | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/09/2024 10:54

Sample wt/vol: 250(mL) | Date Analyzed: 05/10/2024 09:20

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 652894 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
91-57-6	2-Methylnaphthalene	0.732		0.10	0.080	0.021
83-32-9	Acenaphthene	0.799		0.10	0.080	0.0042
208-96-8	Acenaphthylene	0.799		0.10	0.080	0.0051
120-12-7	Anthracene	0.847		0.10	0.080	0.031
56-55-3	Benzo[a]anthracene	0.802		0.10	0.080	0.028
50-32-8	Benzo[a]pyrene	0.799		0.10	0.080	0.025
205-99-2	Benzo[b]fluoranthene	0.844		0.10	0.080	0.040
191-24-2	Benzo[g,h,i]perylene	0.836		0.10	0.080	0.037
207-08-9	Benzo[k]fluoranthene	0.834		0.10	0.080	0.023
218-01-9	Chrysene	0.884		0.10	0.080	0.033
53-70-3	Dibenz(a,h)anthracene	0.766	Q	0.10	0.080	0.028
206-44-0	Fluoranthene	0.852		0.10	0.080	0.049
86-73-7	Fluorene	0.831		0.10	0.080	0.019
193-39-5	Indeno[1,2,3-cd]pyrene	0.836		0.10	0.080	0.039
91-20-3	Naphthalene	0.705		0.10	0.080	0.023
85-01-8	Phenanthrene	0.849		0.10	0.080	0.049
129-00-0	Pyrene	0.855		0.10	0.080	0.045

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	87		53-106
4165-60-0	Nitrobenzene-d5 (Surr)	95		55-111
1718-51-0	Terphenyl-d14 (Surr)	97		58-132

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024005.D
Lims ID: LCSD 280-652726/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 10-May-2024 09:20:17 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-652726/3-A
Operator ID: MB Instrument ID: SMS_2

Method: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 11-May-2024 12:01:32 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: FP7E Date: 10-May-2024 10:06:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 Acenaphthene-d10	164	6.789	6.789	0.000	79	52491	400.0	400.0	
* 2 Phenanthrene-d10	188	8.243	8.244	-0.001	98	56432	400.0	400.0	
* 3 Chrysene-d12	240	11.002	11.006	-0.004	78	38455	400.0	400.0	
$ 4 Nitrobenzene-d5	82	4.419	4.419	0.000	95	44888	500.5	477.5	
$ 5 2-methylnaphthalene-d10	152	5.746	5.754	-0.008	0	56528	493.9	423.8	
$ 6 2-Fluorobiphenyl	172	6.150	6.157	-0.007	0	91610	499.9	434.1	
$ 7 Fluoranthene-d10	212	9.414	9.420	-0.006	92	62798	500.0	481.4	
$ 8 Terphenyl-d14	244	9.848	9.853	-0.005	0	48691	500.0	485.0	
38 1,4-Dioxane	88	1.501	1.501	-0.001	0	2525	225.0	91.6	Ma
10 N-Nitrosodi-n-propylamine	70	4.290	4.290	0.000	93	12972	225.0	216.1	
11 Naphthalene	128	5.107	5.107	0.000	1	43129	225.0	176.2	
12 2-Methylnaphthalene	141	5.776	5.784	-0.008	0	24872	225.0	183.0	
13 1-Methylnaphthalene	142	5.874	5.874	0.000	0	27476	225.0	183.5	
14 Acenaphthylene	152	6.638	6.638	0.000	0	46346	225.0	199.8	
15 Acenaphthene	153	6.809	6.820	-0.011	97	31871	225.0	199.9	
16 Dibenzofuran	168	6.990	6.991	-0.001	76	47898	225.0	213.5	
17 Fluorene	166	7.324	7.332	-0.008	81	24952	225.0	207.8	
18 Phenanthrene	178	8.263	8.264	-0.001	0	35371	225.0	212.2	
19 Anthracene	178	8.313	8.318	-0.005	1	34598	225.0	211.8	
20 Fluoranthene	202	9.433	9.438	-0.005	98	39370	225.0	213.0	
21 Pyrene	202	9.653	9.652	0.001	0	41147	225.0	213.7	
22 Benzo[a]anthracene	228	10.992	10.996	-0.004	91	32716	225.0	200.5	
23 Chrysene	228	11.037	11.041	-0.004	0	36458	225.0	221.1	
24 Benzo[b]fluoranthene	252	12.593	12.599	-0.006	0	35435	225.0	211.1	
25 Benzo[k]fluoranthene	252	12.640	12.646	-0.006	0	35591	225.0	208.5	
26 Benzo[a]pyrene	252	13.099	13.101	-0.002	0	31232	225.0	199.7	
27 Indeno[1,2,3-cd]pyrene	276	14.382	14.385	-0.003	1	33027	225.0	208.9	
28 Dibenz(a,h)anthracene	278	14.420	14.422	-0.002	0	28315	225.0	191.5	
29 Benzo[g,h,i]perylene	276	14.626	14.634	-0.008	0	35378	225.0	209.1	
30 Dimethyl phthalate	163		0.000				ND	ND	
31 N-Nitrosodimethylamine	42		0.000				ND	ND	
32 N-Nitrosodiphenylamine	169		0.000				ND	ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
33 Di-n-butyl phthalate	149		0.000				ND	ND	
34 Diethyl phthalate	149		0.000				ND	ND	
35 Butyl benzyl phthalate	149		0.000				ND	ND	
36 Di-n-octyl phthalate	149		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-SIM IS_00059 Amount Added: 100.00 Units: uL Run Reagent

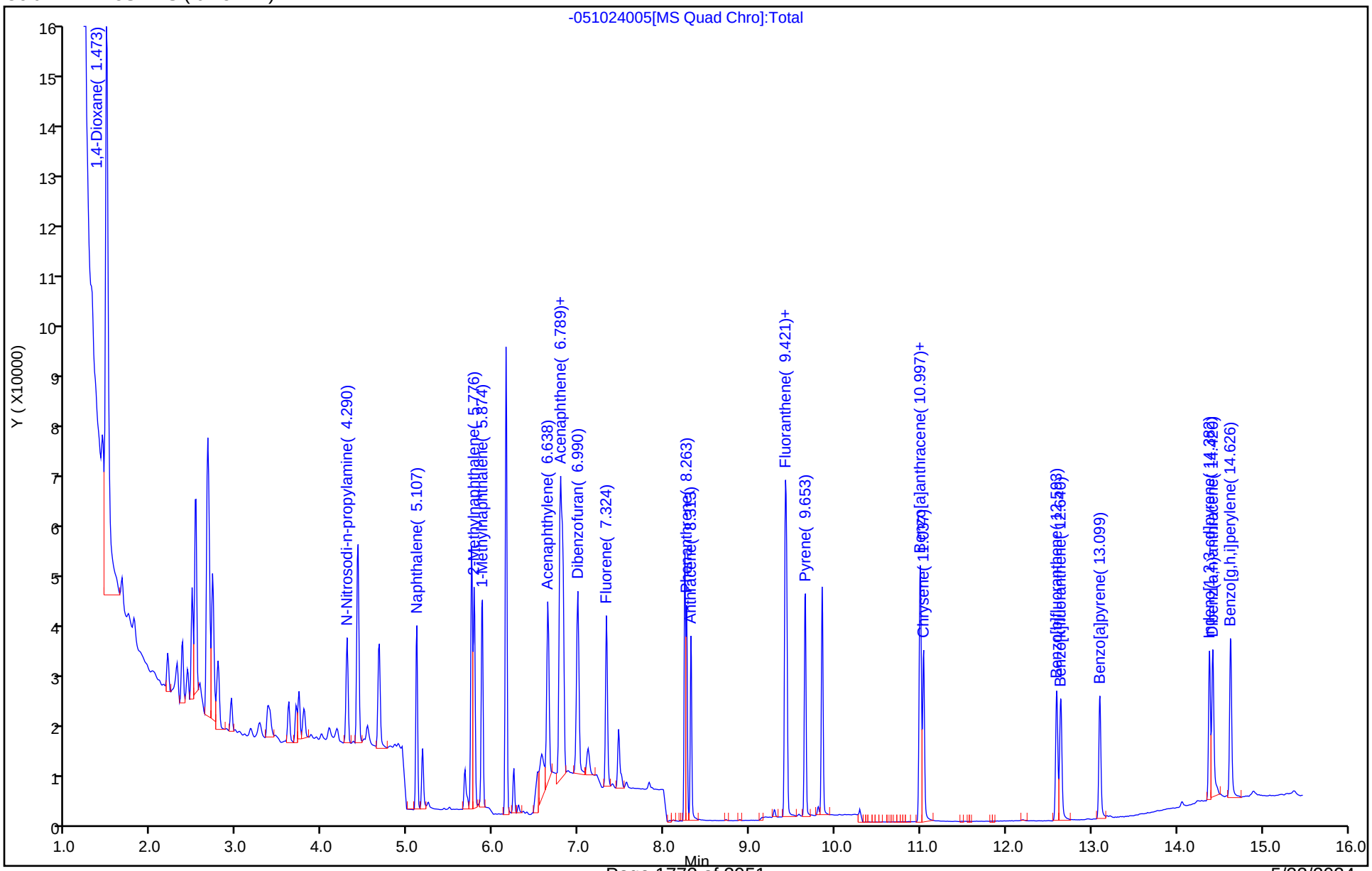
Report Date: 11-May-2024 12:01:37 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024005.D

Injection Date:	10-May-2024 09:20:17	Instrument ID:	SMS_2	Operator ID:	MB
Lims ID:	LCSD 280-652726/3-A			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

Column: Rxi-5Sil MS (0.25 mm)



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Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024005.D
Lims ID: LCSD 280-652726/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 10-May-2024 09:20:17 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-652726/3-A
Operator ID: MB Instrument ID: SMS_2

Method: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 11-May-2024 12:01:32 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: FP7E Date: 10-May-2024 10:06:16

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Nitrobenzene-d5	500.5	477.5	95.41
$ 5 2-methylnaphthalene-d10	493.9	423.8	85.80
$ 6 2-Fluorobiphenyl	499.9	434.1	86.84
$ 7 Fluoranthene-d10	500.0	481.4	96.30
$ 8 Terphenyl-d14	500.0	485.0	97.00

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MS | Lab Sample ID: 280-191098-1 MS

Matrix: Water | Lab File ID: SMS_2-051024012.D

Analysis Method: 8270E SIM | Date Collected: 05/06/2024 10:16

Extract. Method: 3510C | Date Extracted: 05/09/2024 10:54

Sample wt/vol: 248.4(mL) | Date Analyzed: 05/10/2024 11:35

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 652894 | Units: ng/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
7297-45-2	2-methylnaphthalene-d10	65		15-113
93951-69-0	Fluoranthene-d10	83		42-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MS | Lab Sample ID: 280-191098-1 MS

Matrix: Water | Lab File ID: SMS_2-051024012.D

Analysis Method: 8270E SIM | Date Collected: 05/06/2024 10:16

Extract. Method: 3510C | Date Extracted: 05/09/2024 10:54

Sample wt/vol: 248.4(mL) | Date Analyzed: 05/10/2024 11:35

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 652894 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
91-57-6	2-Methylnaphthalene	0.523		0.10	0.081	0.022
83-32-9	Acenaphthene	0.576		0.10	0.081	0.0042
208-96-8	Acenaphthylene	0.582		0.10	0.081	0.0051
120-12-7	Anthracene	0.673		0.10	0.081	0.031
56-55-3	Benzo[a]anthracene	0.643		0.10	0.081	0.028
50-32-8	Benzo[a]pyrene	0.580		0.10	0.081	0.025
205-99-2	Benzo[b]fluoranthene	0.629		0.10	0.081	0.040
191-24-2	Benzo[g,h,i]perylene	0.620		0.10	0.081	0.037
207-08-9	Benzo[k]fluoranthene	0.637		0.10	0.081	0.023
218-01-9	Chrysene	0.739		0.10	0.081	0.033
53-70-3	Dibenz(a,h)anthracene	0.433		0.10	0.081	0.028
206-44-0	Fluoranthene	0.717		0.10	0.081	0.049
86-73-7	Fluorene	0.633		0.10	0.081	0.019
193-39-5	Indeno[1,2,3-cd]pyrene	0.577		0.10	0.081	0.039
91-20-3	Naphthalene	0.526		0.10	0.081	0.023
85-01-8	Phenanthrene	0.692		0.10	0.081	0.050
129-00-0	Pyrene	0.710		0.10	0.081	0.045

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	64		53-106
4165-60-0	Nitrobenzene-d5 (Surr)	69		55-111
1718-51-0	Terphenyl-d14 (Surr)	84		58-132

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024012.D
Lims ID: 280-191098-C-1-G MS
Client ID: DET-003-240401-GW
Sample Type: MS
Inject. Date: 10-May-2024 11:35:26 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-C-1-G MS
Operator ID: MB Instrument ID: SMS_2

Method: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 11-May-2024 12:01:32 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: FP7E Date: 11-May-2024 11:58:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 Acenaphthene-d10	164	6.789	6.789	0.000	77	59151	400.0	400.0	
* 2 Phenanthrene-d10	188	8.244	8.244	0.000	98	64547	400.0	400.0	
* 3 Chrysene-d12	240	11.002	11.006	-0.004	73	43121	400.0	400.0	
$ 4 Nitrobenzene-d5	82	4.410	4.419	-0.009	97	36655	500.5	346.0	
$ 5 2-methylnaphthalene-d10	152	5.746	5.754	-0.008	0	47920	493.9	318.8	
$ 6 2-Fluorobiphenyl	172	6.150	6.157	-0.007	0	76550	499.9	321.9	
$ 7 Fluoranthene-d10	212	9.415	9.420	-0.005	92	62201	500.0	416.9	
$ 8 Terphenyl-d14	244	9.848	9.853	-0.005	0	48389	500.0	421.4	
38 1,4-Dioxane	88	1.501	1.501	0.000	0	2493		80.3	M
9 N-Nitrosodiethylamine	102		2.983					ND	U
10 N-Nitrosodi-n-propylamine	70	4.290	4.290	0.000	97	10270		151.8	
11 Naphthalene	128	5.107	5.107	0.000	1	36026		130.6	
12 2-Methylnaphthalene	141	5.776	5.784	-0.008	0	19901		130.0	
13 1-Methylnaphthalene	142	5.874	5.874	0.000	0	22404		132.8	
14 Acenaphthylene	152	6.638	6.638	0.000	0	37773		144.5	
15 Acenaphthene	153	6.809	6.820	-0.011	94	25712		143.1	
16 Dibenzofuran	168	6.991	6.991	0.000	77	39321		155.6	
17 Fluorene	166	7.324	7.332	-0.008	81	21292		157.4	
18 Phenanthrene	178	8.264	8.264	0.000	0	32799		172.0	
19 Anthracene	178	8.313	8.318	-0.005	1	31245		167.2	
20 Fluoranthene	202	9.434	9.438	-0.004	98	37656		178.1	
21 Pyrene	202	9.647	9.652	-0.005	0	38832		176.3	
22 Benzo[a]anthracene	228	10.992	10.996	-0.004	85	29233		159.8	
23 Chrysene	228	11.037	11.041	-0.004	0	33952		183.6	
24 Benzo[b]fluoranthene	252	12.593	12.599	-0.006	0	29418		156.3	
25 Benzo[k]fluoranthene	252	12.640	12.646	-0.006	0	30289		158.3	
26 Benzo[a]pyrene	252	13.099	13.101	-0.002	0	25246		144.0	
27 Indeno[1,2,3-cd]pyrene	276	14.381	14.385	-0.004	1	25413		143.3	
28 Dibenz(a,h)anthracene	278	14.424	14.422	0.002	0	17846		107.7	
29 Benzo[g,h,i]perylene	276	14.630	14.634	-0.004	0	29208		153.9	
30 Dimethyl phthalate	163		0.000					ND	
31 N-Nitrosodimethylamine	42		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
32 N-Nitrosodiphenylamine	169		0.000					ND	
33 Di-n-butyl phthalate	149		0.000					ND	
34 Diethyl phthalate	149		0.000					ND	
35 Butyl benzyl phthalate	149		0.000					ND	
36 Di-n-octyl phthalate	149		0.000					ND	
37 Pentachlorophenol_T	266		2.096					ND	
40 Benzidine_T	184		3.000					ND	
42 4,4'-DDE	246		3.103					ND	
41 4,4'-DDD	235		3.349					ND	
43 4,4'-DDT	235		3.527					ND	
S 44 TPAH	1				0			2738.8	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

U - Marked Undetected

Reagents:

MS-SIM IS_00059 Amount Added: 100.00 Units: uL Run Reagent

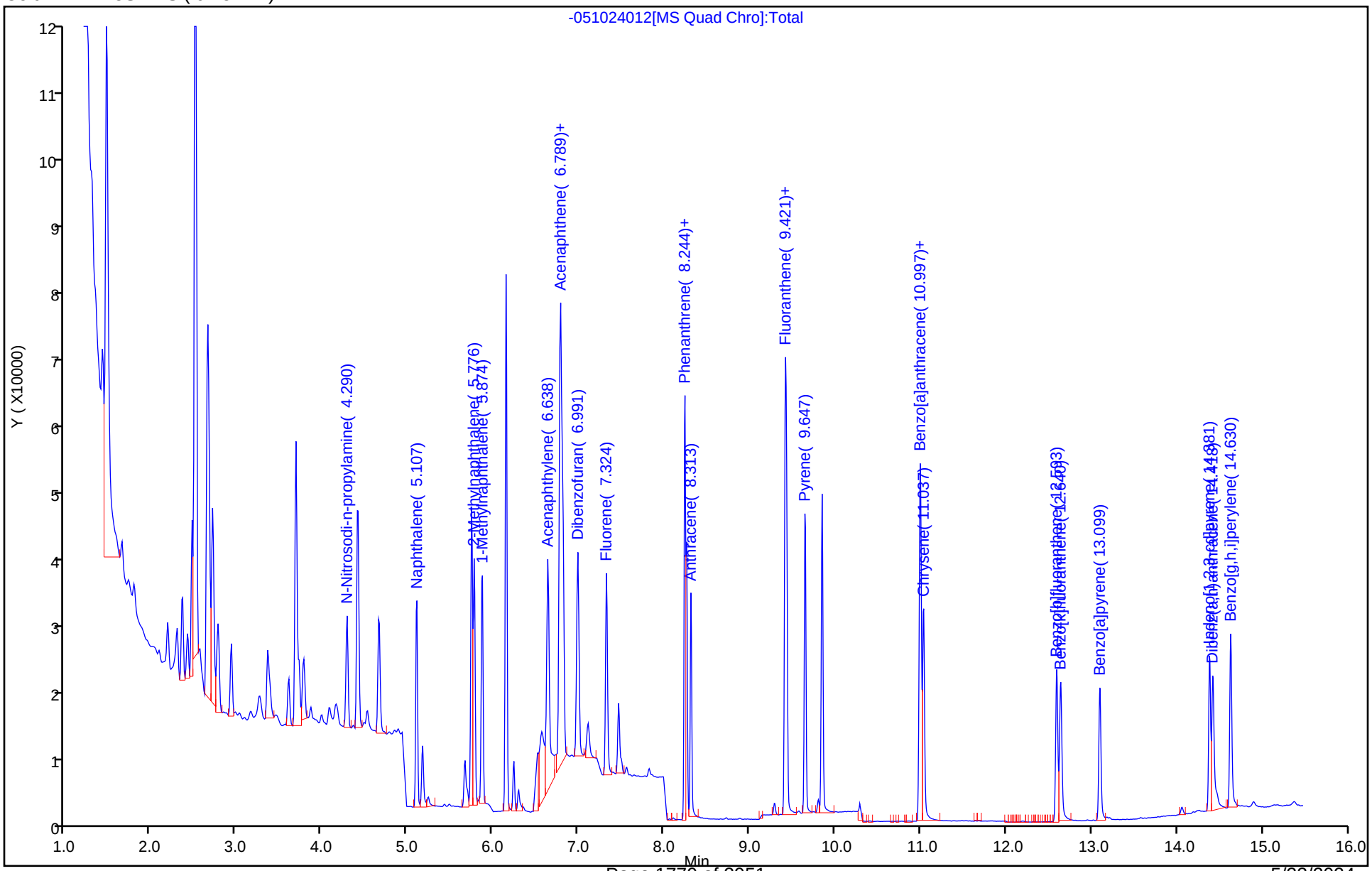
Report Date: 11-May-2024 12:01:51 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024012.D

Injection Date:	10-May-2024 11:35:26	Instrument ID:	SMS_2	Operator ID:	MB
Lims ID:	280-191098-C-1-G MS			Worklist Smp#:	13
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

Column: Rxi-5Sil MS (0.25 mm)



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Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024012.D				
Lims ID:	280-191098-C-1-G MS				
Client ID:	DET-003-240401-GW				
Sample Type:	MS				
Inject. Date:	10-May-2024 11:35:26	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-C-1-G MS				
Operator ID:	MB	Instrument ID:	SMS_2		
Method:	\\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2_8270SIM.m				
Limit Group:	MSSV - 8270C-SIM				
Last Update:	11-May-2024 12:01:32	Calib Date:	08-May-2024 14:27:22		
Integrator:	RTE	ID Type:	RT Order ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D				
Column 1 :	Rxi-5Sil MS (0.25 mm)		Det: MS SCAN		
Process Host:	CTX1615				

First Level Reviewer: FP7E Date: 11-May-2024 11:58:20

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Nitrobenzene-d5	500.5	346.0	69.14
$ 5 2-methylnaphthalene-d10	493.9	318.8	64.55
$ 6 2-Fluorobiphenyl	499.9	321.9	64.39
$ 7 Fluoranthene-d10	500.0	416.9	83.39
$ 8 Terphenyl-d14	500.0	421.4	84.28

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MSD | Lab Sample ID: 280-191098-1 MSD

Matrix: Water | Lab File ID: SMS_2-051024013.D

Analysis Method: 8270E SIM | Date Collected: 05/06/2024 10:16

Extract. Method: 3510C | Date Extracted: 05/09/2024 10:54

Sample wt/vol: 247.5(mL) | Date Analyzed: 05/10/2024 11:54

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 652894 | Units: ng/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
7297-45-2	2-methylnaphthalene-d10	77		15-113
93951-69-0	Fluoranthene-d10	89		42-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MSD | Lab Sample ID: 280-191098-1 MSD

Matrix: Water | Lab File ID: SMS_2-051024013.D

Analysis Method: 8270E SIM | Date Collected: 05/06/2024 10:16

Extract. Method: 3510C | Date Extracted: 05/09/2024 10:54

Sample wt/vol: 247.5(mL) | Date Analyzed: 05/10/2024 11:54

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 652894 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
91-57-6	2-Methylnaphthalene	0.606		0.10	0.081	0.022
83-32-9	Acenaphthene	0.688		0.10	0.081	0.0042
208-96-8	Acenaphthylene	0.684		0.10	0.081	0.0052
120-12-7	Anthracene	0.726		0.10	0.081	0.031
56-55-3	Benzo[a]anthracene	0.700		0.10	0.081	0.029
50-32-8	Benzo[a]pyrene	0.640		0.10	0.081	0.025
205-99-2	Benzo[b]fluoranthene	0.691		0.10	0.081	0.040
191-24-2	Benzo[g,h,i]perylene	0.663		0.10	0.081	0.038
207-08-9	Benzo[k]fluoranthene	0.709		0.10	0.081	0.023
218-01-9	Chrysene	0.831		0.10	0.081	0.033
53-70-3	Dibenz(a,h)anthracene	0.493		0.10	0.081	0.028
206-44-0	Fluoranthene	0.771		0.10	0.081	0.049
86-73-7	Fluorene	0.711		0.10	0.081	0.019
193-39-5	Indeno[1,2,3-cd]pyrene	0.621		0.10	0.081	0.040
91-20-3	Naphthalene	0.625		0.10	0.081	0.023
85-01-8	Phenanthrene	0.755		0.10	0.081	0.050
129-00-0	Pyrene	0.764		0.10	0.081	0.046

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	77		53-106
4165-60-0	Nitrobenzene-d5 (Surr)	89		55-111
1718-51-0	Terphenyl-d14 (Surr)	87		58-132

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024013.D
Lims ID: 280-191098-H-1-A MSD
Client ID: DET-003-240401-GW
Sample Type: MSD
Inject. Date: 10-May-2024 11:54:38 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-H-1-A MSD
Operator ID: MB Instrument ID: SMS_2

Method: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 11-May-2024 12:01:32 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: FP7E Date: 11-May-2024 11:58:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 Acenaphthene-d10	164	6.784	6.789	-0.005	75	55645	400.0	400.0	
* 2 Phenanthrene-d10	188	8.241	8.244	-0.003	98	59654	400.0	400.0	
* 3 Chrysene-d12	240	11.004	11.006	-0.002	69	38726	400.0	400.0	
$ 4 Nitrobenzene-d5	82	4.410	4.419	-0.009	97	44511	500.5	446.7	
$ 5 2-methylnaphthalene-d10	152	5.748	5.754	-0.006	0	53484	493.9	378.2	
$ 6 2-Fluorobiphenyl	172	6.151	6.157	-0.006	0	86270	499.9	385.6	
$ 7 Fluoranthene-d10	212	9.417	9.420	-0.003	94	61301	500.0	444.6	
$ 8 Terphenyl-d14	244	9.851	9.853	-0.002	0	46065	500.0	434.1	
38 1,4-Dioxane	88	1.501	1.501	-0.001	0	2860		97.9	M
9 N-Nitrosodiethylamine	102		2.983					ND	U
10 N-Nitrosodi-n-propylamine	70	4.290	4.290	0.000	98	11641		182.9	
11 Naphthalene	128	5.101	5.107	-0.006	1	40150		154.8	
12 2-Methylnaphthalene	141	5.778	5.784	-0.006	0	21593		149.9	
13 1-Methylnaphthalene	142	5.868	5.874	-0.006	0	24184		152.4	
14 Acenaphthylene	152	6.643	6.638	0.005	0	41630		169.3	
15 Acenaphthene	153	6.814	6.820	-0.006	83	28765		170.2	
16 Dibenzofuran	168	6.995	6.991	0.004	78	41076		172.7	
17 Fluorene	166	7.326	7.332	-0.006	83	22412		176.1	
18 Phenanthrene	178	8.261	8.264	-0.003	0	32941		186.9	
19 Anthracene	178	8.316	8.318	-0.002	1	31023		179.7	
20 Fluoranthene	202	9.436	9.438	-0.002	95	37294		190.9	
21 Pyrene	202	9.649	9.652	-0.003	0	38473		189.0	
22 Benzo[a]anthracene	228	10.989	10.996	-0.007	91	28453		173.2	
23 Chrysene	228	11.034	11.041	-0.007	0	34147		205.6	
24 Benzo[b]fluoranthene	252	12.596	12.599	-0.003	0	28897		170.9	
25 Benzo[k]fluoranthene	252	12.639	12.646	-0.007	0	30167		175.5	
26 Benzo[a]pyrene	252	13.098	13.101	-0.003	0	24955		158.4	
27 Indeno[1,2,3-cd]pyrene	276	14.381	14.385	-0.004	1	24470		153.7	
28 Dibenz(a,h)anthracene	278	14.424	14.422	0.002	0	18168		122.0	
29 Benzo[g,h,i]perylene	276	14.631	14.634	-0.004	0	27981		164.2	
30 Dimethyl phthalate	163		0.000					ND	
31 N-Nitrosodimethylamine	42		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
32 N-Nitrosodiphenylamine	169		0.000					ND	
33 Di-n-butyl phthalate	149		0.000					ND	
34 Diethyl phthalate	149		0.000					ND	
35 Butyl benzyl phthalate	149		0.000					ND	
36 Di-n-octyl phthalate	149		0.000					ND	
37 Pentachlorophenol_T	266		2.096					ND	
40 Benzidine_T	184		3.000					ND	
42 4,4'-DDE	246		3.103					ND	
41 4,4'-DDD	235		3.349					ND	
43 4,4'-DDT	235		3.527					ND	
S 44 TPAH	1				0			3042.7	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

U - Marked Undetected

Reagents:

MS-SIM IS_00059 Amount Added: 100.00 Units: uL Run Reagent

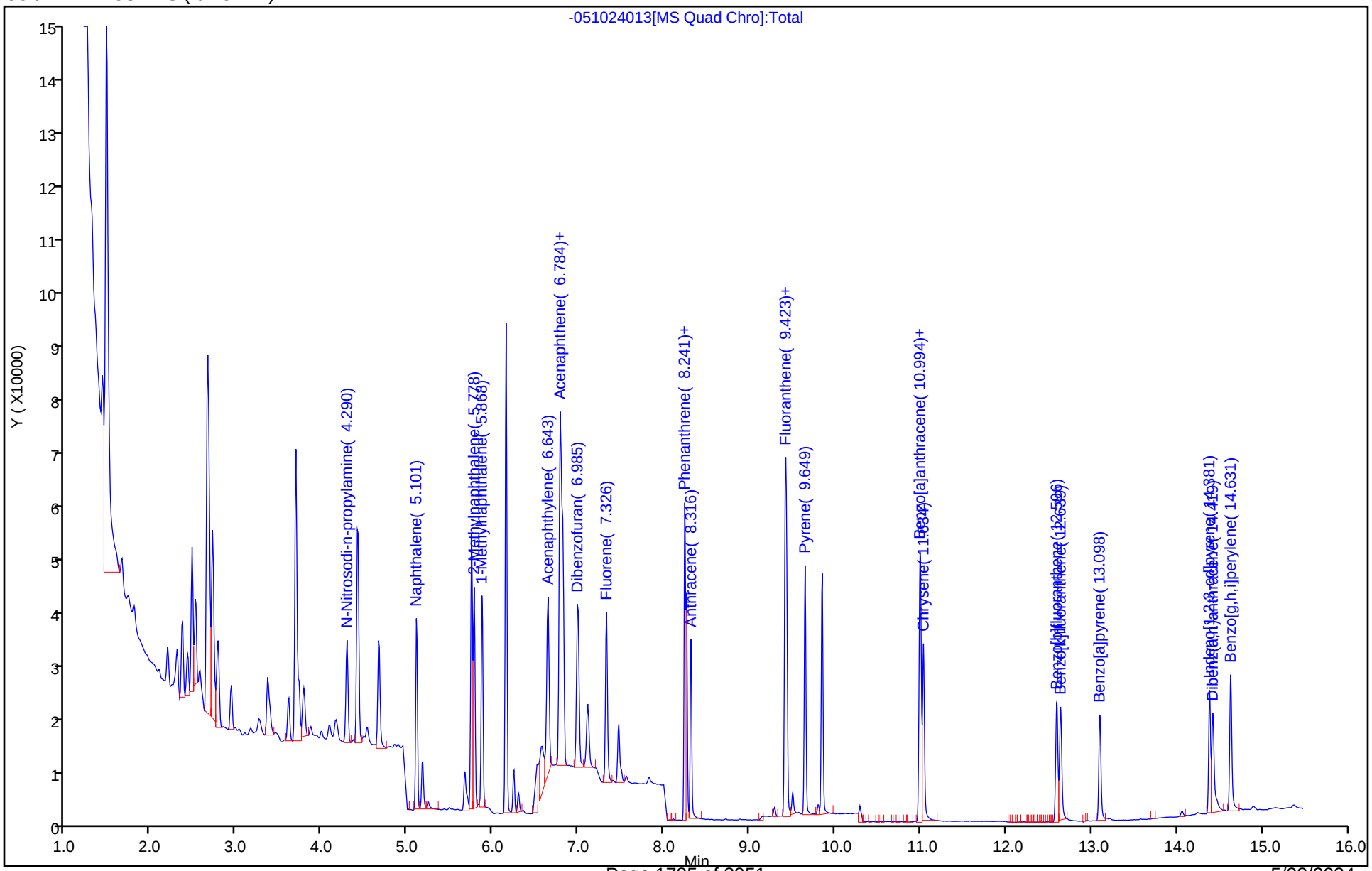
Report Date: 11-May-2024 12:01:52 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024013.D

Injection Date:	10-May-2024 11:54:38	Instrument ID:	SMS_2	Operator ID:	MB
Lims ID:	280-191098-H-1-A MSD			Worklist Smp#:	14
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SMS_2_8270SIM	Limit Group:	MSSV - 8270C-SIM		

Column: Rxi-5Sil MS (0.25 mm)



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2-051024013.D
Lims ID: 280-191098-H-1-A MSD
Client ID: DET-003-240401-GW
Sample Type: MSD
Inject. Date: 10-May-2024 11:54:38 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-H-1-A MSD
Operator ID: MB Instrument ID: SMS_2

Method: \\chromfs\Denver\ChromData\SMS_2\20240510-133237.b\SMS_2_8270SIM.m
Limit Group: MSSV - 8270C-SIM
Last Update: 11-May-2024 12:01:32 Calib Date: 08-May-2024 14:27:22
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_2\20240508-133129.b\SMS_2-050824008.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: FP7E Date: 11-May-2024 11:58:37

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Nitrobenzene-d5	500.5	446.7	89.25
$ 5 2-methylnaphthalene-d10	493.9	378.2	76.58
$ 6 2-Fluorobiphenyl	499.9	385.6	77.14
$ 7 Fluoranthene-d10	500.0	444.6	88.92
$ 8 Terphenyl-d14	500.0	434.1	86.81

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SMS_2 Start Date: 05/08/2024 12:20

Analysis Batch Number: 652518 End Date: 05/08/2024 15:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-652518/1		05/08/2024 12:20	1	SMS_2-050824001 A.D	Rxi-5Sil MS 0.25(mm)
ICIS 280-652518/2		05/08/2024 12:29	1	SMS_2-050824002 A.D	Rxi-5Sil MS 0.25(mm)
STD20 280-652518/3 IC		05/08/2024 12:49	1	SMS_2-050824003 .D	Rxi-5Sil MS 0.25(mm)
STD50 280-652518/4 IC		05/08/2024 13:08	1	SMS_2-050824004 .D	Rxi-5Sil MS 0.25(mm)
STD100 280-652518/5 IC		05/08/2024 13:28	1	SMS_2-050824005 .D	Rxi-5Sil MS 0.25(mm)
STD1000 280-652518/6 IC		05/08/2024 13:47	1	SMS_2-050824006 .D	Rxi-5Sil MS 0.25(mm)
STD2500 280-652518/7 IC		05/08/2024 14:07	1	SMS_2-050824007 .D	Rxi-5Sil MS 0.25(mm)
STD5000 280-652518/8 IC		05/08/2024 14:27	1	SMS_2-050824008 .D	Rxi-5Sil MS 0.25(mm)
ICV 280-652518/9		05/08/2024 14:46	1	SMS_2-050824009 .D	Rxi-5Sil MS 0.25(mm)
ICV 280-652518/10		05/08/2024 15:06	1	SMS_2-050824010 .D	Rxi-5Sil MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SMS_2 Start Date: 05/10/2024 08:12

Analysis Batch Number: 652894 End Date: 05/10/2024 18:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-652894/2		05/10/2024 08:12	1	SMS_2-051024001.D	Rxi-5Sil MS 0.25(mm)
CCVIS 280-652894/3		05/10/2024 08:21	1	SMS_2-051024002.D	Rxi-5Sil MS 0.25(mm)
MB 280-652726/1-A		05/10/2024 08:41	1	SMS_2-051024003.D	Rxi-5Sil MS 0.25(mm)
LCS 280-652726/2-A		05/10/2024 09:00	1	SMS_2-051024004.D	Rxi-5Sil MS 0.25(mm)
LCSD 280-652726/3-A		05/10/2024 09:20	1	SMS_2-051024005.D	Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 09:39	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 09:59	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 10:18	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 10:37	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 10:56	1		Rxi-5Sil MS 0.25(mm)
280-191098-1	DET-003-240401-GW	05/10/2024 11:16	1	SMS_2-051024011.D	Rxi-5Sil MS 0.25(mm)
280-191098-1 MS	DET-003-240401-GW MS	05/10/2024 11:35	1	SMS_2-051024012.D	Rxi-5Sil MS 0.25(mm)
280-191098-1 MSD	DET-003-240401-GW MSD	05/10/2024 11:54	1	SMS_2-051024013.D	Rxi-5Sil MS 0.25(mm)
280-191098-2	DET-003-240402-GW	05/10/2024 12:13	1	SMS_2-051024014.D	Rxi-5Sil MS 0.25(mm)
280-191098-5	DET-004-240401-GW	05/10/2024 12:33	1	SMS_2-051024015.D	Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 12:52	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 13:11	1		Rxi-5Sil MS 0.25(mm)
CCVC 280-652894/19		05/10/2024 13:30	1	SMS_2-051024018.D	Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 13:50	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 14:09	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 14:28	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 14:47	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 15:06	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 15:26	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 15:45	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 16:04	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 16:23	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 16:43	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 17:02	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 17:21	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 17:40	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 18:00	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 18:19	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		05/10/2024 18:38	1		Rxi-5Sil MS 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 652518 Batch Start Date: 05/08/24 12:20 Batch Analyst: Bekheit, Matthew A

Batch Method: 8270E SIM Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	MS-DFTPP 00073	MS-SIM IS 00059	MS-SIM-CAL WS 00006	MS-SIM-ICV-2 00001	MS-SIM-ICV1 00004
DFTPP 280-652518/1		8270E SIM			200 uL	0.5 uL				
ICIS 280-652518/2		8270E SIM			200 uL		100 uL	50 uL		
STD20 280-652518/3 IC		8270E SIM			200 uL		100 uL	2 uL		
STD50 280-652518/4 IC		8270E SIM			200 uL		100 uL	5 uL		
STD100 280-652518/5 IC		8270E SIM			200 uL		100 uL	10 uL		
STD1000 280-652518/6 IC		8270E SIM			200 uL		100 uL	100 uL		
STD2500 280-652518/7 IC		8270E SIM			200 uL		100 uL	250 uL		
STD5000 280-652518/8 IC		8270E SIM			200 uL		100 uL	500 uL		
ICV 280-652518/9		8270E SIM			200 uL		100 uL			200 uL
ICV 280-652518/10		8270E SIM			200 uL		100 uL		500 uL	

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 652726 Batch Start Date: 05/09/24 10:54 Batch Analyst: Najera, Diego

Batch Method: 3510C Batch End Date: 05/09/24 17:43

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	ReceivedpH	8270 SIM Surr 00128
MB 280-652726/1		3510C, 8270E SIM					250 mL	1 mL	5 SU	1 mL
LCS 280-652726/2		3510C, 8270E SIM					250 mL	1 mL	5 SU	1 mL
LCSD 280-652726/3		3510C, 8270E SIM					250 mL	1 mL	5 SU	1 mL
280-191098-E-1	DET-003-240401-GW	3510C, 8270E SIM	Water	T	450.0 g	181.8 g	268.2 mL	1 mL	6 SU	1 mL
280-191098-C-1 MS	DET-003-240401-GW	3510C, 8270E SIM	Water	T	425.7 g	177.3 g	248.4 mL	1 mL	7 SU	1 mL
280-191098-H-1 MSD	DET-003-240401-GW	3510C, 8270E SIM	Water	T	428.9 g	181.4 g	247.5 mL	1 mL	7 SU	1 mL
280-191098-B-2	DET-003-240402-GW	3510C, 8270E SIM	Water	T	427.0 g	181.6 g	245.4 mL	1 mL	7 SU	1 mL
280-191098-I-5	DET-004-240401-GW	3510C, 8270E SIM	Water	T	412.7 g	177.4 g	235.3 mL	1 mL	7 SU	1 mL

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	8270BO-SIMLCS 00060					
MB 280-652726/1		3510C, 8270E SIM								
LCS 280-652726/2		3510C, 8270E SIM			0.25 mL					
LCSD 280-652726/3		3510C, 8270E SIM			0.25 mL					
280-191098-E-1	DET-003-240401-GW	3510C, 8270E SIM	Water	T						
280-191098-C-1 MS	DET-003-240401-GW	3510C, 8270E SIM	Water	T	0.25 mL					
280-191098-H-1 MSD	DET-003-240401-GW	3510C, 8270E SIM	Water	T	0.25 mL					
280-191098-B-2	DET-003-240402-GW	3510C, 8270E SIM	Water	T						
280-191098-I-5	DET-004-240401-GW	3510C, 8270E SIM	Water	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 652726 Batch Start Date: 05/09/24 10:54 Batch Analyst: Najera, Diego

Batch Method: 3510C Batch End Date: 05/09/24 17:43

Batch Notes	
Method/Fraction	3510C_LVI/8270_SIM_LVI
Balance ID	834419814
Balance is Level? (Y/N)	yes
pH Indicator ID	HC318550
Pipette/Syringe/Dispenser ID	Nexia
Analyst ID - Extraction	DN
Analyst ID - Spike Analyst	DN
Analyst ID - Spike Witness Analyst	REVIEWER:CR
Sufficient Volume for Batch QC	YES
NaCl ID	Baked_NaCl_00029
Prep Solvent ID	Mecl2_Cycl_00637
Prep Solvent Volume Used	90 mL
Glass Wool ID	Glass_Wool_OP_00005
Na2SO4 ID	Na2SO4_00151
Analyst ID - Concentration	DN, GS
Equipment ID - Concentration 1	Buchi 1, 3
Concentration 1 Uncorrected Temperature	Base: 55 Cover: 50 Degrees C
Concentration 1 Corrected Temperature	Base: 55 Cover: 50 Degrees C
Pipette Tip Lot ID	B10705329S
Batch Comment	DV-OP-0006/0007

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8081B_DOD5

Organochlorine Pesticides (GC)

FORM II
PESTICIDES SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low

GC Column (2): RTI-35silms ID: 0.32(mm)

Client Sample ID	Lab Sample ID	DCBP2 #
DET-003-240401-GW MS	280-191098-1 MS	52
DET-003-240401-GW MSD	280-191098-1 MSD	38

	QC LIMITS
DCBP = DCB Decachlorobiphenyl	34-122

Column to be used to flag recovery values

FORM II 8081B

FORM II
PESTICIDES SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTI-XLB ID: 0.32(mm) GC Column (2): RTI-35silms ID: 0.32(mm)

Client Sample ID	Lab Sample ID	TCX1 #	DCBP1 #	DCBP2 #
DET-003-240401-GW	280-191098-1	51		26 Q
DET-003-240401-GW RE	280-191098-1 RE	69		38
DET-003-240402-GW	280-191098-2	56		42
DET-004-240401-GW	280-191098-5	48		36
	MB 280-652915/1-A	79	61	
	MB 280-653452/1-A RE	72		69
	LCS 280-652915/2-A	54	52	
	LCS 280-652915/6-A	46	42	
	LCS 280-653452/2-A RE	66		60
	LCSD 280-652915/3-A	51	43	
	LCSD 280-652915/7-A	49	43	
	LCSD 280-653452/3-A RE	67		59
DET-003-240401-GW MS	280-191098-1 MS	54		28 Q
DET-003-240401-GW MS RE	280-191098-1 MS RE	73		69
DET-003-240401-GW MSD	280-191098-1 MSD	51		31 Q
DET-003-240401-GW MSD RE	280-191098-1 MSD RE	68		52

	QC LIMITS
TCX = Tetrachloro-m-xylene	33-134
DCBP = DCB Decachlorobiphenyl	34-122

Column to be used to flag recovery values

FORM II 8081B

FORM III
PESTICIDES LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0513009.D

Lab ID: LCS 280-652915/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
4,4'-DDD	1.00	0.944	94	56-143	
4,4'-DDE	1.00	0.923	92	57-135	
4,4'-DDT	1.00	0.861	86	51-143	
Aldrin	1.00	0.572	57	45-134	
alpha-BHC	1.00	0.922	92	54-138	
alpha-Chlordane	1.00	0.853	85	60-129	
beta-BHC	1.00	0.878	88	56-136	
delta-BHC	1.00	0.982	98	52-142	
Dieldrin	1.00	0.860	86	60-136	
Endosulfan I	1.00	0.883	88	62-126	
Endosulfan II	1.00	0.862	86	52-135	
Endosulfan sulfate	1.00	0.838	84	62-133	
Endrin	1.00	0.865	86	60-138	
Endrin aldehyde	1.00	0.870	87	51-132	
Endrin ketone	1.00	0.846	85	58-134	
gamma-BHC (Lindane)	1.00	0.873	87	59-134	
gamma-Chlordane	1.00	0.833	83	56-136	
Heptachlor	1.00	0.703	70	54-130	
Heptachlor epoxide	1.00	0.887	89	61-133	
Methoxychlor	1.00	0.780	78	54-145	

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM III
PESTICIDES LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0513011.D

Lab ID: LCS 280-652915/6-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toxaphene	20.0	21.9	109	33-134	

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM III
PESTICIDES LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0516010.D

Lab ID: LCS 280-653452/2-A RE Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
4,4'-DDD	1.00	1.02	102	56-143	
4,4'-DDE	1.00	0.972	97	57-135	
4,4'-DDT	1.00	0.989	99	51-143	
Aldrin	1.00	0.639	64	45-134	
alpha-BHC	1.00	0.965	96	54-138	
alpha-Chlordane	1.00	0.923	92	60-129	
beta-BHC	1.00	0.922	92	56-136	
delta-BHC	1.00	1.01	101	52-142	
Dieldrin	1.00	0.913	91	60-136	
Endosulfan I	1.00	0.891	89	62-126	
Endosulfan II	1.00	0.921	92	52-135	
Endosulfan sulfate	1.00	0.898	90	62-133	
Endrin	1.00	0.979	98	60-138	
Endrin aldehyde	1.00	0.940	94	51-132	
Endrin ketone	1.00	0.906	91	58-134	
gamma-BHC (Lindane)	1.00	0.974	97	59-134	
gamma-Chlordane	1.00	0.900	90	56-136	
Heptachlor	1.00	0.813	81	54-130	
Heptachlor epoxide	1.00	0.915	92	61-133	
Methoxychlor	1.00	0.844	84	54-145	

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM III
PESTICIDES LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0513010.D

Lab ID: LCSD 280-652915/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
4,4'-DDD	1.00	1.02	102	8	30	56-143	
4,4'-DDE	1.00	1.01	101	9	30	57-135	
4,4'-DDT	1.00	0.923	92	7	30	51-143	
Aldrin	1.00	0.578	58	1	30	45-134	
alpha-BHC	1.00	1.02	102	10	30	54-138	
alpha-Chlordane	1.00	0.922	92	8	30	60-129	
beta-BHC	1.00	0.970	97	10	30	56-136	
delta-BHC	1.00	1.07	107	9	30	52-142	
Dieldrin	1.00	0.925	93	7	30	60-136	
Endosulfan I	1.00	0.952	95	8	30	62-126	
Endosulfan II	1.00	0.930	93	8	30	52-135	
Endosulfan sulfate	1.00	0.902	90	7	30	62-133	
Endrin	1.00	0.930	93	7	30	60-138	
Endrin aldehyde	1.00	0.948	95	9	30	51-132	
Endrin ketone	1.00	0.911	91	7	30	58-134	
gamma-BHC (Lindane)	1.00	1.00	100	14	30	59-134	
gamma-Chlordane	1.00	0.900	90	8	30	56-136	
Heptachlor	1.00	0.735	73	4	30	54-130	
Heptachlor epoxide	1.00	0.966	97	8	30	61-133	
Methoxychlor	1.00	0.826	83	6	30	54-145	

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM III
PESTICIDES LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0513012.D

Lab ID: LCSD 280-652915/7-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toxaphene	20.0	24.5	122	11	30	33-134	M

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM III
PESTICIDES LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0516011.D

Lab ID: LCSD 280-653452/3-A RE Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
4,4'-DDD	1.00	1.08	108	6	30	56-143	
4,4'-DDE	1.00	1.01	101	4	30	57-135	
4,4'-DDT	1.00	1.10	110	10	30	51-143	
Aldrin	1.00	0.659	66	3	30	45-134	
alpha-BHC	1.00	0.995	99	3	30	54-138	
alpha-Chlordane	1.00	0.945	95	2	30	60-129	
beta-BHC	1.00	0.964	96	4	30	56-136	
delta-BHC	1.00	1.06	106	4	30	52-142	
Dieldrin	1.00	0.943	94	3	30	60-136	
Endosulfan I	1.00	0.922	92	3	30	62-126	
Endosulfan II	1.00	0.935	94	2	30	52-135	
Endosulfan sulfate	1.00	0.953	95	6	30	62-133	
Endrin	1.00	0.985	98	1	30	60-138	
Endrin aldehyde	1.00	0.987	99	5	30	51-132	
Endrin ketone	1.00	0.986	99	9	30	58-134	
gamma-BHC (Lindane)	1.00	1.01	101	4	30	59-134	
gamma-Chlordane	1.00	0.927	93	3	30	56-136	
Heptachlor	1.00	0.856	86	5	30	54-130	
Heptachlor epoxide	1.00	0.945	94	3	30	61-133	
Methoxychlor	1.00	0.986	99	16	30	54-145	

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM III
PESTICIDES MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0513020.D

Lab ID: 280-191098-1 MS Client ID: DET-003-240401-GW MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
4,4'-DDD	1.01	0.052 U	1.05	104	56-143	Q
4,4'-DDE	1.01	0.023 U	0.983	97	57-135	Q
4,4'-DDT	1.01	0.052 U	0.975	96	51-143	M Q
Aldrin	1.01	0.022 U	0.449	44	45-134	Q J1
alpha-BHC	1.01	0.030 U	0.993	98	54-138	Q
alpha-Chlordane	1.01	0.030 U	0.915	90	60-129	Q
beta-BHC	1.01	0.041 U	0.956	94	56-136	Q
delta-BHC	1.01	0.025 U	1.04	103	52-142	Q
Dieldrin	1.01	0.017 U	0.896	88	60-136	Q
Endosulfan I	1.01	0.023 U	0.914	90	62-126	Q
Endosulfan II	1.01	0.041 U	0.914	90	52-135	Q
Endosulfan sulfate	1.01	0.019 U	0.902	89	62-133	Q
Endrin	1.01	0.025 U	0.937	92	60-138	Q
Endrin aldehyde	1.01	0.025 U	0.945	93	51-132	Q
Endrin ketone	1.01	0.036 U	0.925	91	58-134	Q
gamma-BHC (Lindane)	1.01	0.032 U	1.00	99	59-134	Q
gamma-Chlordane	1.01	0.031 U	0.873	86	56-136	Q
Heptachlor	1.01	0.052 U	0.698	69	54-130	Q
Heptachlor epoxide	1.01	0.037 U	0.925	91	61-133	Q
Methoxychlor	1.01	0.037 U	0.843	83	54-145	Q

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM III
PESTICIDES MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0513022.D

Lab ID: 280-191098-1 MS Client ID: DET-003-240401-GW MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Toxaphene	20.4	3.1 U	22.4	110	33-134	M

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM III
PESTICIDES MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0516013.D

Lab ID: 280-191098-1 MS RE Client ID: DET-003-240401-GW MS RE

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
4,4'-DDD	1.01	0.047 U	1.14	112	56-143	H
4,4'-DDE	1.01	0.021 U	1.08	106	57-135	H
4,4'-DDT	1.01	0.047 U	1.12	111	51-143	H
Aldrin	1.01	0.020 U	0.768	76	45-134	H
alpha-BHC	1.01	0.027 U	1.04	103	54-138	H
alpha-Chlordane	1.01	0.027 U	1.02	101	60-129	H
beta-BHC	1.01	0.037 U	1.01	100	56-136	H
delta-BHC	1.01	0.022 U	1.11	110	52-142	H
Dieldrin	1.01	0.015 U	1.01	100	60-136	H
Endosulfan I	1.01	0.021 U	0.984	97	62-126	H
Endosulfan II	1.01	0.037 U	1.02	100	52-135	H
Endosulfan sulfate	1.01	0.017 U	1.02	101	62-133	H
Endrin	1.01	0.022 U	1.08	106	60-138	H
Endrin aldehyde	1.01	0.022 U	1.05	103	51-132	H
Endrin ketone	1.01	0.033 U	1.03	102	58-134	H
gamma-BHC (Lindane)	1.01	0.029 U	1.06	105	59-134	H
gamma-Chlordane	1.01	0.028 U	1.00	99	56-136	H
Heptachlor	1.01	0.047 U	0.956	95	54-130	H
Heptachlor epoxide	1.01	0.034 U	1.01	100	61-133	H
Methoxychlor	1.01	0.034 U	0.997	99	54-145	H

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM III
PESTICIDES MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0513021.D

Lab ID: 280-191098-1 MSD Client ID: DET-003-240401-GW MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
4,4'-DDD	1.00	0.906	90	15	30	56-143	Q
4,4'-DDE	1.00	0.886	88	10	30	57-135	Q
4,4'-DDT	1.00	0.836	83	15	30	51-143	M Q
Aldrin	1.00	0.423	42	6	30	45-134	Q J1
alpha-BHC	1.00	0.887	88	11	30	54-138	Q
alpha-Chlordane	1.00	0.812	81	12	30	60-129	Q
beta-BHC	1.00	0.844	84	13	30	56-136	Q
delta-BHC	1.00	0.928	93	12	30	52-142	Q
Dieldrin	1.00	0.820	82	9	30	60-136	Q
Endosulfan I	1.00	0.827	82	10	30	62-126	Q
Endosulfan II	1.00	0.819	82	11	30	52-135	Q
Endosulfan sulfate	1.00	0.799	80	12	30	62-133	Q
Endrin	1.00	0.824	82	13	30	60-138	Q
Endrin aldehyde	1.00	0.827	82	13	30	51-132	Q
Endrin ketone	1.00	0.806	80	14	30	58-134	Q
gamma-BHC (Lindane)	1.00	0.879	88	13	30	59-134	Q
gamma-Chlordane	1.00	0.794	79	9	30	56-136	Q
Heptachlor	1.00	0.608	61	14	30	54-130	Q
Heptachlor epoxide	1.00	0.842	84	9	30	61-133	Q
Methoxychlor	1.00	0.741	74	13	30	54-145	Q

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM III
PESTICIDES MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0513023.D

Lab ID: 280-191098-1 MSD Client ID: DET-003-240401-GW MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toxaphene	20.3	21.7	107	3	30	33-134	M Q

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM III
PESTICIDES MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0516014.D

Lab ID: 280-191098-1 MSD RE Client ID: DET-003-240401-GW MSD RE

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
4,4'-DDD	1.01	1.08	107	5	30	56-143	H
4,4'-DDE	1.01	1.02	101	5	30	57-135	H
4,4'-DDT	1.01	1.06	105	5	30	51-143	H
Aldrin	1.01	0.737	73	4	30	45-134	H
alpha-BHC	1.01	0.994	98	5	30	54-138	H
alpha-Chlordane	1.01	0.958	95	6	30	60-129	H
beta-BHC	1.01	0.958	95	5	30	56-136	H
delta-BHC	1.01	1.05	104	6	30	52-142	H
Dieldrin	1.01	0.953	94	6	30	60-136	H
Endosulfan I	1.01	0.925	91	6	30	62-126	H
Endosulfan II	1.01	0.953	94	6	30	52-135	H
Endosulfan sulfate	1.01	0.961	95	6	30	62-133	H
Endrin	1.01	0.997	98	8	30	60-138	H
Endrin aldehyde	1.01	1.00	99	4	30	51-132	H
Endrin ketone	1.01	0.971	96	6	30	58-134	H
gamma-BHC (Lindane)	1.01	1.01	100	5	30	59-134	H
gamma-Chlordane	1.01	0.948	94	6	30	56-136	H
Heptachlor	1.01	0.905	89	5	30	54-130	H
Heptachlor epoxide	1.01	0.952	94	6	30	61-133	H
Methoxychlor	1.01	0.943	93	6	30	54-145	H

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM IV
PESTICIDES METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: MB 280-652915/1-A

Matrix: Water Date Extracted: 05/10/2024 11:46

Lab File ID:(1) 0513008.D Lab File ID:(2) 0513008.D

Date Analyzed:(1) 05/13/2024 12:43 Date Analyzed:(2) 05/13/2024 12:43

Instrument ID:(1) SGC_C Instrument ID:(2) SGC_C

GC Column:(1) RTI-XLB ID: 0.32(mm) GC Column:(2) RTI-35silms ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 280-652915/2-A	05/13/2024 13:01	05/13/2024 13:01
	LCSD 280-652915/3-A	05/13/2024 13:18	05/13/2024 13:18
	LCS 280-652915/6-A	05/13/2024 13:36	05/13/2024 13:36
	LCSD 280-652915/7-A	05/13/2024 13:54	05/13/2024 13:54
DET-003-240401-GW	280-191098-1	05/13/2024 15:59	05/13/2024 15:59
DET-003-240401-GW MS	280-191098-1 MS	05/13/2024 16:17	05/13/2024 16:17
DET-003-240401-GW MSD	280-191098-1 MSD	05/13/2024 16:34	05/13/2024 16:34
DET-003-240401-GW MS	280-191098-1 MS	05/13/2024 16:52	05/13/2024 16:52
DET-003-240401-GW MSD	280-191098-1 MSD	05/13/2024 17:10	05/13/2024 17:10
DET-003-240402-GW	280-191098-2	05/13/2024 17:28	05/13/2024 17:28
DET-004-240401-GW	280-191098-5	05/13/2024 17:46	05/13/2024 17:46

FORM IV
PESTICIDES METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: MB 280-653452/1-A

Matrix: Water Date Extracted: 05/15/2024 10:49

Lab File ID:(1) 0516009.D Lab File ID:(2) 0516009.D

Date Analyzed:(1) 05/16/2024 12:38 Date Analyzed:(2) 05/16/2024 12:38

Instrument ID:(1) SGC_C Instrument ID:(2) SGC_C

GC Column:(1) RTI-XLB ID: 0.32(mm) GC Column:(2) RTI-35silms ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 280-653452/2-A RE	05/16/2024 12:56	05/16/2024 12:56
	LCSD 280-653452/3-A RE	05/16/2024 13:14	05/16/2024 13:14
DET-003-240401-GW RE	280-191098-1 RE	05/16/2024 13:31	05/16/2024 13:31
DET-003-240401-GW MS RE	280-191098-1 MS RE	05/16/2024 13:49	05/16/2024 13:49
DET-003-240401-GW MSD RE	280-191098-1 MSD RE	05/16/2024 14:07	05/16/2024 14:07

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Sample No.: ICIS 280-652720/6 Date Analyzed: 05/09/2024 17:24

Instrument ID: SGC_C GC Column: RTI-XLB ID: 0.32(mm)

Lab File ID (Standard): 0509006.D Heated Purge: (Y/N) N

Calibration ID: 93163

		BNB					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MID-POINT		105855306	3.23				
UPPER LIMIT		211710612	3.73				
LOWER LIMIT		52927653	2.73				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-652720/12		101751895	3.23				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Sample No.: ICIS 280-652720/6 Date Analyzed: 05/09/2024 17:24

Instrument ID: SGC_C GC Column: RTI-35silms ID: 0.32(mm)

Lab File ID (Standard): 0509006.D Heated Purge: (Y/N) N

Calibration ID: 93164

		BNB					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MID-POINT		132966070	2.81				
UPPER LIMIT		265932140	3.31				
LOWER LIMIT		66483035	2.31				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-652720/12		128382313	2.82				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Sample No.: ICIS 280-652967/6 Date Analyzed: 05/10/2024 14:30

Instrument ID: SGC_C GC Column: RTI-XLB ID: 0.32(mm)

Lab File ID (Standard): 0510006.D Heated Purge: (Y/N) N

Calibration ID: 93259

		BNB					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MID-POINT		100179708	3.23				
UPPER LIMIT		200359416	3.73				
LOWER LIMIT		50089854	2.73				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-652967/11		99517399	3.23				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Sample No.: ICIS 280-652967/6 Date Analyzed: 05/10/2024 14:30

Instrument ID: SGC_C GC Column: RTI-35silms ID: 0.32(mm)

Lab File ID (Standard): 0510006.D Heated Purge: (Y/N) N

Calibration ID: 93260

		BNB					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MID-POINT		125363268	2.82				
UPPER LIMIT		250726536	3.32				
LOWER LIMIT		62681634	2.32				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-652967/11		125909407	2.81				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Sample No.: CCVIS 280-653121/4 Date Analyzed: 05/13/2024 11:32

Instrument ID: SGC_C GC Column: RTI-XLB ID: 0.32(mm)

Lab File ID (Standard): 0513004.D Heated Purge: (Y/N) N

Calibration ID: 93271

		BNB					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		86564447	3.23				
UPPER LIMIT		173128894	3.73				
LOWER LIMIT		43282224	2.73				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 280-652915/1-A		95660295	3.23				
LCS 280-652915/2-A		151495305	3.23				
LCSD 280-652915/3-A		146330587	3.23				
LCS 280-652915/6-A		149635322	3.23				
LCSD 280-652915/7-A		149671415	3.23				
280-191098-1	DET-003-240401-GW	160458459	3.23				
280-191098-1 MS	DET-003-240401-GW MS	164175424	3.23				
280-191098-1 MSD	DET-003-240401-GW MSD	156106803	3.23				
280-191098-1 MS	DET-003-240401-GW MS	149330811	3.23				
280-191098-1 MSD	DET-003-240401-GW MSD	163987560	3.23				
280-191098-2	DET-003-240402-GW	151606953	3.23				
280-191098-5	DET-004-240401-GW	159968700	3.23				
CCV 280-653121/27		155370478	3.23				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Sample No.: CCVIS 280-653121/4 Date Analyzed: 05/13/2024 11:32

Instrument ID: SGC_C GC Column: RTI-35silms ID: 0.32(mm)

Lab File ID (Standard): 0513004.D Heated Purge: (Y/N) N

Calibration ID: 93272

		BNB					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		111232183	2.81				
UPPER LIMIT		222464366	3.31				
LOWER LIMIT		55616092	2.31				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 280-652915/1-A		132224529	2.82				
LCS 280-652915/2-A		143486212	2.82				
LCSD 280-652915/3-A		139575073	2.82				
LCS 280-652915/6-A		144864196	2.82				
LCSD 280-652915/7-A		145443940	2.82				
280-191098-1	DET-003-240401-GW	155794211	2.81				
280-191098-1 MS	DET-003-240401-GW MS	160670963	2.82				
280-191098-1 MSD	DET-003-240401-GW MSD	150888528	2.82				
280-191098-1 MS	DET-003-240401-GW MS	145707366	2.82				
280-191098-1 MSD	DET-003-240401-GW MSD	161033031	2.82				
280-191098-2	DET-003-240402-GW	148779912	2.82				
280-191098-5	DET-004-240401-GW	156717385	2.82				
CCV 280-653121/27		142825417	2.81				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Sample No.: CCVIS 280-653635/4 Date Analyzed: 05/16/2024 11:09

Instrument ID: SGC_C GC Column: RTI-XLB ID: 0.32(mm)

Lab File ID (Standard): 0516004.D Heated Purge: (Y/N) N

Calibration ID: 93424

		BNB					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		150819581	3.23				
UPPER LIMIT		301639162	3.73				
LOWER LIMIT		75409791	2.73				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 280-653452/1-A RE		149090373	3.23				
LCS 280-653452/2-A RE		163166060	3.23				
LCSD 280-653452/3-A RE		154287704	3.23				
280-191098-1 MS RE	DET-003-240401-GW MS RE	148654501	3.23				
280-191098-1 MSD RE	DET-003-240401-GW MSD RE	154153491	3.23				
CCV 280-653635/14		146565333	3.23				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Sample No.: CCVIS 280-653635/4 Date Analyzed: 05/16/2024 11:09

Instrument ID: SGC_C GC Column: RTI-35silms ID: 0.32(mm)

Lab File ID (Standard): 0516004.D Heated Purge: (Y/N) N

Calibration ID: 93425

		BNB					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		142453512	2.81				
UPPER LIMIT		284907024	3.31				
LOWER LIMIT		71226756	2.31				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 280-653452/1-A RE		146012686	2.81				
LCS 280-653452/2-A RE		160258419	2.81				
LCSD 280-653452/3-A RE		149253092	2.81				
280-191098-1 RE	DET-003-240401-GW RE	149475689	2.82				
280-191098-1 MS RE	DET-003-240401-GW MS RE	145898934	2.81				
280-191098-1 MSD RE	DET-003-240401-GW MSD RE	151011062	2.81				
CCV 280-653635/14		141921811	2.81				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MS Lab Sample ID: 280-191098-1 MS

Instrument ID (1): SGC_C Instrument ID (2): SGC_C

Date Analyzed (1): 05/13/2024 16:17 Date Analyzed (2): 05/13/2024 16:17

GC Column (1): RTI-XLB ID: 0.32(mm) GC Column (2): RTI-35silms ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
alpha-BHC	1		4.91	4.89	4.91	0.993		14.2
	2		4.30	4.29	4.31	0.861		
gamma-BHC (Lindane)	1		5.18	5.17	5.19	1.00		12.8
	2		4.59	4.57	4.59	0.882		
beta-BHC	1		5.42	5.40	5.42	0.956		8.8
	2		4.76	4.74	4.76	0.876		
delta-BHC	1		5.67	5.66	5.68	1.04		12.9
	2		4.96	4.95	4.97	0.918		
Heptachlor	1		5.75	5.74	5.76	0.698		4.0
	2		4.84	4.83	4.85	0.670		
Aldrin	1		6.12	6.10	6.12	0.449		4.1
	2		5.07	5.06	5.08	0.431		
Heptachlor epoxide	1		6.64	6.62	6.64	0.925		6.3
	2		5.52	5.51	5.53	0.868		
gamma-Chlordane	1		7.01	6.99	7.01	0.873		5.0
	2		5.74	5.72	5.74	0.830		
alpha-Chlordane	1		7.07	7.05	7.07	0.915		8.2
	2		5.84	5.83	5.85	0.842		
Endosulfan I	1		7.11	7.09	7.11	0.914		4.9
	2		5.90	5.88	5.90	0.870		
4,4'-DDE	1		7.24	7.23	7.25	0.983		6.2
	2		6.07	6.06	6.08	0.925		
Dieldrin	1		7.40	7.38	7.40	0.896		0.7
	2		6.22	6.21	6.23	0.890		
Endrin	1		7.65	7.64	7.66	0.937		1.6
	2		6.60	6.58	6.60	0.923		
4,4'-DDD	1		7.81	7.80	7.82	1.05		2.0
	2		6.75	6.74	6.76	1.03		
Endosulfan II	1		7.94	7.92	7.94	0.914		0.1
	2		6.89	6.88	6.90	0.915		
Endrin aldehyde	1		8.06	8.04	8.06	0.945		1.7
	2		7.16	7.15	7.17	0.962		
4,4'-DDT	1		8.14	8.13	8.15	0.975		1.9
	2		7.07	7.06	7.08	0.993		
Endosulfan sulfate	1		8.35	8.34	8.36	0.902		2.1
	2		7.38	7.36	7.38	0.922		
Methoxychlor	1		8.61	8.59	8.61	0.843		2.1
	2		7.83	7.82	7.84	0.825		
Endrin ketone	1		8.82	8.80	8.82	0.925		3.1
	2		8.02	8.01	8.03	0.954		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MS Lab Sample ID: 280-191098-1 MS

Instrument ID (1): SGC_C Instrument ID (2): SGC_C

Date Analyzed (1): 05/13/2024 16:52 Date Analyzed (2): 05/13/2024 16:52

GC Column (1): RTI-XLB ID: 0.32(mm) GC Column (2): RTI-35silms ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
alpha-BHC	1		4.91	4.89	4.91	0.0154		8.3
	2		4.30	4.29	4.31	0.0142		
Endosulfan II	1		7.93	7.92	7.94	0.305		37.4
	2		6.89	6.88	6.90	0.209		
Endrin aldehyde	1		8.04	8.04	8.06	0.570		32.2
	2		7.17	7.15	7.17	0.412		
Endosulfan sulfate	1		8.36	8.34	8.36	0.255		18.9
	2		7.38	7.36	7.38	0.211		
Toxaphene	1	1	6.90	6.88	6.92	25.6	22.4	1.8
		2	7.59	7.56	7.60	23.8		
		3	8.01	7.99	8.03	25.3		
		4	8.27	8.25	8.29	19.1		
		5	9.31	9.28	9.32	18.2		
	2	1	6.22	6.20	6.24	21.6	22.0	
		2	6.64	6.62	6.66	22.0		
		3	6.92	6.91	6.95	23.6		
		4	7.80	7.78	7.82	22.1		
		5	8.16	8.14	8.18	20.7		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MS RE | Lab Sample ID: 280-191098-1 MS RE

Instrument ID (1): SGC_C | Instrument ID (2): SGC_C

Date Analyzed (1): 05/16/2024 13:49 | Date Analyzed (2): 05/16/2024 13:49

GC Column (1): RTI-XLB ID: 0.32(mm) | GC Column (2): RTI-35silms ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
alpha-BHC	1		4.91	4.89	4.91	1.04		12.7
	2		4.30	4.29	4.31	0.918		
gamma-BHC (Lindane)	1		5.18	5.17	5.19	1.06		11.9
	2		4.58	4.57	4.59	0.938		
beta-BHC	1		5.42	5.40	5.42	1.01		8.4
	2		4.75	4.74	4.76	0.927		
delta-BHC	1		5.67	5.66	5.68	1.11		15.2
	2		4.96	4.94	4.96	0.955		
Heptachlor	1		5.75	5.74	5.76	0.956		5.2
	2		4.84	4.83	4.85	0.908		
Aldrin	1		6.11	6.10	6.12	0.768		7.6
	2		5.07	5.06	5.08	0.712		
Heptachlor epoxide	1		6.64	6.62	6.64	1.01		5.6
	2		5.52	5.51	5.53	0.954		
gamma-Chlordane	1		7.00	6.99	7.01	1.00		6.5
	2		5.73	5.72	5.74	0.942		
alpha-Chlordane	1		7.06	7.05	7.07	1.02		7.8
	2		5.84	5.83	5.85	0.946		
Endosulfan I	1		7.10	7.09	7.11	0.984		4.6
	2		5.89	5.88	5.90	0.939		
4,4'-DDE	1		7.24	7.22	7.24	1.08		8.6
	2		6.07	6.05	6.07	0.987		
Dieldrin	1		7.40	7.38	7.40	1.01		3.5
	2		6.22	6.21	6.23	0.975		
Endrin	1		7.65	7.64	7.66	1.08		4.7
	2		6.59	6.58	6.60	1.03		
4,4'-DDD	1		7.81	7.80	7.82	1.14		5.3
	2		6.75	6.74	6.76	1.08		
Endosulfan II	1		7.93	7.92	7.94	1.02		3.4
	2		6.89	6.88	6.90	0.981		
Endrin aldehyde	1		8.05	8.04	8.06	1.05		2.6
	2		7.16	7.14	7.16	1.02		
4,4'-DDT	1		8.14	8.12	8.14	1.12		5.2
	2		7.07	7.05	7.07	1.07		
Endosulfan sulfate	1		8.35	8.34	8.36	1.02		1.1
	2		7.37	7.36	7.38	1.01		
Methoxychlor	1		8.60	8.59	8.61	0.997		2.4
	2		7.83	7.82	7.84	0.974		
Endrin ketone	1		8.81	8.80	8.82	1.03		0.6
	2		8.02	8.01	8.03	1.02		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MSD Lab Sample ID: 280-191098-1 MSD

Instrument ID (1): SGC_C Instrument ID (2): SGC_C

Date Analyzed (1): 05/13/2024 16:34 Date Analyzed (2): 05/13/2024 16:34

GC Column (1): RTI-XLB ID: 0.32(mm) GC Column (2): RTI-35silms ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
alpha-BHC	1		4.91	4.89	4.91	0.887		12.2
	2		4.30	4.29	4.31	0.785		
gamma-BHC (Lindane)	1		5.18	5.17	5.19	0.879		10.7
	2		4.59	4.57	4.59	0.790		
beta-BHC	1		5.42	5.40	5.42	0.844		6.8
	2		4.76	4.74	4.76	0.788		
delta-BHC	1		5.67	5.66	5.68	0.928		11.7
	2		4.96	4.95	4.97	0.825		
Heptachlor	1		5.75	5.74	5.76	0.608		2.2
	2		4.84	4.83	4.85	0.595		
Aldrin	1		6.11	6.10	6.12	0.423		3.4
	2		5.07	5.06	5.08	0.409		
Heptachlor epoxide	1		6.64	6.62	6.64	0.842		4.8
	2		5.52	5.51	5.53	0.803		
gamma-Chlordane	1		7.01	6.99	7.01	0.794		4.1
	2		5.74	5.72	5.74	0.762		
alpha-Chlordane	1		7.07	7.05	7.07	0.812		3.9
	2		5.84	5.83	5.85	0.780		
Endosulfan I	1		7.11	7.09	7.11	0.827		1.4
	2		5.90	5.88	5.90	0.815		
4,4'-DDE	1		7.24	7.23	7.25	0.886		4.1
	2		6.07	6.06	6.08	0.850		
Dieldrin	1		7.40	7.38	7.40	0.820		0.2
	2		6.22	6.21	6.23	0.819		
Endrin	1		7.65	7.64	7.66	0.824		0.3
	2		6.60	6.58	6.60	0.822		
4,4'-DDD	1		7.81	7.80	7.82	0.906		0.6
	2		6.75	6.74	6.76	0.900		
Endosulfan II	1		7.94	7.92	7.94	0.819		1.2
	2		6.89	6.88	6.90	0.829		
Endrin aldehyde	1		8.06	8.04	8.06	0.827		2.6
	2		7.16	7.15	7.17	0.849		
4,4'-DDT	1		8.14	8.13	8.15	0.836		3.5
	2		7.07	7.06	7.08	0.866		
Endosulfan sulfate	1		8.35	8.34	8.36	0.799		3.5
	2		7.38	7.36	7.38	0.828		
Methoxychlor	1		8.61	8.59	8.61	0.741		0.5
	2		7.83	7.82	7.84	0.738		
Endrin ketone	1		8.82	8.80	8.82	0.806		4.7
	2		8.02	8.01	8.03	0.845		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MSD Lab Sample ID: 280-191098-1 MSD

Instrument ID (1): SGC_C Instrument ID (2): SGC_C

Date Analyzed (1): 05/13/2024 17:10 Date Analyzed (2): 05/13/2024 17:10

GC Column (1): RTI-XLB ID: 0.32(mm) GC Column (2): RTI-35silms ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
alpha-BHC	1		4.91	4.89	4.91	0.0142		12.5
	2		4.30	4.29	4.31	0.0125		
Endosulfan II	1		7.93	7.92	7.94	0.287		41.4
	2		6.90	6.88	6.90	0.189		
Endosulfan sulfate	1		8.34	8.34	8.36	0.326		57.9
	2		7.38	7.36	7.38	0.180		
Toxaphene	1	1	6.90	6.88	6.92	22.7	21.7	6.4
		2	7.59	7.56	7.60	21.6		
		3	8.01	7.99	8.03	24.3		
		4	8.27	8.25	8.29	22.1		
		5	9.31	9.28	9.32	17.6		
	2	1	6.22	6.20	6.24	19.6	20.3	
		2	6.64	6.62	6.66	19.9		
		3	6.92	6.91	6.95	21.6		
		4	7.80	7.78	7.82	21.0		
		5	8.16	8.14	8.18	19.3		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MSD RE | Lab Sample ID: 280-191098-1 MSD RE

Instrument ID (1): SGC_C | Instrument ID (2): SGC_C

Date Analyzed (1): 05/16/2024 14:07 | Date Analyzed (2): 05/16/2024 14:07

GC Column (1): RTI-XLB ID: 0.32(mm) | GC Column (2): RTI-35silms ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
alpha-BHC	1		4.91	4.89	4.91	0.994		12.5
	2		4.30	4.29	4.31	0.878		
gamma-BHC (Lindane)	1		5.18	5.17	5.19	1.01		11.6
	2		4.58	4.57	4.59	0.897		
beta-BHC	1		5.42	5.40	5.42	0.958		7.8
	2		4.75	4.74	4.76	0.887		
delta-BHC	1		5.67	5.66	5.68	1.05		14.3
	2		4.96	4.94	4.96	0.910		
Heptachlor	1		5.75	5.74	5.76	0.905		5.5
	2		4.84	4.83	4.85	0.856		
Aldrin	1		6.11	6.10	6.12	0.737		7.1
	2		5.07	5.06	5.08	0.687		
Heptachlor epoxide	1		6.64	6.62	6.64	0.952		5.3
	2		5.52	5.51	5.53	0.903		
gamma-Chlordane	1		7.00	6.99	7.01	0.948		7.0
	2		5.73	5.72	5.74	0.883		
alpha-Chlordane	1		7.06	7.05	7.07	0.958		7.3
	2		5.84	5.83	5.85	0.891		
Endosulfan I	1		7.10	7.09	7.11	0.925		4.7
	2		5.89	5.88	5.90	0.883		
4,4'-DDE	1		7.24	7.22	7.24	1.02		8.2
	2		6.07	6.05	6.07	0.941		
Dieldrin	1		7.40	7.38	7.40	0.953		3.8
	2		6.22	6.21	6.23	0.917		
Endrin	1		7.65	7.64	7.66	0.997		4.4
	2		6.59	6.58	6.60	0.954		
4,4'-DDD	1		7.81	7.80	7.82	1.08		6.8
	2		6.75	6.74	6.76	1.01		
Endosulfan II	1		7.93	7.92	7.94	0.953		3.7
	2		6.89	6.88	6.90	0.919		
Endrin aldehyde	1		8.05	8.04	8.06	1.00		3.3
	2		7.16	7.14	7.16	0.970		
4,4'-DDT	1		8.14	8.12	8.14	1.06		5.7
	2		7.07	7.05	7.07	1.00		
Endosulfan sulfate	1		8.35	8.34	8.36	0.961		1.8
	2		7.37	7.36	7.38	0.944		
Methoxychlor	1		8.60	8.59	8.61	0.943		3.5
	2		7.83	7.82	7.84	0.911		
Endrin ketone	1		8.81	8.80	8.82	0.971		0.8
	2		8.02	8.01	8.03	0.963		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-652915/2-A

Instrument ID (1): SGC_C | Instrument ID (2): SGC_C

Date Analyzed (1): 05/13/2024 13:01 | Date Analyzed (2): 05/13/2024 13:01

GC Column (1): RTI-XLB ID: 0.32(mm) | GC Column (2): RTI-35silms ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
alpha-BHC	1		4.91	4.89	4.91	0.922		11.6
	2		4.30	4.29	4.31	0.821		
gamma-BHC (Lindane)	1		5.18	5.17	5.19	0.873		7.5
	2		4.59	4.57	4.59	0.810		
beta-BHC	1		5.42	5.40	5.42	0.878		7.0
	2		4.76	4.74	4.76	0.819		
delta-BHC	1		5.67	5.66	5.68	0.982		12.9
	2		4.96	4.95	4.97	0.863		
Heptachlor	1		5.75	5.74	5.76	0.703		5.7
	2		4.84	4.83	4.85	0.664		
Aldrin	1		6.11	6.10	6.12	0.572		5.3
	2		5.07	5.06	5.08	0.543		
Heptachlor epoxide	1		6.64	6.62	6.64	0.887		4.8
	2		5.52	5.51	5.53	0.845		
gamma-Chlordane	1		7.01	6.99	7.01	0.833		5.4
	2		5.74	5.72	5.74	0.789		
alpha-Chlordane	1		7.06	7.05	7.07	0.853		5.2
	2		5.84	5.83	5.85	0.810		
Endosulfan I	1		7.11	7.09	7.11	0.883		4.0
	2		5.89	5.88	5.90	0.848		
4,4'-DDE	1		7.24	7.23	7.25	0.923		3.1
	2		6.07	6.06	6.08	0.895		
Dieldrin	1		7.40	7.38	7.40	0.860		0.5
	2		6.22	6.21	6.23	0.856		
Endrin	1		7.65	7.64	7.66	0.865		0.6
	2		6.59	6.58	6.60	0.870		
4,4'-DDD	1		7.81	7.80	7.82	0.944		2.6
	2		6.75	6.74	6.76	0.920		
Endosulfan II	1		7.94	7.92	7.94	0.862		2.5
	2		6.89	6.88	6.90	0.883		
Endrin aldehyde	1		8.05	8.04	8.06	0.870		4.7
	2		7.16	7.15	7.17	0.912		
4,4'-DDT	1		8.14	8.13	8.15	0.861		3.7
	2		7.07	7.06	7.08	0.893		
Endosulfan sulfate	1		8.35	8.34	8.36	0.838		5.7
	2		7.38	7.36	7.38	0.887		
Methoxychlor	1		8.61	8.59	8.61	0.780		3.9
	2		7.83	7.82	7.84	0.812		
Endrin ketone	1		8.81	8.80	8.82	0.846		4.7
	2		8.02	8.01	8.03	0.887		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-652915/3-A

Instrument ID (1): SGC_C | Instrument ID (2): SGC_C

Date Analyzed (1): 05/13/2024 13:18 | Date Analyzed (2): 05/13/2024 13:18

GC Column (1): RTI-XLB ID: 0.32(mm) | GC Column (2): RTI-35silms ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
alpha-BHC	1		4.91	4.89	4.91	1.02		11.9
	2		4.30	4.29	4.31	0.901		
gamma-BHC (Lindane)	1		5.18	5.17	5.19	1.00		12.4
	2		4.59	4.57	4.59	0.888		
beta-BHC	1		5.42	5.40	5.42	0.970		8.1
	2		4.75	4.74	4.76	0.895		
delta-BHC	1		5.67	5.66	5.68	1.07		13.8
	2		4.96	4.95	4.97	0.935		
Heptachlor	1		5.75	5.74	5.76	0.735		5.7
	2		4.84	4.83	4.85	0.694		
Aldrin	1		6.11	6.10	6.12	0.578		5.6
	2		5.07	5.06	5.08	0.547		
Heptachlor epoxide	1		6.64	6.62	6.64	0.966		6.2
	2		5.52	5.51	5.53	0.908		
gamma-Chlordane	1		7.01	6.99	7.01	0.900		6.0
	2		5.74	5.72	5.74	0.847		
alpha-Chlordane	1		7.07	7.05	7.07	0.922		5.6
	2		5.84	5.83	5.85	0.871		
Endosulfan I	1		7.11	7.09	7.11	0.952		4.5
	2		5.89	5.88	5.90	0.910		
4,4'-DDE	1		7.24	7.23	7.25	1.01		3.8
	2		6.07	6.06	6.08	0.971		
Dieldrin	1		7.40	7.38	7.40	0.925		0.9
	2		6.22	6.21	6.23	0.916		
Endrin	1		7.65	7.64	7.66	0.930		0.8
	2		6.60	6.58	6.60	0.923		
4,4'-DDD	1		7.81	7.80	7.82	1.02		3.2
	2		6.75	6.74	6.76	0.991		
Endosulfan II	1		7.94	7.92	7.94	0.930		1.4
	2		6.89	6.88	6.90	0.944		
Endrin aldehyde	1		8.05	8.04	8.06	0.948		3.7
	2		7.16	7.15	7.17	0.983		
4,4'-DDT	1		8.14	8.13	8.15	0.923		3.0
	2		7.07	7.06	7.08	0.951		
Endosulfan sulfate	1		8.35	8.34	8.36	0.902		4.7
	2		7.38	7.36	7.38	0.945		
Methoxychlor	1		8.61	8.59	8.61	0.826		0.6
	2		7.83	7.82	7.84	0.831		
Endrin ketone	1		8.81	8.80	8.82	0.911		3.3
	2		8.02	8.01	8.03	0.942		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-652915/6-A

Instrument ID (1): SGC_C Instrument ID (2): SGC_C

Date Analyzed (1): 05/13/2024 13:36 Date Analyzed (2): 05/13/2024 13:36

GC Column (1): RTI-XLB ID: 0.32(mm) GC Column (2): RTI-35silms ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Toxaphene	1	1	6.90	6.88	6.92	24.6	21.9	11.0
		2	7.59	7.56	7.60	22.3		
		3	8.01	7.99	8.03	24.1		
		4	8.27	8.25	8.29	21.1		
		5	9.31	9.28	9.32	17.2		
	2	1	6.22	6.20	6.24	19.3	19.6	
		2	6.64	6.62	6.66	20.0		
		3	6.92	6.91	6.95	21.1		
		4	7.80	7.78	7.82	19.6		
		5	8.16	8.14	8.18	17.9		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 280-652915/7-A

Instrument ID (1): SGC_C Instrument ID (2): SGC_C

Date Analyzed (1): 05/13/2024 13:54 Date Analyzed (2): 05/13/2024 13:54

GC Column (1): RTI-XLB ID: 0.32(mm) GC Column (2): RTI-35silms ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Toxaphene	1	1	6.90	6.88	6.92	26.7	24.5	6.7
		2	7.59	7.56	7.60	24.4		
		3	8.01	7.99	8.03	26.9		
		4	8.27	8.25	8.29	24.4		
		5	9.31	9.28	9.32	20.1		
	2	1	6.22	6.20	6.24	22.4	22.9	
		2	6.64	6.62	6.66	23.0		
		3	6.92	6.91	6.95	24.6		
		4	7.80	7.78	7.82	23.0		
		5	8.16	8.14	8.18	21.5		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-653452/2-A RE

Instrument ID (1): SGC_C | Instrument ID (2): SGC_C

Date Analyzed (1): 05/16/2024 12:56 | Date Analyzed (2): 05/16/2024 12:56

GC Column (1): RTI-XLB ID: 0.32(mm) | GC Column (2): RTI-35silms ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
alpha-BHC	1		4.90	4.89	4.91	0.965		12.7
	2		4.30	4.29	4.31	0.850		
gamma-BHC (Lindane)	1		5.18	5.17	5.19	0.974		11.6
	2		4.58	4.57	4.59	0.867		
beta-BHC	1		5.41	5.40	5.42	0.922		8.1
	2		4.75	4.74	4.76	0.850		
delta-BHC	1		5.67	5.66	5.68	1.01		15.0
	2		4.96	4.94	4.96	0.872		
Heptachlor	1		5.75	5.74	5.76	0.813		5.3
	2		4.84	4.83	4.85	0.771		
Aldrin	1		6.11	6.10	6.12	0.639		6.9
	2		5.07	5.06	5.08	0.596		
Heptachlor epoxide	1		6.64	6.62	6.64	0.915		5.2
	2		5.52	5.51	5.53	0.869		
gamma-Chlordane	1		7.00	6.99	7.01	0.900		6.4
	2		5.73	5.72	5.74	0.844		
alpha-Chlordane	1		7.06	7.05	7.07	0.923		8.0
	2		5.84	5.83	5.85	0.852		
Endosulfan I	1		7.10	7.09	7.11	0.891		4.6
	2		5.89	5.88	5.90	0.851		
4,4'-DDE	1		7.24	7.22	7.24	0.972		9.3
	2		6.07	6.05	6.07	0.885		
Dieldrin	1		7.40	7.38	7.40	0.913		3.2
	2		6.22	6.21	6.23	0.884		
Endrin	1		7.65	7.64	7.66	0.979		5.2
	2		6.59	6.58	6.60	0.929		
4,4'-DDD	1		7.81	7.80	7.82	1.02		5.1
	2		6.75	6.74	6.76	0.965		
Endosulfan II	1		7.93	7.92	7.94	0.921		4.8
	2		6.89	6.88	6.90	0.877		
Endrin aldehyde	1		8.05	8.04	8.06	0.940		4.8
	2		7.16	7.14	7.16	0.896		
4,4'-DDT	1		8.14	8.12	8.14	0.989		4.4
	2		7.06	7.05	7.07	0.946		
Endosulfan sulfate	1		8.35	8.34	8.36	0.898		1.1
	2		7.37	7.36	7.38	0.889		
Methoxychlor	1		8.60	8.59	8.61	0.844		1.0
	2		7.83	7.82	7.84	0.835		
Endrin ketone	1		8.81	8.80	8.82	0.906		0.2
	2		8.02	8.01	8.03	0.904		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-653452/3-A RE

Instrument ID (1): SGC_C | Instrument ID (2): SGC_C

Date Analyzed (1): 05/16/2024 13:14 | Date Analyzed (2): 05/16/2024 13:14

GC Column (1): RTI-XLB ID: 0.32(mm) | GC Column (2): RTI-35silms ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
alpha-BHC	1		4.91	4.89	4.91	0.995		10.9
	2		4.30	4.29	4.31	0.892		
gamma-BHC (Lindane)	1		5.18	5.17	5.19	1.01		11.3
	2		4.58	4.57	4.59	0.905		
beta-BHC	1		5.42	5.40	5.42	0.964		7.0
	2		4.75	4.74	4.76	0.899		
delta-BHC	1		5.67	5.66	5.68	1.06		13.1
	2		4.96	4.94	4.96	0.927		
Heptachlor	1		5.75	5.74	5.76	0.856		4.2
	2		4.84	4.83	4.85	0.821		
Aldrin	1		6.11	6.10	6.12	0.659		5.3
	2		5.07	5.06	5.08	0.624		
Heptachlor epoxide	1		6.64	6.62	6.64	0.945		3.5
	2		5.52	5.51	5.53	0.912		
gamma-Chlordane	1		7.00	6.99	7.01	0.927		5.1
	2		5.73	5.72	5.74	0.881		
alpha-Chlordane	1		7.06	7.05	7.07	0.945		5.9
	2		5.84	5.83	5.85	0.891		
Endosulfan I	1		7.10	7.09	7.11	0.922		3.3
	2		5.89	5.88	5.90	0.891		
4,4'-DDE	1		7.24	7.22	7.24	1.01		7.3
	2		6.07	6.05	6.07	0.939		
Dieldrin	1		7.40	7.38	7.40	0.943		1.4
	2		6.22	6.21	6.23	0.930		
Endrin	1		7.65	7.64	7.66	0.985		0.1
	2		6.59	6.58	6.60	0.986		
4,4'-DDD	1		7.81	7.80	7.82	1.08		2.7
	2		6.75	6.74	6.76	1.05		
Endosulfan II	1		7.93	7.92	7.94	0.935		0.4
	2		6.89	6.88	6.90	0.932		
Endrin aldehyde	1		8.05	8.04	8.06	0.987		1.1
	2		7.16	7.14	7.16	0.976		
4,4'-DDT	1		8.14	8.12	8.14	1.10		2.1
	2		7.06	7.05	7.07	1.07		
Endosulfan sulfate	1		8.35	8.34	8.36	0.953		0.3
	2		7.37	7.36	7.38	0.955		
Methoxychlor	1		8.60	8.59	8.61	0.986		0.7
	2		7.83	7.82	7.84	0.979		
Endrin ketone	1		8.81	8.80	8.82	0.986		1.0
	2		8.02	8.01	8.03	0.996		

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW | Lab Sample ID: 280-191098-1

Matrix: Water | Lab File ID: 0513019.D

Analysis Method: 8081B | Date Collected: 05/06/2024 10:16

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 241.3(mL) | Date Analyzed: 05/13/2024 15:59

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-XLB ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653121 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
72-54-8	4,4'-DDD	0.052	U Q	0.052	0.052	0.0044
72-55-9	4,4'-DDE	0.023	U Q	0.052	0.023	0.0044
50-29-3	4,4'-DDT	0.052	U Q	0.052	0.052	0.025
309-00-2	Aldrin	0.022	U Q J1	0.052	0.022	0.0064
319-84-6	alpha-BHC	0.030	U Q	0.052	0.030	0.010
5103-71-9	alpha-Chlordane	0.030	U Q	0.052	0.030	0.0091
319-85-7	beta-BHC	0.041	U Q	0.052	0.041	0.0094
319-86-8	delta-BHC	0.025	U Q	0.052	0.025	0.0081
60-57-1	Dieldrin	0.017	U Q	0.052	0.017	0.0048
959-98-8	Endosulfan I	0.023	U Q	0.052	0.023	0.0061
33213-65-9	Endosulfan II	0.041	U Q	0.052	0.041	0.0068
1031-07-8	Endosulfan sulfate	0.019	U Q	0.052	0.019	0.0051
72-20-8	Endrin	0.025	U Q	0.052	0.025	0.0089
7421-93-4	Endrin aldehyde	0.025	U Q	0.052	0.025	0.0090
53494-70-5	Endrin ketone	0.036	U Q	0.052	0.036	0.013
58-89-9	gamma-BHC (Lindane)	0.032	U Q	0.052	0.032	0.011
5103-74-2	gamma-Chlordane	0.031	U Q	0.052	0.031	0.0074
76-44-8	Heptachlor	0.052	U Q	0.052	0.052	0.010
1024-57-3	Heptachlor epoxide	0.037	U Q	0.052	0.037	0.0033
72-43-5	Methoxychlor	0.037	U Q	0.10	0.037	0.015
8001-35-2	Toxaphene	3.1	U Q	3.1	3.1	1.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	51		33-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513019.D
Lims ID: 280-191098-D-1-A
Client ID: DET-003-240401-GW
Sample Type: Client
Inject. Date: 13-May-2024 15:59:09 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-D-1-A
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:05 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 14-May-2024 08:09:45

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical					7	
1		1.000			ND	
2		0.000				
* 2 1-Bromo-2-nitrobenzene						
1	3.231	3.231	0.000	160458459	75.0	
2	2.814	2.817	-0.003	155794211	75.0	
4 Propachlor						
1		4.041			ND	
2		4.339				
$ 3 Tetrachloro-m-xylene						
1	4.569	4.569	0.000	15269483	5.14	
2	3.778	3.778	0.000	14002222	4.92	
					RPD = 4.42	
5 Diallate						
1		4.683			ND	
2		4.042				
14 2,4,5-Trichlorophenol						
1		4.866			ND	
2		4.769				
7 alpha-BHC						
1		4.904			ND	
2		4.300				
6 Hexachlorobenzene						
1	4.971	4.969	0.002	389960	0.1108	
2	4.207	4.209	-0.002	676412	0.1948	
					RPD = 54.98	
8 gamma-BHC (Lindane)						
1		5.177			ND	
2		4.584				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
11 beta-BHC						
1		5.414			ND	
2		4.753				
10 Technical Chlordane						
1		5.535			ND	
1		6.126				
1		7.004				
1		7.115				
1		8.011				
2		4.714				
2		5.189				
2		5.737				
2		5.765				
2		6.932				
9 Chlordane (technical)						
1		5.535			ND	
1		6.126				
1		7.004				
1		7.115				
1		8.011				
2		4.714				
2		5.189				
2		5.737				
2		5.765				
2		6.932				
13 delta-BHC						
1		5.665			ND	
2		4.956				
12 Heptachlor						
1		5.747			ND	
2		4.842				
16 Chlorpyrifos						
1		5.990			ND	
2		5.177				
15 Aldrin						
1		6.110			ND	
2		5.069				
17 Isodrin						
1		6.507			ND	
2		5.404				
19 Heptachlor epoxide						
1		6.634			ND	
2		5.519				
21 2,4'-DDE						
1		6.823			ND	
2		5.750				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
22 Toxaphene						
1	6.896				ND	
1	7.583					
1	8.009					
1	8.269					
1	9.304					
2	6.222					
2	6.637					
2	6.925					
2	7.799					
2	8.164					
20 trans-Chlordane						
1	7.003				ND	
2	5.734					
23 cis-Chlordane						
1	7.061				ND	
2	5.839					
24 Endosulfan I						
1	7.103				ND	
2	5.891					
25 4,4'-DDE						
1	7.235				ND	
2	6.067					
27 2,4'-DDD						
1	7.344				ND	
2	6.314					
26 Dieldrin						
1	7.394				ND	
2	6.219					
28 Chlorobenzilate						
1	7.511				ND	
2	6.431					
29 Endrin						
1	7.647				ND	
2	6.591					
30 2,4'-DDT						
1	7.687				ND	
2	6.648					
32 4,4'-DDD						
1	7.805				ND	
2	6.747					
31 Kepone						
1	7.898				ND	
2	6.714					
33 Endosulfan II						
1	7.933				ND	
2	6.889					
35 Endrin aldehyde						
1	8.050				ND	
2	7.157					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
34 4,4'-DDT						
1	8.135				ND	
2	7.065					
18 Dicofol						
1	8.141				ND	
2	8.545					
36 Endosulfan sulfate						
1	8.349				ND	
2	7.374					
37 Methoxychlor						
1	8.603				ND	
2	7.831					
38 Endrin ketone						
1	8.810				ND	
2	8.018					
39 Mirex						
1	9.451				ND	
2	8.130					
$ 40 DCB Decachlorobiphenyl						
1	11.069	11.057	0.012	6622695	2.12	
2	9.259	9.257	0.002	6412063	2.62	
					RPD = 21.05	
41 Tris(2,3-dibromopropyl)phosphate						
1	12.000				ND	
2	12.279					
S 42 Endosulfan, Total						7
1	0.000				ND	
2	0.000					

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

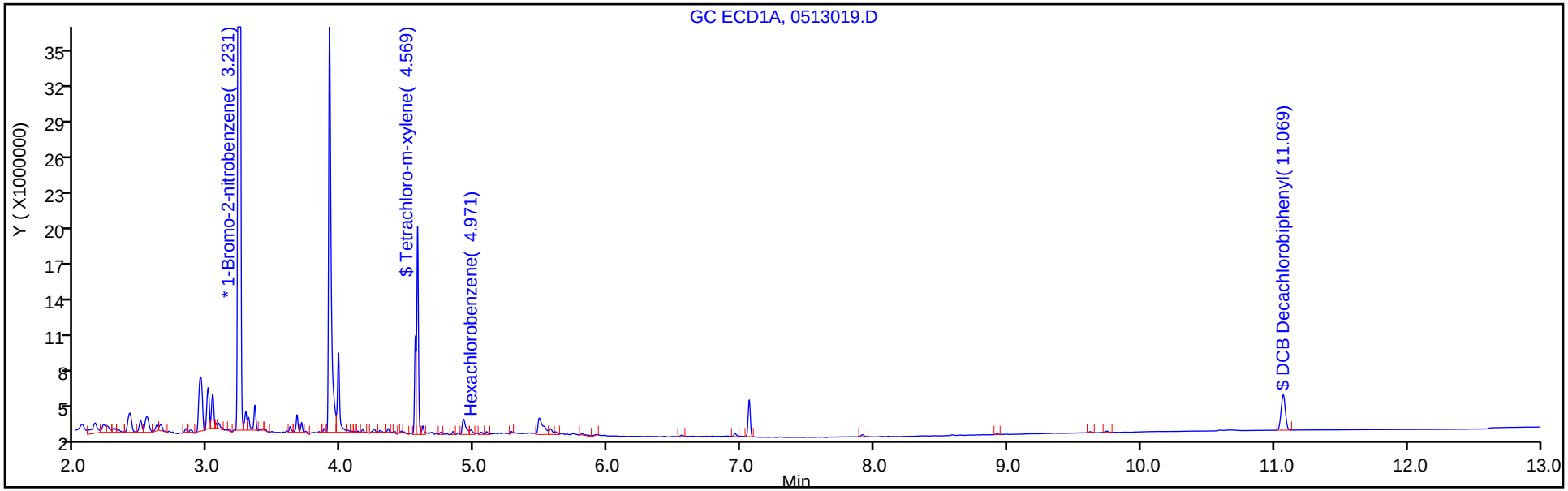
Report Date: 14-May-2024 08:21:40 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

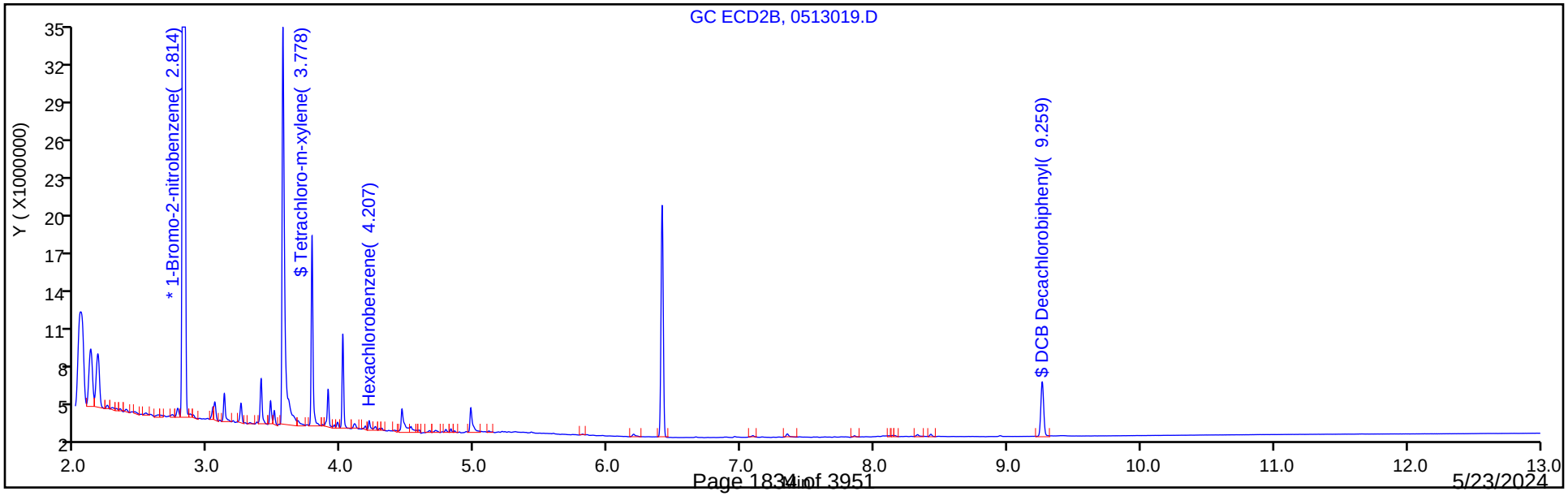
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513019.D

Injection Date:	13-May-2024 15:59:09	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	280-191098-D-1-A	Lab Sample ID:	280-191098-1	Worklist Smp#:	19
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513019.D				
Lims ID:	280-191098-D-1-A				
Client ID:	DET-003-240401-GW				
Sample Type:	Client				
Inject. Date:	13-May-2024 15:59:09	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-D-1-A				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	14-May-2024 08:21:05	Calib Date:	13-May-2024 12:25:32		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1604				
First Level Reviewer: AP6K		Date:	14-May-2024 08:09:45		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	5.14	51.38
$ 40 DCB Decachlorobiphenyl	10.0	2.12	21.17

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	4.92	49.16
$ 40 DCB Decachlorobiphenyl	10.0	2.62	26.15

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW | Lab Sample ID: 280-191098-1

Matrix: Water | Lab File ID: 0513019.D

Analysis Method: 8081B | Date Collected: 05/06/2024 10:16

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 241.3(mL) | Date Analyzed: 05/13/2024 15:59

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-35silms ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653121 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	26	Q	34-122

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513019.D
Lims ID: 280-191098-D-1-A
Client ID: DET-003-240401-GW
Sample Type: Client
Inject. Date: 13-May-2024 15:59:09 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-D-1-A
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:05 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 14-May-2024 08:09:45

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical					7	
1		1.000			ND	
2		0.000				
* 2 1-Bromo-2-nitrobenzene						
1	3.231	3.231	0.000	160458459	75.0	
2	2.814	2.817	-0.003	155794211	75.0	
4 Propachlor						
1		4.041			ND	
2		4.339				
$ 3 Tetrachloro-m-xylene						
1	4.569	4.569	0.000	15269483	5.14	
2	3.778	3.778	0.000	14002222	4.92	
					RPD = 4.42	
5 Diallate						
1		4.683			ND	
2		4.042				
14 2,4,5-Trichlorophenol						
1		4.866			ND	
2		4.769				
7 alpha-BHC						
1		4.904			ND	
2		4.300				
6 Hexachlorobenzene						
1	4.971	4.969	0.002	389960	0.1108	
2	4.207	4.209	-0.002	676412	0.1948	
					RPD = 54.98	
8 gamma-BHC (Lindane)						
1		5.177			ND	
2		4.584				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
11 beta-BHC						
1	5.414				ND	
2	4.753					
10 Technical Chlordane						
1	5.535				ND	
1	6.126					
1	7.004					
1	7.115					
1	8.011					
2	4.714					
2	5.189					
2	5.737					
2	5.765					
2	6.932					
9 Chlordane (technical)						
1	5.535				ND	
1	6.126					
1	7.004					
1	7.115					
1	8.011					
2	4.714					
2	5.189					
2	5.737					
2	5.765					
2	6.932					
13 delta-BHC						
1	5.665				ND	
2	4.956					
12 Heptachlor						
1	5.747				ND	
2	4.842					
16 Chlorpyrifos						
1	5.990				ND	
2	5.177					
15 Aldrin						
1	6.110				ND	
2	5.069					
17 Isodrin						
1	6.507				ND	
2	5.404					
19 Heptachlor epoxide						
1	6.634				ND	
2	5.519					
21 2,4'-DDE						
1	6.823				ND	
2	5.750					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
22 Toxaphene						
1	6.896				ND	
1	7.583					
1	8.009					
1	8.269					
1	9.304					
2	6.222					
2	6.637					
2	6.925					
2	7.799					
2	8.164					
20 trans-Chlordane						
1	7.003				ND	
2	5.734					
23 cis-Chlordane						
1	7.061				ND	
2	5.839					
24 Endosulfan I						
1	7.103				ND	
2	5.891					
25 4,4'-DDE						
1	7.235				ND	
2	6.067					
27 2,4'-DDD						
1	7.344				ND	
2	6.314					
26 Dieldrin						
1	7.394				ND	
2	6.219					
28 Chlorobenzilate						
1	7.511				ND	
2	6.431					
29 Endrin						
1	7.647				ND	
2	6.591					
30 2,4'-DDT						
1	7.687				ND	
2	6.648					
32 4,4'-DDD						
1	7.805				ND	
2	6.747					
31 Kepone						
1	7.898				ND	
2	6.714					
33 Endosulfan II						
1	7.933				ND	
2	6.889					
35 Endrin aldehyde						
1	8.050				ND	
2	7.157					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
34 4,4'-DDT						
1	8.135				ND	
2	7.065					
18 Dicofol						
1	8.141				ND	
2	8.545					
36 Endosulfan sulfate						
1	8.349				ND	
2	7.374					
37 Methoxychlor						
1	8.603				ND	
2	7.831					
38 Endrin ketone						
1	8.810				ND	
2	8.018					
39 Mirex						
1	9.451				ND	
2	8.130					
$ 40 DCB Decachlorobiphenyl						
1	11.069	11.057	0.012	6622695	2.12	
2	9.259	9.257	0.002	6412063	2.62	
					RPD = 21.05	
41 Tris(2,3-dibromopropyl)phosphate						
1	12.000				ND	
2	12.279					
S 42 Endosulfan, Total						7
1	0.000				ND	
2	0.000					

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

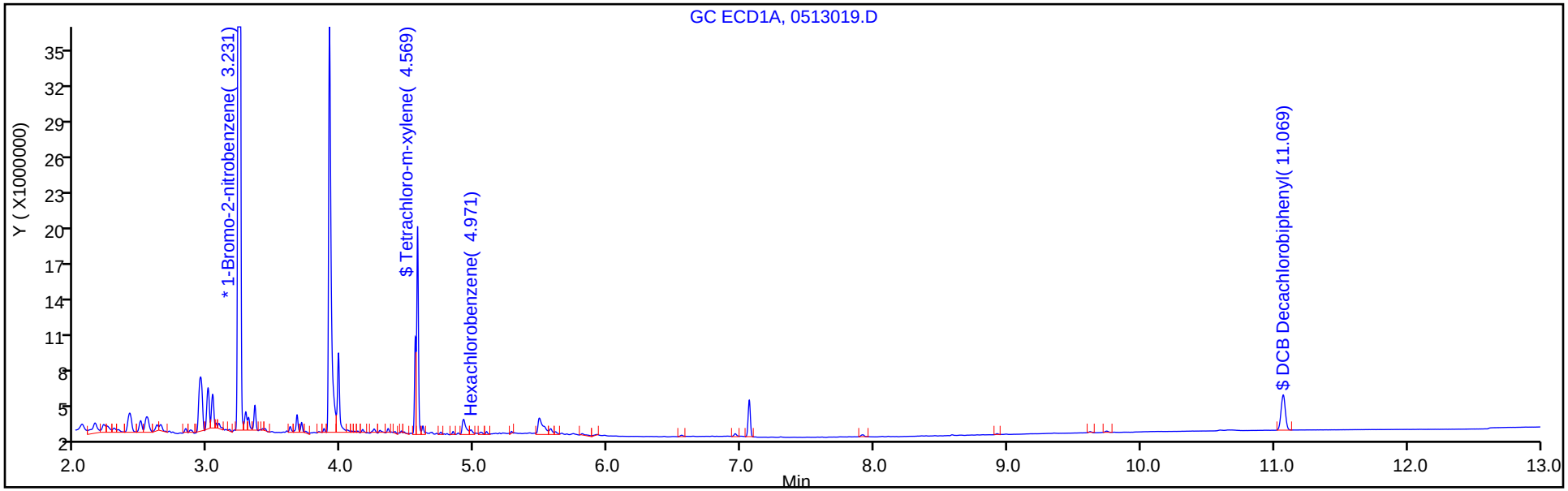
Report Date: 14-May-2024 08:21:40 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

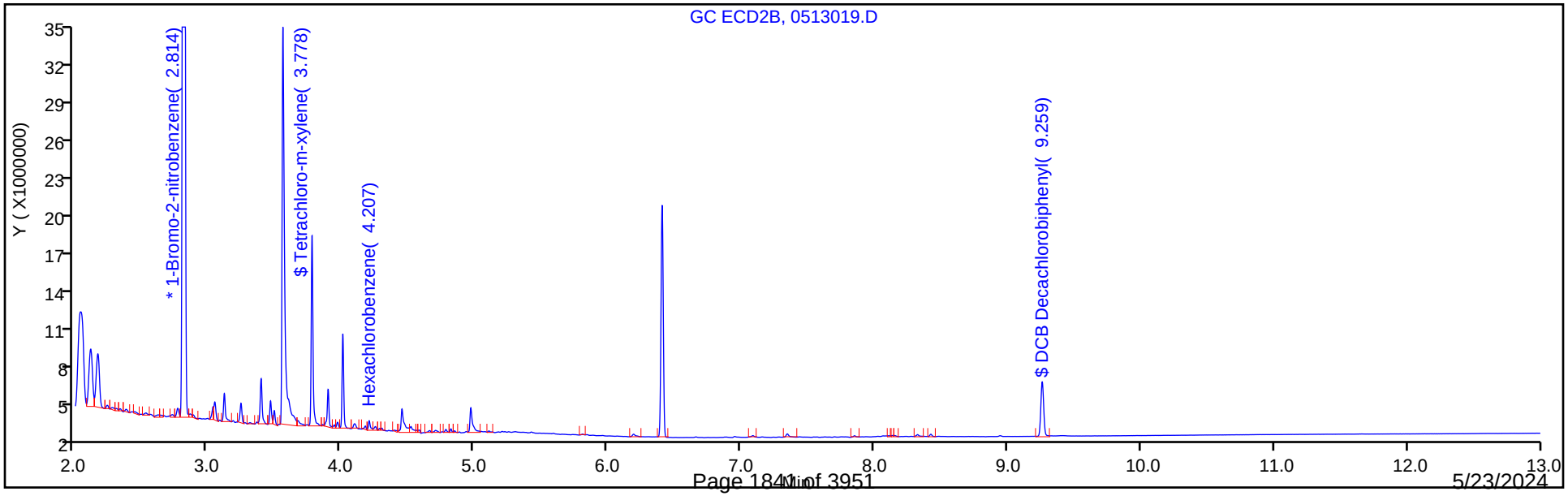
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513019.D

Injection Date:	13-May-2024 15:59:09	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	280-191098-D-1-A	Lab Sample ID:	280-191098-1	Worklist Smp#:	19
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513019.D				
Lims ID:	280-191098-D-1-A				
Client ID:	DET-003-240401-GW				
Sample Type:	Client				
Inject. Date:	13-May-2024 15:59:09	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-D-1-A				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	14-May-2024 08:21:05	Calib Date:	13-May-2024 12:25:32		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1604				
First Level Reviewer: AP6K		Date:	14-May-2024 08:09:45		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	5.14	51.38
$ 40 DCB Decachlorobiphenyl	10.0	2.12	21.17

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	4.92	49.16
$ 40 DCB Decachlorobiphenyl	10.0	2.62	26.15

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW RE | Lab Sample ID: 280-191098-1 RE

Matrix: Water | Lab File ID: 0516012.D

Analysis Method: 8081B | Date Collected: 05/06/2024 10:16

Extraction Method: 3510C | Date Extracted: 05/15/2024 10:49

Sample wt/vol: 268(mL) | Date Analyzed: 05/16/2024 13:31

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-XLB ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653635 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
72-54-8	*4,4'-DDD*	*0.047*	*U H Q*	*0.047*	0.047	*0.0039*
72-55-9	*4,4'-DDE*	*0.021*	*U H Q*	*0.047*	0.021	*0.0039*
50-29-3	*4,4'-DDT*	*0.047*	*U H Q*	*0.047*	0.047	*0.022*
309-00-2	*Aldrin*	*0.020*	*U H Q*	*0.047*	0.020	*0.0058*
319-84-6	*alpha-BHC*	*0.027*	*U H Q*	*0.047*	0.027	*0.0090*
5103-71-9	*alpha-Chlordane*	*0.027*	*U H Q*	*0.047*	0.027	*0.0082*
319-85-7	*beta-BHC*	*0.037*	*U H Q*	*0.047*	0.037	*0.0085*
319-86-8	*delta-BHC*	*0.022*	*U H Q*	*0.047*	0.022	*0.0073*
60-57-1	*Dieldrin*	*0.015*	*U H Q*	*0.047*	0.015	*0.0043*
959-98-8	*Endosulfan I*	*0.021*	*U H Q*	*0.047*	0.021	*0.0054*
33213-65-9	*Endosulfan II*	*0.037*	*U H Q*	*0.047*	0.037	*0.0062*
1031-07-8	*Endosulfan sulfate*	*0.017*	*U H Q*	*0.047*	0.017	*0.0046*
72-20-8	*Endrin*	*0.022*	*U H Q*	*0.047*	0.022	*0.0080*
7421-93-4	*Endrin aldehyde*	*0.022*	*U H Q*	*0.047*	0.022	*0.0081*
53494-70-5	*Endrin ketone*	*0.033*	*U H Q*	*0.047*	0.033	*0.012*
58-89-9	*gamma-BHC (Lindane)*	*0.029*	*U H Q*	*0.047*	0.029	*0.0096*
5103-74-2	*gamma-Chlordane*	*0.028*	*U H Q*	*0.047*	0.028	*0.0067*
76-44-8	*Heptachlor*	*0.047*	*U H Q*	*0.047*	0.047	*0.0093*
1024-57-3	*Heptachlor epoxide*	*0.034*	*U H Q*	*0.047*	0.034	*0.0030*
72-43-5	*Methoxychlor*	*0.034*	*U H Q*	*0.093*	0.034	*0.013*
8001-35-2	*Toxaphene*	*2.8*	*U H Q*	*2.8*	2.8	*1.4*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	69		33-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516012.D
Lims ID: 280-191098-I-1-B RE
Client ID: DET-003-240401-GW
Sample Type: Client
Inject. Date: 16-May-2024 13:31:39 ALS Bottle#: 12 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-I-1-B
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:42:24 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

First Level Reviewer: AP6K Date: 16-May-2024 14:41:22

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical						
1					0.1489	
2					0.1450	
					RPD = 2.67	
* 2 1-Bromo-2-nitrobenzene						
1	3.229	3.228	0.002	152508081	75.0	
2	2.815	2.813	0.002	149475689	75.0	
4 Propachlor						
1		4.041			ND	
2		4.339				
$ 3 Tetrachloro-m-xylene						
1	4.568	4.567	0.001	19372643	6.86	
2	3.777	3.775	0.002	16527533	6.05	
					RPD = 12.57	
5 Diallate						
1		4.683			ND	
2		4.040				
14 2,4,5-Trichlorophenol						
1	4.871	4.866	0.005	121130	NC	
2	4.782	4.769	0.013	232186	NC	
					RPD = 0.00	
7 alpha-BHC						
1		4.903			ND	
2		4.298				
6 Hexachlorobenzene						
1	4.968	4.968	0.000	533228	0.1594	
2	4.206	4.208	-0.002	876804	0.2632	
					RPD = 49.13	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
8 gamma-BHC (Lindane)						
1		5.176			ND	
2		4.582				
11 beta-BHC						
1		5.413			ND	
2		4.752				
10 Technical Chlordane						
1		5.534			ND	
1		6.124				
1		7.002				
1		7.113				
1		8.009				
2		4.713				
2		5.187				
2		5.733				
2		5.761				
2		6.928				
9 Chlordane (technical)						
1		5.534			ND	
1		6.124				
1		7.002				
1		7.113				
1		8.009				
2		4.713				
2		5.187				
2		5.733				
2		5.761				
2		6.928				
13 delta-BHC						
1	5.666	5.665	0.001	509086	0.1489	
2	4.956	4.954	0.002	482949	0.1450	
					RPD = 2.67	
12 Heptachlor						
1	5.742	5.745	-0.003	199214	0.0668	
2	4.846	4.840	0.006	212857	0.0827	
					RPD = 21.21	
16 Chlorpyrifos						
1		5.989			ND	
2		5.175				
15 Aldrin						
1		6.109			ND	
2		5.067				
17 Isodrin						
1		6.508			ND	
2		5.402				
19 Heptachlor epoxide						
1		6.633			ND	
2		5.517				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
21 2,4'-DDE						
1		6.822			ND	
2		5.749				
22 Toxaphene						
1		6.894			ND	
1		7.581				
1		8.006				
1		8.267				
1		9.302				
2		6.217				
2		6.634				
2		6.920				
2		7.796				
2		8.160				
20 trans-Chlordane						
1		7.003			ND	
2		5.732				
23 cis-Chlordane						
1	7.057	7.061	-0.004	624542	0.1945	
2	5.837	5.837	0.000	138513	0.0450	
					RPD = 124.84	
24 Endosulfan I						
1		7.103			ND	
2		5.889				
25 4,4'-DDE						
1		7.234			ND	
2		6.064				
27 2,4'-DDD						
1		7.343			ND	
2		6.312				
26 Dieldrin						
1		7.393			ND	
2		6.217				
28 Chlorobenzilate						
1		7.509			ND	
2		6.429				
29 Endrin						
1		7.648			ND	
2		6.589				
30 2,4'-DDT						
1		7.686			ND	
2		6.646				
32 4,4'-DDD						
1		7.806			ND	
2		6.746				
31 Kepone						
1		7.897			ND	
2		6.718				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
33 Endosulfan II						
1		7.933			ND	
2		6.888				
35 Endrin aldehyde						
1	8.053	8.050	0.003	217714	0.1221	
2	7.157	7.153	0.004	212304	0.1223	
					RPD = 0.15	
34 4,4'-DDT						
1		8.134			ND	
2		7.063				
18 Dicofol						
1		8.140			ND	
2		8.544				
36 Endosulfan sulfate						
1	8.351	8.348	0.003	221138	0.0918	
2	7.372	7.372	0.000	270937	0.1099	
					RPD = 17.91	
37 Methoxychlor						
1		8.603			ND	
2		7.829				
38 Endrin ketone						
1	8.812	8.811	0.001	124906	0.0525	
2	8.019	8.016	0.003	113823	0.0510	
					RPD = 2.88	
39 Mirex						
1		9.450			ND	
2		8.128				
$ 40 DCB Decachlorobiphenyl						
1	11.061	11.059	0.002	9743587	3.28	
2	9.254	9.252	0.002	8847133	3.76	
					RPD = 13.75	
41 Tris(2,3-dibromopropyl)phosphate						
1		12.000			ND	
2		12.279				
S 42 Endosulfan, Total						
1					0.0918	
2					0.1099	
					RPD = 17.91	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

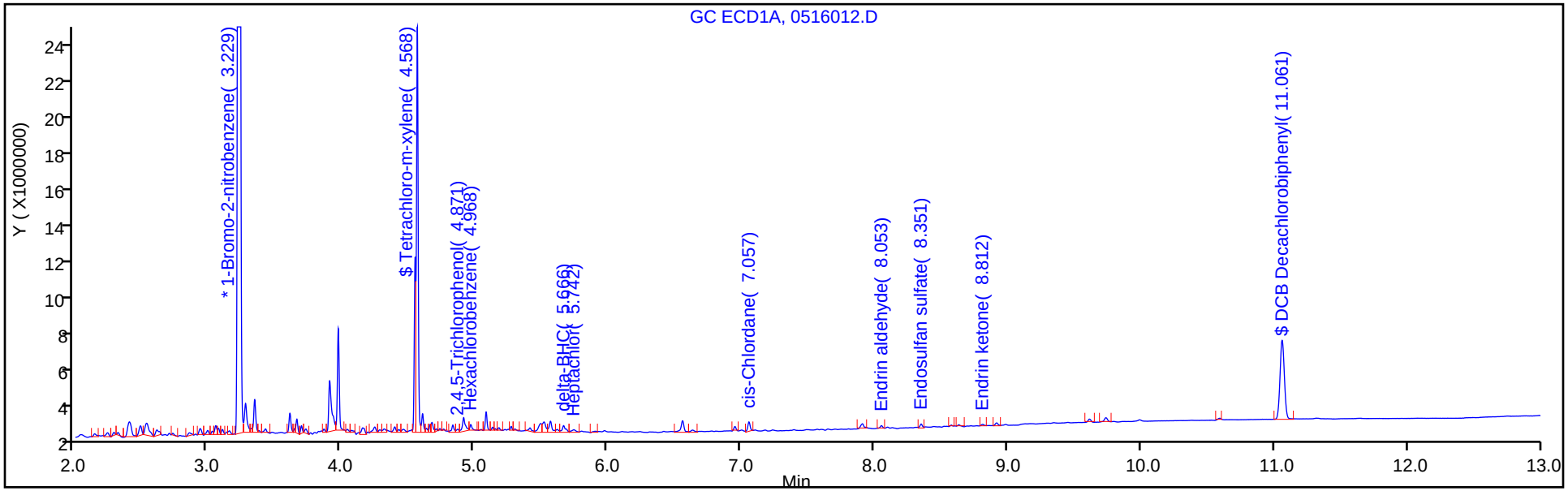
Report Date: 16-May-2024 14:43:13 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

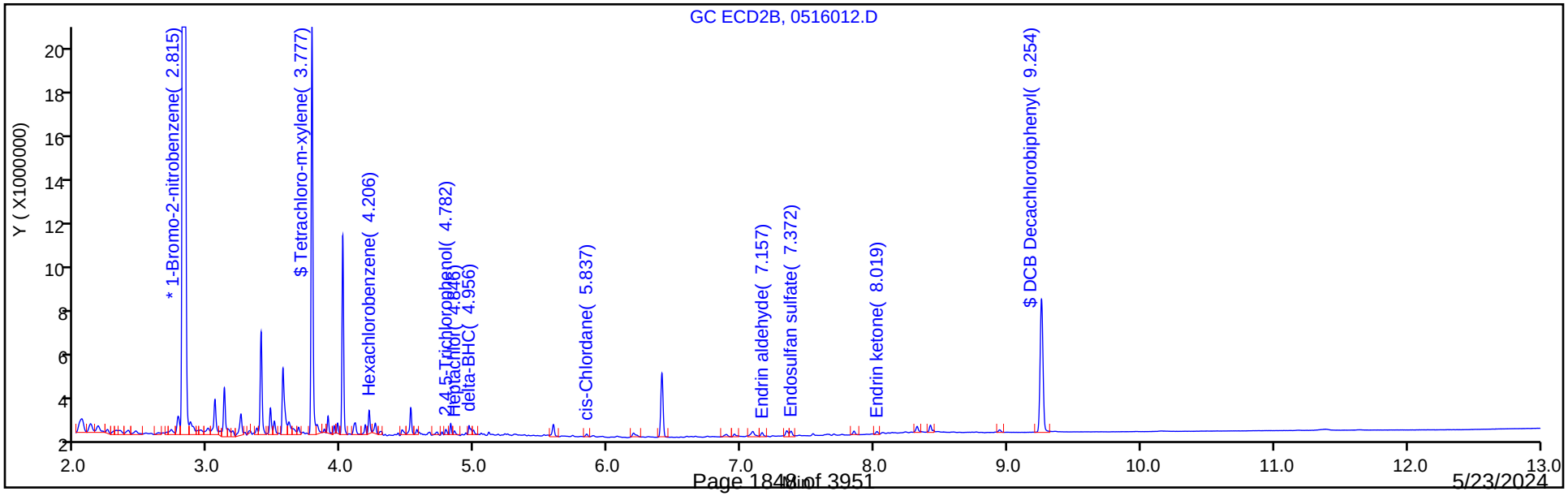
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516012.D

Injection Date:	16-May-2024 13:31:39	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	280-191098-I-1-B RE	Lab Sample ID:	280-191098-1	Worklist Smp#:	11
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516012.D				
Lims ID:	280-191098-I-1-B RE				
Client ID:	DET-003-240401-GW				
Sample Type:	Client				
Inject. Date:	16-May-2024 13:31:39	ALS Bottle#:	12	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-I-1-B				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	16-May-2024 14:42:24	Calib Date:	16-May-2024 11:45:09		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1676				
First Level Reviewer: AP6K		Date:	16-May-2024 14:41:22		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	6.86	68.58
$ 40 DCB Decachlorobiphenyl	10.0	3.28	32.77

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	6.05	60.47
$ 40 DCB Decachlorobiphenyl	10.0	3.76	37.61

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW RE | Lab Sample ID: 280-191098-1 RE

Matrix: Water | Lab File ID: 0516012.D

Analysis Method: 8081B | Date Collected: 05/06/2024 10:16

Extraction Method: 3510C | Date Extracted: 05/15/2024 10:49

Sample wt/vol: 268(mL) | Date Analyzed: 05/16/2024 13:31

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-35silms ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653635 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	38		34-122

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516012.D
Lims ID: 280-191098-I-1-B RE
Client ID: DET-003-240401-GW
Sample Type: Client
Inject. Date: 16-May-2024 13:31:39 ALS Bottle#: 12 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-I-1-B
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:42:24 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

First Level Reviewer: AP6K Date: 16-May-2024 14:41:22

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical						
1					0.1489	
2					0.1450	
					RPD = 2.67	
* 2 1-Bromo-2-nitrobenzene						
1	3.229	3.228	0.002	152508081	75.0	
2	2.815	2.813	0.002	149475689	75.0	
4 Propachlor						
1		4.041			ND	
2		4.339				
$ 3 Tetrachloro-m-xylene						
1	4.568	4.567	0.001	19372643	6.86	
2	3.777	3.775	0.002	16527533	6.05	
					RPD = 12.57	
5 Diallate						
1		4.683			ND	
2		4.040				
14 2,4,5-Trichlorophenol						
1	4.871	4.866	0.005	121130	NC	
2	4.782	4.769	0.013	232186	NC	
					RPD = 0.00	
7 alpha-BHC						
1		4.903			ND	
2		4.298				
6 Hexachlorobenzene						
1	4.968	4.968	0.000	533228	0.1594	
2	4.206	4.208	-0.002	876804	0.2632	
					RPD = 49.13	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
8 gamma-BHC (Lindane)						
1		5.176			ND	
2		4.582				
11 beta-BHC						
1		5.413			ND	
2		4.752				
10 Technical Chlordane						
1		5.534			ND	
1		6.124				
1		7.002				
1		7.113				
1		8.009				
2		4.713				
2		5.187				
2		5.733				
2		5.761				
2		6.928				
9 Chlordane (technical)						
1		5.534			ND	
1		6.124				
1		7.002				
1		7.113				
1		8.009				
2		4.713				
2		5.187				
2		5.733				
2		5.761				
2		6.928				
13 delta-BHC						
1	5.666	5.665	0.001	509086	0.1489	
2	4.956	4.954	0.002	482949	0.1450	
					RPD = 2.67	
12 Heptachlor						
1	5.742	5.745	-0.003	199214	0.0668	
2	4.846	4.840	0.006	212857	0.0827	
					RPD = 21.21	
16 Chlorpyrifos						
1		5.989			ND	
2		5.175				
15 Aldrin						
1		6.109			ND	
2		5.067				
17 Isodrin						
1		6.508			ND	
2		5.402				
19 Heptachlor epoxide						
1		6.633			ND	
2		5.517				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
21 2,4'-DDE						
1		6.822			ND	
2		5.749				
22 Toxaphene						
1		6.894			ND	
1		7.581				
1		8.006				
1		8.267				
1		9.302				
2		6.217				
2		6.634				
2		6.920				
2		7.796				
2		8.160				
20 trans-Chlordane						
1		7.003			ND	
2		5.732				
23 cis-Chlordane						
1	7.057	7.061	-0.004	624542	0.1945	
2	5.837	5.837	0.000	138513	0.0450	
					RPD = 124.84	
24 Endosulfan I						
1		7.103			ND	
2		5.889				
25 4,4'-DDE						
1		7.234			ND	
2		6.064				
27 2,4'-DDD						
1		7.343			ND	
2		6.312				
26 Dieldrin						
1		7.393			ND	
2		6.217				
28 Chlorobenzilate						
1		7.509			ND	
2		6.429				
29 Endrin						
1		7.648			ND	
2		6.589				
30 2,4'-DDT						
1		7.686			ND	
2		6.646				
32 4,4'-DDD						
1		7.806			ND	
2		6.746				
31 Kepone						
1		7.897			ND	
2		6.718				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
33 Endosulfan II						
1		7.933			ND	
2		6.888				
35 Endrin aldehyde						
1	8.053	8.050	0.003	217714	0.1221	
2	7.157	7.153	0.004	212304	0.1223	
					RPD = 0.15	
34 4,4'-DDT						
1		8.134			ND	
2		7.063				
18 Dicofol						
1		8.140			ND	
2		8.544				
36 Endosulfan sulfate						
1	8.351	8.348	0.003	221138	0.0918	
2	7.372	7.372	0.000	270937	0.1099	
					RPD = 17.91	
37 Methoxychlor						
1		8.603			ND	
2		7.829				
38 Endrin ketone						
1	8.812	8.811	0.001	124906	0.0525	
2	8.019	8.016	0.003	113823	0.0510	
					RPD = 2.88	
39 Mirex						
1		9.450			ND	
2		8.128				
$ 40 DCB Decachlorobiphenyl						
1	11.061	11.059	0.002	9743587	3.28	
2	9.254	9.252	0.002	8847133	3.76	
					RPD = 13.75	
41 Tris(2,3-dibromopropyl)phosphate						
1		12.000			ND	
2		12.279				
S 42 Endosulfan, Total						
1					0.0918	
2					0.1099	
					RPD = 17.91	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

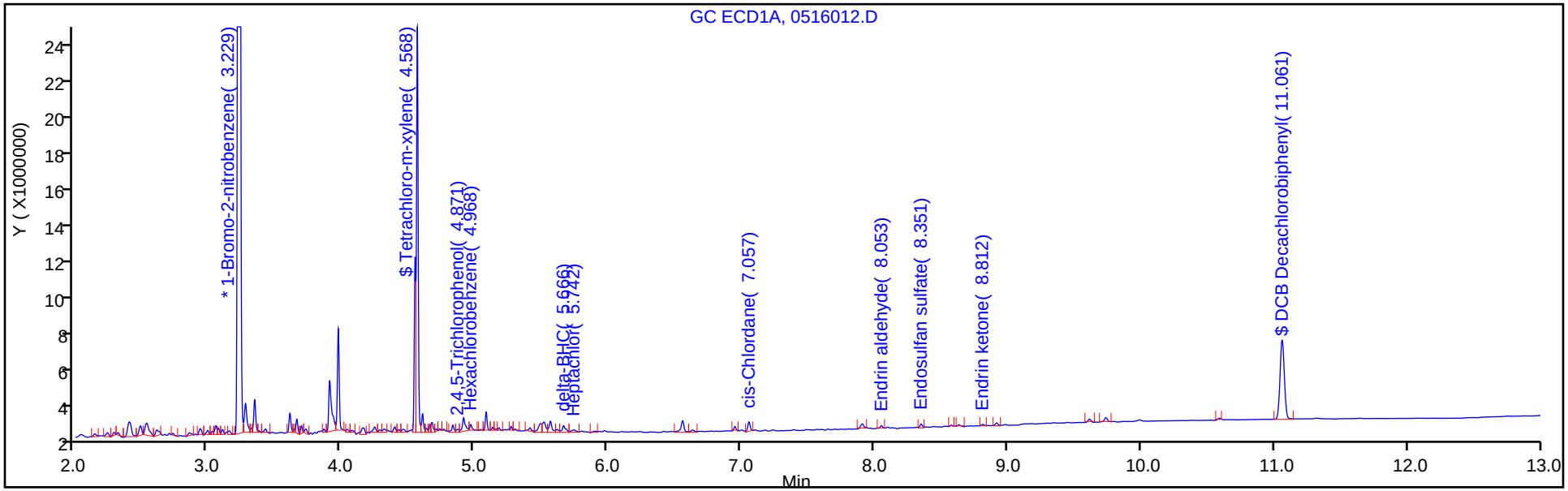
Report Date: 16-May-2024 14:43:13 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

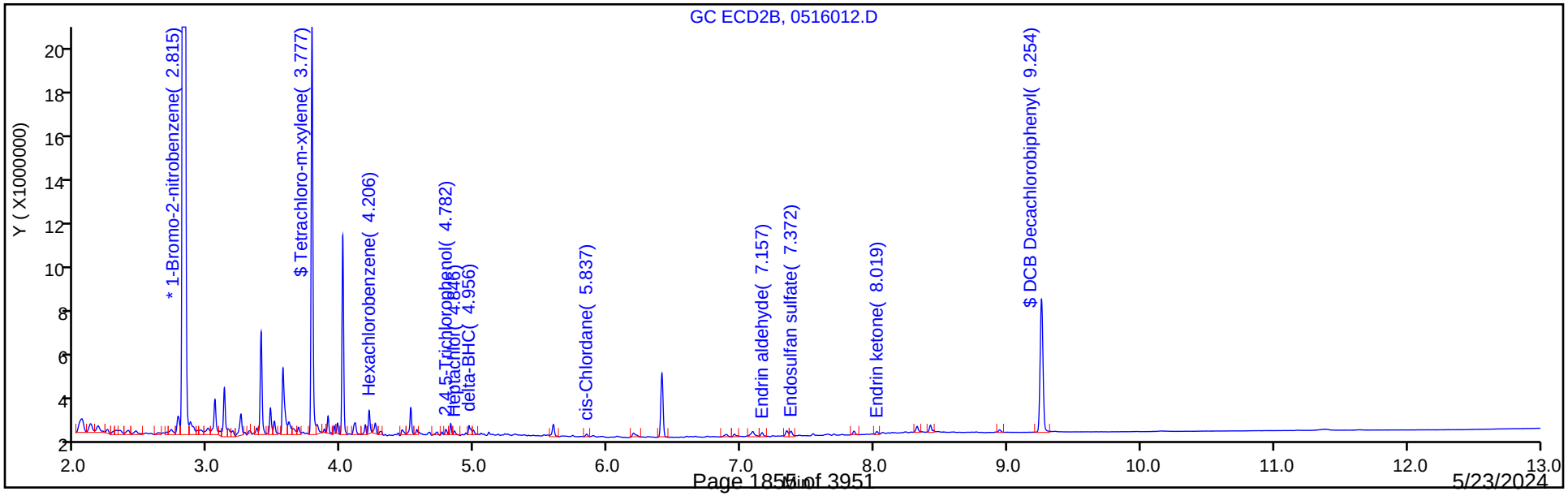
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516012.D

Injection Date:	16-May-2024 13:31:39	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	280-191098-I-1-B RE	Lab Sample ID:	280-191098-1	Worklist Smp#:	11
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516012.D				
Lims ID:	280-191098-I-1-B RE				
Client ID:	DET-003-240401-GW				
Sample Type:	Client				
Inject. Date:	16-May-2024 13:31:39	ALS Bottle#:	12	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-I-1-B				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	16-May-2024 14:42:24	Calib Date:	16-May-2024 11:45:09		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1676				
First Level Reviewer: AP6K		Date:	16-May-2024 14:41:22		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	6.86	68.58
$ 40 DCB Decachlorobiphenyl	10.0	3.28	32.77

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	6.05	60.47
$ 40 DCB Decachlorobiphenyl	10.0	3.76	37.61

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240402-GW | Lab Sample ID: 280-191098-2

Matrix: Water | Lab File ID: 0513024.D

Analysis Method: 8081B | Date Collected: 05/06/2024 10:16

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 244.5(mL) | Date Analyzed: 05/13/2024 17:28

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-XLB ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653121 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
72-54-8	4,4'-DDD	0.051	U	0.051	0.051	0.0043
72-55-9	4,4'-DDE	0.022	U	0.051	0.022	0.0043
50-29-3	4,4'-DDT	0.051	U	0.051	0.051	0.025
309-00-2	Aldrin	0.021	U	0.051	0.021	0.0063
319-84-6	alpha-BHC	0.030	U	0.051	0.030	0.0099
5103-71-9	alpha-Chlordane	0.030	U	0.051	0.030	0.0090
319-85-7	beta-BHC	0.041	U	0.051	0.041	0.0093
319-86-8	delta-BHC	0.025	U	0.051	0.025	0.0080
60-57-1	Dieldrin	0.016	U	0.051	0.016	0.0047
959-98-8	Endosulfan I	0.022	U	0.051	0.022	0.0060
33213-65-9	Endosulfan II	0.041	U	0.051	0.041	0.0067
1031-07-8	Endosulfan sulfate	0.018	U	0.051	0.018	0.0050
72-20-8	Endrin	0.025	U	0.051	0.025	0.0088
7421-93-4	Endrin aldehyde	0.025	U	0.051	0.025	0.0088
53494-70-5	Endrin ketone	0.036	U	0.051	0.036	0.013
58-89-9	gamma-BHC (Lindane)	0.032	U	0.051	0.032	0.011
5103-74-2	gamma-Chlordane	0.031	U	0.051	0.031	0.0073
76-44-8	Heptachlor	0.051	U	0.051	0.051	0.010
1024-57-3	Heptachlor epoxide	0.037	U	0.051	0.037	0.0033
72-43-5	Methoxychlor	0.037	U	0.10	0.037	0.014
8001-35-2	Toxaphene	3.1	U	3.1	3.1	1.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	56		33-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513024.D
Lims ID: 280-191098-F-2-A
Client ID: DET-003-240402-GW
Sample Type: Client
Inject. Date: 13-May-2024 17:28:18 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-F-2-A
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:05 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 14-May-2024 08:11:19

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical					7	
1		1.000			ND	
2		0.000				
* 2 1-Bromo-2-nitrobenzene						
1	3.232	3.231	0.001	151606953	75.0	
2	2.818	2.817	0.001	148779912	75.0	
4 Propachlor						
1		4.041			ND	
2		4.339				
$ 3 Tetrachloro-m-xylene						
1	4.570	4.569	0.001	15720374	5.60	
2	3.779	3.778	0.001	14651272	5.39	
					RPD = 3.87	
5 Diallate						
1		4.683			ND	
2		4.042				
14 2,4,5-Trichlorophenol						
1		4.866			ND	
2		4.769				
7 alpha-BHC						
1		4.904			ND	
2		4.300				
6 Hexachlorobenzene						
1	4.971	4.969	0.002	192400	0.0579	
2	4.208	4.209	-0.001	637738	0.1923	
					RPD = 107.50	
8 gamma-BHC (Lindane)						
1		5.177			ND	
2		4.584				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
11 beta-BHC						
1		5.414			ND	
2		4.753				
10 Technical Chlordane						
1		5.535			ND	
1		6.126				
1		7.004				
1		7.115				
1		8.011				
2		4.714				
2		5.189				
2		5.737				
2		5.765				
2		6.932				
9 Chlordane (technical)						
1		5.535			ND	
1		6.126				
1		7.004				
1		7.115				
1		8.011				
2		4.714				
2		5.189				
2		5.737				
2		5.765				
2		6.932				
13 delta-BHC						
1		5.665			ND	
2		4.956				
12 Heptachlor						
1	5.738	5.747	-0.009	229759	0.0776	
2	4.848	4.842	0.006	100268	0.0391	
					RPD = 65.83	
16 Chlorpyrifos						
1		5.990			ND	
2		5.177				
15 Aldrin						
1		6.110			ND	
2		5.069				
17 Isodrin						
1		6.507			ND	
2		5.404				
19 Heptachlor epoxide						
1		6.634			ND	
2		5.519				
21 2,4'-DDE						
1		6.823			ND	
2		5.750				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
22 Toxaphene						
1	6.896				ND	
1	7.583					
1	8.009					
1	8.269					
1	9.304					
2	6.222					
2	6.637					
2	6.925					
2	7.799					
2	8.164					
20 trans-Chlordane						
1	7.003				ND	
2	5.734					
23 cis-Chlordane						
1	7.061				ND	
2	5.839					
24 Endosulfan I						
1	7.103				ND	
2	5.891					
25 4,4'-DDE						
1	7.235				ND	
2	6.067					
27 2,4'-DDD						
1	7.344				ND	
2	6.314					
26 Dieldrin						
1	7.394				ND	
2	6.219					
28 Chlorobenzilate						
1	7.511				ND	
2	6.431					
29 Endrin						
1	7.647				ND	
2	6.591					
30 2,4'-DDT						
1	7.687				ND	
2	6.648					
32 4,4'-DDD						
1	7.805				ND	
2	6.747					
31 Kepone						
1	7.898				ND	
2	6.714					
33 Endosulfan II						
1	7.933				ND	
2	6.889					
35 Endrin aldehyde						
1	8.050				ND	
2	7.157					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
34 4,4'-DDT						
1	8.135				ND	
2	7.065					
18 Dicofol						
1	8.141				ND	
2	8.545					
36 Endosulfan sulfate						
1	8.349				ND	
2	7.374					
37 Methoxychlor						
1	8.603				ND	
2	7.831					
38 Endrin ketone						
1	8.810				ND	
2	8.018					
39 Mirex						
1	9.451				ND	
2	8.130					
$ 40 DCB Decachlorobiphenyl						
1	11.068	11.057	0.011	10142588	3.43	
2	9.259	9.257	0.002	9890698	4.22	
					RPD = 20.70	
41 Tris(2,3-dibromopropyl)phosphate						
1	12.000				ND	
2	12.279					
S 42 Endosulfan, Total						7
1	0.000				ND	
2	0.000					

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

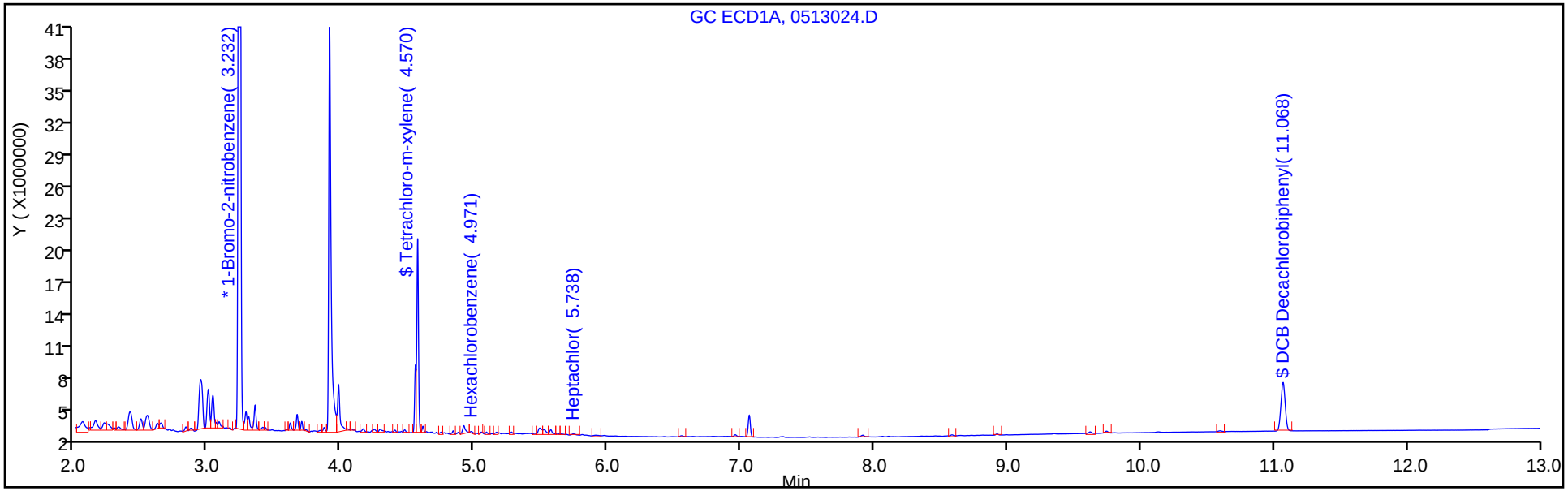
Report Date: 14-May-2024 08:21:50 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

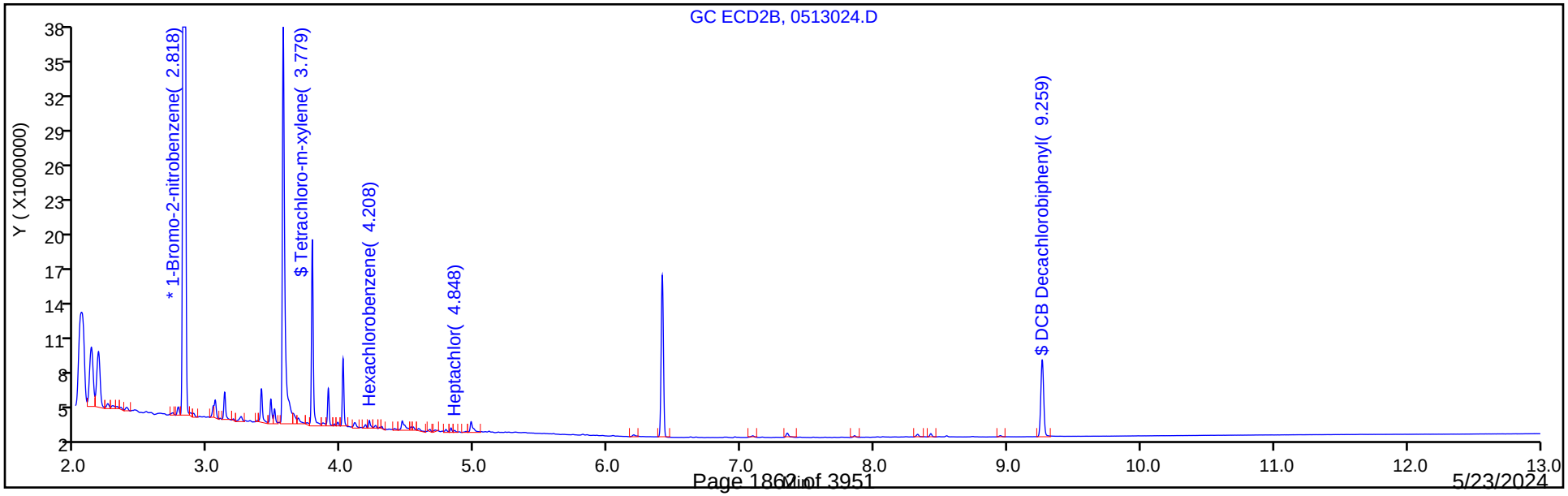
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513024.D

Injection Date:	13-May-2024 17:28:18	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	280-191098-F-2-A	Lab Sample ID:	280-191098-2	Worklist Smp#:	24
Client ID:	DET-003-240402-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
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Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513024.D				
Lims ID:	280-191098-F-2-A				
Client ID:	DET-003-240402-GW				
Sample Type:	Client				
Inject. Date:	13-May-2024 17:28:18	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-F-2-A				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	14-May-2024 08:21:05	Calib Date:	13-May-2024 12:25:32		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1604				
First Level Reviewer: AP6K		Date:	14-May-2024 08:11:19		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	5.60	55.98
$ 40 DCB Decachlorobiphenyl	10.0	3.43	34.32

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	5.39	53.86
$ 40 DCB Decachlorobiphenyl	10.0	4.22	42.24

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240402-GW | Lab Sample ID: 280-191098-2

Matrix: Water | Lab File ID: 0513024.D

Analysis Method: 8081B | Date Collected: 05/06/2024 10:16

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 244.5(mL) | Date Analyzed: 05/13/2024 17:28

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-35silms ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653121 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	42		34-122

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513024.D
Lims ID: 280-191098-F-2-A
Client ID: DET-003-240402-GW
Sample Type: Client
Inject. Date: 13-May-2024 17:28:18 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-F-2-A
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:05 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 14-May-2024 08:11:19

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical					7	
1		1.000			ND	
2		0.000				
* 2 1-Bromo-2-nitrobenzene						
1	3.232	3.231	0.001	151606953	75.0	
2	2.818	2.817	0.001	148779912	75.0	
4 Propachlor						
1		4.041			ND	
2		4.339				
$ 3 Tetrachloro-m-xylene						
1	4.570	4.569	0.001	15720374	5.60	
2	3.779	3.778	0.001	14651272	5.39	
					RPD = 3.87	
5 Diallate						
1		4.683			ND	
2		4.042				
14 2,4,5-Trichlorophenol						
1		4.866			ND	
2		4.769				
7 alpha-BHC						
1		4.904			ND	
2		4.300				
6 Hexachlorobenzene						
1	4.971	4.969	0.002	192400	0.0579	
2	4.208	4.209	-0.001	637738	0.1923	
					RPD = 107.50	
8 gamma-BHC (Lindane)						
1		5.177			ND	
2		4.584				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
11 beta-BHC						
1		5.414			ND	
2		4.753				
10 Technical Chlordane						
1		5.535			ND	
1		6.126				
1		7.004				
1		7.115				
1		8.011				
2		4.714				
2		5.189				
2		5.737				
2		5.765				
2		6.932				
9 Chlordane (technical)						
1		5.535			ND	
1		6.126				
1		7.004				
1		7.115				
1		8.011				
2		4.714				
2		5.189				
2		5.737				
2		5.765				
2		6.932				
13 delta-BHC						
1		5.665			ND	
2		4.956				
12 Heptachlor						
1	5.738	5.747	-0.009	229759	0.0776	
2	4.848	4.842	0.006	100268	0.0391	
					RPD = 65.83	
16 Chlorpyrifos						
1		5.990			ND	
2		5.177				
15 Aldrin						
1		6.110			ND	
2		5.069				
17 Isodrin						
1		6.507			ND	
2		5.404				
19 Heptachlor epoxide						
1		6.634			ND	
2		5.519				
21 2,4'-DDE						
1		6.823			ND	
2		5.750				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
22 Toxaphene						
1		6.896			ND	
1		7.583				
1		8.009				
1		8.269				
1		9.304				
2		6.222				
2		6.637				
2		6.925				
2		7.799				
2		8.164				
20 trans-Chlordane						
1		7.003			ND	
2		5.734				
23 cis-Chlordane						
1		7.061			ND	
2		5.839				
24 Endosulfan I						
1		7.103			ND	
2		5.891				
25 4,4'-DDE						
1		7.235			ND	
2		6.067				
27 2,4'-DDD						
1		7.344			ND	
2		6.314				
26 Dieldrin						
1		7.394			ND	
2		6.219				
28 Chlorobenzilate						
1		7.511			ND	
2		6.431				
29 Endrin						
1		7.647			ND	
2		6.591				
30 2,4'-DDT						
1		7.687			ND	
2		6.648				
32 4,4'-DDD						
1		7.805			ND	
2		6.747				
31 Kepone						
1		7.898			ND	
2		6.714				
33 Endosulfan II						
1		7.933			ND	
2		6.889				
35 Endrin aldehyde						
1		8.050			ND	
2		7.157				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
34 4,4'-DDT						
1	8.135				ND	
2	7.065					
18 Dicofol						
1	8.141				ND	
2	8.545					
36 Endosulfan sulfate						
1	8.349				ND	
2	7.374					
37 Methoxychlor						
1	8.603				ND	
2	7.831					
38 Endrin ketone						
1	8.810				ND	
2	8.018					
39 Mirex						
1	9.451				ND	
2	8.130					
$ 40 DCB Decachlorobiphenyl						
1	11.068	11.057	0.011	10142588	3.43	
2	9.259	9.257	0.002	9890698	4.22	
					RPD = 20.70	
41 Tris(2,3-dibromopropyl)phosphate						
1	12.000				ND	
2	12.279					
S 42 Endosulfan, Total						7
1	0.000				ND	
2	0.000					

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

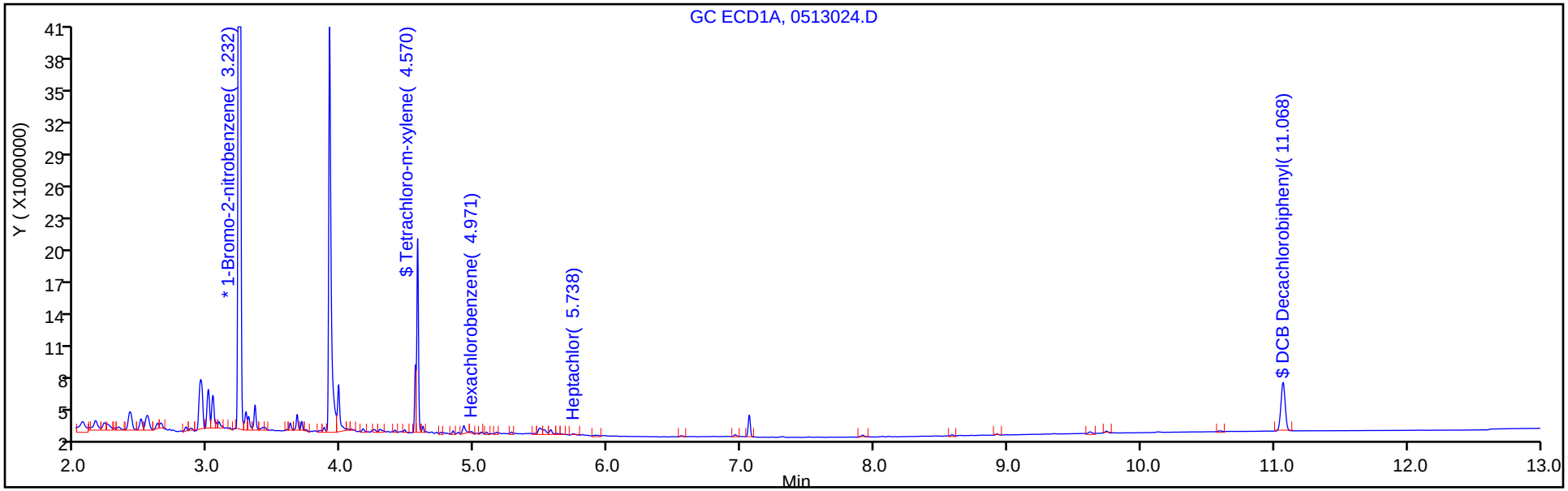
Report Date: 14-May-2024 08:21:50 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

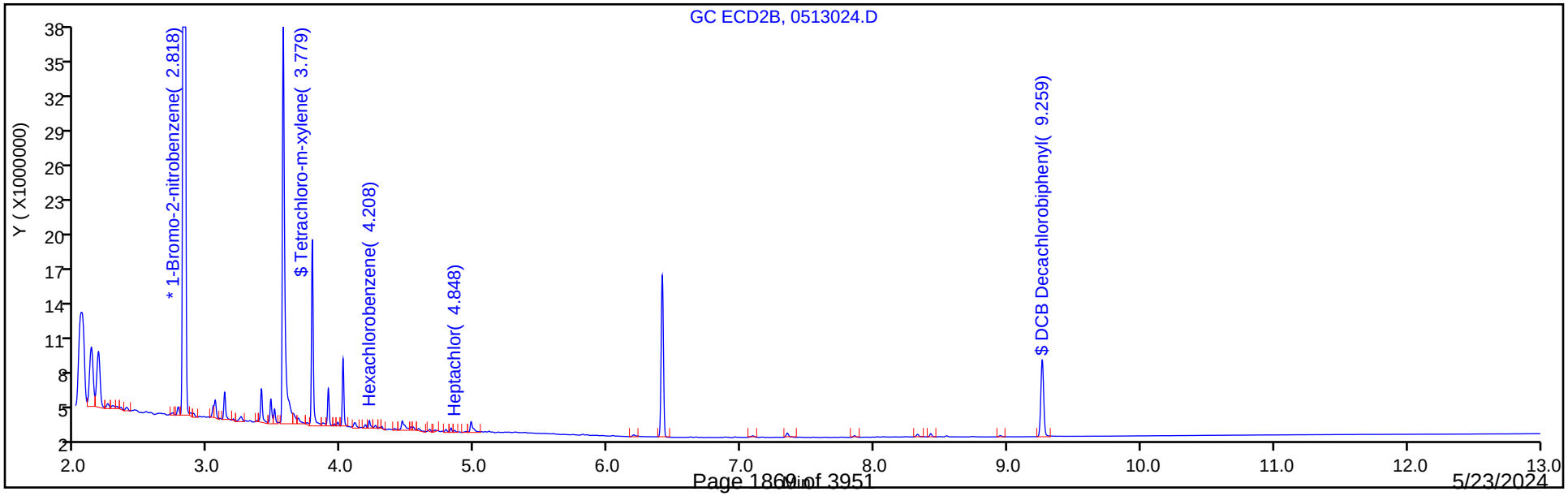
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513024.D

Injection Date:	13-May-2024 17:28:18	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	280-191098-F-2-A	Lab Sample ID:	280-191098-2	Worklist Smp#:	24
Client ID:	DET-003-240402-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513024.D				
Lims ID:	280-191098-F-2-A				
Client ID:	DET-003-240402-GW				
Sample Type:	Client				
Inject. Date:	13-May-2024 17:28:18	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-F-2-A				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	14-May-2024 08:21:05	Calib Date:	13-May-2024 12:25:32		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1604				
First Level Reviewer: AP6K		Date:	14-May-2024 08:11:19		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	5.60	55.98
$ 40 DCB Decachlorobiphenyl	10.0	3.43	34.32

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	5.39	53.86
$ 40 DCB Decachlorobiphenyl	10.0	4.22	42.24

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-004-240401-GW | Lab Sample ID: 280-191098-5

Matrix: Water | Lab File ID: 0513025.D

Analysis Method: 8081B | Date Collected: 05/06/2024 10:35

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 237.8(mL) | Date Analyzed: 05/13/2024 17:46

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-XLB ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653121 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
72-54-8	4,4'-DDD	0.053	U Q	0.053	0.053	0.0044
72-55-9	4,4'-DDE	0.023	U Q	0.053	0.023	0.0044
50-29-3	4,4'-DDT	0.053	U Q	0.053	0.053	0.025
309-00-2	Aldrin	0.022	U Q	0.053	0.022	0.0065
319-84-6	alpha-BHC	0.030	U Q	0.053	0.030	0.010
5103-71-9	alpha-Chlordane	0.030	U Q	0.053	0.030	0.0093
319-85-7	beta-BHC	0.042	U Q	0.053	0.042	0.0096
319-86-8	delta-BHC	0.025	U Q	0.053	0.025	0.0082
60-57-1	Dieldrin	0.017	U Q	0.053	0.017	0.0048
959-98-8	Endosulfan I	0.023	U Q	0.053	0.023	0.0061
33213-65-9	Endosulfan II	0.042	U Q	0.053	0.042	0.0069
1031-07-8	Endosulfan sulfate	0.019	U Q	0.053	0.019	0.0052
72-20-8	Endrin	0.025	U Q	0.053	0.025	0.0090
7421-93-4	Endrin aldehyde	0.025	U Q	0.053	0.025	0.0091
53494-70-5	Endrin ketone	0.037	U Q	0.053	0.037	0.014
58-89-9	gamma-BHC (Lindane)	0.033	U Q	0.053	0.033	0.011
5103-74-2	gamma-Chlordane	0.032	U Q	0.053	0.032	0.0075
76-44-8	Heptachlor	0.053	U Q	0.053	0.053	0.011
1024-57-3	Heptachlor epoxide	0.038	U Q	0.053	0.038	0.0034
72-43-5	Methoxychlor	0.038	U Q	0.11	0.038	0.015
8001-35-2	Toxaphene	3.2	U Q	3.2	3.2	1.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	48		33-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513025.D
Lims ID: 280-191098-D-5-A
Client ID: DET-004-240401-GW
Sample Type: Client
Inject. Date: 13-May-2024 17:46:00 ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-D-5-A
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:05 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 14-May-2024 08:11:34

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical					7	
1		1.000			ND	
2		0.000				
* 2 1-Bromo-2-nitrobenzene						
1	3.231	3.231	0.000	159968700	75.0	
2	2.816	2.817	-0.001	156717385	75.0	
4 Propachlor						
1		4.041			ND	
2		4.339				
$ 3 Tetrachloro-m-xylene						
1	4.569	4.569	0.000	14155122	4.78	
2	3.779	3.778	0.001	13148189	4.59	
					RPD = 4.03	
5 Diallate						
1		4.683			ND	
2		4.042				
14 2,4,5-Trichlorophenol						
1		4.866			ND	
2		4.769				
7 alpha-BHC						
1		4.904			ND	
2		4.300				
6 Hexachlorobenzene						
1	4.971	4.969	0.002	170640	0.0486	
2	4.207	4.209	-0.002	538209	0.1541	
					RPD = 104.05	
8 gamma-BHC (Lindane)						
1		5.177			ND	
2		4.584				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
11 beta-BHC						
1		5.414			ND	
2		4.753				
10 Technical Chlordane						
1		5.535			ND	
1		6.126				
1		7.004				
1		7.115				
1		8.011				
2		4.714				
2		5.189				
2		5.737				
2		5.765				
2		6.932				
9 Chlordane (technical)						
1		5.535			ND	
1		6.126				
1		7.004				
1		7.115				
1		8.011				
2		4.714				
2		5.189				
2		5.737				
2		5.765				
2		6.932				
13 delta-BHC						
1		5.665			ND	
2		4.956				
12 Heptachlor						
1	5.737	5.747	-0.010	191362	0.0612	
2	4.848	4.842	0.006	419920	0.1556	
					RPD = 87.07	
16 Chlorpyrifos						
1		5.990			ND	
2		5.177				
15 Aldrin						
1		6.110			ND	
2		5.069				
17 Isodrin						
1		6.507			ND	
2		5.404				
19 Heptachlor epoxide						
1		6.634			ND	
2		5.519				
21 2,4'-DDE						
1		6.823			ND	
2		5.750				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
22 Toxaphene						
1	6.896				ND	
1	7.583					
1	8.009					
1	8.269					
1	9.304					
2	6.222					
2	6.637					
2	6.925					
2	7.799					
2	8.164					
20 trans-Chlordane						
1	7.003				ND	
2	5.734					
23 cis-Chlordane						
1	7.061				ND	
2	5.839					
24 Endosulfan I						
1	7.103				ND	
2	5.891					
25 4,4'-DDE						
1	7.235				ND	
2	6.067					
27 2,4'-DDD						
1	7.344				ND	
2	6.314					
26 Dieldrin						
1	7.394				ND	
2	6.219					
28 Chlorobenzilate						
1	7.511				ND	
2	6.431					
29 Endrin						
1	7.647				ND	
2	6.591					
30 2,4'-DDT						
1	7.687				ND	
2	6.648					
32 4,4'-DDD						
1	7.805				ND	
2	6.747					
31 Kepone						
1	7.898				ND	
2	6.714					
33 Endosulfan II						
1	7.933				ND	
2	6.889					
35 Endrin aldehyde						
1	8.050				ND	
2	7.157					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
34 4,4'-DDT						
1	8.135				ND	
2	7.065					
18 Dicofol						
1	8.141				ND	
2	8.545					
36 Endosulfan sulfate						
1	8.349				ND	
2	7.374					
37 Methoxychlor						
1	8.603				ND	
2	7.831					
38 Endrin ketone						
1	8.810				ND	
2	8.018					
39 Mirex						
1	9.451				ND	
2	8.130					
$ 40 DCB Decachlorobiphenyl						
1	11.067	11.057	0.010	9410800	3.02	
2	9.259	9.257	0.002	8861602	3.59	
					RPD = 17.41	
41 Tris(2,3-dibromopropyl)phosphate						
1	12.000				ND	
2	12.279					
S 42 Endosulfan, Total						7
1	0.000				ND	
2	0.000					

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

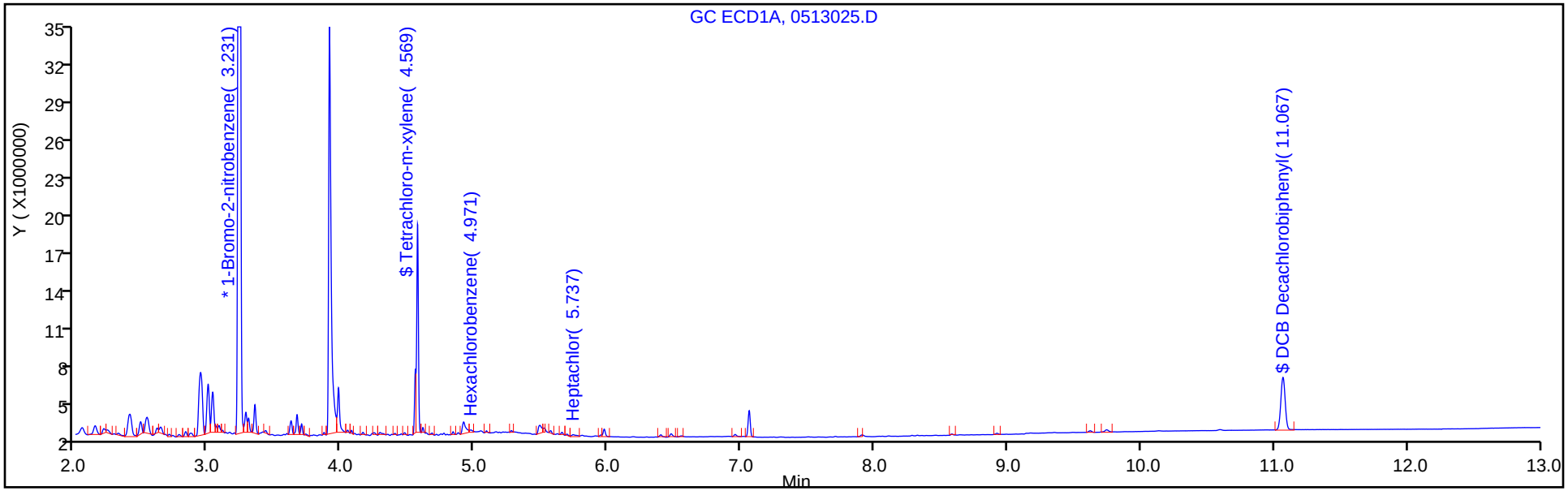
Report Date: 14-May-2024 08:21:51 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

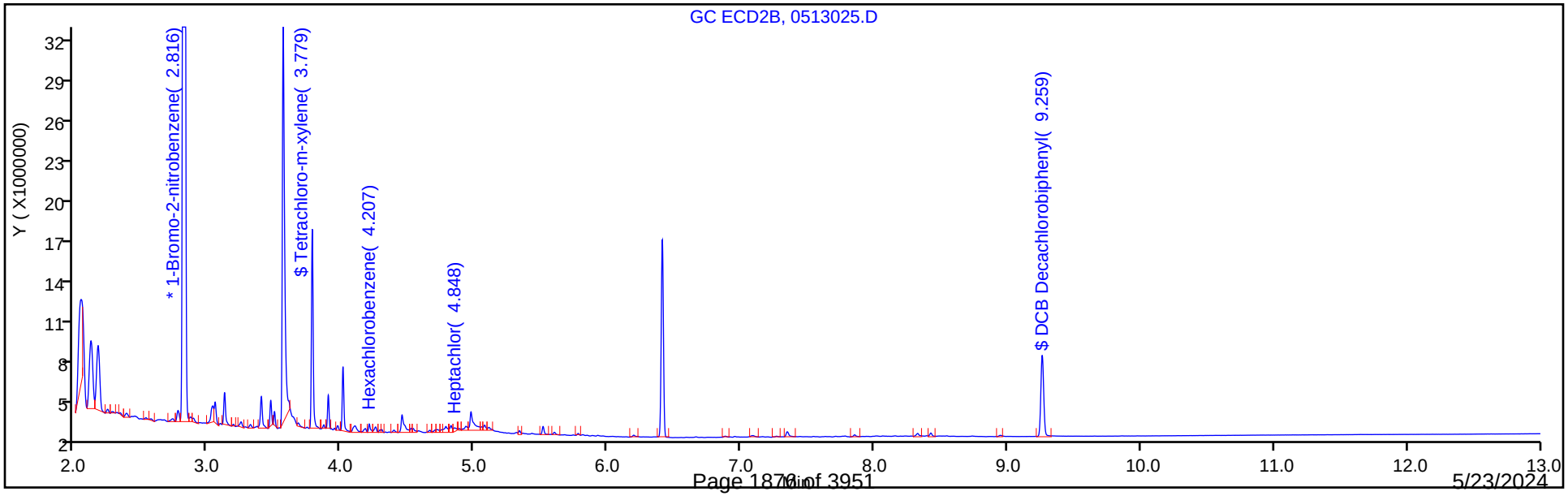
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513025.D

Injection Date:	13-May-2024 17:46:00	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	280-191098-D-5-A	Lab Sample ID:	280-191098-5	Worklist Smp#:	25
Client ID:	DET-004-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513025.D				
Lims ID:	280-191098-D-5-A				
Client ID:	DET-004-240401-GW				
Sample Type:	Client				
Inject. Date:	13-May-2024 17:46:00	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-D-5-A				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	14-May-2024 08:21:05	Calib Date:	13-May-2024 12:25:32		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1604				
First Level Reviewer: AP6K		Date:	14-May-2024 08:11:34		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	4.78	47.77
$ 40 DCB Decachlorobiphenyl	10.0	3.02	30.18

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	4.59	45.89
$ 40 DCB Decachlorobiphenyl	10.0	3.59	35.93

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-004-240401-GW | Lab Sample ID: 280-191098-5

Matrix: Water | Lab File ID: 0513025.D

Analysis Method: 8081B | Date Collected: 05/06/2024 10:35

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 237.8(mL) | Date Analyzed: 05/13/2024 17:46

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-35silms ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653121 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	36		34-122

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513025.D
Lims ID: 280-191098-D-5-A
Client ID: DET-004-240401-GW
Sample Type: Client
Inject. Date: 13-May-2024 17:46:00 ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-D-5-A
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:05 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 14-May-2024 08:11:34

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical					7	
1		1.000			ND	
2		0.000				
* 2 1-Bromo-2-nitrobenzene						
1	3.231	3.231	0.000	159968700	75.0	
2	2.816	2.817	-0.001	156717385	75.0	
4 Propachlor						
1		4.041			ND	
2		4.339				
$ 3 Tetrachloro-m-xylene						
1	4.569	4.569	0.000	14155122	4.78	
2	3.779	3.778	0.001	13148189	4.59	
					RPD = 4.03	
5 Diallate						
1		4.683			ND	
2		4.042				
14 2,4,5-Trichlorophenol						
1		4.866			ND	
2		4.769				
7 alpha-BHC						
1		4.904			ND	
2		4.300				
6 Hexachlorobenzene						
1	4.971	4.969	0.002	170640	0.0486	
2	4.207	4.209	-0.002	538209	0.1541	
					RPD = 104.05	
8 gamma-BHC (Lindane)						
1		5.177			ND	
2		4.584				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
11 beta-BHC						
1		5.414			ND	
2		4.753				
10 Technical Chlordane						
1		5.535			ND	
1		6.126				
1		7.004				
1		7.115				
1		8.011				
2		4.714				
2		5.189				
2		5.737				
2		5.765				
2		6.932				
9 Chlordane (technical)						
1		5.535			ND	
1		6.126				
1		7.004				
1		7.115				
1		8.011				
2		4.714				
2		5.189				
2		5.737				
2		5.765				
2		6.932				
13 delta-BHC						
1		5.665			ND	
2		4.956				
12 Heptachlor						
1	5.737	5.747	-0.010	191362	0.0612	
2	4.848	4.842	0.006	419920	0.1556	
					RPD = 87.07	
16 Chlorpyrifos						
1		5.990			ND	
2		5.177				
15 Aldrin						
1		6.110			ND	
2		5.069				
17 Isodrin						
1		6.507			ND	
2		5.404				
19 Heptachlor epoxide						
1		6.634			ND	
2		5.519				
21 2,4'-DDE						
1		6.823			ND	
2		5.750				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
22 Toxaphene						
1	6.896				ND	
1	7.583					
1	8.009					
1	8.269					
1	9.304					
2	6.222					
2	6.637					
2	6.925					
2	7.799					
2	8.164					
20 trans-Chlordane						
1	7.003				ND	
2	5.734					
23 cis-Chlordane						
1	7.061				ND	
2	5.839					
24 Endosulfan I						
1	7.103				ND	
2	5.891					
25 4,4'-DDE						
1	7.235				ND	
2	6.067					
27 2,4'-DDD						
1	7.344				ND	
2	6.314					
26 Dieldrin						
1	7.394				ND	
2	6.219					
28 Chlorobenzilate						
1	7.511				ND	
2	6.431					
29 Endrin						
1	7.647				ND	
2	6.591					
30 2,4'-DDT						
1	7.687				ND	
2	6.648					
32 4,4'-DDD						
1	7.805				ND	
2	6.747					
31 Kepone						
1	7.898				ND	
2	6.714					
33 Endosulfan II						
1	7.933				ND	
2	6.889					
35 Endrin aldehyde						
1	8.050				ND	
2	7.157					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/mL	Flags
34 4,4'-DDT						
1	8.135				ND	
2	7.065					
18 Dicofol						
1	8.141				ND	
2	8.545					
36 Endosulfan sulfate						
1	8.349				ND	
2	7.374					
37 Methoxychlor						
1	8.603				ND	
2	7.831					
38 Endrin ketone						
1	8.810				ND	
2	8.018					
39 Mirex						
1	9.451				ND	
2	8.130					
$ 40 DCB Decachlorobiphenyl						
1	11.067	11.057	0.010	9410800	3.02	
2	9.259	9.257	0.002	8861602	3.59	
					RPD = 17.41	
41 Tris(2,3-dibromopropyl)phosphate						
1	12.000				ND	
2	12.279					
S 42 Endosulfan, Total						7
1	0.000				ND	
2	0.000					

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

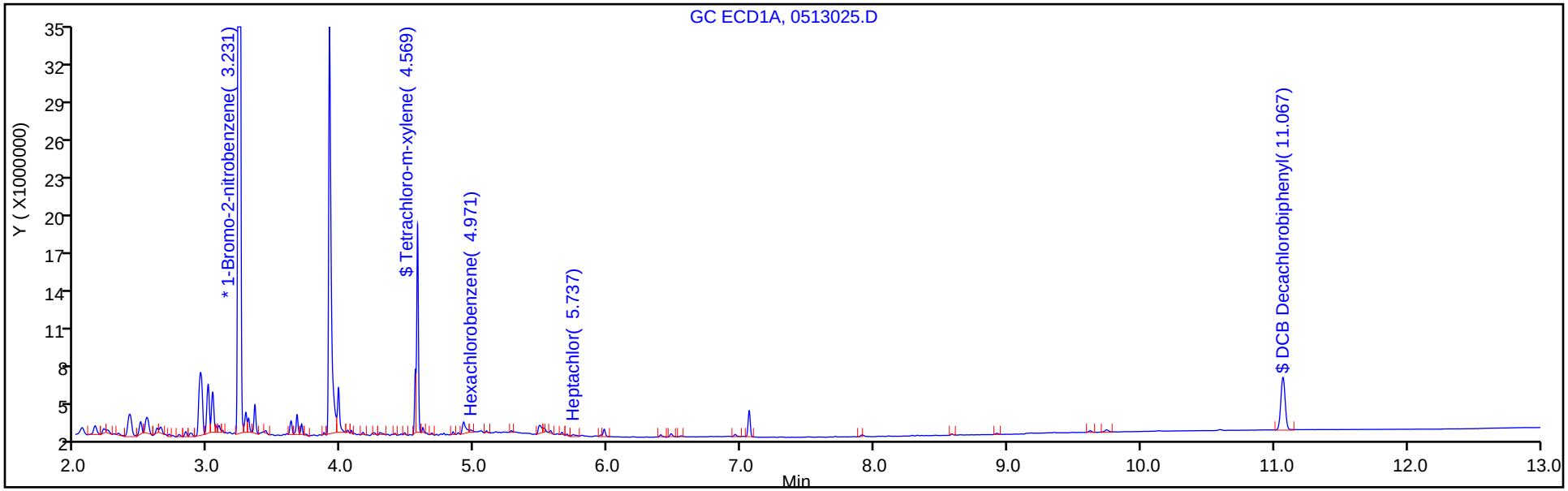
Report Date: 14-May-2024 08:21:51 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

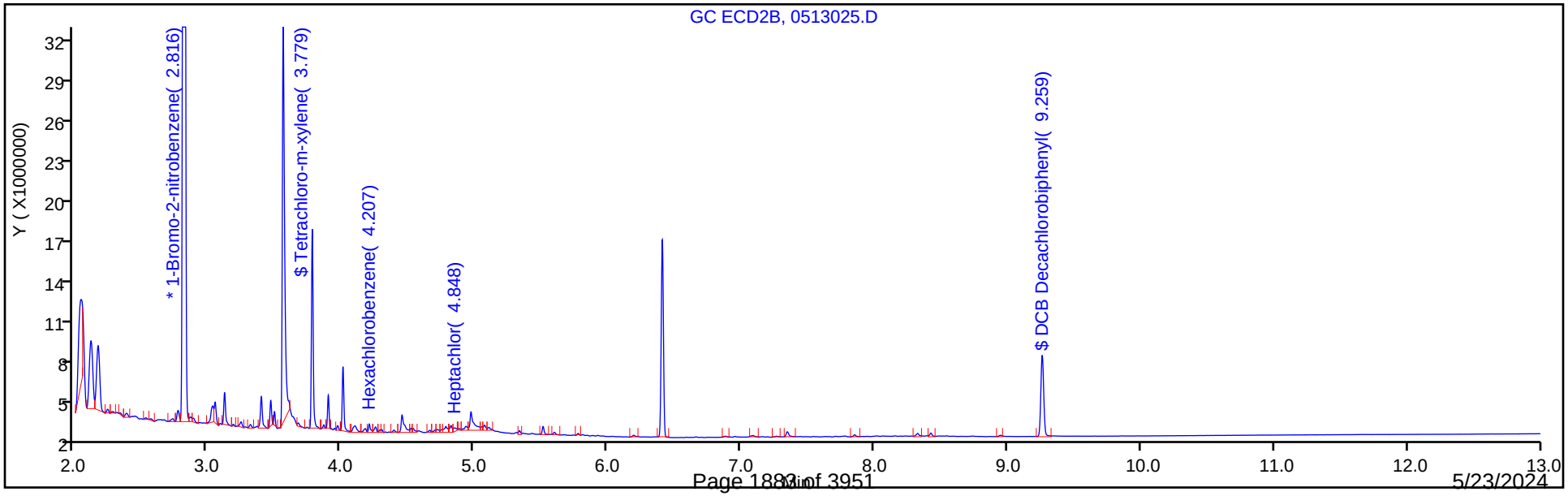
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513025.D

Injection Date:	13-May-2024 17:46:00	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	280-191098-D-5-A	Lab Sample ID:	280-191098-5	Worklist Smp#:	25
Client ID:	DET-004-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513025.D				
Lims ID:	280-191098-D-5-A				
Client ID:	DET-004-240401-GW				
Sample Type:	Client				
Inject. Date:	13-May-2024 17:46:00	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-D-5-A				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	14-May-2024 08:21:05	Calib Date:	13-May-2024 12:25:32		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1604				
First Level Reviewer: AP6K		Date:	14-May-2024 08:11:34		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	4.78	47.77
$ 40 DCB Decachlorobiphenyl	10.0	3.02	30.18

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	4.59	45.89
$ 40 DCB Decachlorobiphenyl	10.0	3.59	35.93

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 652967

SDG No.:

Instrument ID: SGC_C GC Column: RTI-XLB ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/10/2024 13:54 Calibration End Date: 05/10/2024 15:41 Calibration ID: 93259

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 280-652967/10	0510010.D
Level 2	STD2 280-652967/9	0510009.D
Level 3	STD3 280-652967/8	0510008.D
Level 4	STD4 280-652967/7	0510007.D
Level 5	ICIS 280-652967/6	0510006.D
Level 6	STD6 280-652967/5	0510005.D
Level 7	STD7 280-652967/4	0510004.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
alpha-BHC	1.7819 1.8712	1.8704 2.0332	1.9152	2.0236	2.0486	Ave		1.9349				5.3		20.0			
Hexachlorobenzene	1.7949 1.4502	1.7557 1.5617	1.6635	1.6772	1.6130	Ave		1.6452				7.1		20.0			
gamma-BHC (Lindane)	1.5166 1.5511	1.5703 1.6782	1.5774	1.6622	1.6940	Ave		1.6071				4.3		20.0			
beta-BHC	0.8035 0.6358	0.7689 0.6861	0.7065	0.7002	0.7007	Ave		0.7145				7.7		20.0			
delta-BHC	1.5631 1.6357	1.6207 1.7733	1.6429	1.7453	1.7892	Ave		1.6815				5.2		20.0			
Heptachlor	1.4797 1.3587	1.5013 1.4454	1.4593	1.5052	1.5095	Ave		1.4656				3.6		20.0			
Aldrin	1.8411 1.7352	1.8908 1.8545	1.8735	1.9430	1.9332	Ave		1.8673				3.7		20.0			
Heptachlor epoxide	1.6143 1.3836	1.6152 1.4850	1.5736	1.5825	1.5483	Ave		1.5432				5.4		20.0			
gamma-Chlordane	1.6967 1.5264	1.7226 1.6605	1.6619	1.7077	1.6864	Ave		1.6660				3.9		20.0			
alpha-Chlordane	1.6422 1.4468	1.6449 1.5557	1.5679	1.6058	1.5903	Ave		1.5791				4.3		20.0			
Endosulfan I	1.5230 1.3084	1.5335 1.4042	1.4710	1.4888	1.4574	Ave		1.4552				5.3		20.0			
4,4'-DDE	1.4250 1.4316	1.4797 1.5523	1.5043	1.5756	1.5748	Ave		1.5062				4.2		20.0			
Dieldrin	1.6341 1.5103	1.6712 1.6258	1.6569	1.7080	1.6738	Ave		1.6400				3.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 652967

SDG No.:

Instrument ID: SGC_C GC Column: RTI-XLB ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/10/2024 13:54 Calibration End Date: 05/10/2024 15:41 Calibration ID: 93259

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Endrin	1.3046 1.2024	1.3259 1.2509	1.2766	1.3247	1.2960	Ave		1.2830				3.5		20.0			
4,4'-DDD	0.9361 0.9502	1.0017 0.9978	0.9806	1.0252	1.0321	Ave		0.9891				3.6		20.0			
Endosulfan II	1.3381 1.1772	1.3661 1.2397	1.3288	1.3054	1.2857	Ave		1.2916				5.0		20.0			
Endrin aldehyde	0.9528 0.7956	0.9440 0.8434	0.9050	0.8636	0.8332	Ave		0.8768				6.7		20.0			
4,4'-DDT	0.9071 0.8682	0.9405 0.9093	0.9332	0.9049	0.9311	Ave		0.9135				2.7		20.0			
Endosulfan sulfate	1.2582 1.0822	1.3091 1.1504	1.1855	1.1605	1.1423	Ave		1.1840				6.4		20.0			
Methoxychlor	0.5459 0.4236	0.5772 0.4420	0.5117	0.4735	0.4671	Ave		0.4916				11.4		20.0			
Endrin ketone	1.2286 1.0750	1.2911 1.1263	1.1586	1.1615	1.1510	Ave		1.1703				6.0		20.0			
Tetrachloro-m-xylene	1.4572 1.2424	1.4589 1.3341	1.4100	1.4306	1.3907	Ave		1.3891				5.6		20.0			
DCB Decachlorobiphenyl	1.8335 1.1792	1.7586 1.2460	1.4724	1.4303	1.3150	Ave		1.4622				17.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 652967

SDG No.:

Instrument ID: SGC_C | GC Column: RTI-XLB | ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/10/2024 13:54 | Calibration End Date: 05/10/2024 15:41 | Calibration ID: 93259

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 280-652967/10	0510010.D
Level 2	STD2 280-652967/9	0510009.D
Level 3	STD3 280-652967/8	0510008.D
Level 4	STD4 280-652967/7	0510007.D
Level 5	ICIS 280-652967/6	0510006.D
Level 6	STD6 280-652967/5	0510005.D
Level 7	STD7 280-652967/4	0510004.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
alpha-BHC	BNB	Ave	4572649 197757822	9344053 277501288	25182807	62149871	136816386	2.00 75.0	4.00 100	10.0	25.0	50.0
Hexachlorobenzene	BNB	Ave	4606042 153269797	8770788 213156273	21872674	51510915	107729785	2.00 75.0	4.00 100	10.0	25.0	50.0
gamma-BHC (Lindane)	BNB	Ave	3891925 163930948	7844815 229046860	20740770	51049620	113138811	2.00 75.0	4.00 100	10.0	25.0	50.0
beta-BHC	BNB	Ave	2061943 67200516	3841295 93639606	9289885	21506180	46797652	2.00 75.0	4.00 100	10.0	25.0	50.0
delta-BHC	BNB	Ave	4011193 172877767	8096429 242034699	21602338	53601232	119495935	2.00 75.0	4.00 100	10.0	25.0	50.0
Heptachlor	BNB	Ave	3797077 143596217	7500167 197278541	19187366	46227192	100814603	2.00 75.0	4.00 100	10.0	25.0	50.0
Aldrin	BNB	Ave	4724604 183389451	9445742 253110083	24633752	59673265	129110716	2.00 75.0	4.00 100	10.0	25.0	50.0
Heptachlor epoxide	BNB	Ave	4142625 146233179	8068877 202678983	20690415	48602145	103406142	2.00 75.0	4.00 100	10.0	25.0	50.0
gamma-Chlordane	BNB	Ave	4354098 161323031	8605794 226640713	21851415	52447000	112626377	2.00 75.0	4.00 100	10.0	25.0	50.0
alpha-Chlordane	BNB	Ave	4214252 152910124	8217249 212337556	20616292	49319580	106208512	2.00 75.0	4.00 100	10.0	25.0	50.0
Endosulfan I	BNB	Ave	3908424 138282378	7661105 191648963	19341131	45723709	97334026	2.00 75.0	4.00 100	10.0	25.0	50.0
4,4'-DDE	BNB	Ave	3656933 151302942	7392185 211869056	19779409	48389017	105177186	2.00 75.0	4.00 100	10.0	25.0	50.0
Dieldrin	BNB	Ave	4193380 159623062	8348736 221895781	21786692	52455524	111783903	2.00 75.0	4.00 100	10.0	25.0	50.0
Endrin	BNB	Ave	3347886 127076185	6623792 170733583	16785233	40685773	86555957	2.00 75.0	4.00 100	10.0	25.0	50.0
4,4'-DDD	BNB	Ave	2402177 100428726	5004294 136187379	12893568	31487604	68929785	2.00 75.0	4.00 100	10.0	25.0	50.0
Endosulfan II	BNB	Ave	3433728	6824507	17471569	40093408	85866512	2.00	4.00	10.0	25.0	50.0

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 652967

SDG No.:

Instrument ID: SGC_C | GC Column: RTI-XLB | ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/10/2024 13:54 | Calibration End Date: 05/10/2024 15:41 | Calibration ID: 93259

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			124420418	169197403				75.0	100			
Endrin aldehyde	BNB	Ave	2445045 84080619	4716071 115113928	11899248	26522108	55645855	2.00 75.0	4.00 100	10.0	25.0	50.0
4,4'-DDT	BNB	Ave	2327776 91761483	4698223 124106969	12270647	27792359	62185186	2.00 75.0	4.00 100	10.0	25.0	50.0
Endosulfan sulfate	BNB	Ave	3228672 114372122	6539817 157006563	15587515	35642512	76289697	2.00 75.0	4.00 100	10.0	25.0	50.0
Methoxychlor	BNB	Ave	1400967 44771727	2883684 60325224	6728419	14540818	31198386	2.00 75.0	4.00 100	10.0	25.0	50.0
Endrin ketone	BNB	Ave	3152814 113612381	6449762 153729554	15234021	35673785	76868648	2.00 75.0	4.00 100	10.0	25.0	50.0
Tetrachloro-m-xylene	BNB	Ave	3739437 131308229	7288253 182091157	18539705	43938541	92876972	2.00 75.0	4.00 100	10.0	25.0	50.0
DCB Decachlorobiphenyl	BNB	Ave	4705022 124631144	8785682 170059856	19360100	43928085	87825856	2.00 75.0	4.00 100	10.0	25.0	50.0

Curve Type Legend:
Ave = Average ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510004.D
Lims ID: STD7 AB
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 10-May-2024 13:54:58 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD7 AB
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 13-May-2024 08:13:07 Calib Date: 10-May-2024 16:53:03
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510014.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1608

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						411.0	
2						379.3	
						RPD = 8.01	
* 2 1-Bromo-2-nitrobenzene							
1	3.231	3.231	0.000	102364407	75.0	75.0	
2	2.818	2.817	0.000	130850922	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.569	4.570	-0.001	182091157	100.0	96.0	
2	3.779	3.778	0.001	208701074	100.0	87.2	
						RPD = 9.61	
7 alpha-BHC							
1	4.906	4.906	0.000	277501288	100.0	105.1	
2	4.302	4.301	0.001	331877770	100.0	96.0	
						RPD = 8.99	
6 Hexachlorobenzene							
1	4.970	4.971	-0.001	213156273	100.0	94.9	
2	4.211	4.211	0.000	257119533	100.0	88.2	
						RPD = 7.39	
8 gamma-BHC (Lindane)							
1	5.179	5.179	0.000	229046860	100.0	104.4	
2	4.585	4.586	-0.001	271492776	100.0	95.9	
						RPD = 8.51	
11 beta-BHC							
1	5.416	5.416	0.000	93639606	100.0	96.0	
2	4.754	4.756	-0.002	115847526	100.0	93.4	
						RPD = 2.78	
13 delta-BHC							
1	5.668	5.668	0.000	242034699	100.0	105.5	
2	4.958	4.959	-0.001	274120457	100.0	94.0	
						RPD = 11.50	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
12 Heptachlor							
1	5.749	5.749	0.000	197278541	100.0	98.6	
2	4.844	4.844	0.000	205678865	100.0	91.3	
						RPD = 7.72	
15 Aldrin							
1	6.112	6.113	-0.001	253110083	100.0	99.3	
2	5.071	5.071	0.000	287950814	100.0	91.2	
						RPD = 8.55	
17 Isodrin							
1	6.509	6.511	-0.002	185529890	100.0	94.8	
2	5.407	5.408	-0.001	211331355	100.0	88.1	
						RPD = 7.26	
19 Heptachlor epoxide							
1	6.635	6.637	-0.002	202678983	100.0	96.2	
2	5.522	5.523	-0.001	223517451	100.0	90.1	
						RPD = 6.54	
20 trans-Chlordane							
1	7.004	7.005	-0.001	226640713	100.0	99.7	
2	5.737	5.739	-0.002	257059435	100.0	94.0	
						RPD = 5.83	
23 cis-Chlordane							
1	7.064	7.064	0.000	212337556	100.0	98.5	
2	5.842	5.844	-0.002	252287943	100.0	93.6	
						RPD = 5.08	
24 Endosulfan I							
1	7.104	7.105	-0.001	191648963	100.0	96.5	
2	5.894	5.896	-0.002	218735553	100.0	91.5	
						RPD = 5.29	
25 4,4'-DDE							
1	7.237	7.238	-0.001	211869056	100.0	103.1	
2	6.071	6.072	-0.001	245752692	100.0	96.7	
						RPD = 6.39	
26 Dieldrin							
1	7.396	7.396	0.000	221895781	100.0	99.1	
2	6.224	6.225	-0.001	248305219	100.0	93.7	
						RPD = 5.62	
29 Endrin							
1	7.649	7.651	-0.002	170733583	100.0	97.5	
2	6.595	6.596	-0.001	199352642	100.0	92.8	
						RPD = 4.94	
32 4,4'-DDD							
1	7.807	7.808	-0.001	136187379	100.0	100.9	
2	6.750	6.751	-0.001	150370230	100.0	97.7	
						RPD = 3.20	
33 Endosulfan II							
1	7.934	7.935	-0.001	169197403	100.0	96.0	
2	6.893	6.894	-0.001	201911677	100.0	92.2	
						RPD = 4.06	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
35 Endrin aldehyde							
1	8.052	8.053	-0.001	115113928	100.0	96.2	
2	7.159	7.160	-0.001	142531795	100.0	93.8	
						RPD = 2.53	
34 4,4'-DDT							
1	8.136	8.136	0.000	124106969	100.0	99.5	
2	7.068	7.069	-0.001	136593565	100.0	95.8	
						RPD = 3.83	
36 Endosulfan sulfate							
1	8.350	8.351	-0.001	157006563	100.0	97.2	
2	7.377	7.378	-0.001	198507030	100.0	92.0	
						RPD = 5.46	
37 Methoxychlor							
1	8.604	8.605	-0.001	60325224	100.0	89.9	
2	7.834	7.834	0.000	61058057	100.0	85.4	
						RPD = 5.16	
38 Endrin ketone							
1	8.812	8.813	-0.001	153729554	100.0	96.2	
2	8.021	8.021	0.000	177670635	100.0	90.9	
						RPD = 5.67	
39 Mirex							
1	9.453	9.454	-0.001	129077081	100.0	88.3	
2	8.134	8.134	0.000	165953600	100.0	91.2	
						RPD = 3.20	
$ 40 DCB Decachlorobiphenyl							
1	11.063	11.063	0.000	170059856	100.0	85.2	
2	9.260	9.260	0.000	179222184	100.0	87.0	
						RPD = 2.11	
S 42 Endosulfan, Total							
1						289.6	
2						275.7	
						RPD = 4.94	

Reagents:

8081IcalL6_00049	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

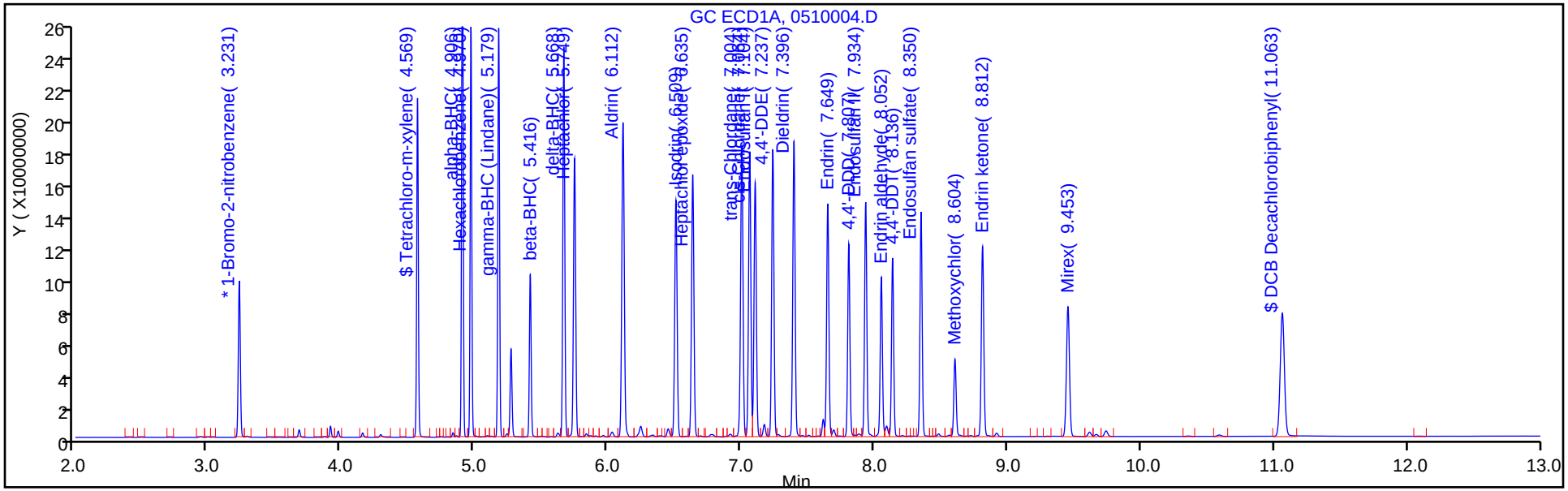
Report Date: 13-May-2024 08:13:08 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

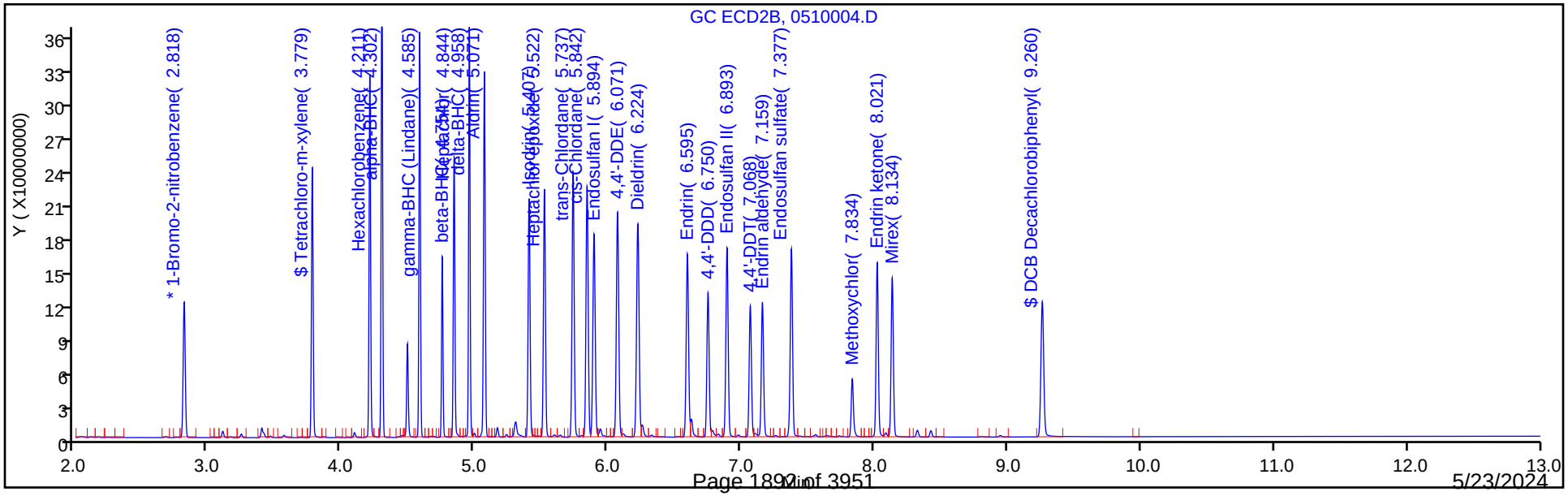
Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510004.D

Injection Date:	10-May-2024 13:54:58	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	STD7 AB			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510005.D
Lims ID: STD6 AB
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 10-May-2024 14:12:54 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD6 AB
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 13-May-2024 08:13:13 Calib Date: 10-May-2024 16:53:03
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510014.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1608

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						284.6	
2						270.2	
						RPD = 5.20	
* 2 1-Bromo-2-nitrobenzene							
1	3.230	3.231	-0.002	105687794	75.0	75.0	
2	2.814	2.817	-0.003	134496709	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.569	4.570	-0.001	131308229	75.0	67.1	
2	3.778	3.778	0.000	162880961	75.0	66.2	
						RPD = 1.27	
7 alpha-BHC							
1	4.906	4.906	0.000	197757822	75.0	72.5	
2	4.301	4.301	0.000	242569636	75.0	68.3	
						RPD = 6.02	
6 Hexachlorobenzene							
1	4.970	4.971	-0.001	153269797	75.0	66.1	
2	4.210	4.211	-0.001	191183121	75.0	63.8	
						RPD = 3.59	
8 gamma-BHC (Lindane)							
1	5.179	5.179	0.000	163930948	75.0	72.4	
2	4.585	4.586	-0.001	198653926	75.0	68.3	
						RPD = 5.85	
11 beta-BHC							
1	5.416	5.416	0.000	67200516	75.0	66.7	
2	4.754	4.756	-0.002	84327121	75.0	66.1	
						RPD = 0.91	
13 delta-BHC							
1	5.668	5.668	0.000	172877767	75.0	73.0	
2	4.957	4.959	-0.002	202334839	75.0	67.5	
						RPD = 7.78	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
12 Heptachlor							
1	5.750	5.749	0.001	143596217	75.0	69.5	
2	4.843	4.844	-0.001	151786586	75.0	65.5	
						RPD = 5.90	
15 Aldrin							
1	6.113	6.113	0.000	183389451	75.0	69.7	
2	5.070	5.071	-0.001	213049170	75.0	65.6	
						RPD = 6.01	
17 Isodrin							
1	6.511	6.511	0.000	134563087	75.0	66.6	
2	5.407	5.408	-0.001	156797047	75.0	63.6	
						RPD = 4.55	
19 Heptachlor epoxide							
1	6.636	6.637	-0.001	146233179	75.0	67.2	
2	5.522	5.523	-0.001	164337599	75.0	64.5	
						RPD = 4.20	
20 trans-Chlordane							
1	7.005	7.005	0.000	161323031	75.0	68.7	
2	5.737	5.739	-0.002	189037324	75.0	67.3	
						RPD = 2.12	
23 cis-Chlordane							
1	7.064	7.064	0.000	152910124	75.0	68.7	
2	5.843	5.844	-0.001	183623620	75.0	66.3	
						RPD = 3.57	
24 Endosulfan I							
1	7.105	7.105	0.000	138282378	75.0	67.4	
2	5.895	5.896	-0.001	159447363	75.0	64.9	
						RPD = 3.82	
25 4,4'-DDE							
1	7.238	7.238	0.000	151302942	75.0	71.3	
2	6.071	6.072	-0.001	179602363	75.0	68.7	
						RPD = 3.64	
26 Dieldrin							
1	7.396	7.396	0.000	159623062	75.0	69.1	
2	6.223	6.225	-0.002	181853159	75.0	66.8	
						RPD = 3.39	
29 Endrin							
1	7.650	7.651	-0.001	127076185	75.0	70.3	
2	6.596	6.596	0.000	144950717	75.0	65.6	
						RPD = 6.83	
32 4,4'-DDD							
1	7.808	7.808	0.000	100428726	75.0	72.1	
2	6.750	6.751	-0.001	109467905	75.0	69.2	
						RPD = 4.04	
33 Endosulfan II							
1	7.935	7.935	0.000	124420418	75.0	68.4	
2	6.893	6.894	-0.001	147077064	75.0	65.3	
						RPD = 4.56	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
35 Endrin aldehyde							
1	8.053	8.053	0.000	84080619	75.0	68.1	
2	7.160	7.160	0.000	102104029	75.0	65.4	
						RPD = 4.02	
34 4,4'-DDT							
1	8.137	8.136	0.001	91761483	75.0	71.3	
2	7.069	7.069	0.000	98919850	75.0	67.5	
						RPD = 5.46	
36 Endosulfan sulfate							
1	8.351	8.351	0.000	114372122	75.0	68.5	
2	7.377	7.378	-0.001	144402687	75.0	65.1	
						RPD = 5.15	
37 Methoxychlor							
1	8.605	8.605	0.000	44771727	75.0	64.6	
2	7.835	7.834	0.001	45100302	75.0	61.4	
						RPD = 5.19	
38 Endrin ketone							
1	8.812	8.813	-0.001	113612381	75.0	68.9	
2	8.021	8.021	0.000	130640700	75.0	65.1	
						RPD = 5.73	
39 Mirex							
1	9.454	9.454	0.000	94550175	75.0	62.7	
2	8.135	8.134	0.001	121660017	75.0	65.1	
						RPD = 3.72	
$ 40 DCB Decachlorobiphenyl							
1	11.063	11.063	0.000	124631144	75.0	60.5	
2	9.260	9.260	0.000	131196825	75.0	62.0	
						RPD = 2.44	
S 42 Endosulfan, Total							
1						204.3	
2						195.3	
						RPD = 4.51	

Reagents:

8081IcalL5_00048	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

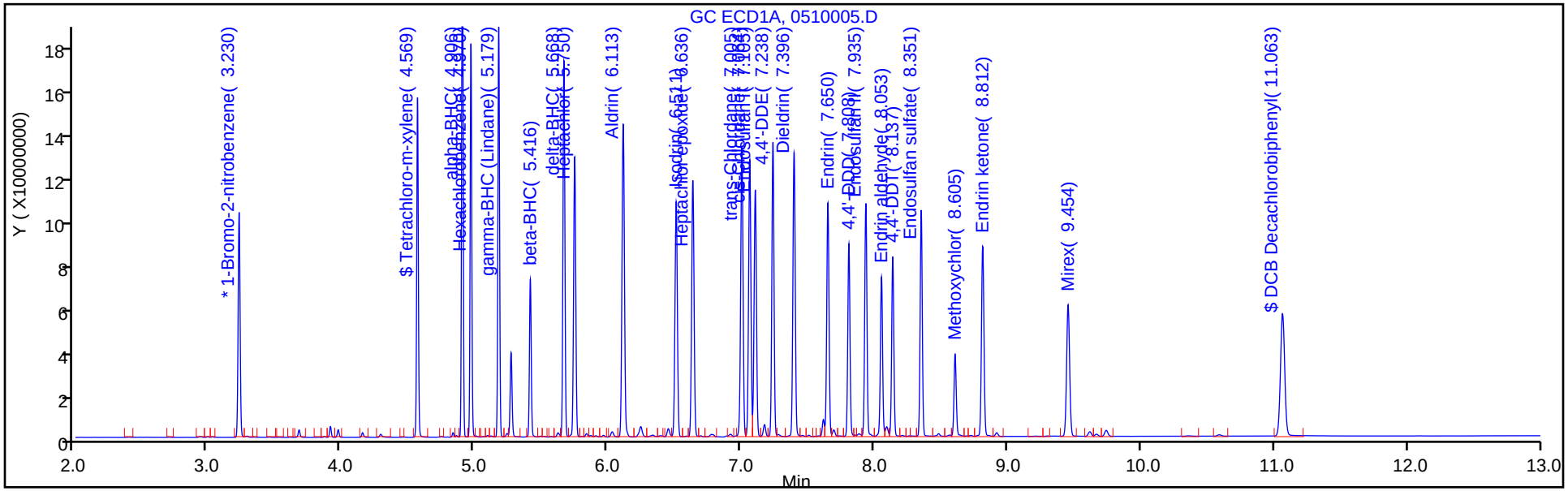
Report Date: 13-May-2024 08:13:14 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

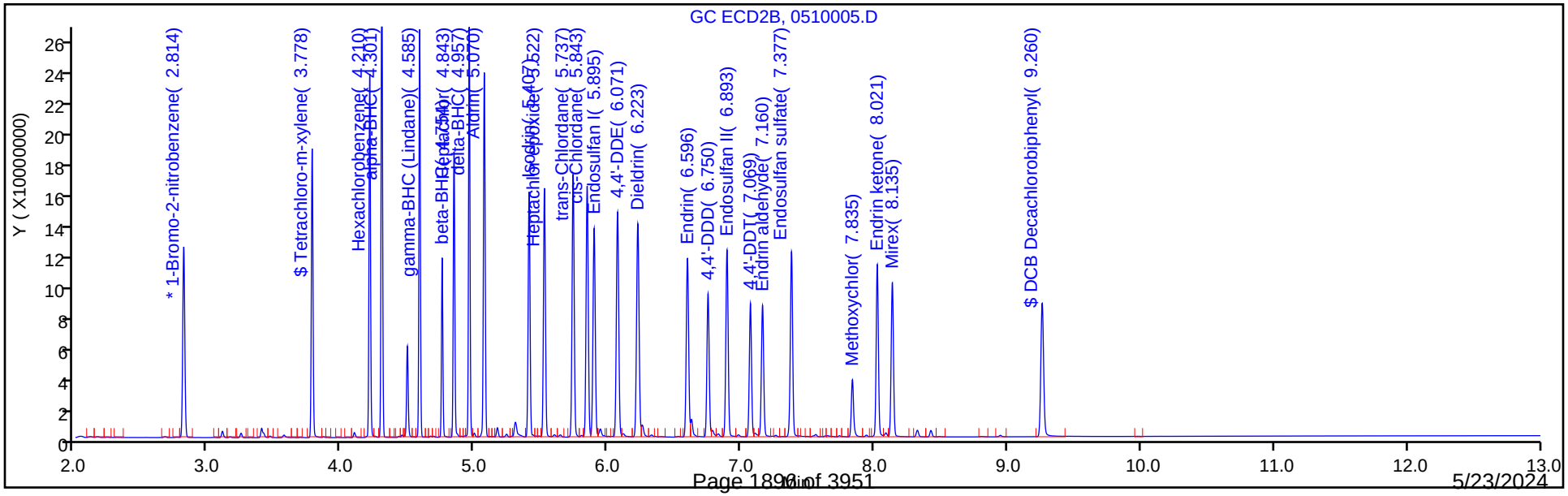
Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510005.D

Injection Date:	10-May-2024 14:12:54	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	STD6 AB			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510006.D
Lims ID: ICIS AB
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 10-May-2024 14:30:41 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS AB
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 13-May-2024 08:13:19 Calib Date: 10-May-2024 16:53:03
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510014.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1608

First Level Reviewer: AP6K Date: 13-May-2024 08:07:32

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.230	3.230	0.000	100179708	75.0	75.0	
2	2.815	2.815	0.000	125363268	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.570	4.570	0.000	92876972	50.0	50.1	
2	3.778	3.778	0.000	111922506	50.0	48.8	
						RPD = 2.48	
7 alpha-BHC							
1	4.906	4.906	0.000	136816386	50.0	52.9	
2	4.301	4.301	0.000	170452433	50.0	51.5	
						RPD = 2.78	
6 Hexachlorobenzene							
1	4.971	4.971	0.000	107729785	50.0	49.0	
2	4.211	4.211	0.000	134893000	50.0	48.3	
						RPD = 1.53	
8 gamma-BHC (Lindane)							
1	5.179	5.179	0.000	113138811	50.0	52.7	
2	4.586	4.586	0.000	139685784	50.0	51.5	
						RPD = 2.31	
11 beta-BHC							
1	5.416	5.416	0.000	46797652	50.0	49.0	
2	4.756	4.756	0.000	59021887	50.0	49.7	
						RPD = 1.27	
13 delta-BHC							
1	5.668	5.668	0.000	119495935	50.0	53.2	
2	4.959	4.959	0.000	142935859	50.0	51.2	
						RPD = 3.92	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
12 Heptachlor							
1	5.749	5.749	0.000	100814603	50.0	51.5	
2	4.844	4.844	0.000	107788152	50.0	49.9	
						RPD = 3.08	
15 Aldrin							
1	6.113	6.113	0.000	129110716	50.0	51.8	
2	5.071	5.071	0.000	152927494	50.0	50.5	
						RPD = 2.39	
17 Isodrin							
1	6.511	6.511	0.000	95122471	50.0	49.7	
2	5.408	5.408	0.000	112686936	50.0	49.1	
						RPD = 1.22	
19 Heptachlor epoxide							
1	6.637	6.637	0.000	103406142	50.0	50.2	
2	5.523	5.523	0.000	117579911	50.0	49.5	
						RPD = 1.35	
20 trans-Chlordane							
1	7.005	7.005	0.000	112626377	50.0	50.6	
2	5.739	5.739	0.000	133098917	50.0	50.8	
						RPD = 0.40	
23 cis-Chlordane							
1	7.064	7.064	0.000	106208512	50.0	50.4	
2	5.844	5.844	0.000	130872603	50.0	50.7	
						RPD = 0.69	
24 Endosulfan I							
1	7.105	7.105	0.000	97334026	50.0	50.1	
2	5.896	5.896	0.000	114730456	50.0	50.1	
						RPD = 0.06	
25 4,4'-DDE							
1	7.238	7.238	0.000	105177186	50.0	52.3	
2	6.072	6.072	0.000	126853032	50.0	52.1	
						RPD = 0.37	
26 Dieldrin							
1	7.396	7.396	0.000	111783903	50.0	51.0	
2	6.225	6.225	0.000	129064551	50.0	50.8	
						RPD = 0.37	
29 Endrin							
1	7.651	7.651	0.000	86555957	50.0	50.5	
2	6.596	6.596	0.000	103072405	50.0	50.1	
						RPD = 0.84	
32 4,4'-DDD							
1	7.808	7.808	0.000	68929785	50.0	52.2	
2	6.751	6.751	0.000	76642111	50.0	52.0	
						RPD = 0.37	
33 Endosulfan II							
1	7.935	7.935	0.000	85866512	50.0	49.8	
2	6.894	6.894	0.000	105110399	50.0	50.1	
						RPD = 0.61	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
35 Endrin aldehyde							
1	8.053	8.053	0.000	55645855	50.0	47.5	
2	7.160	7.160	0.000	71258495	50.0	48.9	
						RPD = 2.97	
34 4,4'-DDT							
1	8.136	8.136	0.000	62185186	50.0	51.0	
2	7.069	7.069	0.000	70378912	50.0	51.5	
						RPD = 1.08	
36 Endosulfan sulfate							
1	8.351	8.351	0.000	76289697	50.0	48.2	
2	7.378	7.378	0.000	101825256	50.0	49.3	
						RPD = 2.08	
37 Methoxychlor							
1	8.605	8.605	0.000	31198386	50.0	47.5	
2	7.834	7.834	0.000	32922853	50.0	48.1	
						RPD = 1.13	
38 Endrin ketone							
1	8.813	8.813	0.000	76868648	50.0	49.2	
2	8.021	8.021	0.000	92971418	50.0	49.7	
						RPD = 1.00	
39 Mirex							
1	9.454	9.454	0.000	66931432	50.0	46.8	
2	8.134	8.134	0.000	85856904	50.0	49.3	
						RPD = 5.09	
$ 40 DCB Decachlorobiphenyl							
1	11.063	11.063	0.000	87825856	50.0	45.0	
2	9.260	9.260	0.000	93495656	50.0	47.4	
						RPD = 5.24	

QC Flag Legend

Processing Flags

Reagents:

8081IcalL4_00073	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

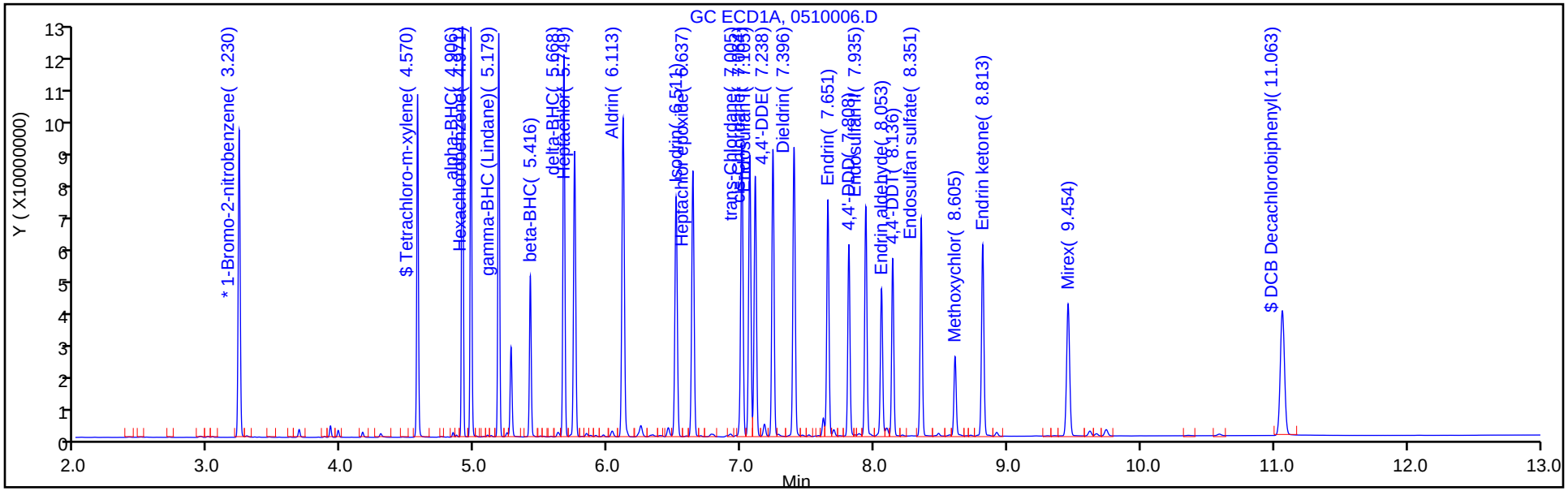
Report Date: 13-May-2024 08:13:20 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

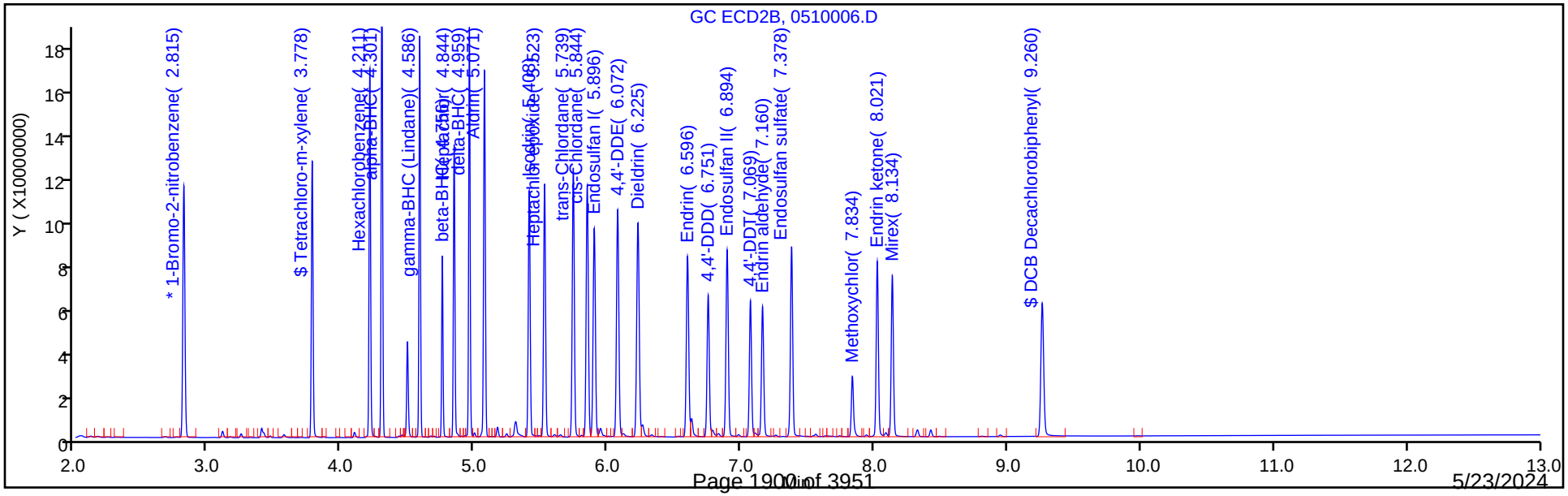
Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510006.D

Injection Date:	10-May-2024 14:30:41	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	ICIS AB			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510007.D
Lims ID: STD4 AB
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 10-May-2024 14:48:34 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD4 AB
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 13-May-2024 08:13:25 Calib Date: 10-May-2024 16:53:03
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510014.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1608

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						102.5	
2						102.0	
						RPD = 0.46	
* 2 1-Bromo-2-nitrobenzene							
1	3.230	3.230	0.000	92137337	75.0	75.0	
2	2.814	2.814	0.000	117144345	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.570	4.570	0.000	43938541	25.0	25.7	
2	3.778	3.778	0.000	55054688	25.0	25.7	
						RPD = 0.17	
7 alpha-BHC							
1	4.906	4.906	0.000	62149871	25.0	26.1	
2	4.301	4.301	0.000	79582660	25.0	25.7	
						RPD = 1.63	
6 Hexachlorobenzene							
1	4.971	4.971	0.000	51510915	25.0	25.5	
2	4.211	4.211	0.000	65291913	25.0	25.0	
						RPD = 1.90	
8 gamma-BHC (Lindane)							
1	5.179	5.179	0.000	51049620	25.0	25.9	
2	4.586	4.586	0.000	64886176	25.0	25.6	
						RPD = 0.99	
11 beta-BHC							
1	5.416	5.416	0.000	21506180	25.0	24.5	
2	4.755	4.755	0.000	27632930	25.0	24.9	
						RPD = 1.54	
13 delta-BHC							
1	5.668	5.668	0.000	53601232	25.0	25.9	
2	4.958	4.958	0.000	67283345	25.0	25.8	
						RPD = 0.69	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
12 Heptachlor							
1	5.749	5.749	0.000	46227192	25.0	25.7	
2	4.844	4.844	0.000	51340674	25.0	25.5	
						RPD = 0.86	
15 Aldrin							
1	6.114	6.114	0.000	59673265	25.0	26.0	
2	5.071	5.071	0.000	72965086	25.0	25.8	
						RPD = 0.80	
17 Isodrin							
1	6.511	6.511	0.000	44950569	25.0	25.5	
2	5.407	5.407	0.000	54276526	25.0	25.3	
						RPD = 0.90	
19 Heptachlor epoxide							
1	6.637	6.637	0.000	48602145	25.0	25.6	
2	5.522	5.522	0.000	56284665	25.0	25.4	
						RPD = 1.11	
20 trans-Chlordane							
1	7.006	7.006	0.000	52447000	25.0	25.6	
2	5.738	5.738	0.000	62181968	25.0	25.4	
						RPD = 0.86	
23 cis-Chlordane							
1	7.065	7.065	0.000	49319580	25.0	25.4	
2	5.844	5.844	0.000	60774802	25.0	25.2	
						RPD = 0.90	
24 Endosulfan I							
1	7.106	7.106	0.000	45723709	25.0	25.6	
2	5.896	5.896	0.000	54008379	25.0	25.2	
						RPD = 1.32	
25 4,4'-DDE							
1	7.239	7.239	0.000	48389017	25.0	26.2	
2	6.071	6.071	0.000	58738111	25.0	25.8	
						RPD = 1.31	
26 Dieldrin							
1	7.397	7.397	0.000	52455524	25.0	26.0	
2	6.224	6.224	0.000	60814283	25.0	25.6	
						RPD = 1.55	
29 Endrin							
1	7.651	7.651	0.000	40685773	25.0	25.8	
2	6.596	6.596	0.000	49136163	25.0	25.5	
						RPD = 1.02	
32 4,4'-DDD							
1	7.809	7.809	0.000	31487604	25.0	25.9	
2	6.751	6.751	0.000	35065073	25.0	25.5	
						RPD = 1.80	
33 Endosulfan II							
1	7.936	7.936	0.000	40093408	25.0	25.3	
2	6.894	6.894	0.000	50133480	25.0	25.6	
						RPD = 1.15	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
35 Endrin aldehyde							
1	8.054	8.054	0.000	26522108	25.0	24.6	
2	7.160	7.160	0.000	35012835	25.0	25.7	
						RPD = 4.42	
34 4,4'-DDT							
1	8.137	8.137	0.000	27792359	25.0	24.8	
2	7.069	7.069	0.000	32418073	25.0	25.4	
						RPD = 2.51	
36 Endosulfan sulfate							
1	8.352	8.352	0.000	35642512	25.0	24.5	
2	7.377	7.377	0.000	49414973	25.0	25.6	
						RPD = 4.30	
37 Methoxychlor							
1	8.606	8.606	0.000	14540818	25.0	24.1	
2	7.835	7.835	0.000	15919297	25.0	24.9	
						RPD = 3.22	
38 Endrin ketone							
1	8.815	8.815	0.000	35673785	25.0	24.8	
2	8.022	8.022	0.000	44062795	25.0	25.2	
						RPD = 1.51	
39 Mirex							
1	9.456	9.456	0.000	31525623	25.0	24.0	
2	8.135	8.135	0.000	40354611	25.0	24.8	
						RPD = 3.30	
$ 40 DCB Decachlorobiphenyl							
1	11.064	11.064	0.000	43928085	25.0	24.5	
2	9.261	9.261	0.000	45037050	25.0	24.4	
						RPD = 0.11	
S 42 Endosulfan, Total							
1						75.3	
2						76.4	
						RPD = 1.36	

Reagents:

8081IcalL3_00051	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

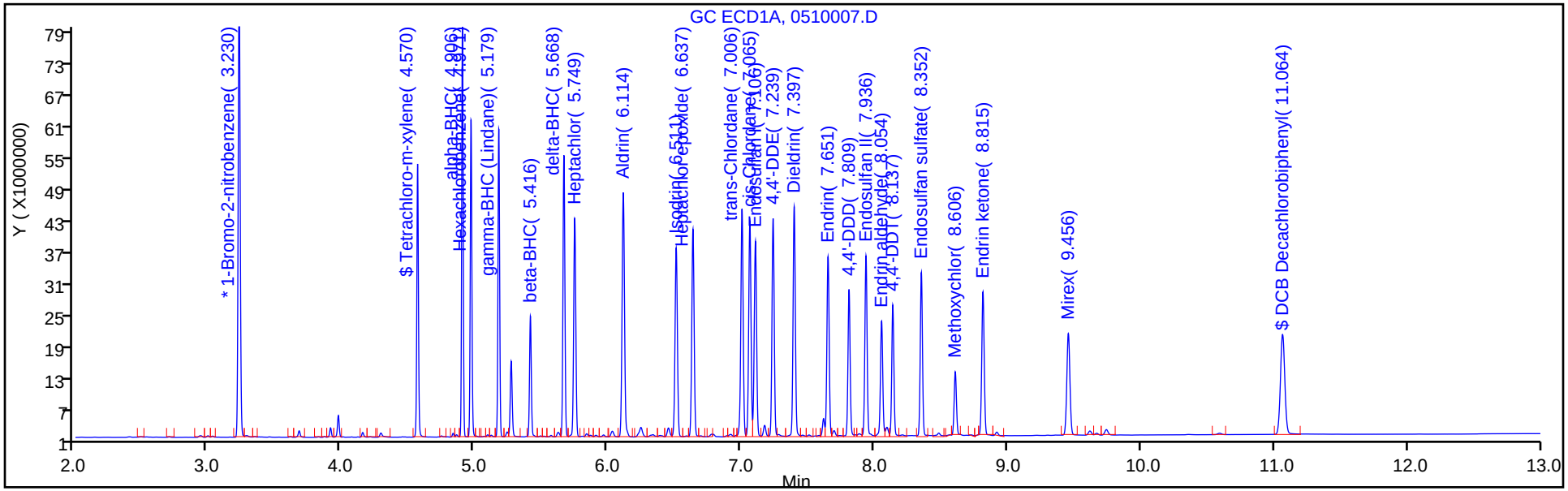
Report Date: 13-May-2024 08:13:26 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

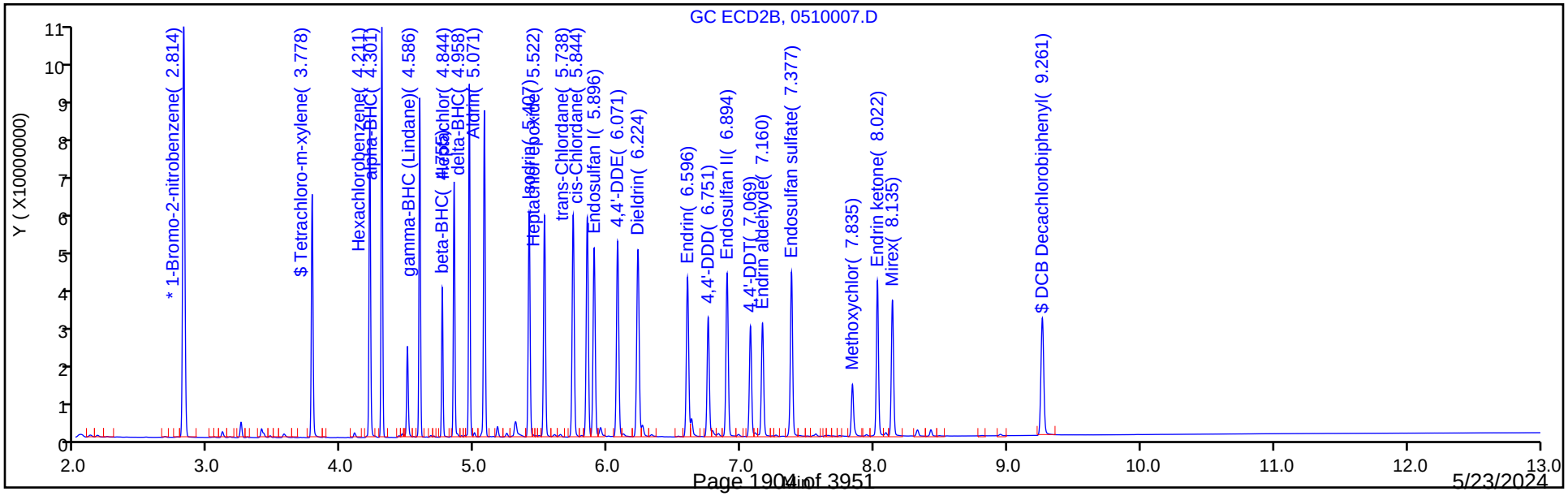
Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510007.D

Injection Date:	10-May-2024 14:48:34	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	STD4 AB			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
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Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510008.D
Lims ID: STD3 AB
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 10-May-2024 15:06:13 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD3 AB
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 13-May-2024 08:13:31 Calib Date: 10-May-2024 16:53:03
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510014.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1608

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						39.4	
2						41.1	
						RPD = 4.36	
* 2 1-Bromo-2-nitrobenzene							
1	3.231	3.230	0.002	98615269	75.0	75.0	
2	2.817	2.814	0.003	123591080	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.570	4.570	0.000	18539705	10.0	10.2	
2	3.780	3.778	0.002	23131205	10.0	10.2	
						RPD = 0.84	
7 alpha-BHC							
1	4.906	4.906	0.000	25182807	10.0	9.90	
2	4.302	4.301	0.001	33724530	10.0	10.3	
						RPD = 4.29	
6 Hexachlorobenzene							
1	4.971	4.971	0.000	21872674	10.0	10.1	
2	4.212	4.211	0.001	28859662	10.0	10.5	
						RPD = 3.55	
8 gamma-BHC (Lindane)							
1	5.179	5.179	0.000	20740770	10.0	9.82	
2	4.586	4.586	0.000	27478368	10.0	10.3	
						RPD = 4.59	
11 beta-BHC							
1	5.416	5.416	0.000	9289885	10.0	9.89	
2	4.756	4.755	0.001	11884141	10.0	10.1	
						RPD = 2.54	
13 delta-BHC							
1	5.669	5.668	0.001	21602338	10.0	9.77	
2	4.959	4.958	0.001	28574712	10.0	10.4	
						RPD = 5.99	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
12 Heptachlor							
1	5.749	5.749	0.000	19187366	10.0	9.96	
2	4.845	4.844	0.001	22145234	10.0	10.4	
						RPD = 4.42	
15 Aldrin							
1	6.113	6.114	-0.001	24633752	10.0	10.0	
2	5.072	5.071	0.001	31479773	10.0	10.6	
						RPD = 5.05	
17 Isodrin							
1	6.511	6.511	0.000	19248121	10.0	10.2	
2	5.409	5.407	0.002	23603402	10.0	10.4	
						RPD = 2.09	
19 Heptachlor epoxide							
1	6.636	6.637	-0.001	20690415	10.0	10.2	
2	5.524	5.522	0.002	24290505	10.0	10.4	
						RPD = 1.69	
20 trans-Chlordane							
1	7.006	7.006	0.000	21851415	10.0	9.98	
2	5.739	5.738	0.001	26384745	10.0	10.2	
						RPD = 2.40	
23 cis-Chlordane							
1	7.065	7.065	0.000	20616292	10.0	9.93	
2	5.844	5.844	0.000	25959221	10.0	10.2	
						RPD = 2.70	
24 Endosulfan I							
1	7.106	7.106	0.000	19341131	10.0	10.1	
2	5.896	5.896	0.000	23305749	10.0	10.3	
						RPD = 2.11	
25 4,4'-DDE							
1	7.238	7.239	-0.001	19779409	10.0	9.99	
2	6.072	6.071	0.001	24438333	10.0	10.2	
						RPD = 1.90	
26 Dieldrin							
1	7.397	7.397	0.000	21786692	10.0	10.1	
2	6.225	6.224	0.001	25834481	10.0	10.3	
						RPD = 2.15	
29 Endrin							
1	7.651	7.651	0.000	16785233	10.0	9.95	
2	6.597	6.596	0.001	20991394	10.0	10.3	
						RPD = 3.90	
32 4,4'-DDD							
1	7.809	7.809	0.000	12893568	10.0	9.91	
2	6.751	6.751	0.000	14424437	10.0	9.92	
						RPD = 0.09	
33 Endosulfan II							
1	7.936	7.936	0.000	17471569	10.0	10.3	
2	6.894	6.894	0.000	21363683	10.0	10.3	
						RPD = 0.35	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
35 Endrin aldehyde							
1	8.054	8.054	0.000	11899248	10.0	10.3	
2	7.161	7.160	0.001	14647142	10.0	10.2	
						RPD = 1.14	
34 4,4'-DDT							
1	8.138	8.137	0.001	12270647	10.0	10.2	
2	7.070	7.069	0.001	13455699	10.0	10.0	
						RPD = 2.22	
36 Endosulfan sulfate							
1	8.353	8.352	0.001	15587515	10.0	10.0	
2	7.378	7.377	0.001	20980050	10.0	10.3	
						RPD = 2.77	
37 Methoxychlor							
1	8.606	8.606	0.000	6728419	10.0	10.4	
2	7.835	7.835	0.000	7066582	10.0	10.5	
						RPD = 0.51	
38 Endrin ketone							
1	8.815	8.815	0.000	15234021	10.0	9.90	
2	8.022	8.022	0.000	18979034	10.0	10.3	
						RPD = 3.81	
39 Mirex							
1	9.456	9.456	0.000	14386093	10.0	10.2	
2	8.136	8.135	0.001	17760814	10.0	10.3	
						RPD = 1.12	
$ 40 DCB Decachlorobiphenyl							
1	11.065	11.064	0.001	19360100	10.0	10.1	
2	9.261	9.261	0.000	19462606	10.0	10.0	
						RPD = 0.64	
S 42 Endosulfan, Total							
1						30.4	
2						30.9	
						RPD = 1.74	

Reagents:

8081IcalL2_00047	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

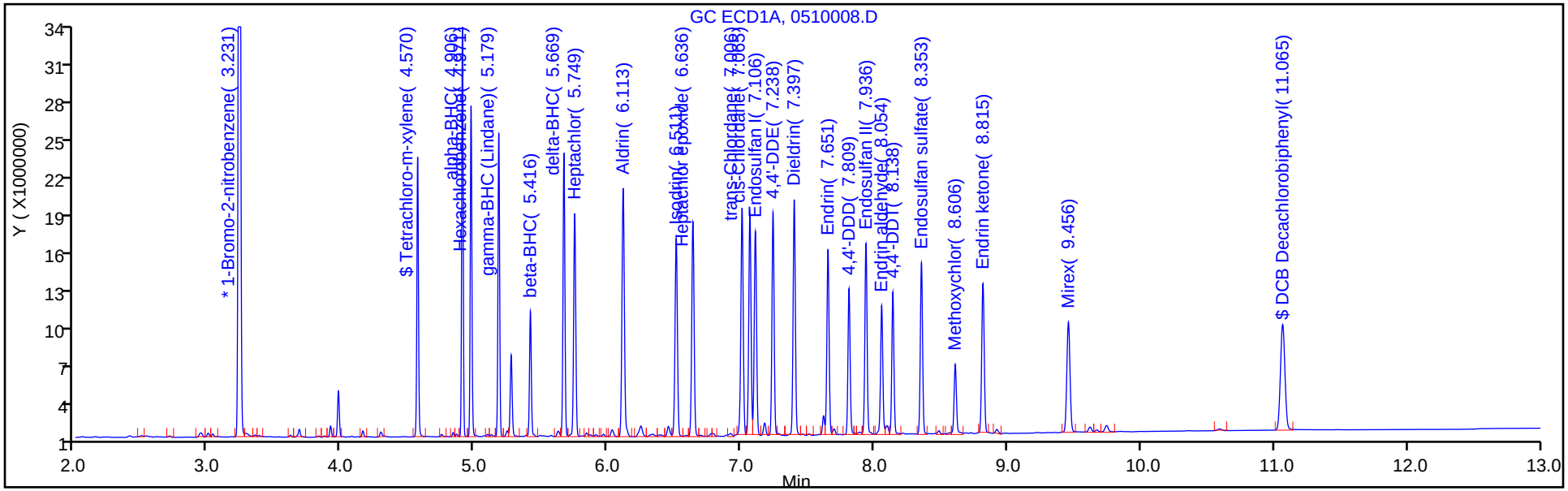
Report Date: 13-May-2024 08:13:32 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

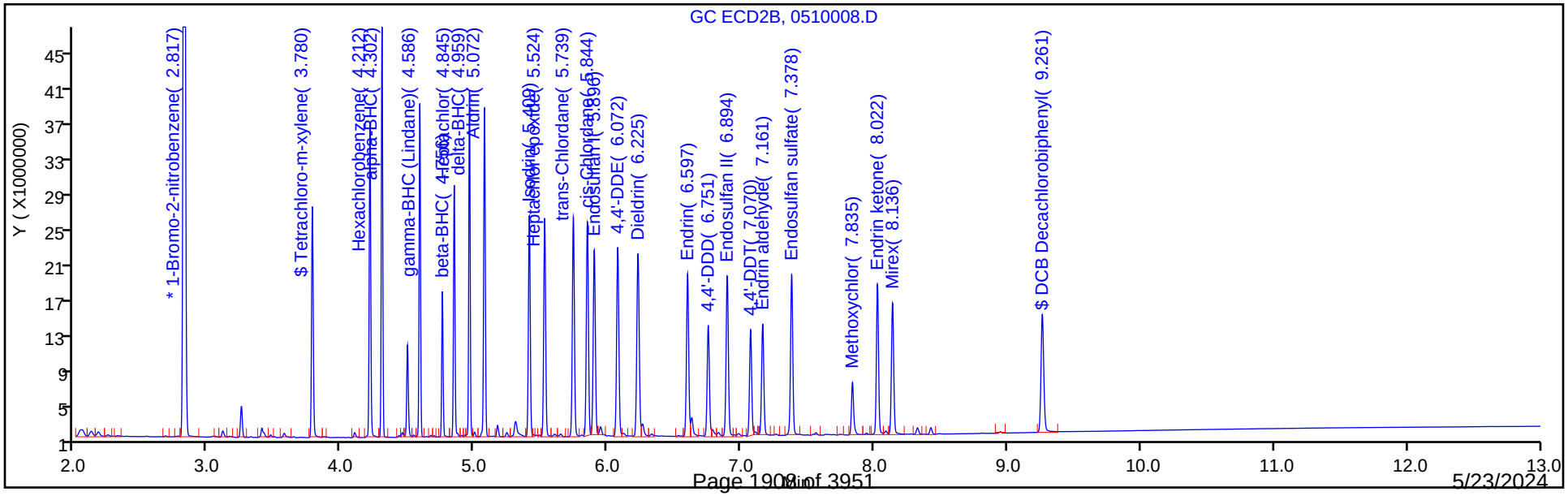
Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510008.D

Injection Date:	10-May-2024 15:06:13	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	STD3 AB			Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
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Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510009.D
Lims ID: STD2 AB
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 10-May-2024 15:24:07 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD2 AB
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 13-May-2024 08:13:38 Calib Date: 10-May-2024 16:53:03
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510014.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1608

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						15.9	
2						16.8	
						RPD = 5.36	
* 2 1-Bromo-2-nitrobenzene							
1	3.229	3.230	-0.001	93669369	75.0	75.0	
2	2.814	2.814	0.000	118049896	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.569	4.570	-0.001	7288253	4.00	4.20	
2	3.778	3.778	0.000	9508838	4.00	4.41	
						RPD = 4.75	
7 alpha-BHC							
1	4.906	4.906	0.000	9344053	4.00	3.87	
2	4.302	4.301	0.001	12930410	4.00	4.15	
						RPD = 7.01	
6 Hexachlorobenzene							
1	4.971	4.971	0.000	8770788	4.00	4.27	
2	4.211	4.211	0.000	11793230	4.00	4.48	
						RPD = 4.88	
8 gamma-BHC (Lindane)							
1	5.179	5.179	0.000	7844815	4.00	3.91	
2	4.586	4.586	0.000	10563985	4.00	4.14	
						RPD = 5.66	
11 beta-BHC							
1	5.416	5.416	0.000	3841295	4.00	4.30	
2	4.755	4.755	0.000	4851659	4.00	4.33	
						RPD = 0.71	
13 delta-BHC							
1	5.668	5.668	0.000	8096429	4.00	3.86	
2	4.958	4.958	0.000	11034909	4.00	4.19	
						RPD = 8.42	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
12 Heptachlor							
1	5.749	5.749	0.000	7500167	4.00	4.10	
2	4.843	4.844	-0.001	8702269	4.00	4.28	
						RPD = 4.39	
15 Aldrin							
1	6.113	6.114	-0.001	9445742	4.00	4.05	
2	5.072	5.071	0.001	12193147	4.00	4.28	
						RPD = 5.50	
17 Isodrin							
1	6.511	6.511	0.000	7575597	4.00	4.23	
2	5.408	5.407	0.001	9567874	4.00	4.42	
						RPD = 4.48	
19 Heptachlor epoxide							
1	6.638	6.637	0.001	8068877	4.00	4.19	
2	5.523	5.522	0.001	9833350	4.00	4.40	
						RPD = 4.87	
20 trans-Chlordane							
1	7.006	7.006	0.000	8605794	4.00	4.14	
2	5.738	5.738	0.000	10397220	4.00	4.22	
						RPD = 1.90	
23 cis-Chlordane							
1	7.065	7.065	0.000	8217249	4.00	4.17	
2	5.843	5.844	-0.001	10367883	4.00	4.27	
						RPD = 2.34	
24 Endosulfan I							
1	7.107	7.106	0.001	7661105	4.00	4.22	
2	5.895	5.896	-0.001	9374294	4.00	4.35	
						RPD = 3.09	
25 4,4'-DDE							
1	7.238	7.239	-0.001	7392185	4.00	3.93	
2	6.071	6.071	0.000	9377660	4.00	4.09	
						RPD = 3.98	
26 Dieldrin							
1	7.398	7.397	0.001	8348736	4.00	4.08	
2	6.224	6.224	0.000	10074769	4.00	4.21	
						RPD = 3.34	
29 Endrin							
1	7.651	7.651	0.000	6623792	4.00	4.13	
2	6.597	6.596	0.001	8301094	4.00	4.28	
						RPD = 3.55	
32 4,4'-DDD							
1	7.809	7.809	0.000	5004294	4.00	4.05	
2	6.751	6.751	0.000	5719475	4.00	4.12	
						RPD = 1.67	
33 Endosulfan II							
1	7.936	7.936	0.000	6824507	4.00	4.23	
2	6.893	6.894	-0.001	8544162	4.00	4.32	
						RPD = 2.15	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
35 Endrin aldehyde							
1	8.053	8.054	-0.001	4716071	4.00	4.31	
2	7.161	7.160	0.001	5892164	4.00	4.30	
						RPD = 0.21	
34 4,4'-DDT							
1	8.138	8.137	0.001	4698223	4.00	4.12	
2	7.069	7.069	0.000	5381819	4.00	4.18	
						RPD = 1.58	
36 Endosulfan sulfate							
1	8.353	8.352	0.001	6539817	4.00	4.42	
2	7.378	7.377	0.001	8442333	4.00	4.34	
						RPD = 1.96	
37 Methoxychlor							
1	8.607	8.606	0.001	2883684	4.00	4.70	
2	7.834	7.835	-0.001	2972837	4.00	4.61	
						RPD = 1.91	
38 Endrin ketone							
1	8.814	8.815	-0.001	6449762	4.00	4.41	
2	8.022	8.022	0.000	7700566	4.00	4.37	
						RPD = 1.01	
39 Mirex							
1	9.456	9.456	0.000	6157252	4.00	4.61	
2	8.135	8.135	0.000	7186728	4.00	4.38	
						RPD = 5.05	
$ 40 DCB Decachlorobiphenyl							
1	11.064	11.064	0.000	8785682	4.00	4.81	
2	9.260	9.261	-0.001	8628516	4.00	4.64	
						RPD = 3.53	
S 42 Endosulfan, Total							
1						12.9	
2						13.0	
						RPD = 1.07	

Reagents:

8081IcalL1_00047	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

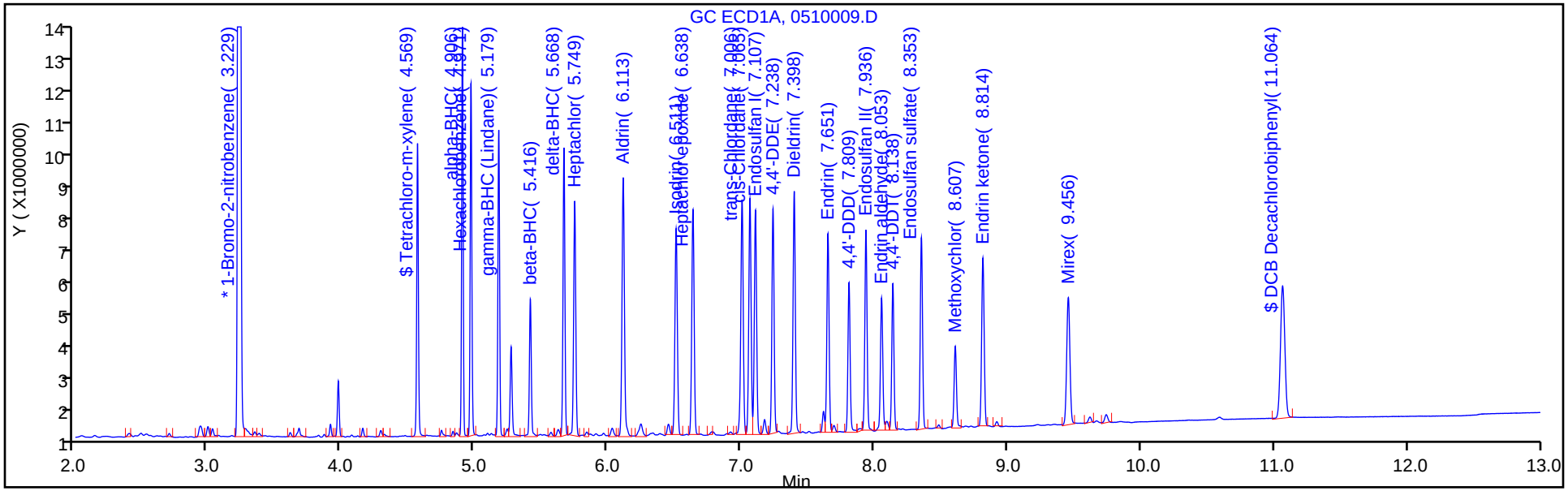
Report Date: 13-May-2024 08:13:39 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

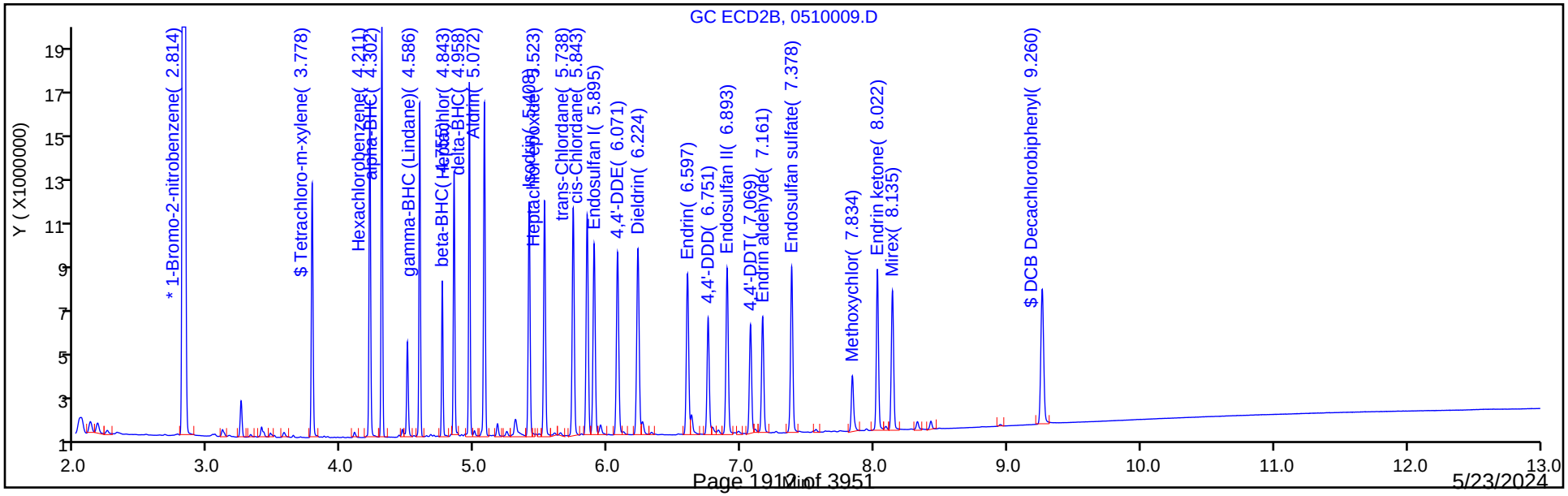
Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510009.D

Injection Date:	10-May-2024 15:24:07	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	STD2 AB			Worklist Smp#:	9
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
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Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510010.D
Lims ID: STD1 AB
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 10-May-2024 15:41:54 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD1 AB
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 13-May-2024 08:13:44 Calib Date: 10-May-2024 16:53:03
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510014.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1608

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						7.84	
2						8.27	
						RPD = 5.33	
* 2 1-Bromo-2-nitrobenzene							
1	3.231	3.230	0.001	96231956	75.0	75.0	
2	2.816	2.814	0.002	121536561	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.570	4.570	0.000	3739437	2.00	2.10	
2	3.779	3.778	0.001	4954817	2.00	2.23	
						RPD = 6.09	
7 alpha-BHC							
1	4.906	4.906	0.000	4572649	2.00	1.84	
2	4.301	4.301	0.000	6419976	2.00	2.00	
						RPD = 8.24	
6 Hexachlorobenzene							
1	4.971	4.971	0.000	4606042	2.00	2.18	
2	4.211	4.211	0.000	6142063	2.00	2.27	
						RPD = 3.84	
8 gamma-BHC (Lindane)							
1	5.179	5.179	0.000	3891925	2.00	1.89	
2	4.585	4.586	-0.001	5337179	2.00	2.03	
						RPD = 7.27	
11 beta-BHC							
1	5.416	5.416	0.000	2061943	2.00	2.25	
2	4.755	4.755	0.000	2530328	2.00	2.20	
						RPD = 2.39	
13 delta-BHC							
1	5.668	5.668	0.000	4011193	2.00	1.86	
2	4.958	4.958	0.000	5526645	2.00	2.04	
						RPD = 9.29	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
12 Heptachlor							
1	5.750	5.749	0.001	3797077	2.00	2.02	
2	4.843	4.844	-0.001	4541455	2.00	2.17	
						RPD = 7.21	
15 Aldrin							
1	6.114	6.114	0.000	4724604	2.00	1.97	
2	5.071	5.071	0.000	6132714	2.00	2.09	
						RPD = 5.84	
17 Isodrin							
1	6.511	6.511	0.000	3949548	2.00	2.15	
2	5.406	5.407	-0.001	5033860	2.00	2.26	
						RPD = 5.18	
19 Heptachlor epoxide							
1	6.636	6.637	-0.001	4142625	2.00	2.09	
2	5.521	5.522	-0.001	5062533	2.00	2.20	
						RPD = 4.94	
20 trans-Chlordane							
1	7.006	7.006	0.000	4354098	2.00	2.04	
2	5.737	5.738	-0.001	5356096	2.00	2.11	
						RPD = 3.49	
23 cis-Chlordane							
1	7.064	7.065	-0.001	4214252	2.00	2.08	
2	5.843	5.844	-0.001	5361421	2.00	2.14	
						RPD = 2.96	
24 Endosulfan I							
1	7.106	7.106	0.000	3908424	2.00	2.09	
2	5.895	5.896	-0.001	4832340	2.00	2.18	
						RPD = 3.91	
25 4,4'-DDE							
1	7.238	7.239	-0.001	3656933	2.00	1.89	
2	6.071	6.071	0.000	4733568	2.00	2.00	
						RPD = 5.78	
26 Dieldrin							
1	7.397	7.397	0.000	4193380	2.00	1.99	
2	6.223	6.224	-0.001	5141161	2.00	2.09	
						RPD = 4.71	
29 Endrin							
1	7.651	7.651	0.000	3347886	2.00	2.03	
2	6.595	6.596	-0.001	4260680	2.00	2.14	
						RPD = 4.88	
32 4,4'-DDD							
1	7.809	7.809	0.000	2402177	2.00	1.89	
2	6.751	6.751	0.000	2917445	2.00	2.04	
						RPD = 7.53	
33 Endosulfan II							
1	7.936	7.936	0.000	3433728	2.00	2.07	
2	6.892	6.894	-0.002	4356564	2.00	2.14	
						RPD = 3.27	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
35 Endrin aldehyde							
1	8.055	8.054	0.001	2445045	2.00	2.17	
2	7.160	7.160	0.000	3068886	2.00	2.17	
						RPD = 0.04	
34 4,4'-DDT							
1	8.138	8.137	0.001	2327776	2.00	1.99	
2	7.068	7.069	-0.001	2783023	2.00	2.10	
						RPD = 5.65	
36 Endosulfan sulfate							
1	8.352	8.352	0.000	3228672	2.00	2.13	
2	7.378	7.377	0.001	4369611	2.00	2.18	
						RPD = 2.55	
37 Methoxychlor							
1	8.607	8.606	0.001	1400967	2.00	2.22	
2	7.835	7.835	0.000	1559526	2.00	2.35	
						RPD = 5.55	
38 Endrin ketone							
1	8.815	8.815	0.000	3152814	2.00	2.10	
2	8.021	8.022	-0.001	3998840	2.00	2.20	
						RPD = 4.83	
39 Mirex							
1	9.456	9.456	0.000	3330146	2.00	2.42	
2	8.135	8.135	0.000	3772054	2.00	2.23	
						RPD = 8.26	
$ 40 DCB Decachlorobiphenyl							
1	11.066	11.064	0.002	4705022	2.00	2.51	
2	9.260	9.261	-0.001	4654003	2.00	2.43	
						RPD = 3.02	
S 42 Endosulfan, Total							
1						6.29	
2						6.50	
						RPD = 3.24	

Reagents:

8081icalL0.5_00002	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

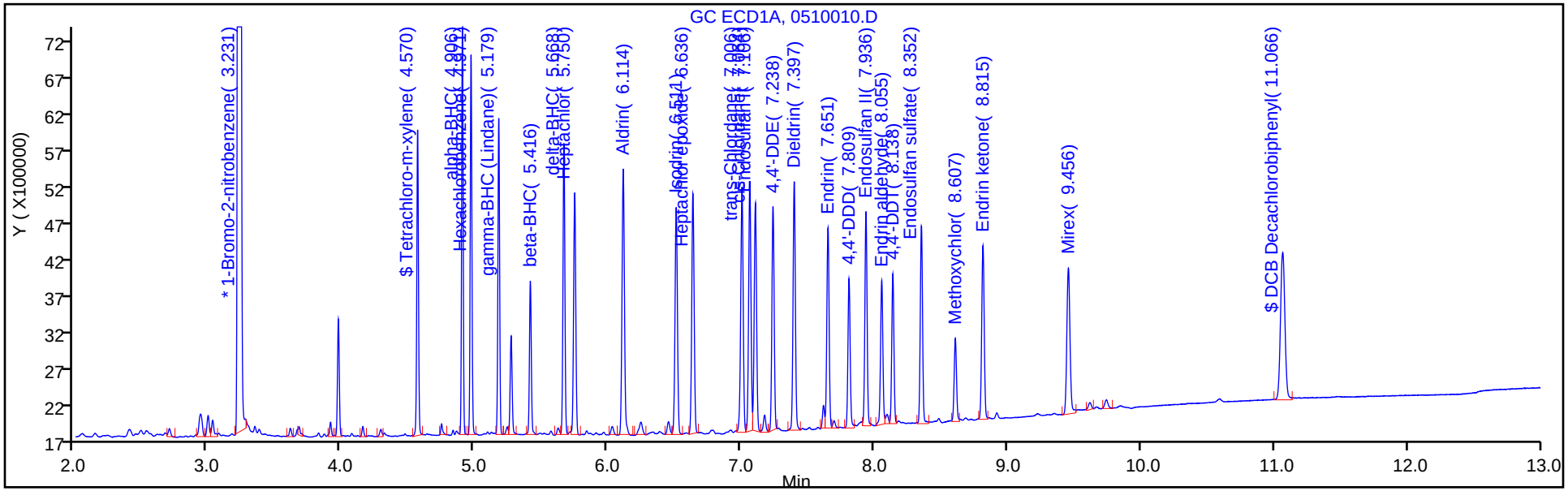
Report Date: 13-May-2024 08:13:45 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

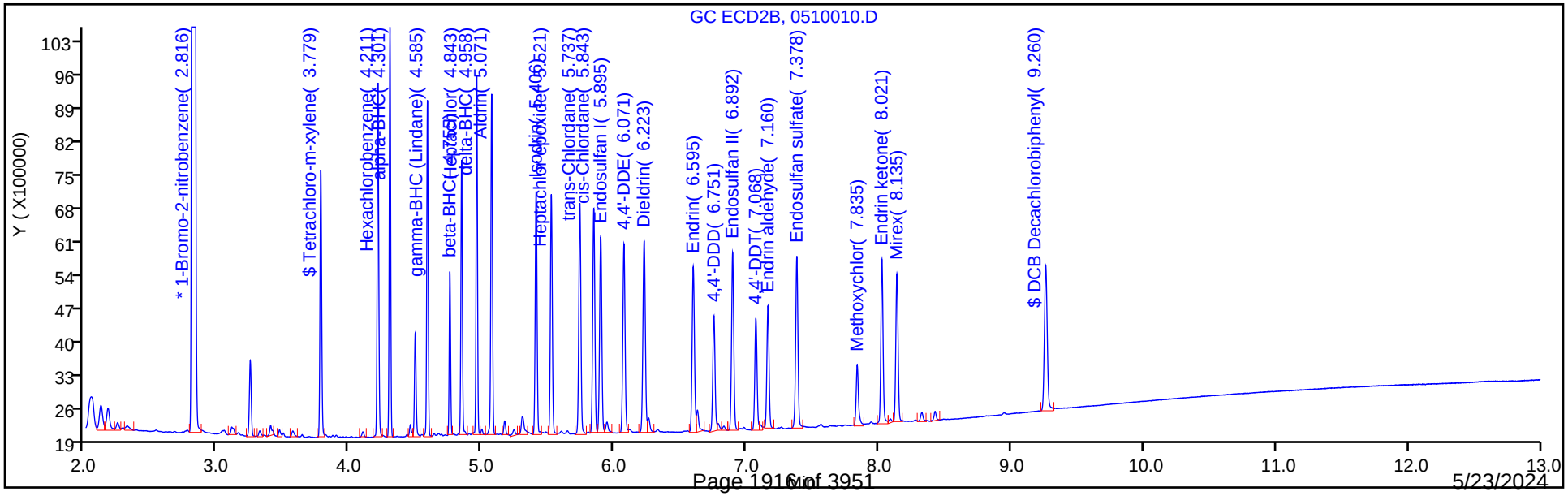
Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510010.D

Injection Date:	10-May-2024 15:41:54	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	STD1 AB			Worklist Smp#:	10
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Calibration / Tetrachloro-m-xylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

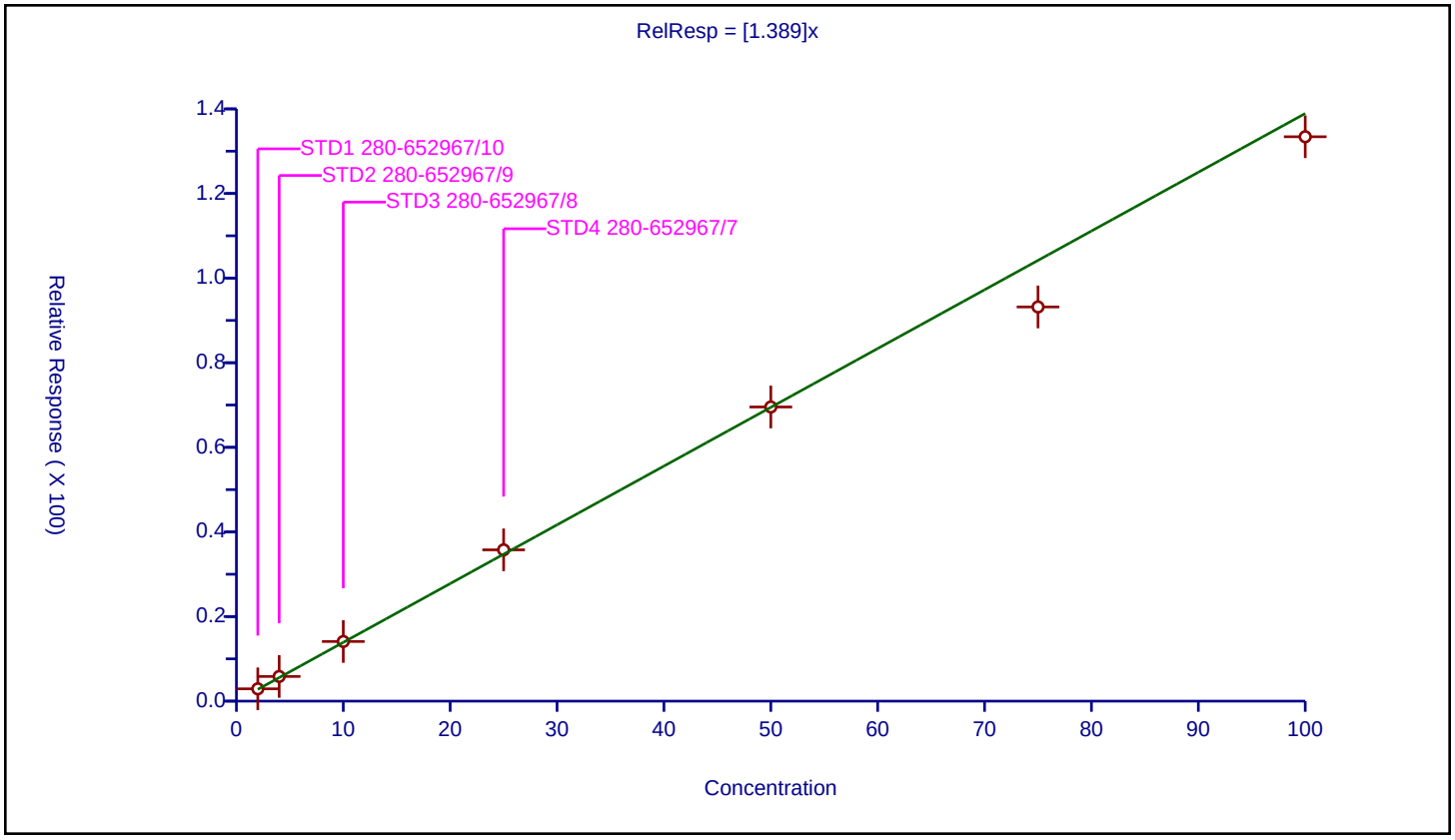
Curve Coefficients

Intercept:	0
Slope:	1.389

Error Coefficients

Relative Standard Deviation:	5.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	2.914393	75.0	96231956.0	1.457197	Y
2	STD2 280-652967/9	4.0	5.835621	75.0	93669369.0	1.458905	Y
3	STD3 280-652967/8	10.0	14.100026	75.0	98615269.0	1.410003	Y
4	STD4 280-652967/7	25.0	35.766071	75.0	92137337.0	1.430643	Y
5	ICIS 280-652967/6	50.0	69.532773	75.0	100179708.0	1.390655	Y
6	STD6 280-652967/5	75.0	93.181216	75.0	105687794.0	1.242416	Y
7	STD7 280-652967/4	100.0	133.41392	75.0	102364407.0	1.334139	Y



5/23/2024
4:40:30 AM

Calibration / alpha-BHC

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

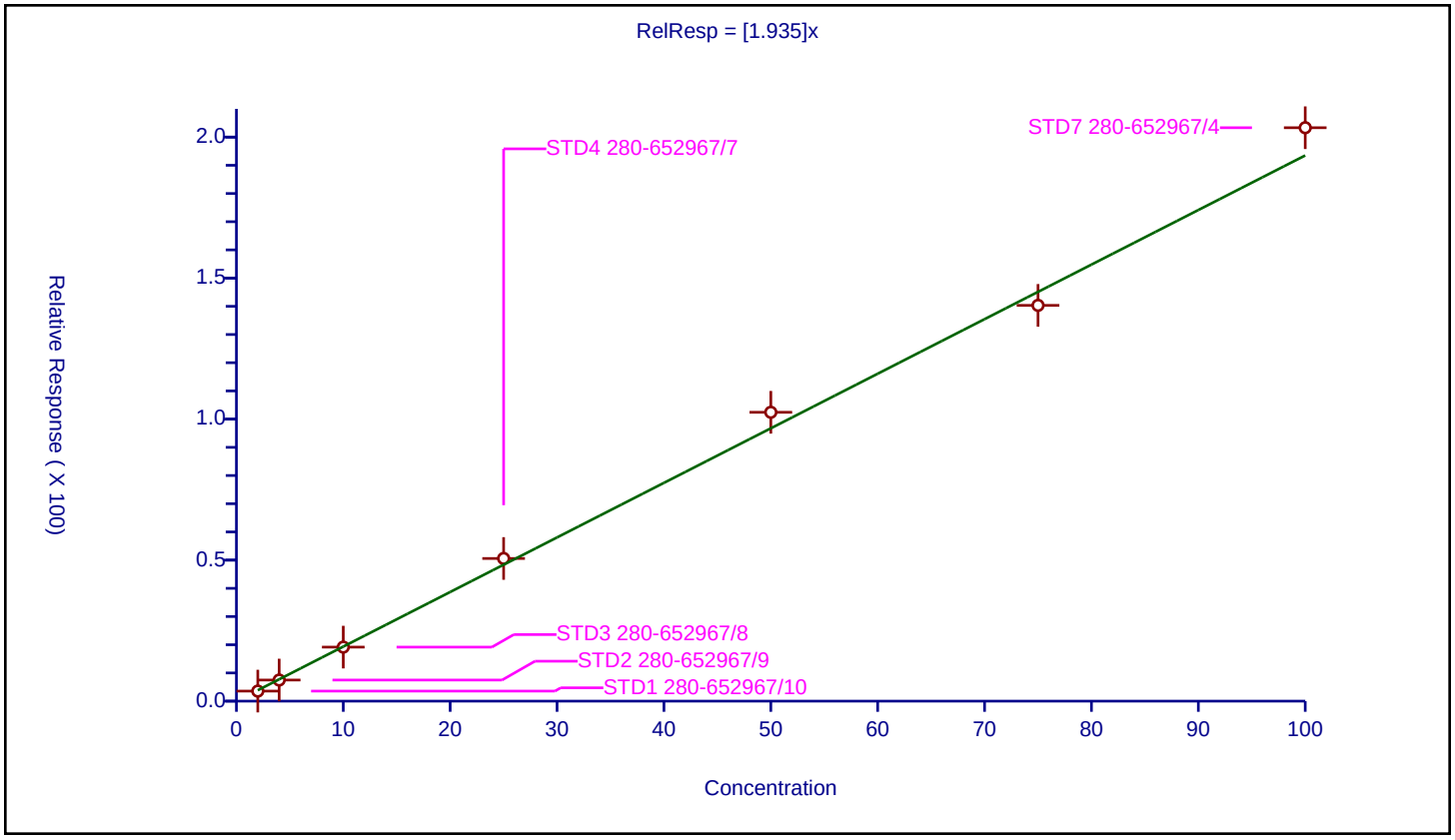
Curve Coefficients

Intercept:	0
Slope:	1.935

Error Coefficients

Relative Standard Deviation:	5.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	3.563771	75.0	96231956.0	1.781886	Y
2	STD2 280-652967/9	4.0	7.481677	75.0	93669369.0	1.870419	Y
3	STD3 280-652967/8	10.0	19.152313	75.0	98615269.0	1.915231	Y
4	STD4 280-652967/7	25.0	50.590135	75.0	92137337.0	2.023605	Y
5	ICIS 280-652967/6	50.0	102.428218	75.0	100179708.0	2.048564	Y
6	STD6 280-652967/5	75.0	140.336325	75.0	105687794.0	1.871151	Y
7	STD7 280-652967/4	100.0	203.318685	75.0	102364407.0	2.033187	Y



5/23/2024
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Calibration / Hexachlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

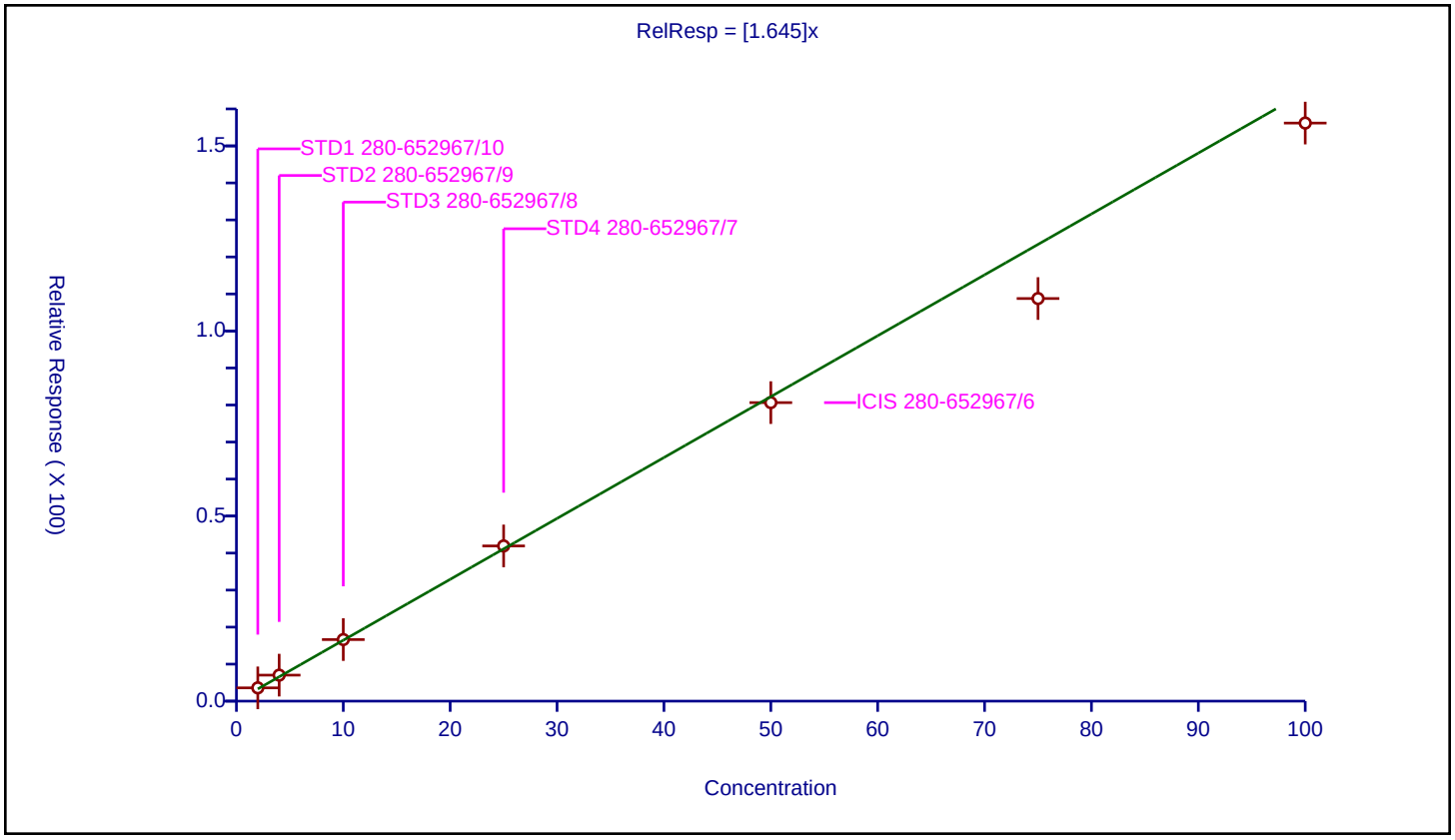
Curve Coefficients

Intercept:	0
Slope:	1.645

Error Coefficients

Relative Standard Deviation:	7.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	3.589797	75.0	96231956.0	1.794898	Y
2	STD2 280-652967/9	4.0	7.02267	75.0	93669369.0	1.755668	Y
3	STD3 280-652967/8	10.0	16.634853	75.0	98615269.0	1.663485	Y
4	STD4 280-652967/7	25.0	41.930001	75.0	92137337.0	1.6772	Y
5	ICIS 280-652967/6	50.0	80.6524	75.0	100179708.0	1.613048	Y
6	STD6 280-652967/5	75.0	108.765964	75.0	105687794.0	1.450213	Y
7	STD7 280-652967/4	100.0	156.174602	75.0	102364407.0	1.561746	Y



5/23/2024
4:40:30 AM

Calibration / gamma-BHC (Lindane)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

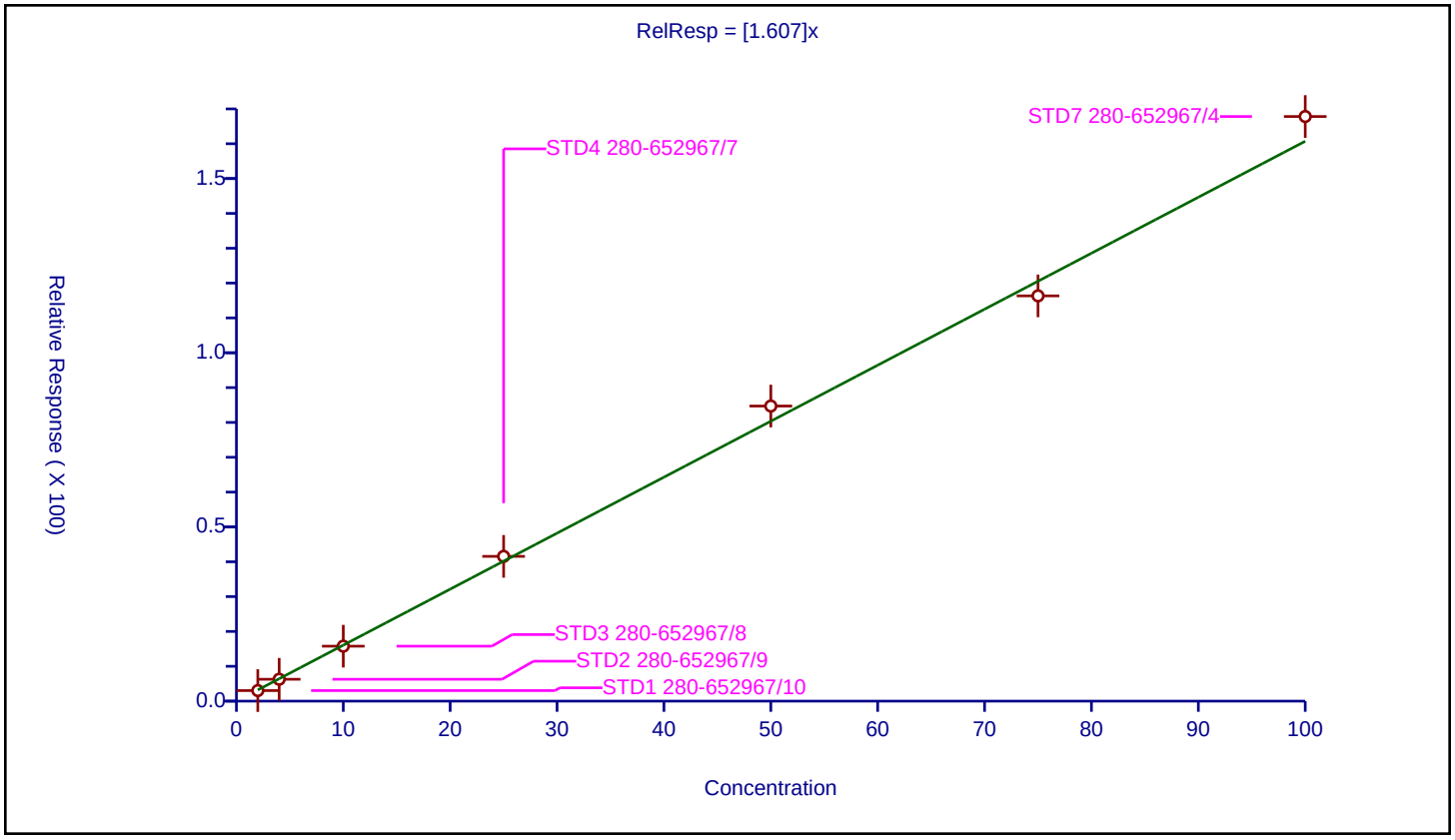
Curve Coefficients

Intercept:	0
Slope:	1.607

Error Coefficients

Relative Standard Deviation:	4.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	3.033237	75.0	96231956.0	1.516619	Y
2	STD2 280-652967/9	4.0	6.281254	75.0	93669369.0	1.570314	Y
3	STD3 280-652967/8	10.0	15.774005	75.0	98615269.0	1.577401	Y
4	STD4 280-652967/7	25.0	41.554506	75.0	92137337.0	1.66218	Y
5	ICIS 280-652967/6	50.0	84.701892	75.0	100179708.0	1.694038	Y
6	STD6 280-652967/5	75.0	116.331514	75.0	105687794.0	1.551087	Y
7	STD7 280-652967/4	100.0	167.817262	75.0	102364407.0	1.678173	Y



5/23/2024
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Calibration / beta-BHC

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

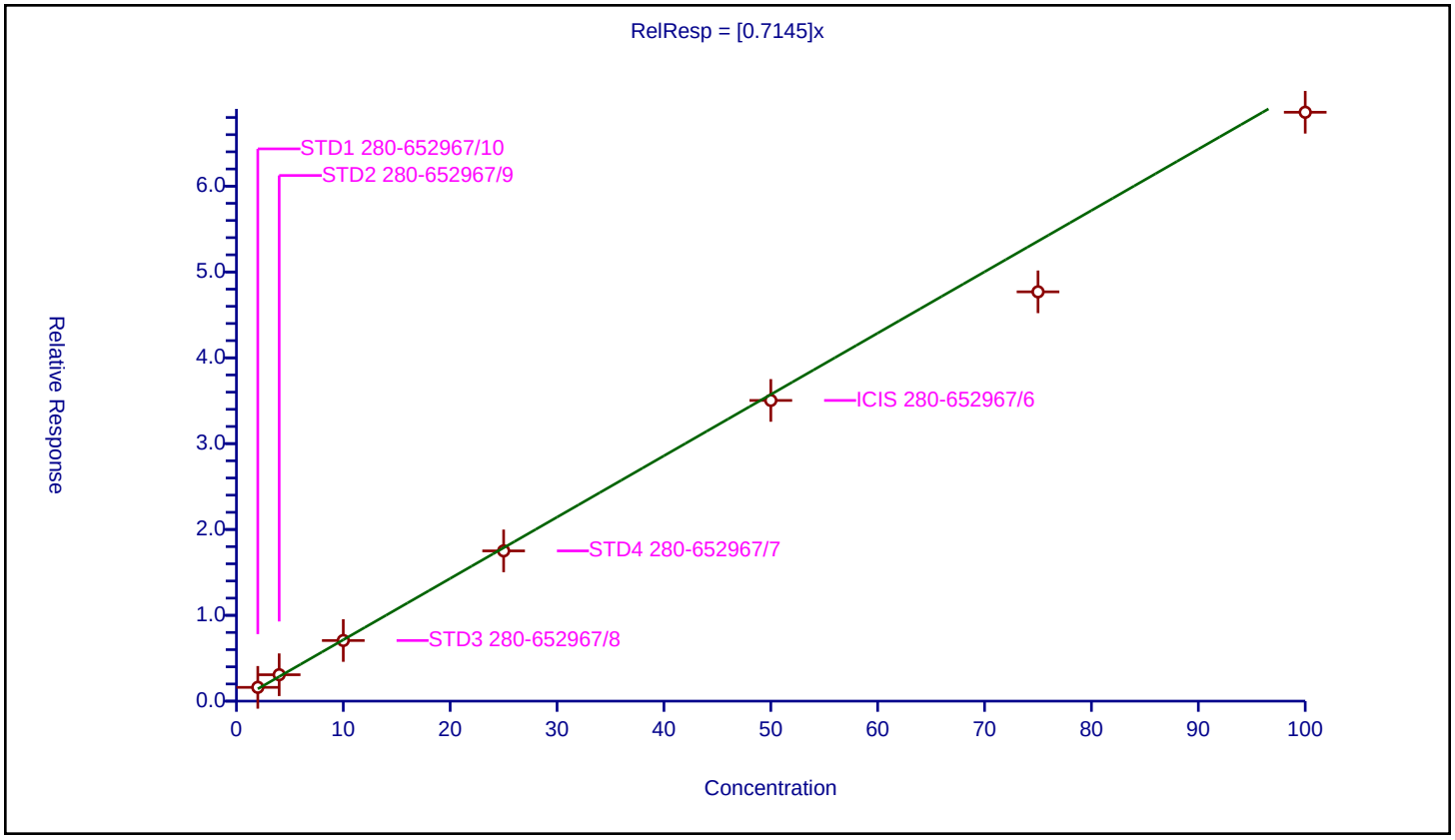
Curve Coefficients

Intercept:	0
Slope:	0.7145

Error Coefficients

Relative Standard Deviation:	7.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	1.60701	75.0	96231956.0	0.803505	Y
2	STD2 280-652967/9	4.0	3.075681	75.0	93669369.0	0.76892	Y
3	STD3 280-652967/8	10.0	7.065248	75.0	98615269.0	0.706525	Y
4	STD4 280-652967/7	25.0	17.506079	75.0	92137337.0	0.700243	Y
5	ICIS 280-652967/6	50.0	35.035278	75.0	100179708.0	0.700706	Y
6	STD6 280-652967/5	75.0	47.687992	75.0	105687794.0	0.63584	Y
7	STD7 280-652967/4	100.0	68.607543	75.0	102364407.0	0.686075	Y



5/23/2024
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Calibration / delta-BHC

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

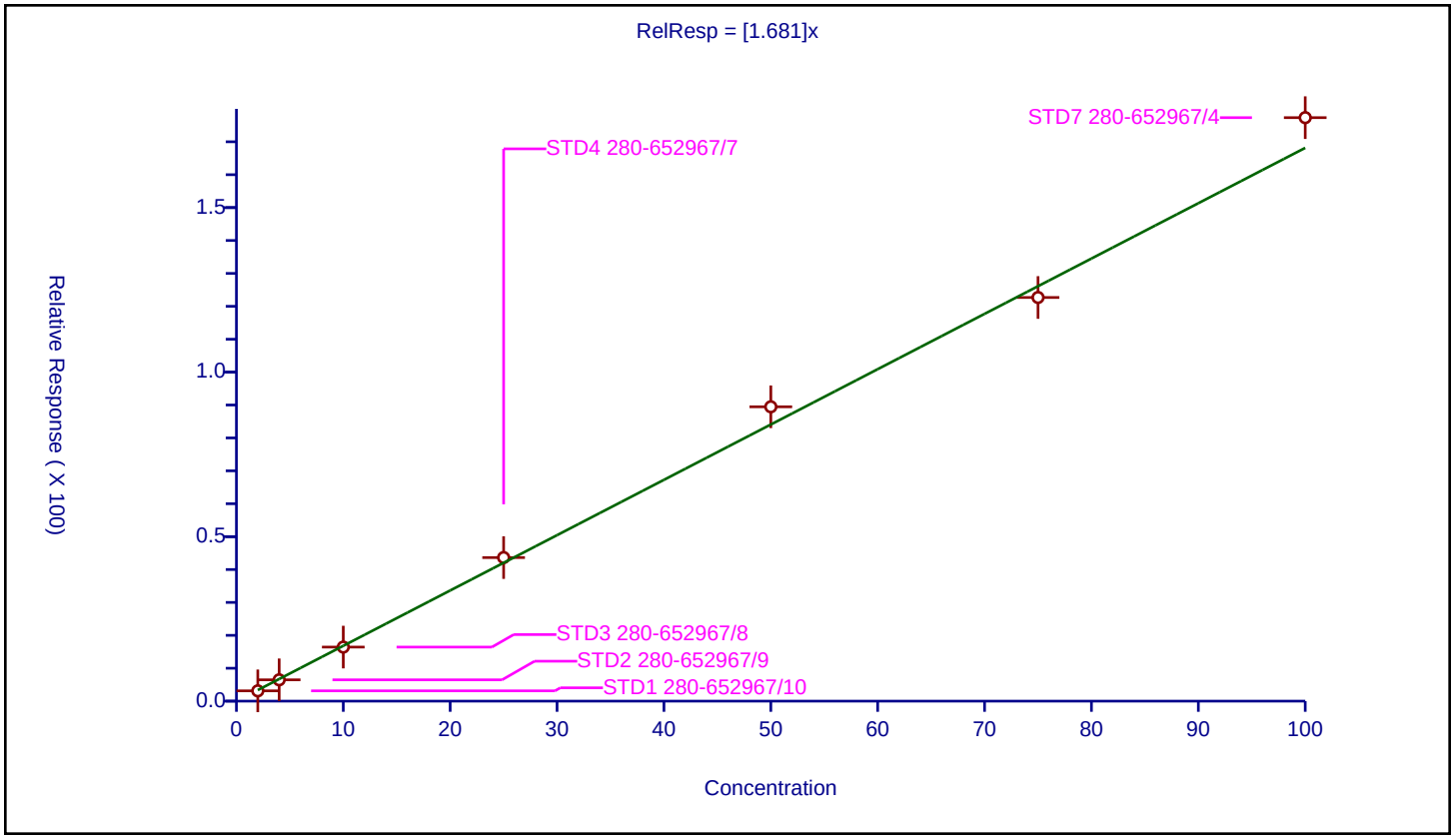
Curve Coefficients

Intercept:	0
Slope:	1.681

Error Coefficients

Relative Standard Deviation:	5.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	3.126191	75.0	96231956.0	1.563096	Y
2	STD2 280-652967/9	4.0	6.482719	75.0	93669369.0	1.62068	Y
3	STD3 280-652967/8	10.0	16.429254	75.0	98615269.0	1.642925	Y
4	STD4 280-652967/7	25.0	43.631524	75.0	92137337.0	1.745261	Y
5	ICIS 280-652967/6	50.0	89.461182	75.0	100179708.0	1.789224	Y
6	STD6 280-652967/5	75.0	122.680511	75.0	105687794.0	1.63574	Y
7	STD7 280-652967/4	100.0	177.333147	75.0	102364407.0	1.773331	Y



5/23/2024
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Calibration / Heptachlor

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

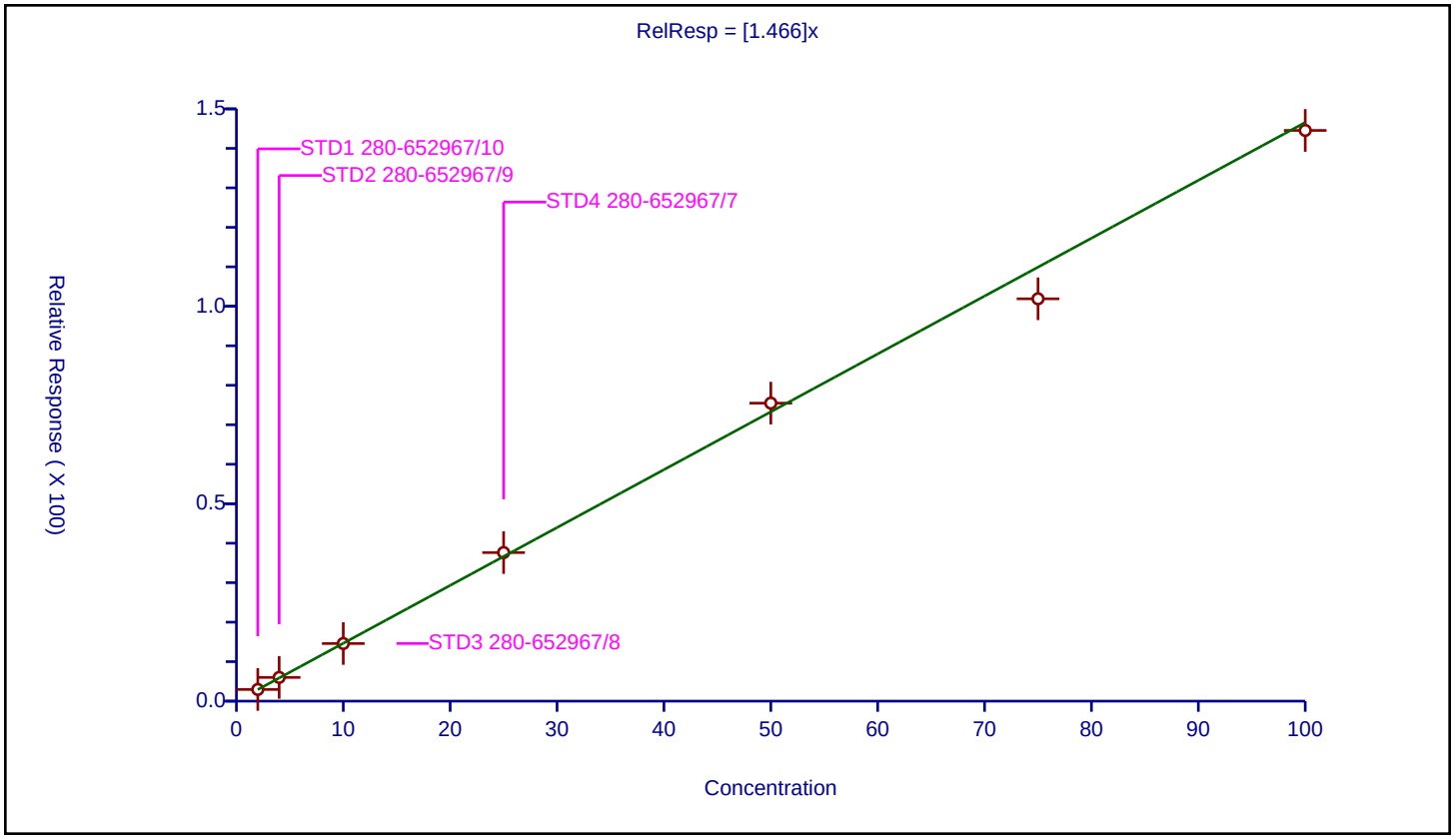
Curve Coefficients

Intercept:	0
Slope:	1.466

Error Coefficients

Relative Standard Deviation:	3.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	2.959316	75.0	96231956.0	1.479658	Y
2	STD2 280-652967/9	4.0	6.005299	75.0	93669369.0	1.501325	Y
3	STD3 280-652967/8	10.0	14.592593	75.0	98615269.0	1.459259	Y
4	STD4 280-652967/7	25.0	37.629038	75.0	92137337.0	1.505162	Y
5	ICIS 280-652967/6	50.0	75.475317	75.0	100179708.0	1.509506	Y
6	STD6 280-652967/5	75.0	101.901231	75.0	105687794.0	1.358683	Y
7	STD7 280-652967/4	100.0	144.54136	75.0	102364407.0	1.445414	Y



5/23/2024
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Calibration / Aldrin

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

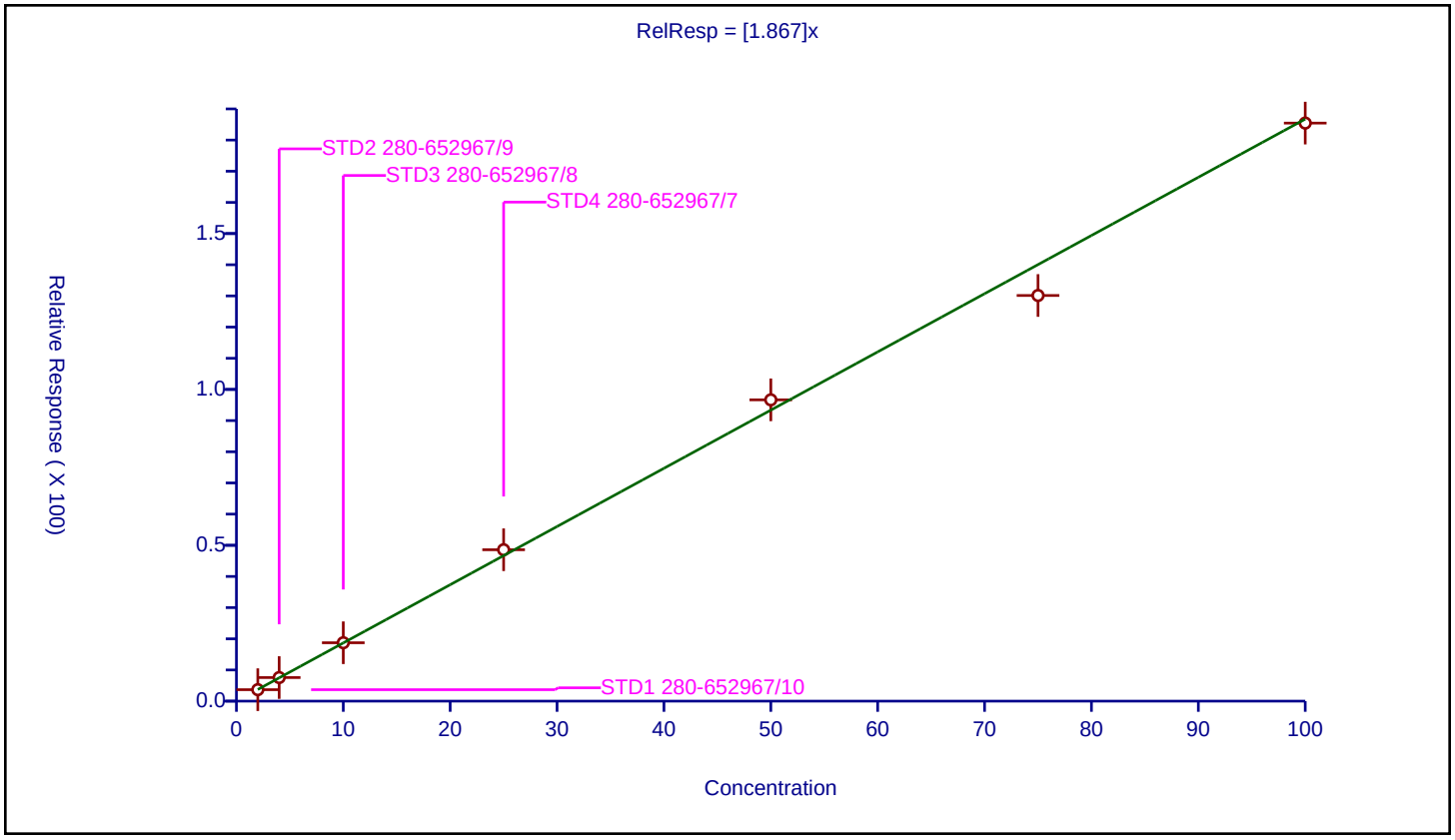
Curve Coefficients

Intercept:	0
Slope:	1.867

Error Coefficients

Relative Standard Deviation:	3.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	3.6822	75.0	96231956.0	1.8411	Y
2	STD2 280-652967/9	4.0	7.563098	75.0	93669369.0	1.890775	Y
3	STD3 280-652967/8	10.0	18.73474	75.0	98615269.0	1.873474	Y
4	STD4 280-652967/7	25.0	48.574172	75.0	92137337.0	1.942967	Y
5	ICIS 280-652967/6	50.0	96.659332	75.0	100179708.0	1.933187	Y
6	STD6 280-652967/5	75.0	130.139994	75.0	105687794.0	1.7352	Y
7	STD7 280-652967/4	100.0	185.447821	75.0	102364407.0	1.854478	Y



5/23/2024
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Calibration / Heptachlor epoxide

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

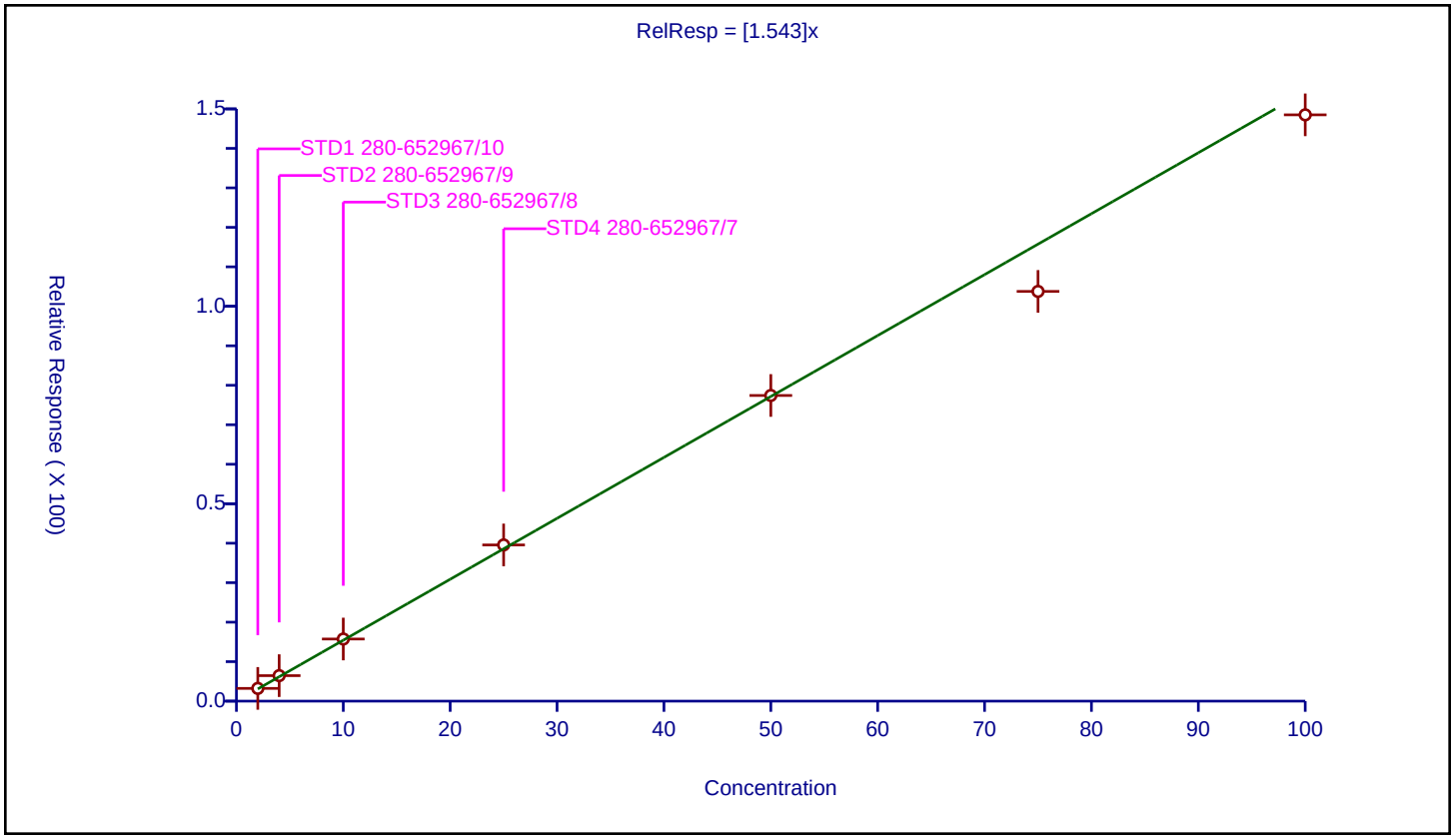
Curve Coefficients

Intercept:	0
Slope:	1.543

Error Coefficients

Relative Standard Deviation:	5.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	3.228625	75.0	96231956.0	1.614312	Y
2	STD2 280-652967/9	4.0	6.460658	75.0	93669369.0	1.615165	Y
3	STD3 280-652967/8	10.0	15.735708	75.0	98615269.0	1.573571	Y
4	STD4 280-652967/7	25.0	39.562256	75.0	92137337.0	1.58249	Y
5	ICIS 280-652967/6	50.0	77.415485	75.0	100179708.0	1.54831	Y
6	STD6 280-652967/5	75.0	103.772517	75.0	105687794.0	1.383634	Y
7	STD7 280-652967/4	100.0	148.498137	75.0	102364407.0	1.484981	Y



5/23/2024
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Calibration / trans-Chlordane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

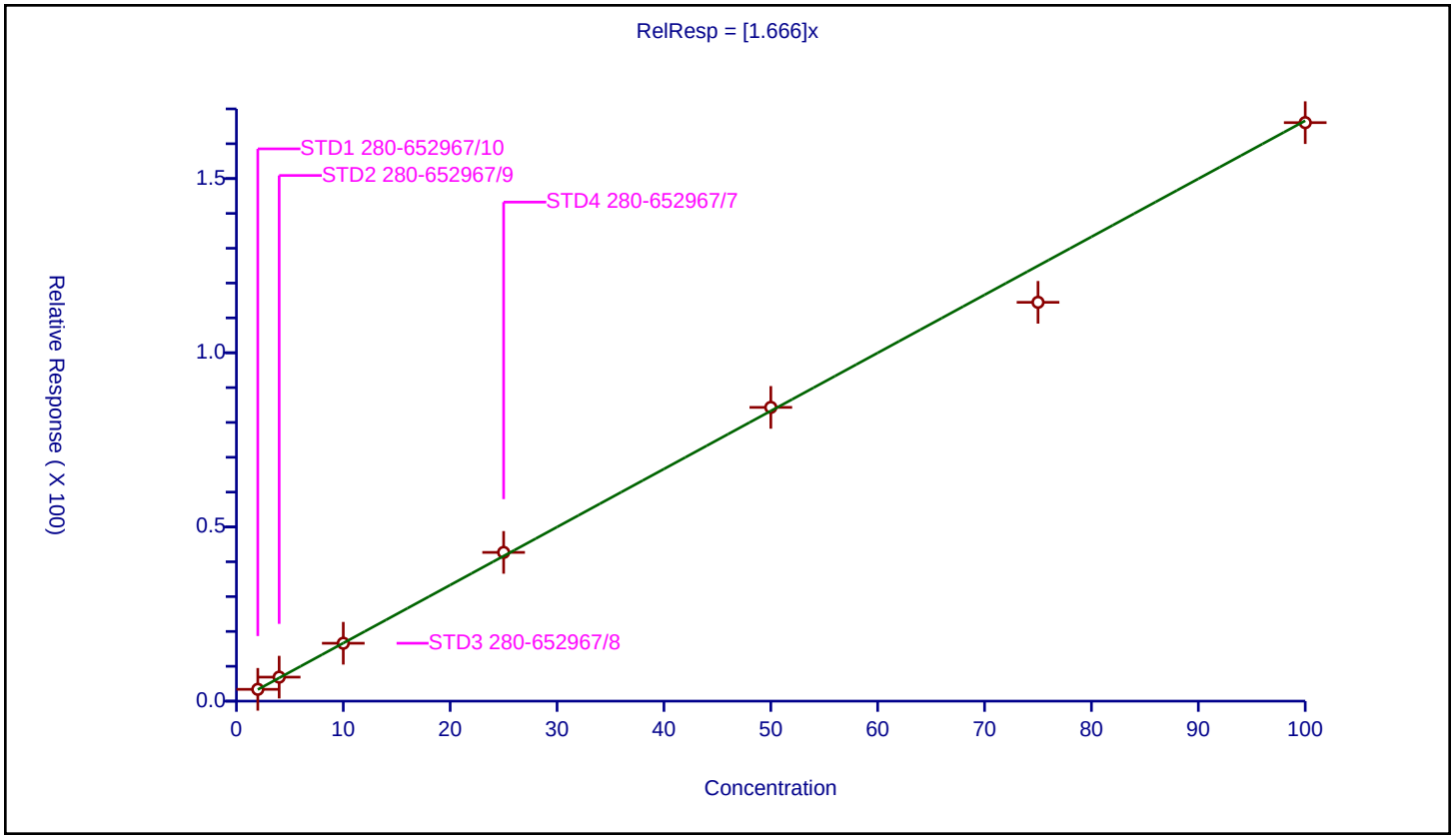
Curve Coefficients

Intercept:	0
Slope:	1.666

Error Coefficients

Relative Standard Deviation:	3.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	3.39344	75.0	96231956.0	1.69672	Y
2	STD2 280-652967/9	4.0	6.890562	75.0	93669369.0	1.72264	Y
3	STD3 280-652967/8	10.0	16.618685	75.0	98615269.0	1.661869	Y
4	STD4 280-652967/7	25.0	42.691976	75.0	92137337.0	1.707679	Y
5	ICIS 280-652967/6	50.0	84.318256	75.0	100179708.0	1.686365	Y
6	STD6 280-652967/5	75.0	114.480839	75.0	105687794.0	1.526411	Y
7	STD7 280-652967/4	100.0	166.054334	75.0	102364407.0	1.660543	Y



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Calibration / cis-Chlordane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

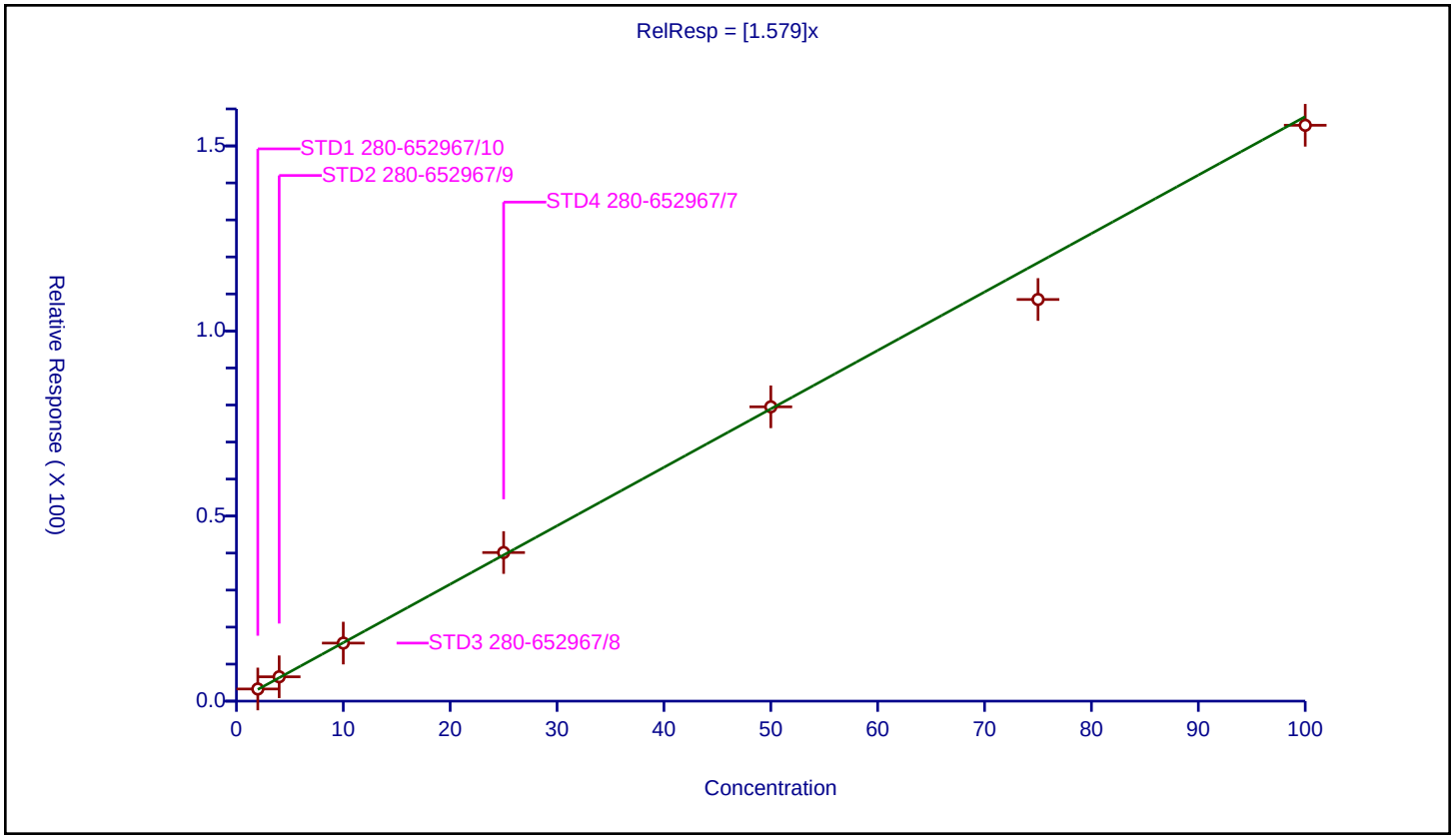
Curve Coefficients

Intercept:	0
Slope:	1.579

Error Coefficients

Relative Standard Deviation:	4.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	3.284448	75.0	96231956.0	1.642224	Y
2	STD2 280-652967/9	4.0	6.579458	75.0	93669369.0	1.644864	Y
3	STD3 280-652967/8	10.0	15.679336	75.0	98615269.0	1.567934	Y
4	STD4 280-652967/7	25.0	40.146249	75.0	92137337.0	1.60585	Y
5	ICIS 280-652967/6	50.0	79.513492	75.0	100179708.0	1.59027	Y
6	STD6 280-652967/5	75.0	108.510726	75.0	105687794.0	1.44681	Y
7	STD7 280-652967/4	100.0	155.574747	75.0	102364407.0	1.555747	Y



5/23/2024
4:40:30 AM

Calibration / Endosulfan I

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

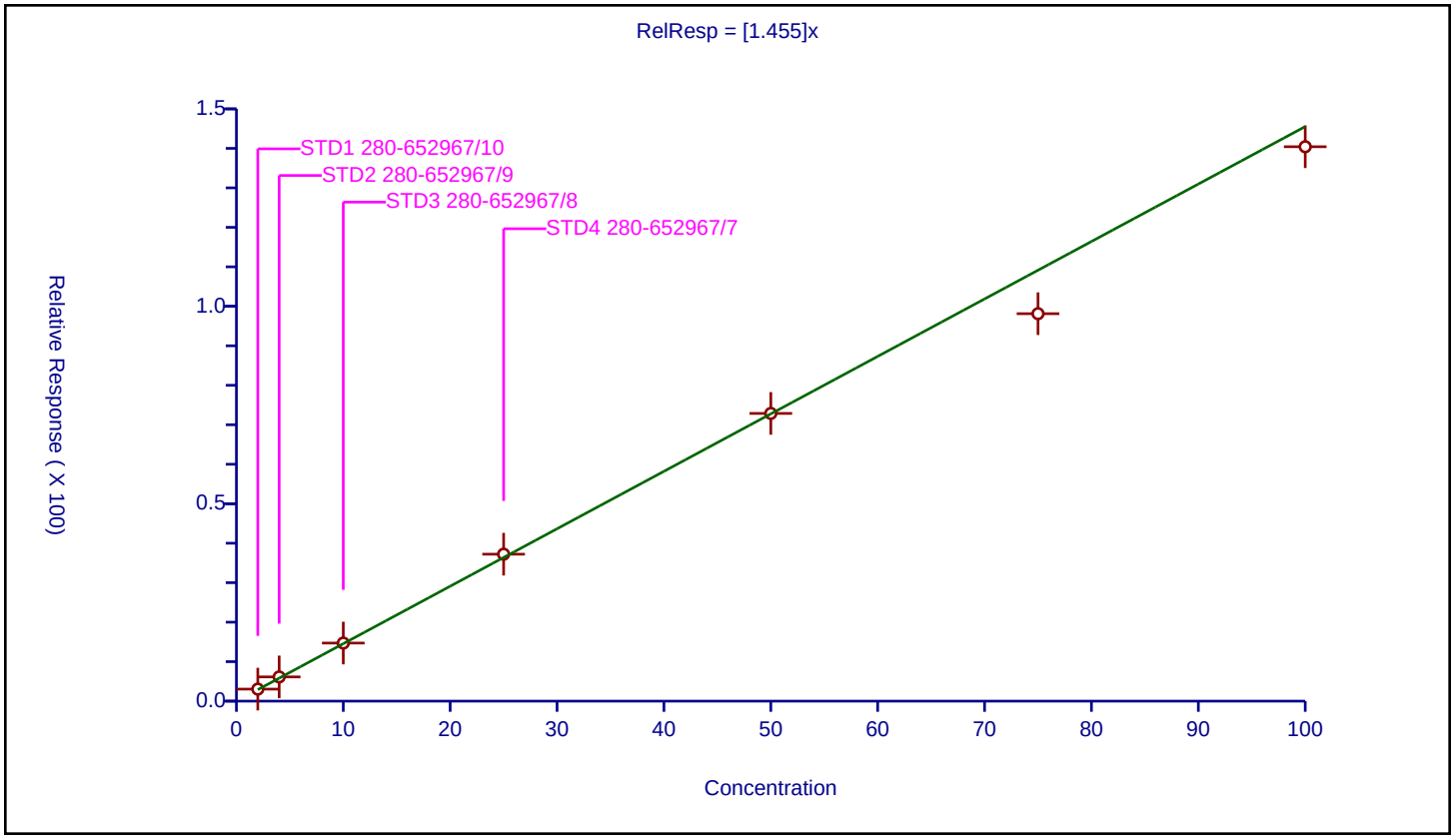
Curve Coefficients

Intercept:	0
Slope:	1.455

Error Coefficients

Relative Standard Deviation:	5.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	3.046096	75.0	96231956.0	1.523048	Y
2	STD2 280-652967/9	4.0	6.13416	75.0	93669369.0	1.53354	Y
3	STD3 280-652967/8	10.0	14.709536	75.0	98615269.0	1.470954	Y
4	STD4 280-652967/7	25.0	37.219202	75.0	92137337.0	1.488768	Y
5	ICIS 280-652967/6	50.0	72.869567	75.0	100179708.0	1.457391	Y
6	STD6 280-652967/5	75.0	98.130332	75.0	105687794.0	1.308404	Y
7	STD7 280-652967/4	100.0	140.4167	75.0	102364407.0	1.404167	Y



5/23/2024
4:40:30 AM

Calibration / 4,4'-DDE

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

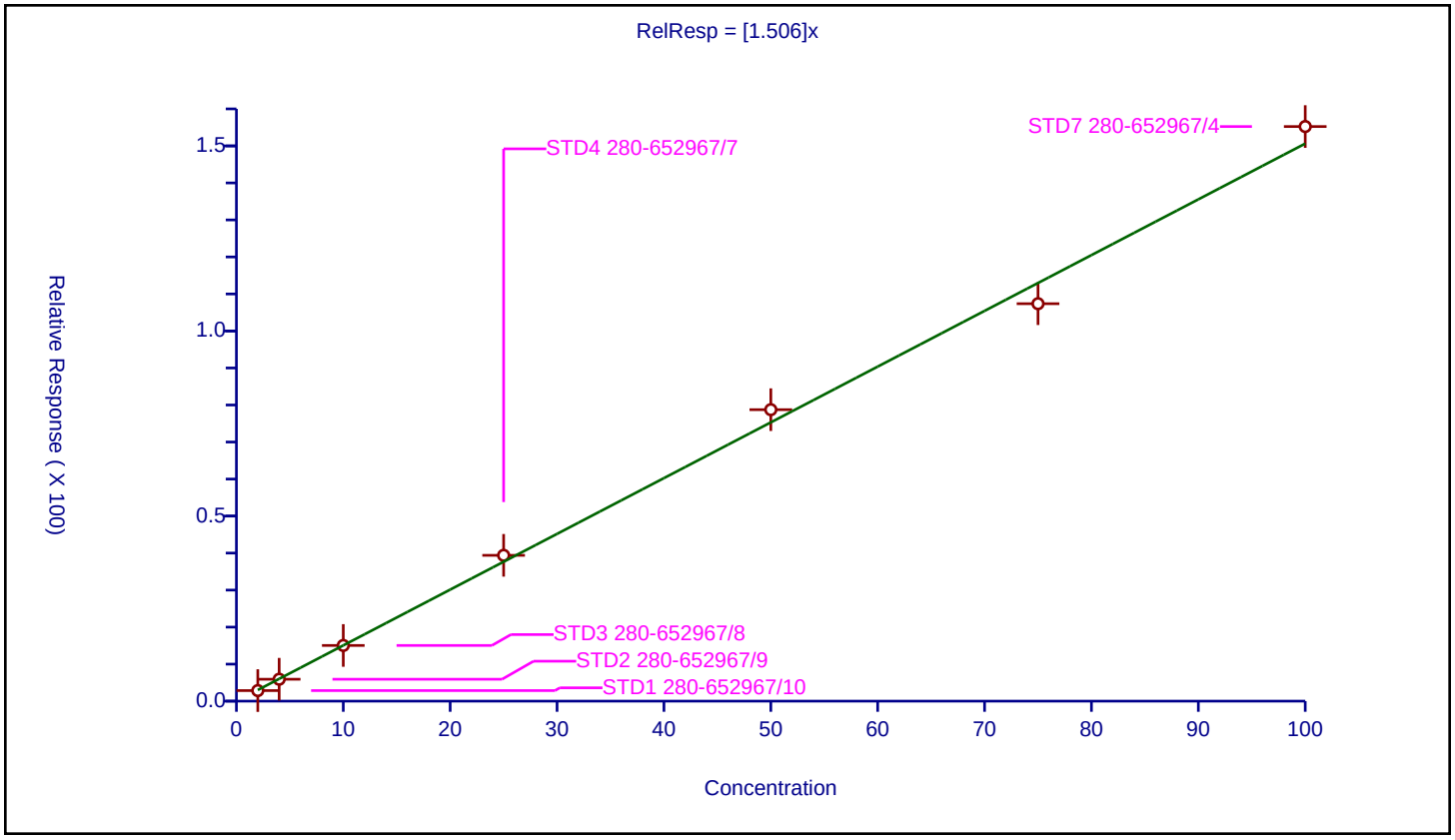
Curve Coefficients

Intercept:	0
Slope:	1.506

Error Coefficients

Relative Standard Deviation:	4.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	2.850092	75.0	96231956.0	1.425046	Y
2	STD2 280-652967/9	4.0	5.918839	75.0	93669369.0	1.47971	Y
3	STD3 280-652967/8	10.0	15.04286	75.0	98615269.0	1.504286	Y
4	STD4 280-652967/7	25.0	39.388769	75.0	92137337.0	1.575551	Y
5	ICIS 280-652967/6	50.0	78.741385	75.0	100179708.0	1.574828	Y
6	STD6 280-652967/5	75.0	107.37021	75.0	105687794.0	1.431603	Y
7	STD7 280-652967/4	100.0	155.231488	75.0	102364407.0	1.552315	Y



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Calibration / Dieldrin

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

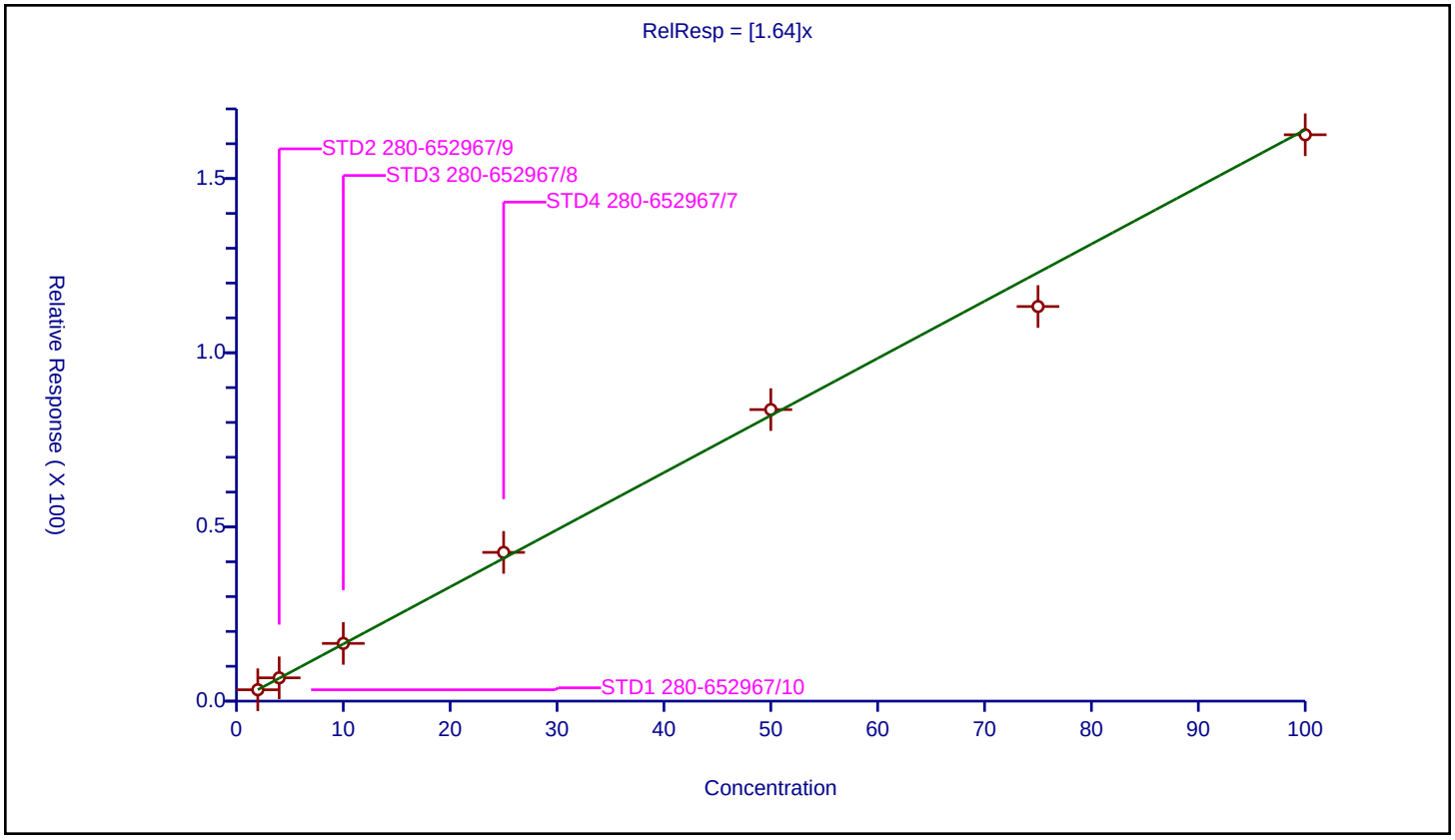
Curve Coefficients

Intercept:	0
Slope:	1.64

Error Coefficients

Relative Standard Deviation:	3.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	3.268182	75.0	96231956.0	1.634091	Y
2	STD2 280-652967/9	4.0	6.684738	75.0	93669369.0	1.671185	Y
3	STD3 280-652967/8	10.0	16.569461	75.0	98615269.0	1.656946	Y
4	STD4 280-652967/7	25.0	42.698915	75.0	92137337.0	1.707957	Y
5	ICIS 280-652967/6	50.0	83.687534	75.0	100179708.0	1.673751	Y
6	STD6 280-652967/5	75.0	113.274478	75.0	105687794.0	1.510326	Y
7	STD7 280-652967/4	100.0	162.577834	75.0	102364407.0	1.625778	Y



Calibration / Endrin

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

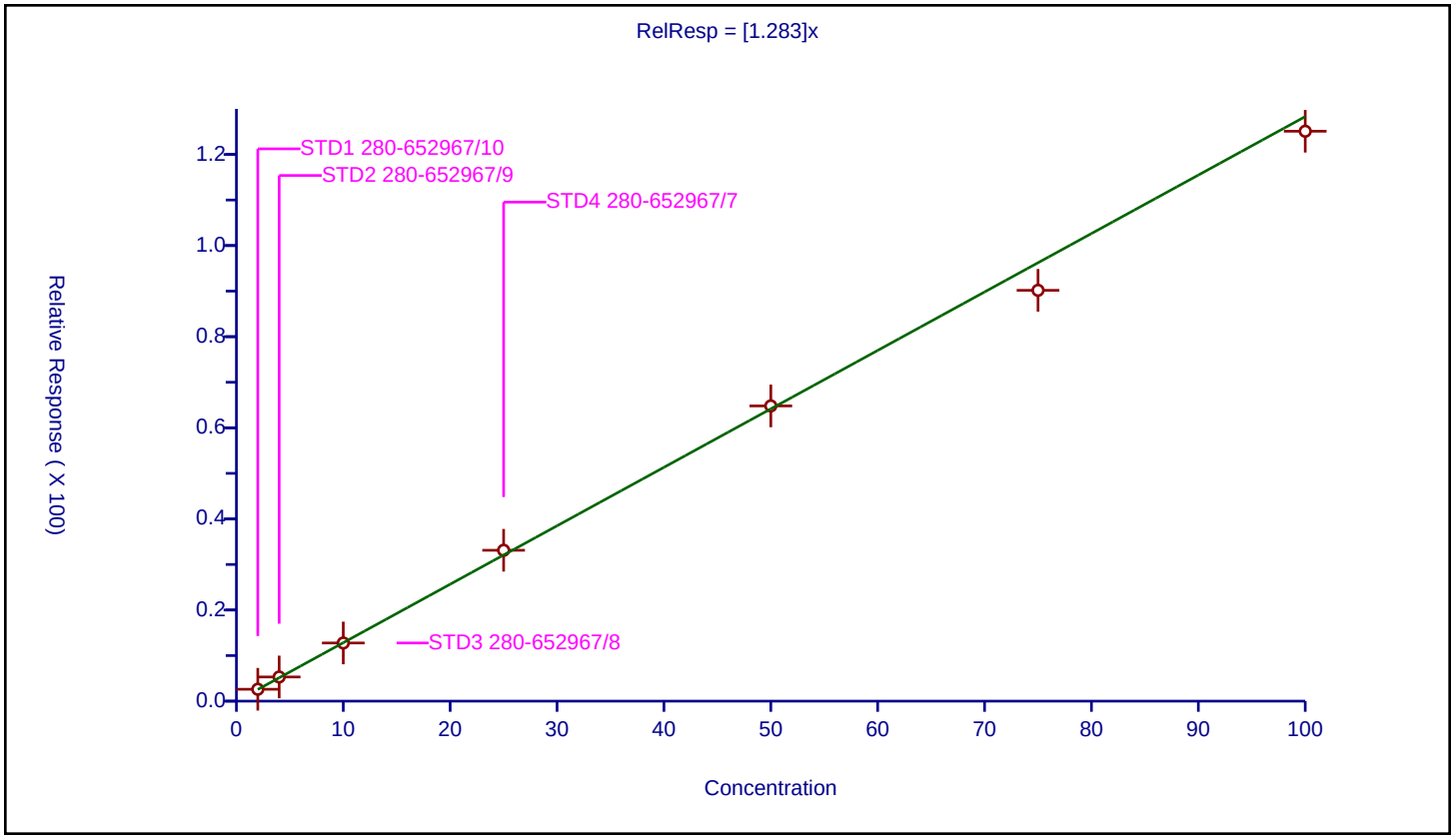
Curve Coefficients

Intercept:	0
Slope:	1.283

Error Coefficients

Relative Standard Deviation:	3.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	2.609231	75.0	96231956.0	1.304616	Y
2	STD2 280-652967/9	4.0	5.303595	75.0	93669369.0	1.325899	Y
3	STD3 280-652967/8	10.0	12.765695	75.0	98615269.0	1.27657	Y
4	STD4 280-652967/7	25.0	33.118311	75.0	92137337.0	1.324732	Y
5	ICIS 280-652967/6	50.0	64.800516	75.0	100179708.0	1.29601	Y
6	STD6 280-652967/5	75.0	90.178	75.0	105687794.0	1.202373	Y
7	STD7 280-652967/4	100.0	125.092492	75.0	102364407.0	1.250925	Y



5/23/2024
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Calibration / 4,4'-DDD

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

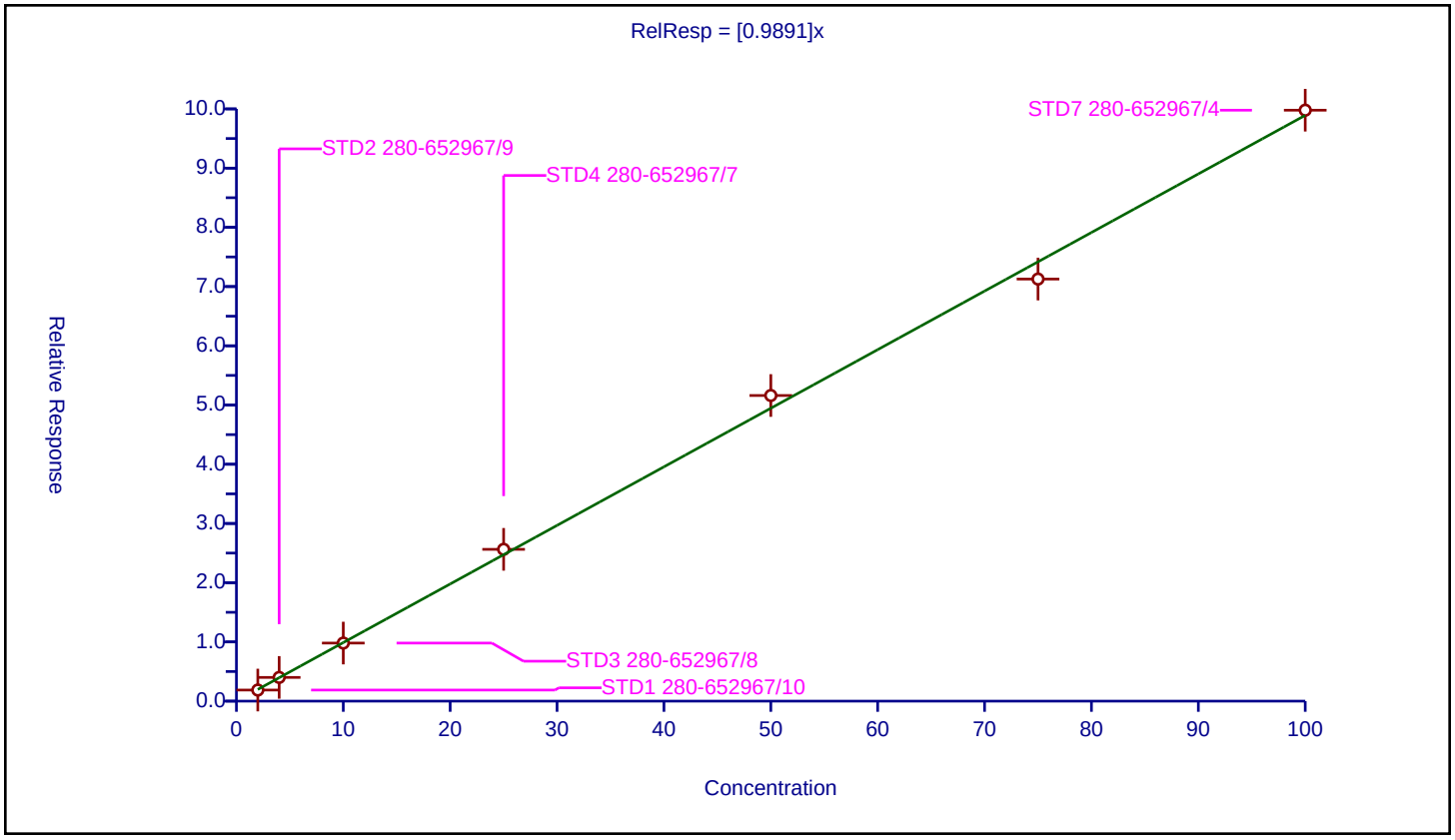
Curve Coefficients

Intercept:	0
Slope:	0.9891

Error Coefficients

Relative Standard Deviation:	3.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	1.872177	75.0	96231956.0	0.936089	Y
2	STD2 280-652967/9	4.0	4.006881	75.0	93669369.0	1.00172	Y
3	STD3 280-652967/8	10.0	9.805962	75.0	98615269.0	0.980596	Y
4	STD4 280-652967/7	25.0	25.630981	75.0	92137337.0	1.025239	Y
5	ICIS 280-652967/6	50.0	51.604601	75.0	100179708.0	1.032092	Y
6	STD6 280-652967/5	75.0	71.267969	75.0	105687794.0	0.95024	Y
7	STD7 280-652967/4	100.0	99.781298	75.0	102364407.0	0.997813	Y



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Calibration / Endosulfan II

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

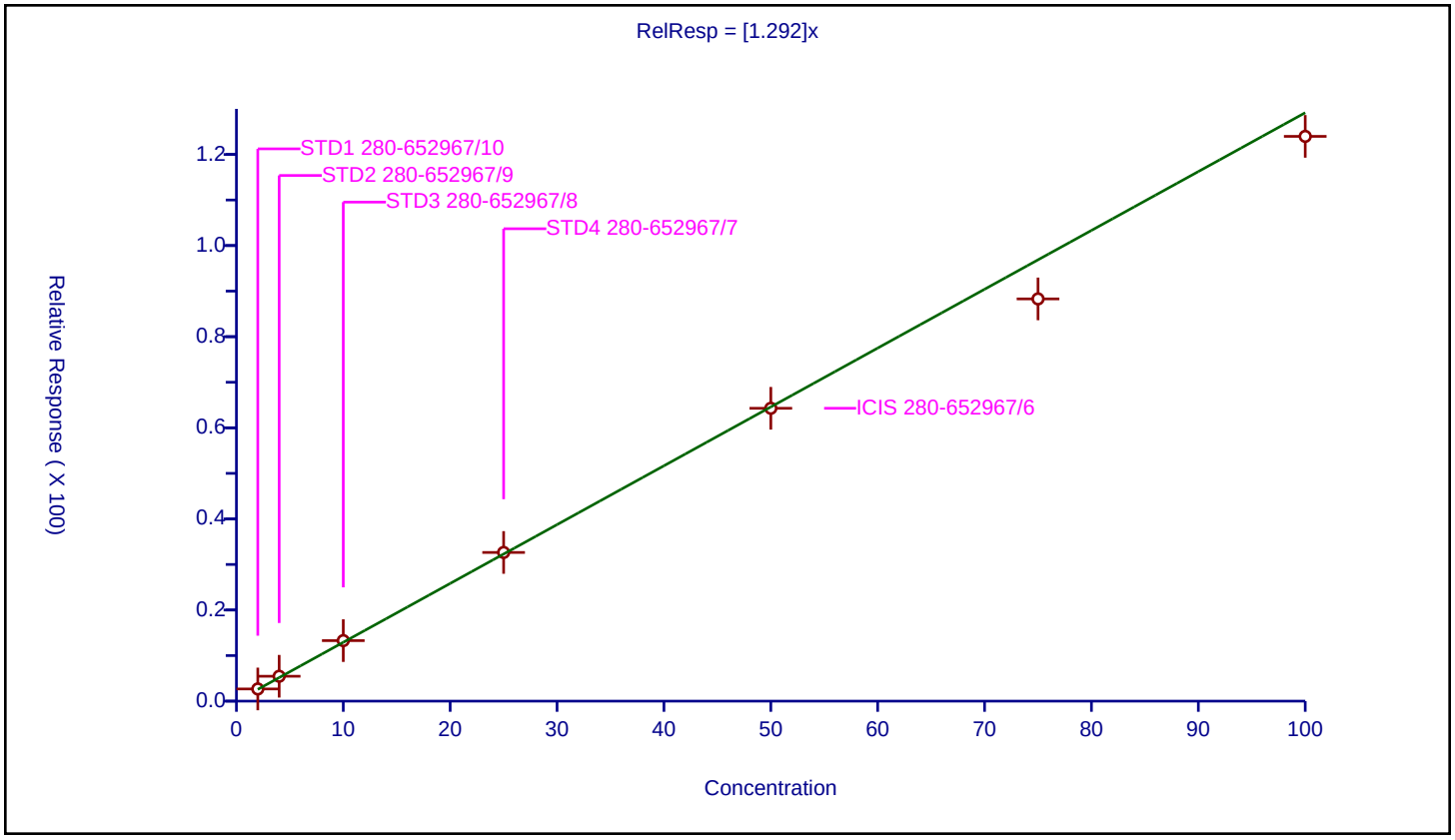
Curve Coefficients

Intercept:	0
Slope:	1.292

Error Coefficients

Relative Standard Deviation:	5.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	2.676134	75.0	96231956.0	1.338067	Y
2	STD2 280-652967/9	4.0	5.464305	75.0	93669369.0	1.366076	Y
3	STD3 280-652967/8	10.0	13.287675	75.0	98615269.0	1.328768	Y
4	STD4 280-652967/7	25.0	32.636124	75.0	92137337.0	1.305445	Y
5	ICIS 280-652967/6	50.0	64.28436	75.0	100179708.0	1.285687	Y
6	STD6 280-652967/5	75.0	88.293369	75.0	105687794.0	1.177245	Y
7	STD7 280-652967/4	100.0	123.966969	75.0	102364407.0	1.23967	Y



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Calibration / Endrin aldehyde

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

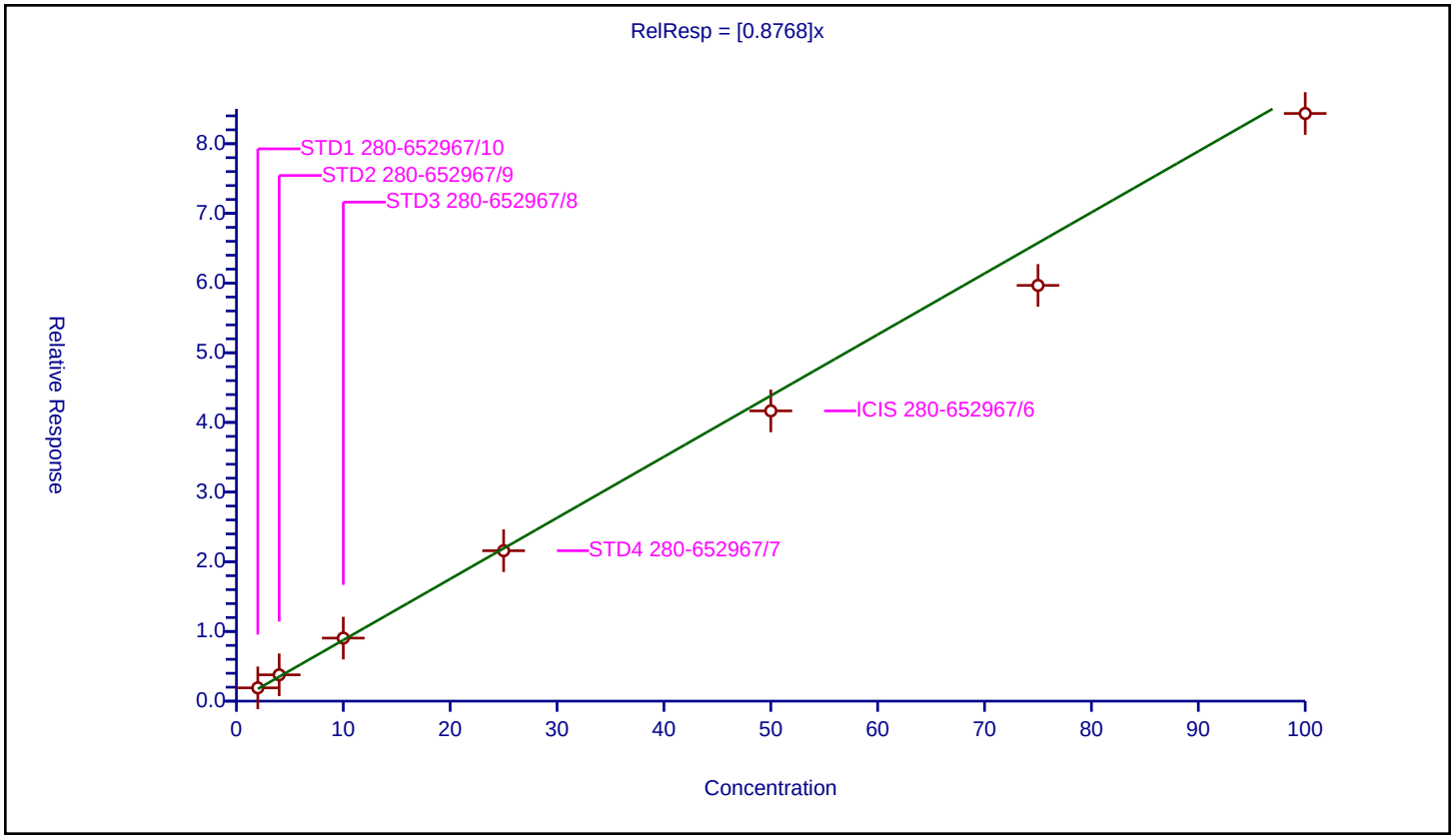
Curve Coefficients

Intercept:	0
Slope:	0.8768

Error Coefficients

Relative Standard Deviation:	6.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	1.905587	75.0	96231956.0	0.952794	Y
2	STD2 280-652967/9	4.0	3.776104	75.0	93669369.0	0.944026	Y
3	STD3 280-652967/8	10.0	9.049751	75.0	98615269.0	0.904975	Y
4	STD4 280-652967/7	25.0	21.589056	75.0	92137337.0	0.863562	Y
5	ICIS 280-652967/6	50.0	41.659526	75.0	100179708.0	0.833191	Y
6	STD6 280-652967/5	75.0	59.666743	75.0	105687794.0	0.795557	Y
7	STD7 280-652967/4	100.0	84.341275	75.0	102364407.0	0.843413	Y



Calibration / 4,4'-DDT

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

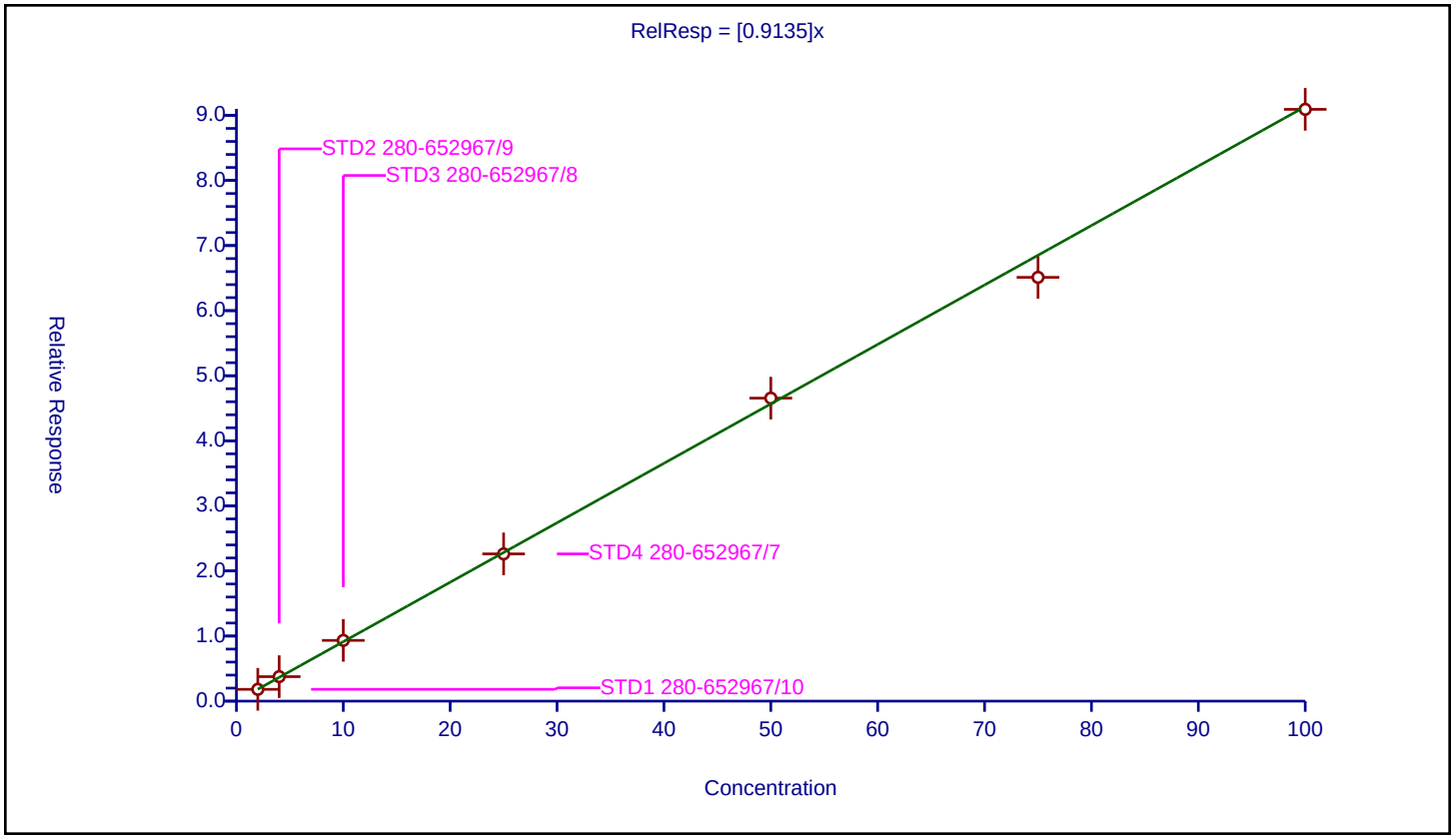
Curve Coefficients

Intercept:	0
Slope:	0.9135

Error Coefficients

Relative Standard Deviation:	2.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	1.814192	75.0	96231956.0	0.907096	Y
2	STD2 280-652967/9	4.0	3.761814	75.0	93669369.0	0.940453	Y
3	STD3 280-652967/8	10.0	9.332211	75.0	98615269.0	0.933221	Y
4	STD4 280-652967/7	25.0	22.623043	75.0	92137337.0	0.904922	Y
5	ICIS 280-652967/6	50.0	46.555226	75.0	100179708.0	0.931105	Y
6	STD6 280-652967/5	75.0	65.11737	75.0	105687794.0	0.868232	Y
7	STD7 280-652967/4	100.0	90.930265	75.0	102364407.0	0.909303	Y



5/23/2024
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Calibration / Endosulfan sulfate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

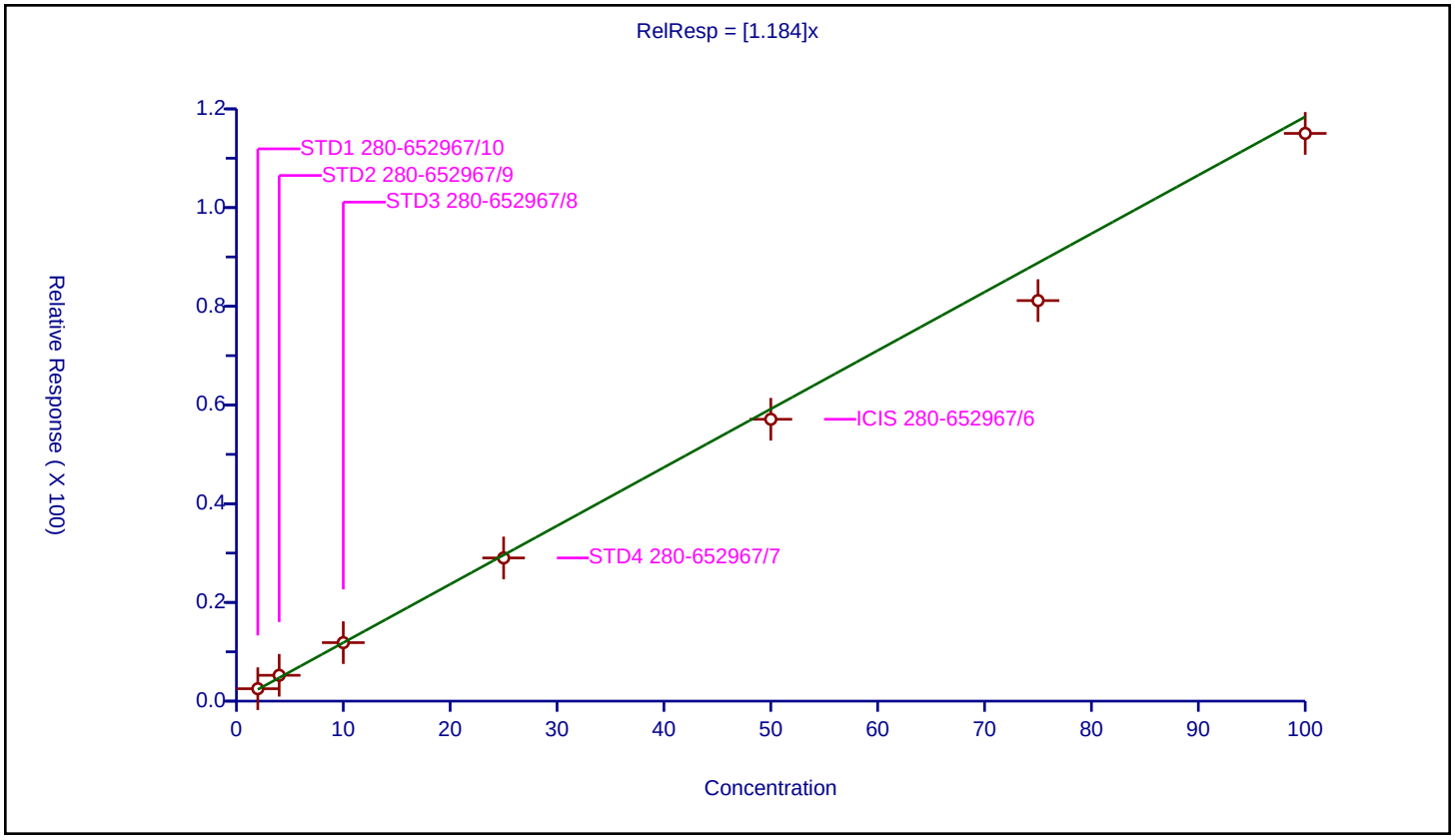
Curve Coefficients

Intercept:	0
Slope:	1.184

Error Coefficients

Relative Standard Deviation:	6.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	2.51632	75.0	96231956.0	1.25816	Y
2	STD2 280-652967/9	4.0	5.236357	75.0	93669369.0	1.309089	Y
3	STD3 280-652967/8	10.0	11.854793	75.0	98615269.0	1.185479	Y
4	STD4 280-652967/7	25.0	29.013085	75.0	92137337.0	1.160523	Y
5	ICIS 280-652967/6	50.0	57.114633	75.0	100179708.0	1.142293	Y
6	STD6 280-652967/5	75.0	81.162723	75.0	105687794.0	1.08217	Y
7	STD7 280-652967/4	100.0	115.035026	75.0	102364407.0	1.15035	Y



Calibration / Methoxychlor

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

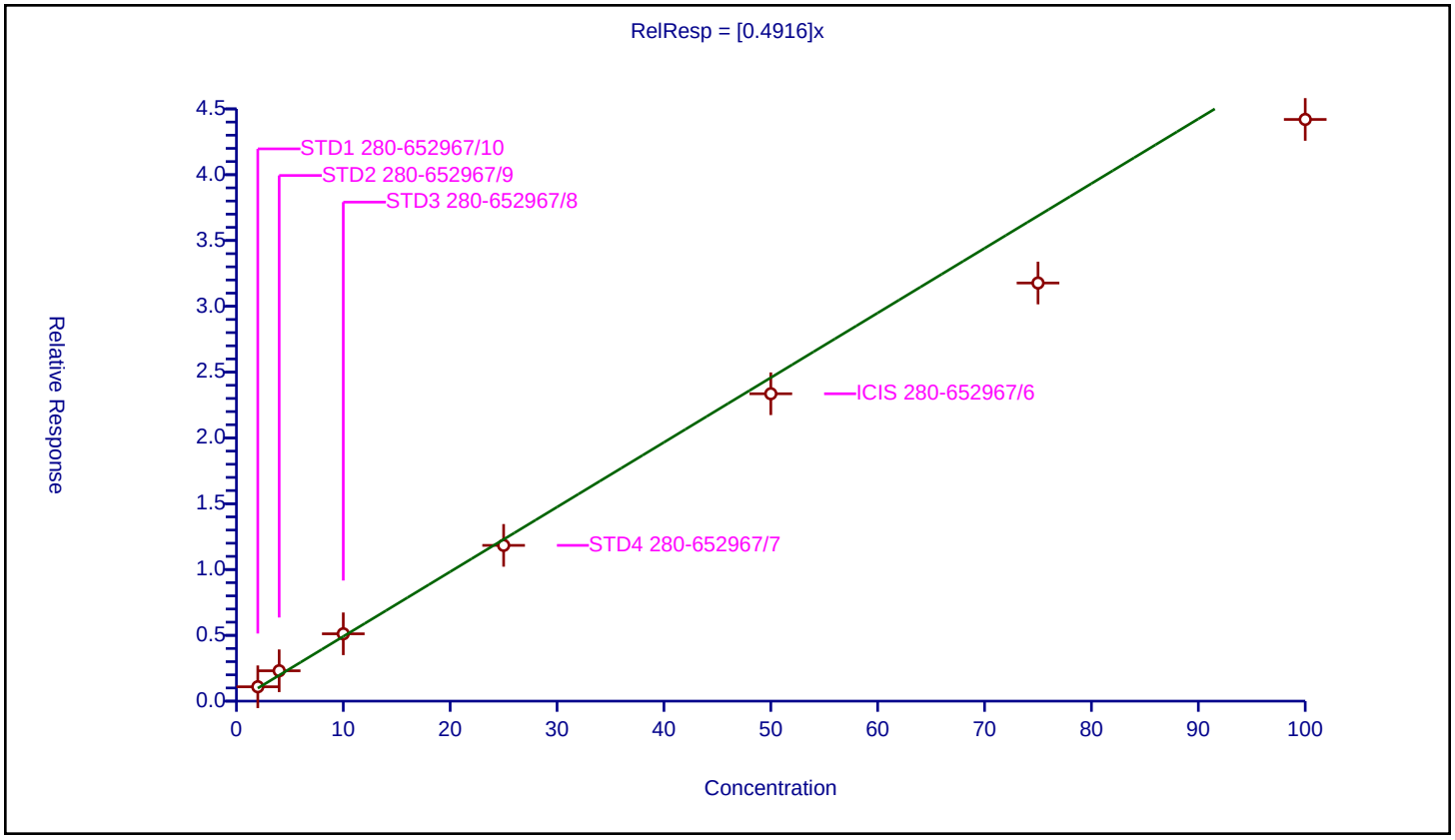
Curve Coefficients

Intercept:	0
Slope:	0.4916

Error Coefficients

Relative Standard Deviation:	11.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	1.091867	75.0	96231956.0	0.545934	Y
2	STD2 280-652967/9	4.0	2.308933	75.0	93669369.0	0.577233	Y
3	STD3 280-652967/8	10.0	5.117173	75.0	98615269.0	0.511717	Y
4	STD4 280-652967/7	25.0	11.836259	75.0	92137337.0	0.47345	Y
5	ICIS 280-652967/6	50.0	23.356815	75.0	100179708.0	0.467136	Y
6	STD6 280-652967/5	75.0	31.771687	75.0	105687794.0	0.423622	Y
7	STD7 280-652967/4	100.0	44.198877	75.0	102364407.0	0.441989	Y



5/23/2024
4:40:30 AM

Calibration / Endrin ketone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

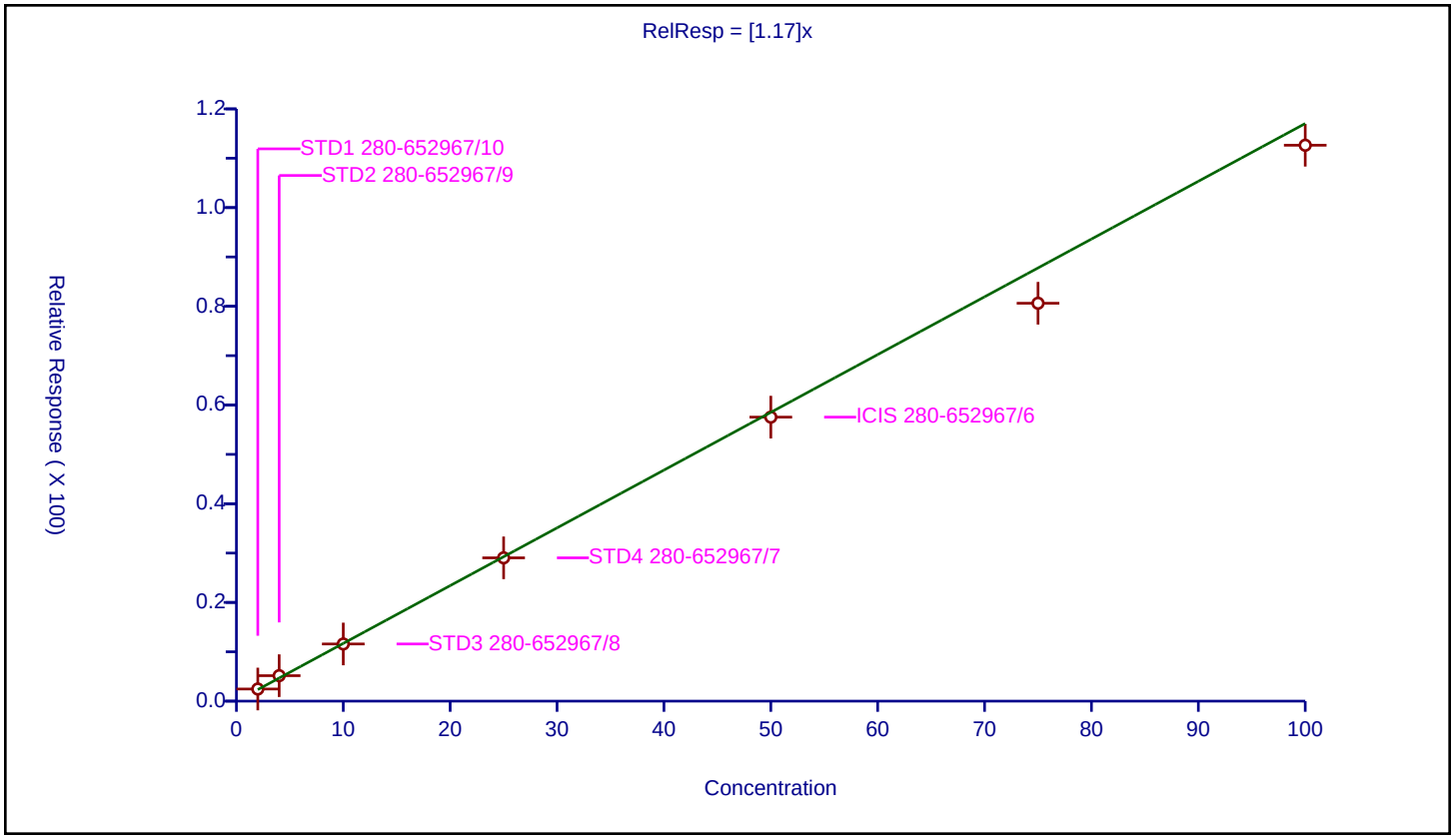
Curve Coefficients

Intercept:	0
Slope:	1.17

Error Coefficients

Relative Standard Deviation:	6.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	2.457199	75.0	96231956.0	1.228599	Y
2	STD2 280-652967/9	4.0	5.164251	75.0	93669369.0	1.291063	Y
3	STD3 280-652967/8	10.0	11.58595	75.0	98615269.0	1.158595	Y
4	STD4 280-652967/7	25.0	29.038541	75.0	92137337.0	1.161542	Y
5	ICIS 280-652967/6	50.0	57.548068	75.0	100179708.0	1.150961	Y
6	STD6 280-652967/5	75.0	80.623582	75.0	105687794.0	1.074981	Y
7	STD7 280-652967/4	100.0	112.634038	75.0	102364407.0	1.12634	Y



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4:40:30 AM

Calibration / DCB Decachlorobiphenyl

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

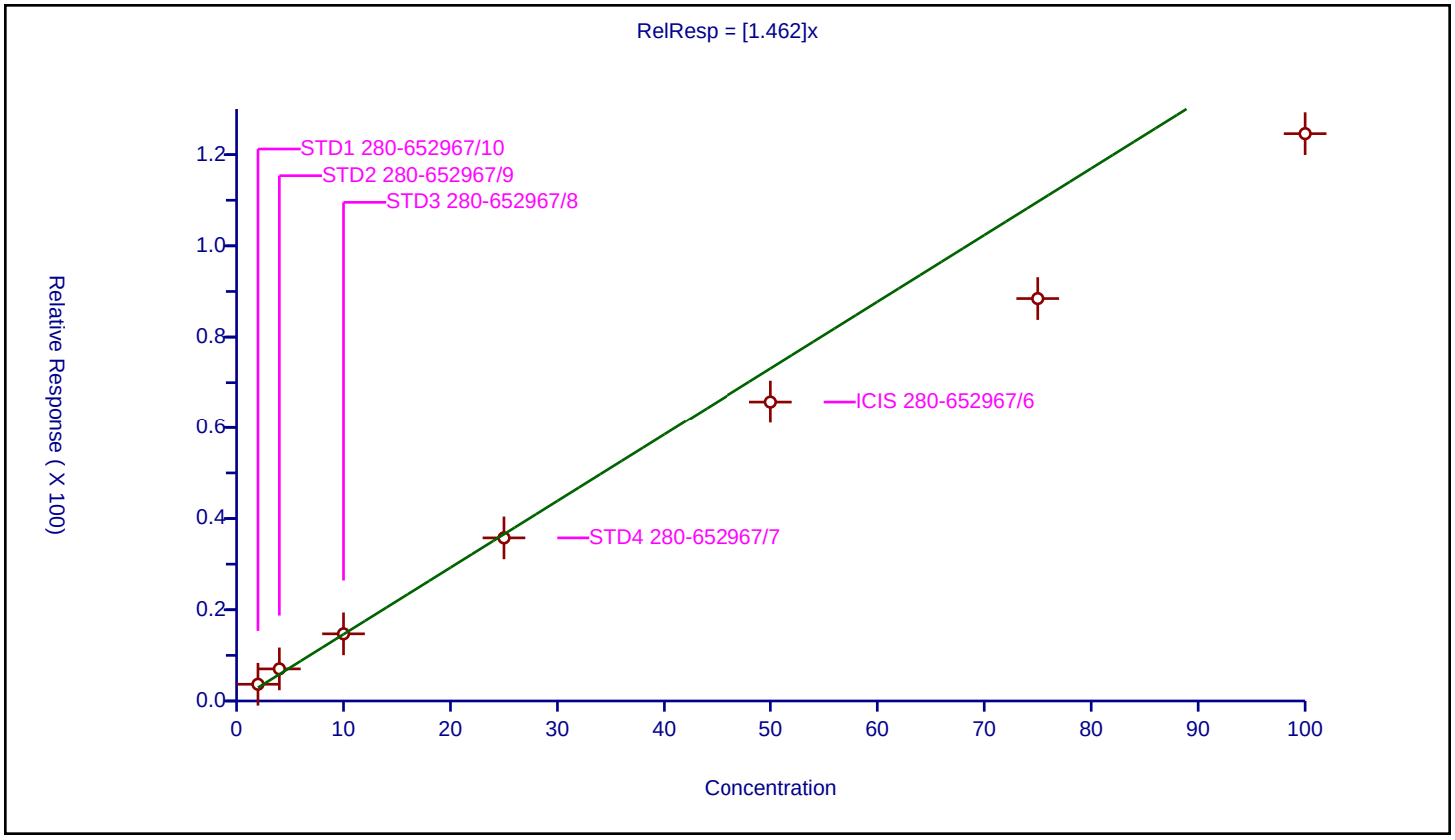
Curve Coefficients

Intercept:	0
Slope:	1.462

Error Coefficients

Relative Standard Deviation:	17.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	3.666938	75.0	96231956.0	1.833469	Y
2	STD2 280-652967/9	4.0	7.034596	75.0	93669369.0	1.758649	Y
3	STD3 280-652967/8	10.0	14.723962	75.0	98615269.0	1.472396	Y
4	STD4 280-652967/7	25.0	35.75756	75.0	92137337.0	1.430302	Y
5	ICIS 280-652967/6	50.0	65.751232	75.0	100179708.0	1.315025	Y
6	STD6 280-652967/5	75.0	88.442908	75.0	105687794.0	1.179239	Y
7	STD7 280-652967/4	100.0	124.598868	75.0	102364407.0	1.245989	Y



FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 652967

SDG No.:

Instrument ID: SGC_C GC Column: RTI-35silms ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/10/2024 13:54 Calibration End Date: 05/10/2024 15:41 Calibration ID: 93260

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 280-652967/10	0510010.D
Level 2	STD2 280-652967/9	0510009.D
Level 3	STD3 280-652967/8	0510008.D
Level 4	STD4 280-652967/7	0510007.D
Level 5	ICIS 280-652967/6	0510006.D
Level 6	STD6 280-652967/5	0510005.D
Level 7	STD7 280-652967/4	0510004.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Hexachlorobenzene	1.8951 1.4215	1.8731 1.4737	1.7513	1.6721	1.6140	Ave		1.6716				11.0		20.0			
alpha-BHC	1.9809 1.8035	2.0538 1.9022	2.0465	2.0381	2.0395	Ave		1.9806				4.8		20.0			
gamma-BHC (Lindane)	1.6468 1.4770	1.6779 1.5561	1.6675	1.6617	1.6714	Ave		1.6226				4.7		20.0			
beta-BHC	0.7807 0.6270	0.7706 0.6640	0.7212	0.7077	0.7062	Ave		0.7111				7.7		20.0			
Heptachlor	1.4013 1.1286	1.3822 1.1789	1.3439	1.3148	1.2897	Ave		1.2913				7.9		20.0			
delta-BHC	1.7052 1.5044	1.7527 1.5712	1.7340	1.7231	1.7103	Ave		1.6716				5.7		20.0			
Aldrin	1.8922 1.5840	1.9367 1.6505	1.9103	1.8686	1.8298	Ave		1.8103				7.6		20.0			
Heptachlor epoxide	1.5620 1.2219	1.5618 1.2811	1.4740	1.4414	1.4069	Ave		1.4213				9.2		20.0			
gamma-Chlordane	1.6526 1.4055	1.6514 1.4734	1.6011	1.5924	1.5926	Ave		1.5670				5.9		20.0			
alpha-Chlordane	1.6543 1.3653	1.6467 1.4460	1.5753	1.5564	1.5659	Ave		1.5443				6.8		20.0			
Endosulfan I	1.4910 1.1855	1.4889 1.2537	1.4143	1.3831	1.3728	Ave		1.3699				8.3		20.0			
4,4'-DDE	1.4605 1.3354	1.4895 1.4086	1.4830	1.5042	1.5178	Ave		1.4570				4.4		20.0			
Dieldrin	1.5863 1.3521	1.6002 1.4232	1.5677	1.5574	1.5443	Ave		1.5187				6.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 652967

SDG No.:

Instrument ID: SGC_C GC Column: RTI-35silms ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/10/2024 13:54 Calibration End Date: 05/10/2024 15:41 Calibration ID: 93260

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Endrin	1.3146 1.0777	1.3185 1.1426	1.2738	1.2583	1.2333	Ave		1.2313				7.3		20.0			
4,4'-DDD	0.9002 0.8139	0.9084 0.8619	0.8753	0.8980	0.9170	Ave		0.8821				4.0		20.0			
Endosulfan II	1.3442 1.0935	1.3571 1.1573	1.2964	1.2839	1.2577	Ave		1.2557				7.7		20.0			
4,4'-DDT	0.8587 0.7355	0.8548 0.7829	0.8165	0.8302	0.8421	Ave		0.8173				5.4		20.0			
Endrin aldehyde	0.9469 0.7592	0.9359 0.8170	0.8888	0.8967	0.8526	Ave		0.8710				7.7		20.0			
Endosulfan sulfate	1.3482 1.0737	1.3409 1.1378	1.2732	1.2655	1.2184	Ave		1.2368				8.2		20.0			
Methoxychlor	0.4812 0.3353	0.4722 0.3500	0.4288	0.4077	0.3939	Ave		0.4099				13.6		20.0			
Endrin ketone	1.2338 0.9713	1.2231 1.0184	1.1517	1.1284	1.1124	Ave		1.1199				8.7		20.0			
Tetrachloro-m-xylene	1.5288 1.2110	1.5103 1.1962	1.4037	1.4099	1.3392	Ave		1.3713				9.6		20.0			
DCB Decachlorobiphenyl	1.4360 0.9755	1.3705 1.0273	1.1811	1.1534	1.1187	Ave		1.1803				14.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 652967

SDG No.:

Instrument ID: SGC_C | GC Column: RTI-35silm ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/10/2024 13:54 | Calibration End Date: 05/10/2024 15:41 | Calibration ID: 93260

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 280-652967/10	0510010.D
Level 2	STD2 280-652967/9	0510009.D
Level 3	STD3 280-652967/8	0510008.D
Level 4	STD4 280-652967/7	0510007.D
Level 5	ICIS 280-652967/6	0510006.D
Level 6	STD6 280-652967/5	0510005.D
Level 7	STD7 280-652967/4	0510004.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Hexachlorobenzene	BNB	Ave	6142063 191183121	11793230 257119533	28859662	65291913	134893000	2.00 75.0	4.00 100	10.0	25.0	50.0
alpha-BHC	BNB	Ave	6419976 242569636	12930410 331877770	33724530	79582660	170452433	2.00 75.0	4.00 100	10.0	25.0	50.0
gamma-BHC (Lindane)	BNB	Ave	5337179 198653926	10563985 271492776	27478368	64886176	139685784	2.00 75.0	4.00 100	10.0	25.0	50.0
beta-BHC	BNB	Ave	2530328 84327121	4851659 115847526	11884141	27632930	59021887	2.00 75.0	4.00 100	10.0	25.0	50.0
Heptachlor	BNB	Ave	4541455 151786586	8702269 205678865	22145234	51340674	107788152	2.00 75.0	4.00 100	10.0	25.0	50.0
delta-BHC	BNB	Ave	5526645 202334839	11034909 274120457	28574712	67283345	142935859	2.00 75.0	4.00 100	10.0	25.0	50.0
Aldrin	BNB	Ave	6132714 213049170	12193147 287950814	31479773	72965086	152927494	2.00 75.0	4.00 100	10.0	25.0	50.0
Heptachlor epoxide	BNB	Ave	5062533 164337599	9833350 223517451	24290505	56284665	117579911	2.00 75.0	4.00 100	10.0	25.0	50.0
gamma-Chlordane	BNB	Ave	5356096 189037324	10397220 257059435	26384745	62181968	133098917	2.00 75.0	4.00 100	10.0	25.0	50.0
alpha-Chlordane	BNB	Ave	5361421 183623620	10367883 252287943	25959221	60774802	130872603	2.00 75.0	4.00 100	10.0	25.0	50.0
Endosulfan I	BNB	Ave	4832340 159447363	9374294 218735553	23305749	54008379	114730456	2.00 75.0	4.00 100	10.0	25.0	50.0
4,4'-DDE	BNB	Ave	4733568 179602363	9377660 245752692	24438333	58738111	126853032	2.00 75.0	4.00 100	10.0	25.0	50.0
Dieldrin	BNB	Ave	5141161 181853159	10074769 248305219	25834481	60814283	129064551	2.00 75.0	4.00 100	10.0	25.0	50.0
Endrin	BNB	Ave	4260680 144950717	8301094 199352642	20991394	49136163	103072405	2.00 75.0	4.00 100	10.0	25.0	50.0
4,4'-DDD	BNB	Ave	2917445 109467905	5719475 150370230	14424437	35065073	76642111	2.00 75.0	4.00 100	10.0	25.0	50.0
Endosulfan II	BNB	Ave	4356564	8544162	21363683	50133480	105110399	2.00	4.00	10.0	25.0	50.0

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 652967

SDG No.:

Instrument ID: SGC_C | GC Column: RTI-35silm ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/10/2024 13:54 | Calibration End Date: 05/10/2024 15:41 | Calibration ID: 93260

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			147077064	201911677				75.0	100			
4,4'-DDT	BNB	Ave	2783023 98919850	5381819 136593565	13455699	32418073	70378912	2.00 75.0	4.00 100	10.0	25.0	50.0
Endrin aldehyde	BNB	Ave	3068886 102104029	5892164 142531795	14647142	35012835	71258495	2.00 75.0	4.00 100	10.0	25.0	50.0
Endosulfan sulfate	BNB	Ave	4369611 144402687	8442333 198507030	20980050	49414973	101825256	2.00 75.0	4.00 100	10.0	25.0	50.0
Methoxychlor	BNB	Ave	1559526 45100302	2972837 61058057	7066582	15919297	32922853	2.00 75.0	4.00 100	10.0	25.0	50.0
Endrin ketone	BNB	Ave	3998840 130640700	7700566 177670635	18979034	44062795	92971418	2.00 75.0	4.00 100	10.0	25.0	50.0
Tetrachloro-m-xylene	BNB	Ave	4954817 162880961	9508838 208701074	23131205	55054688	111922506	2.00 75.0	4.00 100	10.0	25.0	50.0
DCB Decachlorobiphenyl	BNB	Ave	4654003 131196825	8628516 179222184	19462606	45037050	93495656	2.00 75.0	4.00 100	10.0	25.0	50.0

Curve Type Legend:
Ave = Average ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510004.D
Lims ID: STD7 AB
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 10-May-2024 13:54:58 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD7 AB
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 13-May-2024 08:13:07 Calib Date: 10-May-2024 16:53:03
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510014.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1608

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						411.0	
2						379.3	
						RPD = 8.01	
* 2 1-Bromo-2-nitrobenzene							
1	3.231	3.231	0.000	102364407	75.0	75.0	
2	2.818	2.817	0.000	130850922	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.569	4.570	-0.001	182091157	100.0	96.0	
2	3.779	3.778	0.001	208701074	100.0	87.2	
						RPD = 9.61	
7 alpha-BHC							
1	4.906	4.906	0.000	277501288	100.0	105.1	
2	4.302	4.301	0.001	331877770	100.0	96.0	
						RPD = 8.99	
6 Hexachlorobenzene							
1	4.970	4.971	-0.001	213156273	100.0	94.9	
2	4.211	4.211	0.000	257119533	100.0	88.2	
						RPD = 7.39	
8 gamma-BHC (Lindane)							
1	5.179	5.179	0.000	229046860	100.0	104.4	
2	4.585	4.586	-0.001	271492776	100.0	95.9	
						RPD = 8.51	
11 beta-BHC							
1	5.416	5.416	0.000	93639606	100.0	96.0	
2	4.754	4.756	-0.002	115847526	100.0	93.4	
						RPD = 2.78	
13 delta-BHC							
1	5.668	5.668	0.000	242034699	100.0	105.5	
2	4.958	4.959	-0.001	274120457	100.0	94.0	
						RPD = 11.50	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
12 Heptachlor							
1	5.749	5.749	0.000	197278541	100.0	98.6	
2	4.844	4.844	0.000	205678865	100.0	91.3	
						RPD = 7.72	
15 Aldrin							
1	6.112	6.113	-0.001	253110083	100.0	99.3	
2	5.071	5.071	0.000	287950814	100.0	91.2	
						RPD = 8.55	
17 Isodrin							
1	6.509	6.511	-0.002	185529890	100.0	94.8	
2	5.407	5.408	-0.001	211331355	100.0	88.1	
						RPD = 7.26	
19 Heptachlor epoxide							
1	6.635	6.637	-0.002	202678983	100.0	96.2	
2	5.522	5.523	-0.001	223517451	100.0	90.1	
						RPD = 6.54	
20 trans-Chlordane							
1	7.004	7.005	-0.001	226640713	100.0	99.7	
2	5.737	5.739	-0.002	257059435	100.0	94.0	
						RPD = 5.83	
23 cis-Chlordane							
1	7.064	7.064	0.000	212337556	100.0	98.5	
2	5.842	5.844	-0.002	252287943	100.0	93.6	
						RPD = 5.08	
24 Endosulfan I							
1	7.104	7.105	-0.001	191648963	100.0	96.5	
2	5.894	5.896	-0.002	218735553	100.0	91.5	
						RPD = 5.29	
25 4,4'-DDE							
1	7.237	7.238	-0.001	211869056	100.0	103.1	
2	6.071	6.072	-0.001	245752692	100.0	96.7	
						RPD = 6.39	
26 Dieldrin							
1	7.396	7.396	0.000	221895781	100.0	99.1	
2	6.224	6.225	-0.001	248305219	100.0	93.7	
						RPD = 5.62	
29 Endrin							
1	7.649	7.651	-0.002	170733583	100.0	97.5	
2	6.595	6.596	-0.001	199352642	100.0	92.8	
						RPD = 4.94	
32 4,4'-DDD							
1	7.807	7.808	-0.001	136187379	100.0	100.9	
2	6.750	6.751	-0.001	150370230	100.0	97.7	
						RPD = 3.20	
33 Endosulfan II							
1	7.934	7.935	-0.001	169197403	100.0	96.0	
2	6.893	6.894	-0.001	201911677	100.0	92.2	
						RPD = 4.06	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
35 Endrin aldehyde							
1	8.052	8.053	-0.001	115113928	100.0	96.2	
2	7.159	7.160	-0.001	142531795	100.0	93.8	
						RPD = 2.53	
34 4,4'-DDT							
1	8.136	8.136	0.000	124106969	100.0	99.5	
2	7.068	7.069	-0.001	136593565	100.0	95.8	
						RPD = 3.83	
36 Endosulfan sulfate							
1	8.350	8.351	-0.001	157006563	100.0	97.2	
2	7.377	7.378	-0.001	198507030	100.0	92.0	
						RPD = 5.46	
37 Methoxychlor							
1	8.604	8.605	-0.001	60325224	100.0	89.9	
2	7.834	7.834	0.000	61058057	100.0	85.4	
						RPD = 5.16	
38 Endrin ketone							
1	8.812	8.813	-0.001	153729554	100.0	96.2	
2	8.021	8.021	0.000	177670635	100.0	90.9	
						RPD = 5.67	
39 Mirex							
1	9.453	9.454	-0.001	129077081	100.0	88.3	
2	8.134	8.134	0.000	165953600	100.0	91.2	
						RPD = 3.20	
$ 40 DCB Decachlorobiphenyl							
1	11.063	11.063	0.000	170059856	100.0	85.2	
2	9.260	9.260	0.000	179222184	100.0	87.0	
						RPD = 2.11	
S 42 Endosulfan, Total							
1						289.6	
2						275.7	
						RPD = 4.94	

Reagents:

8081IcalL6_00049	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

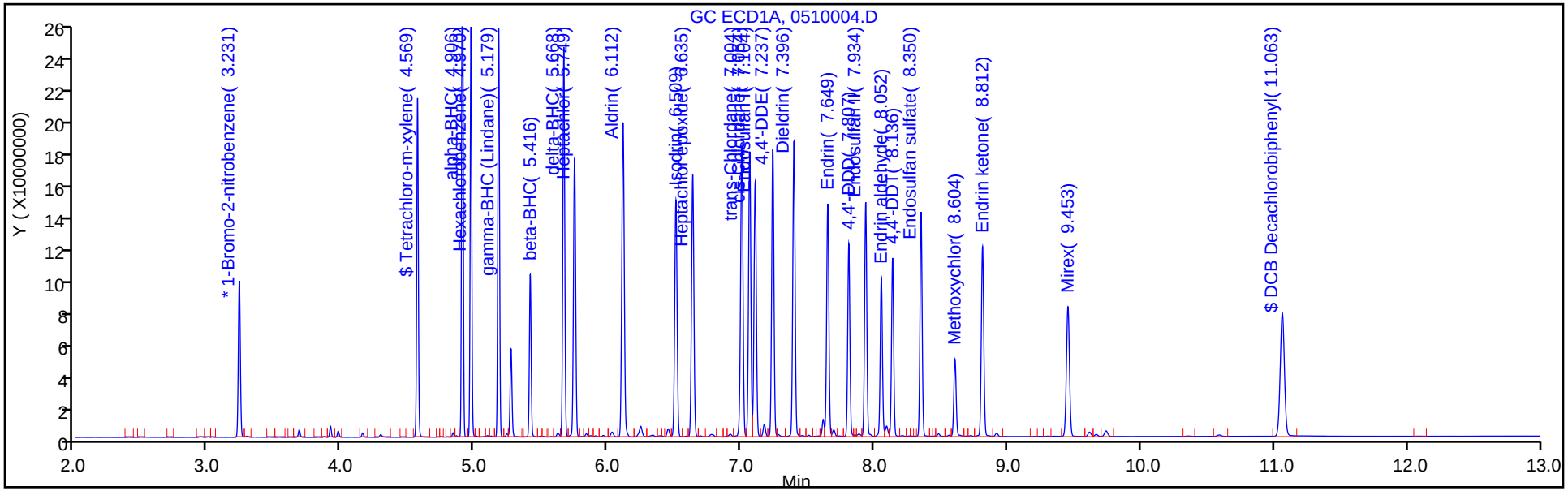
Report Date: 13-May-2024 08:13:08 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

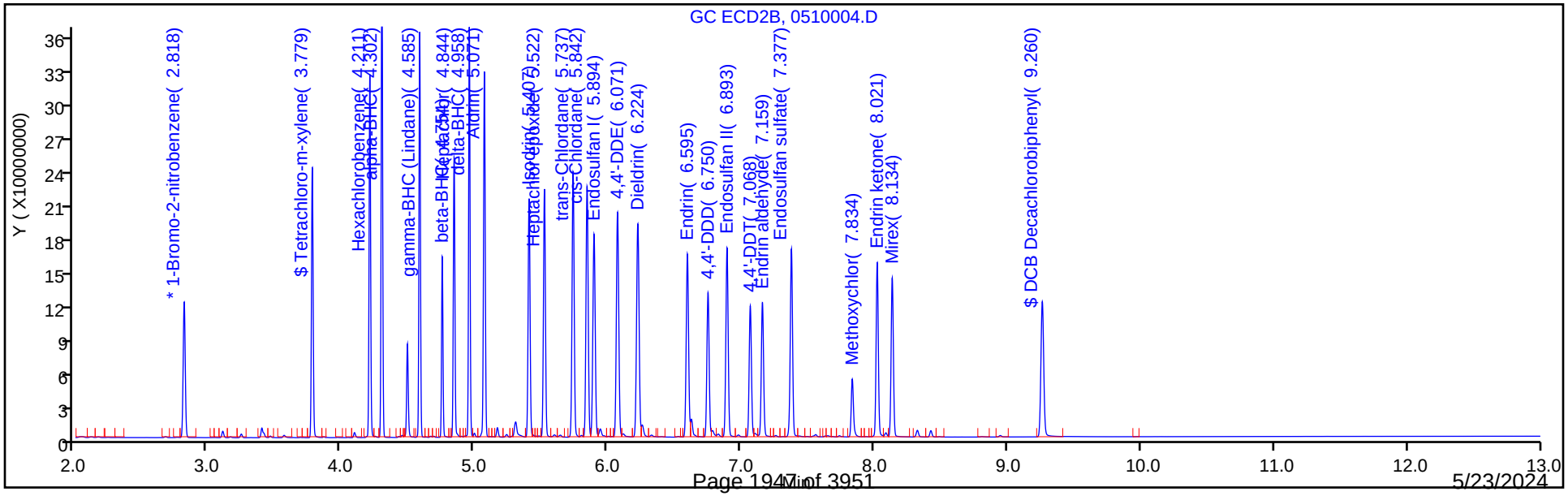
Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510004.D

Injection Date:	10-May-2024 13:54:58	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	STD7 AB			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510005.D
Lims ID: STD6 AB
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 10-May-2024 14:12:54 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD6 AB
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 13-May-2024 08:13:13 Calib Date: 10-May-2024 16:53:03
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510014.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1608

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						284.6	
2						270.2	
						RPD = 5.20	
* 2 1-Bromo-2-nitrobenzene							
1	3.230	3.231	-0.002	105687794	75.0	75.0	
2	2.814	2.817	-0.003	134496709	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.569	4.570	-0.001	131308229	75.0	67.1	
2	3.778	3.778	0.000	162880961	75.0	66.2	
						RPD = 1.27	
7 alpha-BHC							
1	4.906	4.906	0.000	197757822	75.0	72.5	
2	4.301	4.301	0.000	242569636	75.0	68.3	
						RPD = 6.02	
6 Hexachlorobenzene							
1	4.970	4.971	-0.001	153269797	75.0	66.1	
2	4.210	4.211	-0.001	191183121	75.0	63.8	
						RPD = 3.59	
8 gamma-BHC (Lindane)							
1	5.179	5.179	0.000	163930948	75.0	72.4	
2	4.585	4.586	-0.001	198653926	75.0	68.3	
						RPD = 5.85	
11 beta-BHC							
1	5.416	5.416	0.000	67200516	75.0	66.7	
2	4.754	4.756	-0.002	84327121	75.0	66.1	
						RPD = 0.91	
13 delta-BHC							
1	5.668	5.668	0.000	172877767	75.0	73.0	
2	4.957	4.959	-0.002	202334839	75.0	67.5	
						RPD = 7.78	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
12 Heptachlor							
1	5.750	5.749	0.001	143596217	75.0	69.5	
2	4.843	4.844	-0.001	151786586	75.0	65.5	
						RPD = 5.90	
15 Aldrin							
1	6.113	6.113	0.000	183389451	75.0	69.7	
2	5.070	5.071	-0.001	213049170	75.0	65.6	
						RPD = 6.01	
17 Isodrin							
1	6.511	6.511	0.000	134563087	75.0	66.6	
2	5.407	5.408	-0.001	156797047	75.0	63.6	
						RPD = 4.55	
19 Heptachlor epoxide							
1	6.636	6.637	-0.001	146233179	75.0	67.2	
2	5.522	5.523	-0.001	164337599	75.0	64.5	
						RPD = 4.20	
20 trans-Chlordane							
1	7.005	7.005	0.000	161323031	75.0	68.7	
2	5.737	5.739	-0.002	189037324	75.0	67.3	
						RPD = 2.12	
23 cis-Chlordane							
1	7.064	7.064	0.000	152910124	75.0	68.7	
2	5.843	5.844	-0.001	183623620	75.0	66.3	
						RPD = 3.57	
24 Endosulfan I							
1	7.105	7.105	0.000	138282378	75.0	67.4	
2	5.895	5.896	-0.001	159447363	75.0	64.9	
						RPD = 3.82	
25 4,4'-DDE							
1	7.238	7.238	0.000	151302942	75.0	71.3	
2	6.071	6.072	-0.001	179602363	75.0	68.7	
						RPD = 3.64	
26 Dieldrin							
1	7.396	7.396	0.000	159623062	75.0	69.1	
2	6.223	6.225	-0.002	181853159	75.0	66.8	
						RPD = 3.39	
29 Endrin							
1	7.650	7.651	-0.001	127076185	75.0	70.3	
2	6.596	6.596	0.000	144950717	75.0	65.6	
						RPD = 6.83	
32 4,4'-DDD							
1	7.808	7.808	0.000	100428726	75.0	72.1	
2	6.750	6.751	-0.001	109467905	75.0	69.2	
						RPD = 4.04	
33 Endosulfan II							
1	7.935	7.935	0.000	124420418	75.0	68.4	
2	6.893	6.894	-0.001	147077064	75.0	65.3	
						RPD = 4.56	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
35 Endrin aldehyde							
1	8.053	8.053	0.000	84080619	75.0	68.1	
2	7.160	7.160	0.000	102104029	75.0	65.4	
						RPD = 4.02	
34 4,4'-DDT							
1	8.137	8.136	0.001	91761483	75.0	71.3	
2	7.069	7.069	0.000	98919850	75.0	67.5	
						RPD = 5.46	
36 Endosulfan sulfate							
1	8.351	8.351	0.000	114372122	75.0	68.5	
2	7.377	7.378	-0.001	144402687	75.0	65.1	
						RPD = 5.15	
37 Methoxychlor							
1	8.605	8.605	0.000	44771727	75.0	64.6	
2	7.835	7.834	0.001	45100302	75.0	61.4	
						RPD = 5.19	
38 Endrin ketone							
1	8.812	8.813	-0.001	113612381	75.0	68.9	
2	8.021	8.021	0.000	130640700	75.0	65.1	
						RPD = 5.73	
39 Mirex							
1	9.454	9.454	0.000	94550175	75.0	62.7	
2	8.135	8.134	0.001	121660017	75.0	65.1	
						RPD = 3.72	
$ 40 DCB Decachlorobiphenyl							
1	11.063	11.063	0.000	124631144	75.0	60.5	
2	9.260	9.260	0.000	131196825	75.0	62.0	
						RPD = 2.44	
S 42 Endosulfan, Total							
1						204.3	
2						195.3	
						RPD = 4.51	

Reagents:

8081IcalL5_00048	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

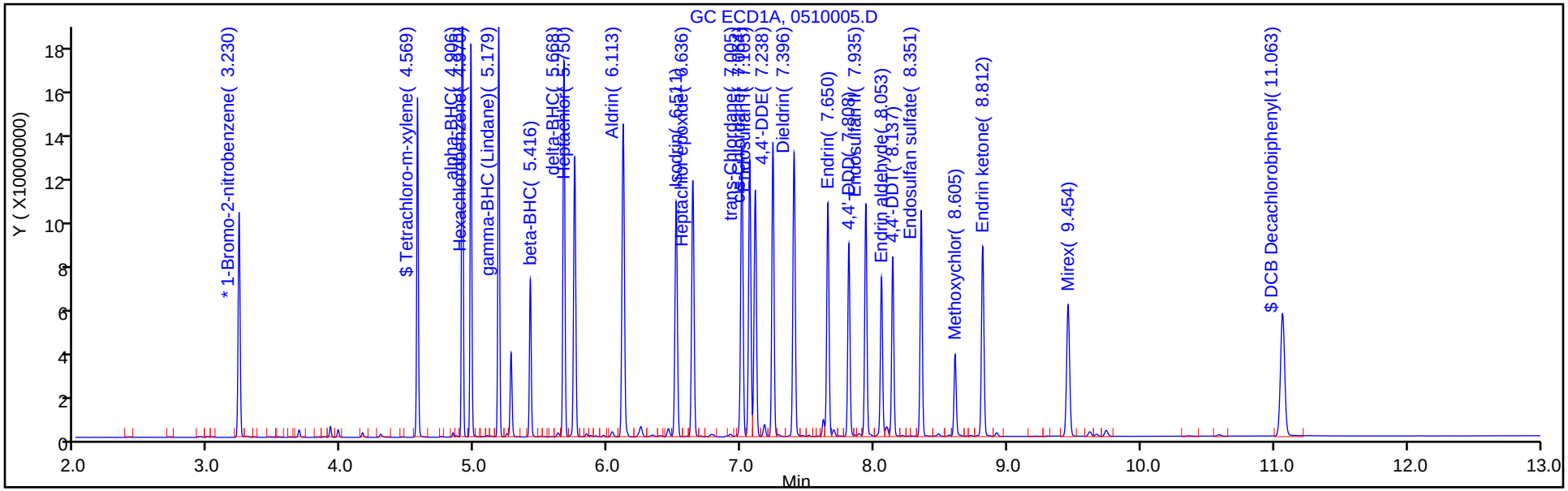
Report Date: 13-May-2024 08:13:14 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

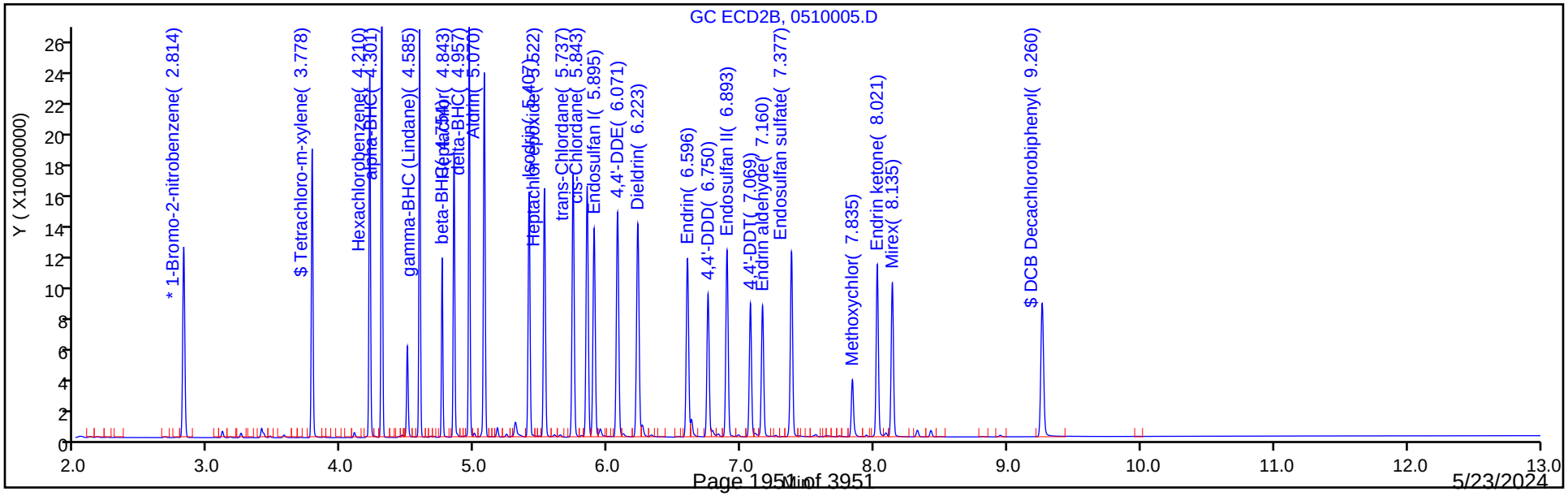
Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510005.D

Injection Date:	10-May-2024 14:12:54	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	STD6 AB			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510006.D
Lims ID: ICIS AB
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 10-May-2024 14:30:41 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS AB
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 13-May-2024 08:13:19 Calib Date: 10-May-2024 16:53:03
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510014.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1608

First Level Reviewer: AP6K Date: 13-May-2024 08:07:32

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.230	3.230	0.000	100179708	75.0	75.0	
2	2.815	2.815	0.000	125363268	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.570	4.570	0.000	92876972	50.0	50.1	
2	3.778	3.778	0.000	111922506	50.0	48.8	
						RPD = 2.48	
7 alpha-BHC							
1	4.906	4.906	0.000	136816386	50.0	52.9	
2	4.301	4.301	0.000	170452433	50.0	51.5	
						RPD = 2.78	
6 Hexachlorobenzene							
1	4.971	4.971	0.000	107729785	50.0	49.0	
2	4.211	4.211	0.000	134893000	50.0	48.3	
						RPD = 1.53	
8 gamma-BHC (Lindane)							
1	5.179	5.179	0.000	113138811	50.0	52.7	
2	4.586	4.586	0.000	139685784	50.0	51.5	
						RPD = 2.31	
11 beta-BHC							
1	5.416	5.416	0.000	46797652	50.0	49.0	
2	4.756	4.756	0.000	59021887	50.0	49.7	
						RPD = 1.27	
13 delta-BHC							
1	5.668	5.668	0.000	119495935	50.0	53.2	
2	4.959	4.959	0.000	142935859	50.0	51.2	
						RPD = 3.92	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
12 Heptachlor							
1	5.749	5.749	0.000	100814603	50.0	51.5	
2	4.844	4.844	0.000	107788152	50.0	49.9	
						RPD = 3.08	
15 Aldrin							
1	6.113	6.113	0.000	129110716	50.0	51.8	
2	5.071	5.071	0.000	152927494	50.0	50.5	
						RPD = 2.39	
17 Isodrin							
1	6.511	6.511	0.000	95122471	50.0	49.7	
2	5.408	5.408	0.000	112686936	50.0	49.1	
						RPD = 1.22	
19 Heptachlor epoxide							
1	6.637	6.637	0.000	103406142	50.0	50.2	
2	5.523	5.523	0.000	117579911	50.0	49.5	
						RPD = 1.35	
20 trans-Chlordane							
1	7.005	7.005	0.000	112626377	50.0	50.6	
2	5.739	5.739	0.000	133098917	50.0	50.8	
						RPD = 0.40	
23 cis-Chlordane							
1	7.064	7.064	0.000	106208512	50.0	50.4	
2	5.844	5.844	0.000	130872603	50.0	50.7	
						RPD = 0.69	
24 Endosulfan I							
1	7.105	7.105	0.000	97334026	50.0	50.1	
2	5.896	5.896	0.000	114730456	50.0	50.1	
						RPD = 0.06	
25 4,4'-DDE							
1	7.238	7.238	0.000	105177186	50.0	52.3	
2	6.072	6.072	0.000	126853032	50.0	52.1	
						RPD = 0.37	
26 Dieldrin							
1	7.396	7.396	0.000	111783903	50.0	51.0	
2	6.225	6.225	0.000	129064551	50.0	50.8	
						RPD = 0.37	
29 Endrin							
1	7.651	7.651	0.000	86555957	50.0	50.5	
2	6.596	6.596	0.000	103072405	50.0	50.1	
						RPD = 0.84	
32 4,4'-DDD							
1	7.808	7.808	0.000	68929785	50.0	52.2	
2	6.751	6.751	0.000	76642111	50.0	52.0	
						RPD = 0.37	
33 Endosulfan II							
1	7.935	7.935	0.000	85866512	50.0	49.8	
2	6.894	6.894	0.000	105110399	50.0	50.1	
						RPD = 0.61	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
35 Endrin aldehyde							
1	8.053	8.053	0.000	55645855	50.0	47.5	
2	7.160	7.160	0.000	71258495	50.0	48.9	
						RPD = 2.97	
34 4,4'-DDT							
1	8.136	8.136	0.000	62185186	50.0	51.0	
2	7.069	7.069	0.000	70378912	50.0	51.5	
						RPD = 1.08	
36 Endosulfan sulfate							
1	8.351	8.351	0.000	76289697	50.0	48.2	
2	7.378	7.378	0.000	101825256	50.0	49.3	
						RPD = 2.08	
37 Methoxychlor							
1	8.605	8.605	0.000	31198386	50.0	47.5	
2	7.834	7.834	0.000	32922853	50.0	48.1	
						RPD = 1.13	
38 Endrin ketone							
1	8.813	8.813	0.000	76868648	50.0	49.2	
2	8.021	8.021	0.000	92971418	50.0	49.7	
						RPD = 1.00	
39 Mirex							
1	9.454	9.454	0.000	66931432	50.0	46.8	
2	8.134	8.134	0.000	85856904	50.0	49.3	
						RPD = 5.09	
$ 40 DCB Decachlorobiphenyl							
1	11.063	11.063	0.000	87825856	50.0	45.0	
2	9.260	9.260	0.000	93495656	50.0	47.4	
						RPD = 5.24	

QC Flag Legend

Processing Flags

Reagents:

8081IcalL4_00073	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

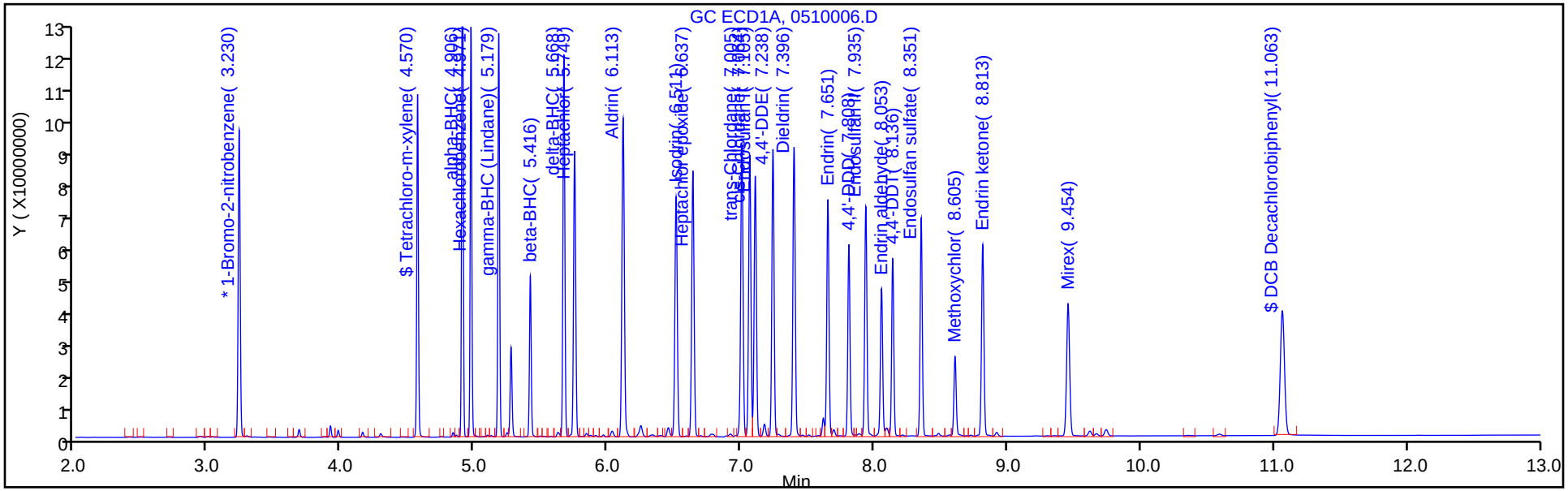
Report Date: 13-May-2024 08:13:20 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

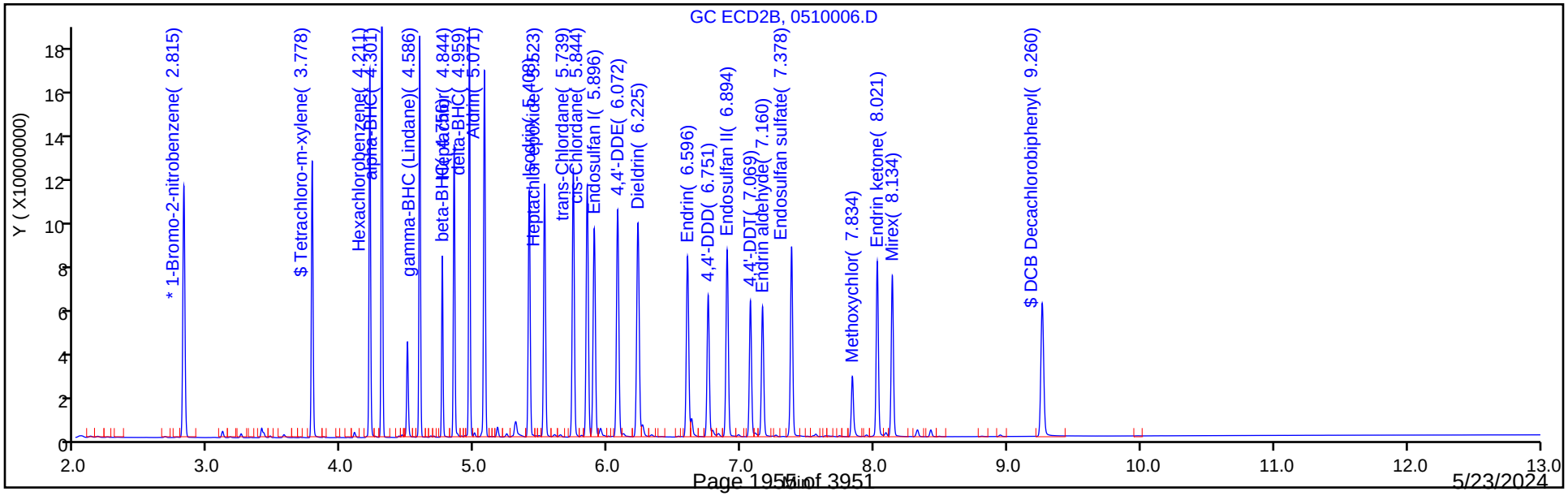
Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510006.D

Injection Date:	10-May-2024 14:30:41	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	ICIS AB			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
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Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510007.D
Lims ID: STD4 AB
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 10-May-2024 14:48:34 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD4 AB
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 13-May-2024 08:13:25 Calib Date: 10-May-2024 16:53:03
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510014.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1608

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						102.5	
2						102.0	
						RPD = 0.46	
* 2 1-Bromo-2-nitrobenzene							
1	3.230	3.230	0.000	92137337	75.0	75.0	
2	2.814	2.814	0.000	117144345	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.570	4.570	0.000	43938541	25.0	25.7	
2	3.778	3.778	0.000	55054688	25.0	25.7	
						RPD = 0.17	
7 alpha-BHC							
1	4.906	4.906	0.000	62149871	25.0	26.1	
2	4.301	4.301	0.000	79582660	25.0	25.7	
						RPD = 1.63	
6 Hexachlorobenzene							
1	4.971	4.971	0.000	51510915	25.0	25.5	
2	4.211	4.211	0.000	65291913	25.0	25.0	
						RPD = 1.90	
8 gamma-BHC (Lindane)							
1	5.179	5.179	0.000	51049620	25.0	25.9	
2	4.586	4.586	0.000	64886176	25.0	25.6	
						RPD = 0.99	
11 beta-BHC							
1	5.416	5.416	0.000	21506180	25.0	24.5	
2	4.755	4.755	0.000	27632930	25.0	24.9	
						RPD = 1.54	
13 delta-BHC							
1	5.668	5.668	0.000	53601232	25.0	25.9	
2	4.958	4.958	0.000	67283345	25.0	25.8	
						RPD = 0.69	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
12 Heptachlor							
1	5.749	5.749	0.000	46227192	25.0	25.7	
2	4.844	4.844	0.000	51340674	25.0	25.5	
						RPD = 0.86	
15 Aldrin							
1	6.114	6.114	0.000	59673265	25.0	26.0	
2	5.071	5.071	0.000	72965086	25.0	25.8	
						RPD = 0.80	
17 Isodrin							
1	6.511	6.511	0.000	44950569	25.0	25.5	
2	5.407	5.407	0.000	54276526	25.0	25.3	
						RPD = 0.90	
19 Heptachlor epoxide							
1	6.637	6.637	0.000	48602145	25.0	25.6	
2	5.522	5.522	0.000	56284665	25.0	25.4	
						RPD = 1.11	
20 trans-Chlordane							
1	7.006	7.006	0.000	52447000	25.0	25.6	
2	5.738	5.738	0.000	62181968	25.0	25.4	
						RPD = 0.86	
23 cis-Chlordane							
1	7.065	7.065	0.000	49319580	25.0	25.4	
2	5.844	5.844	0.000	60774802	25.0	25.2	
						RPD = 0.90	
24 Endosulfan I							
1	7.106	7.106	0.000	45723709	25.0	25.6	
2	5.896	5.896	0.000	54008379	25.0	25.2	
						RPD = 1.32	
25 4,4'-DDE							
1	7.239	7.239	0.000	48389017	25.0	26.2	
2	6.071	6.071	0.000	58738111	25.0	25.8	
						RPD = 1.31	
26 Dieldrin							
1	7.397	7.397	0.000	52455524	25.0	26.0	
2	6.224	6.224	0.000	60814283	25.0	25.6	
						RPD = 1.55	
29 Endrin							
1	7.651	7.651	0.000	40685773	25.0	25.8	
2	6.596	6.596	0.000	49136163	25.0	25.5	
						RPD = 1.02	
32 4,4'-DDD							
1	7.809	7.809	0.000	31487604	25.0	25.9	
2	6.751	6.751	0.000	35065073	25.0	25.5	
						RPD = 1.80	
33 Endosulfan II							
1	7.936	7.936	0.000	40093408	25.0	25.3	
2	6.894	6.894	0.000	50133480	25.0	25.6	
						RPD = 1.15	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
35 Endrin aldehyde							
1	8.054	8.054	0.000	26522108	25.0	24.6	
2	7.160	7.160	0.000	35012835	25.0	25.7	
						RPD = 4.42	
34 4,4'-DDT							
1	8.137	8.137	0.000	27792359	25.0	24.8	
2	7.069	7.069	0.000	32418073	25.0	25.4	
						RPD = 2.51	
36 Endosulfan sulfate							
1	8.352	8.352	0.000	35642512	25.0	24.5	
2	7.377	7.377	0.000	49414973	25.0	25.6	
						RPD = 4.30	
37 Methoxychlor							
1	8.606	8.606	0.000	14540818	25.0	24.1	
2	7.835	7.835	0.000	15919297	25.0	24.9	
						RPD = 3.22	
38 Endrin ketone							
1	8.815	8.815	0.000	35673785	25.0	24.8	
2	8.022	8.022	0.000	44062795	25.0	25.2	
						RPD = 1.51	
39 Mirex							
1	9.456	9.456	0.000	31525623	25.0	24.0	
2	8.135	8.135	0.000	40354611	25.0	24.8	
						RPD = 3.30	
$ 40 DCB Decachlorobiphenyl							
1	11.064	11.064	0.000	43928085	25.0	24.5	
2	9.261	9.261	0.000	45037050	25.0	24.4	
						RPD = 0.11	
S 42 Endosulfan, Total							
1						75.3	
2						76.4	
						RPD = 1.36	

Reagents:

8081IcalL3_00051	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

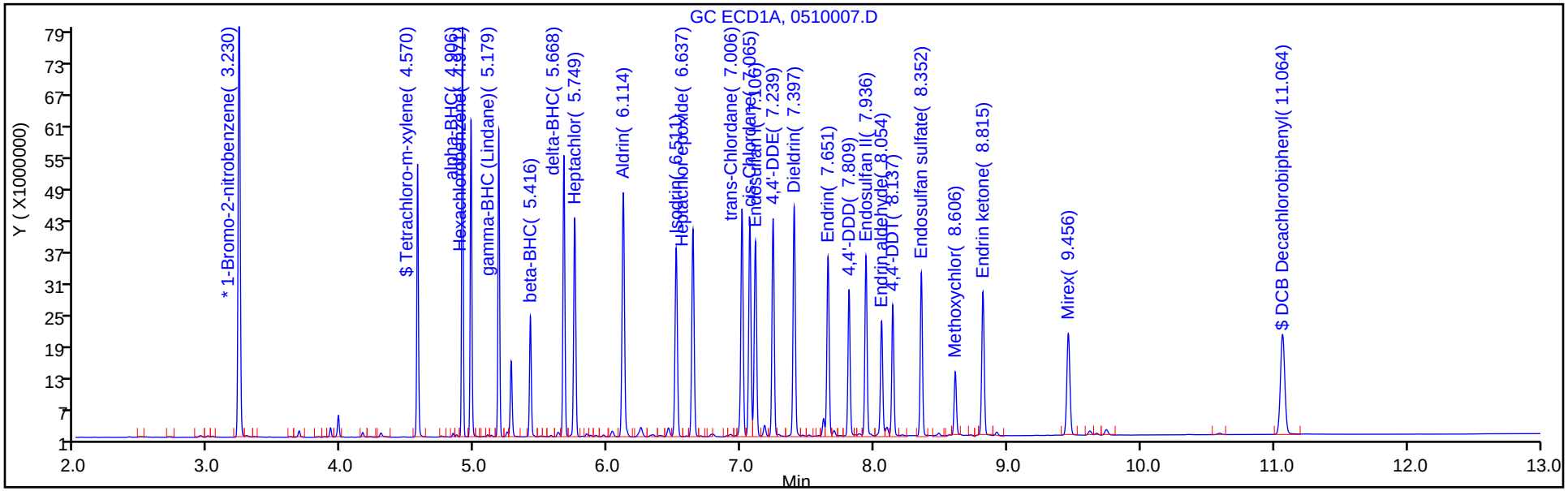
Report Date: 13-May-2024 08:13:26 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

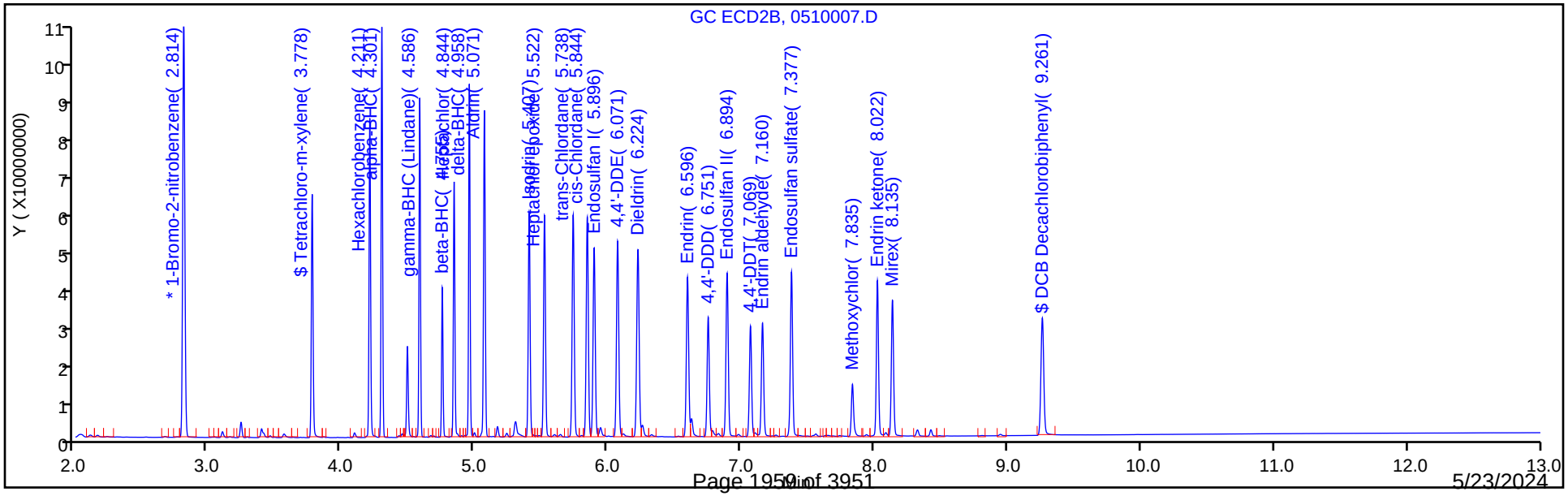
Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510007.D

Injection Date:	10-May-2024 14:48:34	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	STD4 AB			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
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Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510008.D
Lims ID: STD3 AB
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 10-May-2024 15:06:13 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD3 AB
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 13-May-2024 08:13:31 Calib Date: 10-May-2024 16:53:03
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510014.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1608

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						39.4	
2						41.1	
						RPD = 4.36	
* 2 1-Bromo-2-nitrobenzene							
1	3.231	3.230	0.002	98615269	75.0	75.0	
2	2.817	2.814	0.003	123591080	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.570	4.570	0.000	18539705	10.0	10.2	
2	3.780	3.778	0.002	23131205	10.0	10.2	
						RPD = 0.84	
7 alpha-BHC							
1	4.906	4.906	0.000	25182807	10.0	9.90	
2	4.302	4.301	0.001	33724530	10.0	10.3	
						RPD = 4.29	
6 Hexachlorobenzene							
1	4.971	4.971	0.000	21872674	10.0	10.1	
2	4.212	4.211	0.001	28859662	10.0	10.5	
						RPD = 3.55	
8 gamma-BHC (Lindane)							
1	5.179	5.179	0.000	20740770	10.0	9.82	
2	4.586	4.586	0.000	27478368	10.0	10.3	
						RPD = 4.59	
11 beta-BHC							
1	5.416	5.416	0.000	9289885	10.0	9.89	
2	4.756	4.755	0.001	11884141	10.0	10.1	
						RPD = 2.54	
13 delta-BHC							
1	5.669	5.668	0.001	21602338	10.0	9.77	
2	4.959	4.958	0.001	28574712	10.0	10.4	
						RPD = 5.99	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
12 Heptachlor							
1	5.749	5.749	0.000	19187366	10.0	9.96	
2	4.845	4.844	0.001	22145234	10.0	10.4	
						RPD = 4.42	
15 Aldrin							
1	6.113	6.114	-0.001	24633752	10.0	10.0	
2	5.072	5.071	0.001	31479773	10.0	10.6	
						RPD = 5.05	
17 Isodrin							
1	6.511	6.511	0.000	19248121	10.0	10.2	
2	5.409	5.407	0.002	23603402	10.0	10.4	
						RPD = 2.09	
19 Heptachlor epoxide							
1	6.636	6.637	-0.001	20690415	10.0	10.2	
2	5.524	5.522	0.002	24290505	10.0	10.4	
						RPD = 1.69	
20 trans-Chlordane							
1	7.006	7.006	0.000	21851415	10.0	9.98	
2	5.739	5.738	0.001	26384745	10.0	10.2	
						RPD = 2.40	
23 cis-Chlordane							
1	7.065	7.065	0.000	20616292	10.0	9.93	
2	5.844	5.844	0.000	25959221	10.0	10.2	
						RPD = 2.70	
24 Endosulfan I							
1	7.106	7.106	0.000	19341131	10.0	10.1	
2	5.896	5.896	0.000	23305749	10.0	10.3	
						RPD = 2.11	
25 4,4'-DDE							
1	7.238	7.239	-0.001	19779409	10.0	9.99	
2	6.072	6.071	0.001	24438333	10.0	10.2	
						RPD = 1.90	
26 Dieldrin							
1	7.397	7.397	0.000	21786692	10.0	10.1	
2	6.225	6.224	0.001	25834481	10.0	10.3	
						RPD = 2.15	
29 Endrin							
1	7.651	7.651	0.000	16785233	10.0	9.95	
2	6.597	6.596	0.001	20991394	10.0	10.3	
						RPD = 3.90	
32 4,4'-DDD							
1	7.809	7.809	0.000	12893568	10.0	9.91	
2	6.751	6.751	0.000	14424437	10.0	9.92	
						RPD = 0.09	
33 Endosulfan II							
1	7.936	7.936	0.000	17471569	10.0	10.3	
2	6.894	6.894	0.000	21363683	10.0	10.3	
						RPD = 0.35	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
35 Endrin aldehyde							
1	8.054	8.054	0.000	11899248	10.0	10.3	
2	7.161	7.160	0.001	14647142	10.0	10.2	
						RPD = 1.14	
34 4,4'-DDT							
1	8.138	8.137	0.001	12270647	10.0	10.2	
2	7.070	7.069	0.001	13455699	10.0	10.0	
						RPD = 2.22	
36 Endosulfan sulfate							
1	8.353	8.352	0.001	15587515	10.0	10.0	
2	7.378	7.377	0.001	20980050	10.0	10.3	
						RPD = 2.77	
37 Methoxychlor							
1	8.606	8.606	0.000	6728419	10.0	10.4	
2	7.835	7.835	0.000	7066582	10.0	10.5	
						RPD = 0.51	
38 Endrin ketone							
1	8.815	8.815	0.000	15234021	10.0	9.90	
2	8.022	8.022	0.000	18979034	10.0	10.3	
						RPD = 3.81	
39 Mirex							
1	9.456	9.456	0.000	14386093	10.0	10.2	
2	8.136	8.135	0.001	17760814	10.0	10.3	
						RPD = 1.12	
$ 40 DCB Decachlorobiphenyl							
1	11.065	11.064	0.001	19360100	10.0	10.1	
2	9.261	9.261	0.000	19462606	10.0	10.0	
						RPD = 0.64	
S 42 Endosulfan, Total							
1						30.4	
2						30.9	
						RPD = 1.74	

Reagents:

8081IcalL2_00047	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

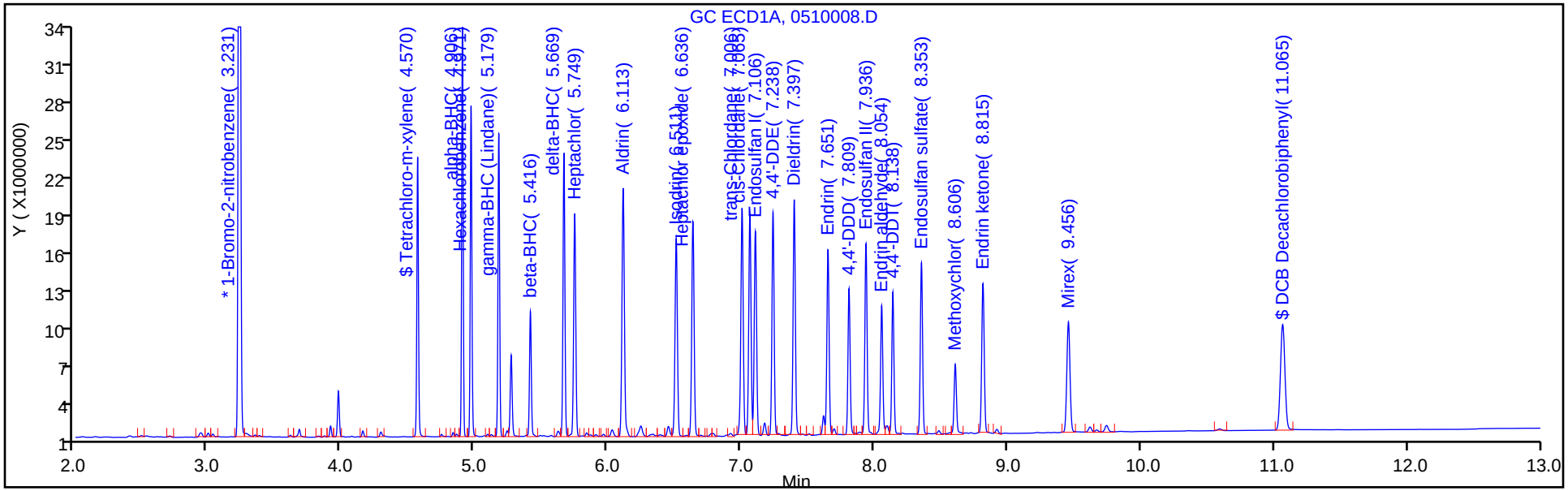
Report Date: 13-May-2024 08:13:32 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

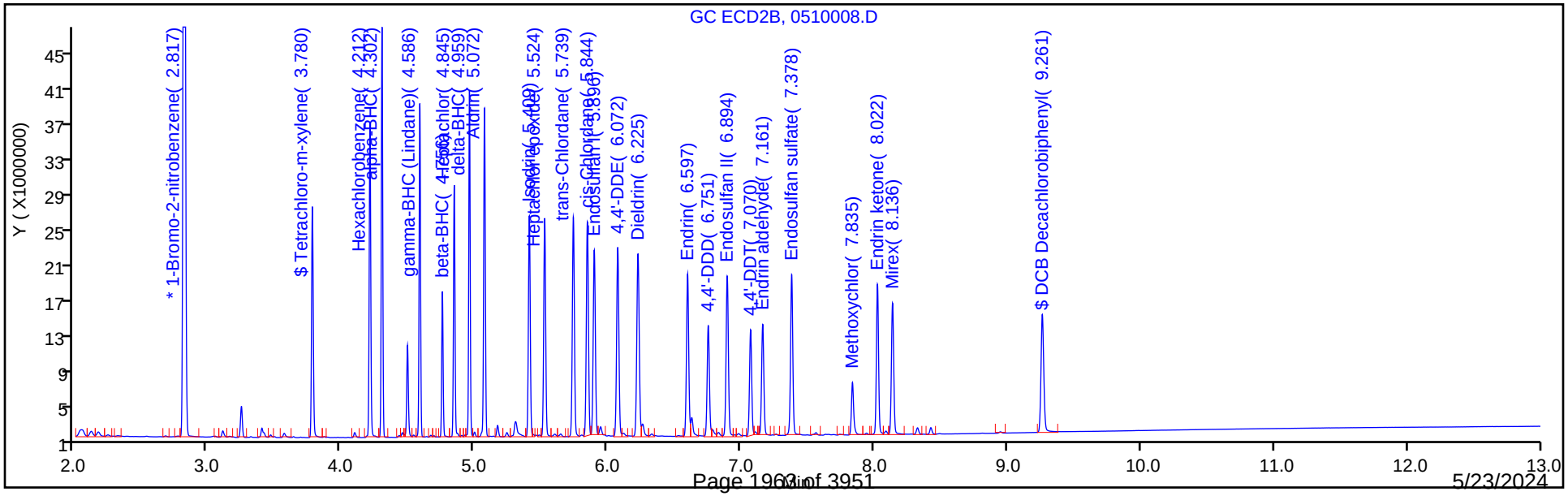
Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510008.D

Injection Date:	10-May-2024 15:06:13	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	STD3 AB			Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
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Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510009.D
Lims ID: STD2 AB
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 10-May-2024 15:24:07 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD2 AB
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 13-May-2024 08:13:38 Calib Date: 10-May-2024 16:53:03
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510014.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1608

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						15.9	
2						16.8	
						RPD = 5.36	
* 2 1-Bromo-2-nitrobenzene							
1	3.229	3.230	-0.001	93669369	75.0	75.0	
2	2.814	2.814	0.000	118049896	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.569	4.570	-0.001	7288253	4.00	4.20	
2	3.778	3.778	0.000	9508838	4.00	4.41	
						RPD = 4.75	
7 alpha-BHC							
1	4.906	4.906	0.000	9344053	4.00	3.87	
2	4.302	4.301	0.001	12930410	4.00	4.15	
						RPD = 7.01	
6 Hexachlorobenzene							
1	4.971	4.971	0.000	8770788	4.00	4.27	
2	4.211	4.211	0.000	11793230	4.00	4.48	
						RPD = 4.88	
8 gamma-BHC (Lindane)							
1	5.179	5.179	0.000	7844815	4.00	3.91	
2	4.586	4.586	0.000	10563985	4.00	4.14	
						RPD = 5.66	
11 beta-BHC							
1	5.416	5.416	0.000	3841295	4.00	4.30	
2	4.755	4.755	0.000	4851659	4.00	4.33	
						RPD = 0.71	
13 delta-BHC							
1	5.668	5.668	0.000	8096429	4.00	3.86	
2	4.958	4.958	0.000	11034909	4.00	4.19	
						RPD = 8.42	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
12 Heptachlor							
1	5.749	5.749	0.000	7500167	4.00	4.10	
2	4.843	4.844	-0.001	8702269	4.00	4.28	
						RPD = 4.39	
15 Aldrin							
1	6.113	6.114	-0.001	9445742	4.00	4.05	
2	5.072	5.071	0.001	12193147	4.00	4.28	
						RPD = 5.50	
17 Isodrin							
1	6.511	6.511	0.000	7575597	4.00	4.23	
2	5.408	5.407	0.001	9567874	4.00	4.42	
						RPD = 4.48	
19 Heptachlor epoxide							
1	6.638	6.637	0.001	8068877	4.00	4.19	
2	5.523	5.522	0.001	9833350	4.00	4.40	
						RPD = 4.87	
20 trans-Chlordane							
1	7.006	7.006	0.000	8605794	4.00	4.14	
2	5.738	5.738	0.000	10397220	4.00	4.22	
						RPD = 1.90	
23 cis-Chlordane							
1	7.065	7.065	0.000	8217249	4.00	4.17	
2	5.843	5.844	-0.001	10367883	4.00	4.27	
						RPD = 2.34	
24 Endosulfan I							
1	7.107	7.106	0.001	7661105	4.00	4.22	
2	5.895	5.896	-0.001	9374294	4.00	4.35	
						RPD = 3.09	
25 4,4'-DDE							
1	7.238	7.239	-0.001	7392185	4.00	3.93	
2	6.071	6.071	0.000	9377660	4.00	4.09	
						RPD = 3.98	
26 Dieldrin							
1	7.398	7.397	0.001	8348736	4.00	4.08	
2	6.224	6.224	0.000	10074769	4.00	4.21	
						RPD = 3.34	
29 Endrin							
1	7.651	7.651	0.000	6623792	4.00	4.13	
2	6.597	6.596	0.001	8301094	4.00	4.28	
						RPD = 3.55	
32 4,4'-DDD							
1	7.809	7.809	0.000	5004294	4.00	4.05	
2	6.751	6.751	0.000	5719475	4.00	4.12	
						RPD = 1.67	
33 Endosulfan II							
1	7.936	7.936	0.000	6824507	4.00	4.23	
2	6.893	6.894	-0.001	8544162	4.00	4.32	
						RPD = 2.15	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
35 Endrin aldehyde							
1	8.053	8.054	-0.001	4716071	4.00	4.31	
2	7.161	7.160	0.001	5892164	4.00	4.30	
						RPD = 0.21	
34 4,4'-DDT							
1	8.138	8.137	0.001	4698223	4.00	4.12	
2	7.069	7.069	0.000	5381819	4.00	4.18	
						RPD = 1.58	
36 Endosulfan sulfate							
1	8.353	8.352	0.001	6539817	4.00	4.42	
2	7.378	7.377	0.001	8442333	4.00	4.34	
						RPD = 1.96	
37 Methoxychlor							
1	8.607	8.606	0.001	2883684	4.00	4.70	
2	7.834	7.835	-0.001	2972837	4.00	4.61	
						RPD = 1.91	
38 Endrin ketone							
1	8.814	8.815	-0.001	6449762	4.00	4.41	
2	8.022	8.022	0.000	7700566	4.00	4.37	
						RPD = 1.01	
39 Mirex							
1	9.456	9.456	0.000	6157252	4.00	4.61	
2	8.135	8.135	0.000	7186728	4.00	4.38	
						RPD = 5.05	
$ 40 DCB Decachlorobiphenyl							
1	11.064	11.064	0.000	8785682	4.00	4.81	
2	9.260	9.261	-0.001	8628516	4.00	4.64	
						RPD = 3.53	
S 42 Endosulfan, Total							
1						12.9	
2						13.0	
						RPD = 1.07	

Reagents:

8081IcalL1_00047	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

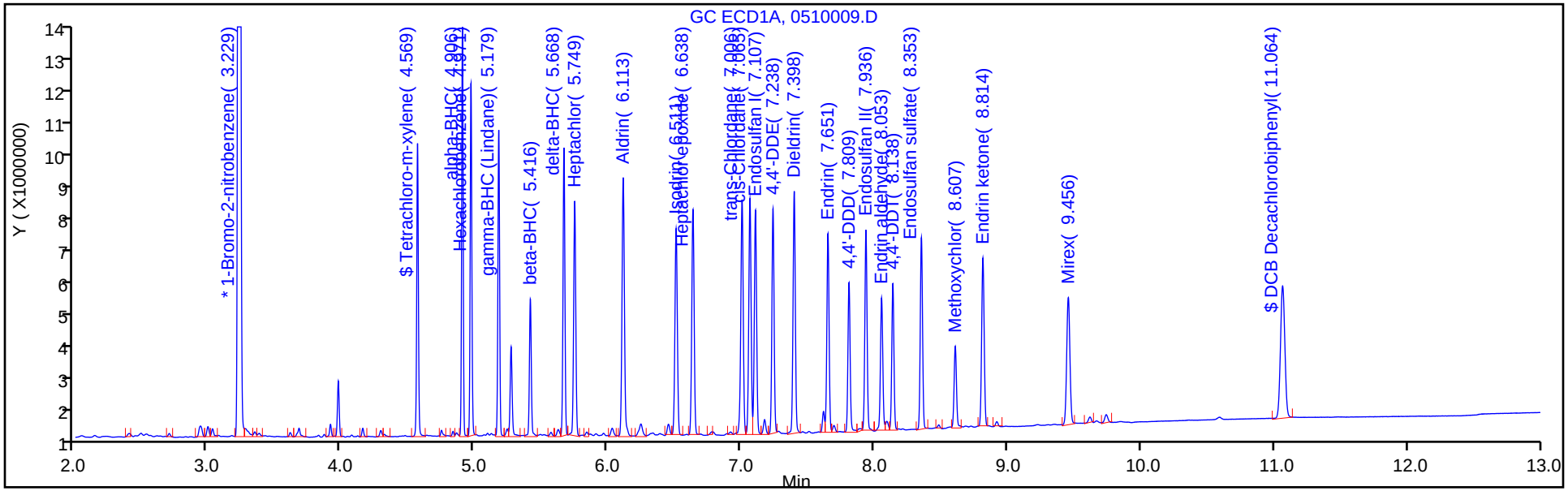
Report Date: 13-May-2024 08:13:39 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

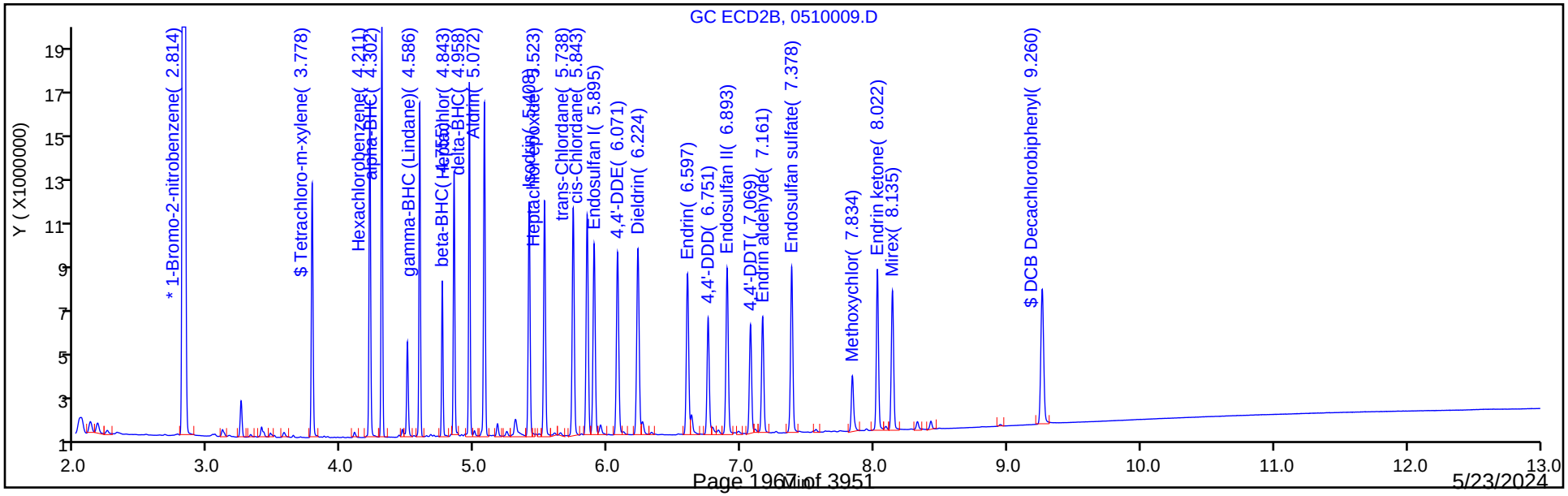
Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510009.D

Injection Date:	10-May-2024 15:24:07	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	STD2 AB			Worklist Smp#:	9
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510010.D
Lims ID: STD1 AB
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 10-May-2024 15:41:54 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD1 AB
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 13-May-2024 08:13:44 Calib Date: 10-May-2024 16:53:03
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510014.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1608

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						7.84	
2						8.27	
						RPD = 5.33	
* 2 1-Bromo-2-nitrobenzene							
1	3.231	3.230	0.001	96231956	75.0	75.0	
2	2.816	2.814	0.002	121536561	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.570	4.570	0.000	3739437	2.00	2.10	
2	3.779	3.778	0.001	4954817	2.00	2.23	
						RPD = 6.09	
7 alpha-BHC							
1	4.906	4.906	0.000	4572649	2.00	1.84	
2	4.301	4.301	0.000	6419976	2.00	2.00	
						RPD = 8.24	
6 Hexachlorobenzene							
1	4.971	4.971	0.000	4606042	2.00	2.18	
2	4.211	4.211	0.000	6142063	2.00	2.27	
						RPD = 3.84	
8 gamma-BHC (Lindane)							
1	5.179	5.179	0.000	3891925	2.00	1.89	
2	4.585	4.586	-0.001	5337179	2.00	2.03	
						RPD = 7.27	
11 beta-BHC							
1	5.416	5.416	0.000	2061943	2.00	2.25	
2	4.755	4.755	0.000	2530328	2.00	2.20	
						RPD = 2.39	
13 delta-BHC							
1	5.668	5.668	0.000	4011193	2.00	1.86	
2	4.958	4.958	0.000	5526645	2.00	2.04	
						RPD = 9.29	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
12 Heptachlor							
1	5.750	5.749	0.001	3797077	2.00	2.02	
2	4.843	4.844	-0.001	4541455	2.00	2.17	
						RPD = 7.21	
15 Aldrin							
1	6.114	6.114	0.000	4724604	2.00	1.97	
2	5.071	5.071	0.000	6132714	2.00	2.09	
						RPD = 5.84	
17 Isodrin							
1	6.511	6.511	0.000	3949548	2.00	2.15	
2	5.406	5.407	-0.001	5033860	2.00	2.26	
						RPD = 5.18	
19 Heptachlor epoxide							
1	6.636	6.637	-0.001	4142625	2.00	2.09	
2	5.521	5.522	-0.001	5062533	2.00	2.20	
						RPD = 4.94	
20 trans-Chlordane							
1	7.006	7.006	0.000	4354098	2.00	2.04	
2	5.737	5.738	-0.001	5356096	2.00	2.11	
						RPD = 3.49	
23 cis-Chlordane							
1	7.064	7.065	-0.001	4214252	2.00	2.08	
2	5.843	5.844	-0.001	5361421	2.00	2.14	
						RPD = 2.96	
24 Endosulfan I							
1	7.106	7.106	0.000	3908424	2.00	2.09	
2	5.895	5.896	-0.001	4832340	2.00	2.18	
						RPD = 3.91	
25 4,4'-DDE							
1	7.238	7.239	-0.001	3656933	2.00	1.89	
2	6.071	6.071	0.000	4733568	2.00	2.00	
						RPD = 5.78	
26 Dieldrin							
1	7.397	7.397	0.000	4193380	2.00	1.99	
2	6.223	6.224	-0.001	5141161	2.00	2.09	
						RPD = 4.71	
29 Endrin							
1	7.651	7.651	0.000	3347886	2.00	2.03	
2	6.595	6.596	-0.001	4260680	2.00	2.14	
						RPD = 4.88	
32 4,4'-DDD							
1	7.809	7.809	0.000	2402177	2.00	1.89	
2	6.751	6.751	0.000	2917445	2.00	2.04	
						RPD = 7.53	
33 Endosulfan II							
1	7.936	7.936	0.000	3433728	2.00	2.07	
2	6.892	6.894	-0.002	4356564	2.00	2.14	
						RPD = 3.27	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
35 Endrin aldehyde							
1	8.055	8.054	0.001	2445045	2.00	2.17	
2	7.160	7.160	0.000	3068886	2.00	2.17	
						RPD = 0.04	
34 4,4'-DDT							
1	8.138	8.137	0.001	2327776	2.00	1.99	
2	7.068	7.069	-0.001	2783023	2.00	2.10	
						RPD = 5.65	
36 Endosulfan sulfate							
1	8.352	8.352	0.000	3228672	2.00	2.13	
2	7.378	7.377	0.001	4369611	2.00	2.18	
						RPD = 2.55	
37 Methoxychlor							
1	8.607	8.606	0.001	1400967	2.00	2.22	
2	7.835	7.835	0.000	1559526	2.00	2.35	
						RPD = 5.55	
38 Endrin ketone							
1	8.815	8.815	0.000	3152814	2.00	2.10	
2	8.021	8.022	-0.001	3998840	2.00	2.20	
						RPD = 4.83	
39 Mirex							
1	9.456	9.456	0.000	3330146	2.00	2.42	
2	8.135	8.135	0.000	3772054	2.00	2.23	
						RPD = 8.26	
$ 40 DCB Decachlorobiphenyl							
1	11.066	11.064	0.002	4705022	2.00	2.51	
2	9.260	9.261	-0.001	4654003	2.00	2.43	
						RPD = 3.02	
S 42 Endosulfan, Total							
1						6.29	
2						6.50	
						RPD = 3.24	

Reagents:

8081icalL0.5_00002	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

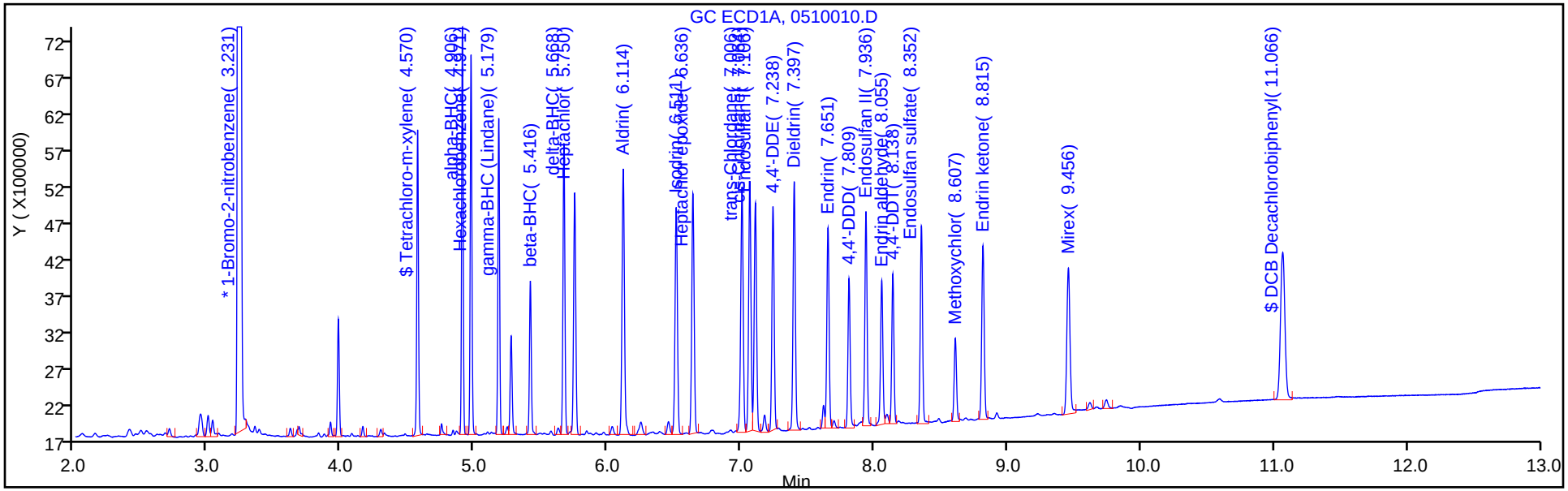
Report Date: 13-May-2024 08:13:45 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

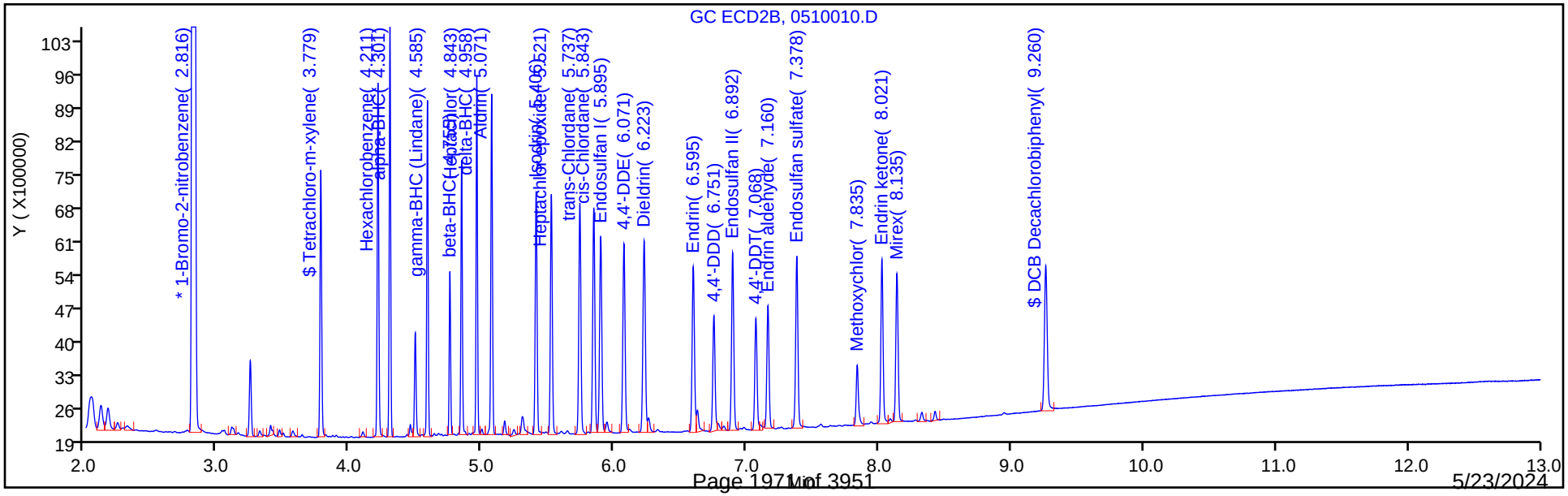
Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510010.D

Injection Date:	10-May-2024 15:41:54	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	STD1 AB			Worklist Smp#:	10
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Calibration / Tetrachloro-m-xylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

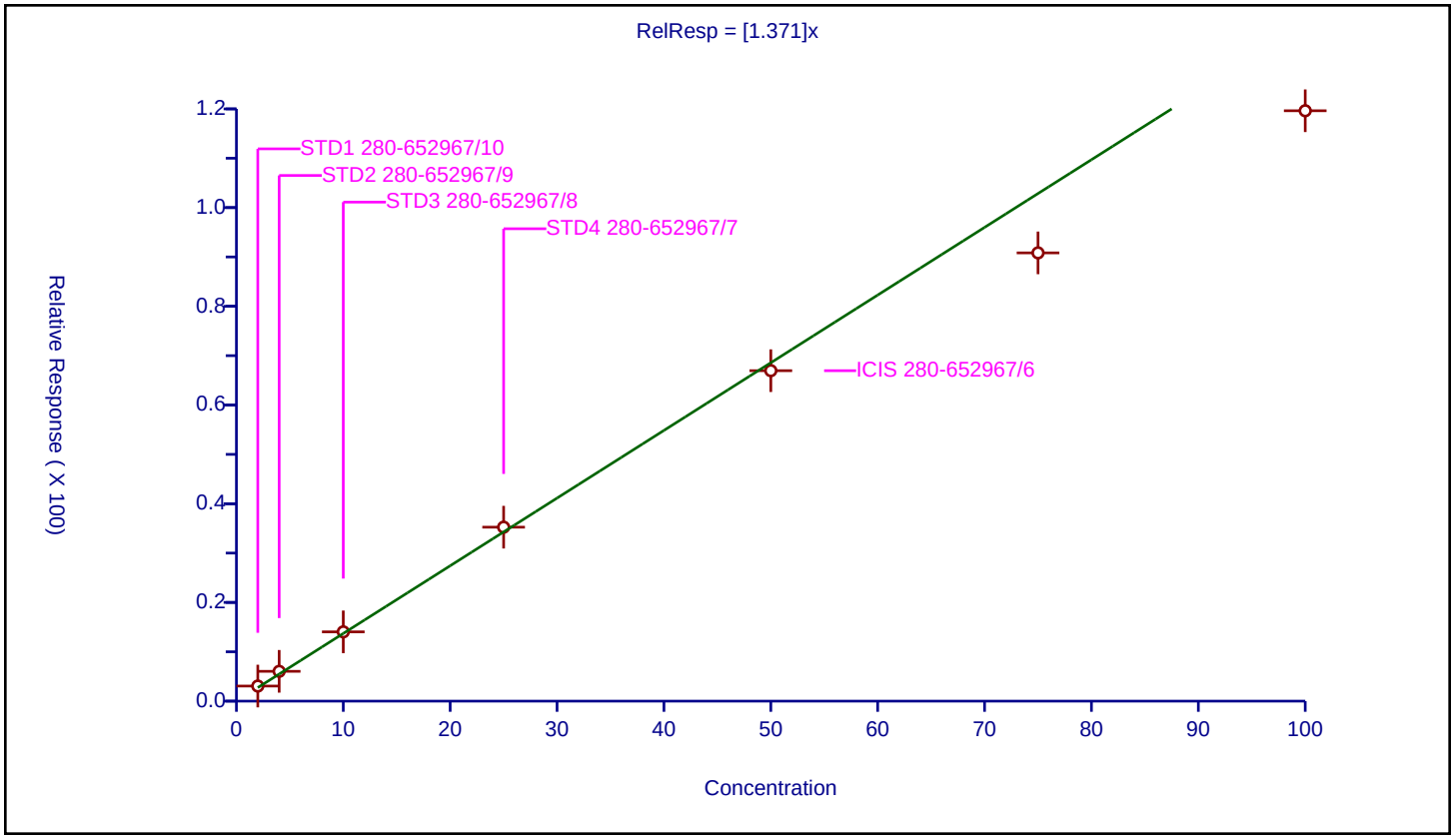
Curve Coefficients

Intercept:	0
Slope:	1.371

Error Coefficients

Relative Standard Deviation:	9.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	3.057609	75.0	121536561.0	1.528804	Y
2	STD2 280-652967/9	4.0	6.041198	75.0	118049896.0	1.5103	Y
3	STD3 280-652967/8	10.0	14.036938	75.0	123591080.0	1.403694	Y
4	STD4 280-652967/7	25.0	35.247981	75.0	117144345.0	1.409919	Y
5	ICIS 280-652967/6	50.0	66.958911	75.0	125363268.0	1.339178	Y
6	STD6 280-652967/5	75.0	90.828037	75.0	134496709.0	1.21104	Y
7	STD7 280-652967/4	100.0	119.621477	75.0	130850922.0	1.196215	Y



5/23/2024
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Calibration / Hexachlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

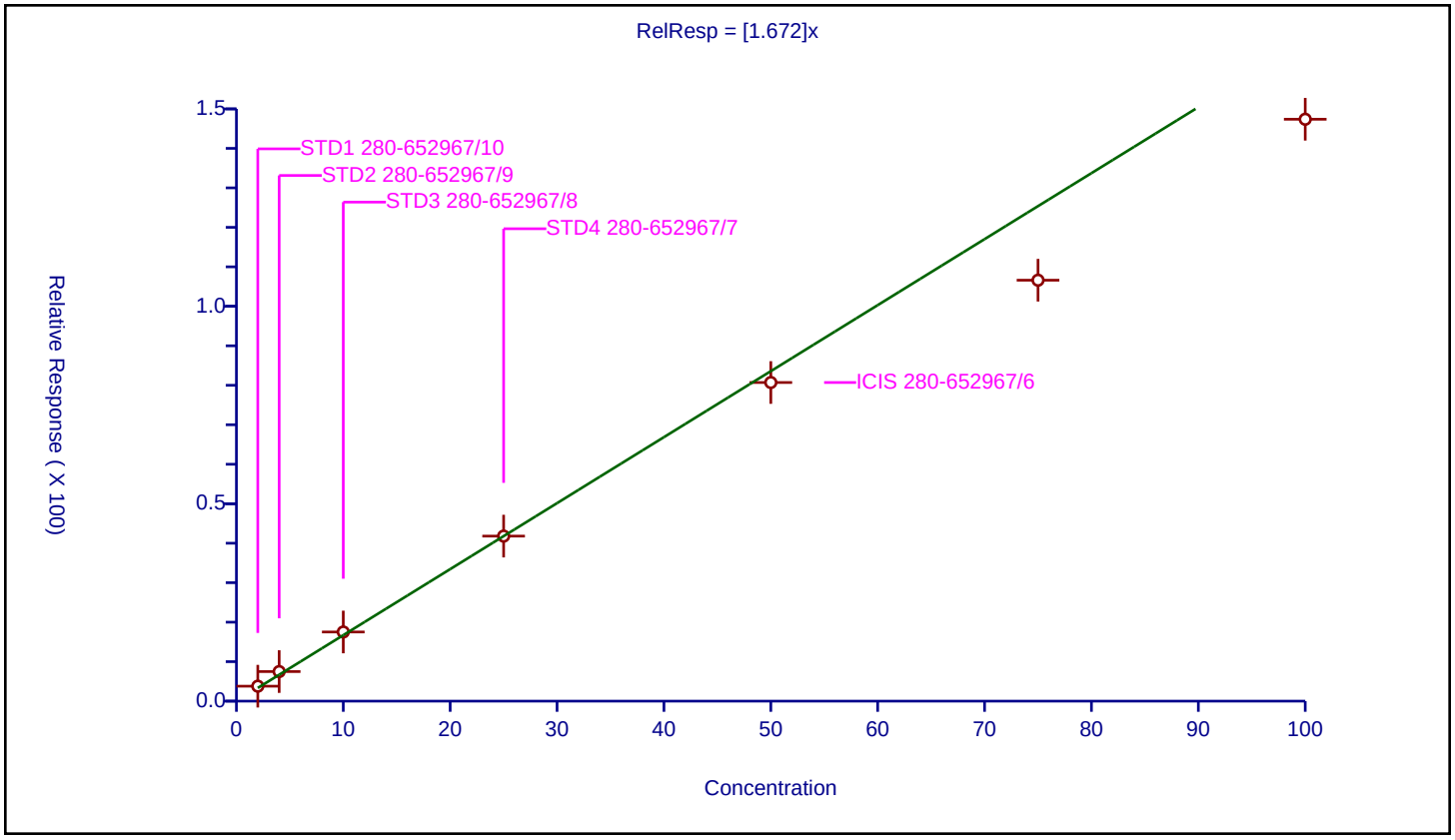
Curve Coefficients

Intercept:	0
Slope:	1.672

Error Coefficients

Relative Standard Deviation:	11.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	3.790256	75.0	121536561.0	1.895128	Y
2	STD2 280-652967/9	4.0	7.492529	75.0	118049896.0	1.873132	Y
3	STD3 280-652967/8	10.0	17.513195	75.0	123591080.0	1.751319	Y
4	STD4 280-652967/7	25.0	41.802218	75.0	117144345.0	1.672089	Y
5	ICIS 280-652967/6	50.0	80.70127	75.0	125363268.0	1.614025	Y
6	STD6 280-652967/5	75.0	106.610297	75.0	134496709.0	1.421471	Y
7	STD7 280-652967/4	100.0	147.373551	75.0	130850922.0	1.473736	Y



5/23/2024
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Calibration / alpha-BHC

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

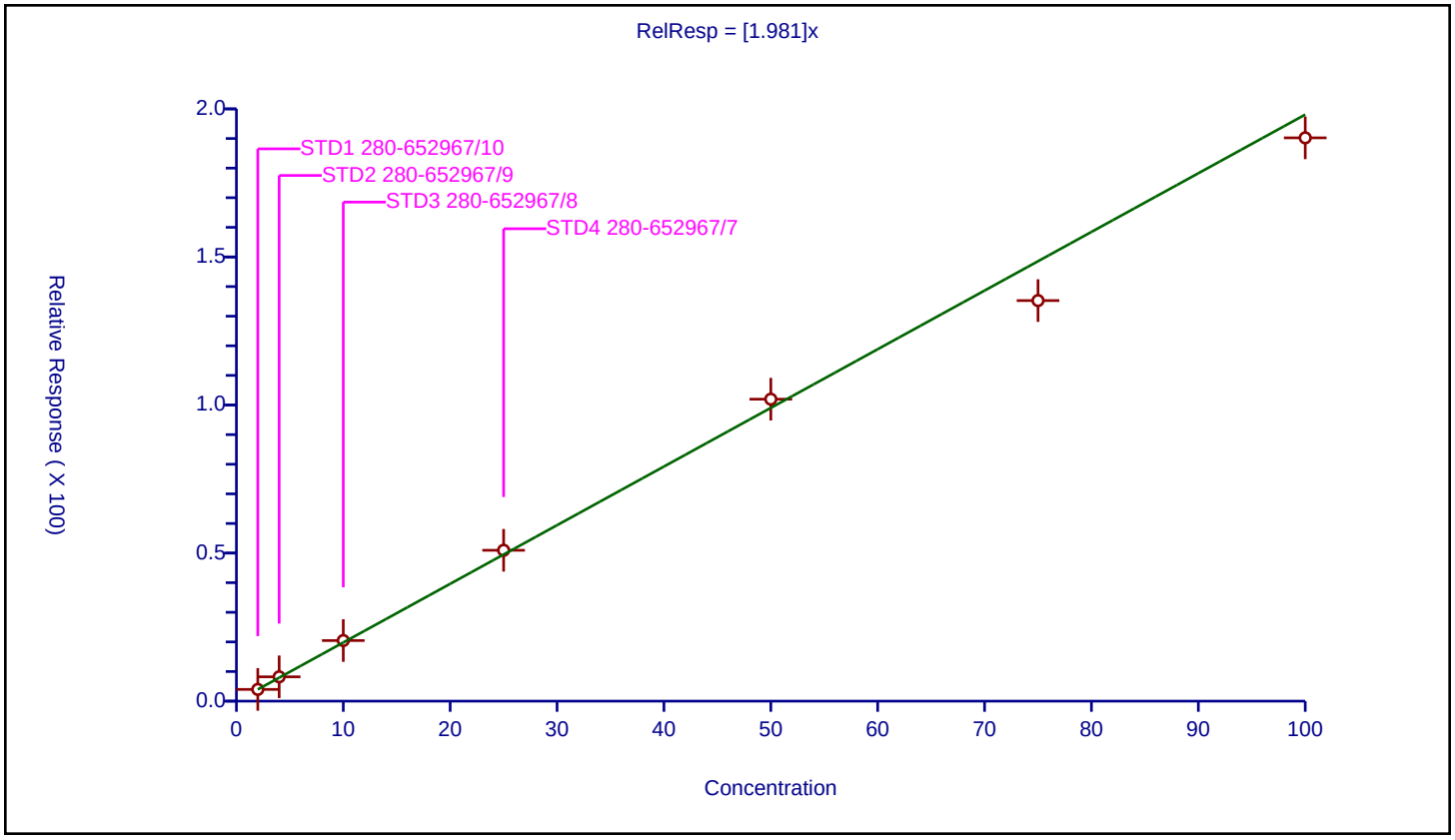
Curve Coefficients

Intercept:	0
Slope:	1.981

Error Coefficients

Relative Standard Deviation:	4.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	3.961756	75.0	121536561.0	1.980878	Y
2	STD2 280-652967/9	4.0	8.215007	75.0	118049896.0	2.053752	Y
3	STD3 280-652967/8	10.0	20.465391	75.0	123591080.0	2.046539	Y
4	STD4 280-652967/7	25.0	50.951666	75.0	117144345.0	2.038067	Y
5	ICIS 280-652967/6	50.0	101.975105	75.0	125363268.0	2.039502	Y
6	STD6 280-652967/5	75.0	135.265189	75.0	134496709.0	1.803536	Y
7	STD7 280-652967/4	100.0	190.22283	75.0	130850922.0	1.902228	Y



5/23/2024
4:40:30 AM

Calibration / gamma-BHC (Lindane)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

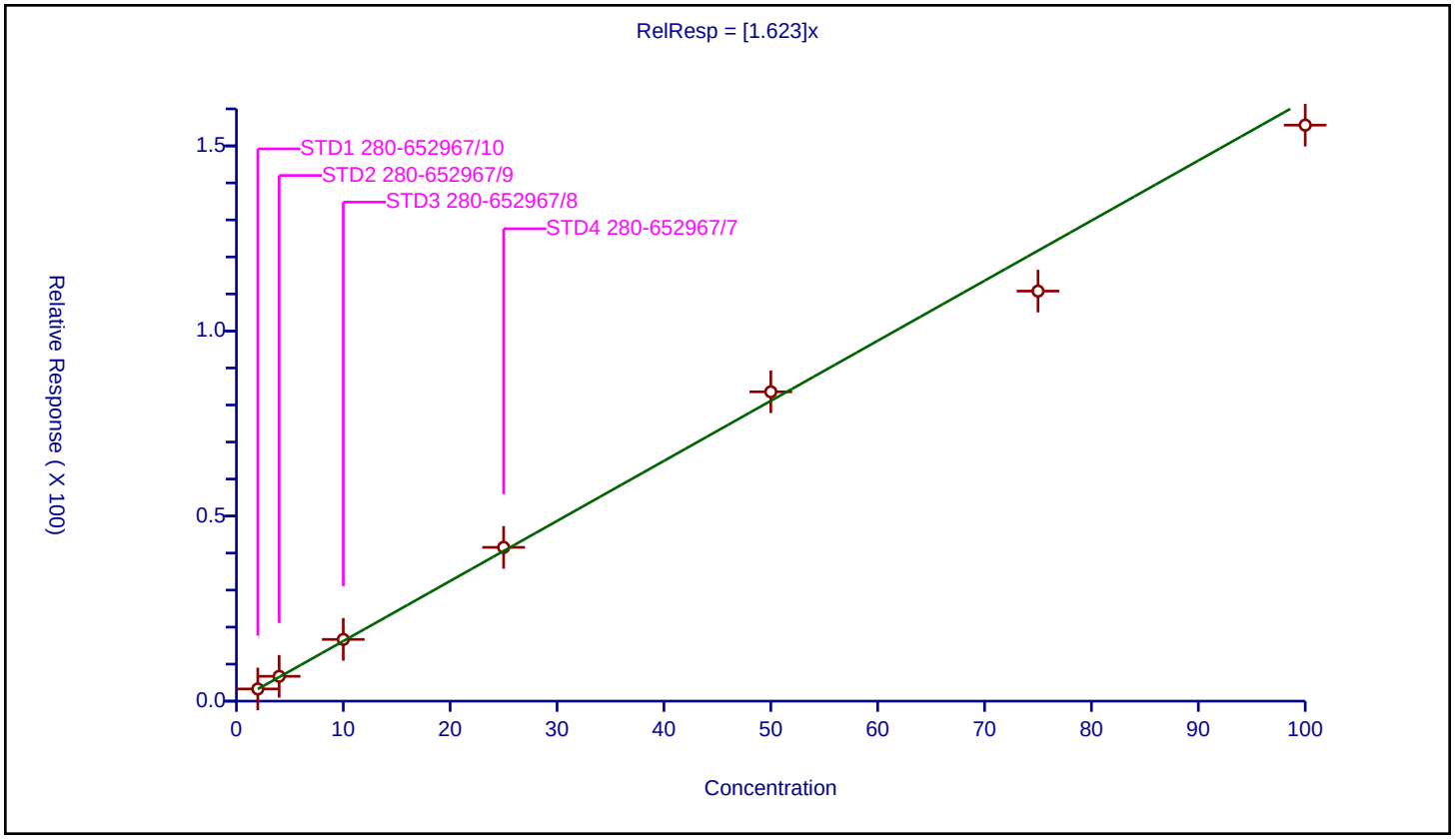
Curve Coefficients

Intercept:	0
Slope:	1.623

Error Coefficients

Relative Standard Deviation:	4.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	3.293564	75.0	121536561.0	1.646782	Y
2	STD2 280-652967/9	4.0	6.711559	75.0	118049896.0	1.67789	Y
3	STD3 280-652967/8	10.0	16.67497	75.0	123591080.0	1.667497	Y
4	STD4 280-652967/7	25.0	41.542451	75.0	117144345.0	1.661698	Y
5	ICIS 280-652967/6	50.0	83.568608	75.0	125363268.0	1.671372	Y
6	STD6 280-652967/5	75.0	110.776275	75.0	134496709.0	1.477017	Y
7	STD7 280-652967/4	100.0	155.611882	75.0	130850922.0	1.556119	Y



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Calibration / beta-BHC

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

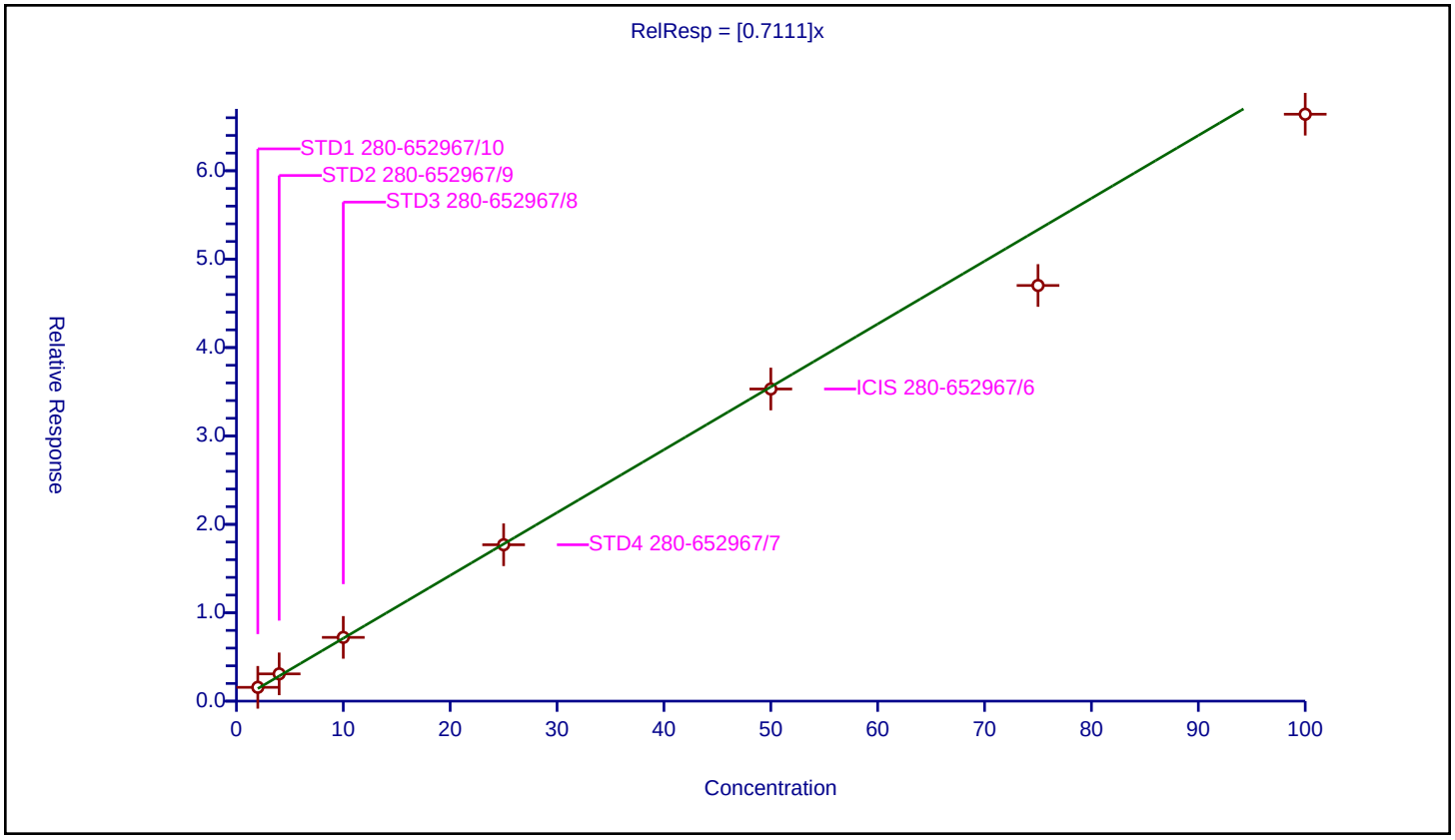
Curve Coefficients

Intercept:	0
Slope:	0.7111

Error Coefficients

Relative Standard Deviation:	7.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	1.561461	75.0	121536561.0	0.78073	Y
2	STD2 280-652967/9	4.0	3.082378	75.0	118049896.0	0.770595	Y
3	STD3 280-652967/8	10.0	7.211771	75.0	123591080.0	0.721177	Y
4	STD4 280-652967/7	25.0	17.69159	75.0	117144345.0	0.707664	Y
5	ICIS 280-652967/6	50.0	35.310515	75.0	125363268.0	0.70621	Y
6	STD6 280-652967/5	75.0	47.023709	75.0	134496709.0	0.626983	Y
7	STD7 280-652967/4	100.0	66.400483	75.0	130850922.0	0.664005	Y



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Calibration / Heptachlor

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

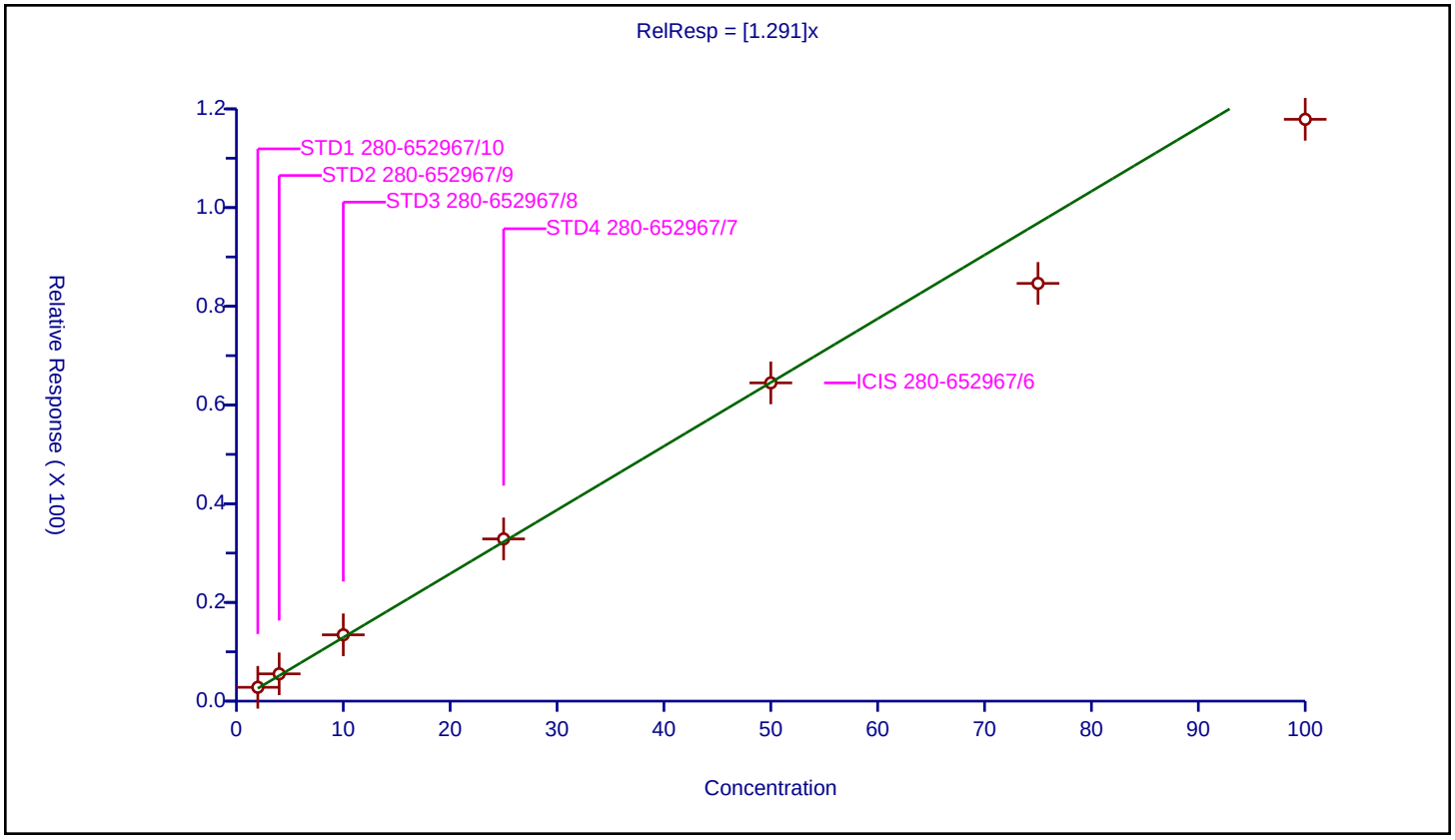
Curve Coefficients

Intercept:	0
Slope:	1.291

Error Coefficients

Relative Standard Deviation:	7.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	2.802524	75.0	121536561.0	1.401262	Y
2	STD2 280-652967/9	4.0	5.528765	75.0	118049896.0	1.382191	Y
3	STD3 280-652967/8	10.0	13.438612	75.0	123591080.0	1.343861	Y
4	STD4 280-652967/7	25.0	32.870136	75.0	117144345.0	1.314805	Y
5	ICIS 280-652967/6	50.0	64.485487	75.0	125363268.0	1.28971	Y
6	STD6 280-652967/5	75.0	84.641431	75.0	134496709.0	1.128552	Y
7	STD7 280-652967/4	100.0	117.889233	75.0	130850922.0	1.178892	Y



5/23/2024
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Calibration / delta-BHC

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

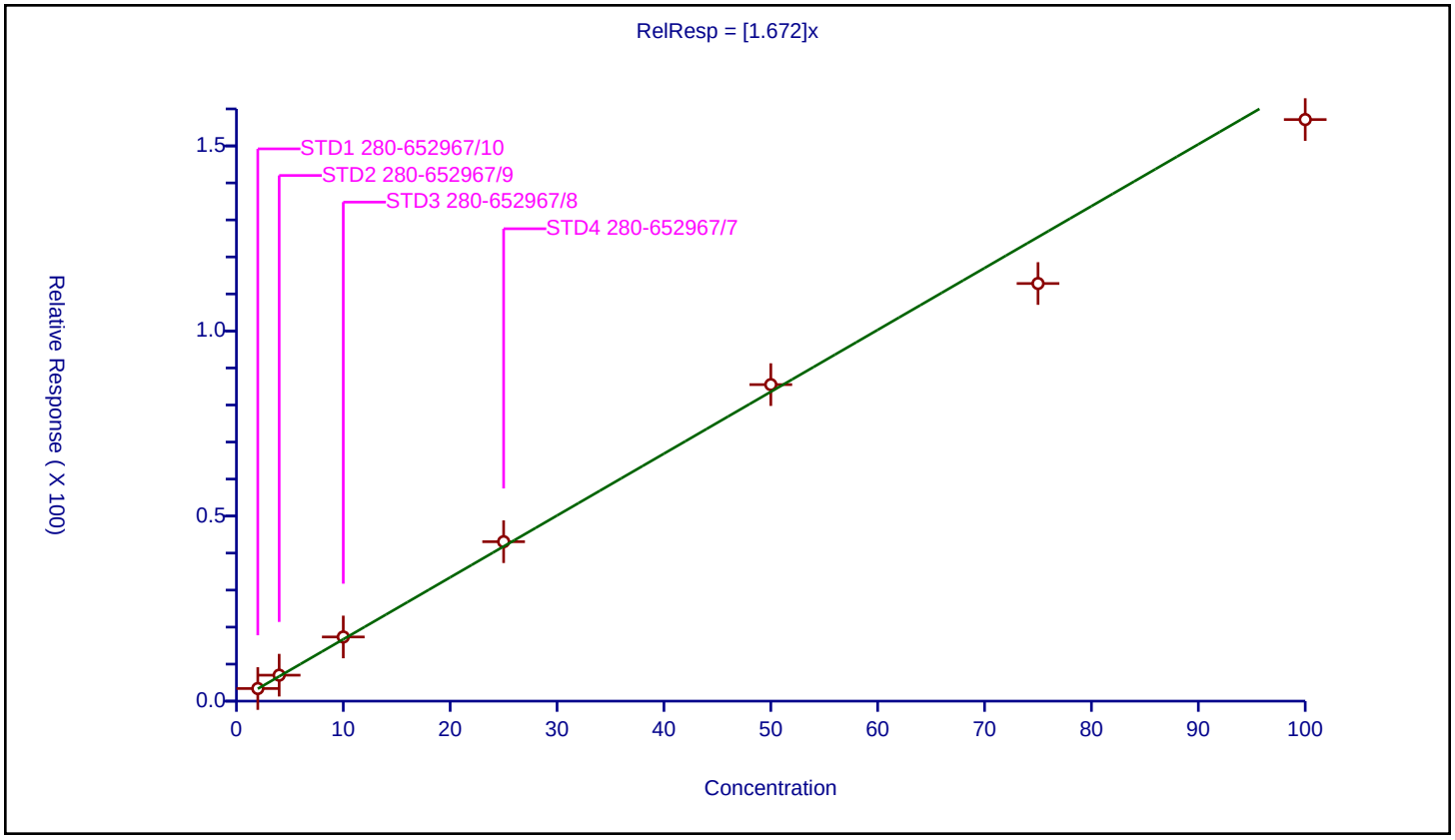
Curve Coefficients

Intercept:	0
Slope:	1.672

Error Coefficients

Relative Standard Deviation:	5.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	3.410483	75.0	121536561.0	1.705241	Y
2	STD2 280-652967/9	4.0	7.010749	75.0	118049896.0	1.752687	Y
3	STD3 280-652967/8	10.0	17.340276	75.0	123591080.0	1.734028	Y
4	STD4 280-652967/7	25.0	43.077204	75.0	117144345.0	1.723088	Y
5	ICIS 280-652967/6	50.0	85.513002	75.0	125363268.0	1.71026	Y
6	STD6 280-652967/5	75.0	112.828879	75.0	134496709.0	1.504385	Y
7	STD7 280-652967/4	100.0	157.117993	75.0	130850922.0	1.57118	Y



5/23/2024
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Calibration / Aldrin

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

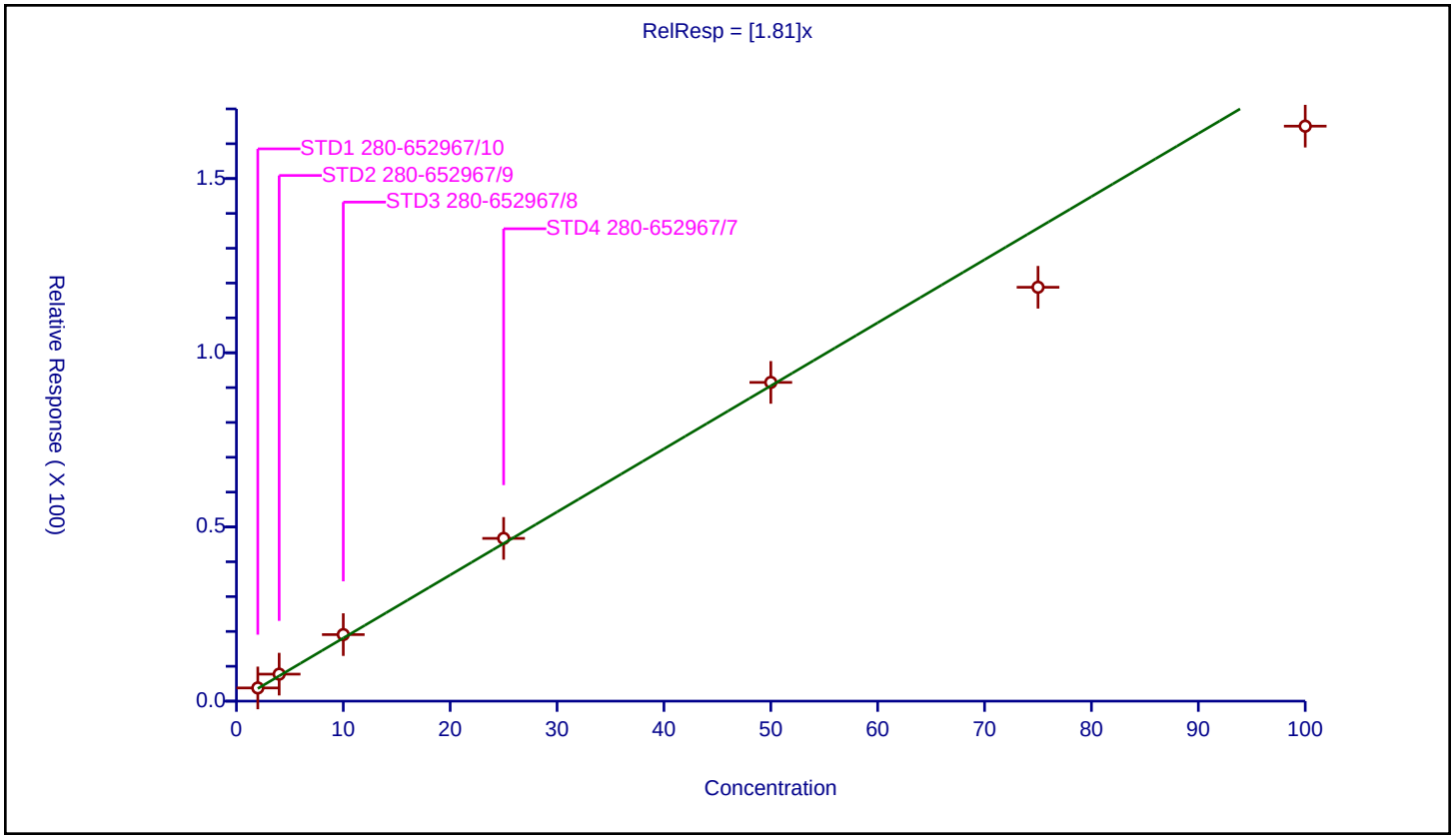
Curve Coefficients

Intercept:	0
Slope:	1.81

Error Coefficients

Relative Standard Deviation:	7.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	3.784487	75.0	121536561.0	1.892244	Y
2	STD2 280-652967/9	4.0	7.746606	75.0	118049896.0	1.936651	Y
3	STD3 280-652967/8	10.0	19.103183	75.0	123591080.0	1.910318	Y
4	STD4 280-652967/7	25.0	46.714858	75.0	117144345.0	1.868594	Y
5	ICIS 280-652967/6	50.0	91.490612	75.0	125363268.0	1.829812	Y
6	STD6 280-652967/5	75.0	118.803559	75.0	134496709.0	1.584047	Y
7	STD7 280-652967/4	100.0	165.045158	75.0	130850922.0	1.650452	Y



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Calibration / Heptachlor epoxide

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

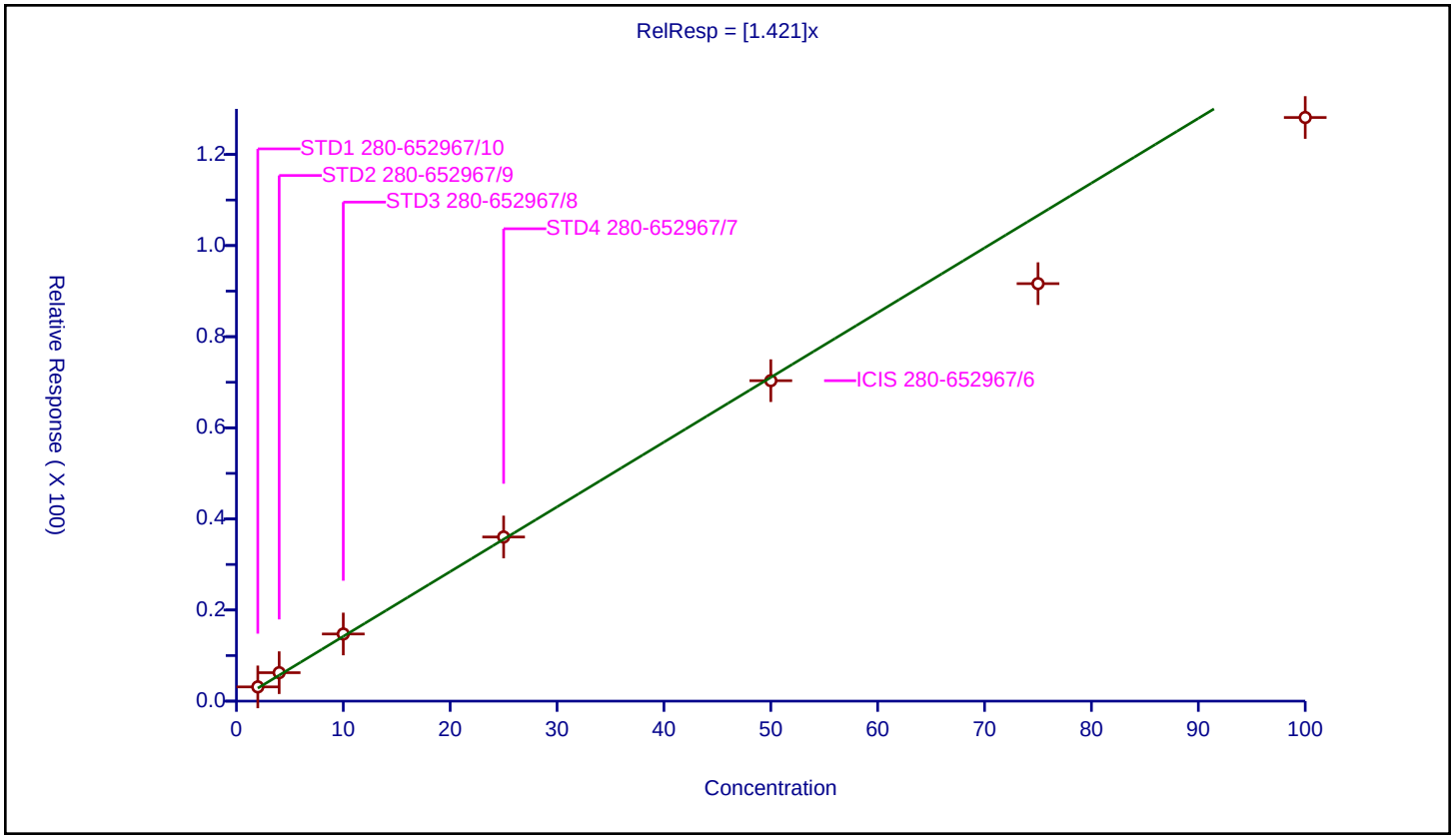
Curve Coefficients

Intercept:	0
Slope:	1.421

Error Coefficients

Relative Standard Deviation:	9.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	3.12408	75.0	121536561.0	1.56204	Y
2	STD2 280-652967/9	4.0	6.247369	75.0	118049896.0	1.561842	Y
3	STD3 280-652967/8	10.0	14.740448	75.0	123591080.0	1.474045	Y
4	STD4 280-652967/7	25.0	36.035456	75.0	117144345.0	1.441418	Y
5	ICIS 280-652967/6	50.0	70.343518	75.0	125363268.0	1.40687	Y
6	STD6 280-652967/5	75.0	91.640309	75.0	134496709.0	1.221871	Y
7	STD7 280-652967/4	100.0	128.1138	75.0	130850922.0	1.281138	Y



Calibration / trans-Chlordane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

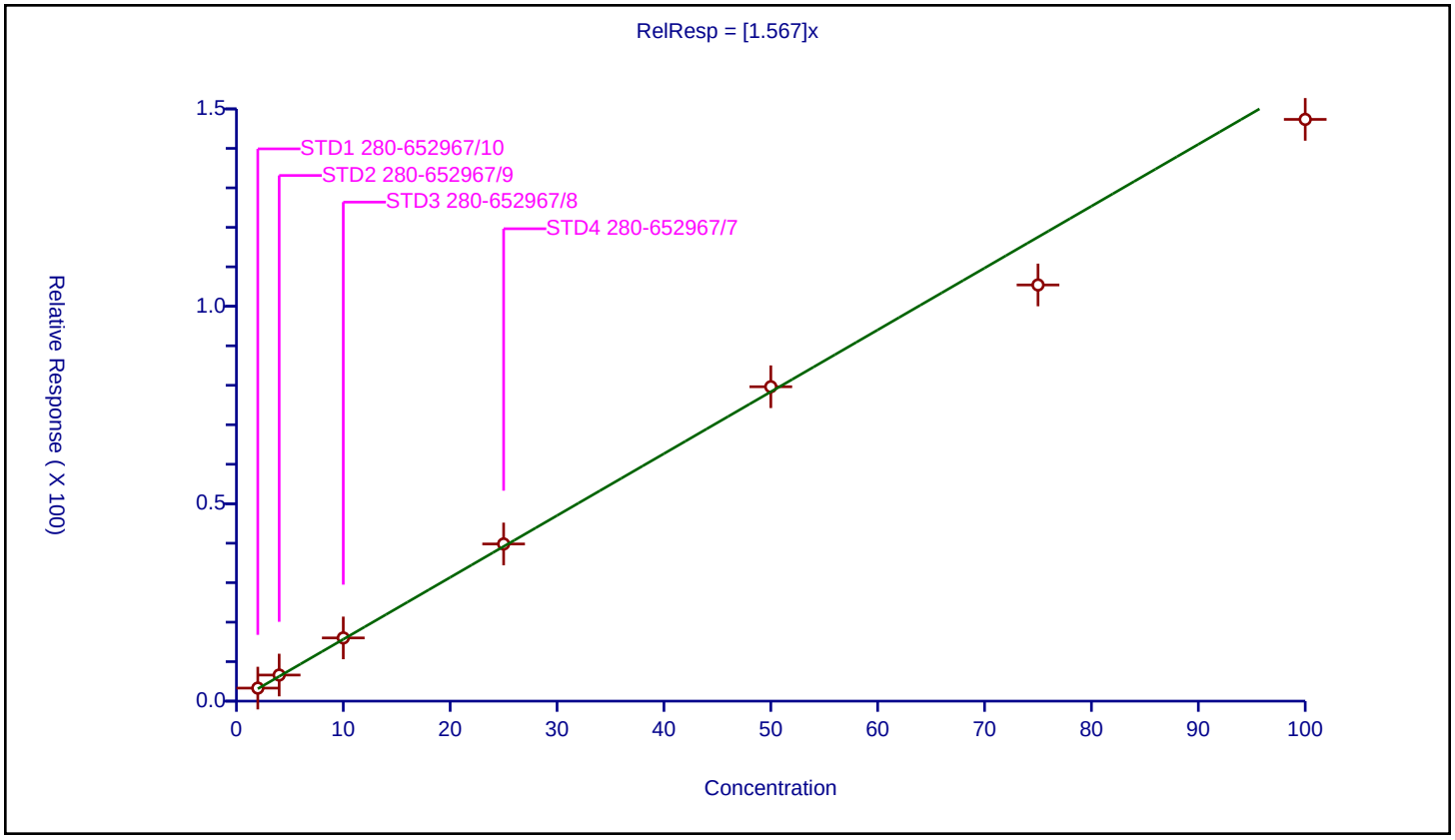
Curve Coefficients

Intercept:	0
Slope:	1.567

Error Coefficients

Relative Standard Deviation:	5.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	3.305238	75.0	121536561.0	1.652619	Y
2	STD2 280-652967/9	4.0	6.605609	75.0	118049896.0	1.651402	Y
3	STD3 280-652967/8	10.0	16.011316	75.0	123591080.0	1.601132	Y
4	STD4 280-652967/7	25.0	39.81112	75.0	117144345.0	1.592445	Y
5	ICIS 280-652967/6	50.0	79.62794	75.0	125363268.0	1.592559	Y
6	STD6 280-652967/5	75.0	105.413727	75.0	134496709.0	1.405516	Y
7	STD7 280-652967/4	100.0	147.339104	75.0	130850922.0	1.473391	Y



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Calibration / cis-Chlordane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

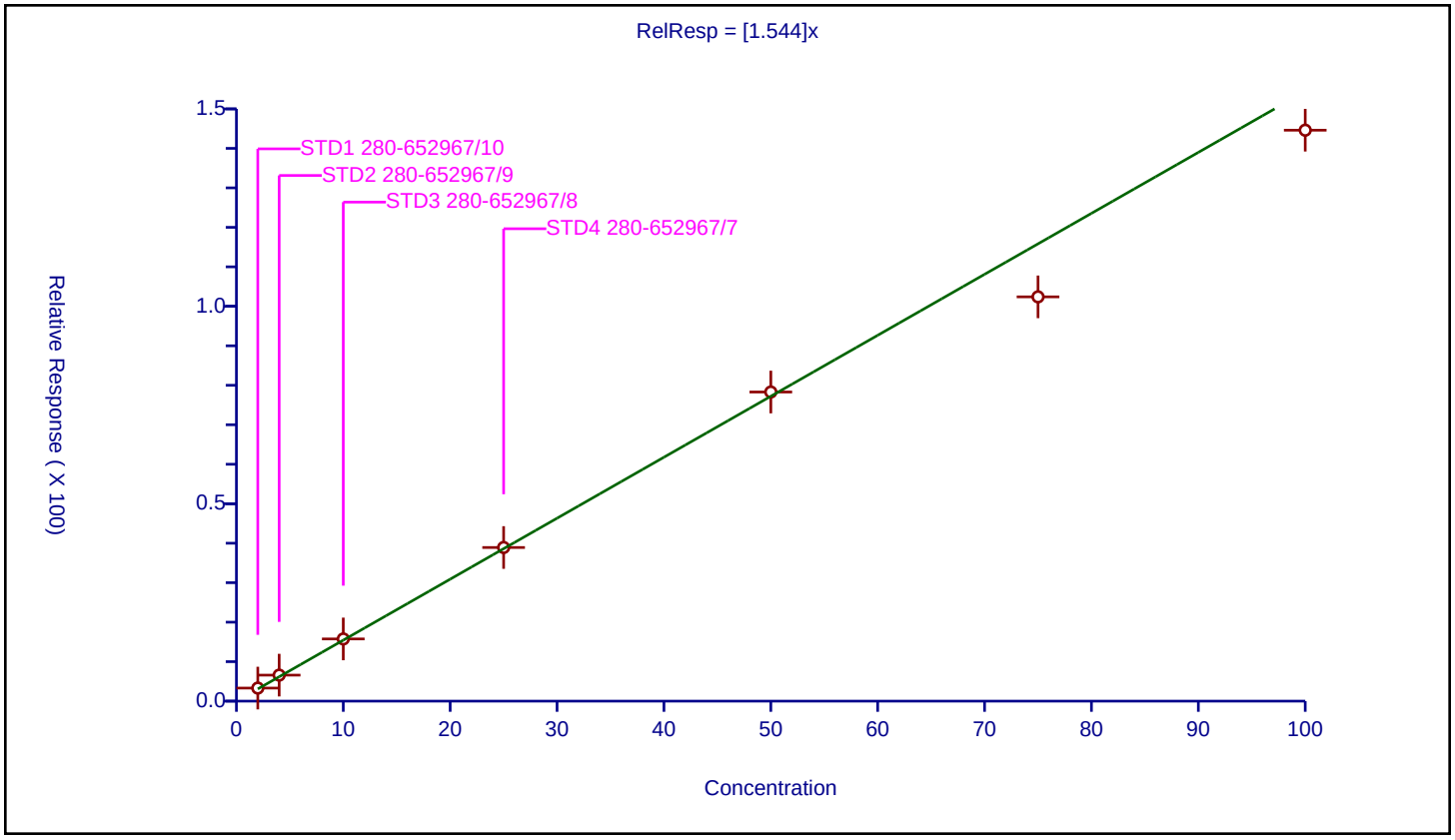
Curve Coefficients

Intercept:	0
Slope:	1.544

Error Coefficients

Relative Standard Deviation:	6.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	3.308524	75.0	121536561.0	1.654262	Y
2	STD2 280-652967/9	4.0	6.586971	75.0	118049896.0	1.646743	Y
3	STD3 280-652967/8	10.0	15.753091	75.0	123591080.0	1.575309	Y
4	STD4 280-652967/7	25.0	38.910202	75.0	117144345.0	1.556408	Y
5	ICIS 280-652967/6	50.0	78.296022	75.0	125363268.0	1.56592	Y
6	STD6 280-652967/5	75.0	102.394859	75.0	134496709.0	1.365265	Y
7	STD7 280-652967/4	100.0	144.604222	75.0	130850922.0	1.446042	Y



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Calibration / Endosulfan I

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

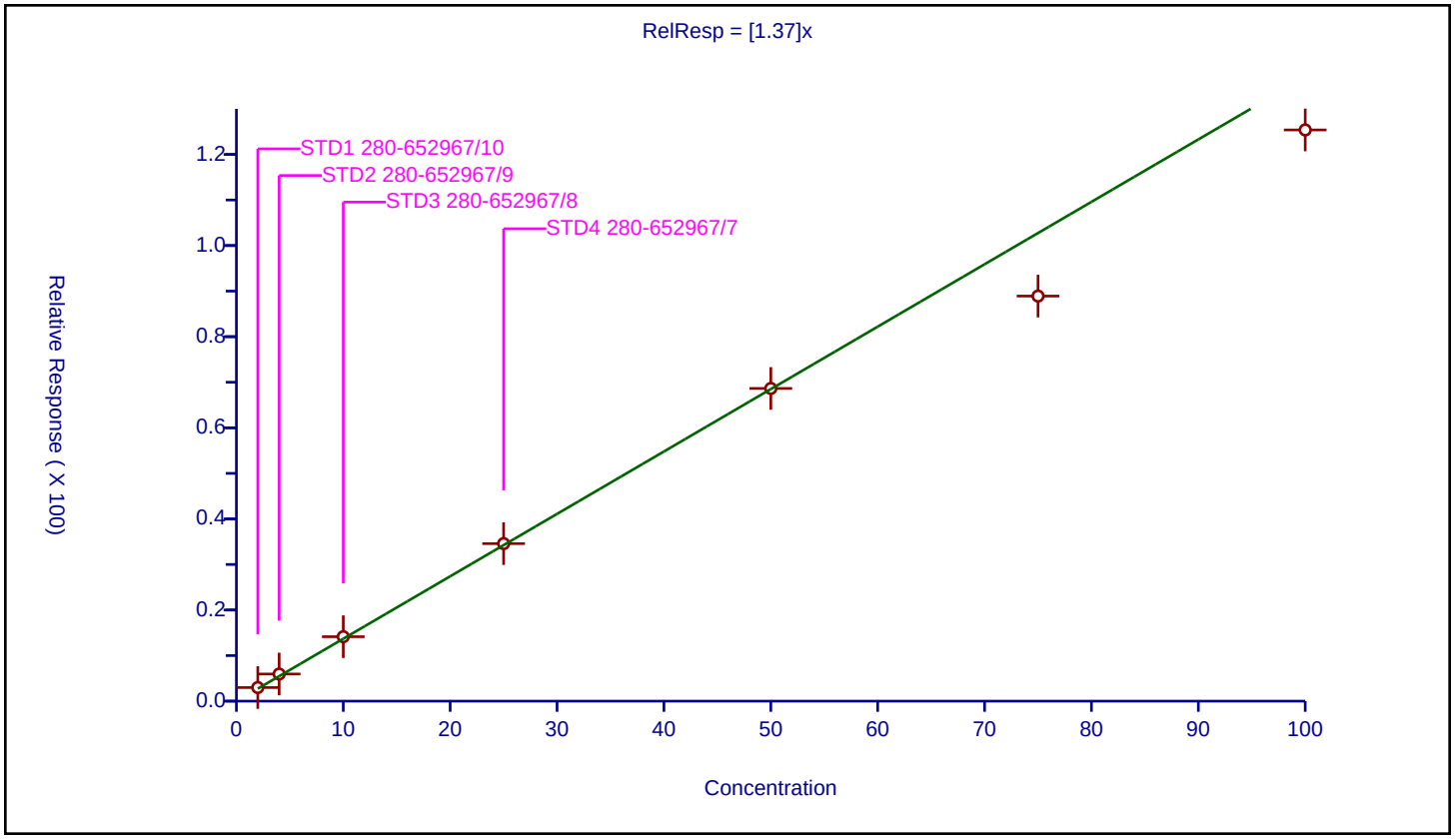
Curve Coefficients

Intercept:	0
Slope:	1.37

Error Coefficients

Relative Standard Deviation:	8.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	2.982029	75.0	121536561.0	1.491014	Y
2	STD2 280-652967/9	4.0	5.955719	75.0	118049896.0	1.48893	Y
3	STD3 280-652967/8	10.0	14.142859	75.0	123591080.0	1.414286	Y
4	STD4 280-652967/7	25.0	34.578096	75.0	117144345.0	1.383124	Y
5	ICIS 280-652967/6	50.0	68.638799	75.0	125363268.0	1.372776	Y
6	STD6 280-652967/5	75.0	88.913345	75.0	134496709.0	1.185511	Y
7	STD7 280-652967/4	100.0	125.372953	75.0	130850922.0	1.25373	Y



5/23/2024
4:40:30 AM

Calibration / 4,4'-DDE

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

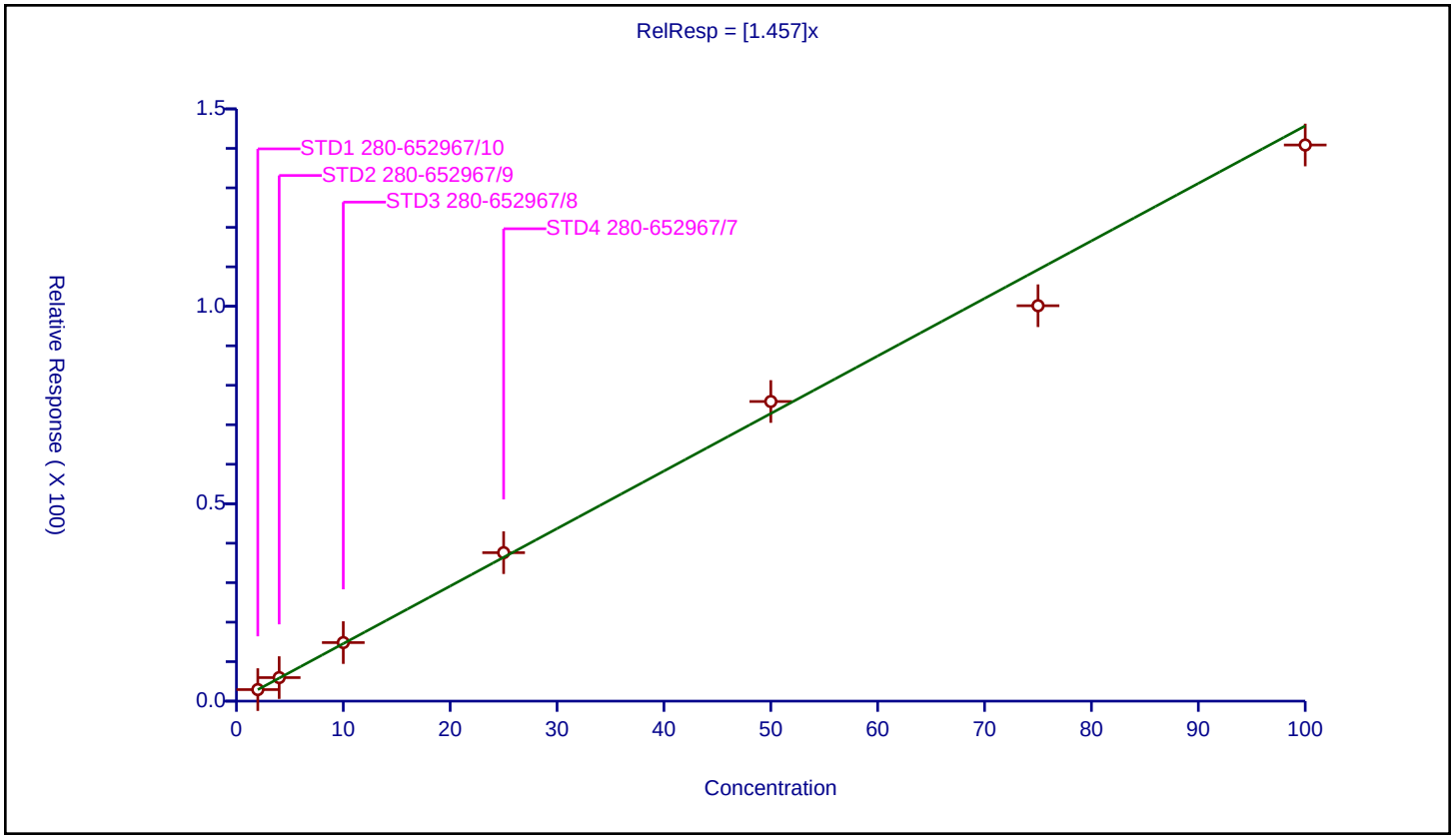
Curve Coefficients

Intercept:	0
Slope:	1.457

Error Coefficients

Relative Standard Deviation:	4.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	2.921077	75.0	121536561.0	1.460538	Y
2	STD2 280-652967/9	4.0	5.957858	75.0	118049896.0	1.489464	Y
3	STD3 280-652967/8	10.0	14.830156	75.0	123591080.0	1.483016	Y
4	STD4 280-652967/7	25.0	37.60624	75.0	117144345.0	1.50425	Y
5	ICIS 280-652967/6	50.0	75.891268	75.0	125363268.0	1.517825	Y
6	STD6 280-652967/5	75.0	100.152467	75.0	134496709.0	1.335366	Y
7	STD7 280-652967/4	100.0	140.858403	75.0	130850922.0	1.408584	Y



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Calibration / Dieldrin

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

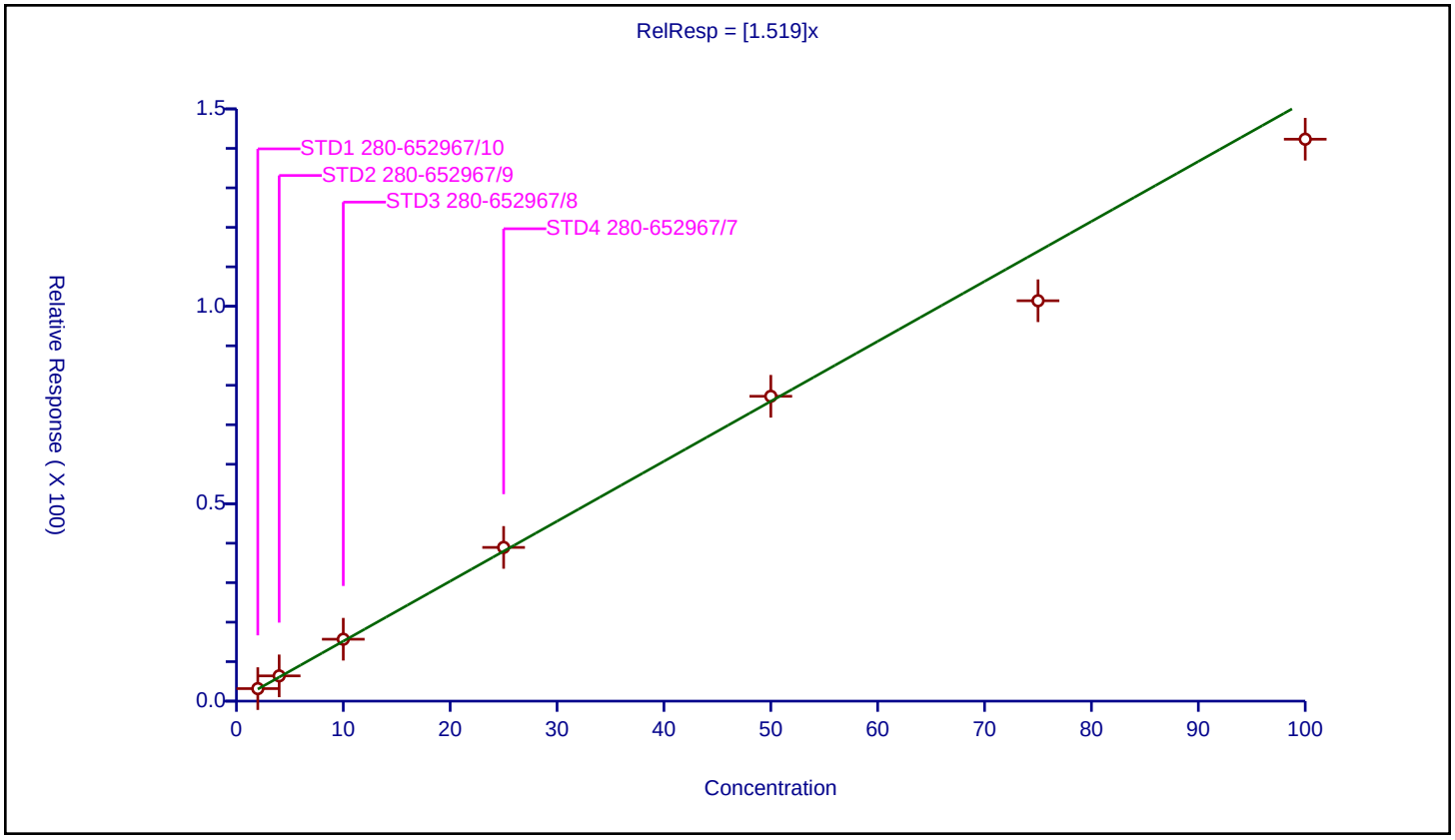
Curve Coefficients

Intercept:	0
Slope:	1.519

Error Coefficients

Relative Standard Deviation:	6.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	3.172601	75.0	121536561.0	1.586301	Y
2	STD2 280-652967/9	4.0	6.400748	75.0	118049896.0	1.600187	Y
3	STD3 280-652967/8	10.0	15.677394	75.0	123591080.0	1.567739	Y
4	STD4 280-652967/7	25.0	38.935479	75.0	117144345.0	1.557419	Y
5	ICIS 280-652967/6	50.0	77.214335	75.0	125363268.0	1.544287	Y
6	STD6 280-652967/5	75.0	101.407589	75.0	134496709.0	1.352101	Y
7	STD7 280-652967/4	100.0	142.321438	75.0	130850922.0	1.423214	Y



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Calibration / Endrin

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

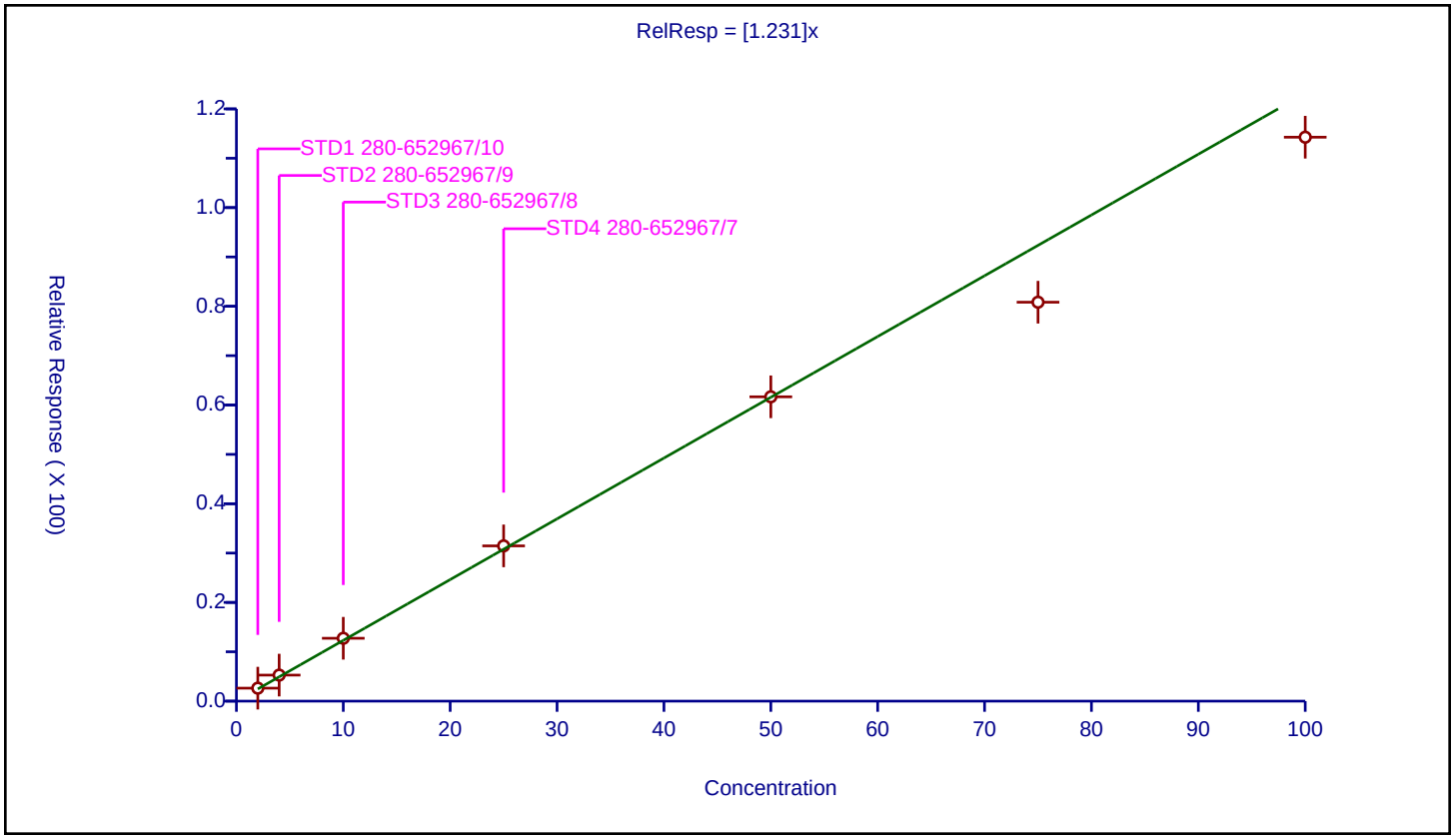
Curve Coefficients

Intercept:	0
Slope:	1.231

Error Coefficients

Relative Standard Deviation:	7.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	2.629258	75.0	121536561.0	1.314629	Y
2	STD2 280-652967/9	4.0	5.273889	75.0	118049896.0	1.318472	Y
3	STD3 280-652967/8	10.0	12.738416	75.0	123591080.0	1.273842	Y
4	STD4 280-652967/7	25.0	31.458729	75.0	117144345.0	1.258349	Y
5	ICIS 280-652967/6	50.0	61.664238	75.0	125363268.0	1.233285	Y
6	STD6 280-652967/5	75.0	80.829515	75.0	134496709.0	1.077727	Y
7	STD7 280-652967/4	100.0	114.263224	75.0	130850922.0	1.142632	Y



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Calibration / 4,4'-DDD

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

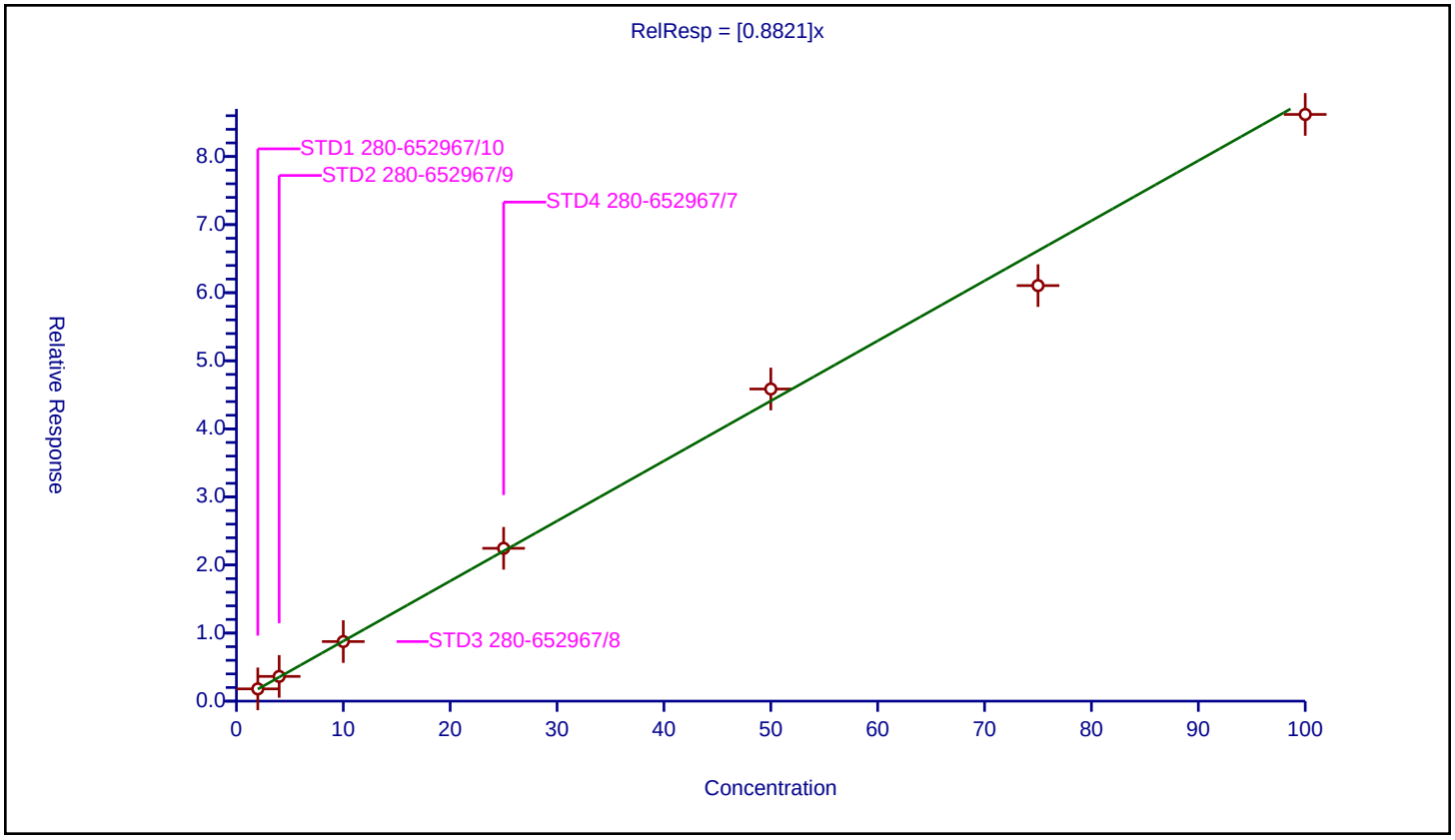
Curve Coefficients

Intercept:	0
Slope:	0.8821

Error Coefficients

Relative Standard Deviation:	4.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	1.80035	75.0	121536561.0	0.900175	Y
2	STD2 280-652967/9	4.0	3.633723	75.0	118049896.0	0.908431	Y
3	STD3 280-652967/8	10.0	8.753324	75.0	123591080.0	0.875332	Y
4	STD4 280-652967/7	25.0	22.449914	75.0	117144345.0	0.897997	Y
5	ICIS 280-652967/6	50.0	45.852014	75.0	125363268.0	0.91704	Y
6	STD6 280-652967/5	75.0	61.043076	75.0	134496709.0	0.813908	Y
7	STD7 280-652967/4	100.0	86.187908	75.0	130850922.0	0.861879	Y



5/23/2024
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Calibration / Endosulfan II

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

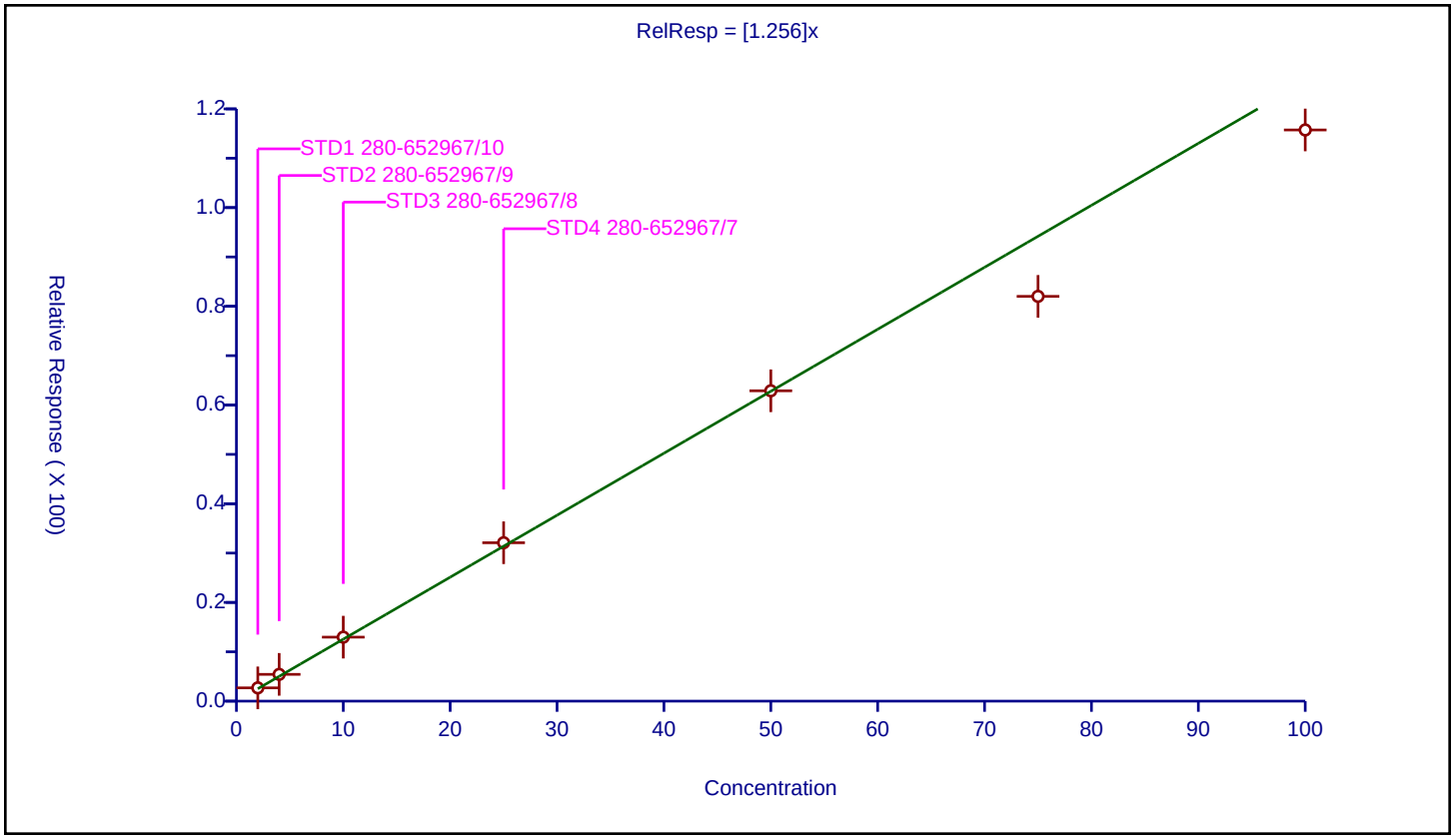
Curve Coefficients

Intercept:	0
Slope:	1.256

Error Coefficients

Relative Standard Deviation:	7.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	2.688428	75.0	121536561.0	1.344214	Y
2	STD2 280-652967/9	4.0	5.428316	75.0	118049896.0	1.357079	Y
3	STD3 280-652967/8	10.0	12.964335	75.0	123591080.0	1.296434	Y
4	STD4 280-652967/7	25.0	32.097247	75.0	117144345.0	1.28389	Y
5	ICIS 280-652967/6	50.0	62.883491	75.0	125363268.0	1.25767	Y
6	STD6 280-652967/5	75.0	82.015239	75.0	134496709.0	1.093537	Y
7	STD7 280-652967/4	100.0	115.729989	75.0	130850922.0	1.1573	Y



5/23/2024
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Calibration / 4,4'-DDT

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

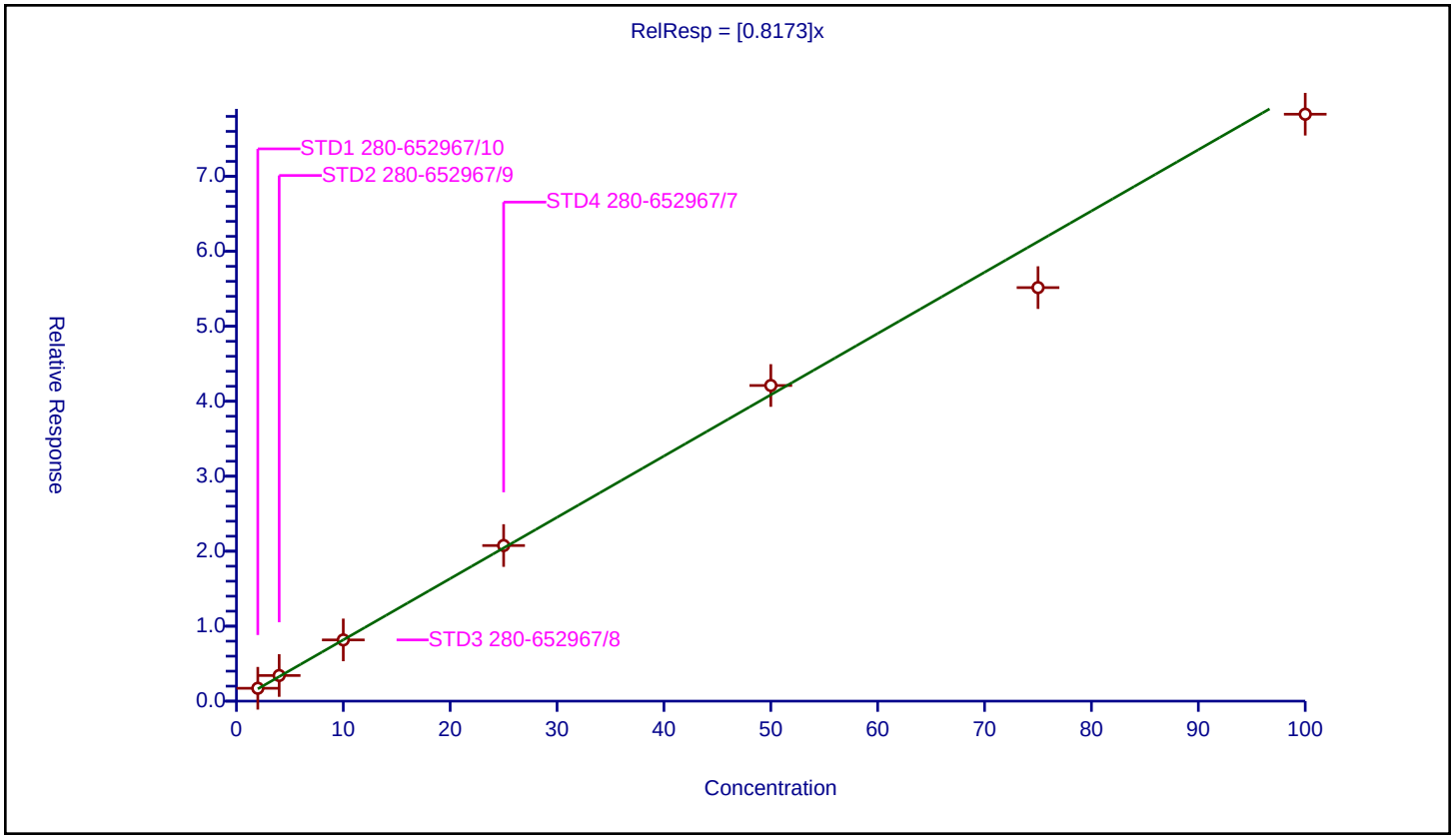
Curve Coefficients

Intercept:	0
Slope:	0.8173

Error Coefficients

Relative Standard Deviation:	5.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	1.717399	75.0	121536561.0	0.858699	Y
2	STD2 280-652967/9	4.0	3.419202	75.0	118049896.0	0.8548	Y
3	STD3 280-652967/8	10.0	8.165455	75.0	123591080.0	0.816546	Y
4	STD4 280-652967/7	25.0	20.75521	75.0	117144345.0	0.830208	Y
5	ICIS 280-652967/6	50.0	42.104984	75.0	125363268.0	0.8421	Y
6	STD6 280-652967/5	75.0	55.161117	75.0	134496709.0	0.735482	Y
7	STD7 280-652967/4	100.0	78.291518	75.0	130850922.0	0.782915	Y



5/23/2024
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Calibration / Endrin aldehyde

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

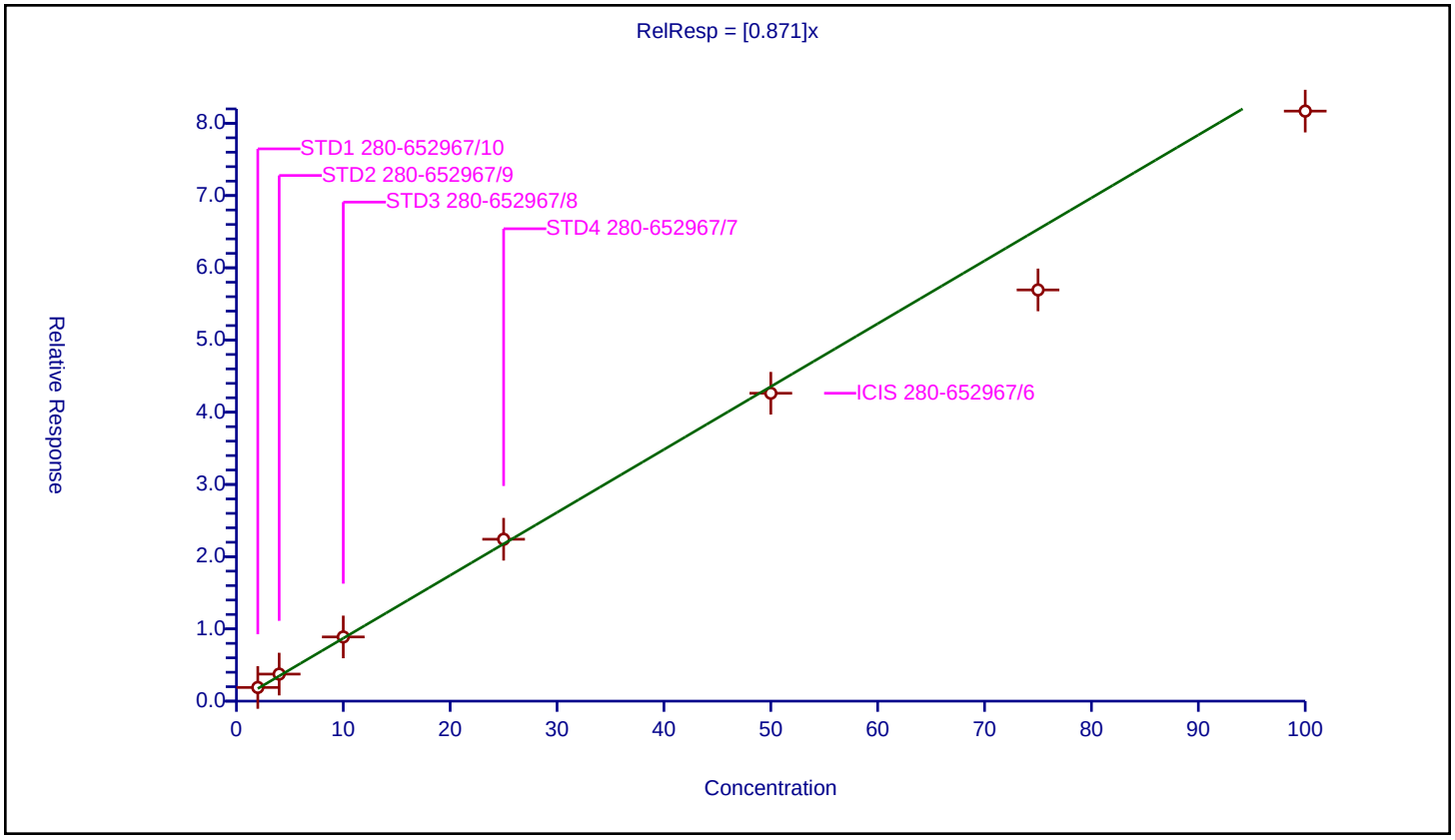
Curve Coefficients

Intercept:	0
Slope:	0.871

Error Coefficients

Relative Standard Deviation:	7.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	1.893804	75.0	121536561.0	0.946902	Y
2	STD2 280-652967/9	4.0	3.743437	75.0	118049896.0	0.935859	Y
3	STD3 280-652967/8	10.0	8.88847	75.0	123591080.0	0.888847	Y
4	STD4 280-652967/7	25.0	22.416469	75.0	117144345.0	0.896659	Y
5	ICIS 280-652967/6	50.0	42.631205	75.0	125363268.0	0.852624	Y
6	STD6 280-652967/5	75.0	56.936725	75.0	134496709.0	0.759156	Y
7	STD7 280-652967/4	100.0	81.695142	75.0	130850922.0	0.816951	Y



Calibration / Endosulfan sulfate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

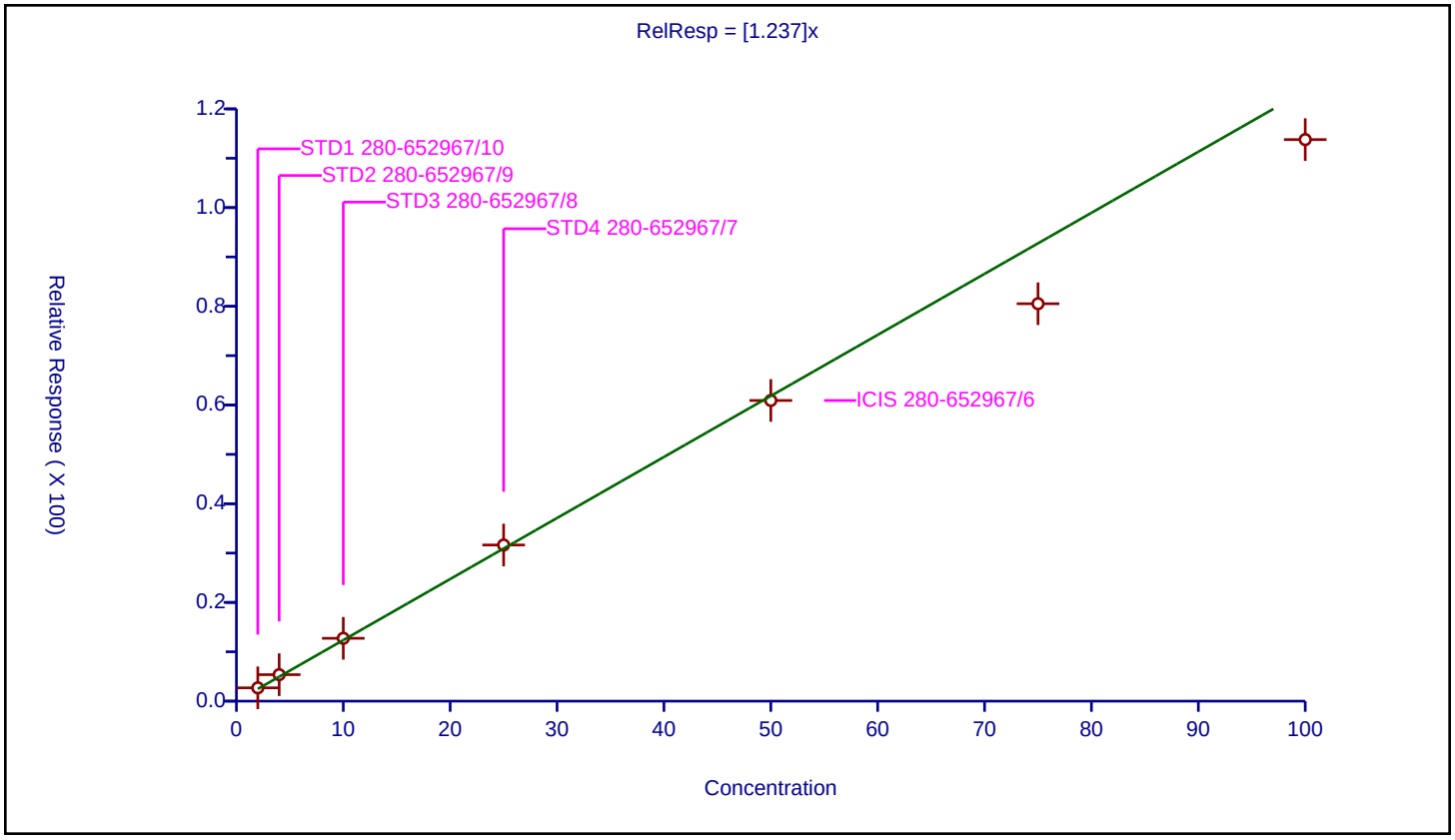
Curve Coefficients

Intercept:	0
Slope:	1.237

Error Coefficients

Relative Standard Deviation:	8.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	2.696479	75.0	121536561.0	1.34824	Y
2	STD2 280-652967/9	4.0	5.363622	75.0	118049896.0	1.340905	Y
3	STD3 280-652967/8	10.0	12.731532	75.0	123591080.0	1.273153	Y
4	STD4 280-652967/7	25.0	31.637233	75.0	117144345.0	1.265489	Y
5	ICIS 280-652967/6	50.0	60.918117	75.0	125363268.0	1.218362	Y
6	STD6 280-652967/5	75.0	80.523915	75.0	134496709.0	1.073652	Y
7	STD7 280-652967/4	100.0	113.778543	75.0	130850922.0	1.137785	Y



5/23/2024
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Calibration / Methoxychlor

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

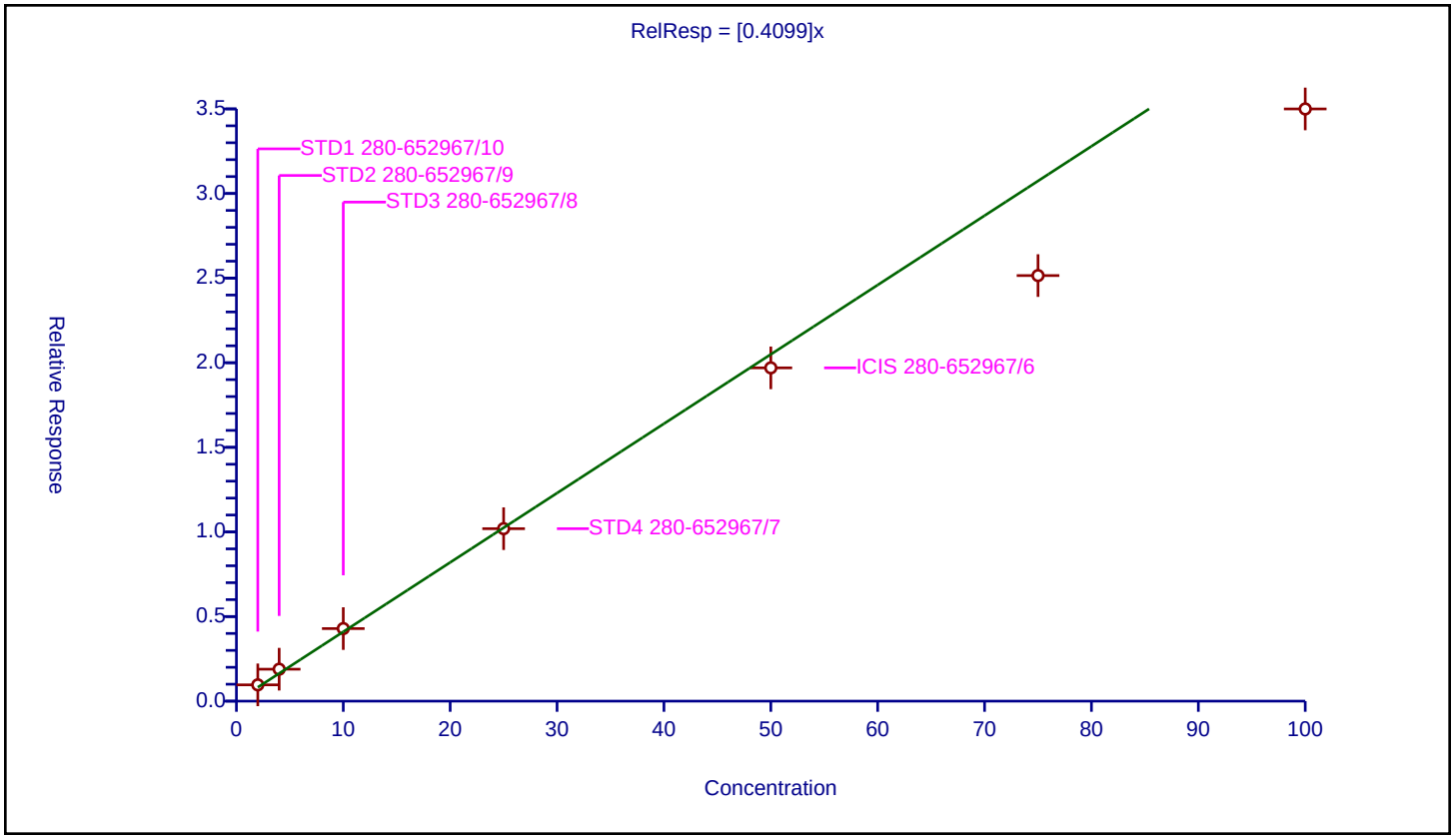
Curve Coefficients

Intercept:	0
Slope:	0.4099

Error Coefficients

Relative Standard Deviation:	13.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	0.962381	75.0	121536561.0	0.48119	Y
2	STD2 280-652967/9	4.0	1.888716	75.0	118049896.0	0.472179	Y
3	STD3 280-652967/8	10.0	4.288284	75.0	123591080.0	0.428828	Y
4	STD4 280-652967/7	25.0	10.192103	75.0	117144345.0	0.407684	Y
5	ICIS 280-652967/6	50.0	19.696471	75.0	125363268.0	0.393929	Y
6	STD6 280-652967/5	75.0	25.149483	75.0	134496709.0	0.335326	Y
7	STD7 280-652967/4	100.0	34.996729	75.0	130850922.0	0.349967	Y



5/23/2024
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Calibration / Endrin ketone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

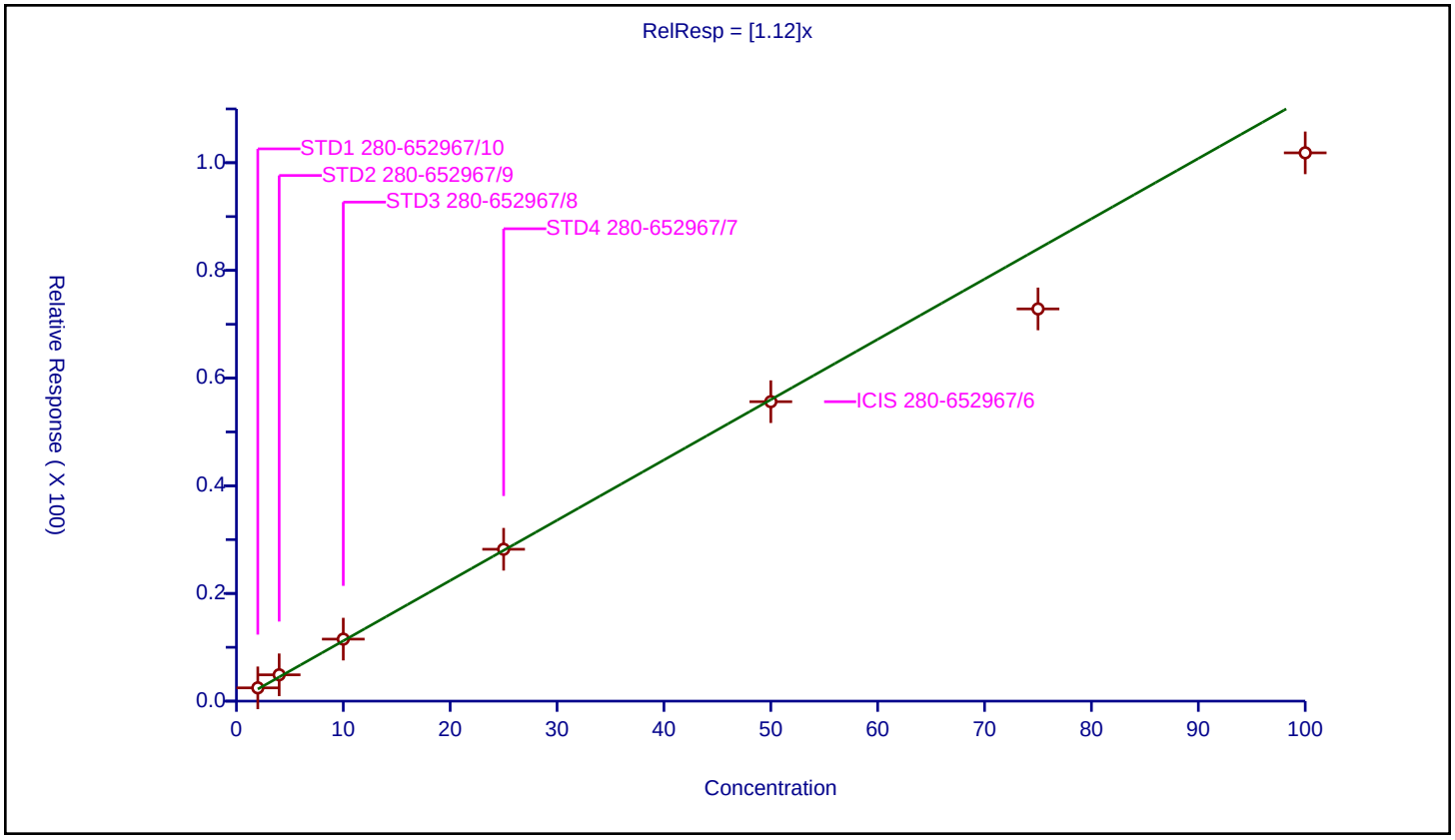
Curve Coefficients

Intercept:	0
Slope:	1.12

Error Coefficients

Relative Standard Deviation:	8.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	2.467677	75.0	121536561.0	1.233839	Y
2	STD2 280-652967/9	4.0	4.892359	75.0	118049896.0	1.22309	Y
3	STD3 280-652967/8	10.0	11.517235	75.0	123591080.0	1.151724	Y
4	STD4 280-652967/7	25.0	28.210578	75.0	117144345.0	1.128423	Y
5	ICIS 280-652967/6	50.0	55.621208	75.0	125363268.0	1.112424	Y
6	STD6 280-652967/5	75.0	72.849756	75.0	134496709.0	0.97133	Y
7	STD7 280-652967/4	100.0	101.835718	75.0	130850922.0	1.018357	Y



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Calibration / DCB Decachlorobiphenyl

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

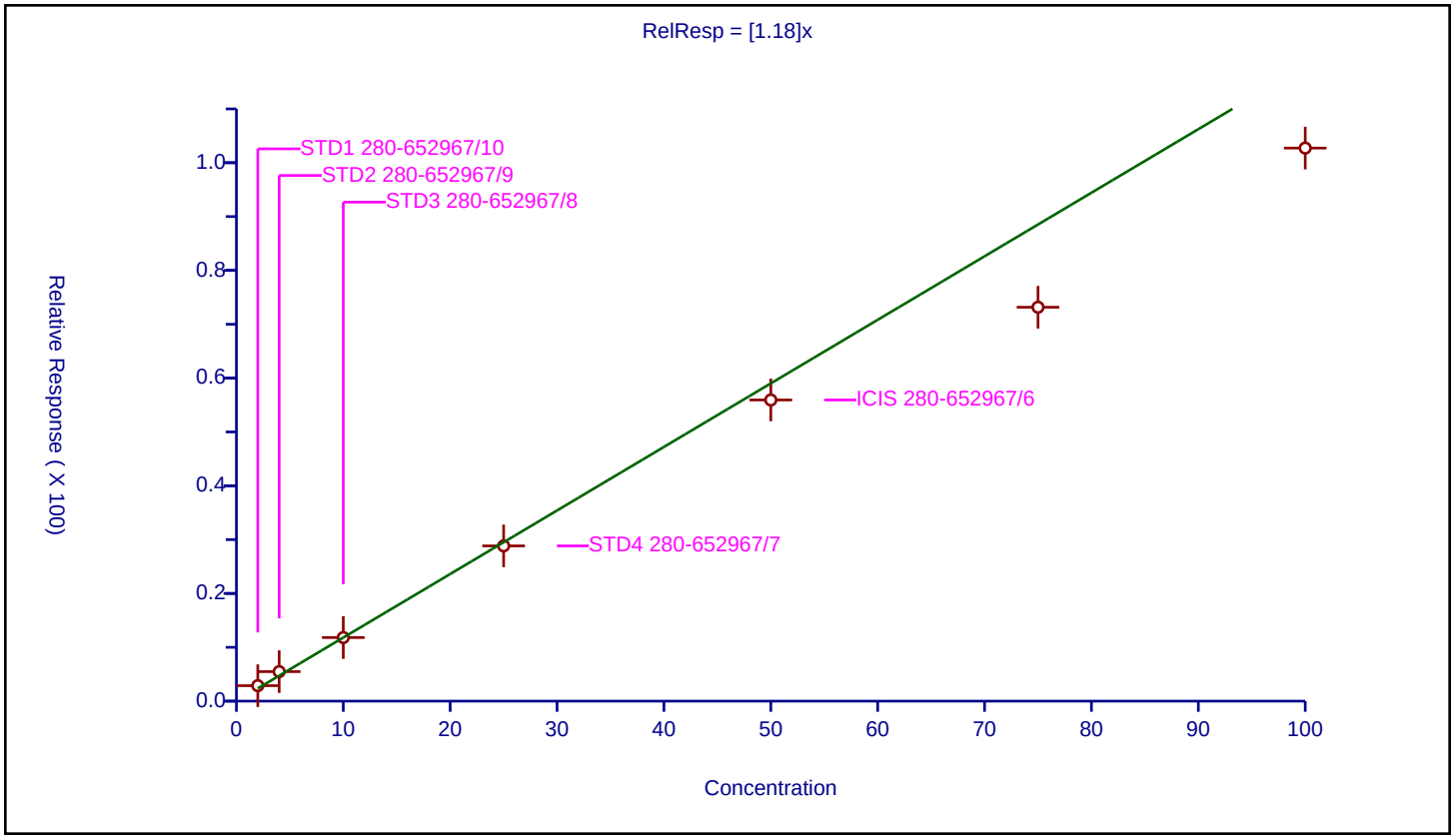
Curve Coefficients

Intercept:	0
Slope:	1.18

Error Coefficients

Relative Standard Deviation:	14.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-652967/10	2.0	2.871977	75.0	121536561.0	1.435989	Y
2	STD2 280-652967/9	4.0	5.481908	75.0	118049896.0	1.370477	Y
3	STD3 280-652967/8	10.0	11.810686	75.0	123591080.0	1.181069	Y
4	STD4 280-652967/7	25.0	28.83433	75.0	117144345.0	1.153373	Y
5	ICIS 280-652967/6	50.0	55.934839	75.0	125363268.0	1.118697	Y
6	STD6 280-652967/5	75.0	73.159871	75.0	134496709.0	0.975465	Y
7	STD7 280-652967/4	100.0	102.725022	75.0	130850922.0	1.02725	Y



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FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653121

SDG No.:

Instrument ID: SGC_C GC Column: RTI-XLB ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 12:07 Calibration End Date: 05/13/2024 12:07 Calibration ID: 93309

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD4 280-653121/6	0513006.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
Toxaphene Peak 1	0.0056					Ave		0.0056						20.0			
Toxaphene Peak 2	0.0132					Ave		0.0132						20.0			
Toxaphene Peak 3	0.0176					Ave		0.0176						20.0			
Toxaphene Peak 4	0.0386					Ave		0.0386						20.0			
Toxaphene Peak 5	0.0218					Ave		0.0218						20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 653121

SDG No.:

Instrument ID: SGC_C | GC Column: RTI-XLB | ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 12:07 | Calibration End Date: 05/13/2024 12:07 | Calibration ID: 93309

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD4 280-653121/6	0513006.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1					LVL 1				
Toxaphene Peak 1	BNB	Ave	13592988					2000				
Toxaphene Peak 2	BNB	Ave	32361538					2000				
Toxaphene Peak 3	BNB	Ave	43007826					2000				
Toxaphene Peak 4	BNB	Ave	94302259					2000				
Toxaphene Peak 5	BNB	Ave	53362692					2000				

Curve Type Legend:
Ave = Average ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513006.D
Lims ID: STD4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 13-May-2024 12:07:44 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD4
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub3

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:01 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 13-May-2024 14:56:15

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.229	3.229	0.000	91608996	75.0	75.0	
2	2.814	2.814	0.000	116012468	75.0	75.0	
22 Toxaphene							
1	6.896	6.896	0.000	13592988	2000.0	2000.0	
1	7.583	7.583	0.000	32361538	2000.0	2000.0	
1	8.009	8.009	0.000	43007826	2000.0	2000.0	
1	8.269	8.269	0.000	94302259	2000.0	2000.0	
1	9.304	9.304	0.000	53362692	2000.0	2000.0	
		Average of Peak Amounts =				2000.0	
2	6.222	6.222	0.000	39380623	2000.0	2000.0	
2	6.637	6.637	0.000	42391786	2000.0	2000.0	
2	6.925	6.925	0.000	73050530	2000.0	2000.0	
2	7.799	7.799	0.000	66229927	2000.0	2000.0	
2	8.164	8.164	0.000	70301002	2000.0	2000.0	
		Average of Peak Amounts =				2000.0	
						RPD = 0.00	

QC Flag Legend
Processing Flags

Reagents:
8081TOXCCVL4_00036 Amount Added: 200.00 Units: uL
8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

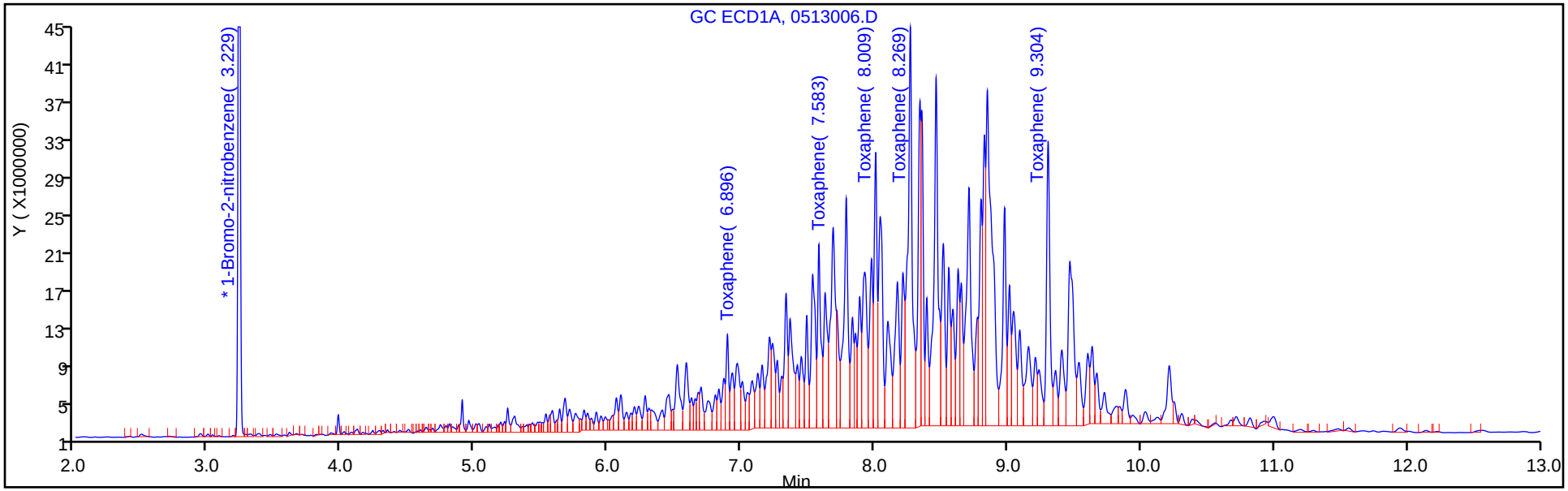
Report Date: 14-May-2024 08:21:01 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

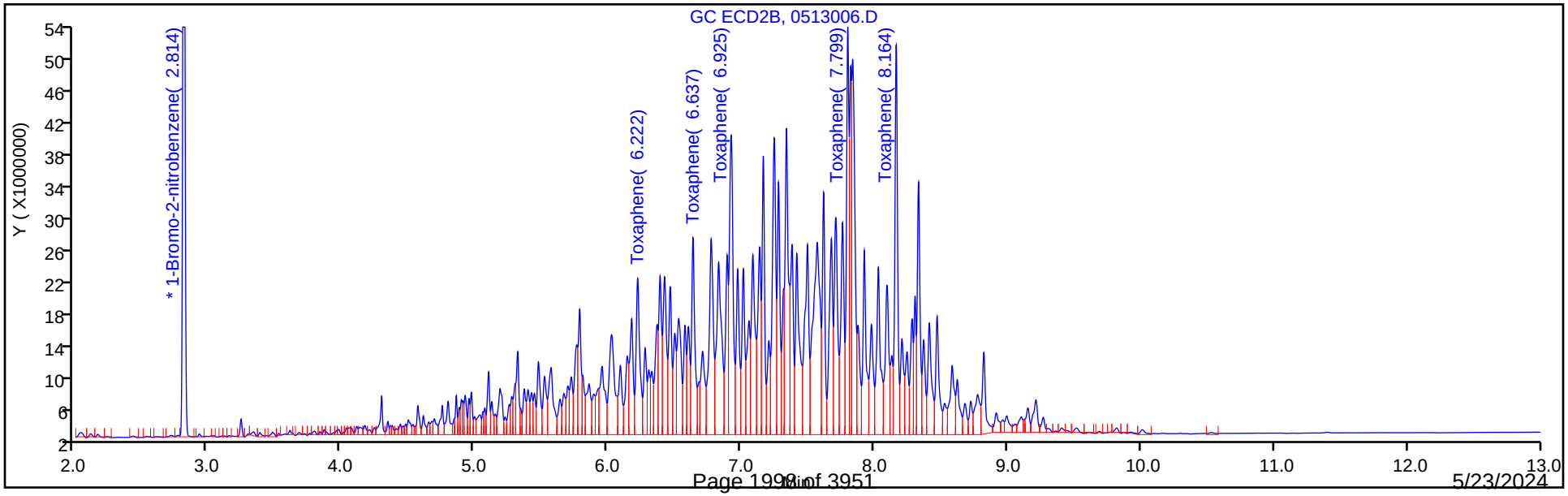
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513006.D

Injection Date:	13-May-2024 12:07:44	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	STD4			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Calibration / Toxaphene Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

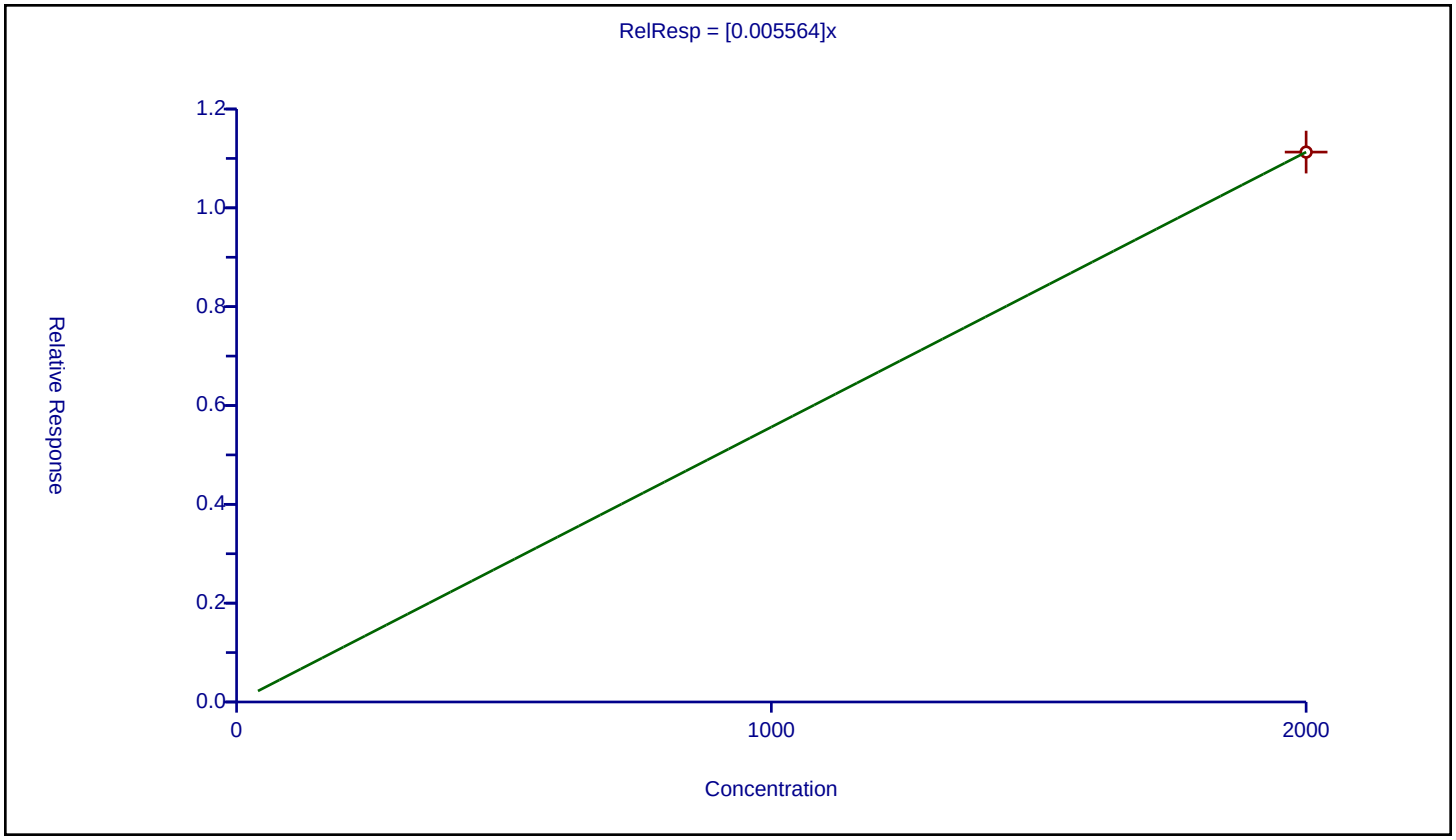
Curve Coefficients

Intercept:	0
Slope:	0.005564

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4 280-653121/6	2000.0	11.128537	75.0	91608996.0	0.005564	Y



Calibration / Toxaphene Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

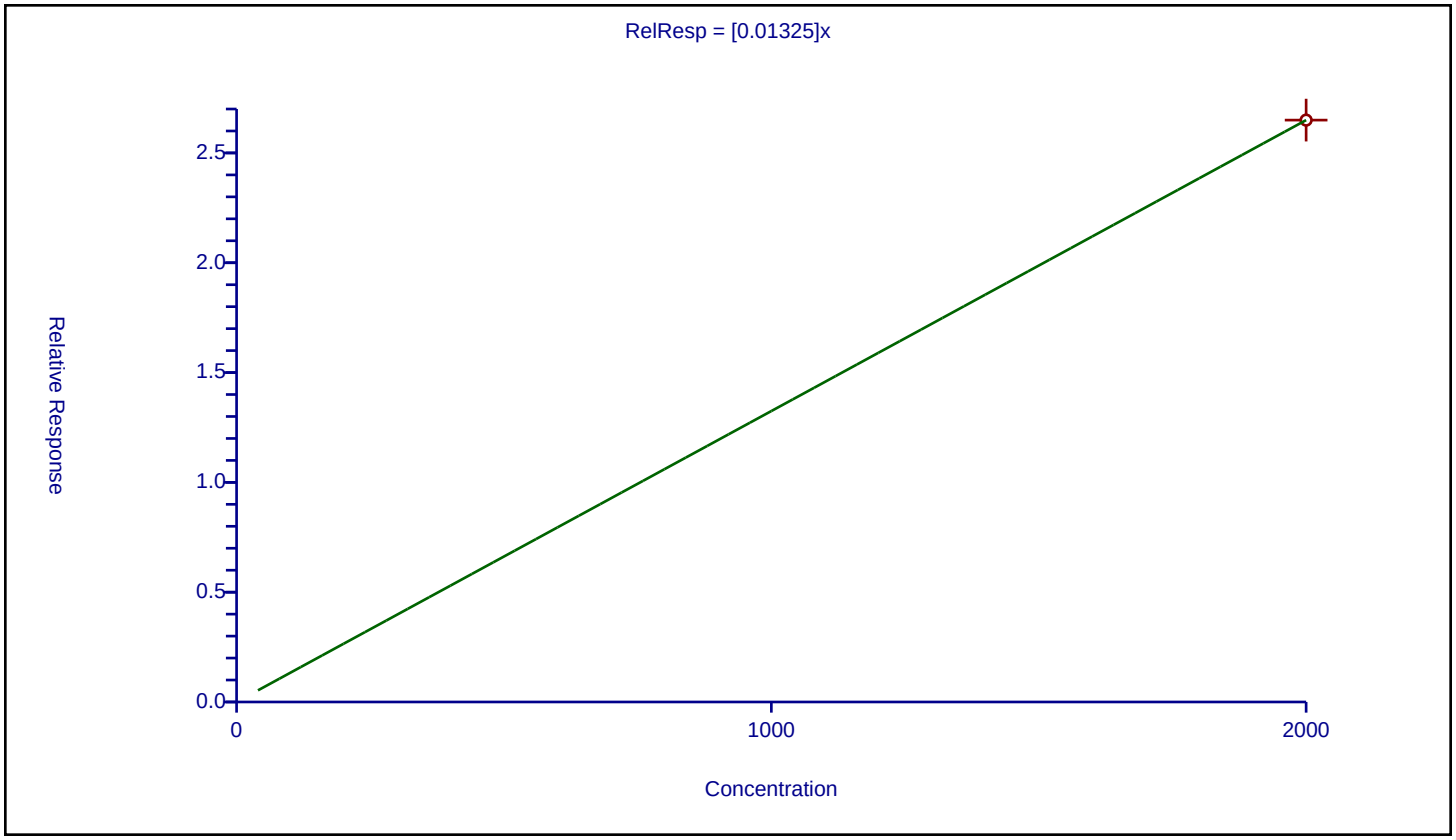
Curve Coefficients

Intercept:	0
Slope:	0.01325

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4 280-653121/6	2000.0	26.49429	75.0	91608996.0	0.013247	Y



Calibration / Toxaphene Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

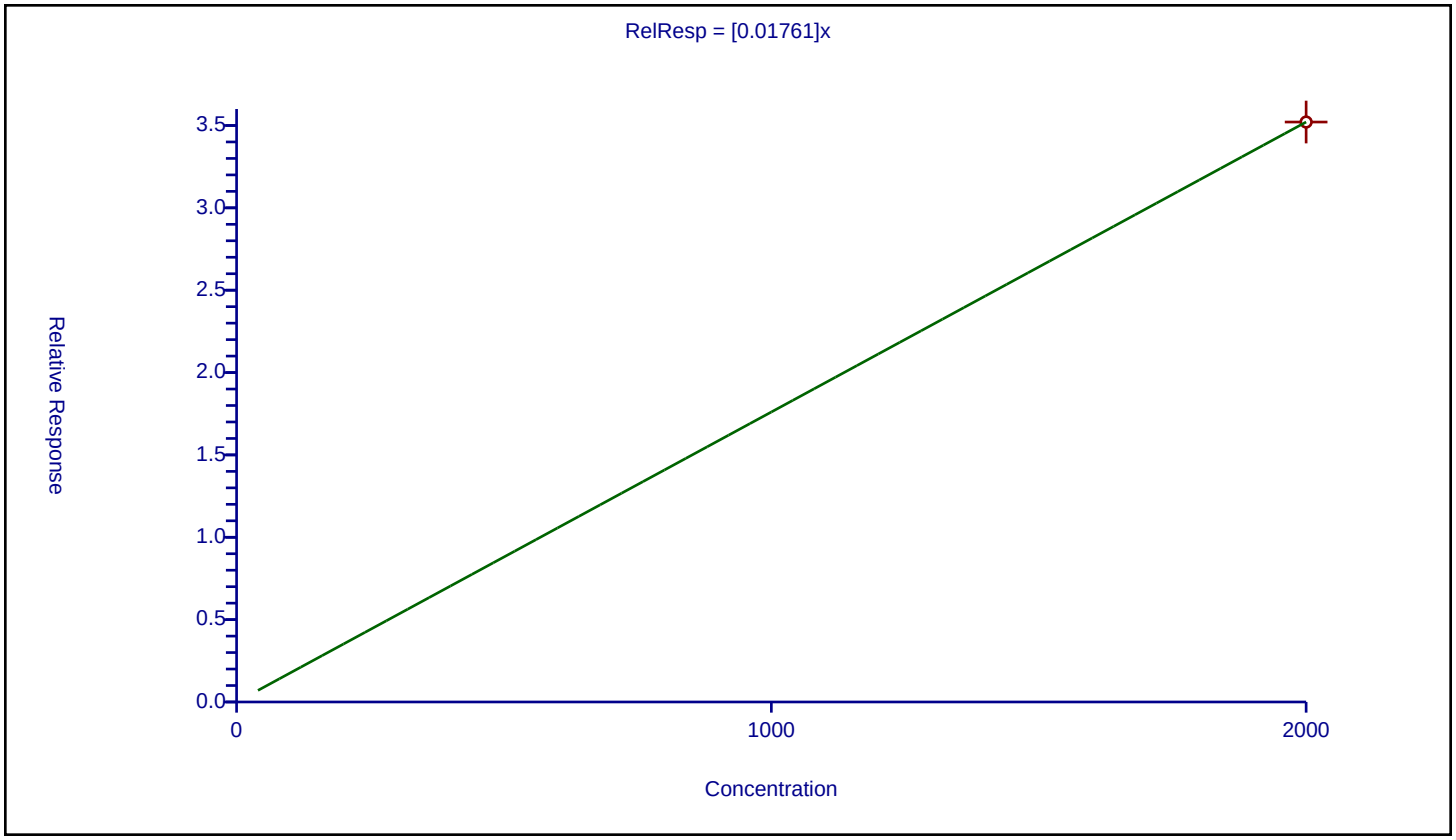
Curve Coefficients

Intercept:	0
Slope:	0.01761

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4 280-653121/6	2000.0	35.210373	75.0	91608996.0	0.017605	Y



Calibration / Toxaphene Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

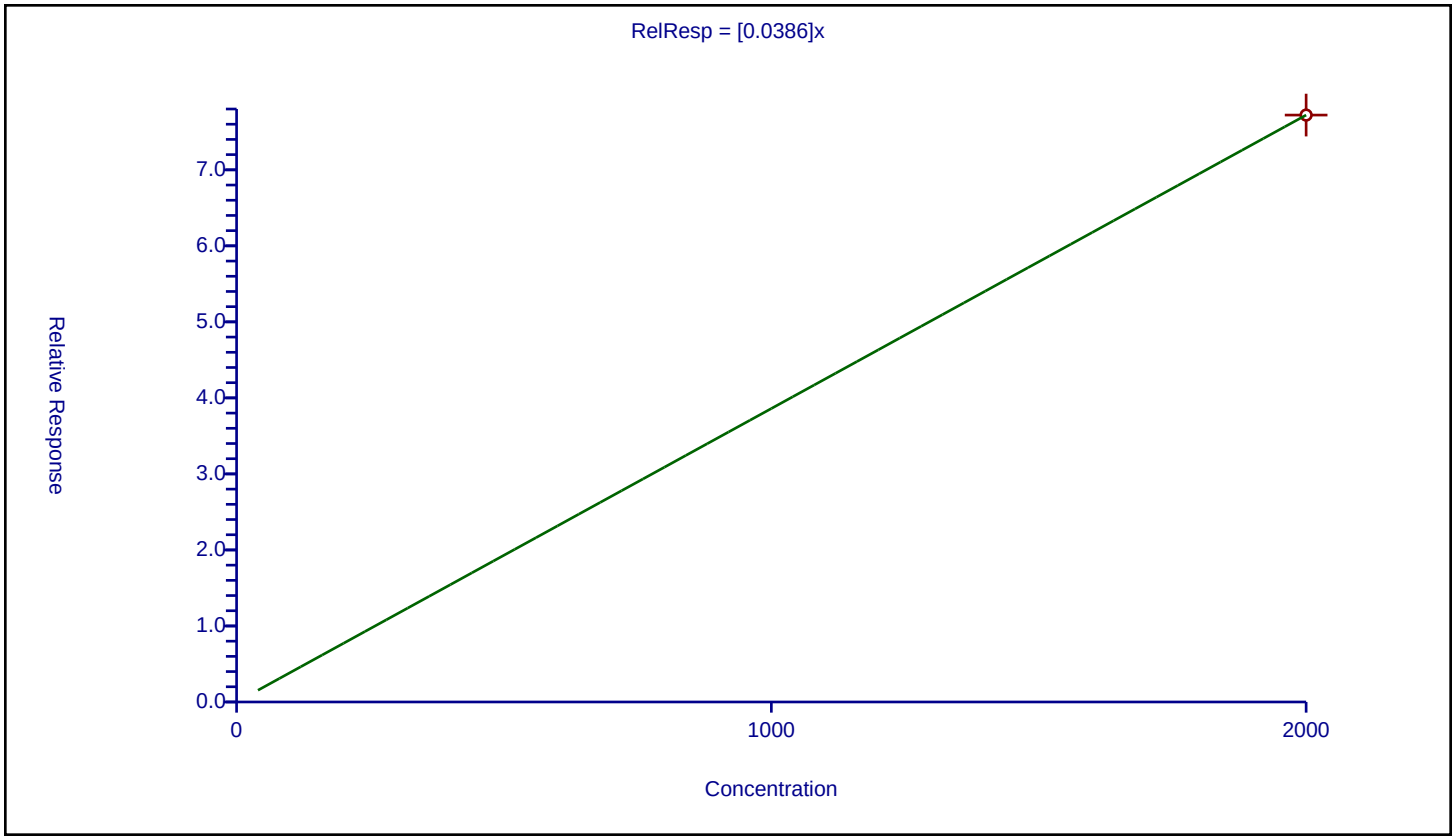
Curve Coefficients

Intercept:	0
Slope:	0.0386

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4 280-653121/6	2000.0	77.204966	75.0	91608996.0	0.038602	Y



Calibration / Toxaphene Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

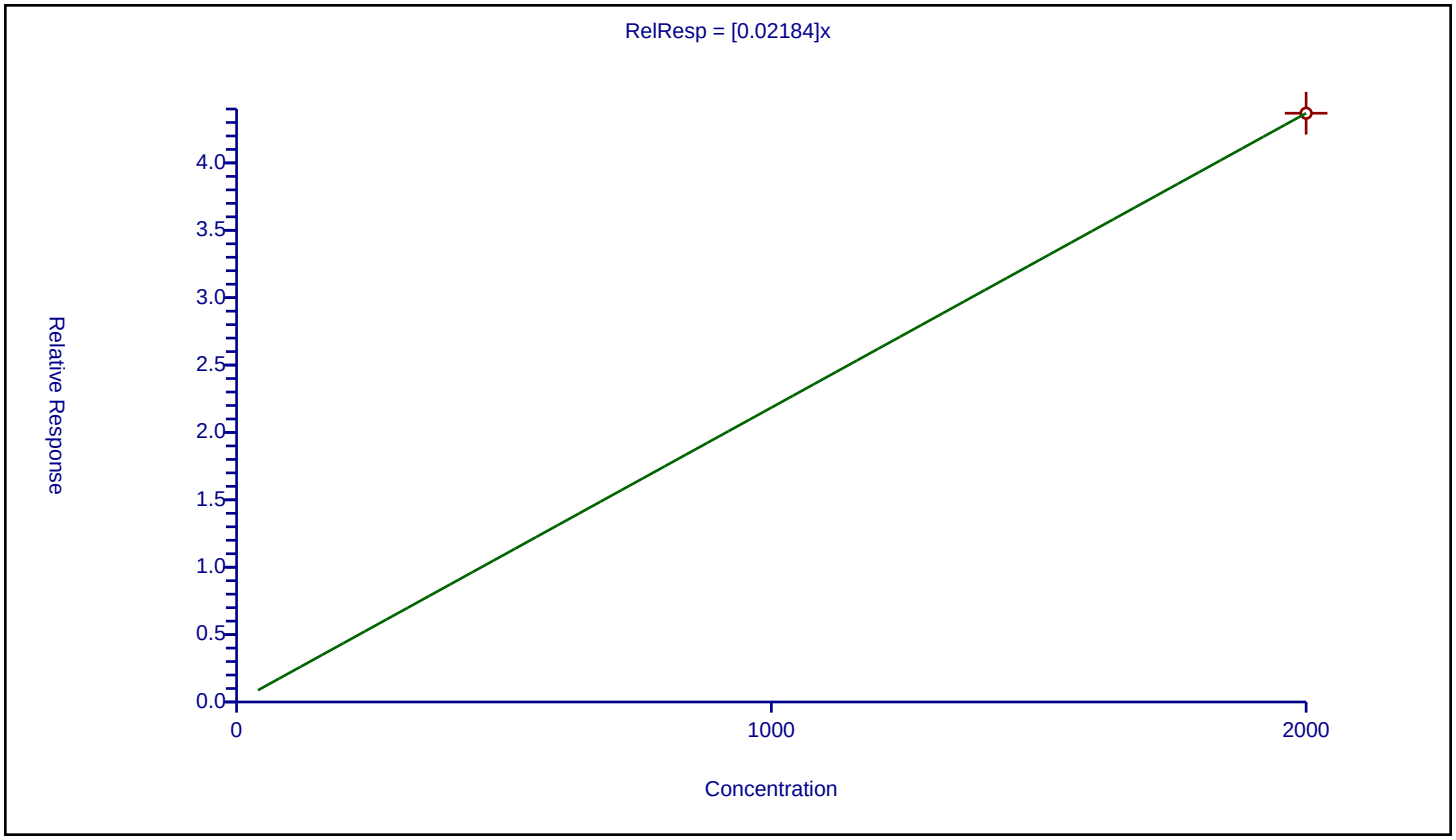
Curve Coefficients

Intercept:	0
Slope:	0.02184

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4 280-653121/6	2000.0	43.68787	75.0	91608996.0	0.021844	Y



FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653121

SDG No.:

Instrument ID: SGC_C GC Column: RTI-35silms ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 12:07 Calibration End Date: 05/13/2024 12:07 Calibration ID: 93310

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD4 280-653121/6	0513006.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
Toxaphene Peak 1	0.0127					Ave		0.0127						20.0			
Toxaphene Peak 2	0.0137					Ave		0.0137						20.0			
Toxaphene Peak 3	0.0236					Ave		0.0236						20.0			
Toxaphene Peak 4	0.0214					Ave		0.0214						20.0			
Toxaphene Peak 5	0.0227					Ave		0.0227						20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 653121

SDG No.:

Instrument ID: SGC_C | GC Column: RTI-35silm ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 12:07 | Calibration End Date: 05/13/2024 12:07 | Calibration ID: 93310

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD4 280-653121/6	0513006.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1					LVL 1				
Toxaphene Peak 1	BNB	Ave	39380623					2000				
Toxaphene Peak 2	BNB	Ave	42391786					2000				
Toxaphene Peak 3	BNB	Ave	73050530					2000				
Toxaphene Peak 4	BNB	Ave	66229927					2000				
Toxaphene Peak 5	BNB	Ave	70301002					2000				

Curve Type Legend:
Ave = Average ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513006.D
Lims ID: STD4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 13-May-2024 12:07:44 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD4
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub3

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:01 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 13-May-2024 14:56:15

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.229	3.229	0.000	91608996	75.0	75.0	
2	2.814	2.814	0.000	116012468	75.0	75.0	
22 Toxaphene							
1	6.896	6.896	0.000	13592988	2000.0	2000.0	
1	7.583	7.583	0.000	32361538	2000.0	2000.0	
1	8.009	8.009	0.000	43007826	2000.0	2000.0	
1	8.269	8.269	0.000	94302259	2000.0	2000.0	
1	9.304	9.304	0.000	53362692	2000.0	2000.0	
		Average of Peak Amounts =				2000.0	
2	6.222	6.222	0.000	39380623	2000.0	2000.0	
2	6.637	6.637	0.000	42391786	2000.0	2000.0	
2	6.925	6.925	0.000	73050530	2000.0	2000.0	
2	7.799	7.799	0.000	66229927	2000.0	2000.0	
2	8.164	8.164	0.000	70301002	2000.0	2000.0	
		Average of Peak Amounts =				2000.0	
						RPD = 0.00	

QC Flag Legend
Processing Flags

Reagents:
8081TOXCCVL4_00036 Amount Added: 200.00 Units: uL
8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

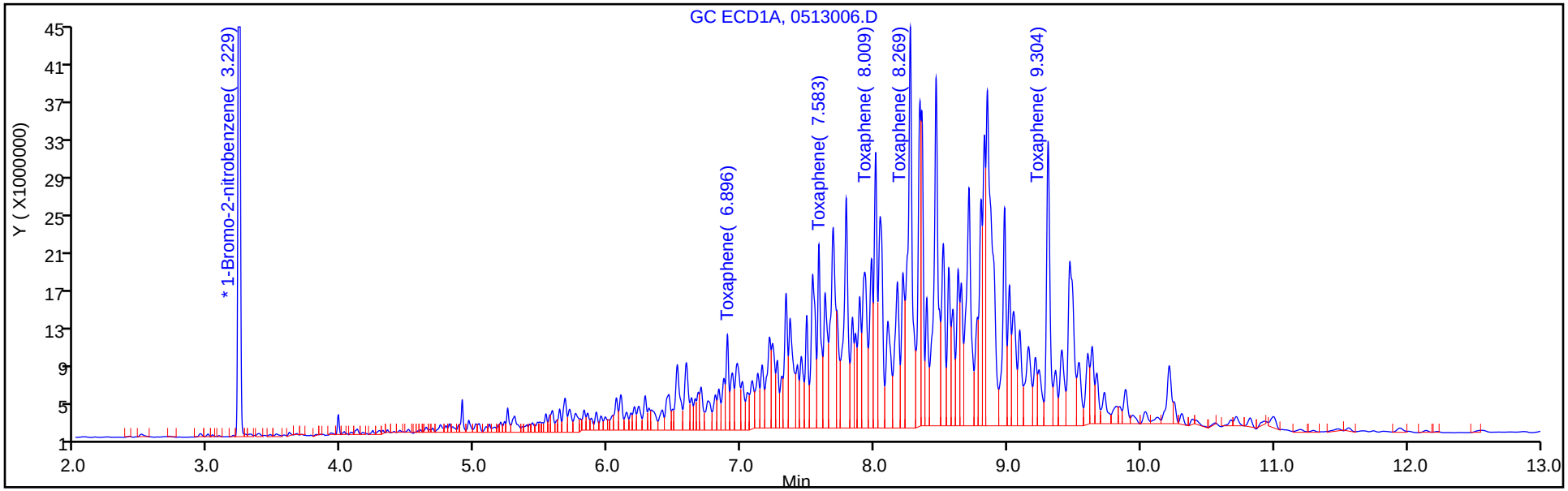
Report Date: 14-May-2024 08:21:02 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

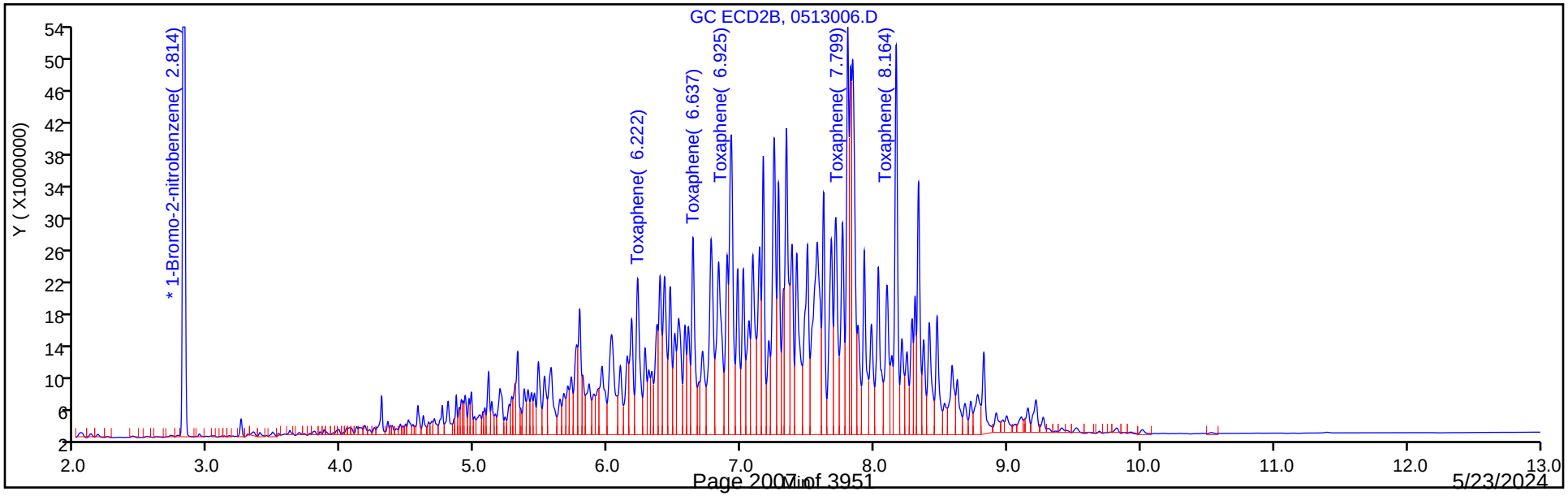
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513006.D

Injection Date:	13-May-2024 12:07:44	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	STD4			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Calibration / Toxaphene Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

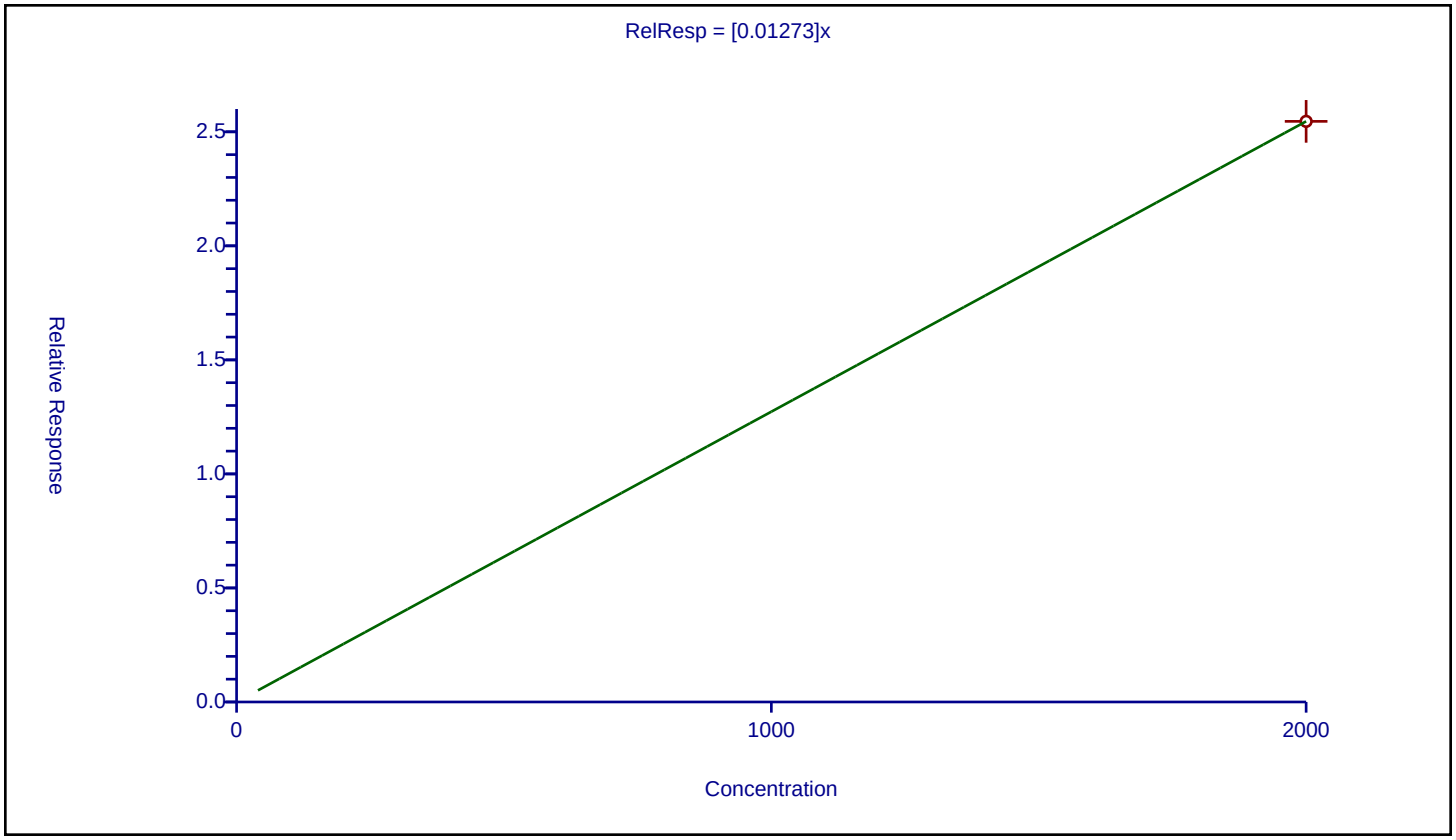
Curve Coefficients

Intercept:	0
Slope:	0.01273

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4 280-653121/6	2000.0	25.458873	75.0	116012468.0	0.012729	Y



Calibration / Toxaphene Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

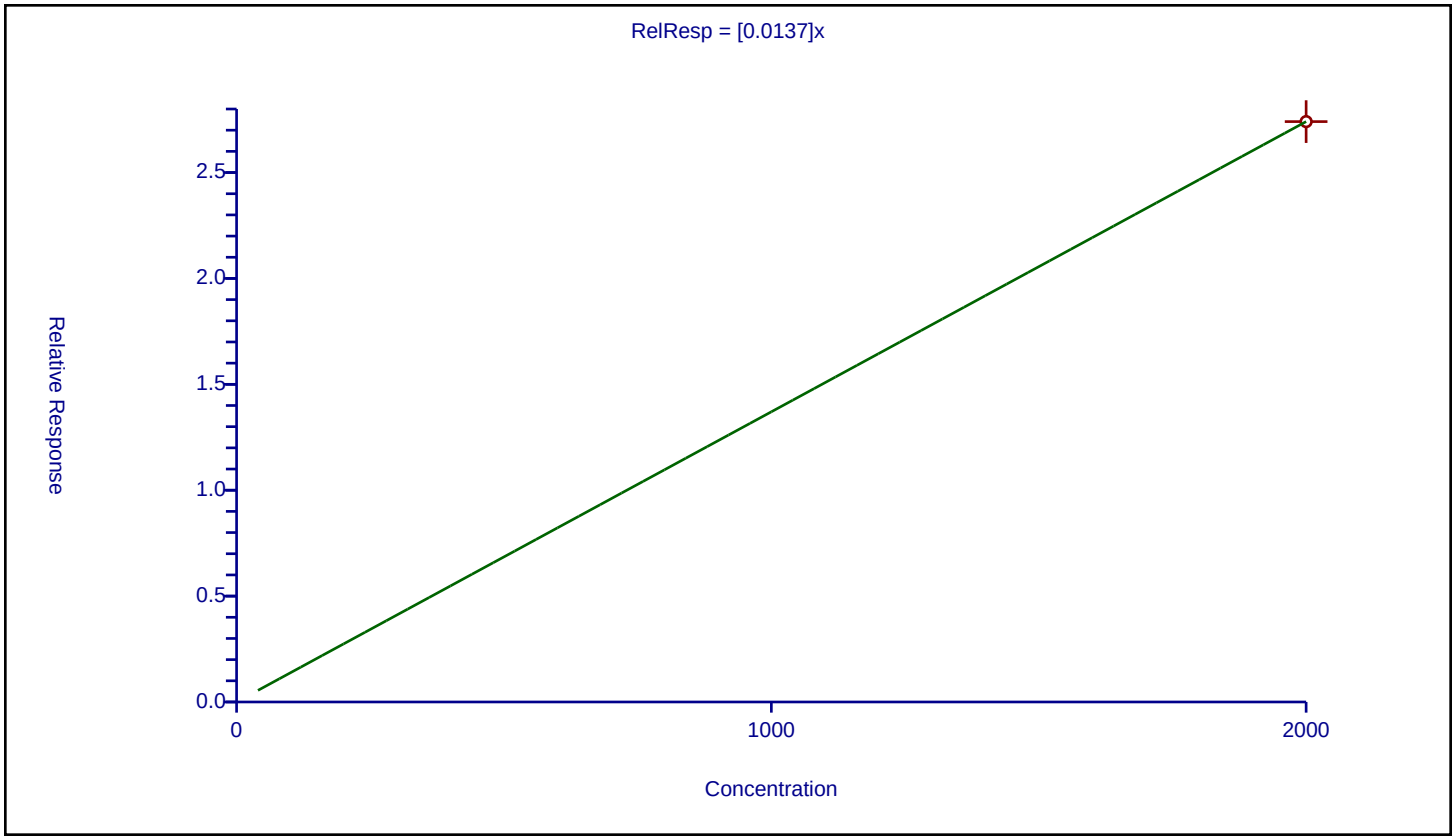
Curve Coefficients

Intercept:	0
Slope:	0.0137

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4 280-653121/6	2000.0	27.405537	75.0	116012468.0	0.013703	Y



Calibration / Toxaphene Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

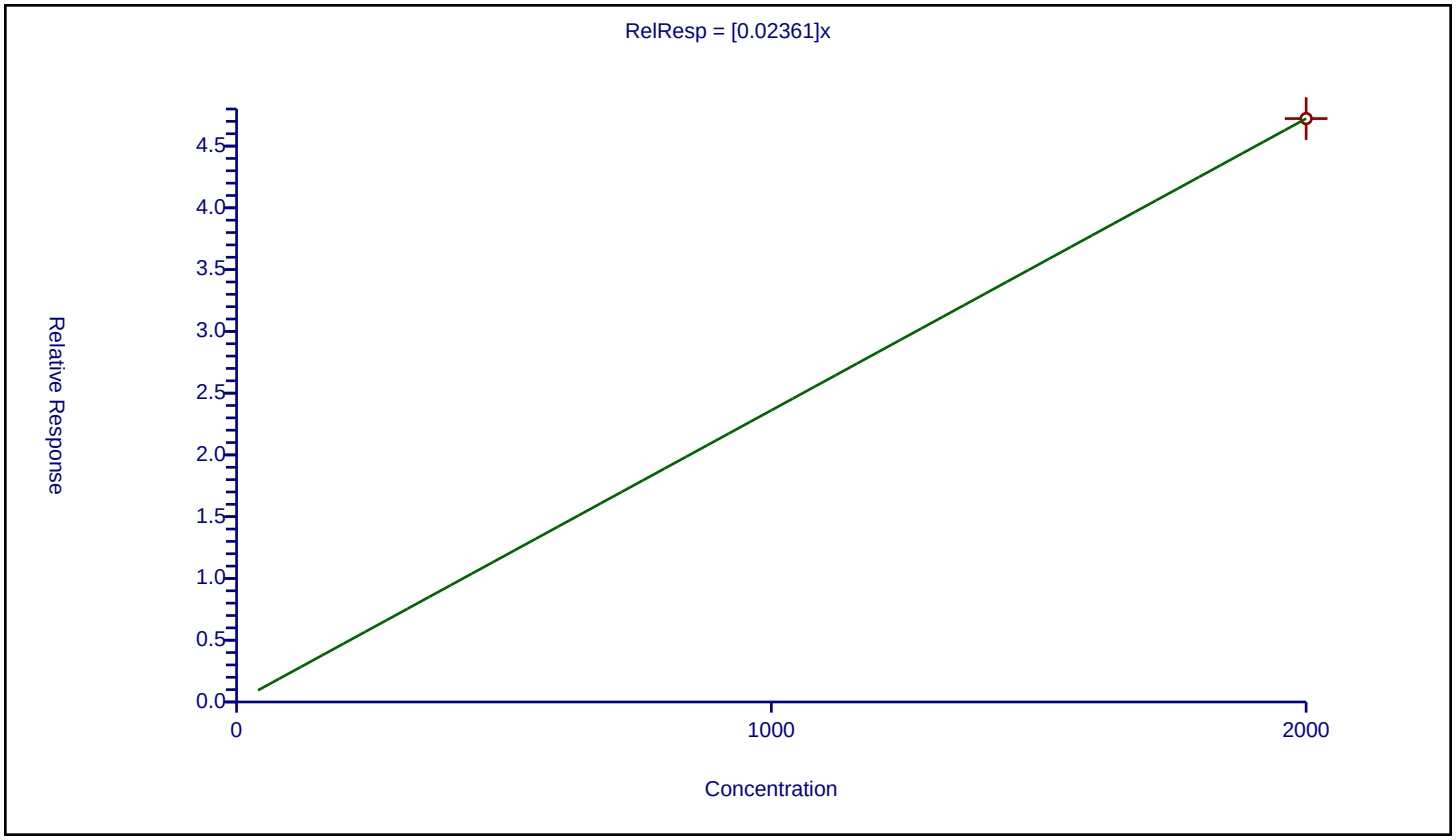
Curve Coefficients

Intercept:	0
Slope:	0.02361

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4 280-653121/6	2000.0	47.22587	75.0	116012468.0	0.023613	Y



Calibration / Toxaphene Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

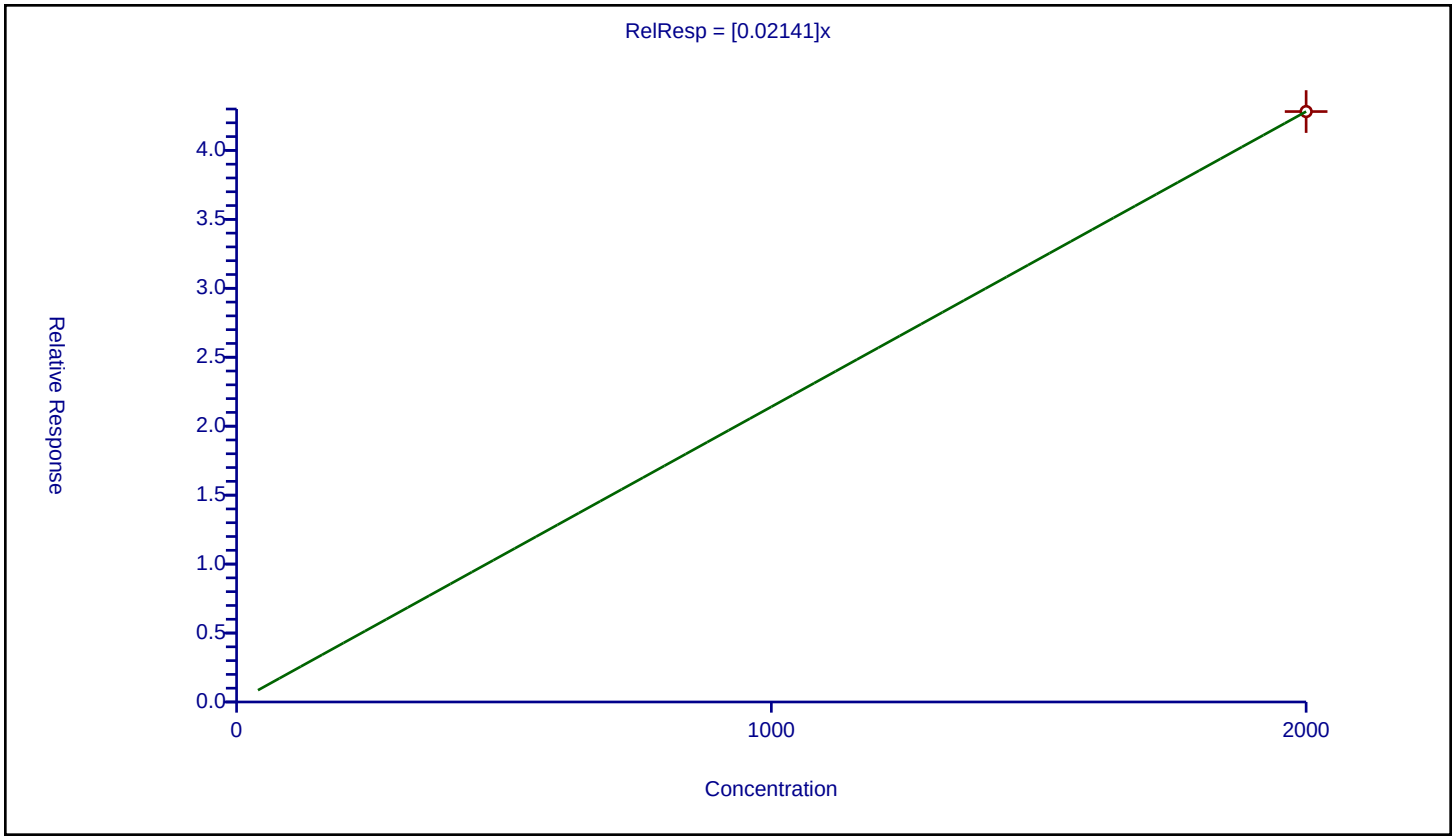
Curve Coefficients

Intercept:	0
Slope:	0.02141

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4 280-653121/6	2000.0	42.816471	75.0	116012468.0	0.021408	Y



Calibration / Toxaphene Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

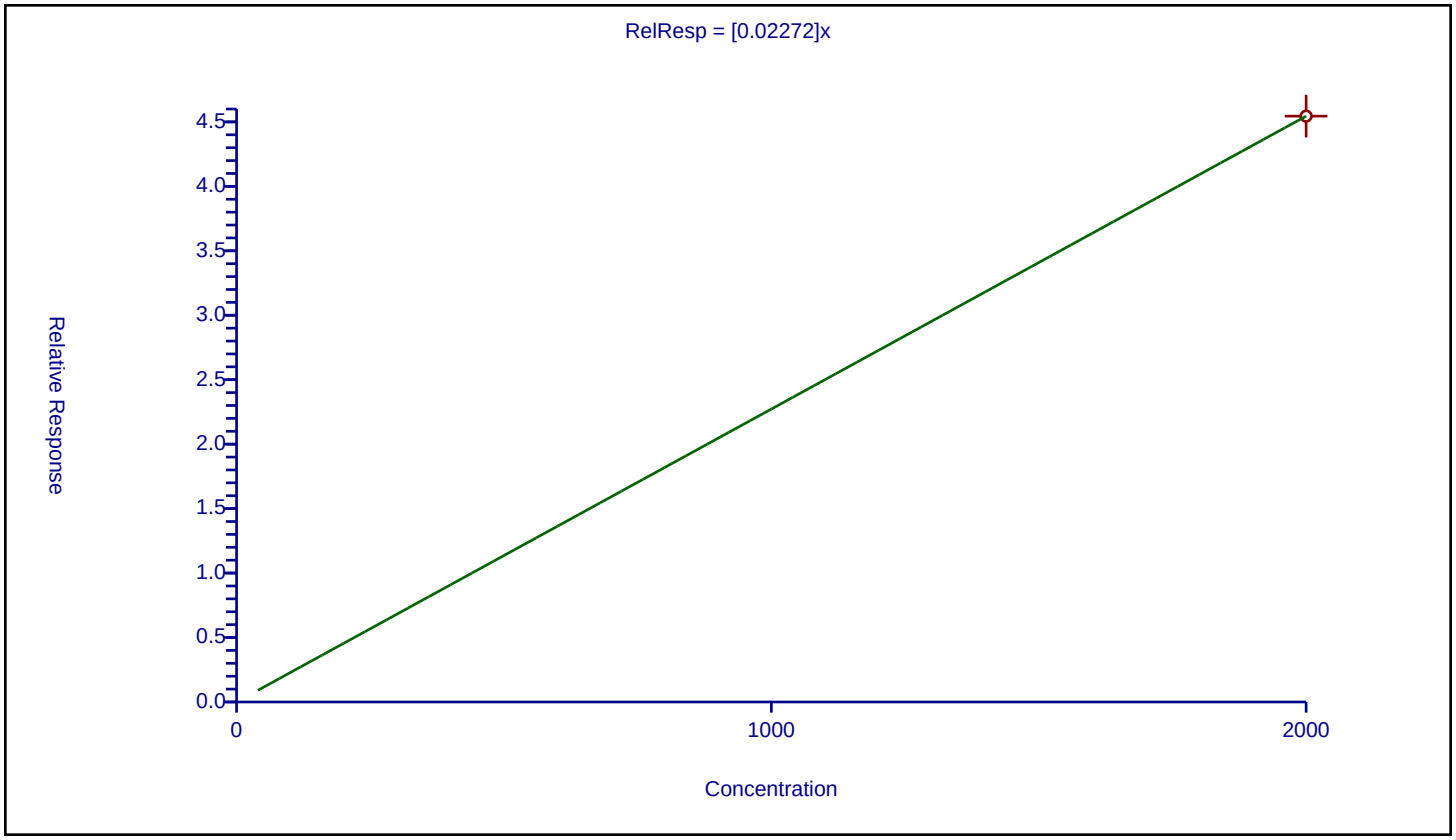
Curve Coefficients

Intercept:	0
Slope:	0.02272

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4 280-653121/6	2000.0	45.448349	75.0	116012468.0	0.022724	Y



FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653121

SDG No.:

Instrument ID: SGC_C GC Column: RTI-XLB ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 12:25 Calibration End Date: 05/13/2024 12:25 Calibration ID: 93315

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD3 280-653121/7	0513007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
Chlordane (technical) Peak 1	0.0576					Ave		0.0576						20.0			
Technical Chlordane Peak 1	0.0576					Ave		0.0576						20.0			
Chlordane (technical) Peak 2	0.0462					Ave		0.0462						20.0			
Technical Chlordane Peak 2	0.0462					Ave		0.0462						20.0			
Chlordane (technical) Peak 3	0.2002					Ave		0.2002						20.0			
Technical Chlordane Peak 3	0.2002					Ave		0.2002						20.0			
Chlordane (technical) Peak 4	0.1340					Ave		0.1340						20.0			
Technical Chlordane Peak 4	0.1340					Ave		0.1340						20.0			
Chlordane (technical) Peak 5	0.0390					Ave		0.0390						20.0			
Technical Chlordane Peak 5	0.0390					Ave		0.0390						20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 653121

SDG No.:

Instrument ID: SGC_C | GC Column: RTI-XLB | ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 12:25 | Calibration End Date: 05/13/2024 12:25 | Calibration ID: 93315

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD3 280-653121/7	0513007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1					LVL 1				
Chlordane (technical) Peak 1	BNB	Ave	33357944					500				
Technical Chlordane Peak 1	BNB	Ave	33357944					500				
Chlordane (technical) Peak 2	BNB	Ave	26767415					500				
Technical Chlordane Peak 2	BNB	Ave	26767415					500				
Chlordane (technical) Peak 3	BNB	Ave	116001050					500				
Technical Chlordane Peak 3	BNB	Ave	116001050					500				
Chlordane (technical) Peak 4	BNB	Ave	77644102					500				
Technical Chlordane Peak 4	BNB	Ave	77644102					500				
Chlordane (technical) Peak 5	BNB	Ave	22581843					500				
Technical Chlordane Peak 5	BNB	Ave	22581843					500				

Curve Type Legend:
Ave = Average ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D
Lims ID: STD3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 13-May-2024 12:25:32 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD3
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub4

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:05 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 13-May-2024 14:56:33

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.231	3.231	0.000	86913185	75.0	75.0	
2	2.817	2.817	0.000	109762040	75.0	75.0	
10 Technical Chlordane							M
1	5.535	5.535	0.000	33357944	500.0	500.0	
1	6.126	6.126	0.000	26767415	500.0	500.0	
1	7.004	7.004	0.000	116001050	500.0	500.0	
1	7.115	7.115	0.000	77644102	500.0	500.0	
1	8.011	8.011	0.000	22581843	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	4.714	4.714	0.000	37268749	500.0	500.0	M
2	5.189	5.189	0.000	35106213	500.0	500.0	M
2	5.737	5.737	0.000	118503630	500.0	500.0	M
2	5.765	5.765	0.000	82475151	500.0	500.0	M
2	6.932	6.932	0.000	32472959	500.0	500.0	M
		Average of Peak Amounts =				500.0	
						RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
9 Chlordane (technical)							M
1	5.535	5.535	0.000	33357944	500.0	500.0	
1	6.126	6.126	0.000	26767415	500.0	500.0	
1	7.004	7.004	0.000	116001050	500.0	500.0	
1	7.115	7.115	0.000	77644102	500.0	500.0	
1	8.011	8.011	0.000	22581843	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	4.714	4.714	0.000	37268749	500.0	500.0	M
2	5.189	5.189	0.000	35106213	500.0	500.0	M
2	5.737	5.737	0.000	118503630	500.0	500.0	M
2	5.765	5.765	0.000	82475151	500.0	500.0	M
2	6.932	6.932	0.000	32472959	500.0	500.0	M
		Average of Peak Amounts =				500.0	
						RPD = 0.00	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8081ChlorL3_00039	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

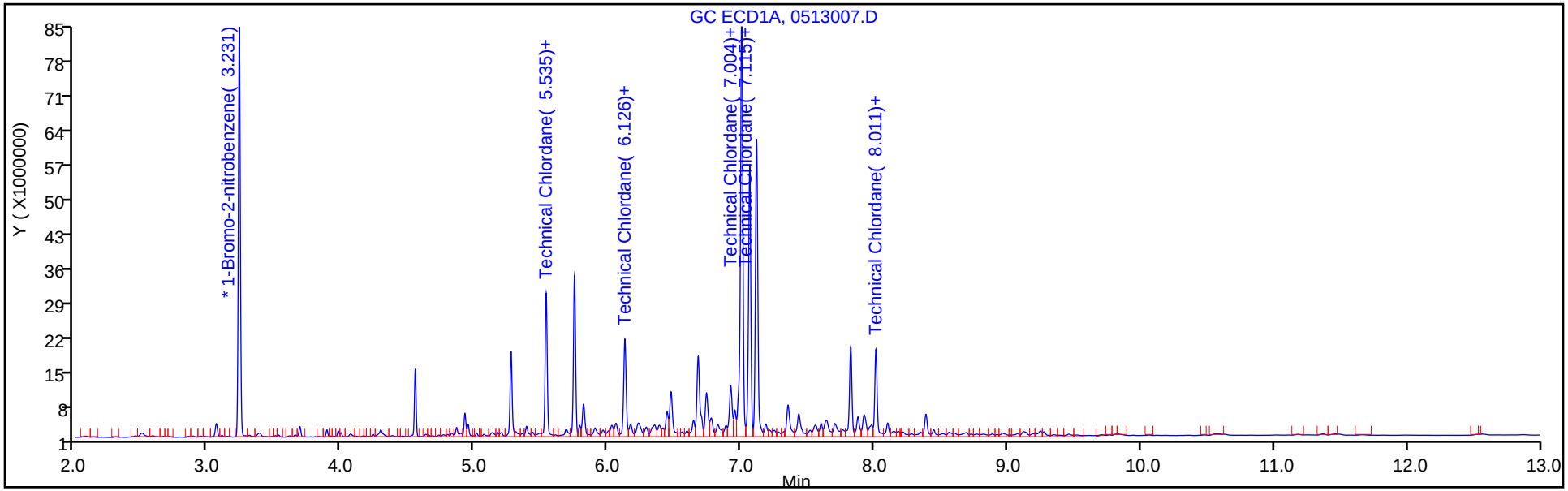
Report Date: 14-May-2024 08:21:05 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

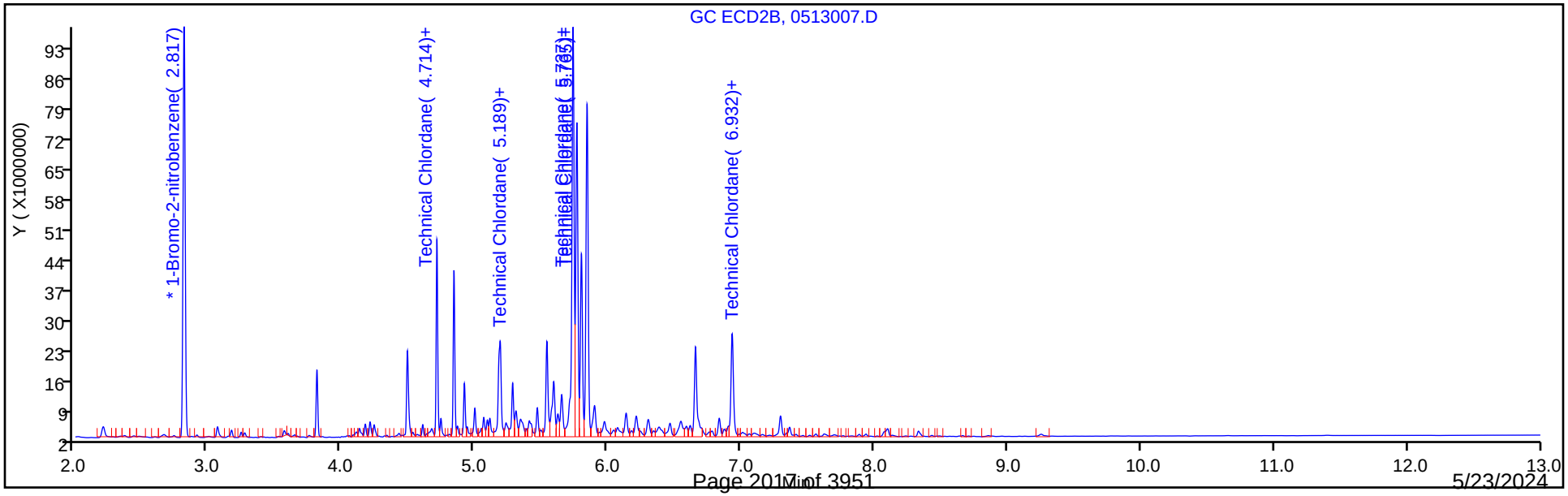
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Injection Date:	13-May-2024 12:25:32	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	STD3			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Calibration / Chlordane (technical) Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

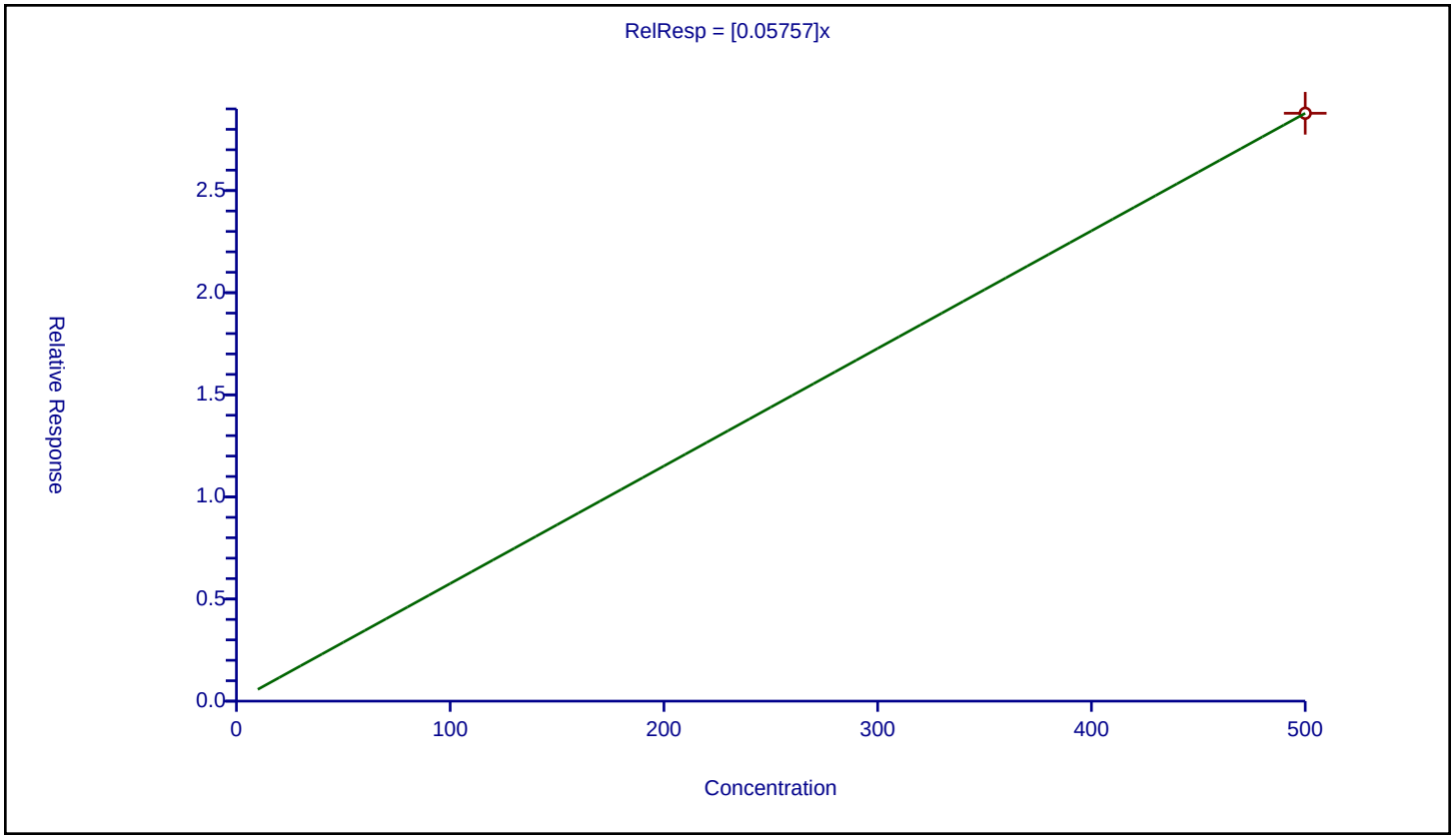
Curve Coefficients

Intercept:	0
Slope:	0.05757

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653121/7	500.0	28.785573	75.0	86913185.0	0.057571	Y



Calibration / Technical Chlordane Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

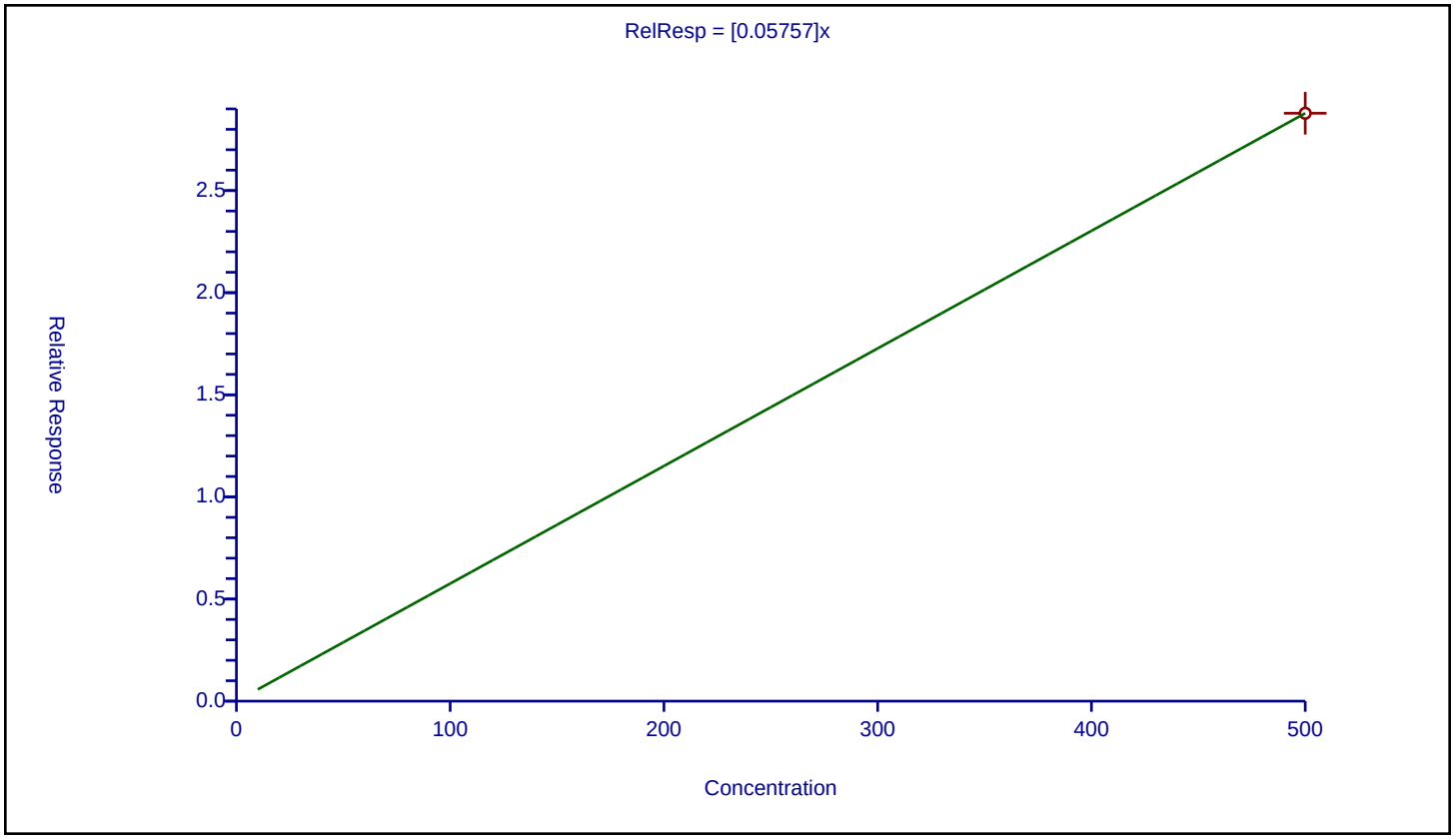
Curve Coefficients

Intercept:	0
Slope:	0.05757

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653121/7	500.0	28.785573	75.0	86913185.0	0.057571	Y



Calibration / Chlordane (technical) Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

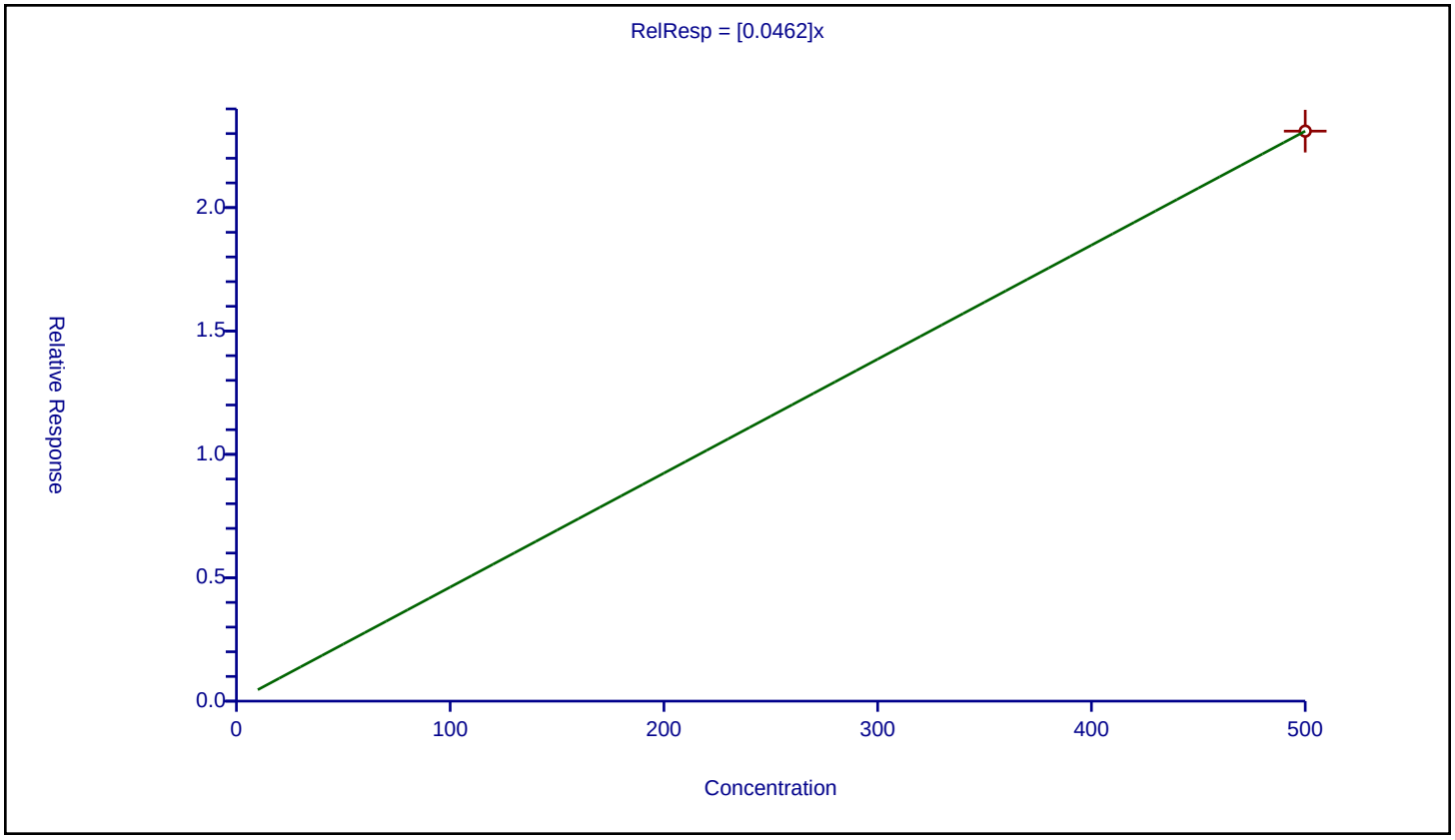
Curve Coefficients

Intercept:	0
Slope:	0.0462

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653121/7	500.0	23.098407	75.0	86913185.0	0.046197	Y



Calibration / Technical Chlordane Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

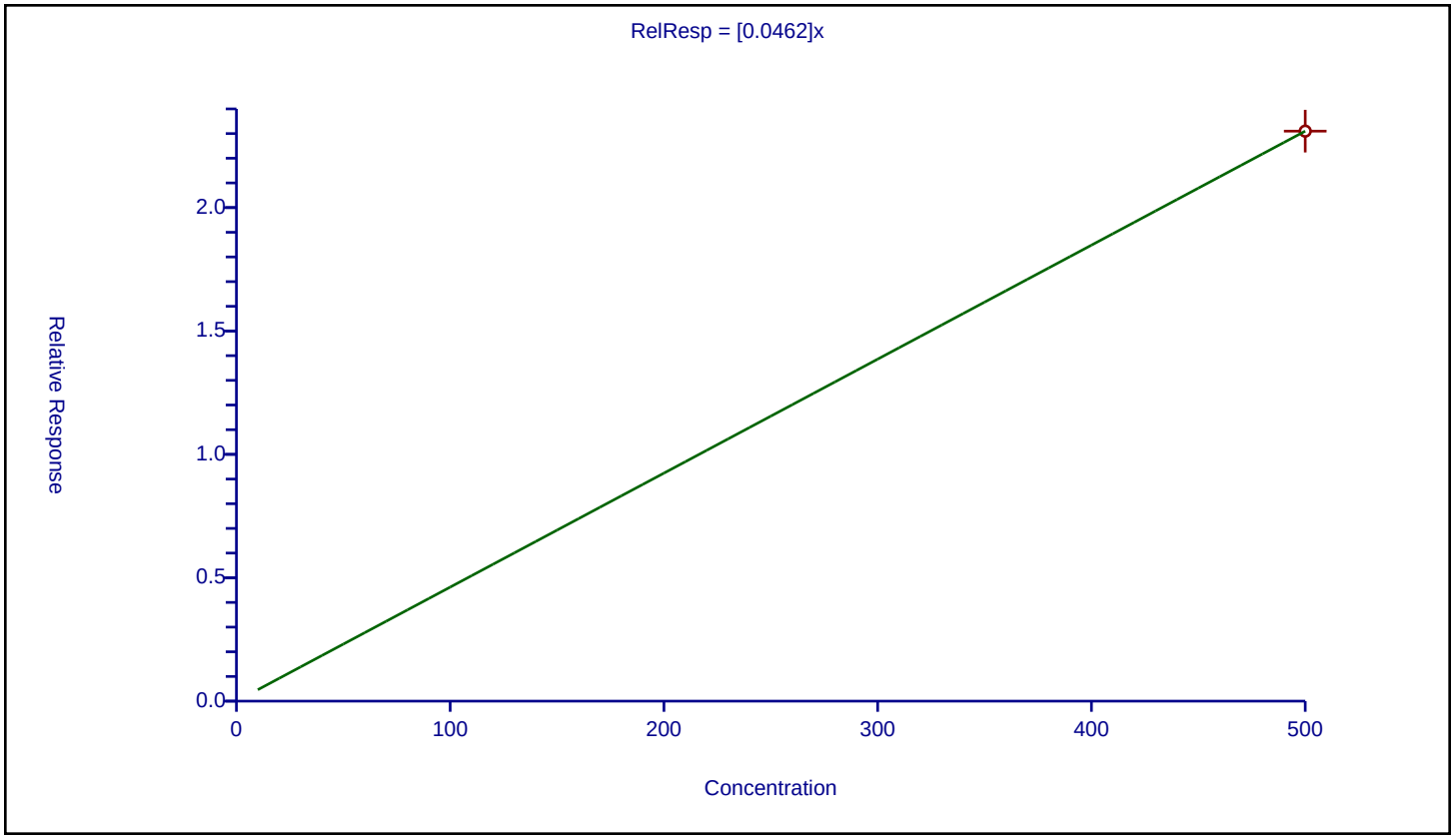
Curve Coefficients

Intercept:	0
Slope:	0.0462

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653121/7	500.0	23.098407	75.0	86913185.0	0.046197	Y



Calibration / Chlordane (technical) Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

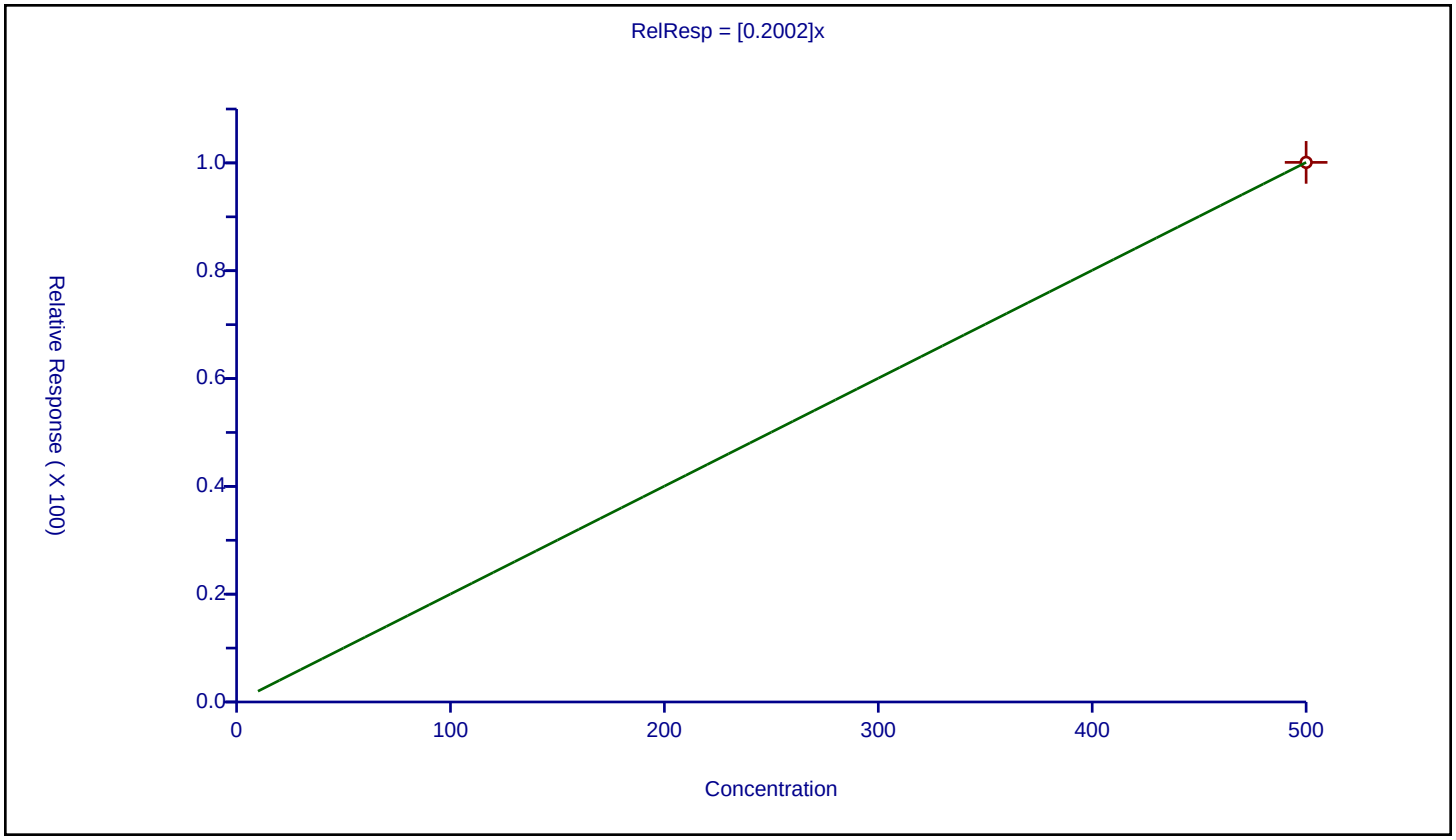
Curve Coefficients

Intercept:	0
Slope:	0.2002

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653121/7	500.0	100.100793	75.0	86913185.0	0.200202	Y



Calibration / Technical Chlordane Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

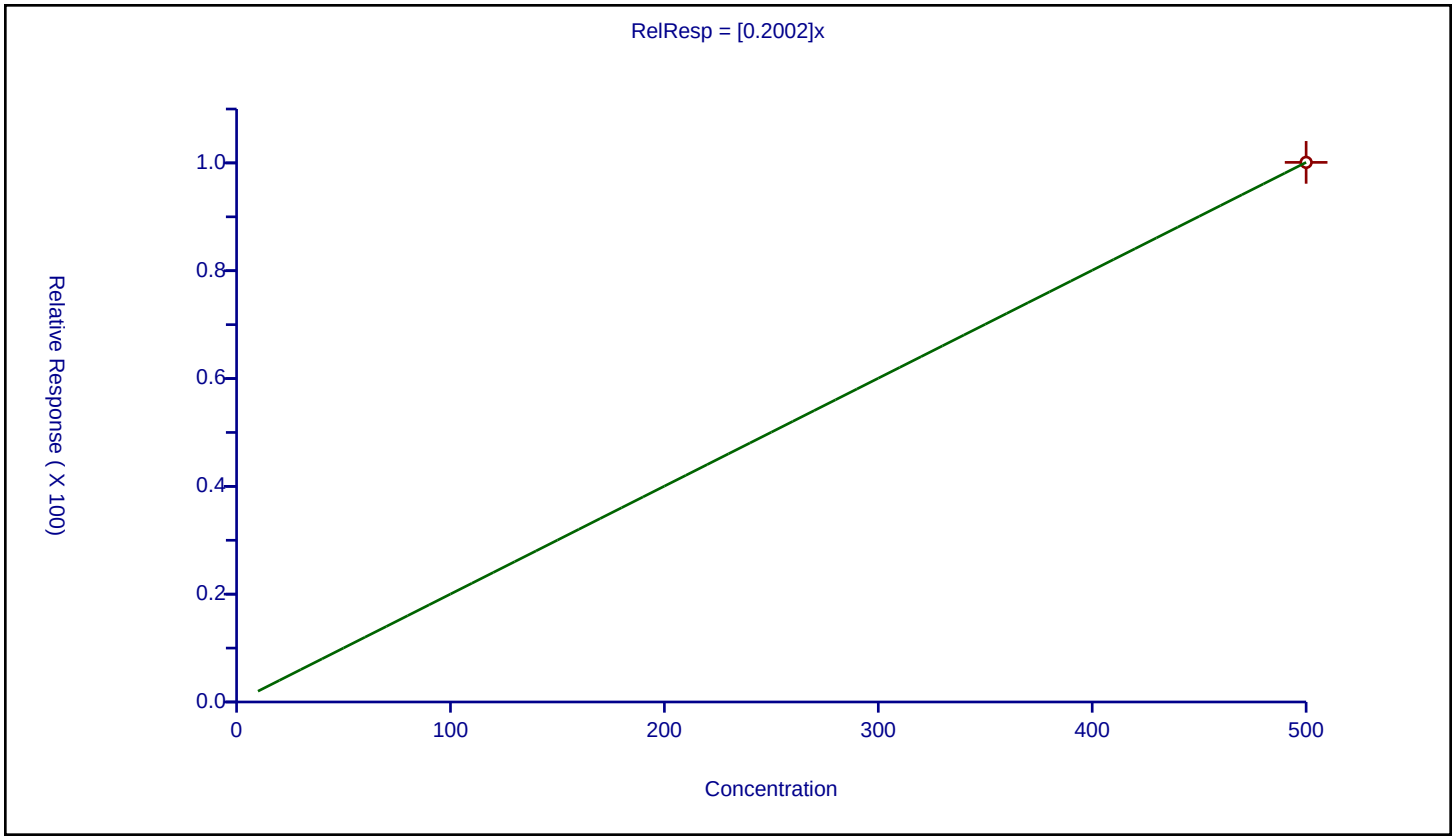
Curve Coefficients

Intercept:	0
Slope:	0.2002

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653121/7	500.0	100.100793	75.0	86913185.0	0.200202	Y



Calibration / Chlordane (technical) Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

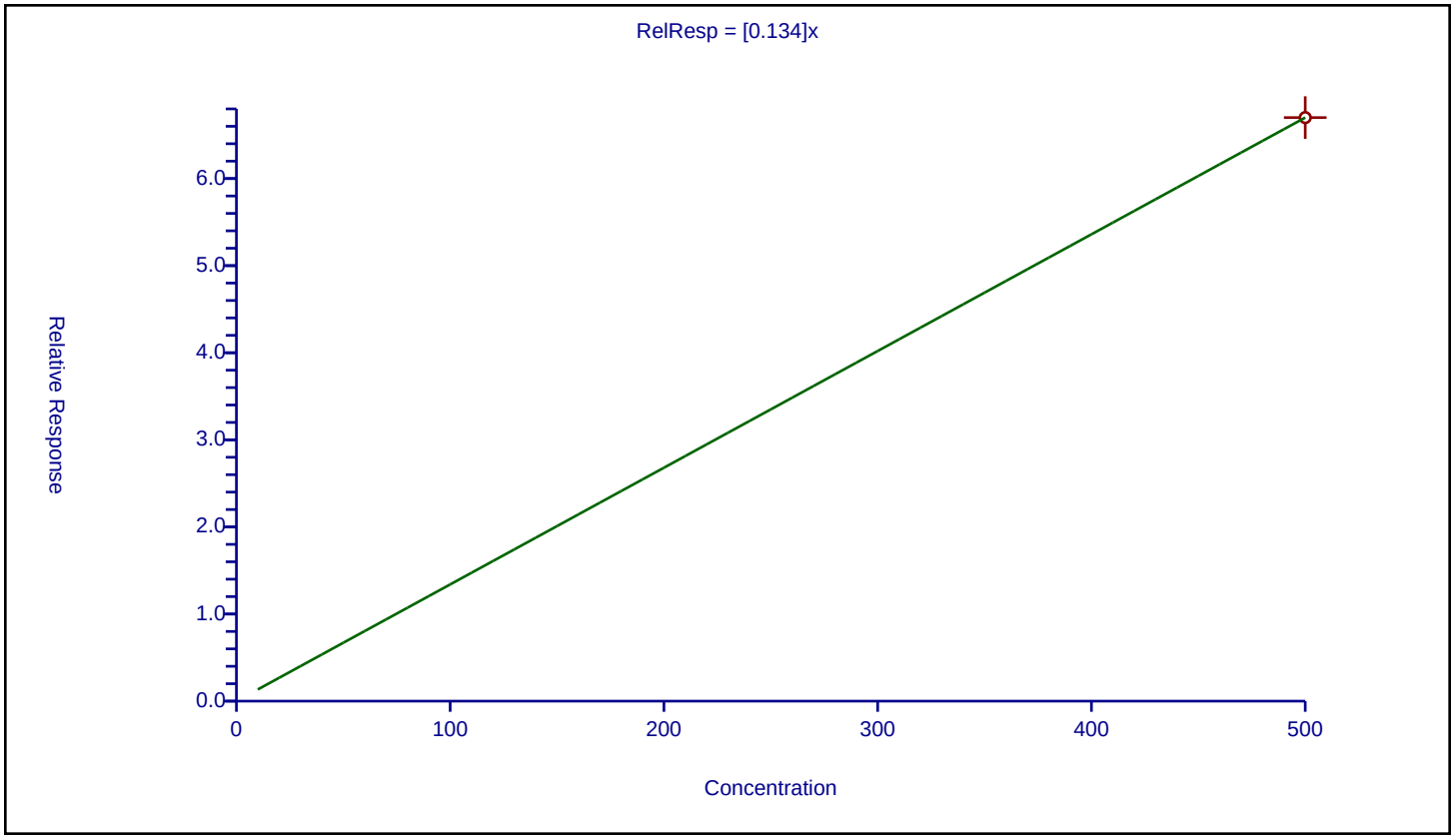
Curve Coefficients

Intercept:	0
Slope:	0.134

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653121/7	500.0	67.00143	75.0	86913185.0	0.134003	Y



Calibration / Technical Chlordane Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

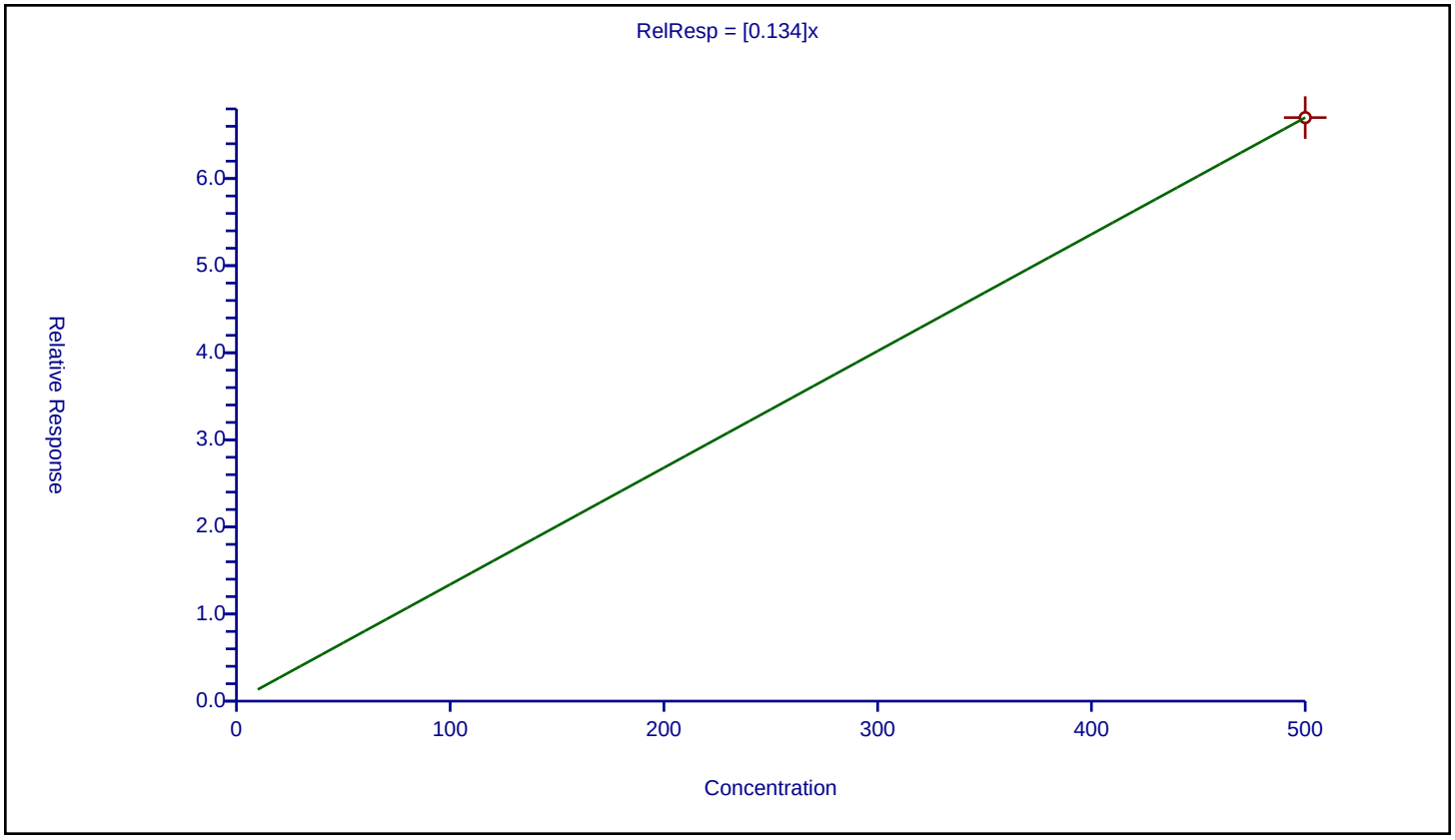
Curve Coefficients

Intercept:	0
Slope:	0.134

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653121/7	500.0	67.00143	75.0	86913185.0	0.134003	Y



Calibration / Chlordane (technical) Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

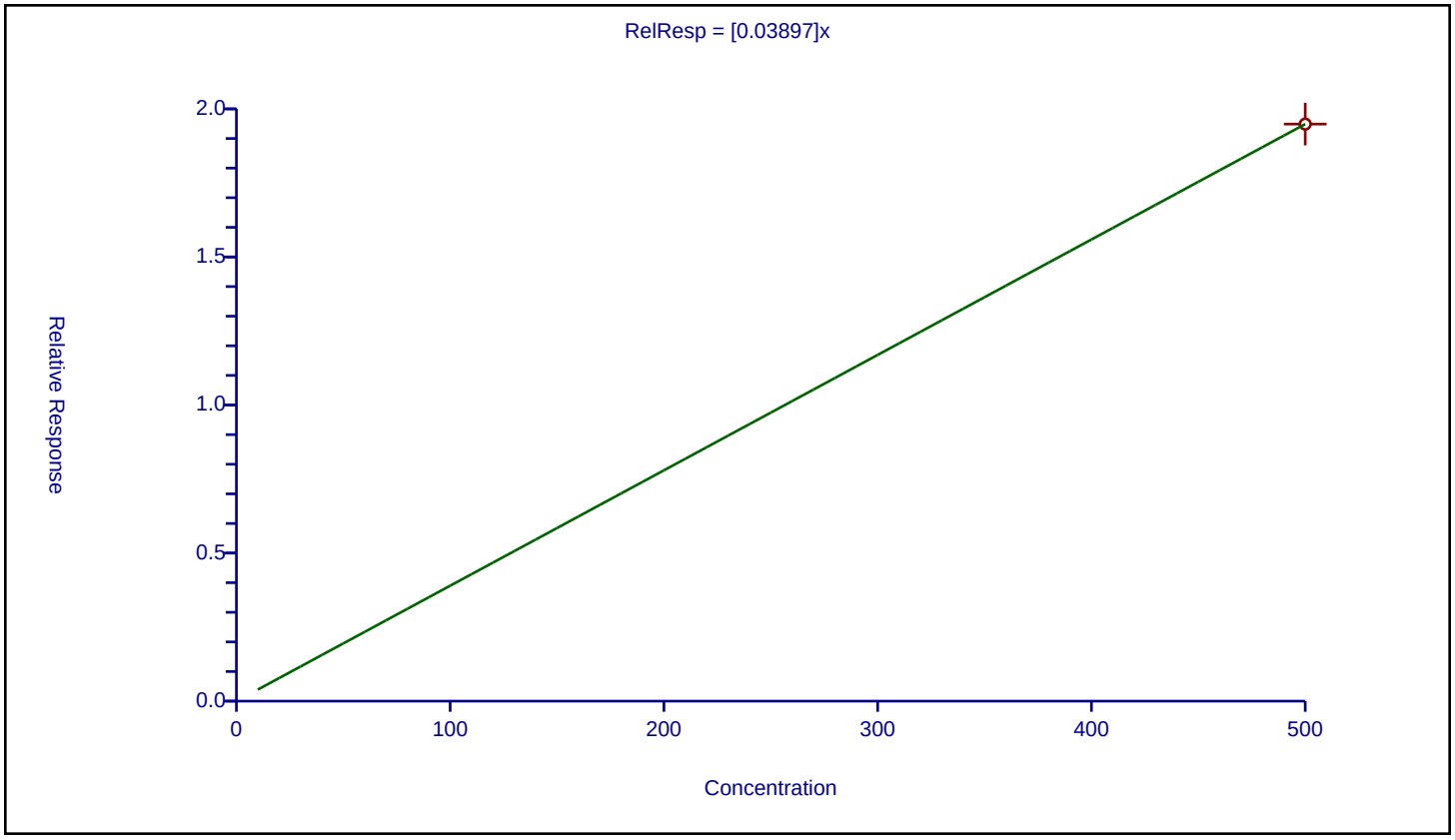
Curve Coefficients

Intercept:	0
Slope:	0.03897

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653121/7	500.0	19.486551	75.0	86913185.0	0.038973	Y



Calibration / Technical Chlordane Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

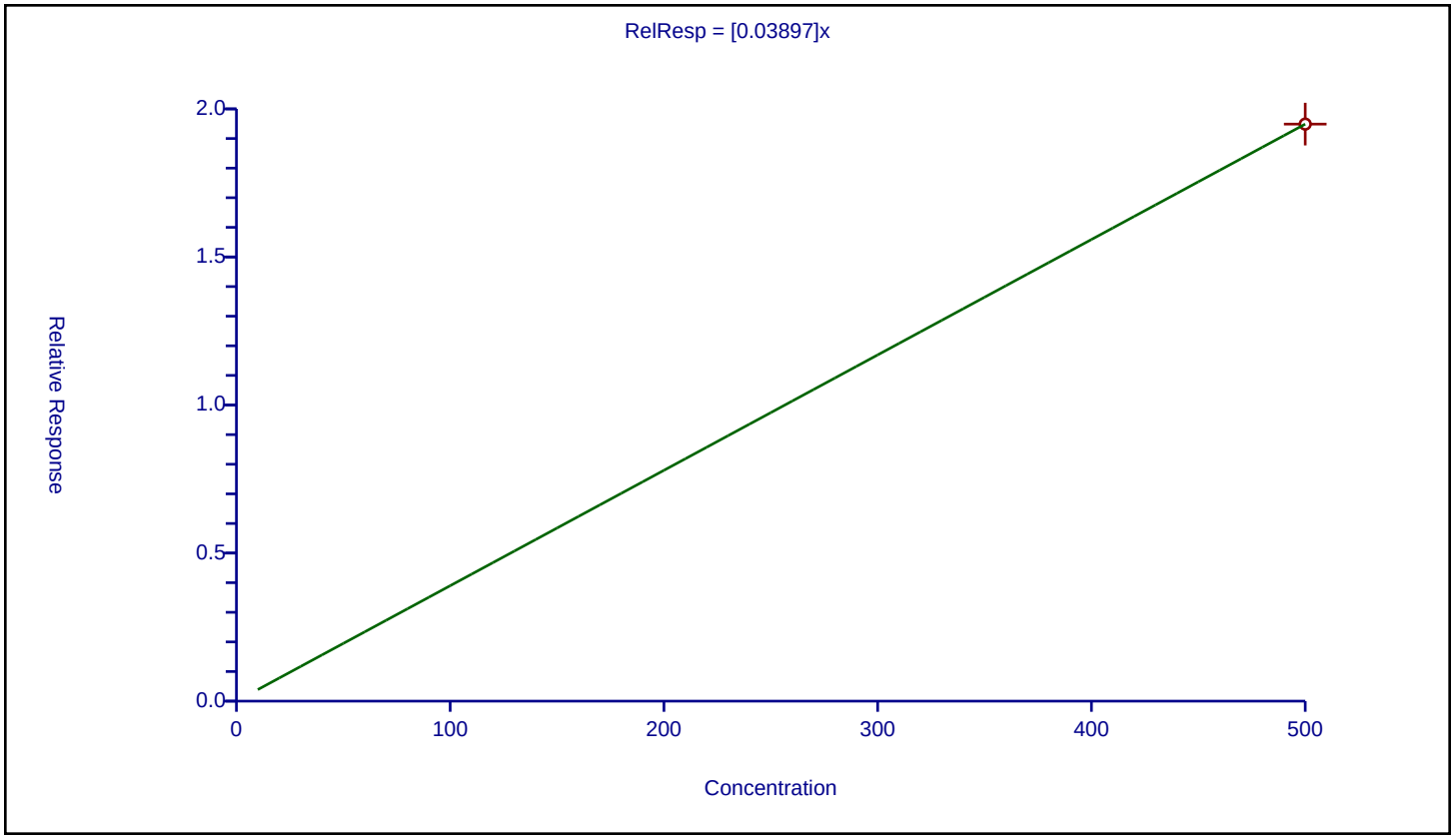
Curve Coefficients

Intercept:	0
Slope:	0.03897

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653121/7	500.0	19.486551	75.0	86913185.0	0.038973	Y



FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653121

SDG No.:

Instrument ID: SGC_C GC Column: RTI-35silms ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 12:25 Calibration End Date: 05/13/2024 12:25 Calibration ID: 93316

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD3 280-653121/7	0513007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
Chlordane (technical) Peak 1	0.0509					Ave		0.0509						20.0			
Technical Chlordane Peak 1	0.0509					Ave		0.0509						20.0			
Chlordane (technical) Peak 2	0.0480					Ave		0.0480						20.0			
Technical Chlordane Peak 2	0.0480					Ave		0.0480						20.0			
Chlordane (technical) Peak 3	0.1619					Ave		0.1619						20.0			
Technical Chlordane Peak 3	0.1619					Ave		0.1619						20.0			
Chlordane (technical) Peak 4	0.1127					Ave		0.1127						20.0			
Technical Chlordane Peak 4	0.1127					Ave		0.1127						20.0			
Chlordane (technical) Peak 5	0.0444					Ave		0.0444						20.0			
Technical Chlordane Peak 5	0.0444					Ave		0.0444						20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 653121

SDG No.:

Instrument ID: SGC_C | GC Column: RTI-35silm ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 12:25 | Calibration End Date: 05/13/2024 12:25 | Calibration ID: 93316

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD3 280-653121/7	0513007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1					LVL 1				
Chlordane (technical) Peak 1	BNB	Ave	37268749					500				
Technical Chlordane Peak 1	BNB	Ave	37268749					500				
Chlordane (technical) Peak 2	BNB	Ave	35106213					500				
Technical Chlordane Peak 2	BNB	Ave	35106213					500				
Chlordane (technical) Peak 3	BNB	Ave	118503630					500				
Technical Chlordane Peak 3	BNB	Ave	118503630					500				
Chlordane (technical) Peak 4	BNB	Ave	82475151					500				
Technical Chlordane Peak 4	BNB	Ave	82475151					500				
Chlordane (technical) Peak 5	BNB	Ave	32472959					500				
Technical Chlordane Peak 5	BNB	Ave	32472959					500				

Curve Type Legend:
Ave = Average ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D
Lims ID: STD3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 13-May-2024 12:25:32 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD3
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub4

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:05 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 13-May-2024 14:56:33

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.231	3.231	0.000	86913185	75.0	75.0	
2	2.817	2.817	0.000	109762040	75.0	75.0	
10 Technical Chlordane							M
1	5.535	5.535	0.000	33357944	500.0	500.0	
1	6.126	6.126	0.000	26767415	500.0	500.0	
1	7.004	7.004	0.000	116001050	500.0	500.0	
1	7.115	7.115	0.000	77644102	500.0	500.0	
1	8.011	8.011	0.000	22581843	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	4.714	4.714	0.000	37268749	500.0	500.0	M
2	5.189	5.189	0.000	35106213	500.0	500.0	M
2	5.737	5.737	0.000	118503630	500.0	500.0	M
2	5.765	5.765	0.000	82475151	500.0	500.0	M
2	6.932	6.932	0.000	32472959	500.0	500.0	M
		Average of Peak Amounts =				500.0	
						RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
9 Chlordane (technical)							M
1	5.535	5.535	0.000	33357944	500.0	500.0	
1	6.126	6.126	0.000	26767415	500.0	500.0	
1	7.004	7.004	0.000	116001050	500.0	500.0	
1	7.115	7.115	0.000	77644102	500.0	500.0	
1	8.011	8.011	0.000	22581843	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	4.714	4.714	0.000	37268749	500.0	500.0	M
2	5.189	5.189	0.000	35106213	500.0	500.0	M
2	5.737	5.737	0.000	118503630	500.0	500.0	M
2	5.765	5.765	0.000	82475151	500.0	500.0	M
2	6.932	6.932	0.000	32472959	500.0	500.0	M
		Average of Peak Amounts =				500.0	
						RPD = 0.00	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8081ChlorL3_00039	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

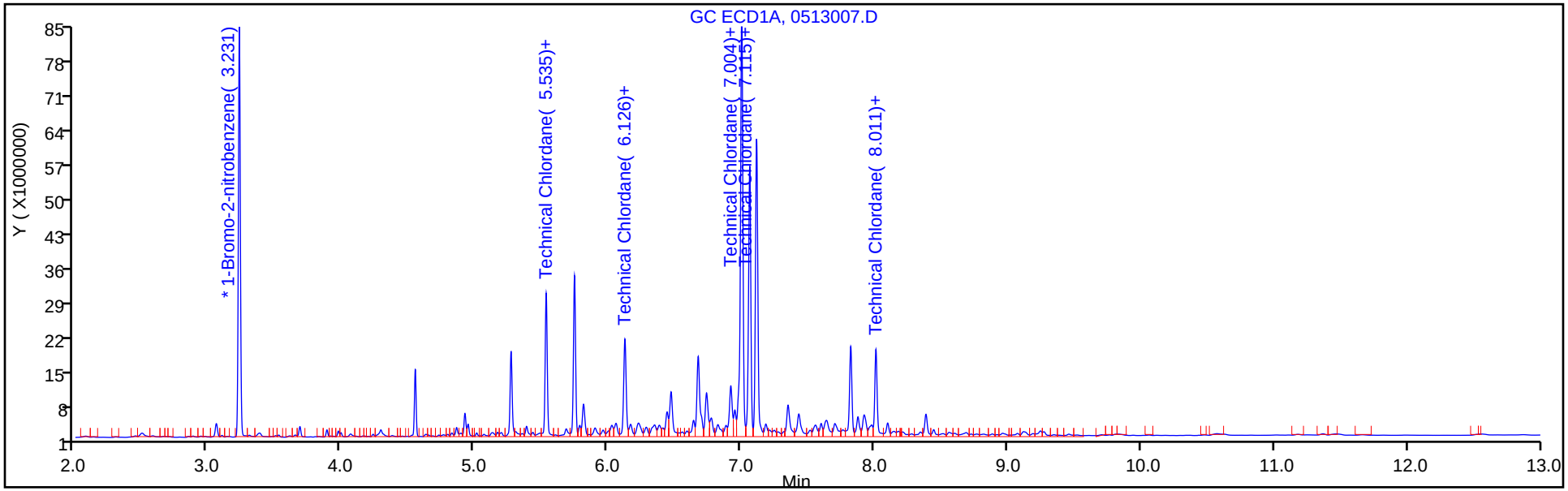
Report Date: 14-May-2024 08:21:05 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

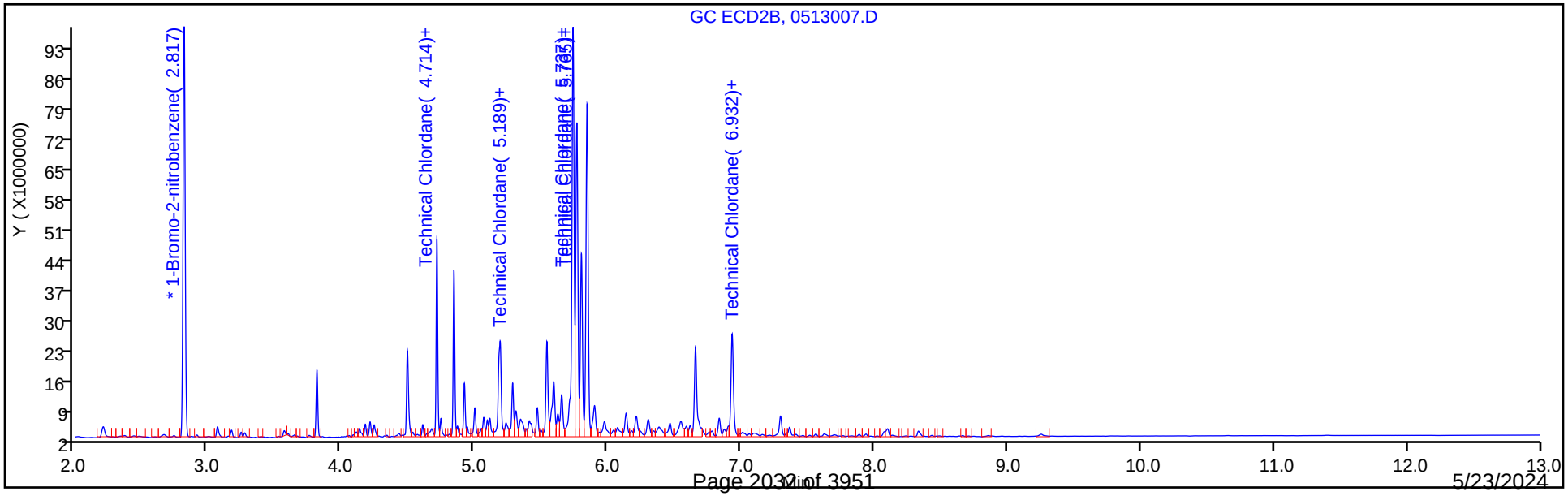
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Injection Date:	13-May-2024 12:25:32	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	STD3			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2

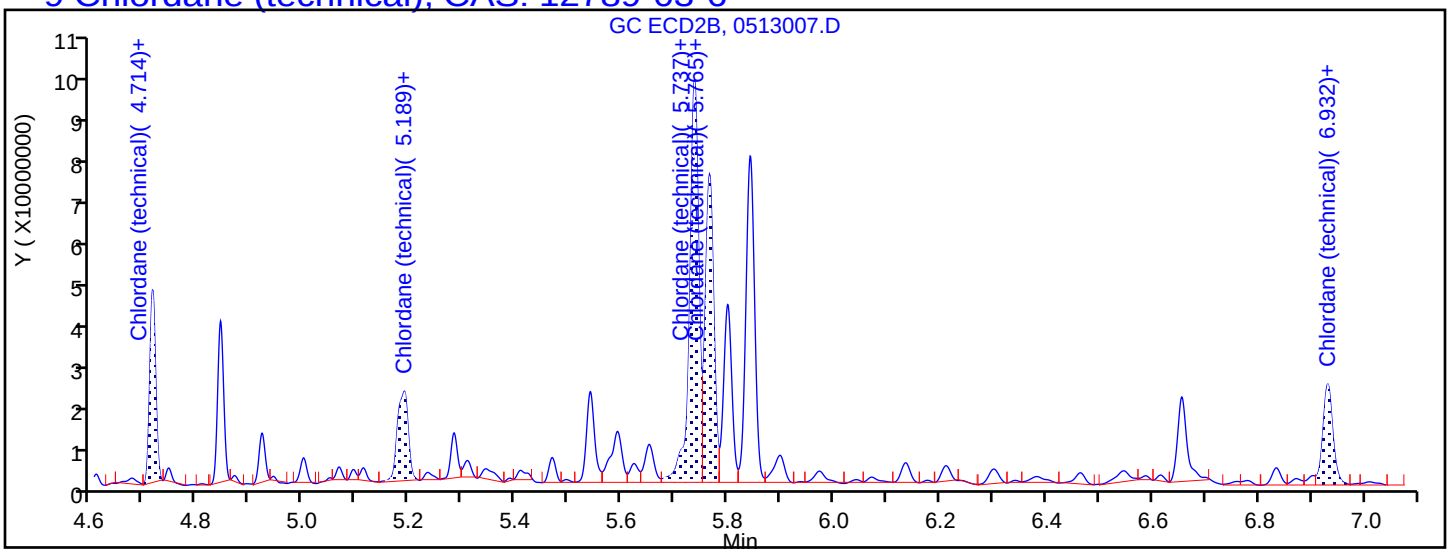


Report Date: 14-May-2024 08:21:05 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

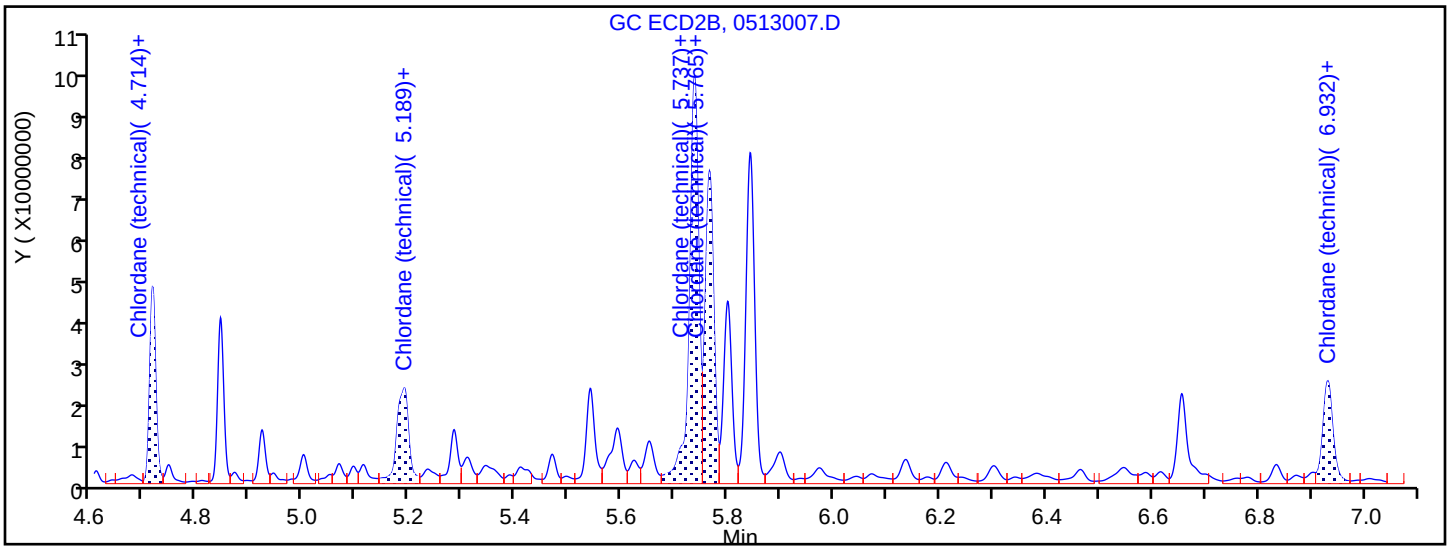
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D
Injection Date: 13-May-2024 12:25:32 Instrument ID: SGC_C
Lims ID: STD3
Client ID:
Operator ID: mw ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: C 8081 IS LVI Limit Group: GCSV - 8081B LVI - IS
Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Detector: GC ECD2B

9 Chlordane (technical), CAS: 12789-03-6



Processing Integration Results

4.714	Response = 35303419
5.189	Response = 29649767
5.737	Response = 113914575
5.765	Response = 80498433
6.932	Response = 30936370



Manual Integration Results

4.714	Response = 37268749	M
5.189	Response = 35106213	M
5.737	Response = 118503630	M
5.765	Response = 82475151	M
6.932	Response = 32472959	M

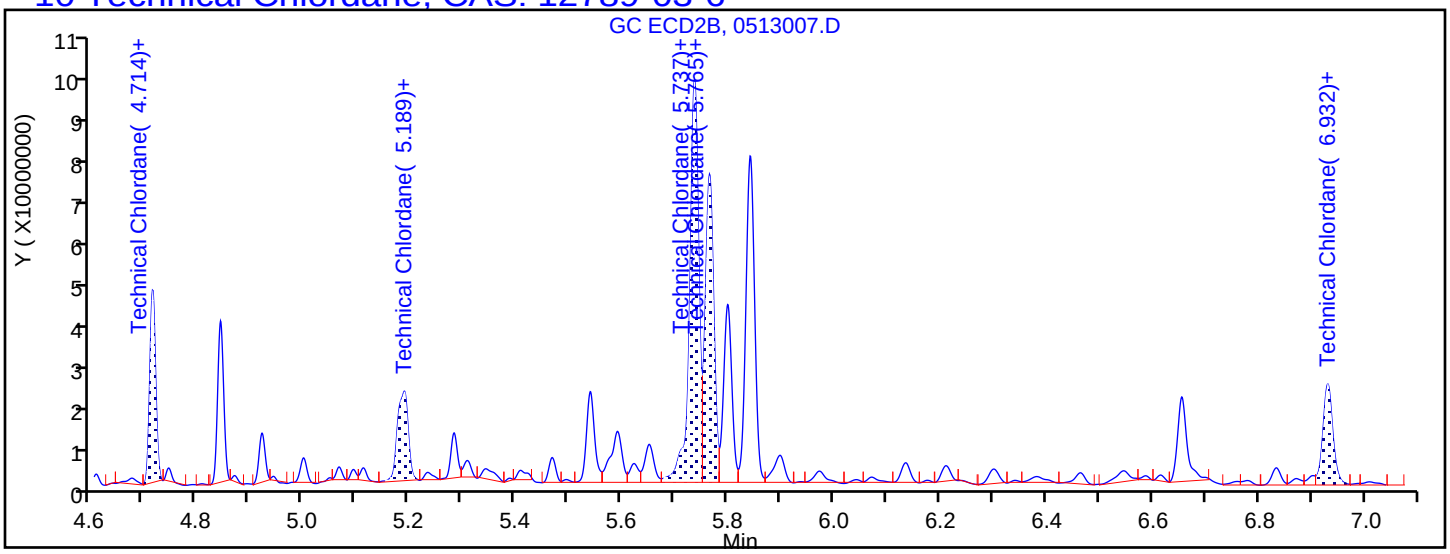
Reviewer: AP6K, 13-May-2024 14:56:30 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Report Date: 14-May-2024 08:21:05 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

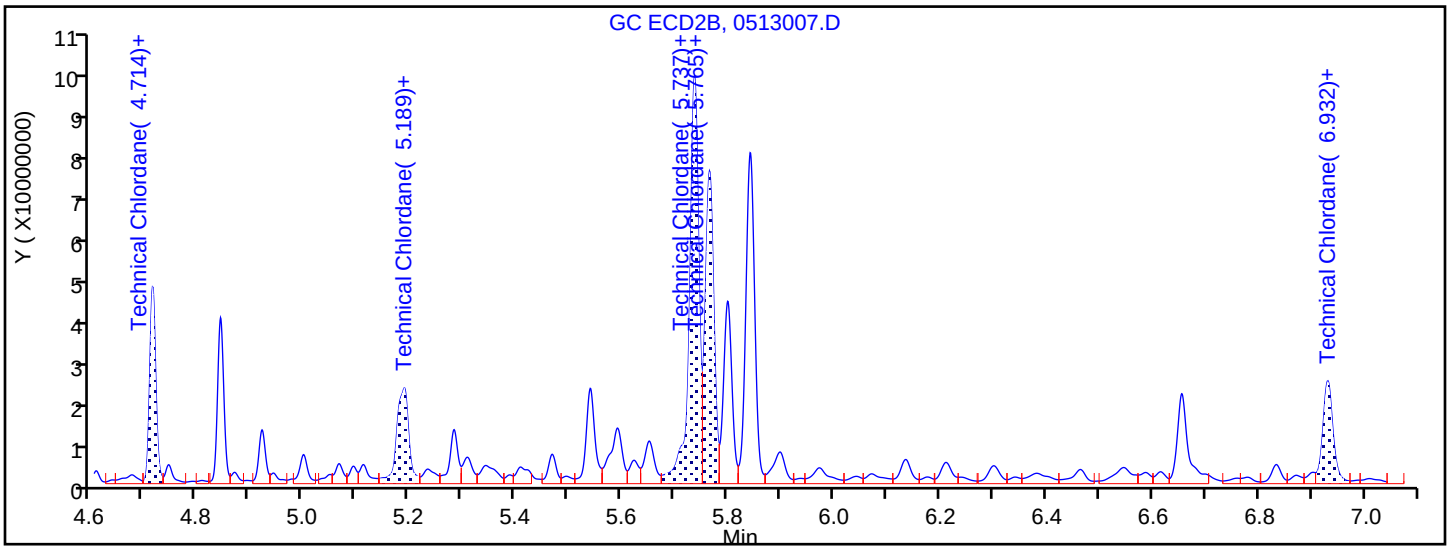
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D
Injection Date: 13-May-2024 12:25:32 Instrument ID: SGC_C
Lims ID: STD3
Client ID:
Operator ID: mw ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: C 8081 IS LVI Limit Group: GCSV - 8081B LVI - IS
Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Detector: GC ECD2B

10 Technical Chlordane, CAS: 12789-03-6



Processing Integration Results

4.714	Response = 35303419
5.189	Response = 29649767
5.737	Response = 113914575
5.765	Response = 80498433
6.932	Response = 30936370



Manual Integration Results

4.714	Response = 37268749	M
5.189	Response = 35106213	M
5.737	Response = 118503630	M
5.765	Response = 82475151	M
6.932	Response = 32472959	M

Reviewer: AP6K, 13-May-2024 14:56:30 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Calibration / Chlordane (technical) Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

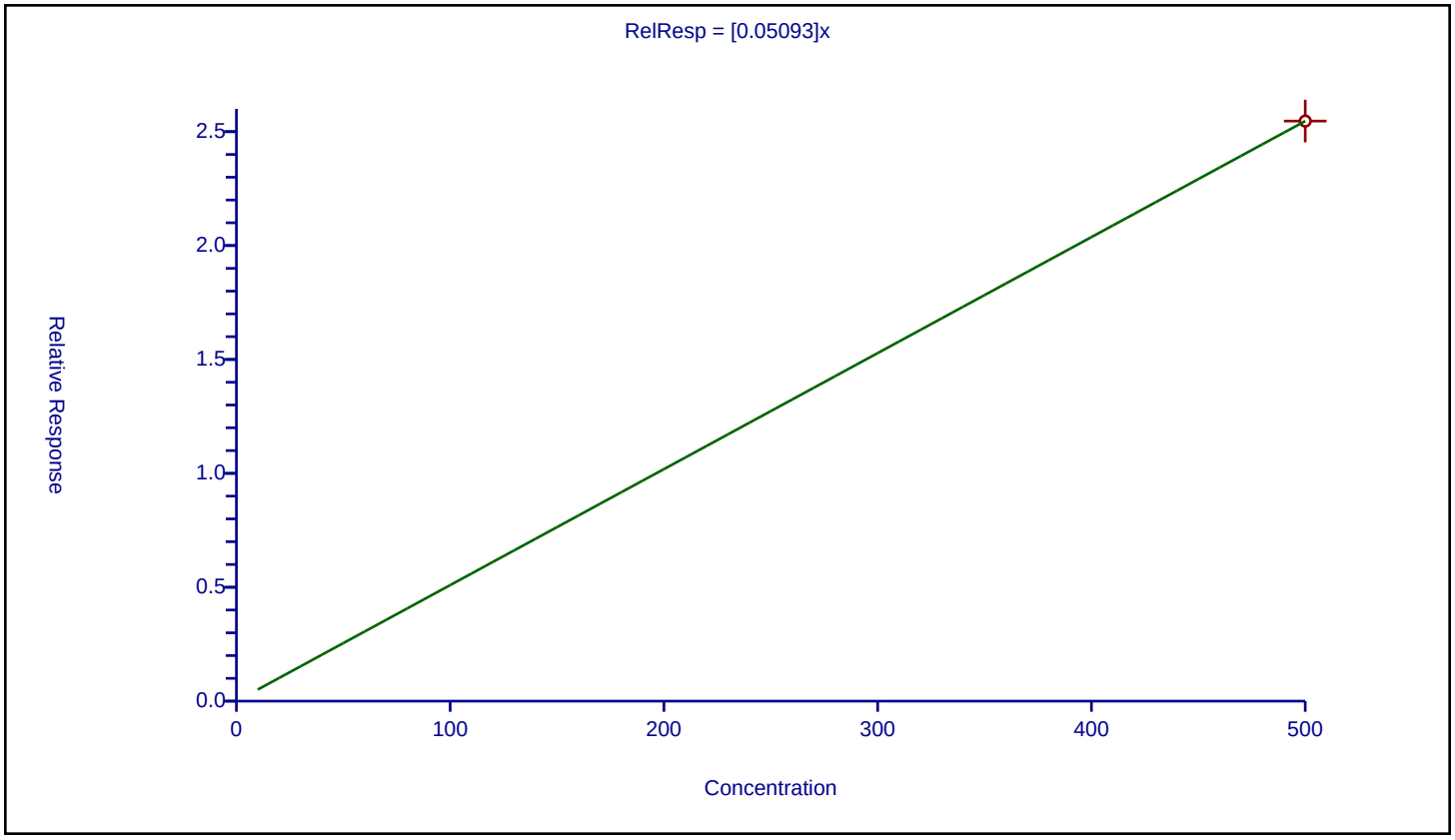
Curve Coefficients

Intercept:	0
Slope:	0.05093

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653121/7	500.0	25.4656	75.0	109762040.0	0.050931	Y



Calibration / Technical Chlordane Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

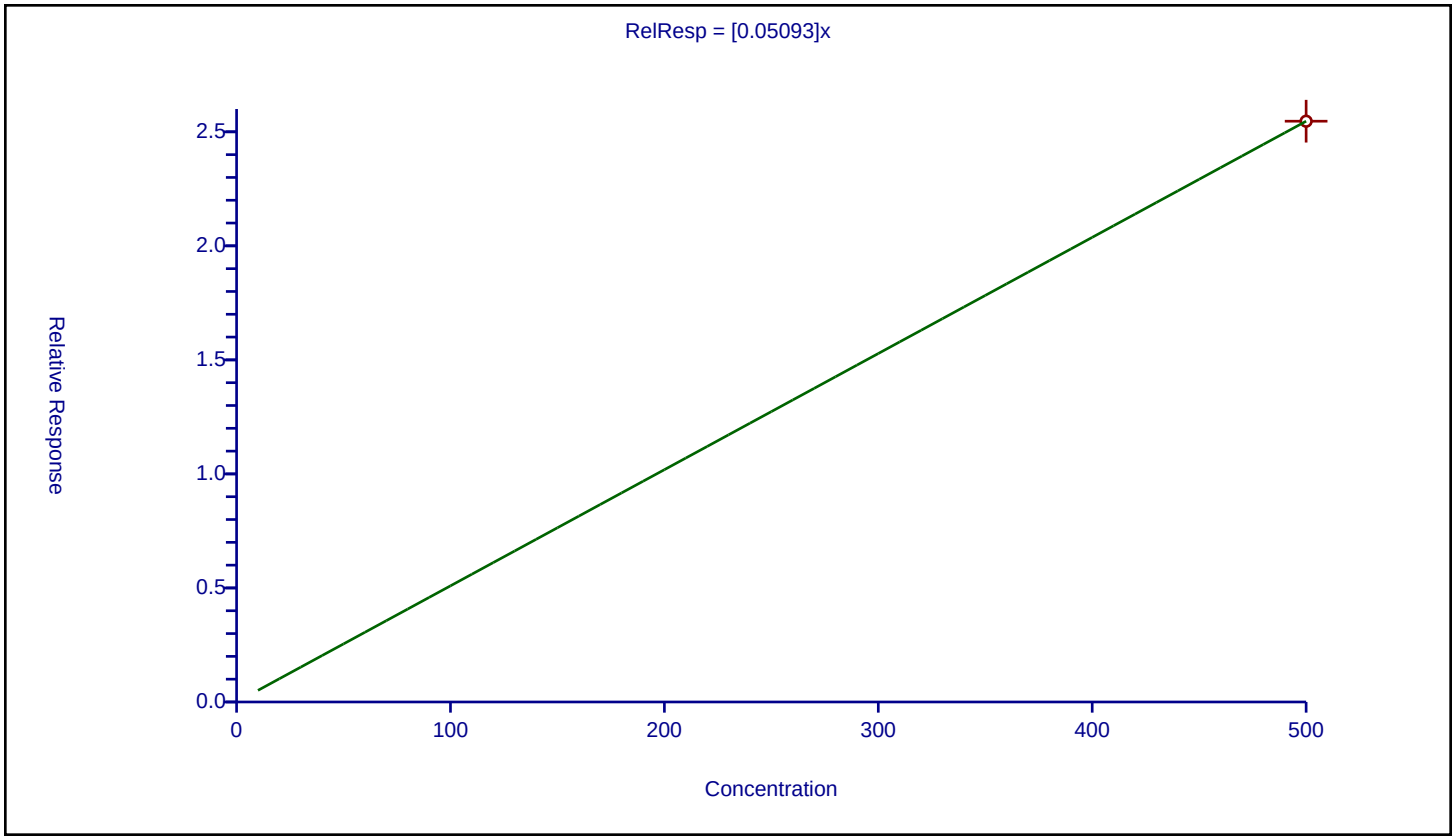
Curve Coefficients

Intercept:	0
Slope:	0.05093

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653121/7	500.0	25.4656	75.0	109762040.0	0.050931	Y



Calibration / Chlordane (technical) Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

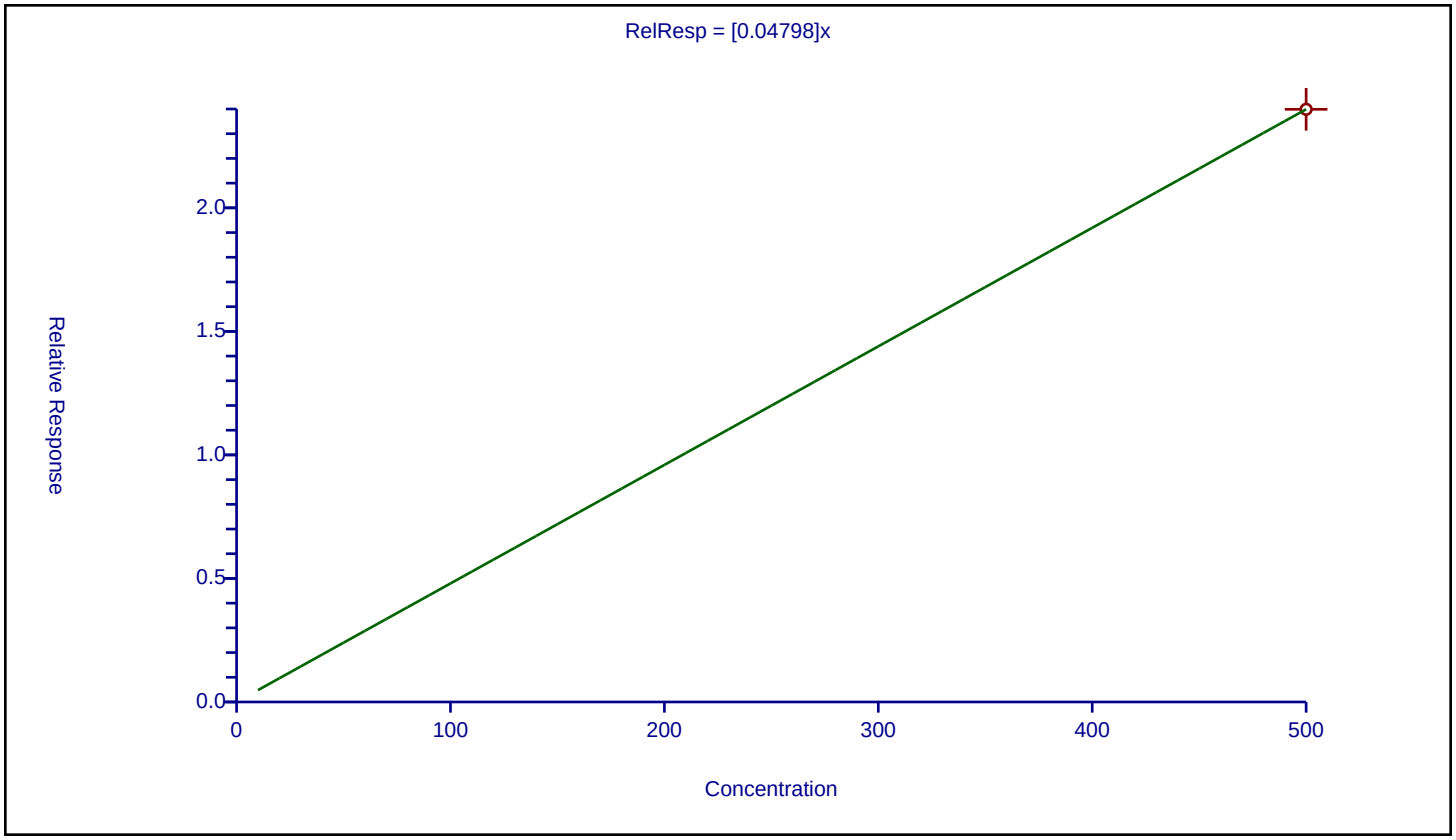
Curve Coefficients

Intercept:	0
Slope:	0.04798

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653121/7	500.0	23.987947	75.0	109762040.0	0.047976	Y



Calibration / Technical Chlordane Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

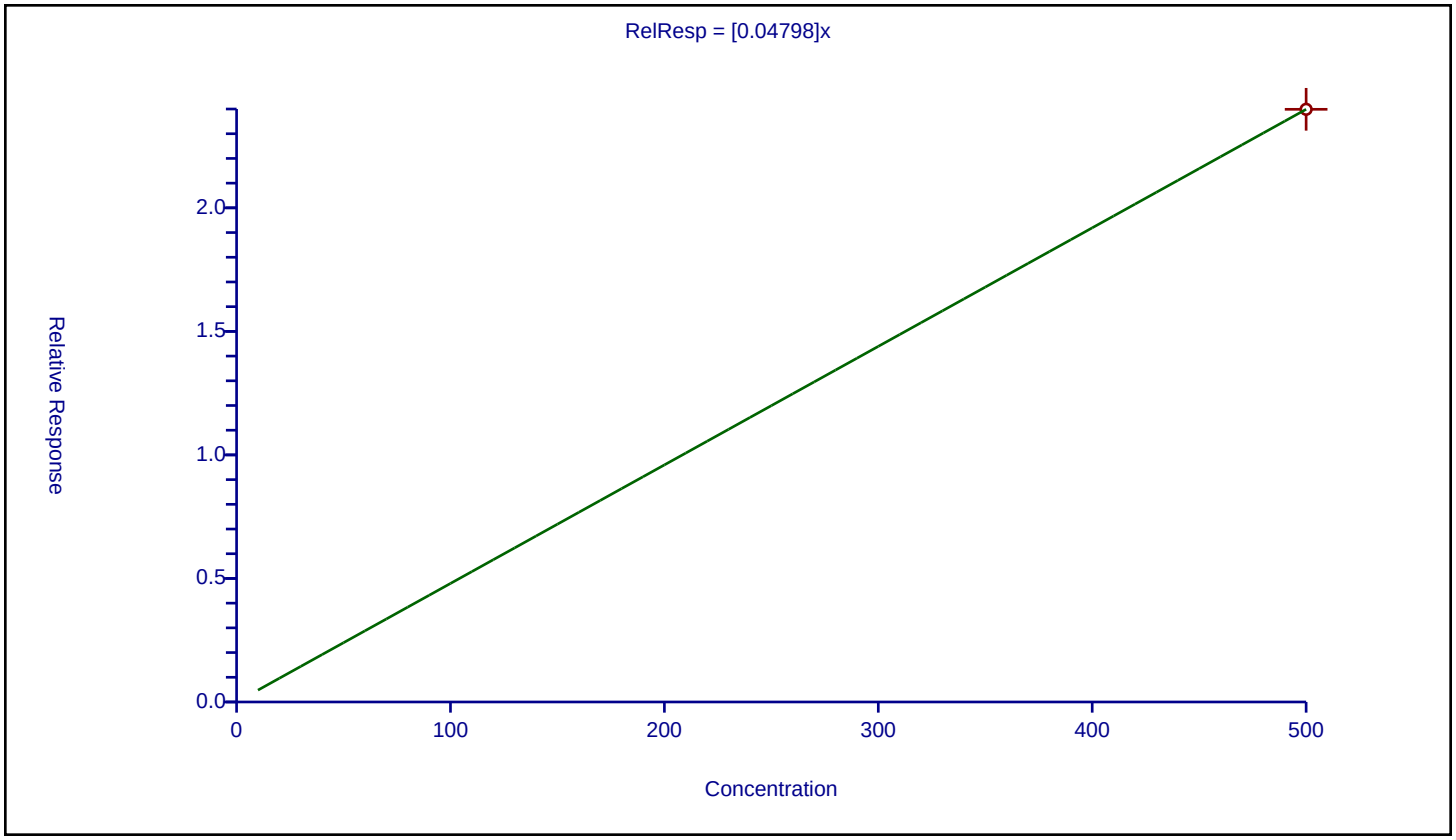
Curve Coefficients

Intercept:	0
Slope:	0.04798

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653121/7	500.0	23.987947	75.0	109762040.0	0.047976	Y



5/23/2024
4:40:30 AM

Calibration / Chlordane (technical) Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

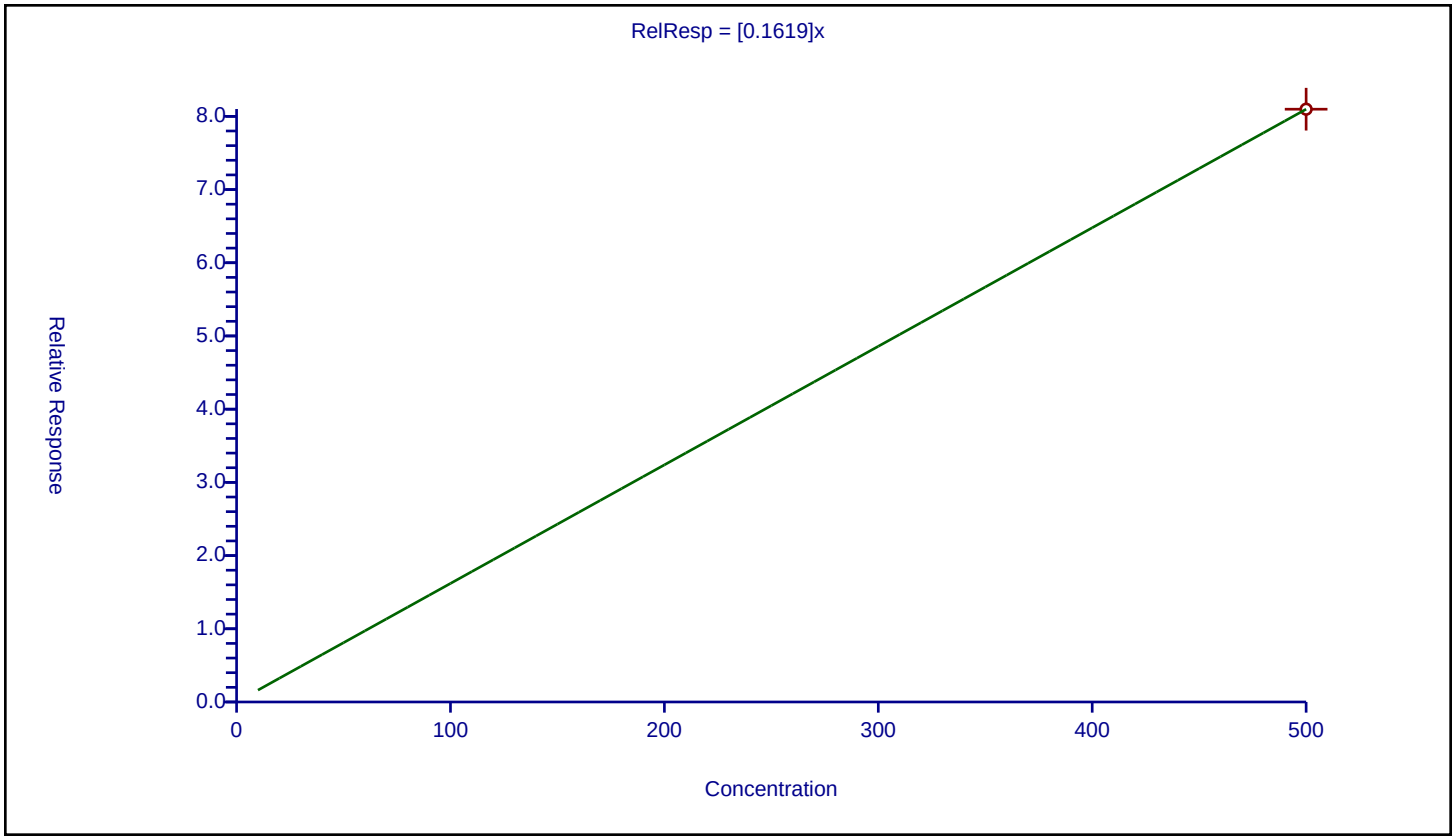
Curve Coefficients

Intercept:	0
Slope:	0.1619

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653121/7	500.0	80.973096	75.0	109762040.0	0.161946	Y



Calibration / Technical Chlordane Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

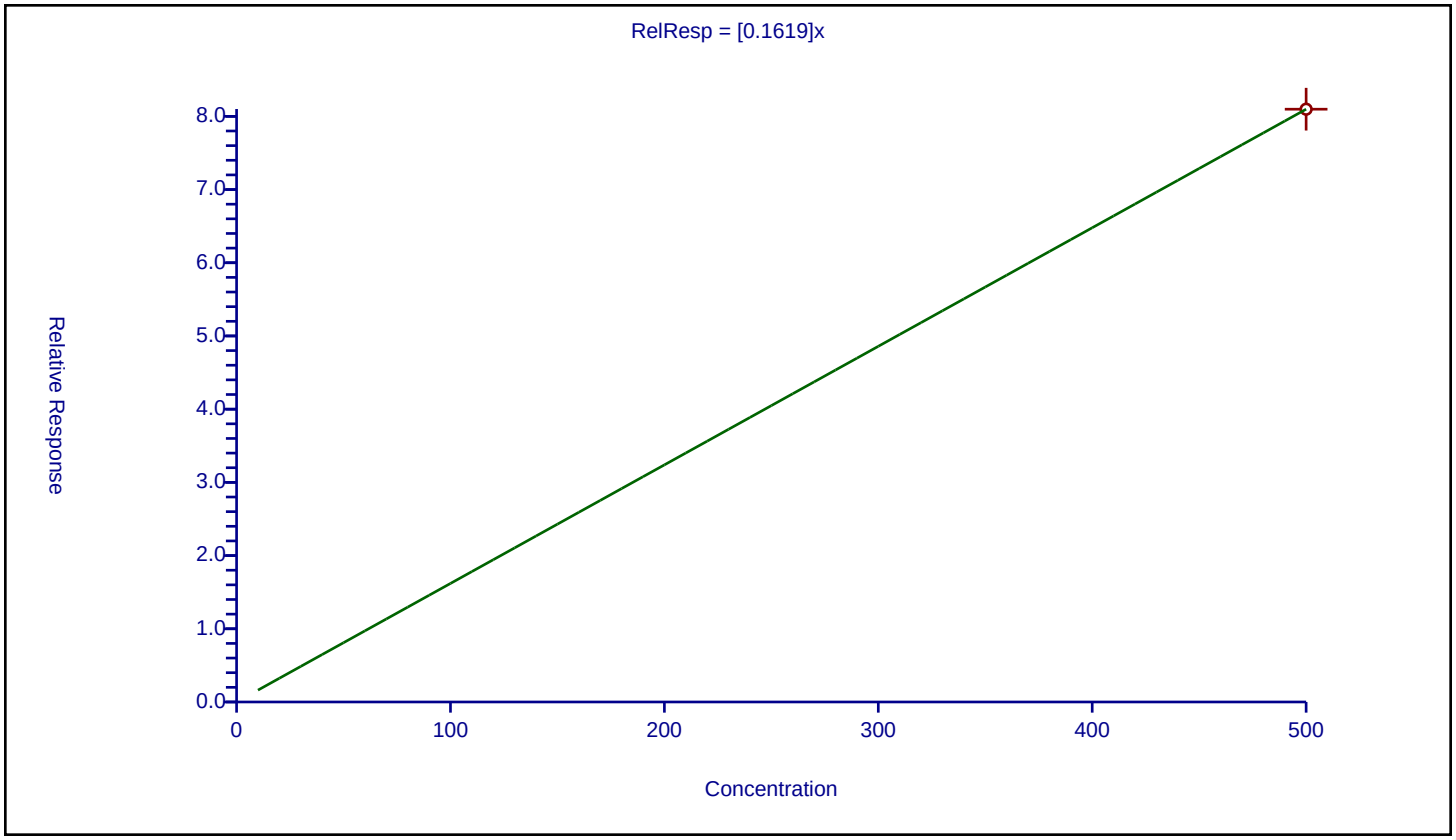
Curve Coefficients

Intercept:	0
Slope:	0.1619

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653121/7	500.0	80.973096	75.0	109762040.0	0.161946	Y



Calibration / Chlordane (technical) Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

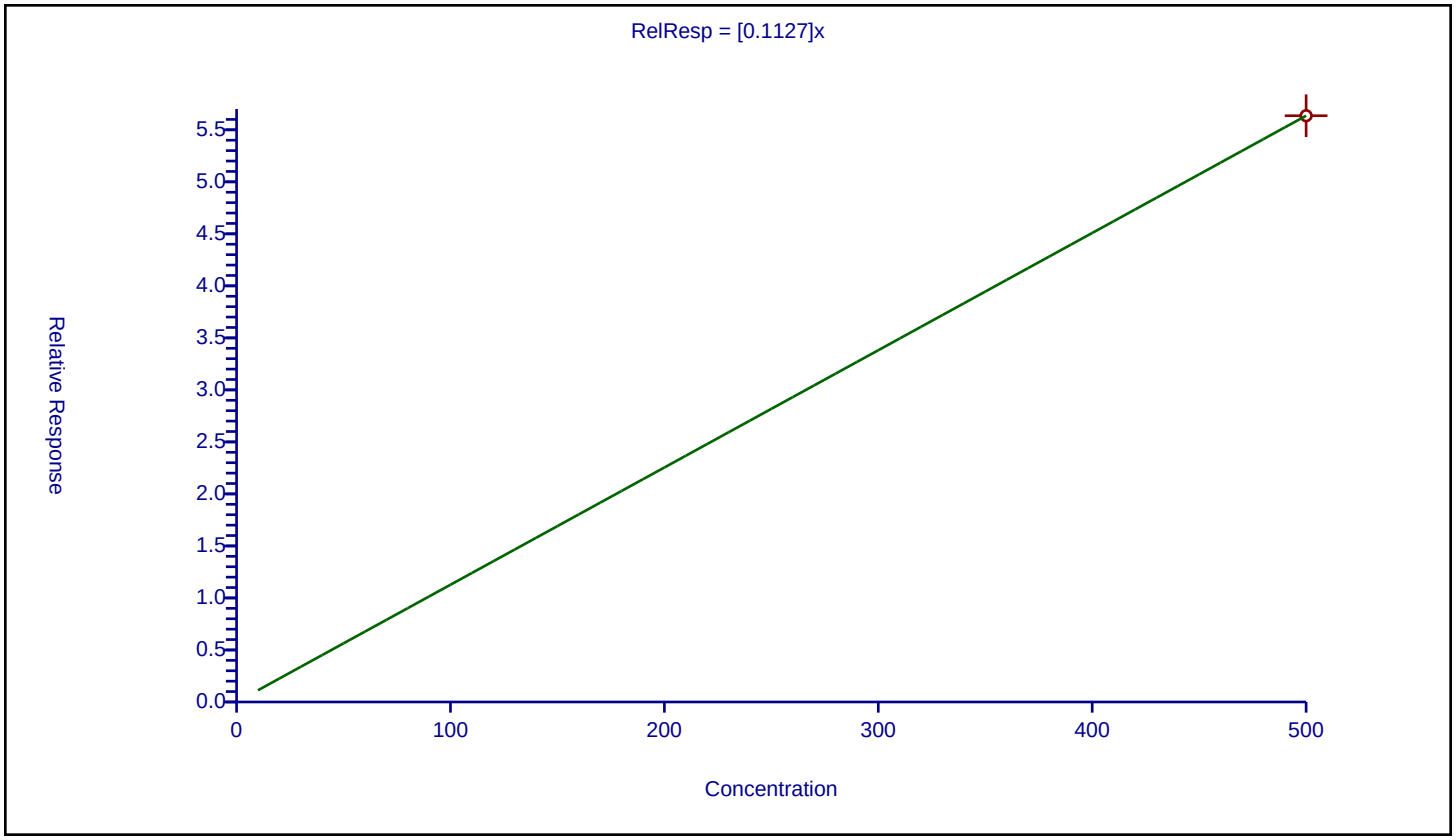
Curve Coefficients

Intercept:	0
Slope:	0.1127

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653121/7	500.0	56.354969	75.0	109762040.0	0.11271	Y



Calibration / Technical Chlordane Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

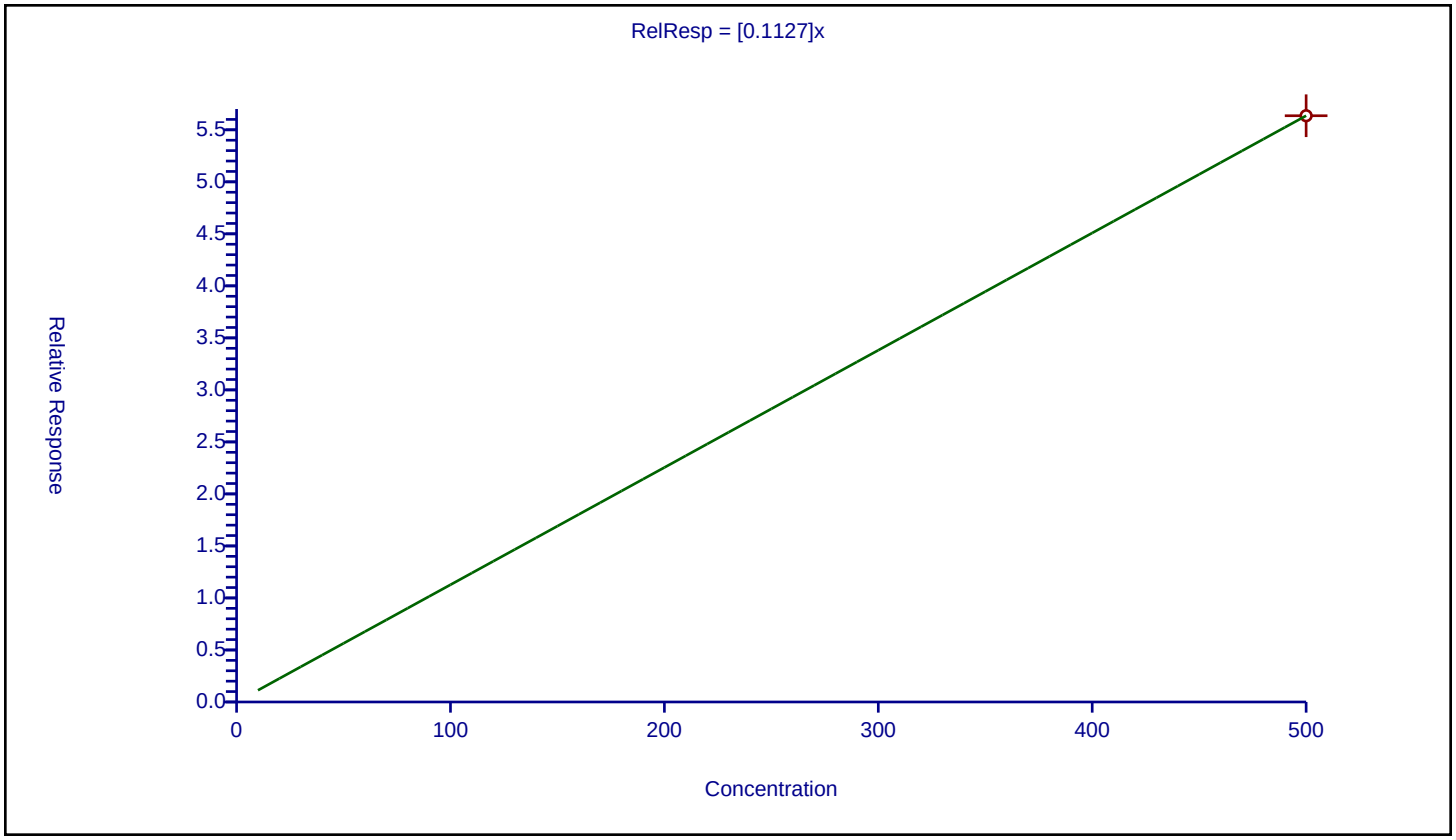
Curve Coefficients

Intercept:	0
Slope:	0.1127

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653121/7	500.0	56.354969	75.0	109762040.0	0.11271	Y



Calibration / Chlordane (technical) Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

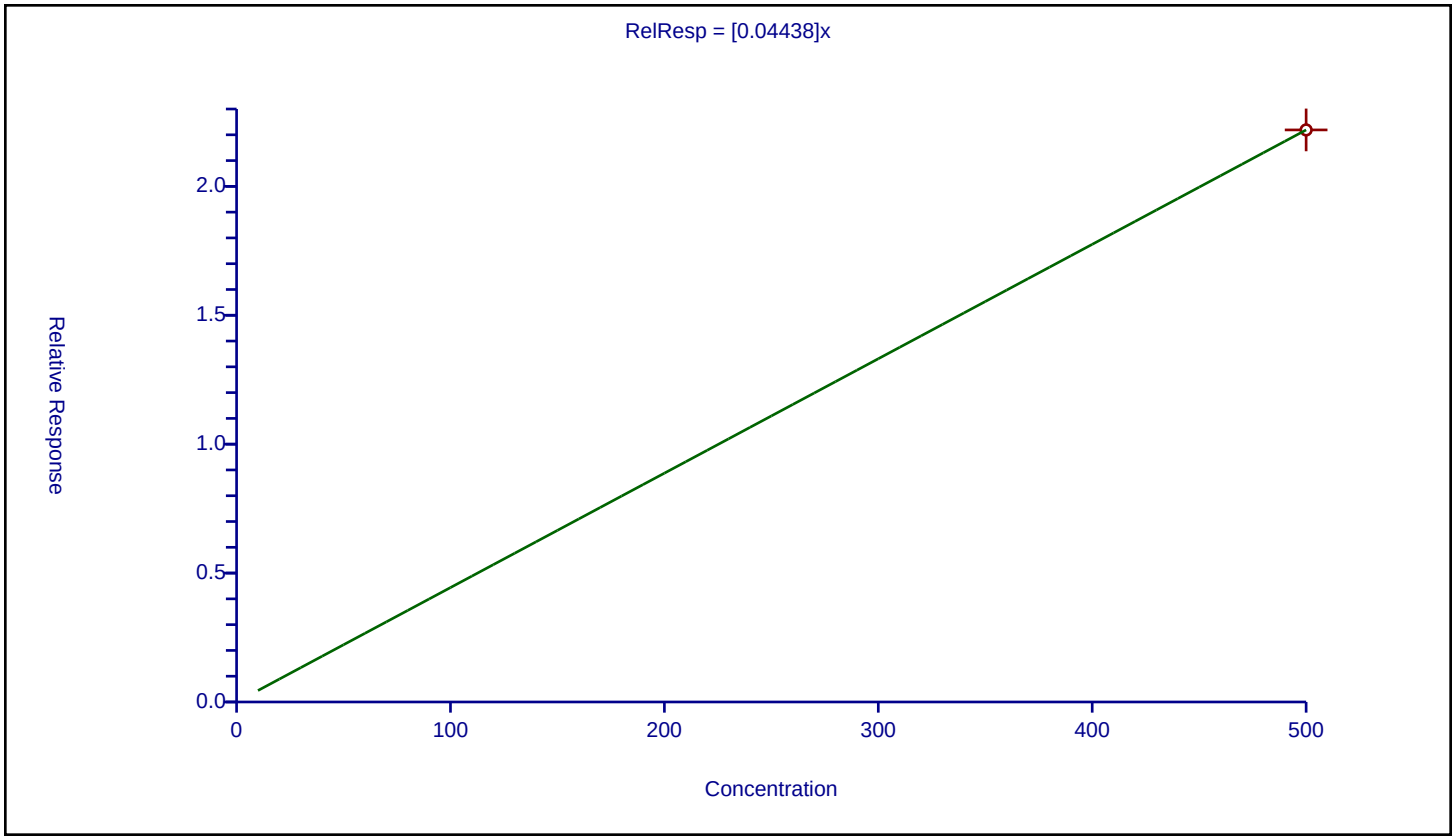
Curve Coefficients

Intercept:	0
Slope:	0.04438

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653121/7	500.0	22.188654	75.0	109762040.0	0.044377	Y



Calibration / Technical Chlordane Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

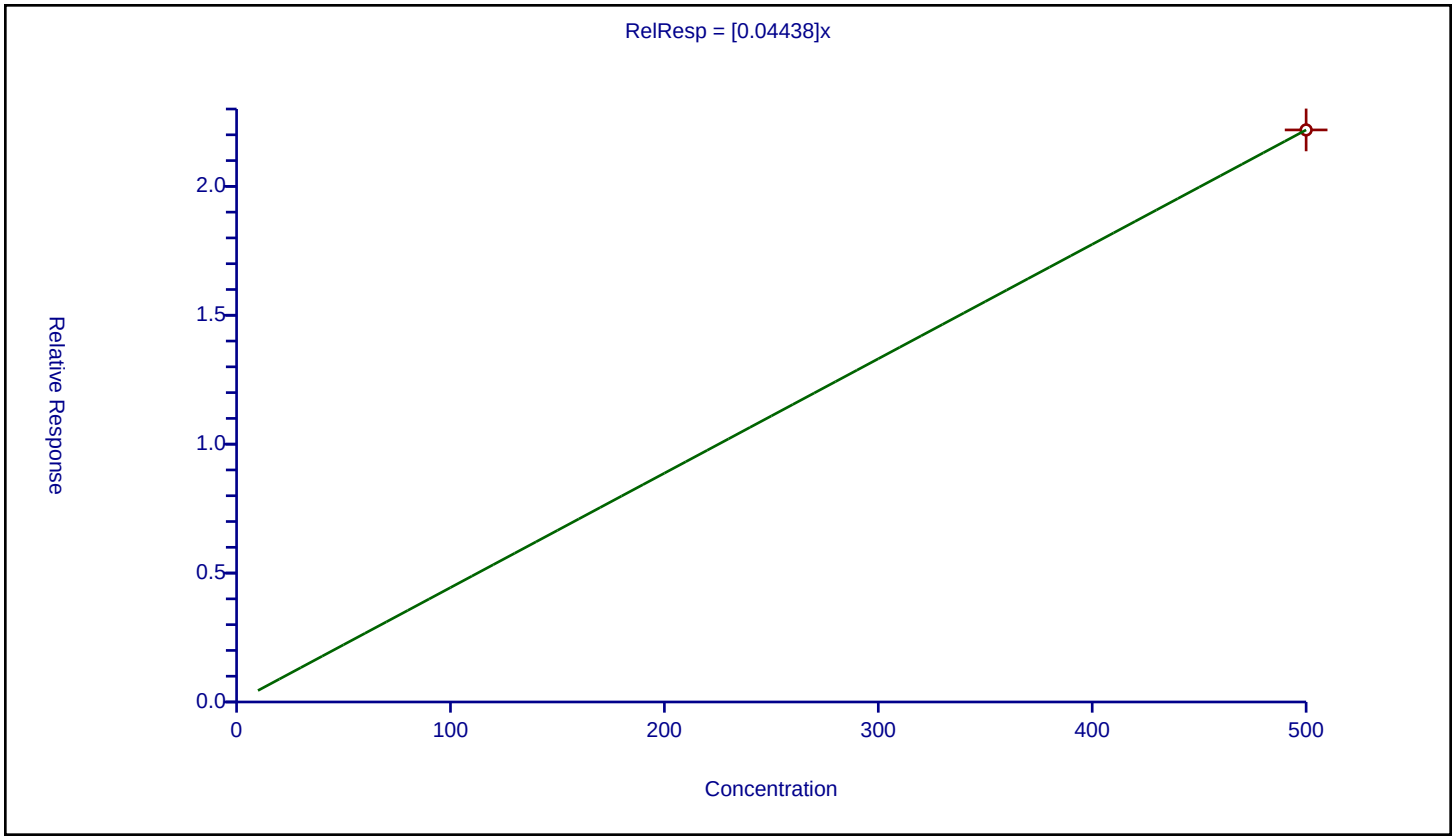
Curve Coefficients

Intercept:	0
Slope:	0.04438

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653121/7	500.0	22.188654	75.0	109762040.0	0.044377	Y



FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653635

SDG No.:

Instrument ID: SGC_C GC Column: RTI-XLB ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2024 11:27 Calibration End Date: 05/16/2024 11:27 Calibration ID: 93456

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD4 280-653635/5	0516005.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
Toxaphene Peak 1	0.0057					Ave		0.0057						20.0			
Toxaphene Peak 2	0.0130					Ave		0.0130						20.0			
Toxaphene Peak 3	0.0162					Ave		0.0162						20.0			
Toxaphene Peak 4	0.0402					Ave		0.0402						20.0			
Toxaphene Peak 5	0.0216					Ave		0.0216						20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 653635

SDG No.:

Instrument ID: SGC_C | GC Column: RTI-XLB | ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2024 11:27 | Calibration End Date: 05/16/2024 11:27 | Calibration ID: 93456

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD4 280-653635/5	0516005.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1					LVL 1				
Toxaphene Peak 1	BNB	Ave	23342938					2000				
Toxaphene Peak 2	BNB	Ave	53229862					2000				
Toxaphene Peak 3	BNB	Ave	66309412					2000				
Toxaphene Peak 4	BNB	Ave	164961516					2000				
Toxaphene Peak 5	BNB	Ave	88601424					2000				

Curve Type Legend:
Ave = Average ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516005.D
Lims ID: STD4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 16-May-2024 11:27:18 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD4
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub3

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:42:20 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.227	3.227	0.000	153854737	75.0	75.0	
2	2.812	2.812	0.000	145644692	75.0	75.0	
22 Toxaphene							
1	6.894	6.894	0.000	23342938	2000.0	2000.0	
1	7.581	7.581	0.000	53229862	2000.0	2000.0	
1	8.006	8.006	0.000	66309412	2000.0	2000.0	
1	8.267	8.267	0.000	164961516	2000.0	2000.0	
1	9.302	9.302	0.000	88601424	2000.0	2000.0	
		Average of Peak Amounts =				2000.0	
2	6.217	6.217	0.000	44882404	2000.0	2000.0	
2	6.634	6.634	0.000	48121236	2000.0	2000.0	
2	6.920	6.920	0.000	86170611	2000.0	2000.0	
2	7.796	7.796	0.000	77173791	2000.0	2000.0	
2	8.160	8.160	0.000	84089589	2000.0	2000.0	
		Average of Peak Amounts =				2000.0	
						RPD = 0.00	

Reagents:

8081TOXCCVL4_00036 Amount Added: 200.00 Units: uL
8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

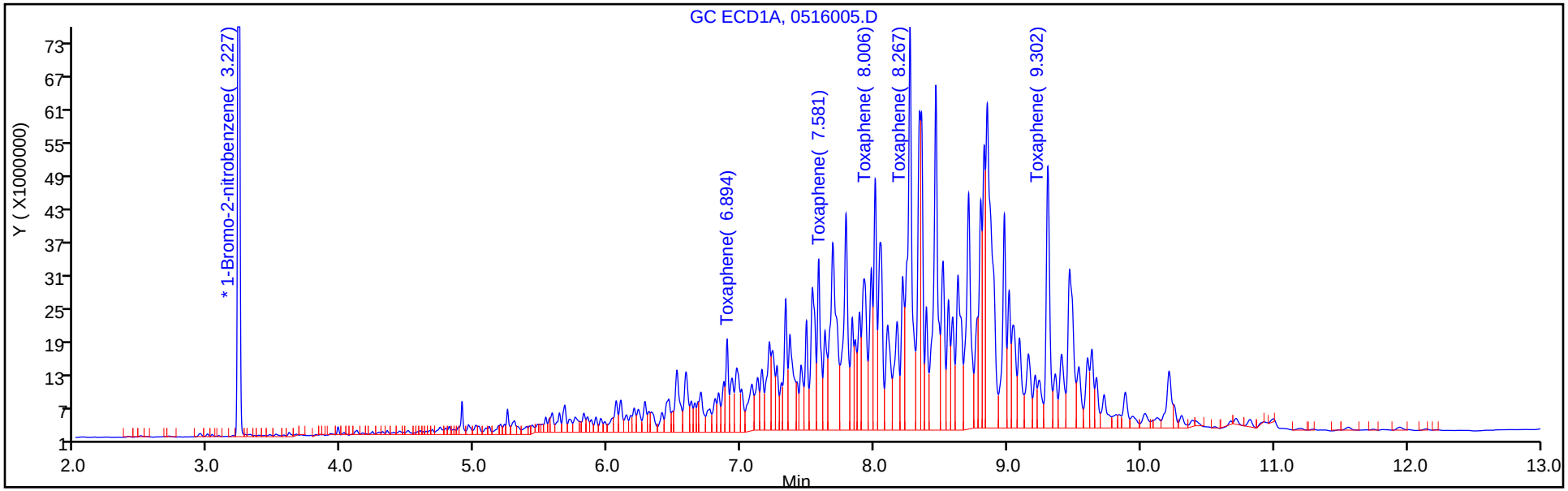
Report Date: 16-May-2024 14:42:20 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

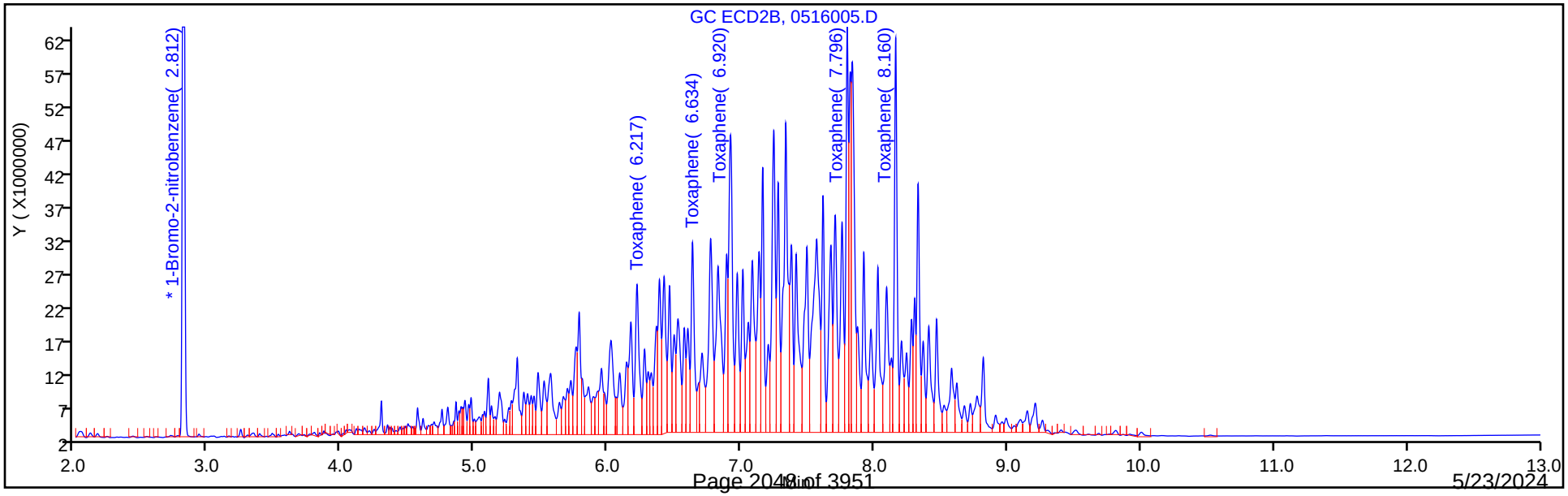
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516005.D

Injection Date:	16-May-2024 11:27:18	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	STD4			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Calibration / Toxaphene Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

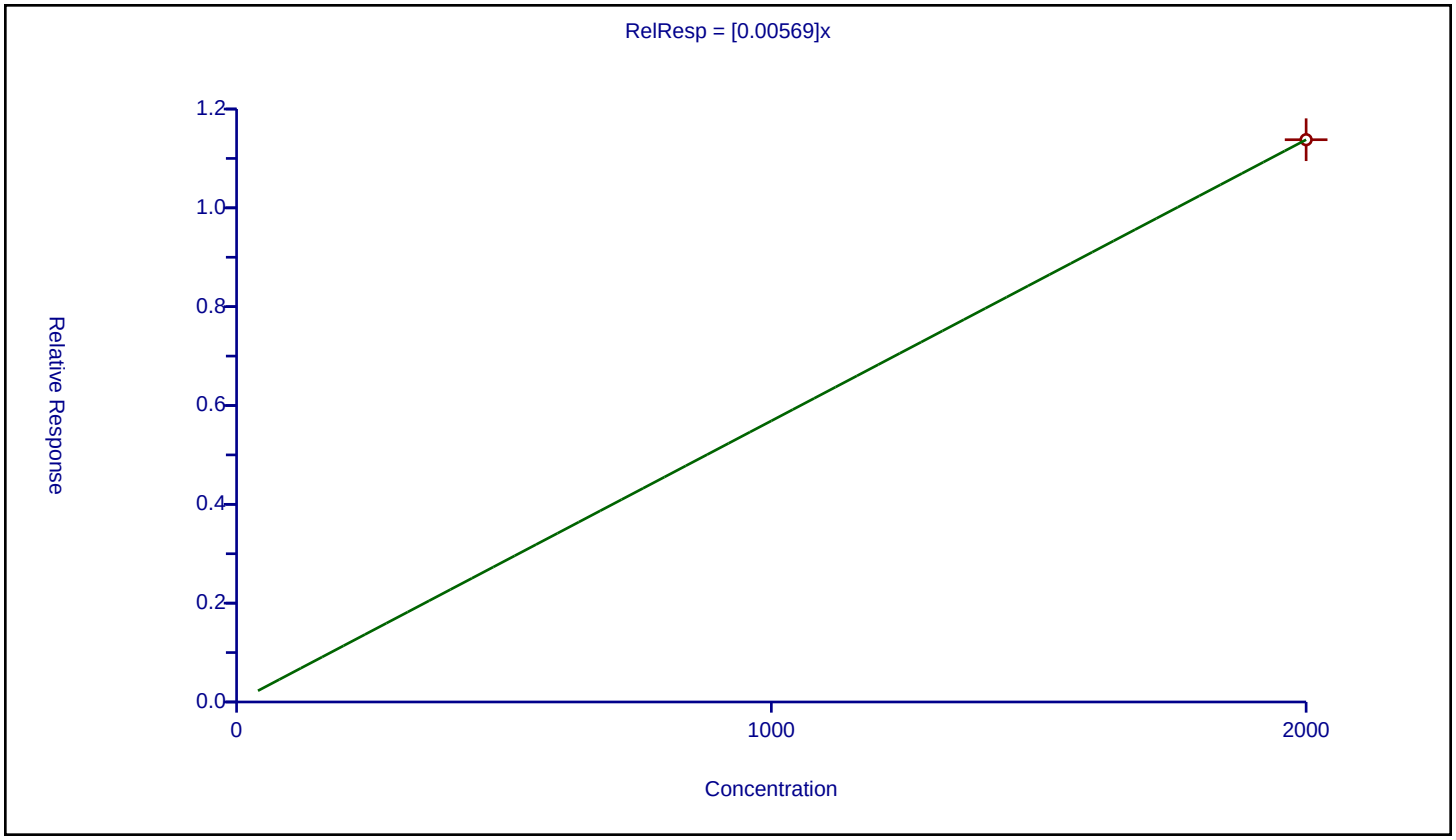
Curve Coefficients

Intercept:	0
Slope:	0.00569

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4 280-653635/5	2000.0	11.379047	75.0	153854737.0	0.00569	Y



Calibration / Toxaphene Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

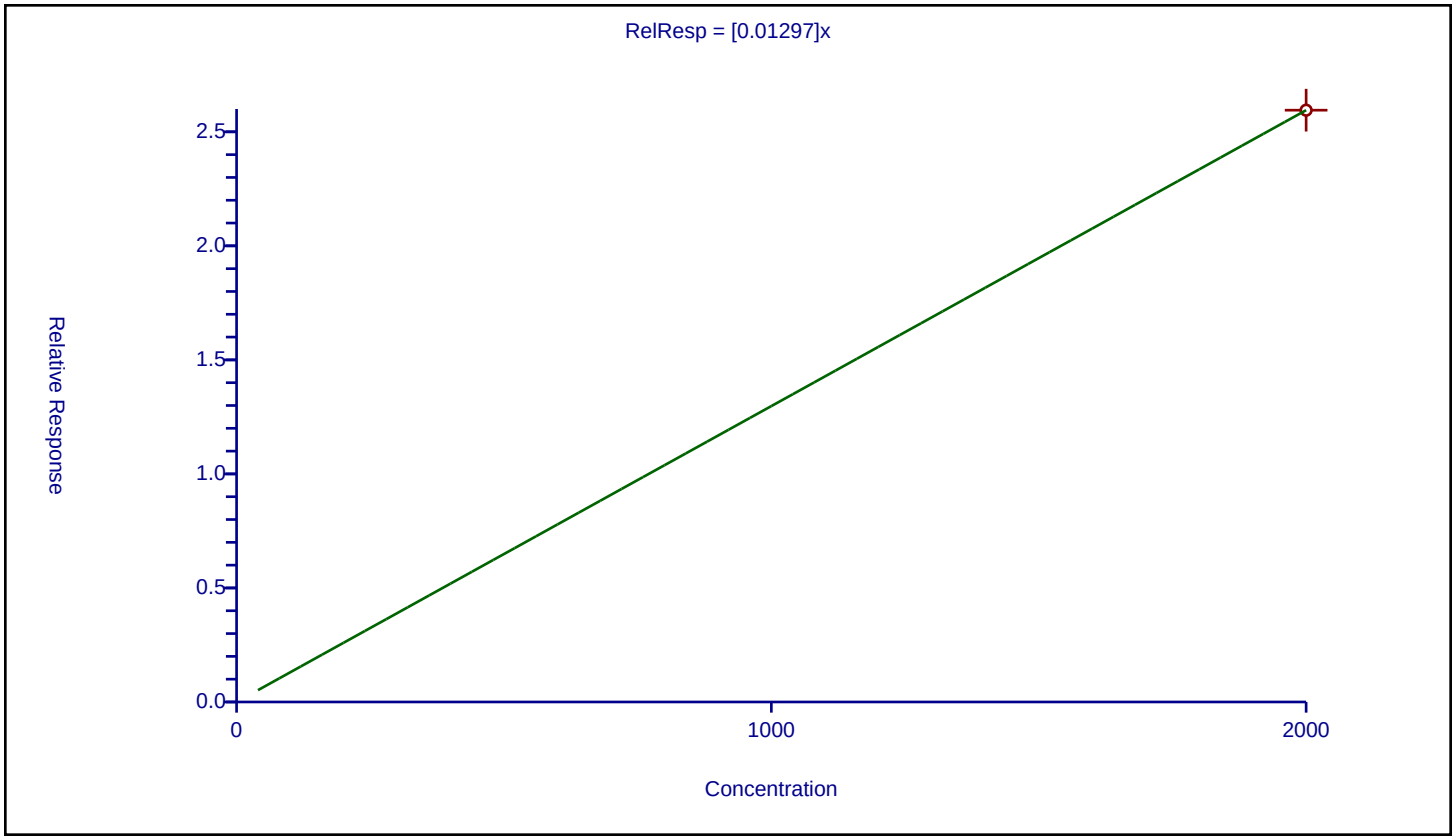
Curve Coefficients

Intercept:	0
Slope:	0.01297

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4 280-653635/5	2000.0	25.94811	75.0	153854737.0	0.012974	Y



Calibration / Toxaphene Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

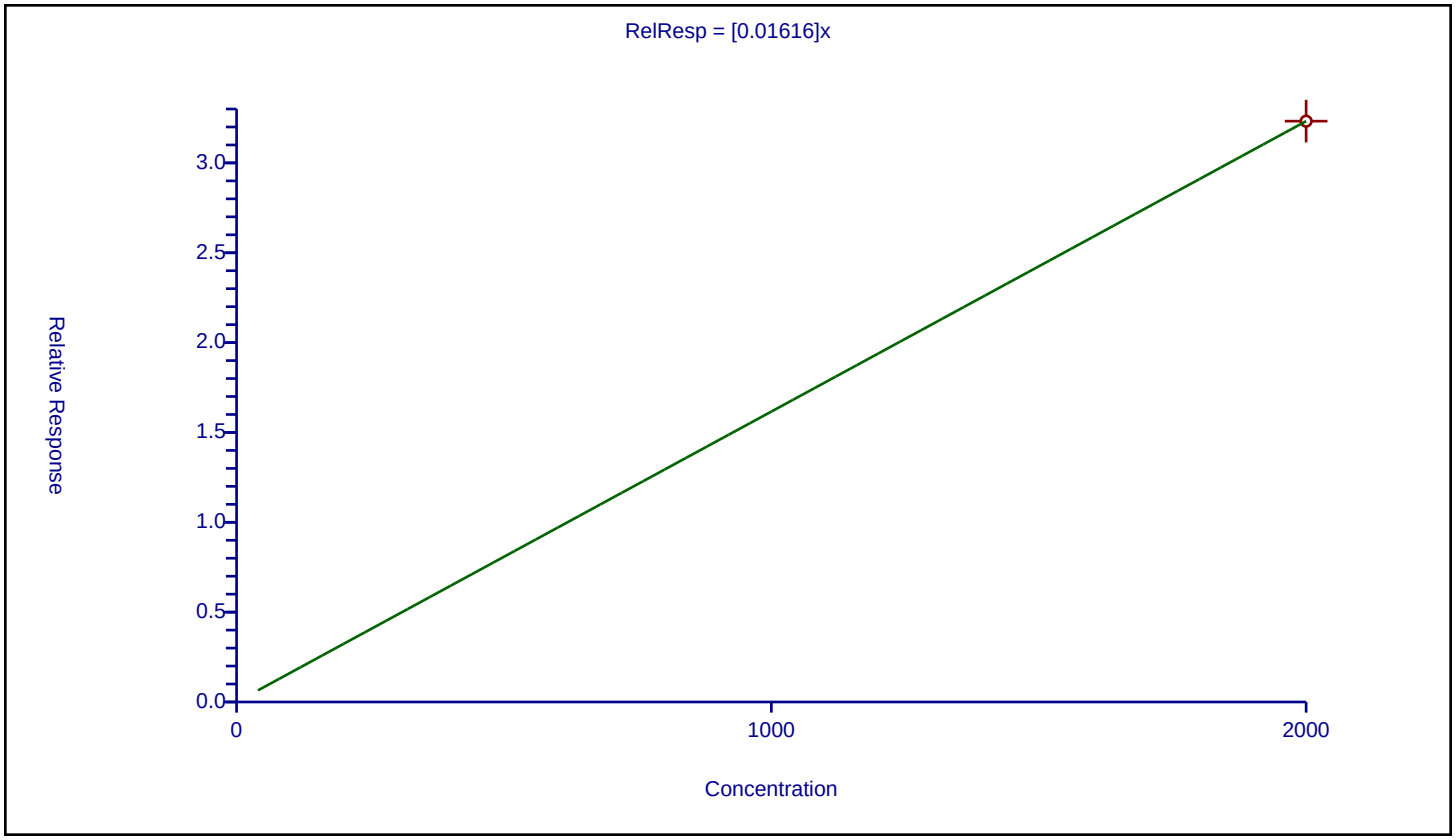
Curve Coefficients

Intercept:	0
Slope:	0.01616

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4 280-653635/5	2000.0	32.324035	75.0	153854737.0	0.016162	Y



Calibration / Toxaphene Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

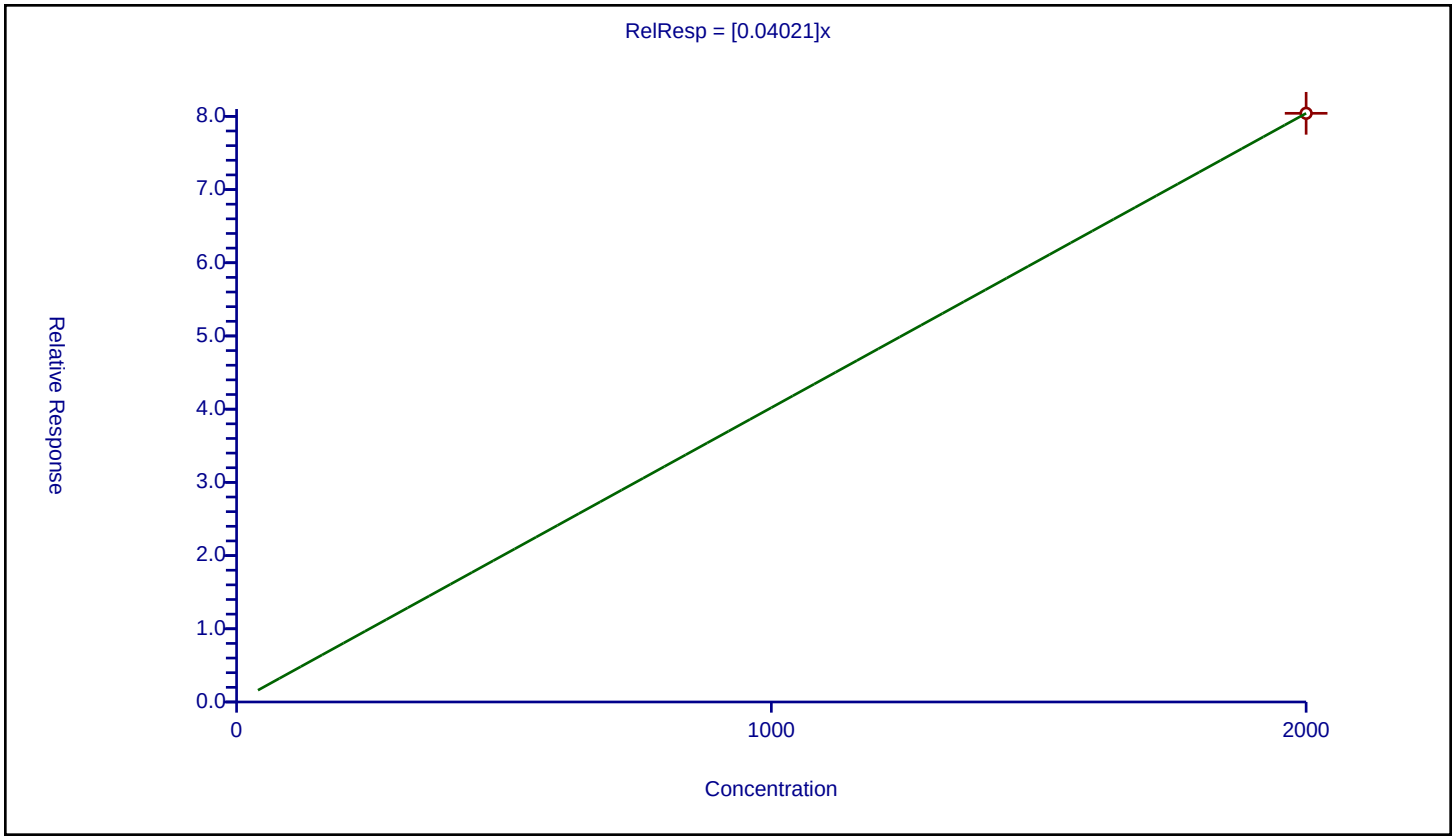
Curve Coefficients

Intercept:	0
Slope:	0.04021

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4 280-653635/5	2000.0	80.414253	75.0	153854737.0	0.040207	Y



Calibration / Toxaphene Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

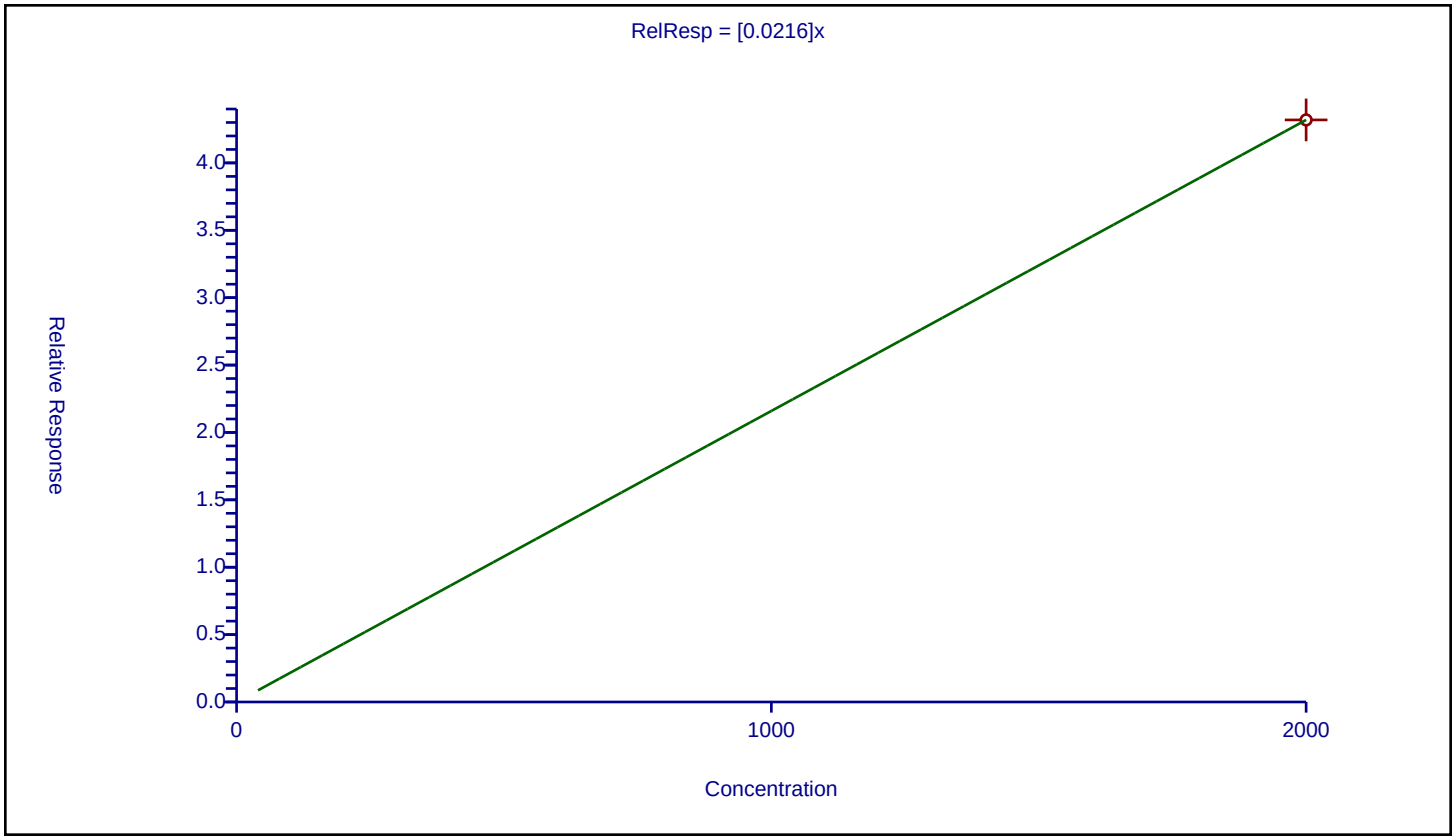
Curve Coefficients

Intercept:	0
Slope:	0.0216

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4 280-653635/5	2000.0	43.190785	75.0	153854737.0	0.021595	Y



FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653635

SDG No.:

Instrument ID: SGC_C GC Column: RTI-35silms ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2024 11:27 Calibration End Date: 05/16/2024 11:27 Calibration ID: 93457

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD4 280-653635/5	0516005.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
Toxaphene Peak 1	0.0116					Ave		0.0116						20.0			
Toxaphene Peak 2	0.0124					Ave		0.0124						20.0			
Toxaphene Peak 3	0.0222					Ave		0.0222						20.0			
Toxaphene Peak 4	0.0199					Ave		0.0199						20.0			
Toxaphene Peak 5	0.0217					Ave		0.0217						20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 653635

SDG No.:

Instrument ID: SGC_C | GC Column: RTI-35silm ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2024 11:27 | Calibration End Date: 05/16/2024 11:27 | Calibration ID: 93457

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD4 280-653635/5	0516005.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1					LVL 1				
Toxaphene Peak 1	BNB	Ave	44882404					2000				
Toxaphene Peak 2	BNB	Ave	48121236					2000				
Toxaphene Peak 3	BNB	Ave	86170611					2000				
Toxaphene Peak 4	BNB	Ave	77173791					2000				
Toxaphene Peak 5	BNB	Ave	84089589					2000				

Curve Type Legend:
Ave = Average ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516005.D
Lims ID: STD4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 16-May-2024 11:27:18 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD4
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub3

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:42:20 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.227	3.227	0.000	153854737	75.0	75.0	
2	2.812	2.812	0.000	145644692	75.0	75.0	
22 Toxaphene							
1	6.894	6.894	0.000	23342938	2000.0	2000.0	
1	7.581	7.581	0.000	53229862	2000.0	2000.0	
1	8.006	8.006	0.000	66309412	2000.0	2000.0	
1	8.267	8.267	0.000	164961516	2000.0	2000.0	
1	9.302	9.302	0.000	88601424	2000.0	2000.0	
		Average of Peak Amounts =				2000.0	
2	6.217	6.217	0.000	44882404	2000.0	2000.0	
2	6.634	6.634	0.000	48121236	2000.0	2000.0	
2	6.920	6.920	0.000	86170611	2000.0	2000.0	
2	7.796	7.796	0.000	77173791	2000.0	2000.0	
2	8.160	8.160	0.000	84089589	2000.0	2000.0	
		Average of Peak Amounts =				2000.0	
						RPD = 0.00	

Reagents:

8081TOXCCVL4_00036 Amount Added: 200.00 Units: uL
8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

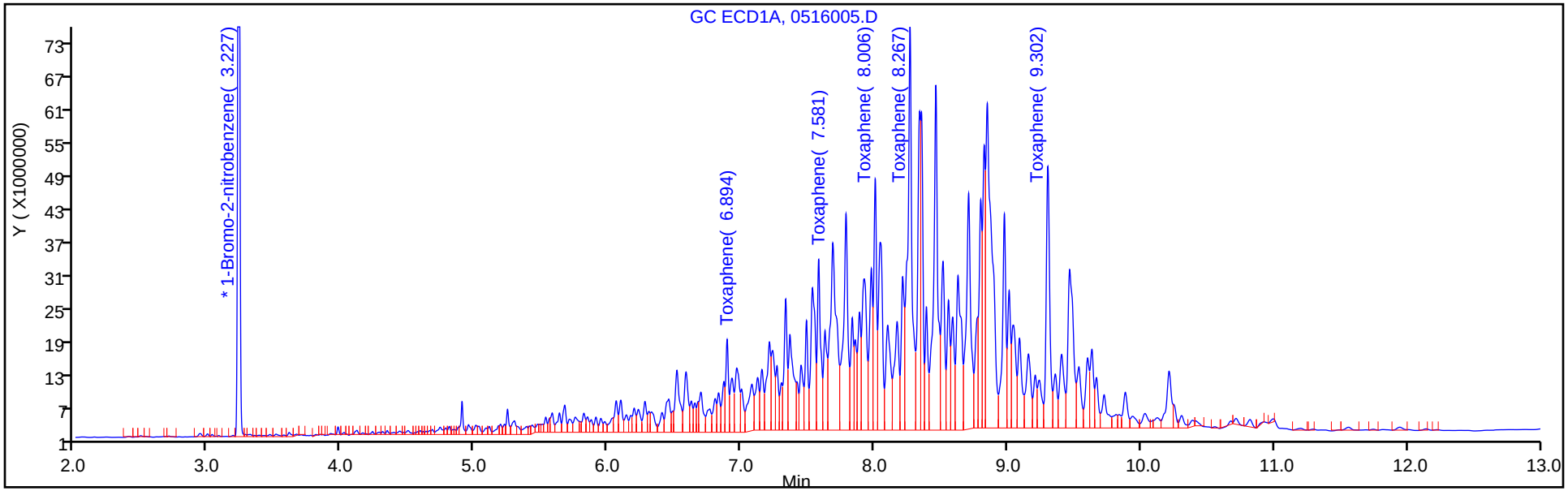
Report Date: 16-May-2024 14:42:21 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

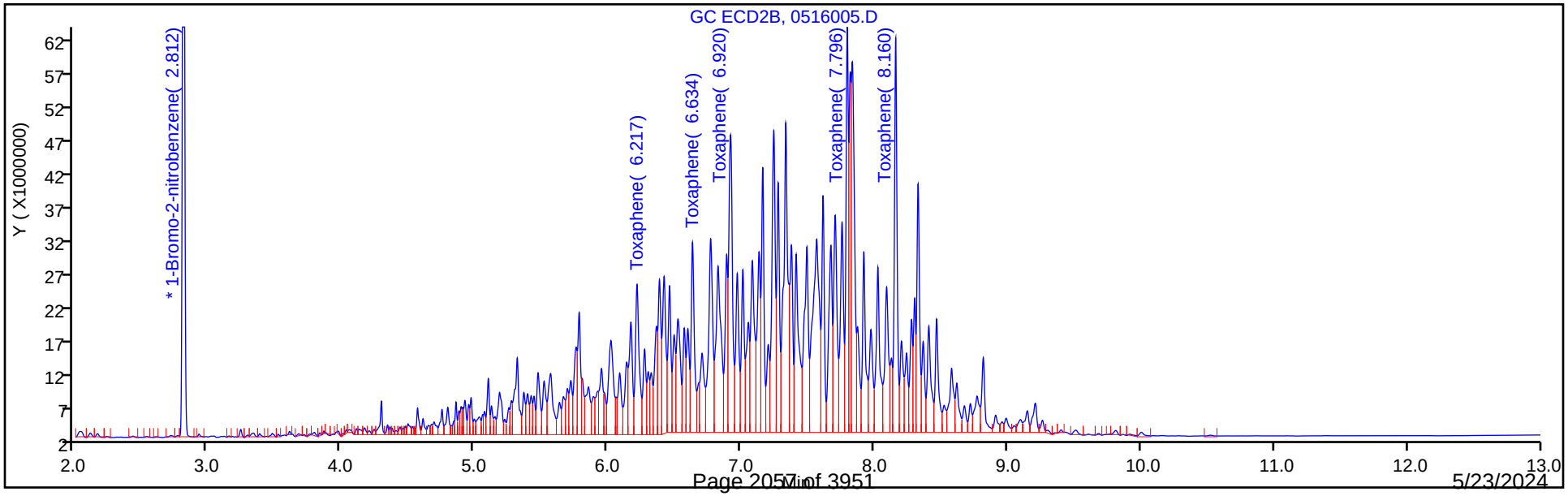
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516005.D

Injection Date:	16-May-2024 11:27:18	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	STD4			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Calibration / Toxaphene Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

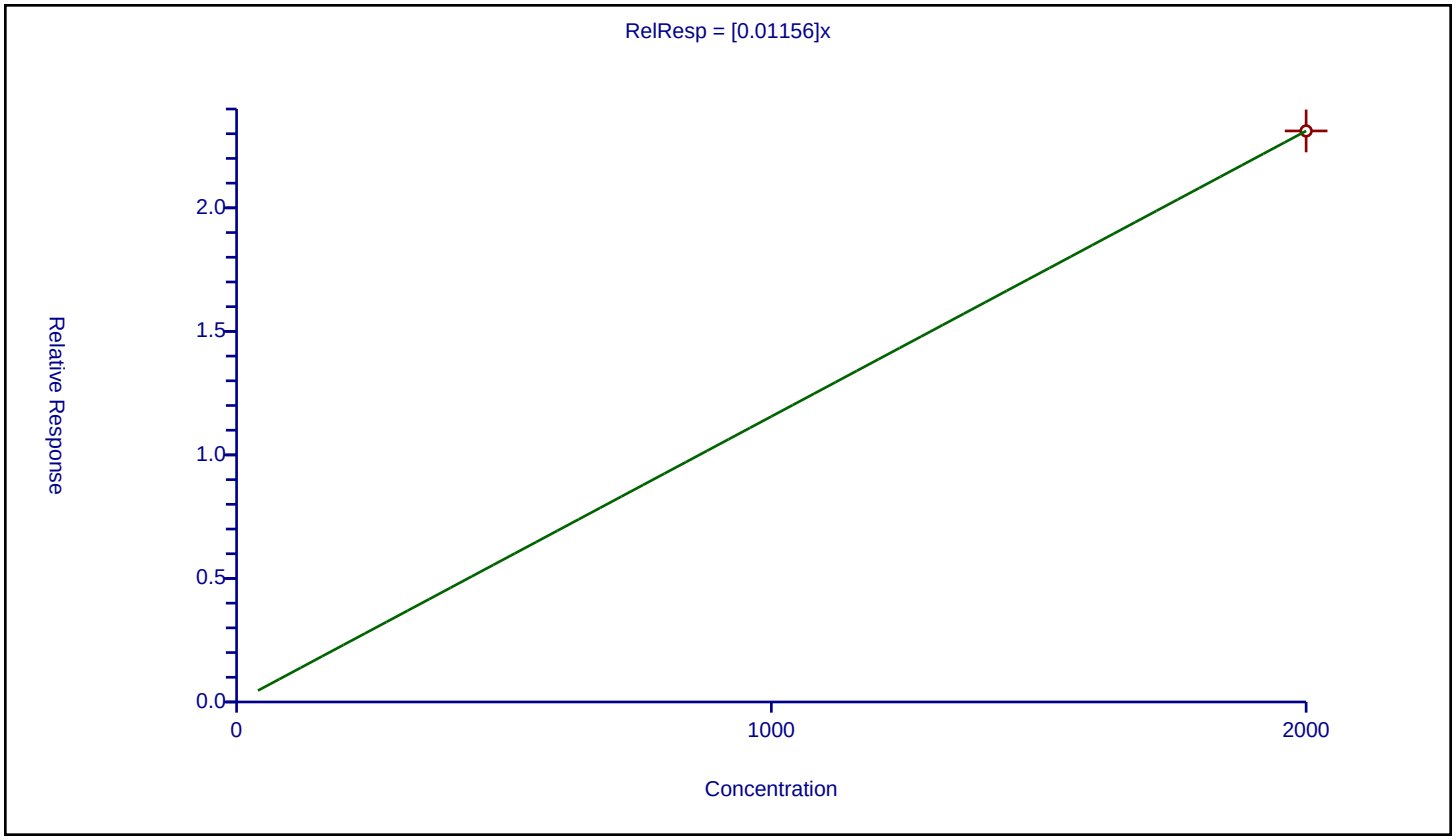
Curve Coefficients

Intercept:	0
Slope:	0.01156

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4 280-653635/5	2000.0	23.112276	75.0	145644692.0	0.011556	Y



Calibration / Toxaphene Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

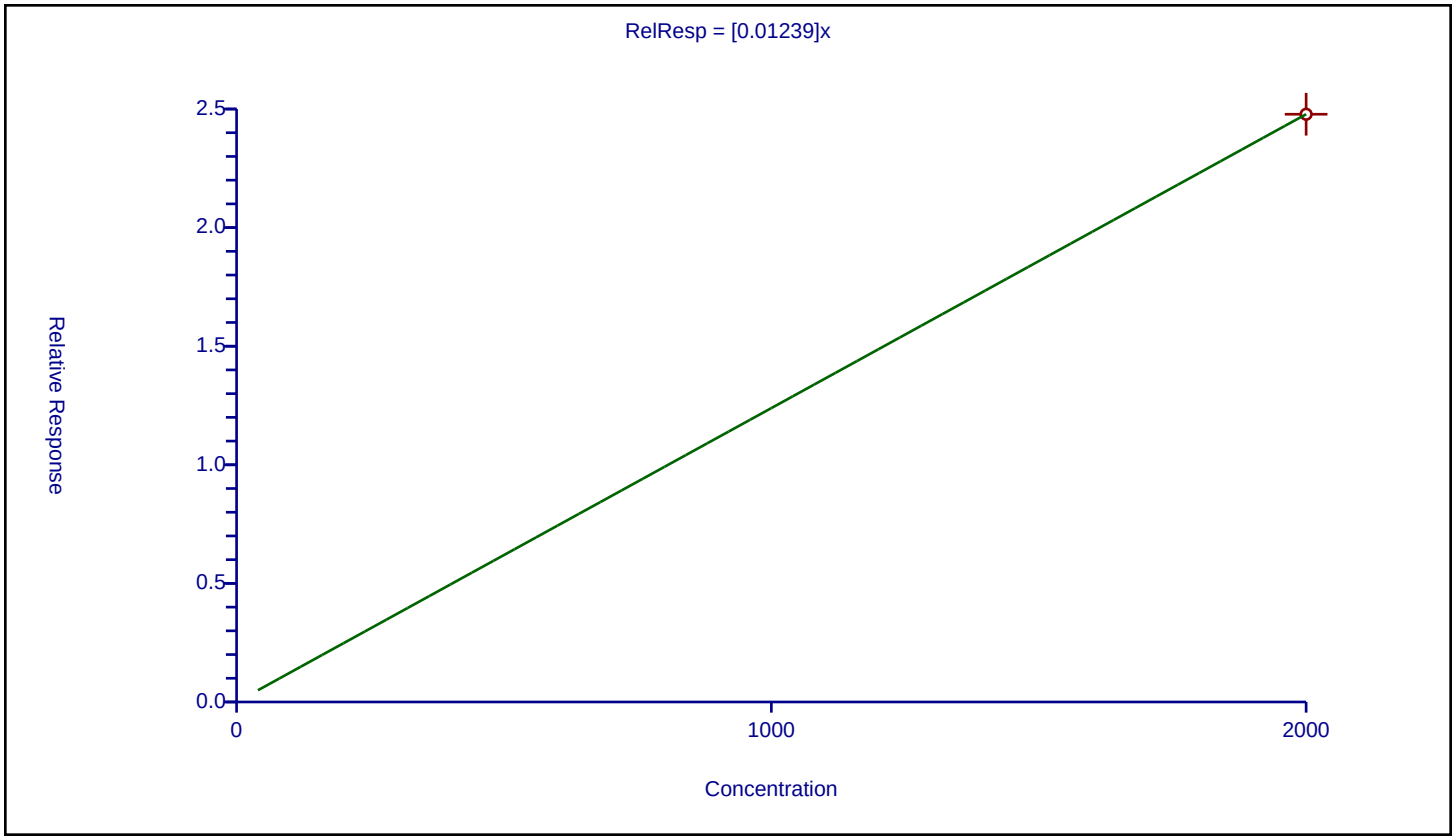
Curve Coefficients

Intercept:	0
Slope:	0.01239

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4 280-653635/5	2000.0	24.780118	75.0	145644692.0	0.01239	Y



Calibration / Toxaphene Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

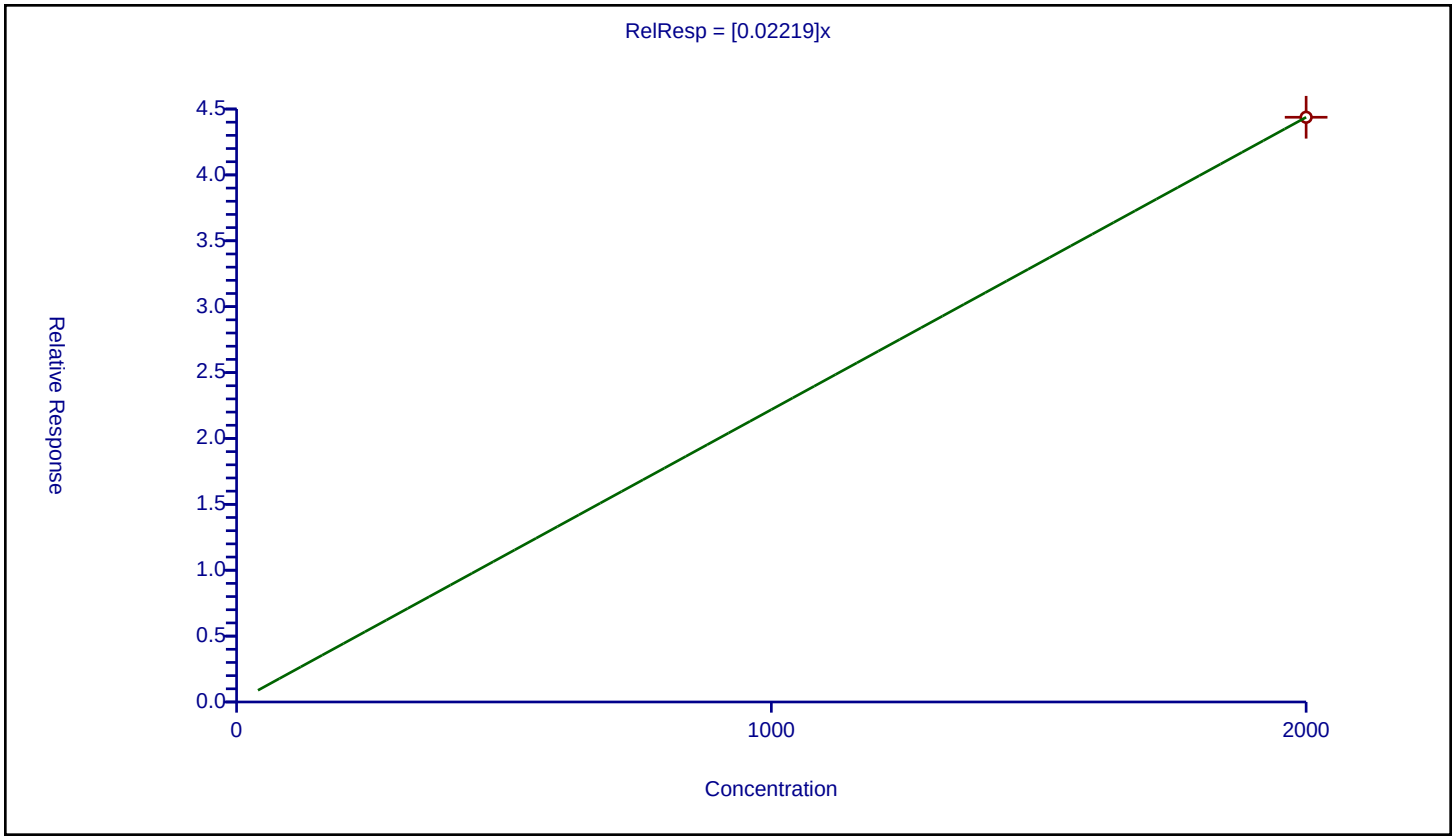
Curve Coefficients

Intercept:	0
Slope:	0.02219

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4 280-653635/5	2000.0	44.373713	75.0	145644692.0	0.022187	Y



Calibration / Toxaphene Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

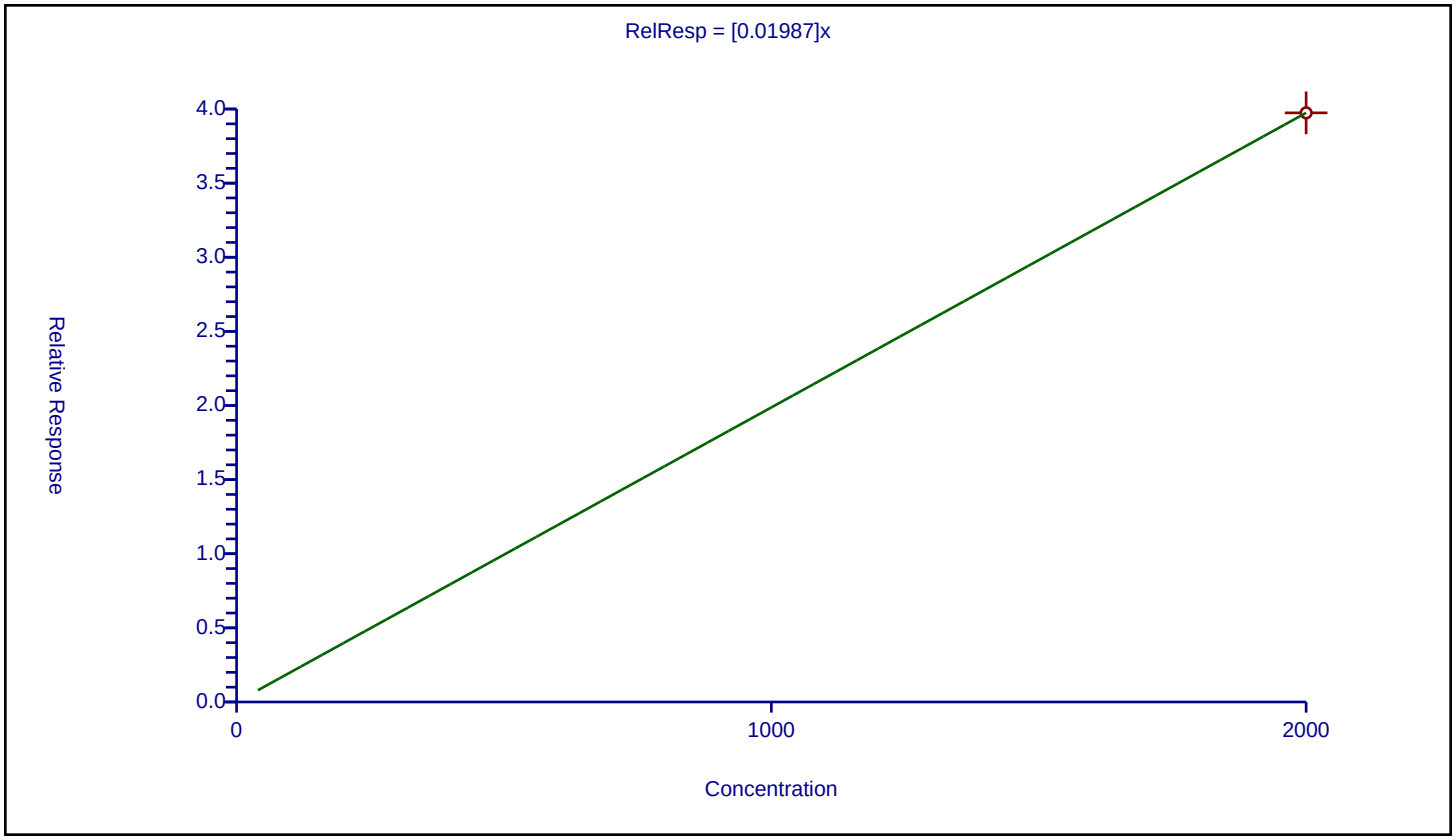
Curve Coefficients

Intercept:	0
Slope:	0.01987

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4 280-653635/5	2000.0	39.740785	75.0	145644692.0	0.01987	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

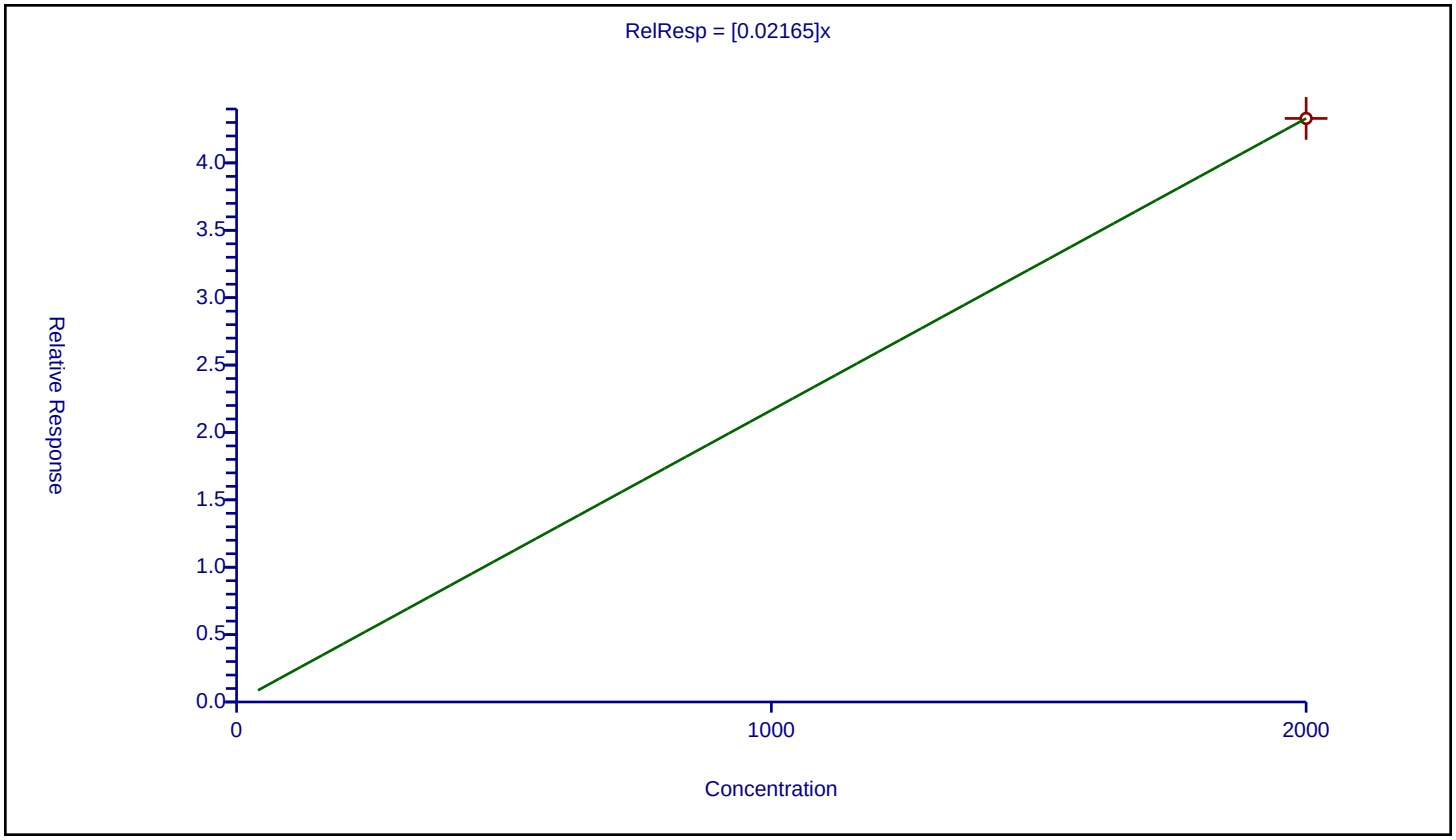
Curve Coefficients

Intercept:	0
Slope:	0.02165

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4 280-653635/5	2000.0	43.302087	75.0	145644692.0	0.021651	Y



FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653635

SDG No.:

Instrument ID: SGC_C GC Column: RTI-XLB ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2024 11:45 Calibration End Date: 05/16/2024 11:45 Calibration ID: 93462

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD3 280-653635/6	0516006.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
Chlordane (technical) Peak 1	0.0514					Ave		0.0514						20.0			
Technical Chlordane Peak 1	0.0514					Ave		0.0514						20.0			
Chlordane (technical) Peak 2	0.0426					Ave		0.0426						20.0			
Technical Chlordane Peak 2	0.0426					Ave		0.0426						20.0			
Chlordane (technical) Peak 3	0.1689					Ave		0.1689						20.0			
Technical Chlordane Peak 3	0.1689					Ave		0.1689						20.0			
Chlordane (technical) Peak 4	0.1243					Ave		0.1243						20.0			
Technical Chlordane Peak 4	0.1243					Ave		0.1243						20.0			
Chlordane (technical) Peak 5	0.0309					Ave		0.0309						20.0			
Technical Chlordane Peak 5	0.0309					Ave		0.0309						20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 653635

SDG No.:

Instrument ID: SGC_C | GC Column: RTI-XLB | ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2024 11:45 | Calibration End Date: 05/16/2024 11:45 | Calibration ID: 93462

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD3 280-653635/6	0516006.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1					LVL 1				
Chlordane (technical) Peak 1	BNB	Ave	49875958					500				
Technical Chlordane Peak 1	BNB	Ave	49875958					500				
Chlordane (technical) Peak 2	BNB	Ave	41372623					500				
Technical Chlordane Peak 2	BNB	Ave	41372623					500				
Chlordane (technical) Peak 3	BNB	Ave	164073675					500				
Technical Chlordane Peak 3	BNB	Ave	164073675					500				
Chlordane (technical) Peak 4	BNB	Ave	120704614					500				
Technical Chlordane Peak 4	BNB	Ave	120704614					500				
Chlordane (technical) Peak 5	BNB	Ave	30000496					500				
Technical Chlordane Peak 5	BNB	Ave	30000496					500				

Curve Type Legend:
Ave = Average ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D
Lims ID: STD3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 16-May-2024 11:45:09 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD3
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub4

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:42:24 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

First Level Reviewer: AP6K Date: 16-May-2024 12:10:18

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.228	3.228	0.000	145680096	75.0	75.0	
2	2.813	2.813	0.000	138139270	75.0	75.0	
10 Technical Chlordane							M
1	5.534	5.534	0.000	49875958	500.0	500.0	
1	6.124	6.124	0.000	41372623	500.0	500.0	
1	7.002	7.002	0.000	164073675	500.0	500.0	
1	7.113	7.113	0.000	120704614	500.0	500.0	
1	8.009	8.009	0.000	30000496	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	4.713	4.713	0.000	40777014	500.0	500.0	M
2	5.187	5.187	0.000	41893575	500.0	500.0	M
2	5.733	5.733	0.000	135168537	500.0	500.0	M
2	5.761	5.761	0.000	96287856	500.0	500.0	M
2	6.928	6.928	0.000	40111021	500.0	500.0	M
		Average of Peak Amounts =				500.0	
						RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
9 Chlordane (technical)							M
1	5.534	5.534	0.000	49875958	500.0	500.0	
1	6.124	6.124	0.000	41372623	500.0	500.0	
1	7.002	7.002	0.000	164073675	500.0	500.0	
1	7.113	7.113	0.000	120704614	500.0	500.0	
1	8.009	8.009	0.000	30000496	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	4.713	4.713	0.000	40777014	500.0	500.0	M
2	5.187	5.187	0.000	41893575	500.0	500.0	M
2	5.733	5.733	0.000	135168537	500.0	500.0	M
2	5.761	5.761	0.000	96287856	500.0	500.0	M
2	6.928	6.928	0.000	40111021	500.0	500.0	M
		Average of Peak Amounts =				500.0	
						RPD = 0.00	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8081ChlorL3_00039	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

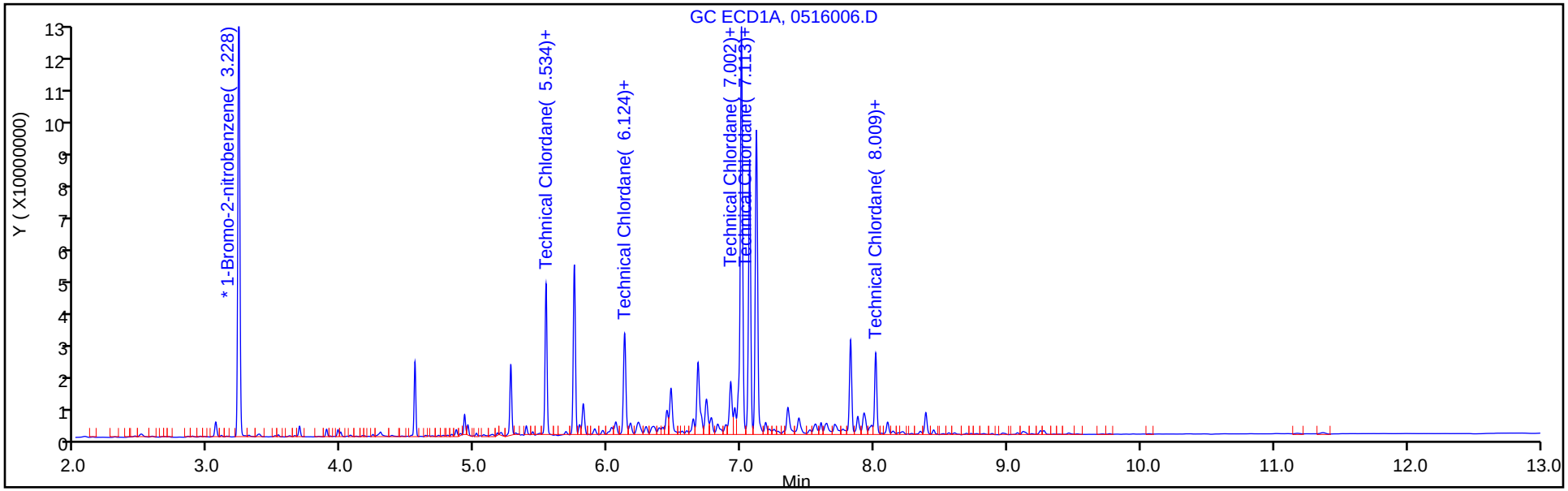
Report Date: 16-May-2024 14:42:25 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

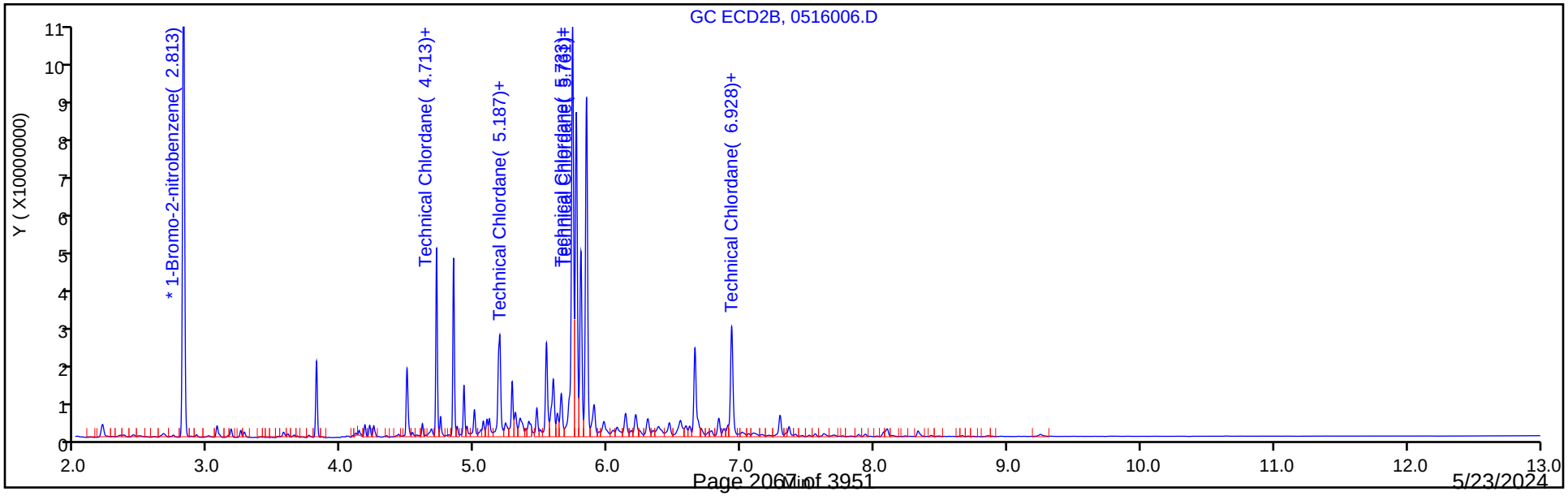
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Injection Date:	16-May-2024 11:45:09	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	STD3			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Calibration / Chlordane (technical) Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

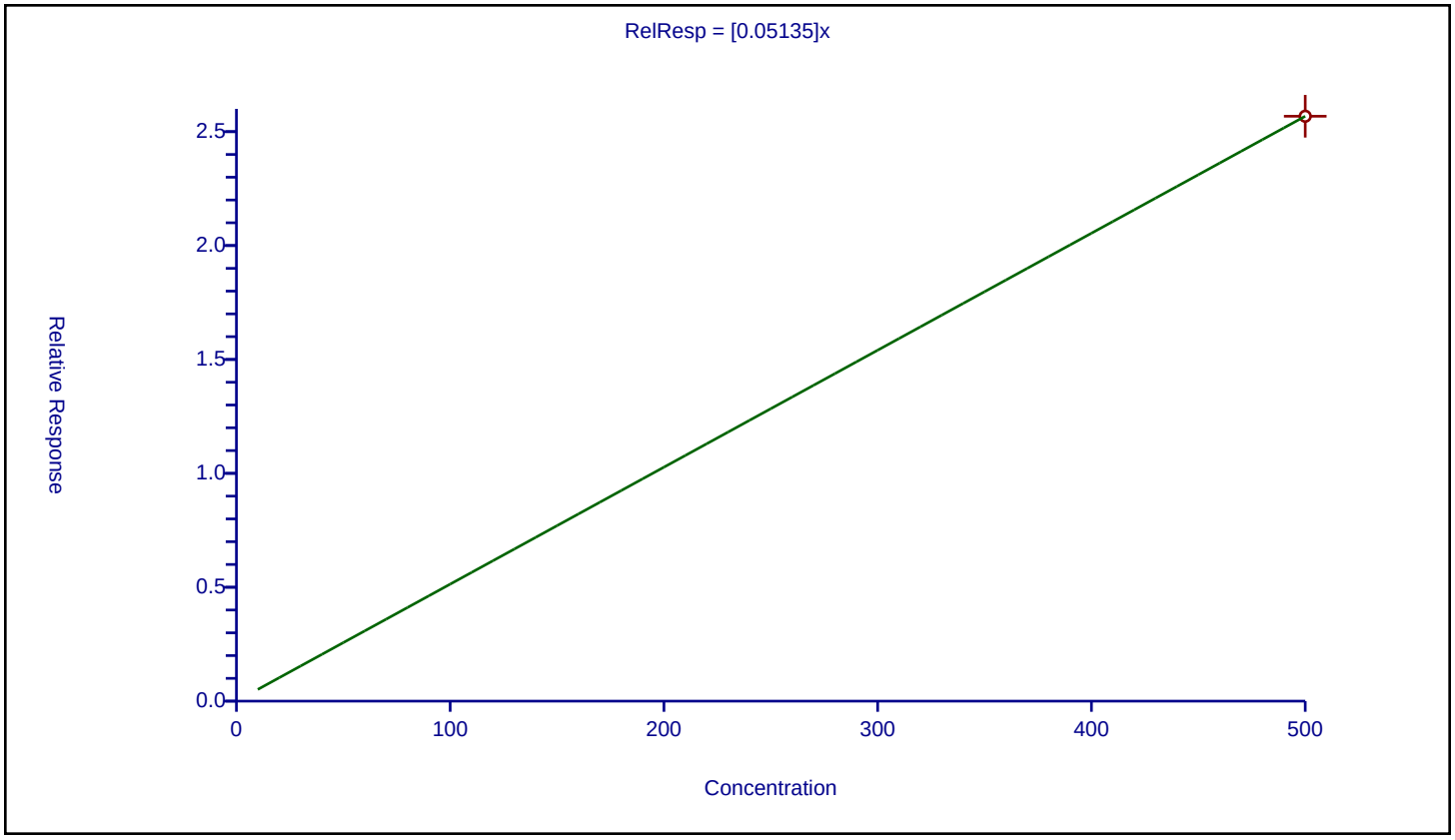
Curve Coefficients

Intercept:	0
Slope:	0.05135

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653635/6	500.0	25.677474	75.0	145680096.0	0.051355	Y



5/23/2024
4:40:30 AM

Calibration / Technical Chlordane Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

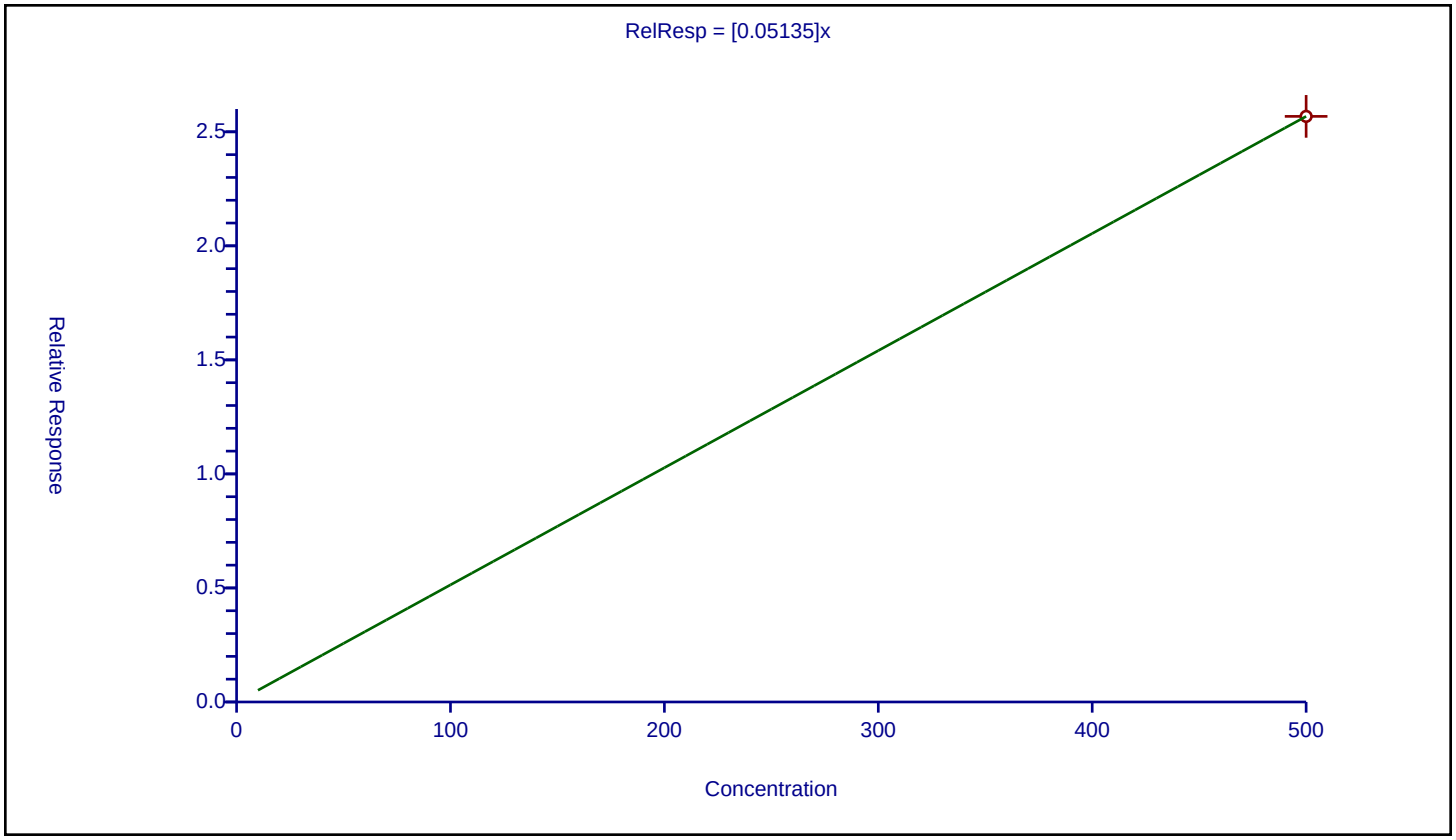
Curve Coefficients

Intercept:	0
Slope:	0.05135

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653635/6	500.0	25.677474	75.0	145680096.0	0.051355	Y



Calibration / Chlordane (technical) Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

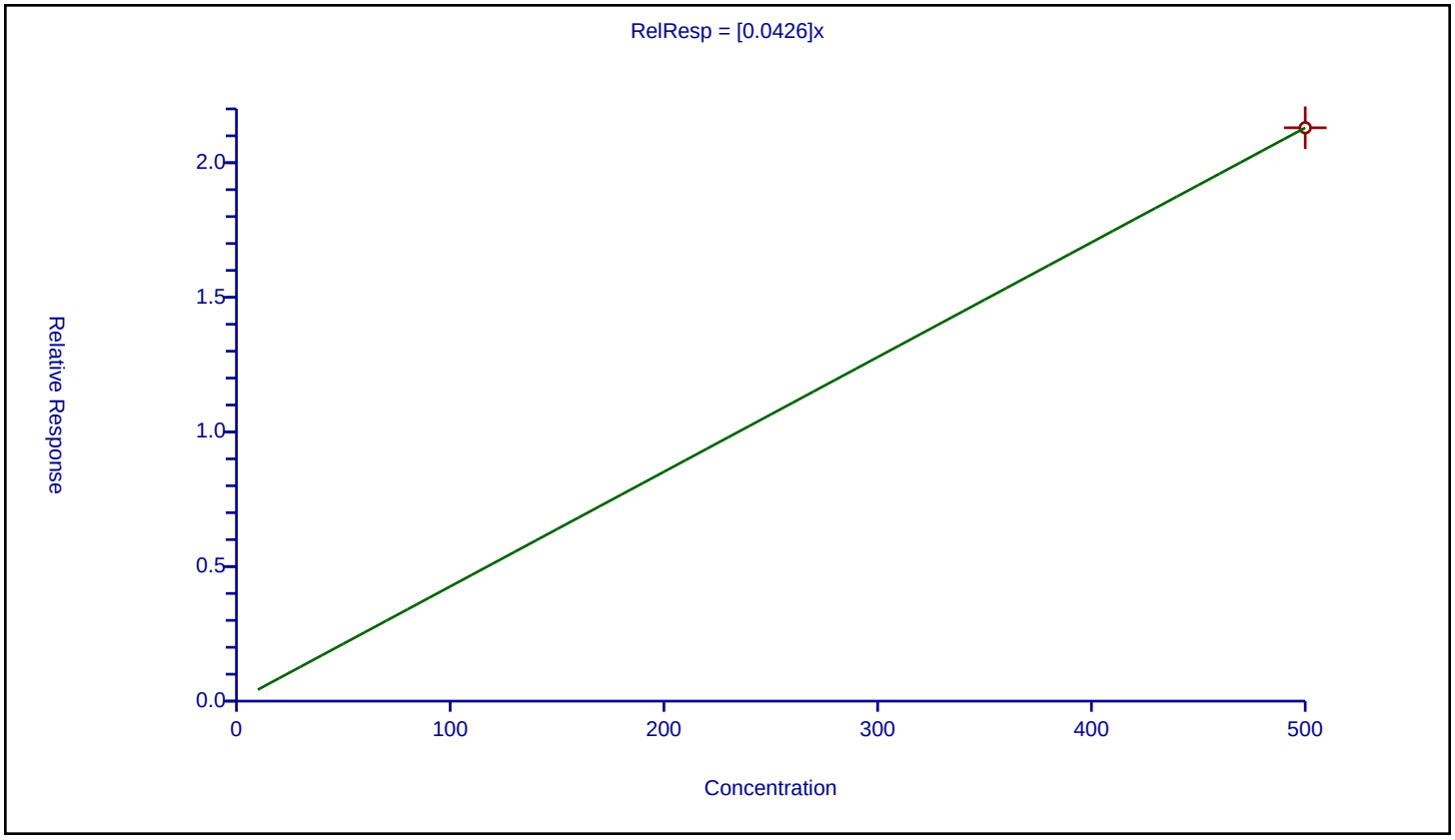
Curve Coefficients

Intercept:	0
Slope:	0.0426

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653635/6	500.0	21.29973	75.0	145680096.0	0.042599	Y



Calibration / Technical Chlordane Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

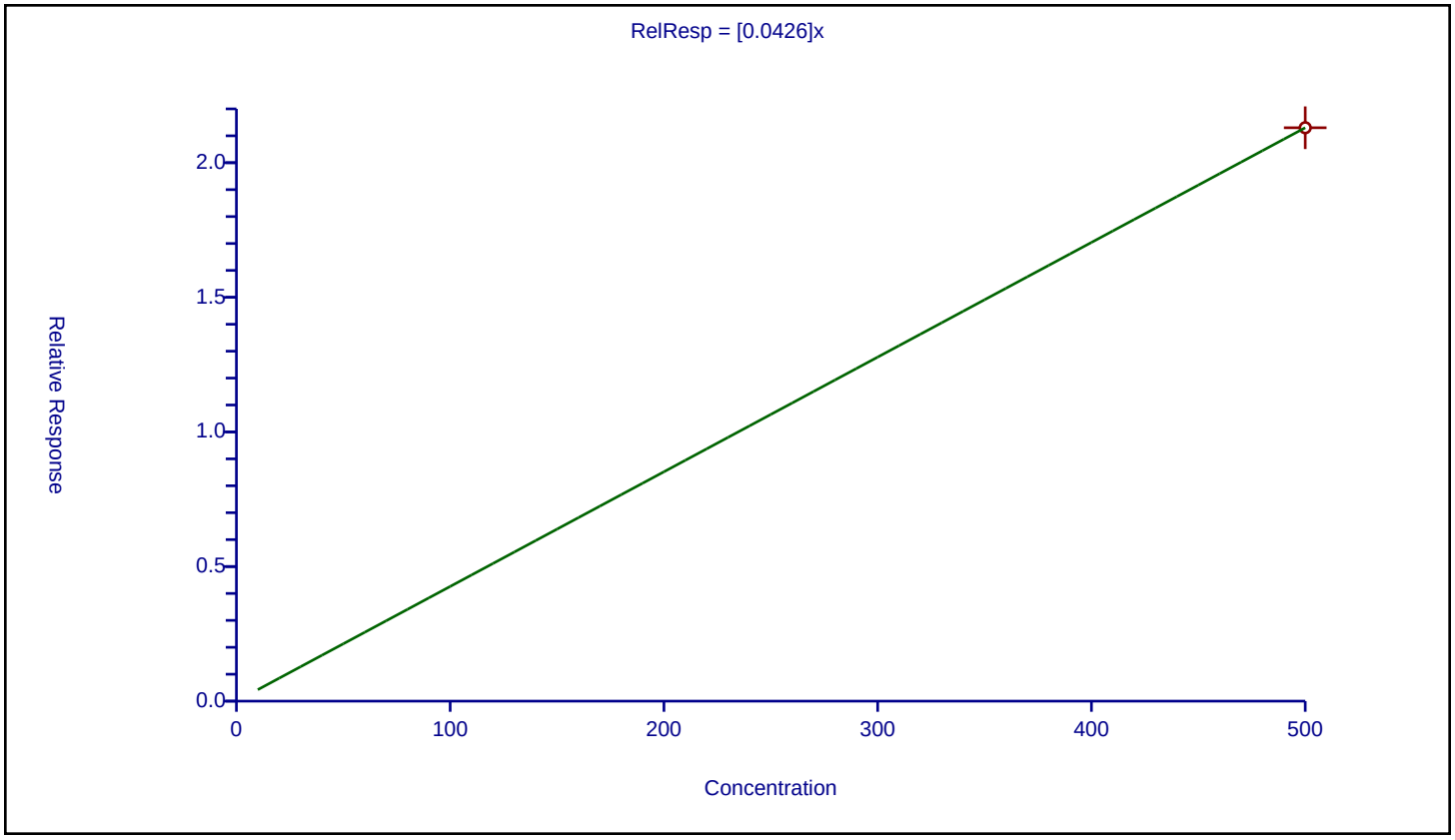
Curve Coefficients

Intercept:	0
Slope:	0.0426

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653635/6	500.0	21.29973	75.0	145680096.0	0.042599	Y



Calibration / Chlordane (technical) Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

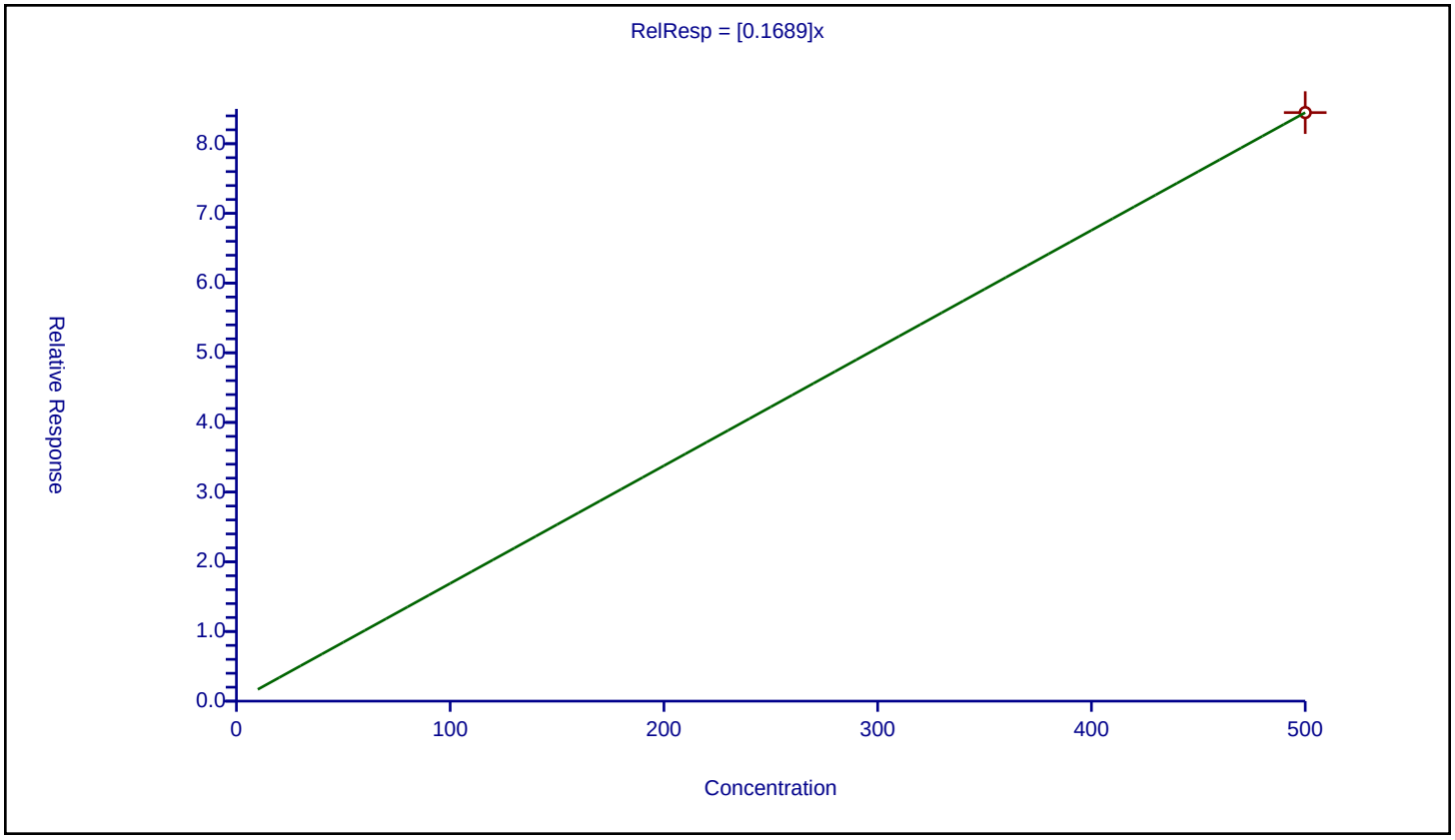
Curve Coefficients

Intercept:	0
Slope:	0.1689

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653635/6	500.0	84.469505	75.0	145680096.0	0.168939	Y



Calibration / Technical Chlordane Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

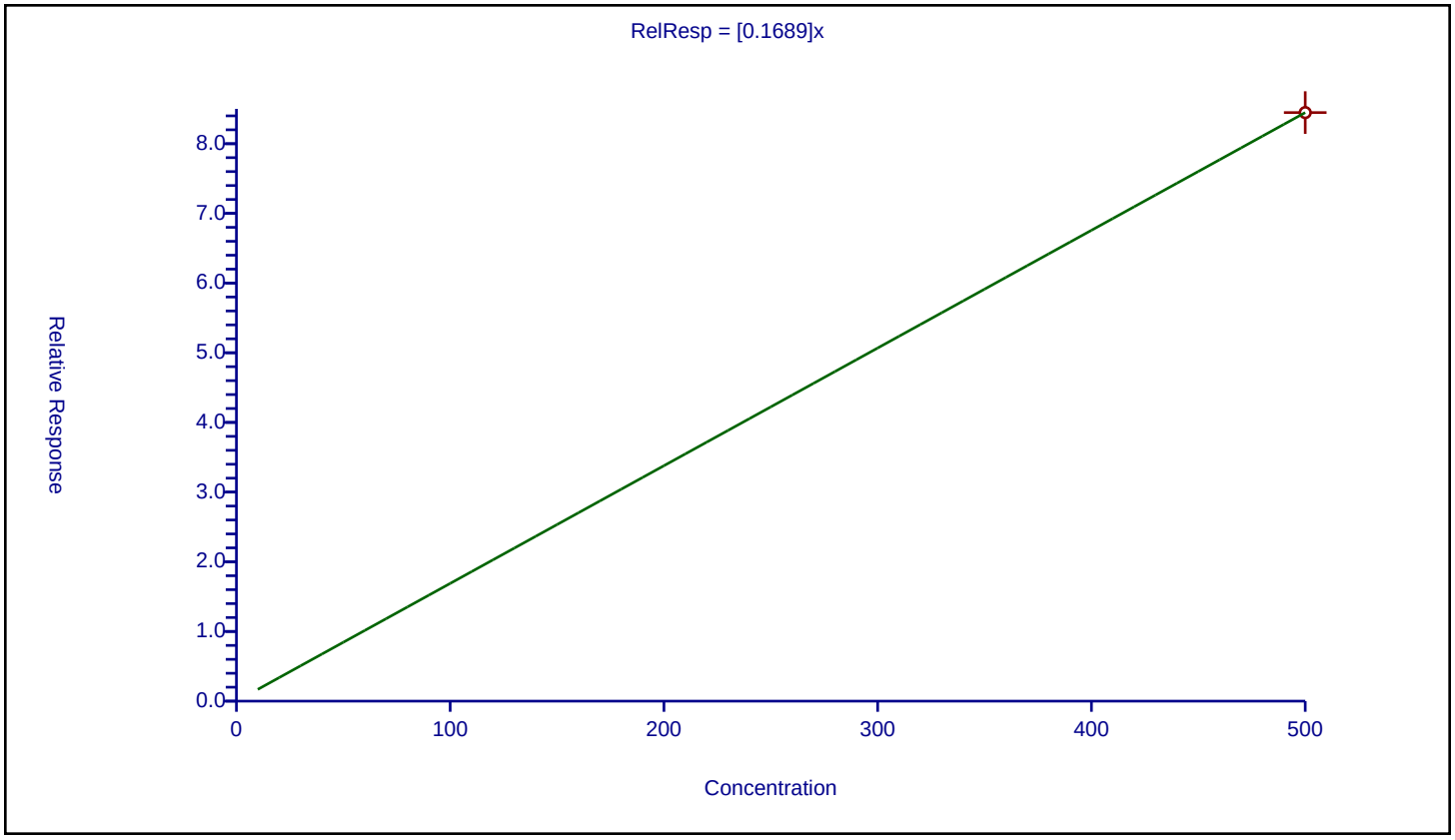
Curve Coefficients

Intercept:	0
Slope:	0.1689

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653635/6	500.0	84.469505	75.0	145680096.0	0.168939	Y



Calibration / Chlordane (technical) Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

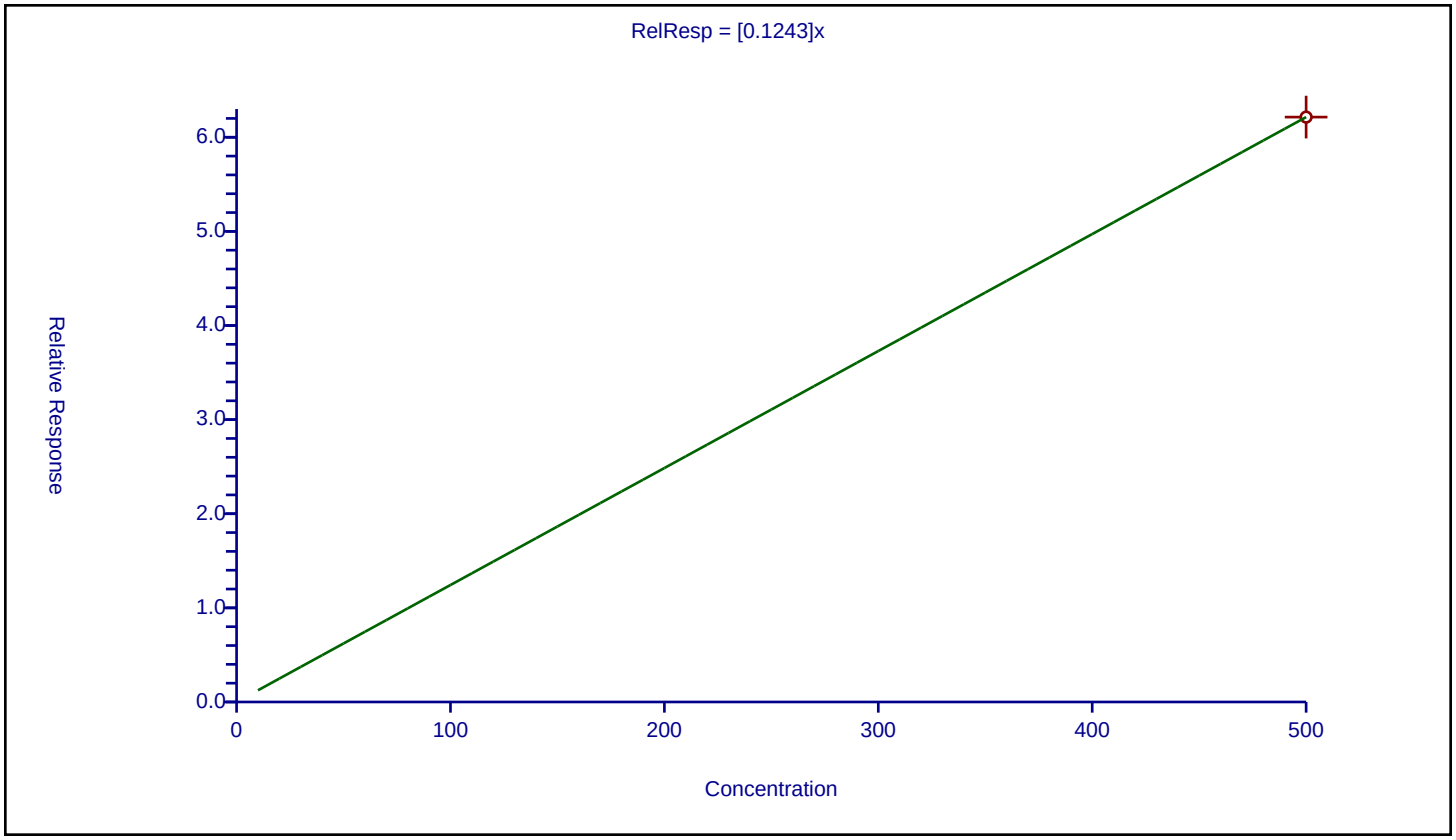
Curve Coefficients

Intercept:	0
Slope:	0.1243

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653635/6	500.0	62.141956	75.0	145680096.0	0.124284	Y



Calibration / Technical Chlordane Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

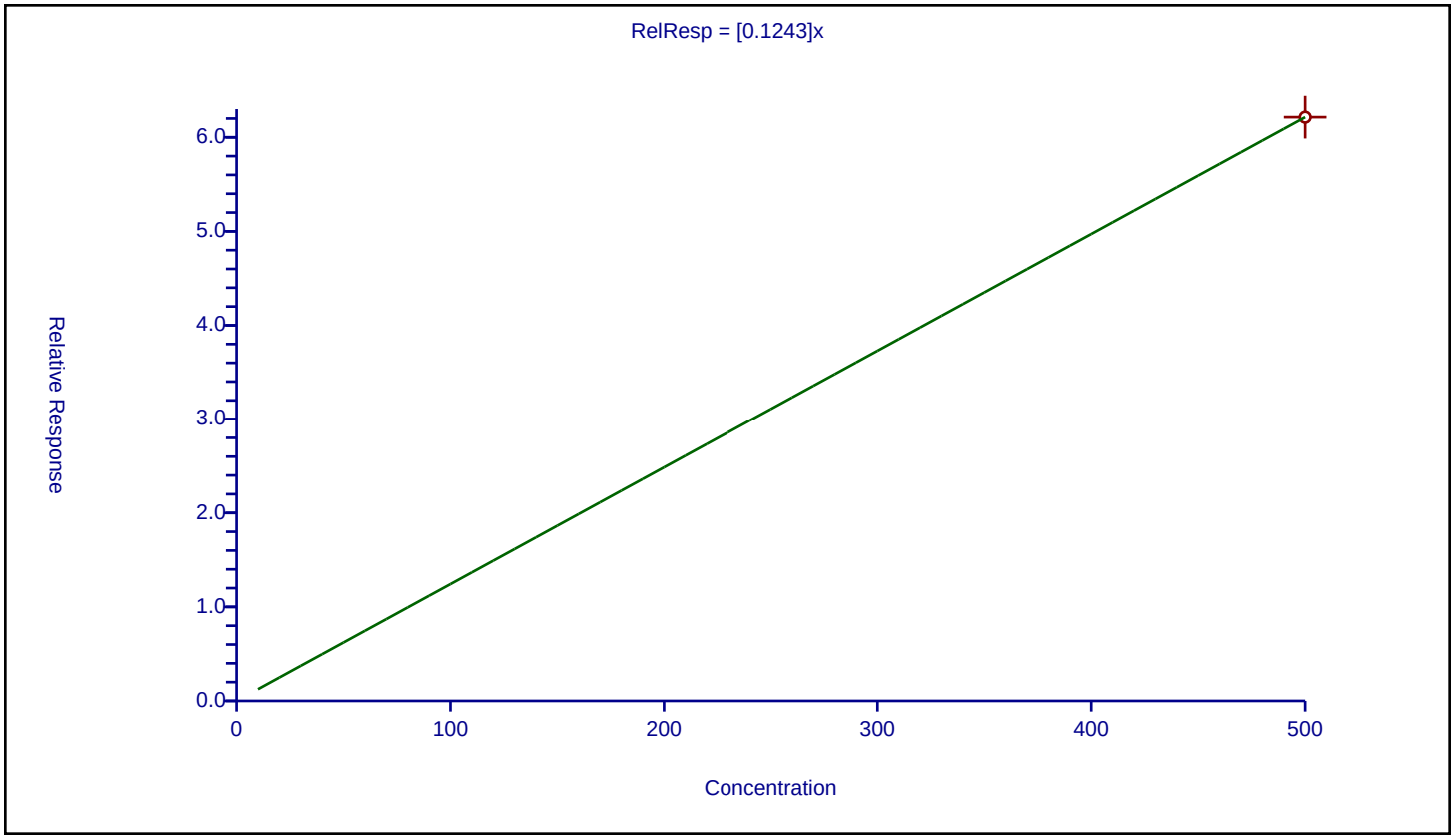
Curve Coefficients

Intercept:	0
Slope:	0.1243

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653635/6	500.0	62.141956	75.0	145680096.0	0.124284	Y



Calibration / Chlordane (technical) Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

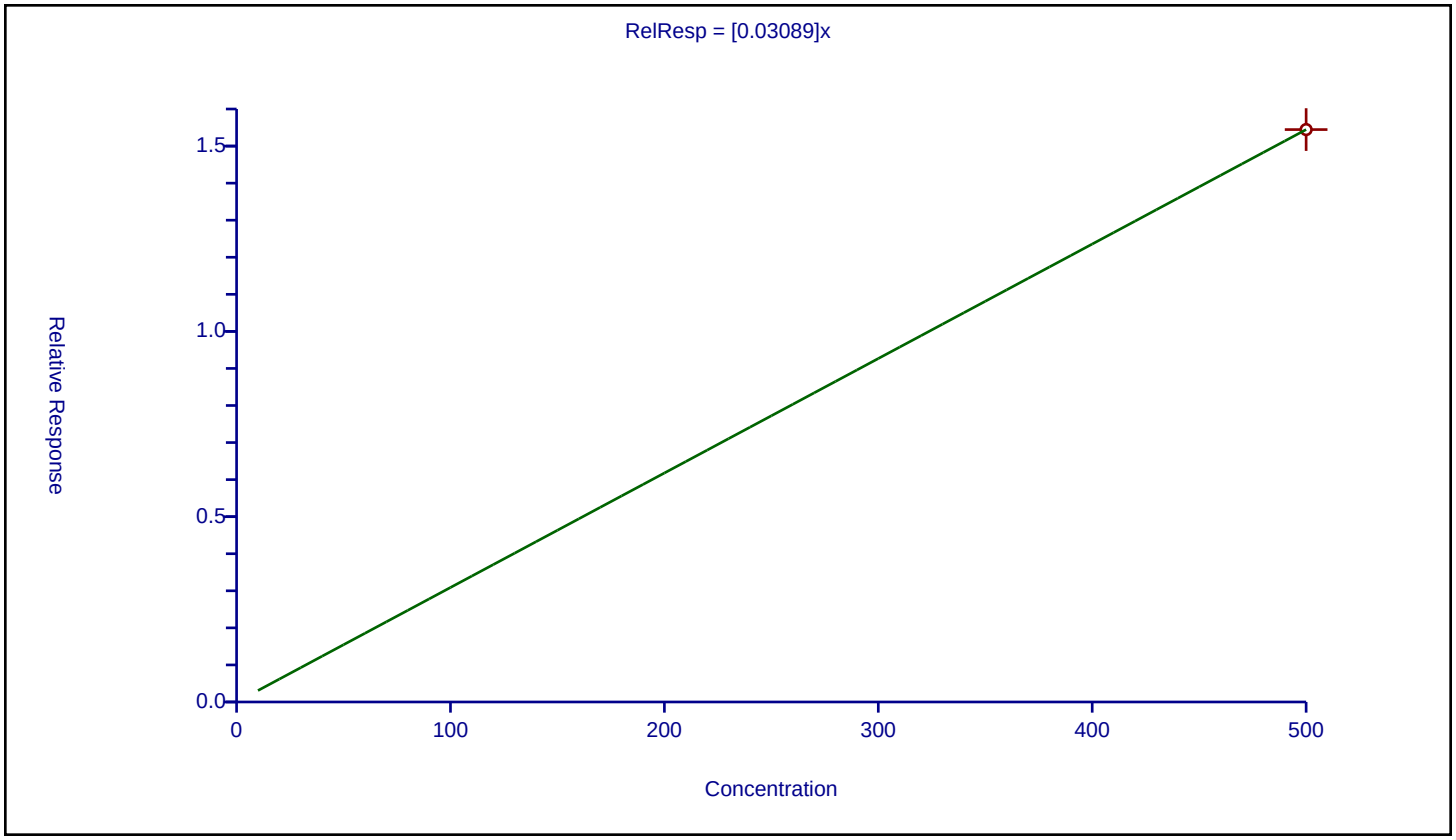
Curve Coefficients

Intercept:	0
Slope:	0.03089

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653635/6	500.0	15.445056	75.0	145680096.0	0.03089	Y



Calibration / Technical Chlordane Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

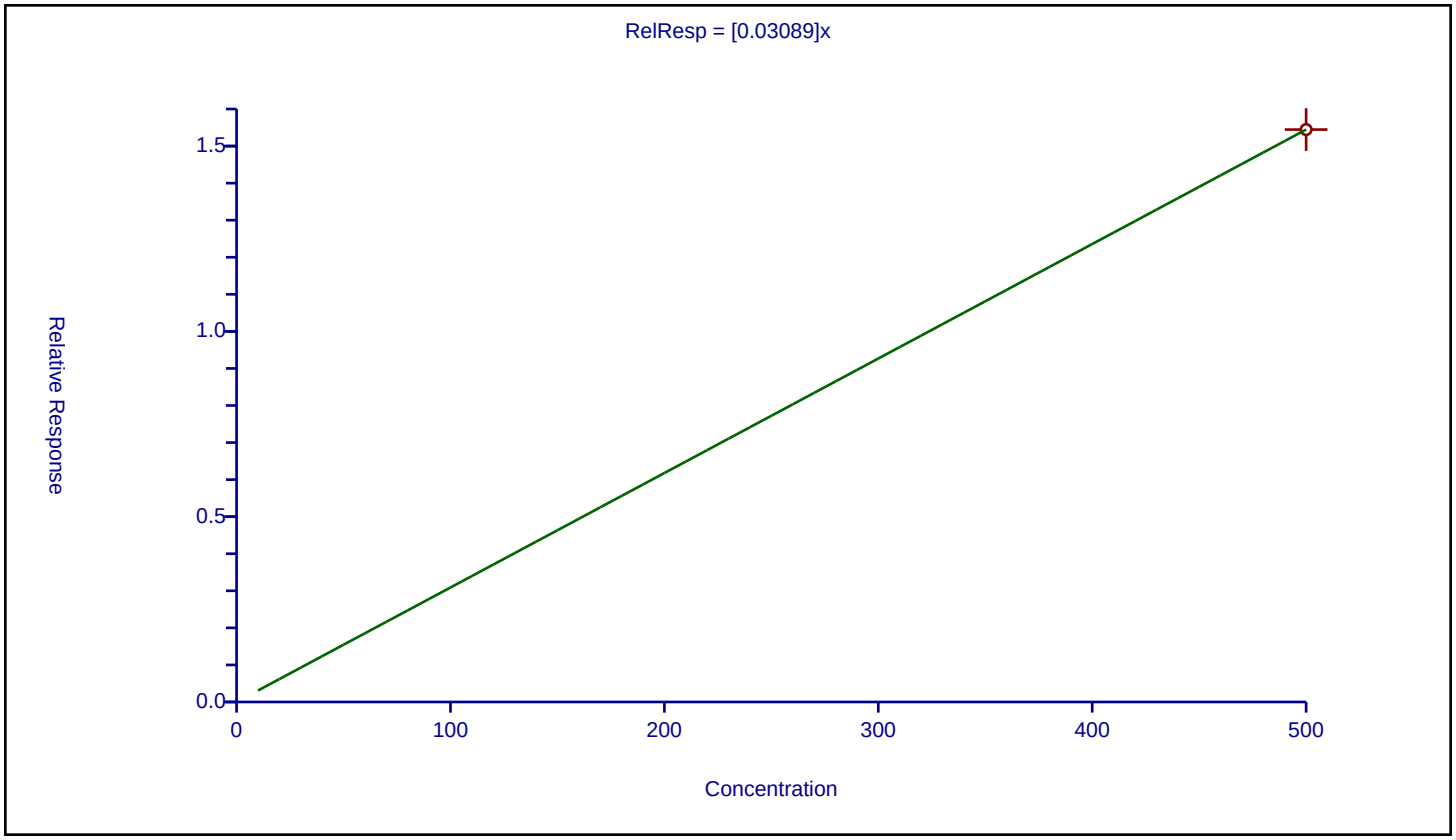
Curve Coefficients

Intercept:	0
Slope:	0.03089

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653635/6	500.0	15.445056	75.0	145680096.0	0.03089	Y



FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653635

SDG No.:

Instrument ID: SGC_C GC Column: RTI-35silms ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2024 11:45 Calibration End Date: 05/16/2024 11:45 Calibration ID: 93463

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD3 280-653635/6	0516006.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
Chlordane (technical) Peak 1	0.0443					Ave		0.0443						20.0			
Technical Chlordane Peak 1	0.0443					Ave		0.0443						20.0			
Chlordane (technical) Peak 2	0.0455					Ave		0.0455						20.0			
Technical Chlordane Peak 2	0.0455					Ave		0.0455						20.0			
Chlordane (technical) Peak 3	0.1468					Ave		0.1468						20.0			
Technical Chlordane Peak 3	0.1468					Ave		0.1468						20.0			
Chlordane (technical) Peak 4	0.1046					Ave		0.1046						20.0			
Technical Chlordane Peak 4	0.1046					Ave		0.1046						20.0			
Chlordane (technical) Peak 5	0.0436					Ave		0.0436						20.0			
Technical Chlordane Peak 5	0.0436					Ave		0.0436						20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 653635

SDG No.:

Instrument ID: SGC_C | GC Column: RTI-35silm ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2024 11:45 | Calibration End Date: 05/16/2024 11:45 | Calibration ID: 93463

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD3 280-653635/6	0516006.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1					LVL 1				
Chlordane (technical) Peak 1	BNB	Ave	40777014					500				
Technical Chlordane Peak 1	BNB	Ave	40777014					500				
Chlordane (technical) Peak 2	BNB	Ave	41893575					500				
Technical Chlordane Peak 2	BNB	Ave	41893575					500				
Chlordane (technical) Peak 3	BNB	Ave	135168537					500				
Technical Chlordane Peak 3	BNB	Ave	135168537					500				
Chlordane (technical) Peak 4	BNB	Ave	96287856					500				
Technical Chlordane Peak 4	BNB	Ave	96287856					500				
Chlordane (technical) Peak 5	BNB	Ave	40111021					500				
Technical Chlordane Peak 5	BNB	Ave	40111021					500				

Curve Type Legend:
Ave = Average ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D
Lims ID: STD3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 16-May-2024 11:45:09 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD3
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub4

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:42:24 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

First Level Reviewer: AP6K Date: 16-May-2024 12:10:18

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.228	3.228	0.000	145680096	75.0	75.0	
2	2.813	2.813	0.000	138139270	75.0	75.0	
10 Technical Chlordane							M
1	5.534	5.534	0.000	49875958	500.0	500.0	
1	6.124	6.124	0.000	41372623	500.0	500.0	
1	7.002	7.002	0.000	164073675	500.0	500.0	
1	7.113	7.113	0.000	120704614	500.0	500.0	
1	8.009	8.009	0.000	30000496	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	4.713	4.713	0.000	40777014	500.0	500.0	M
2	5.187	5.187	0.000	41893575	500.0	500.0	M
2	5.733	5.733	0.000	135168537	500.0	500.0	M
2	5.761	5.761	0.000	96287856	500.0	500.0	M
2	6.928	6.928	0.000	40111021	500.0	500.0	M
		Average of Peak Amounts =				500.0	
						RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
9 Chlordane (technical)							M
1	5.534	5.534	0.000	49875958	500.0	500.0	
1	6.124	6.124	0.000	41372623	500.0	500.0	
1	7.002	7.002	0.000	164073675	500.0	500.0	
1	7.113	7.113	0.000	120704614	500.0	500.0	
1	8.009	8.009	0.000	30000496	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	4.713	4.713	0.000	40777014	500.0	500.0	M
2	5.187	5.187	0.000	41893575	500.0	500.0	M
2	5.733	5.733	0.000	135168537	500.0	500.0	M
2	5.761	5.761	0.000	96287856	500.0	500.0	M
2	6.928	6.928	0.000	40111021	500.0	500.0	M
		Average of Peak Amounts =				500.0	
						RPD = 0.00	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8081ChlorL3_00039	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

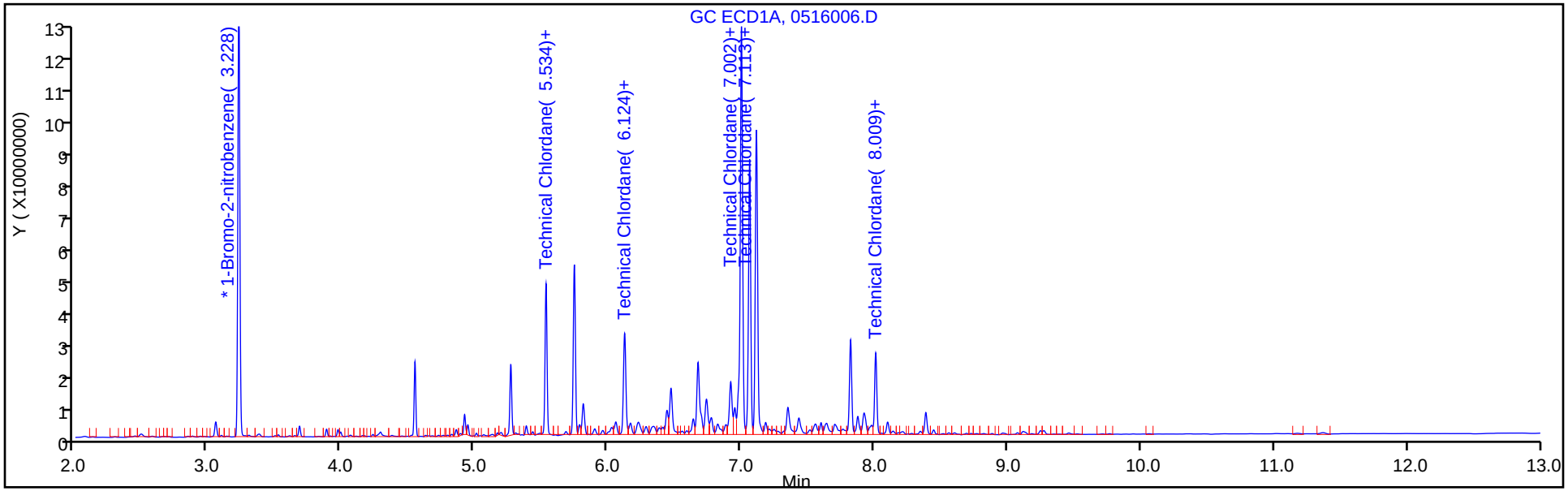
Report Date: 16-May-2024 14:42:25 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

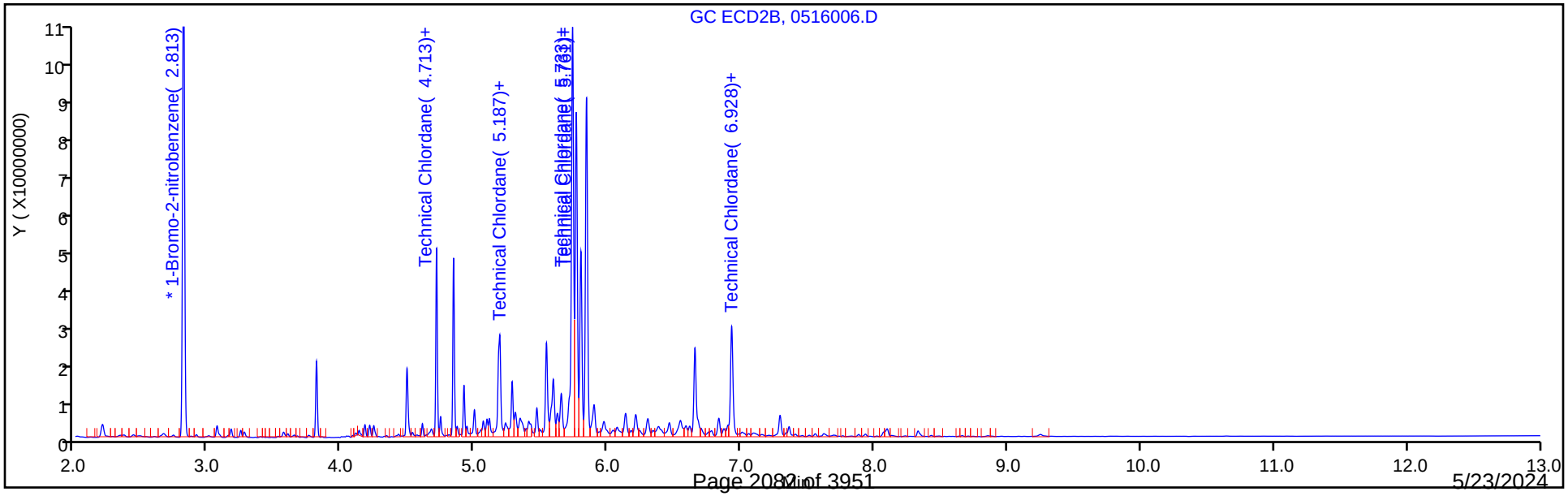
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Injection Date:	16-May-2024 11:45:09	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	STD3			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



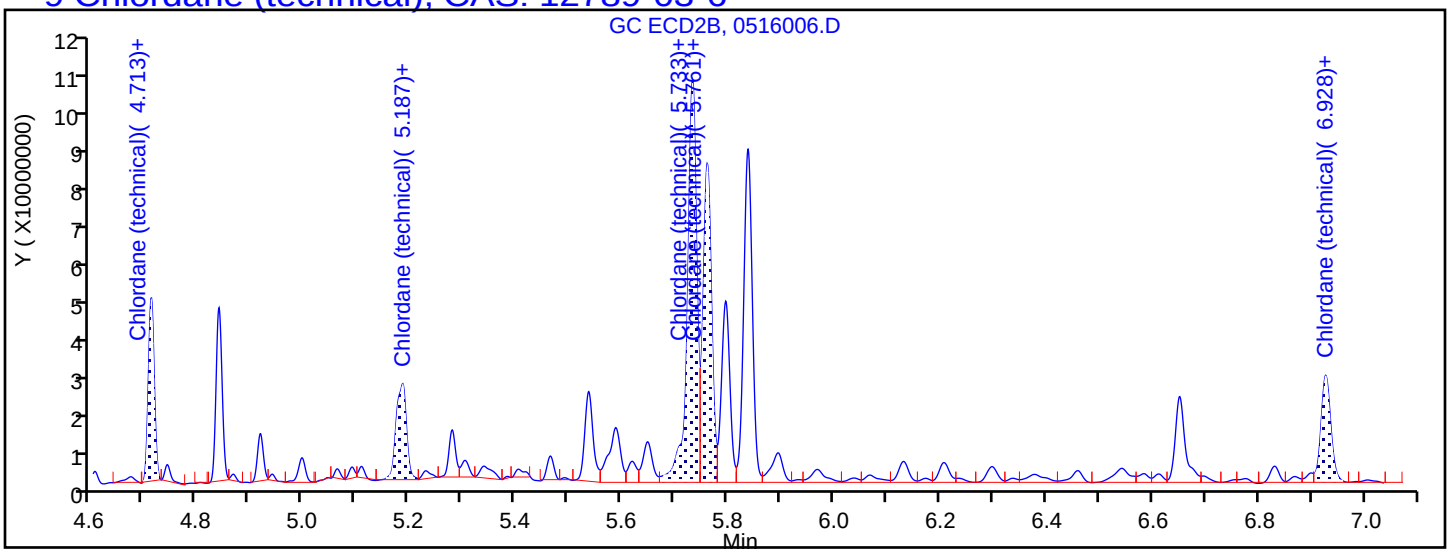
5/23/2024
4:40:30 AM

Report Date: 16-May-2024 14:42:25 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

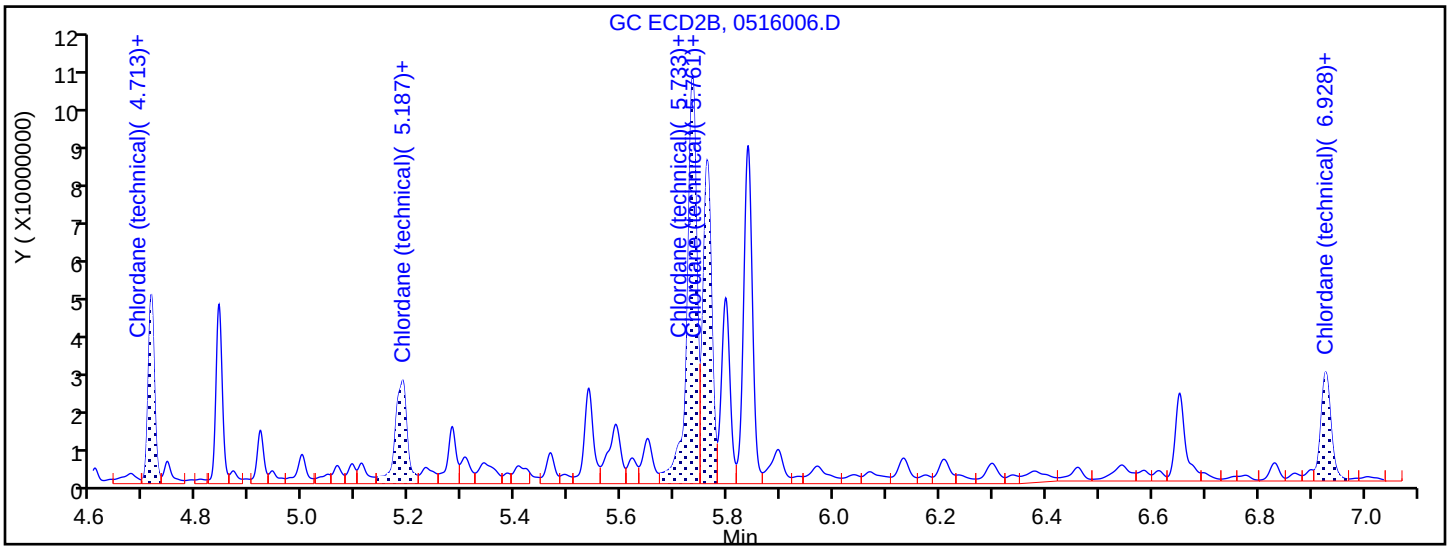
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D
Injection Date: 16-May-2024 11:45:09 Instrument ID: SGC_C
Lims ID: STD3
Client ID:
Operator ID: mw ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: C 8081 IS LVI Limit Group: GCSV - 8081B LVI - IS
Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Detector: GC ECD2B

9 Chlordane (technical), CAS: 12789-03-6



Processing Integration Results

4.713	Response = 38141838
5.187	Response = 33824551
5.733	Response = 129538211
5.761	Response = 93944025
6.928	Response = 37234236



Manual Integration Results

4.713	Response = 40777014	M
5.187	Response = 41893575	M
5.733	Response = 135168537	M
5.761	Response = 96287856	M
6.928	Response = 40111021	M

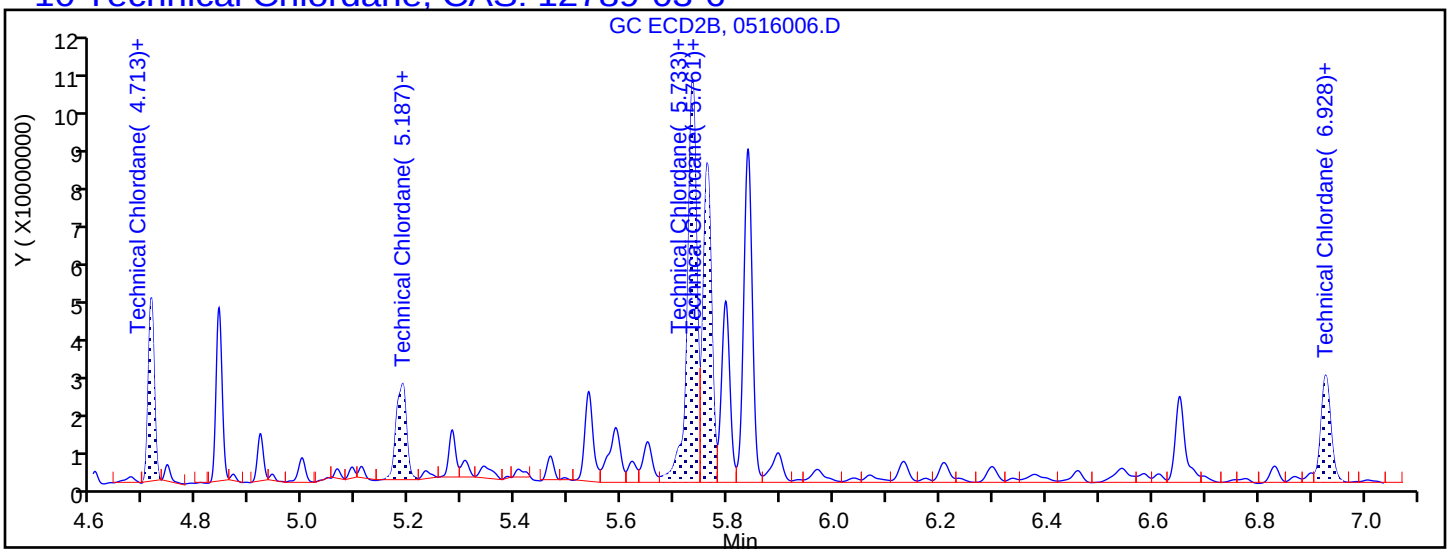
Reviewer: AP6K, 16-May-2024 12:10:10 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Report Date: 16-May-2024 14:42:25 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

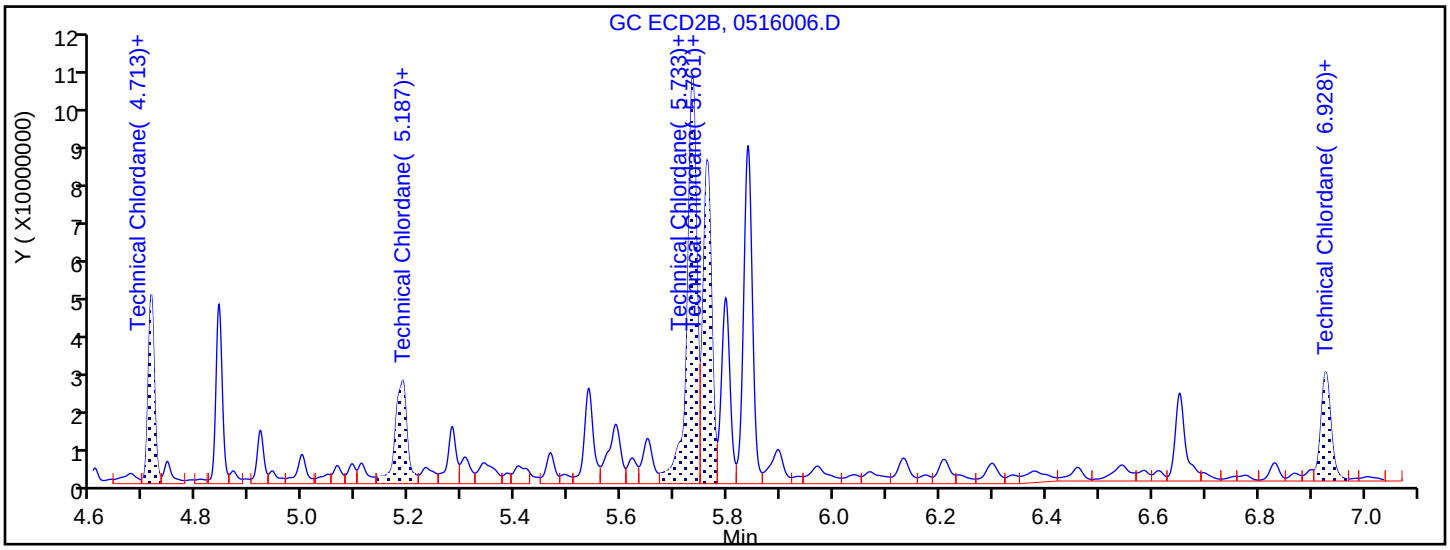
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D
Injection Date: 16-May-2024 11:45:09 Instrument ID: SGC_C
Lims ID: STD3
Client ID:
Operator ID: mw ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: C 8081 IS LVI Limit Group: GCSV - 8081B LVI - IS
Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Detector: GC ECD2B

10 Technical Chlordane, CAS: 12789-03-6



Processing Integration Results

4.713	Response = 38141838
5.187	Response = 33824551
5.733	Response = 129538211
5.761	Response = 93944025
6.928	Response = 37234236



Manual Integration Results

4.713	Response = 40777014	M
5.187	Response = 41893575	M
5.733	Response = 135168537	M
5.761	Response = 96287856	M
6.928	Response = 40111021	M

Reviewer: AP6K, 16-May-2024 12:10:10 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Calibration / Chlordane (technical) Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

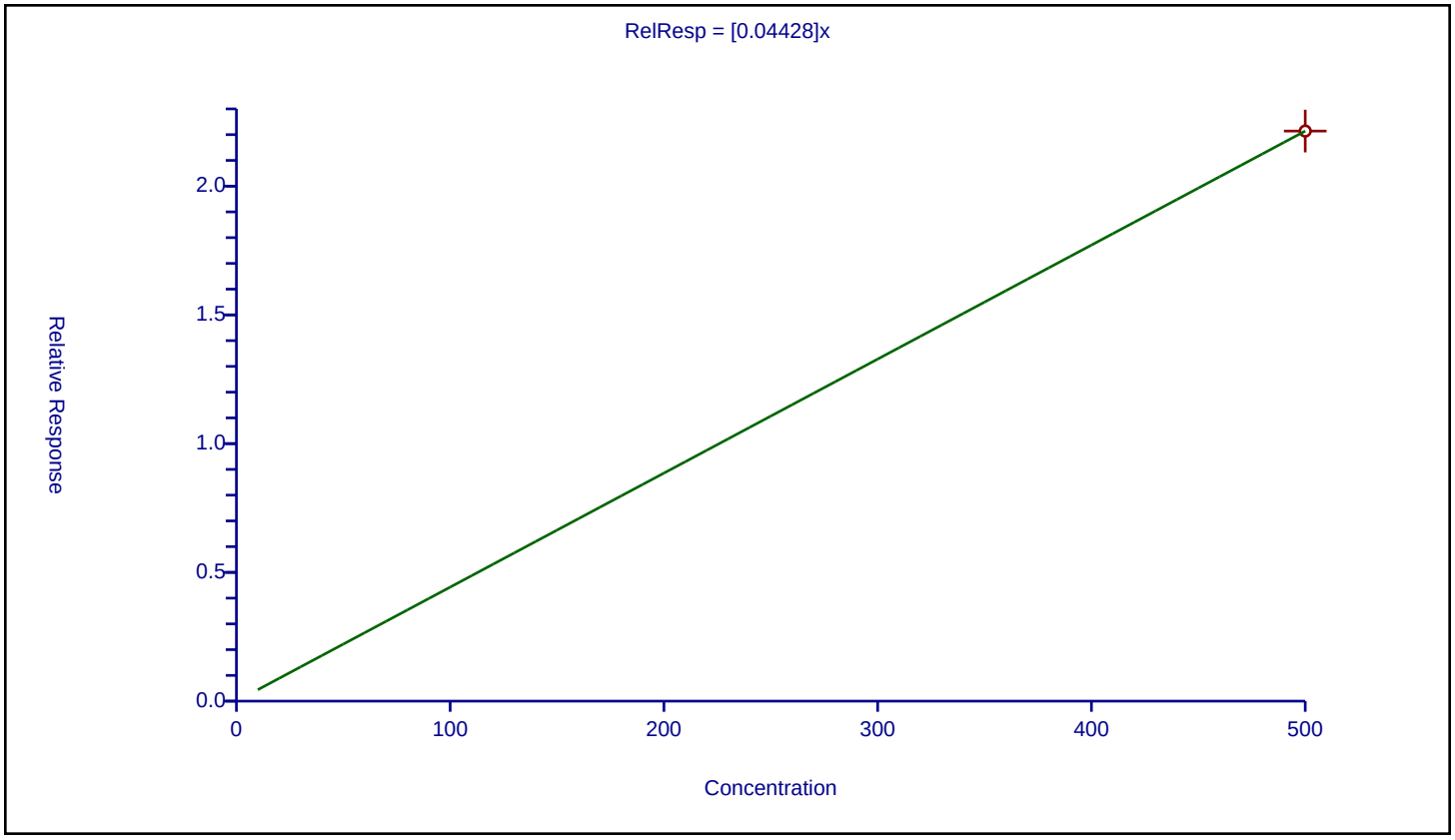
Curve Coefficients

Intercept:	0
Slope:	0.04428

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653635/6	500.0	22.139078	75.0	138139270.0	0.044278	Y



Calibration / Technical Chlordane Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

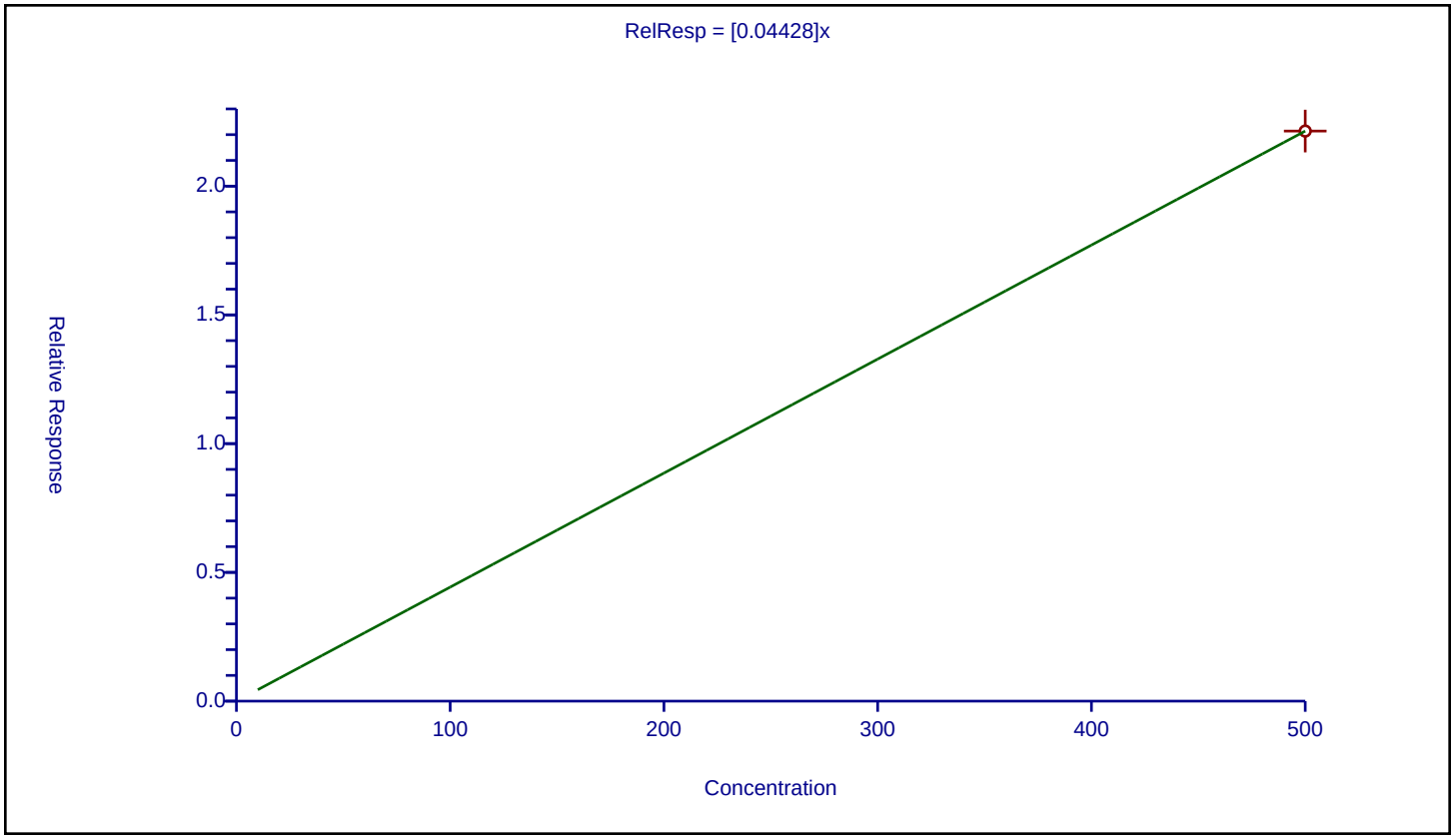
Curve Coefficients

Intercept:	0
Slope:	0.04428

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653635/6	500.0	22.139078	75.0	138139270.0	0.044278	Y



Calibration / Chlordane (technical) Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

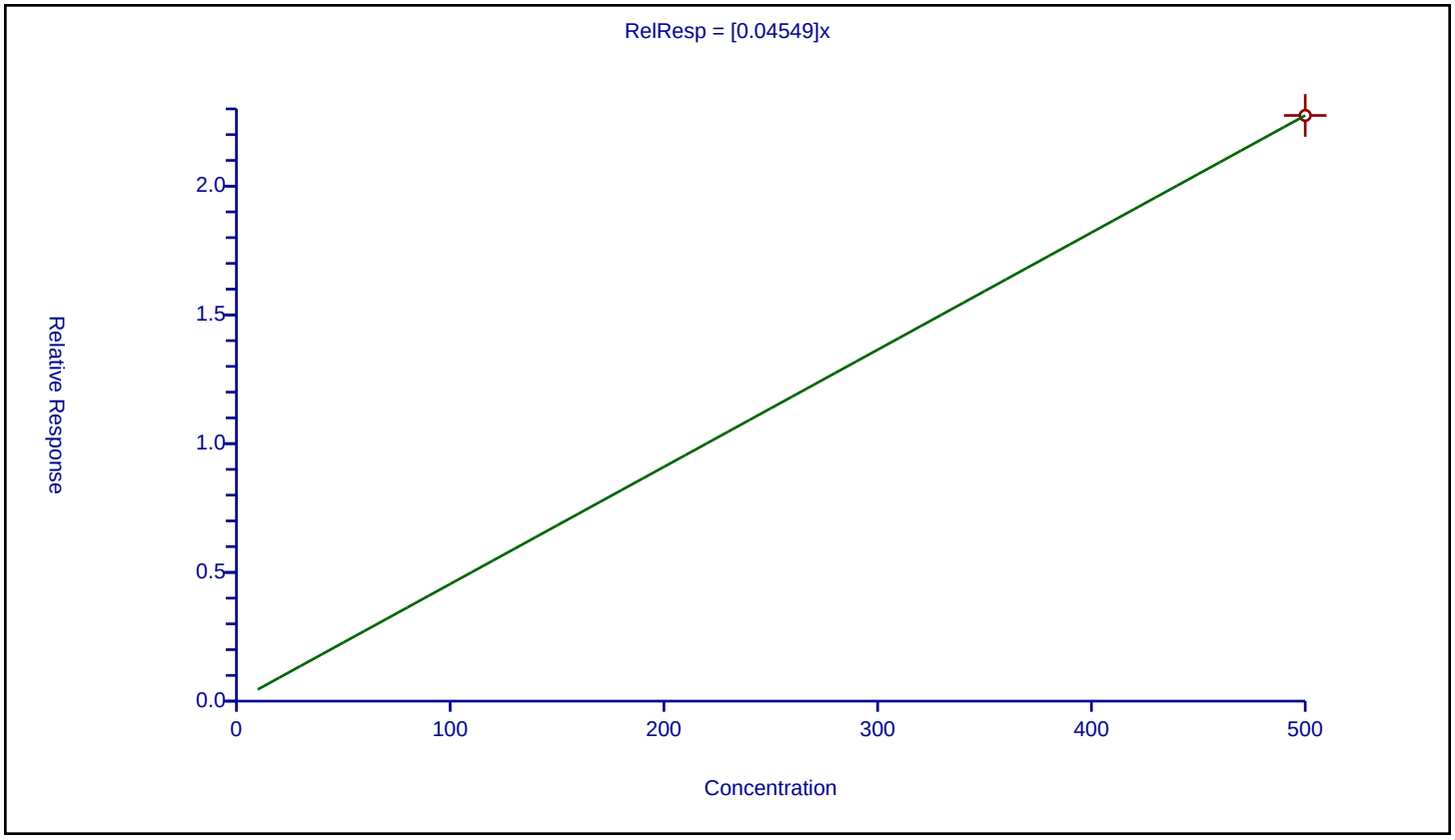
Curve Coefficients

Intercept:	0
Slope:	0.04549

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653635/6	500.0	22.745293	75.0	138139270.0	0.045491	Y



Calibration / Technical Chlordane Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

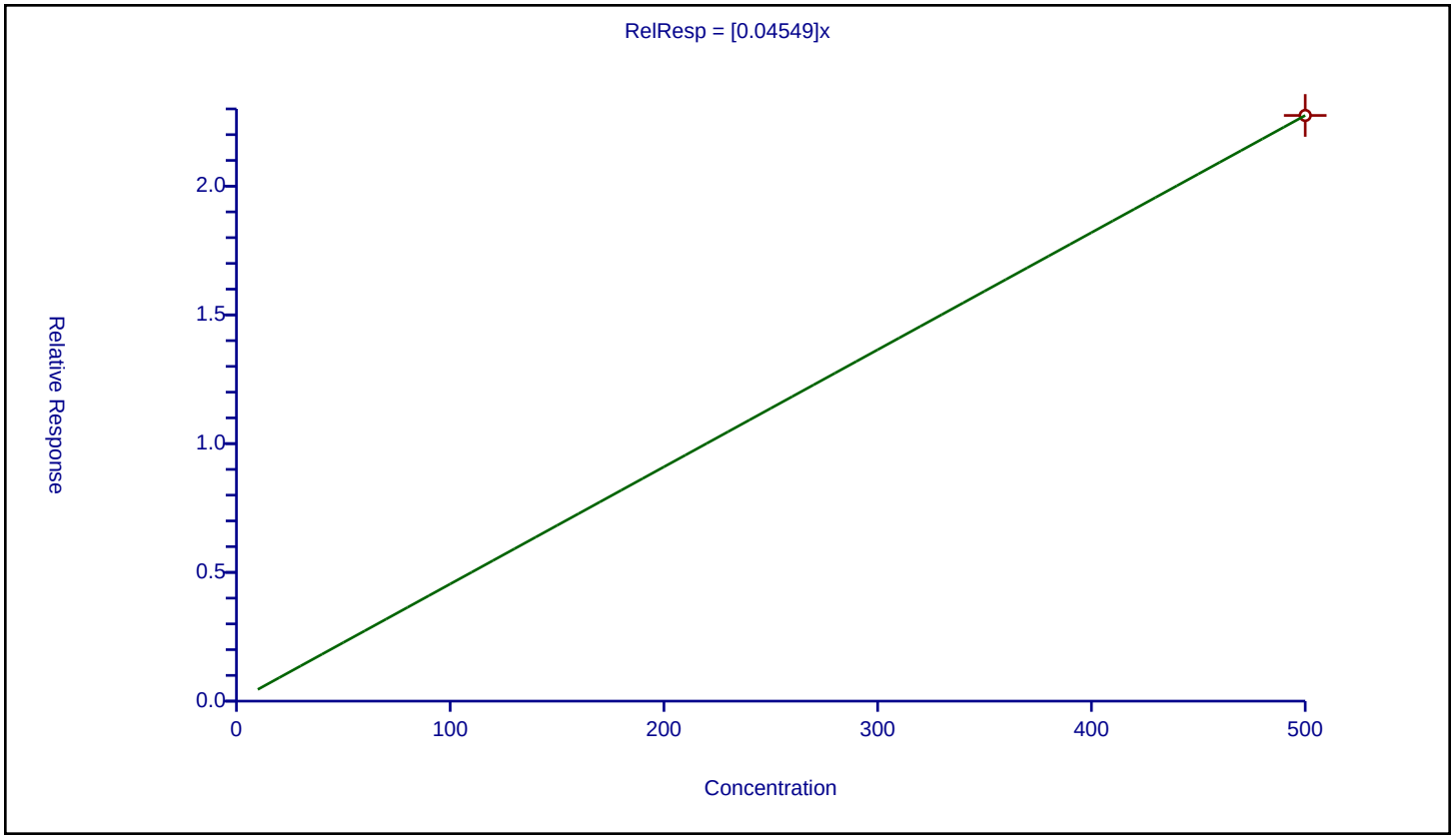
Curve Coefficients

Intercept:	0
Slope:	0.04549

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653635/6	500.0	22.745293	75.0	138139270.0	0.045491	Y



Calibration / Chlordane (technical) Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

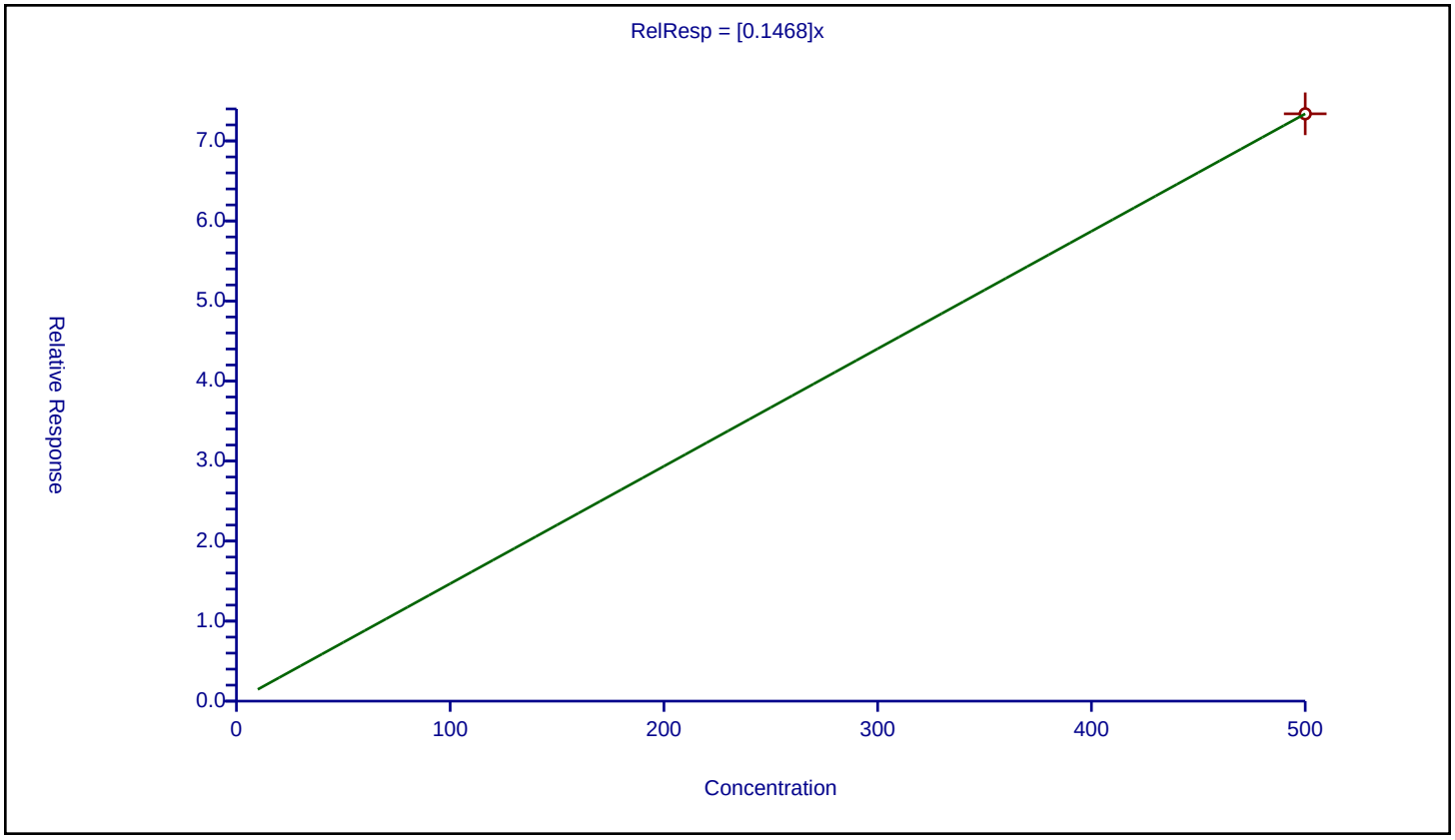
Curve Coefficients

Intercept:	0
Slope:	0.1468

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653635/6	500.0	73.387099	75.0	138139270.0	0.146774	Y



Calibration / Technical Chlordane Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

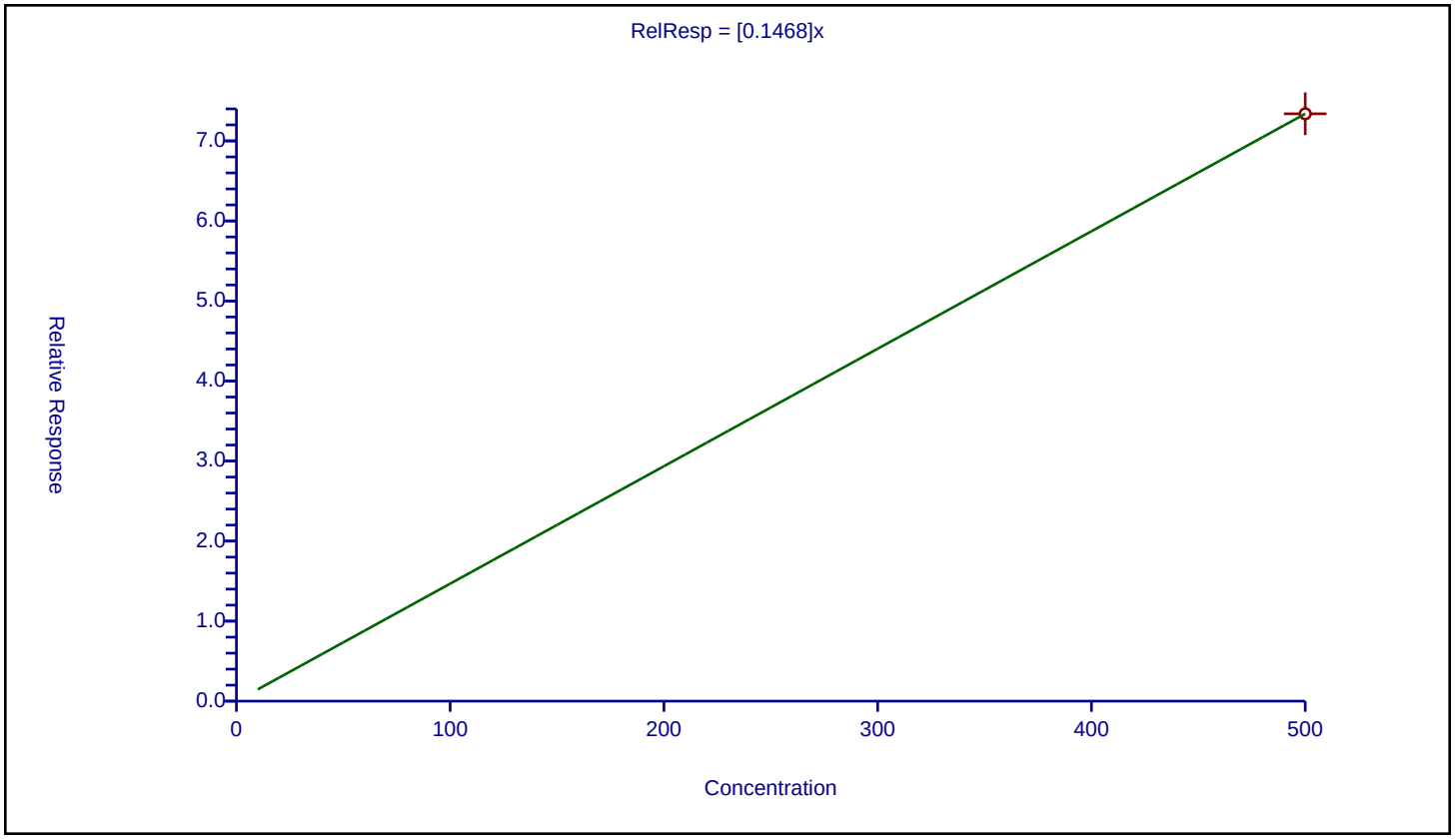
Curve Coefficients

Intercept:	0
Slope:	0.1468

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653635/6	500.0	73.387099	75.0	138139270.0	0.146774	Y



Calibration / Chlordane (technical) Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

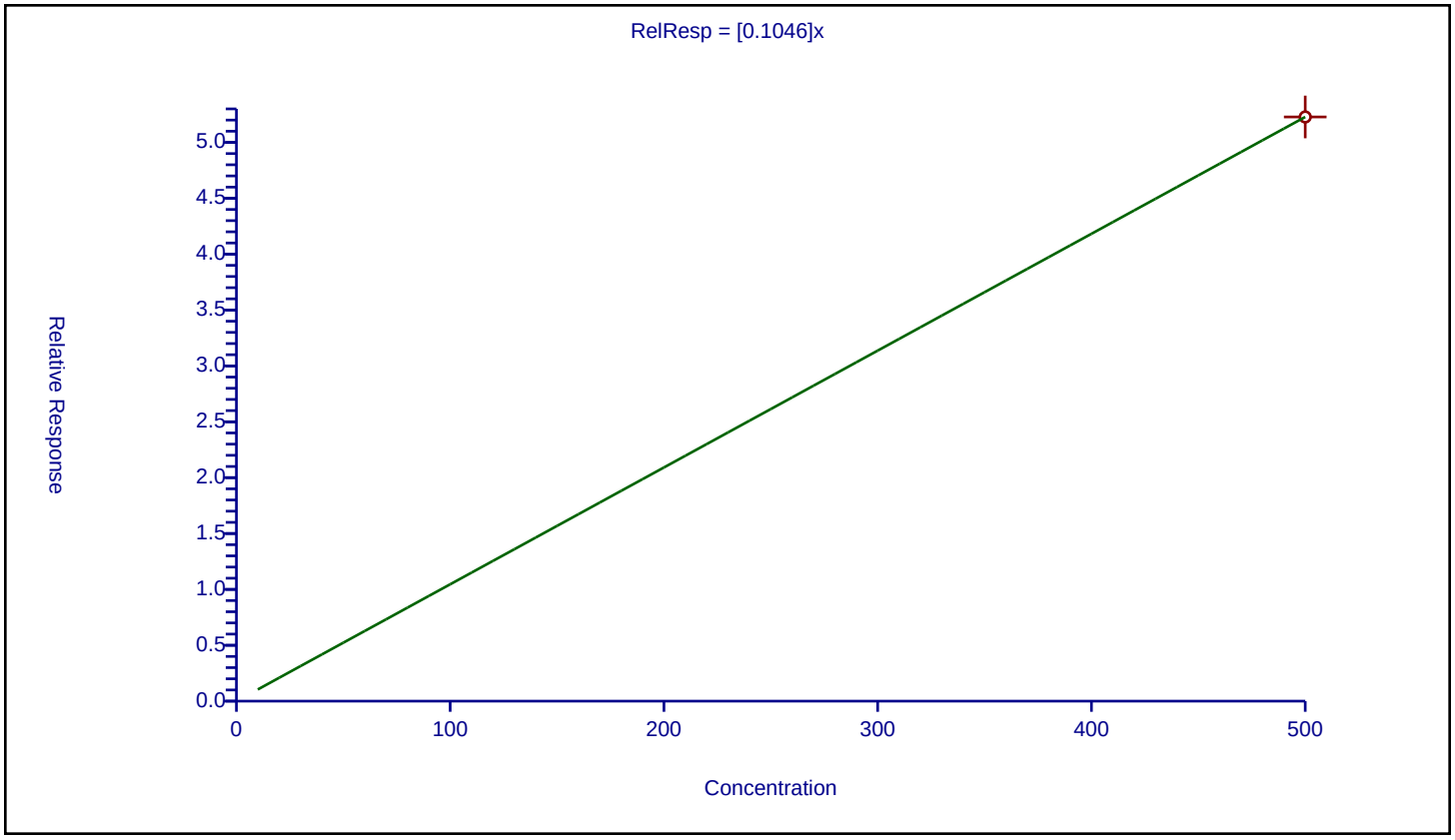
Curve Coefficients

Intercept:	0
Slope:	0.1046

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653635/6	500.0	52.277598	75.0	138139270.0	0.104555	Y



Calibration / Technical Chlordane Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

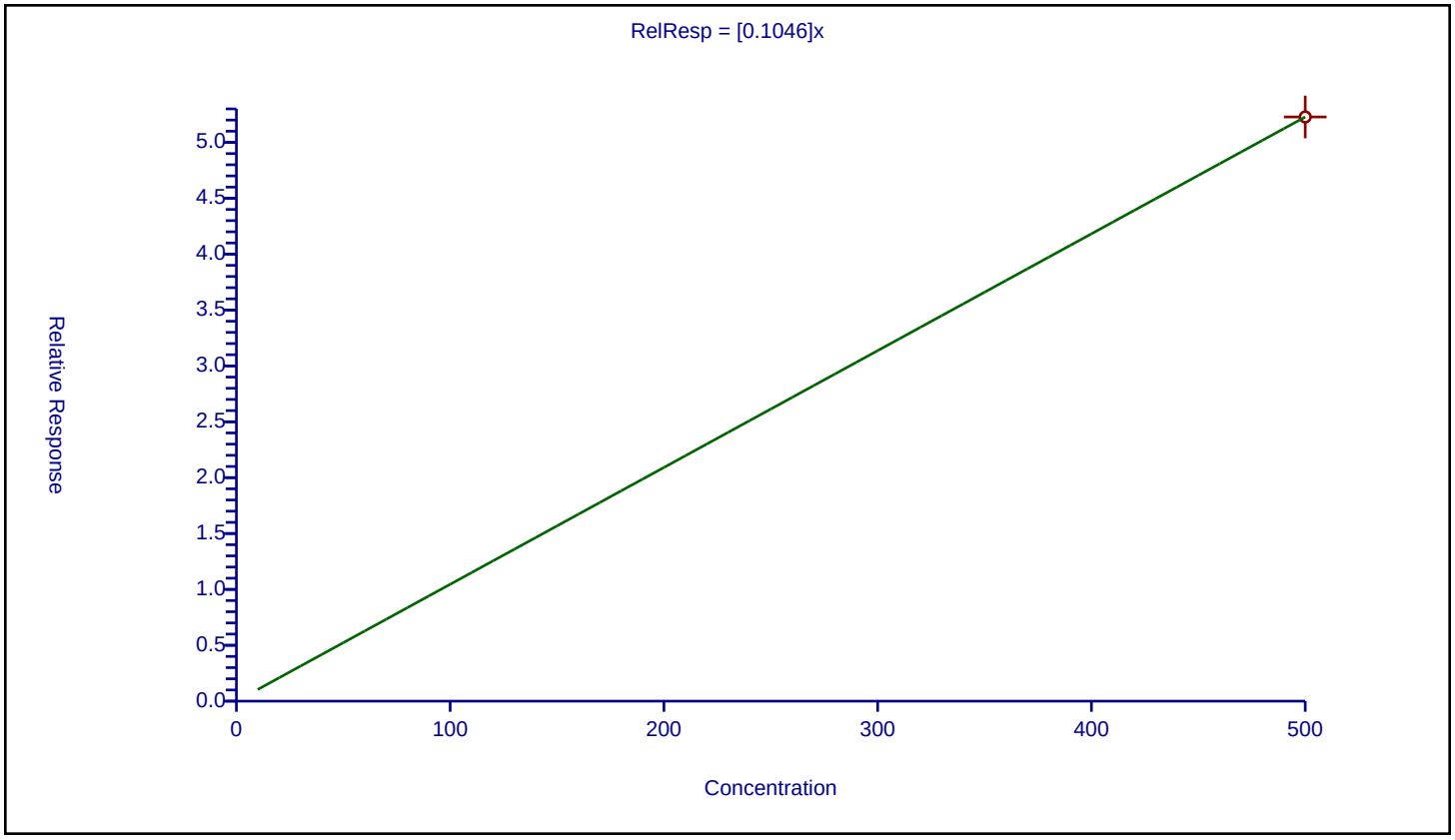
Curve Coefficients

Intercept:	0
Slope:	0.1046

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653635/6	500.0	52.277598	75.0	138139270.0	0.104555	Y



Calibration / Chlordane (technical) Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

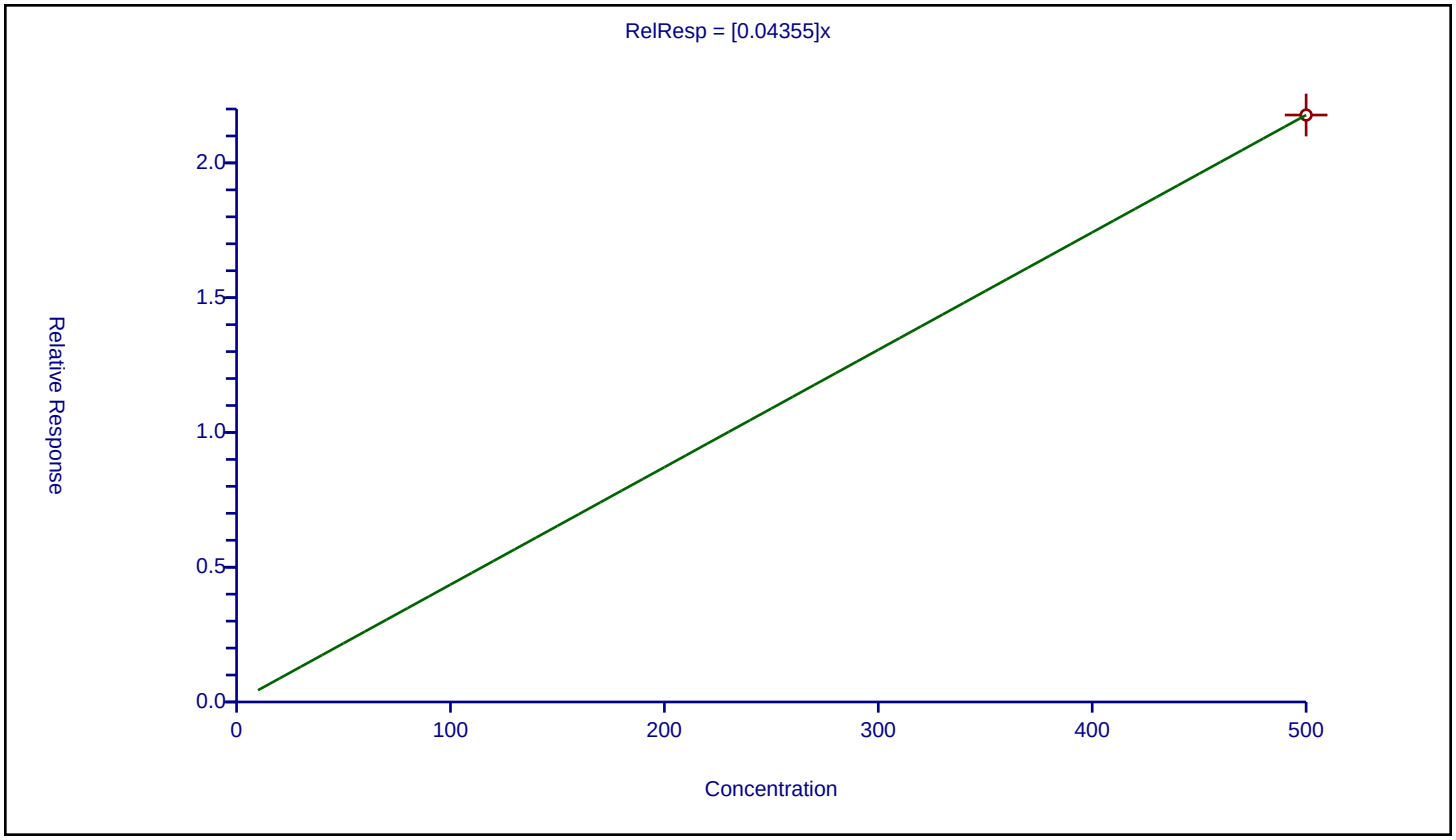
Curve Coefficients

Intercept:	0
Slope:	0.04355

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653635/6	500.0	21.77749	75.0	138139270.0	0.043555	Y



Calibration / Technical Chlordane Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

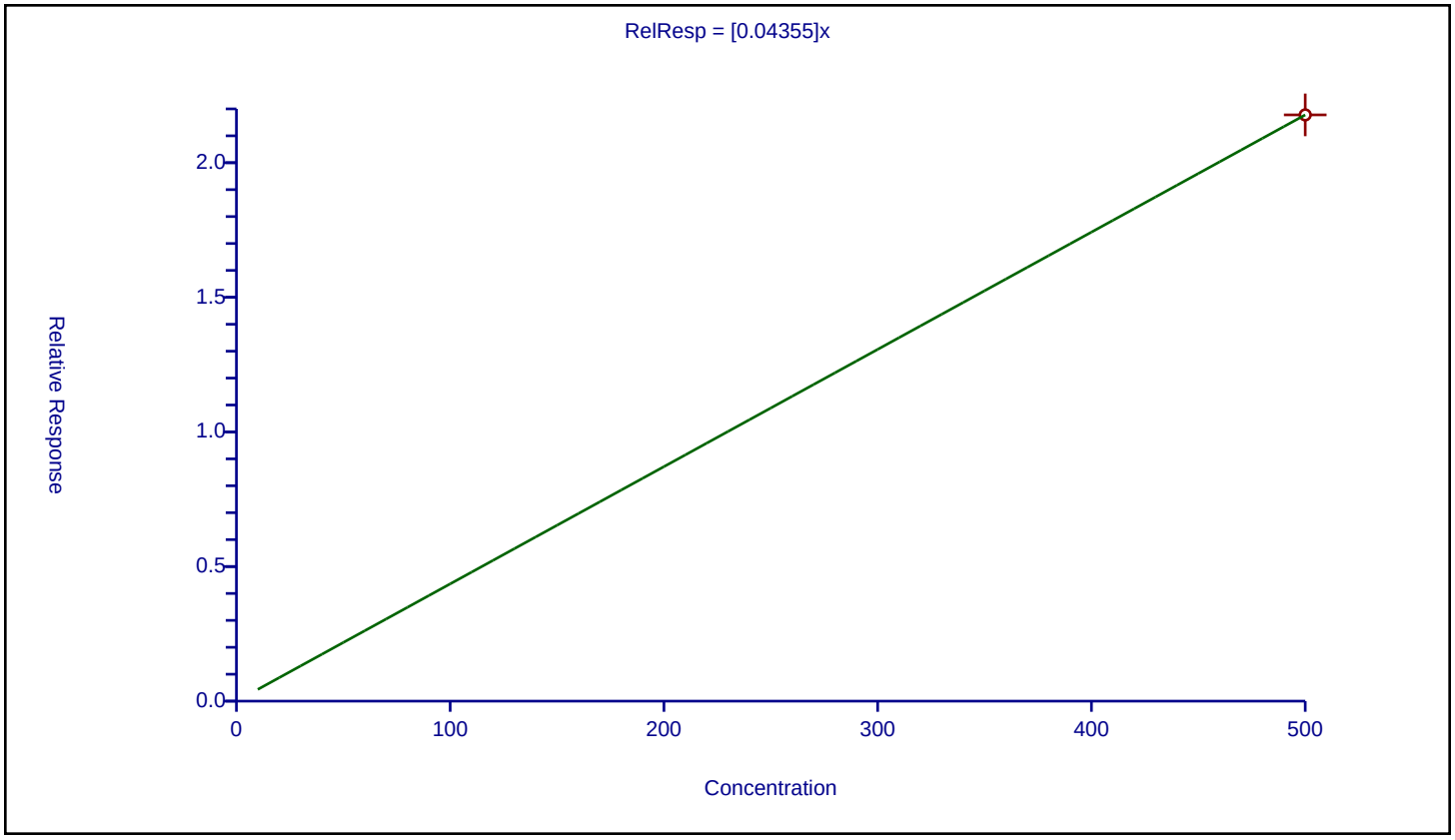
Curve Coefficients

Intercept:	0
Slope:	0.04355

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3 280-653635/6	500.0	21.77749	75.0	138139270.0	0.043555	Y



FORM VII
PESTICIDES PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: PEM 280-653121/3 Calibration Date: 05/13/2024 11:14

Instrument ID: SGC_C Calib Start Date: 05/10/2024 13:54

GC Column: RTI-XLB ID: 0.32(mm) Calib End Date: 05/10/2024 15:41

Lab File ID: 0513003.D Conc. Units: ug/L

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
Endrin	7.65	60206832	4.14	15	
Endrin aldehyde	8.05	685851			
Endrin ketone	8.81	1913423			

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
4,4'-DDT	8.14	80864461	1.64	15	
4,4'-DDD	7.81	992882			
4,4'-DDE	7.23	358866			

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513003.D
Lims ID: PEM
Client ID:
Sample Type: PEM
Inject. Date: 13-May-2024 11:14:23 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: PEM
Operator ID: mw Instrument ID: SGC_C
Sublist:

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:22:17 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 13-May-2024 14:55:46

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.229	3.231	-0.002	85241747	75.0	75.0	
2	2.813	2.817	-0.004	109261688	75.0	75.0	
25 4,4'-DDE							
1	7.232	7.235	-0.003	358866		0.2096	
2	6.069	6.067	0.002	258910		0.1220	
						RPD = 52.87	
29 Endrin							
1	7.647	7.647	0.000	60206832	40.0	41.3	
2	6.592	6.591	0.001	72872339	40.0	40.6	
						RPD = 1.62	
32 4,4'-DDD							
1	7.808	7.805	0.003	992882		0.8832	
2	6.750	6.747	0.003	1191344		0.9271	
						RPD = 4.85	
35 Endrin aldehyde							
1	8.051	8.050	0.001	685851		0.6882	
2	7.157	7.157	0.000	1207661		0.9517	
						RPD = 32.13	
34 4,4'-DDT							
1	8.136	8.135	0.001	80864461	80.0	77.9	
2	7.066	7.065	0.001	90569808	80.0	76.1	
						RPD = 2.36	
38 Endrin ketone							
1	8.812	8.810	0.002	1913423		1.44	
2	8.019	8.018	0.001	2449405		1.50	
						RPD = 4.27	

QC Flag Legend

Processing Flags

Reagents:

8081_EvalBPEM_00037	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

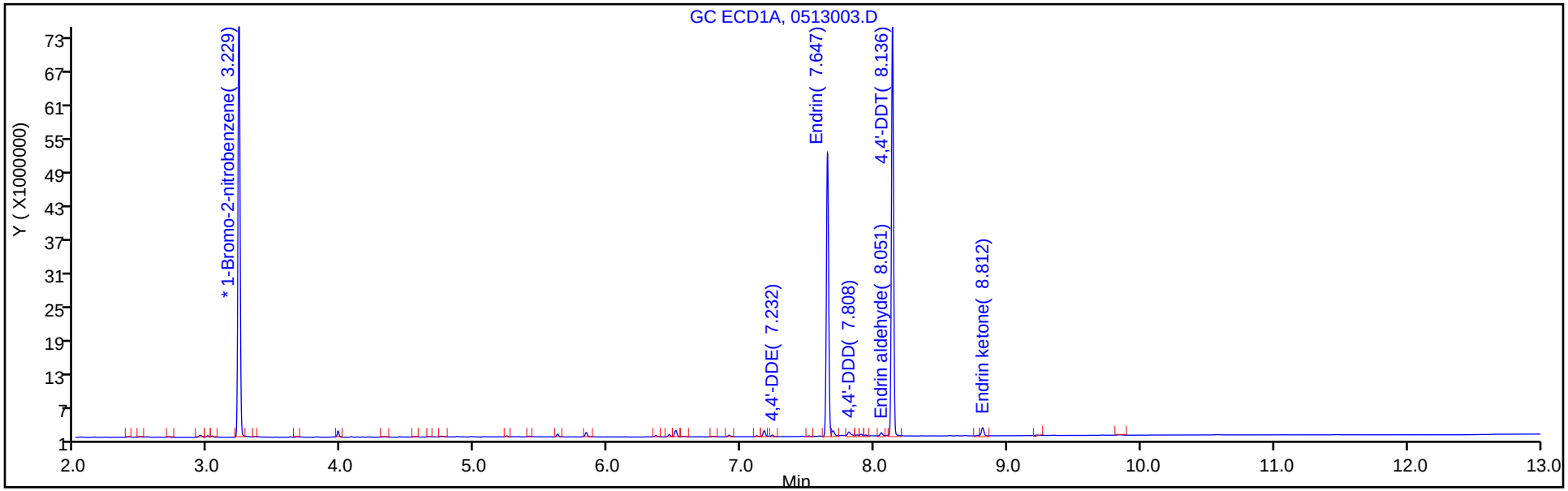
Report Date: 14-May-2024 08:22:19 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

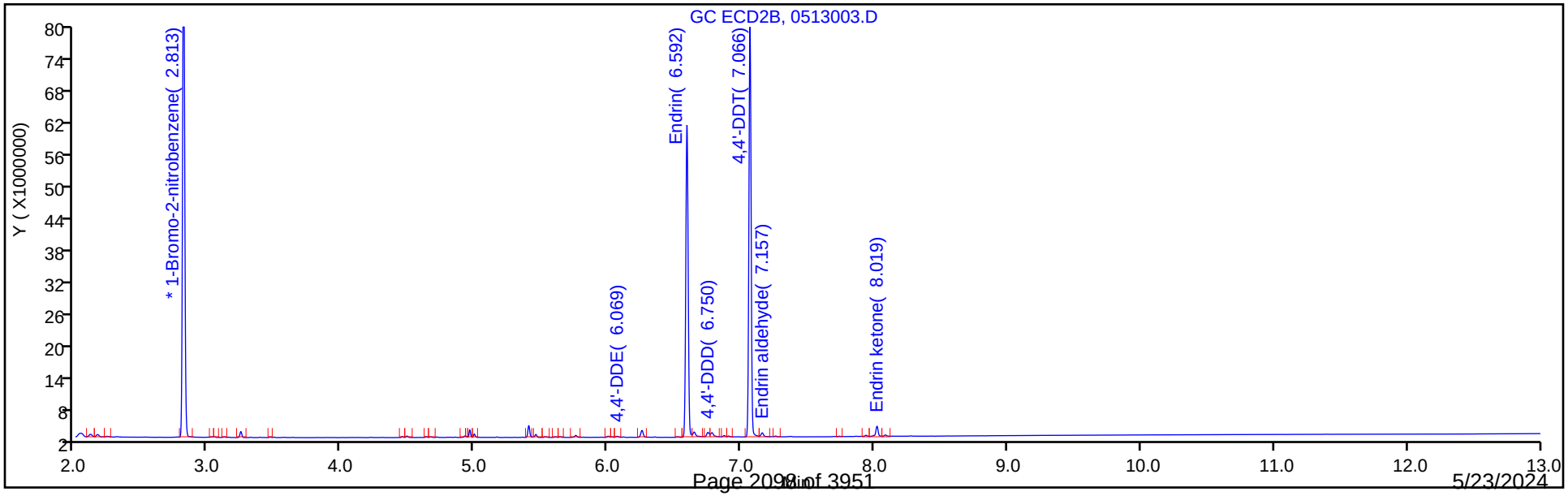
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513003.D

Injection Date:	13-May-2024 11:14:23	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	PEM			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



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FORM VII
PESTICIDES PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: PEM 280-653121/3 Calibration Date: 05/13/2024 11:14

Instrument ID: SGC_C Calib Start Date: 05/10/2024 13:54

GC Column: RTI-35silms ID: 0.32(mm) Calib End Date: 05/10/2024 15:41

Lab File ID: 0513003.D Conc. Units: ug/L

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
Endrin	6.59	72872339	4.78	15	
Endrin aldehyde	7.16	1207661			
Endrin ketone	8.02	2449405			

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
4,4'-DDT	7.07	90569808	1.58	15	
4,4'-DDD	6.75	1191344			
4,4'-DDE	6.07	258910			

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513003.D
Lims ID: PEM
Client ID:
Sample Type: PEM
Inject. Date: 13-May-2024 11:14:23 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: PEM
Operator ID: mw Instrument ID: SGC_C
Sublist:

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:22:17 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 13-May-2024 14:55:46

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.229	3.231	-0.002	85241747	75.0	75.0	
2	2.813	2.817	-0.004	109261688	75.0	75.0	
25 4,4'-DDE							
1	7.232	7.235	-0.003	358866		0.2096	
2	6.069	6.067	0.002	258910		0.1220	
						RPD = 52.87	
29 Endrin							
1	7.647	7.647	0.000	60206832	40.0	41.3	
2	6.592	6.591	0.001	72872339	40.0	40.6	
						RPD = 1.62	
32 4,4'-DDD							
1	7.808	7.805	0.003	992882		0.8832	
2	6.750	6.747	0.003	1191344		0.9271	
						RPD = 4.85	
35 Endrin aldehyde							
1	8.051	8.050	0.001	685851		0.6882	
2	7.157	7.157	0.000	1207661		0.9517	
						RPD = 32.13	
34 4,4'-DDT							
1	8.136	8.135	0.001	80864461	80.0	77.9	
2	7.066	7.065	0.001	90569808	80.0	76.1	
						RPD = 2.36	
38 Endrin ketone							
1	8.812	8.810	0.002	1913423		1.44	
2	8.019	8.018	0.001	2449405		1.50	
						RPD = 4.27	

QC Flag Legend

Processing Flags

Reagents:

8081_EvalBPEM_00037	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

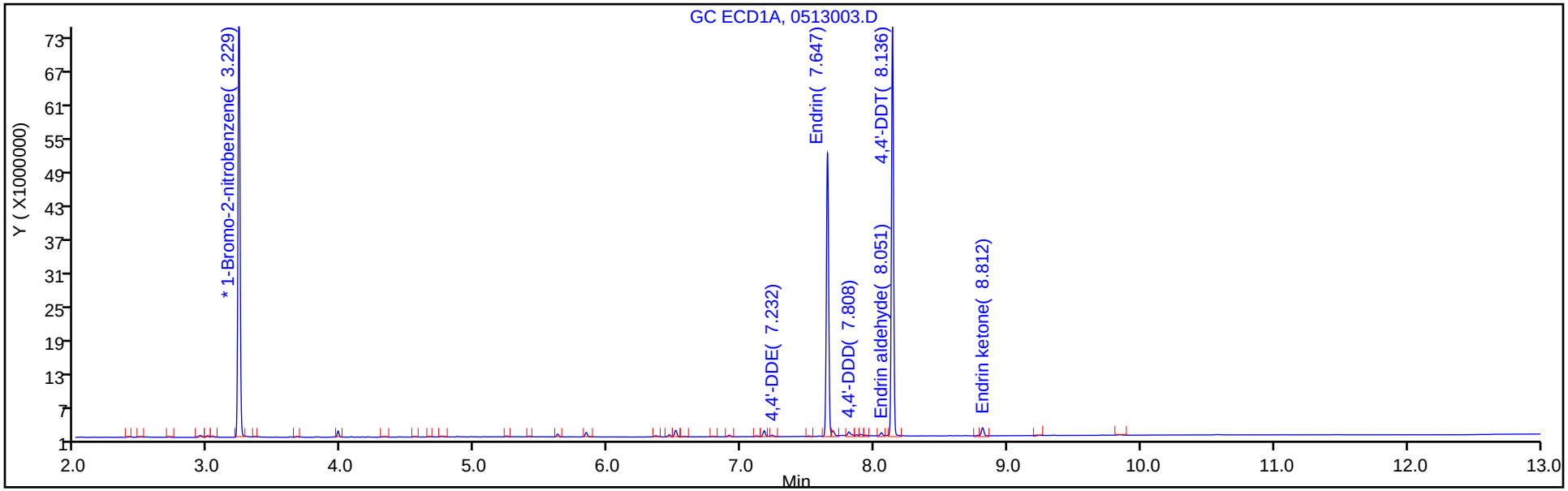
Report Date: 14-May-2024 08:22:20 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

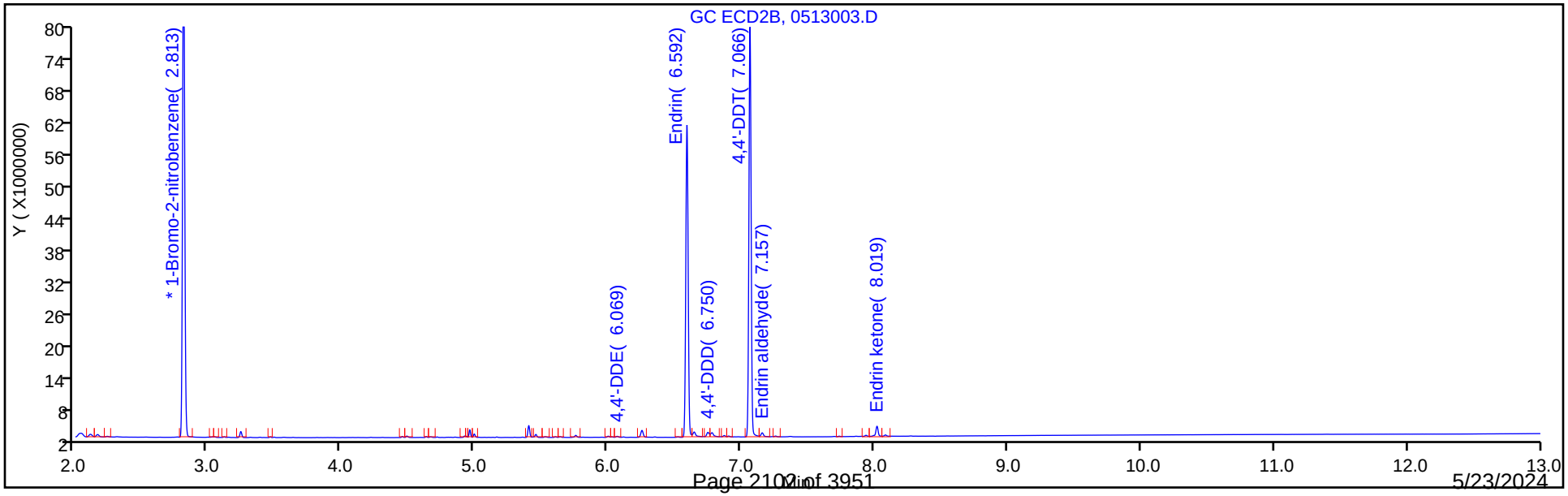
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513003.D

Injection Date:	13-May-2024 11:14:23	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	PEM			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



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FORM VII
PESTICIDES PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: PEM 280-653635/3 Calibration Date: 05/16/2024 10:51

Instrument ID: SGC_C Calib Start Date: 05/10/2024 13:54

GC Column: RTI-XLB ID: 0.32(mm) Calib End Date: 05/10/2024 15:41

Lab File ID: 0516003.D Conc. Units: ug/L

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
Endrin	7.65	97811987	3.25	15	
Endrin aldehyde	8.05	757097			
Endrin ketone	8.81	2533362			

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
4,4'-DDT	8.13	143441671	1.35	15	
4,4'-DDD	7.81	1512070			
4,4'-DDE	7.23	444970			

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516003.D
Lims ID: PEM
Client ID:
Sample Type: PEM
Inject. Date: 16-May-2024 10:51:47 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: PEM
Operator ID: mw Instrument ID: SGC_C
Sublist:

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:43:19 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.226	3.228	-0.002	144154565	75.0	75.0	
2	2.810	2.813	-0.003	134715977	75.0	75.0	
25 4,4'-DDE							
1	7.232	7.234	-0.002	444970		0.1537	
2	6.064	6.064	0.000	374026		0.1429	
						RPD = 7.27	
29 Endrin							
1	7.647	7.648	-0.001	97811987	40.0	39.7	
2	6.588	6.589	-0.001	87265272	40.0	39.5	
						RPD = 0.52	
32 4,4'-DDD							
1	7.807	7.806	0.001	1512070		0.7954	
2	6.746	6.746	0.000	1298221		0.8193	
						RPD = 2.97	
35 Endrin aldehyde							
1	8.051	8.050	0.001	757097		0.4493	
2	7.154	7.153	0.001	1500719		0.9592	
						RPD = 72.42	
34 4,4'-DDT							
1	8.134	8.134	0.000	143441671	80.0	81.7	
2	7.061	7.063	-0.002	113348320	80.0	77.2	
						RPD = 5.64	
38 Endrin ketone							
1	8.811	8.811	0.000	2533362		1.13	
2	8.016	8.016	0.000	2623132		1.30	
						RPD = 14.63	

Reagents:

8081_EvalBPEM_00037	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

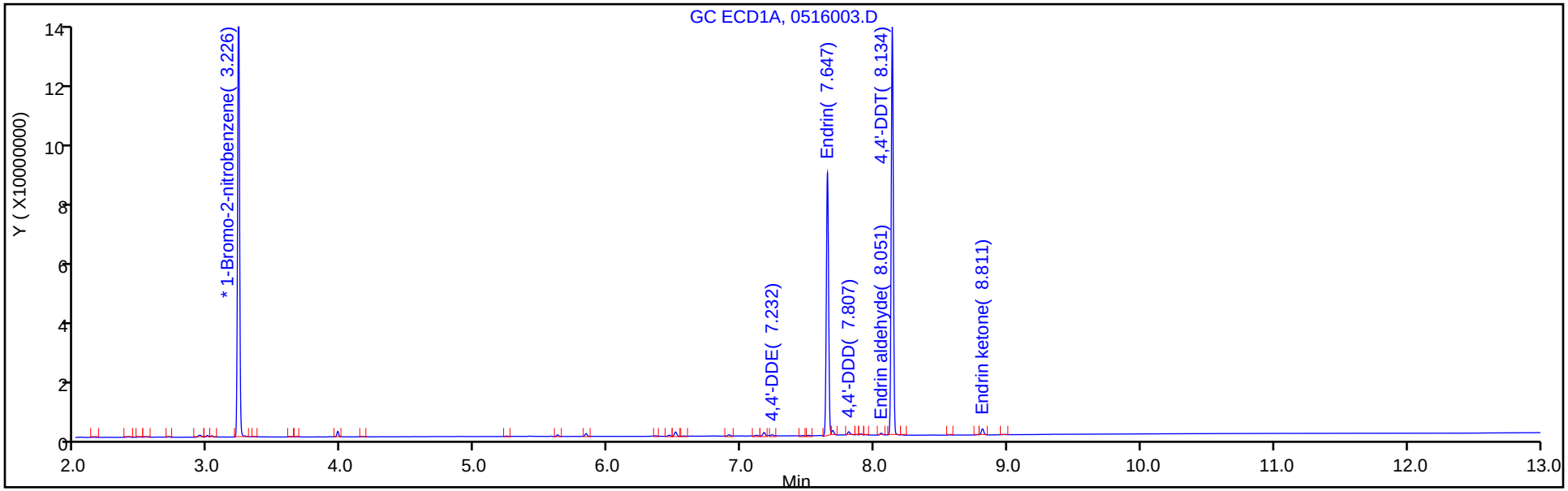
Report Date: 16-May-2024 14:43:21 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

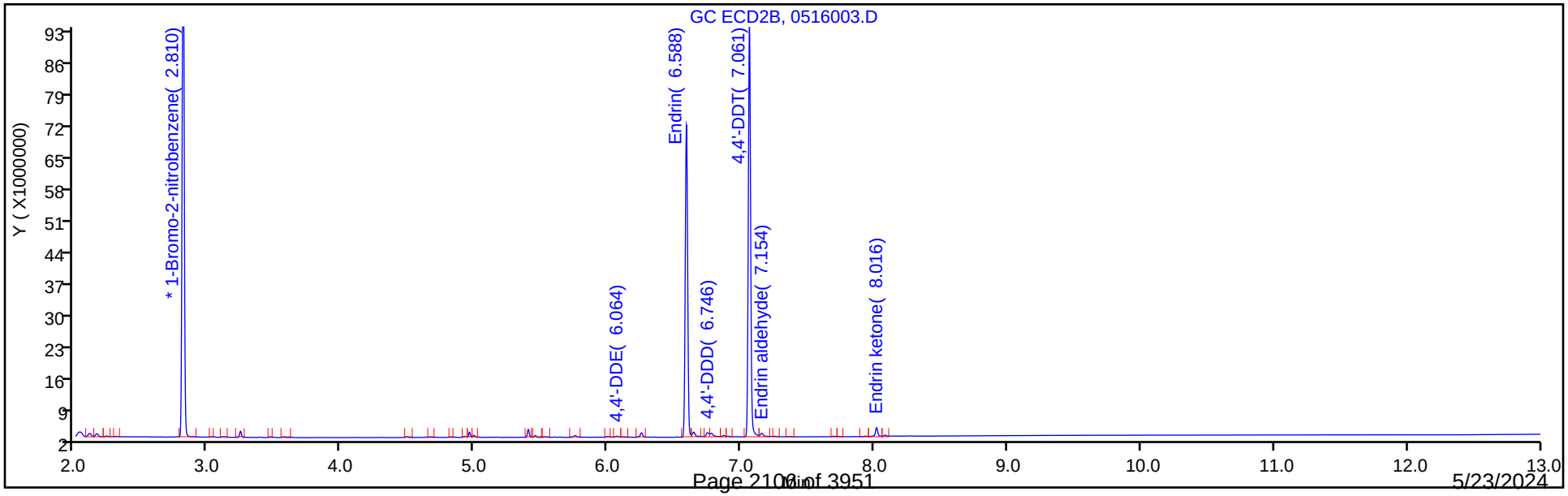
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516003.D

Injection Date:	16-May-2024 10:51:47	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	PEM			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



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FORM VII
PESTICIDES PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: PEM 280-653635/3 Calibration Date: 05/16/2024 10:51

Instrument ID: SGC_C Calib Start Date: 05/10/2024 13:54

GC Column: RTI-35silms ID: 0.32(mm) Calib End Date: 05/10/2024 15:41

Lab File ID: 0516003.D Conc. Units: ug/L

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
Endrin	6.59	87265272	4.51	15	
Endrin aldehyde	7.15	1500719			
Endrin ketone	8.02	2623132			

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
4,4'-DDT	7.06	113348320	1.45	15	
4,4'-DDD	6.75	1298221			
4,4'-DDE	6.06	374026			

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516003.D
Lims ID: PEM
Client ID:
Sample Type: PEM
Inject. Date: 16-May-2024 10:51:47 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: PEM
Operator ID: mw Instrument ID: SGC_C
Sublist:

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:43:19 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.226	3.228	-0.002	144154565	75.0	75.0	
2	2.810	2.813	-0.003	134715977	75.0	75.0	
25 4,4'-DDE							
1	7.232	7.234	-0.002	444970		0.1537	
2	6.064	6.064	0.000	374026		0.1429	
						RPD = 7.27	
29 Endrin							
1	7.647	7.648	-0.001	97811987	40.0	39.7	
2	6.588	6.589	-0.001	87265272	40.0	39.5	
						RPD = 0.52	
32 4,4'-DDD							
1	7.807	7.806	0.001	1512070		0.7954	
2	6.746	6.746	0.000	1298221		0.8193	
						RPD = 2.97	
35 Endrin aldehyde							
1	8.051	8.050	0.001	757097		0.4493	
2	7.154	7.153	0.001	1500719		0.9592	
						RPD = 72.42	
34 4,4'-DDT							
1	8.134	8.134	0.000	143441671	80.0	81.7	
2	7.061	7.063	-0.002	113348320	80.0	77.2	
						RPD = 5.64	
38 Endrin ketone							
1	8.811	8.811	0.000	2533362		1.13	
2	8.016	8.016	0.000	2623132		1.30	
						RPD = 14.63	

Reagents:

8081_EvalBPEM_00037	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

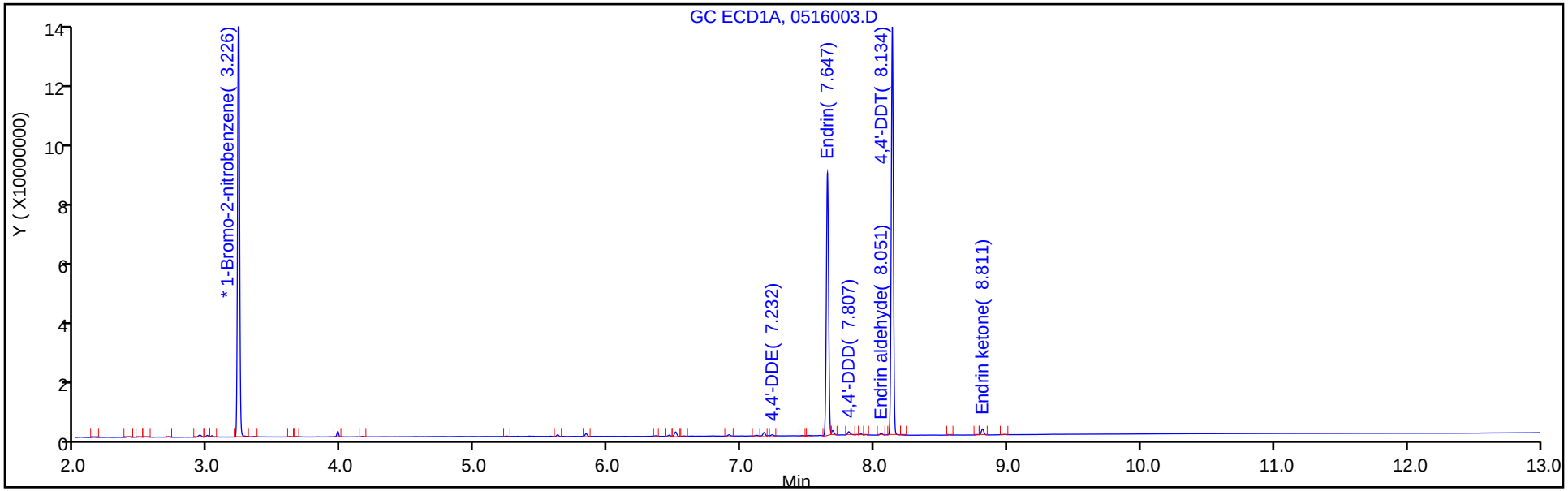
Report Date: 16-May-2024 14:43:22 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

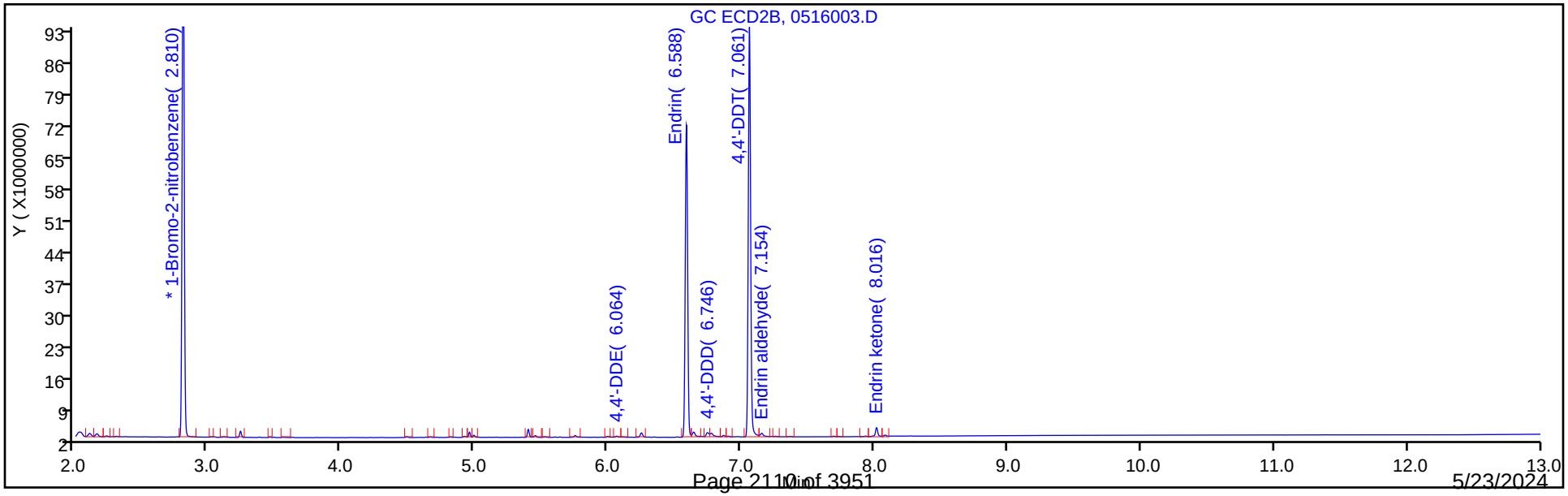
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516003.D

Injection Date:	16-May-2024 10:51:47	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	PEM			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
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FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICV 280-652967/11 | Calibration Date: 05/10/2024 15:59

Instrument ID: SGC_C | Calib Start Date: 05/10/2024 13:54

GC Column: RTI-XLB ID: 0.32(mm) | Calib End Date: 05/10/2024 15:41

Lab File ID: 0510011.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Ave	1.935	1.930		24.9	25.0	-0.3	20.0
Hexachlorobenzene	Ave	1.645	1.598		24.3	25.0	-2.9	20.0
gamma-BHC (Lindane)	Ave	1.607	1.551		24.1	25.0	-3.5	20.0
beta-BHC	Ave	0.7145	0.6753		23.6	25.0	-5.5	20.0
delta-BHC	Ave	1.681	1.673		24.9	25.0	-0.5	20.0
Heptachlor	Ave	1.466	1.459		24.9	25.0	-0.5	20.0
Aldrin	Ave	1.867	1.756		23.5	25.0	-6.0	20.0
Heptachlor epoxide	Ave	1.543	1.530		24.8	25.0	-0.8	20.0
gamma-Chlordane	Ave	1.666	1.599		24.0	25.0	-4.0	20.0
alpha-Chlordane	Ave	1.579	1.507		23.9	25.0	-4.6	20.0
Endosulfan I	Ave	1.455	1.423		24.4	25.0	-2.2	20.0
4,4'-DDE	Ave	1.506	1.506		25.0	25.0	0.0	20.0
Dieldrin	Ave	1.640	1.572		24.0	25.0	-4.1	20.0
Endrin	Ave	1.283	1.243		24.2	25.0	-3.1	20.0
4,4'-DDD	Ave	0.9891	0.9748		24.6	25.0	-1.4	20.0
Endosulfan II	Ave	1.292	1.271		24.6	25.0	-1.6	20.0
Endrin aldehyde	Ave	0.8768	0.8805		25.1	25.0	0.4	20.0
4,4'-DDT	Ave	0.9135	0.9234		25.3	25.0	1.1	20.0
Endosulfan sulfate	Ave	1.184	1.137		24.0	25.0	-4.0	20.0
Methoxychlor	Ave	0.4916	0.4862		24.7	25.0	-1.1	20.0
Endrin ketone	Ave	1.170	1.164		24.9	25.0	-0.5	20.0
Tetrachloro-m-xylene	Ave	1.389	1.262		22.7	25.0	-9.1	20.0
DCB Decachlorobiphenyl	Ave	1.462	1.232		21.1	25.0	-15.7	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICV 280-652967/11 Calibration Date: 05/10/2024 15:59

Instrument ID: SGC_C Calib Start Date: 05/10/2024 13:54

GC Column: RTI-XLB ID: 0.32(mm) Calib End Date: 05/10/2024 15:41

Lab File ID: 0510011.D

Analyte	RT	RT WINDOW	
		FROM	TO
alpha-BHC	4.91	4.90	4.92
Hexachlorobenzene	4.97	4.96	4.98
gamma-BHC (Lindane)	5.18	5.17	5.19
beta-BHC	5.42	5.41	5.43
delta-BHC	5.67	5.66	5.68
Heptachlor	5.75	5.74	5.76
Aldrin	6.11	6.10	6.12
Heptachlor epoxide	6.64	6.63	6.65
gamma-Chlordane	7.01	7.00	7.02
alpha-Chlordane	7.07	7.06	7.08
Endosulfan I	7.11	7.10	7.12
4,4'-DDE	7.24	7.23	7.25
Dieldrin	7.40	7.39	7.41
Endrin	7.65	7.64	7.66
4,4'-DDD	7.81	7.80	7.82
Endosulfan II	7.94	7.93	7.95
Endrin aldehyde	8.05	8.04	8.06
4,4'-DDT	8.14	8.13	8.15
Endosulfan sulfate	8.35	8.34	8.36
Methoxychlor	8.61	8.60	8.62
Endrin ketone	8.82	8.81	8.83
Tetrachloro-m-xylene	4.57	4.56	4.58
DCB Decachlorobiphenyl	11.07	11.05	11.07

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510011.D
Lims ID: ICV AB
Client ID:
Sample Type: ICV
Inject. Date: 10-May-2024 15:59:54 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV AB
Operator ID: mw Instrument ID: SGC_C
Sublist:

Method: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 13-May-2024 08:14:23 Calib Date: 10-May-2024 16:53:03
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510014.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1608

First Level Reviewer: AP6K Date: 13-May-2024 08:08:33

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1					100.0	97.5	
2					100.0	97.9	
						RPD = 0.40	
* 2 1-Bromo-2-nitrobenzene							
1	3.230	3.231	-0.002	99517399	75.0	75.0	
2	2.813	2.817	-0.004	125909407	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.571	4.570	0.001	41875800	25.0	22.7	
2	3.778	3.778	0.000	49770970	25.0	21.6	
						RPD = 4.96	
7 alpha-BHC							
1	4.907	4.906	0.001	64016685	25.0	24.9	
2	4.301	4.301	0.000	82948509	25.0	24.9	
						RPD = 0.05	
6 Hexachlorobenzene							
1	4.971	4.971	0.000	53006477	25.0	24.3	
2	4.211	4.211	0.000	67871321	25.0	24.2	
						RPD = 0.39	
8 gamma-BHC (Lindane)							
1	5.180	5.179	0.001	51435161	25.0	24.1	
2	4.586	4.586	0.000	65545628	25.0	24.1	
						RPD = 0.24	
11 beta-BHC							
1	5.417	5.416	0.001	22402613	25.0	23.6	
2	4.755	4.755	0.000	28740808	25.0	24.1	
						RPD = 1.88	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
13 delta-BHC							
1	5.669	5.668	0.001	55481837	25.0	24.9	
2	4.958	4.958	0.000	69752616	25.0	24.9	
						RPD = 0.04	
12 Heptachlor							
1	5.750	5.749	0.001	48397551	25.0	24.9	
2	4.844	4.844	0.000	54255441	25.0	25.0	
						RPD = 0.56	
15 Aldrin							
1	6.114	6.114	0.000	58253392	25.0	23.5	
2	5.071	5.071	0.000	73336234	25.0	24.1	
						RPD = 2.60	
17 Isodrin							
1	6.511	6.511	0.000	49603684	25.0	26.1	
2	5.408	5.407	0.001	59697827	25.0	25.9	
						RPD = 0.74	
19 Heptachlor epoxide							
1	6.637	6.637	0.000	50764160	25.0	24.8	
2	5.523	5.522	0.001	58363973	25.0	24.5	
						RPD = 1.34	
20 trans-Chlordane							
1	7.006	7.006	0.000	53047456	25.0	24.0	
2	5.739	5.738	0.001	63806783	25.0	24.3	
						RPD = 1.07	
23 cis-Chlordane							
1	7.065	7.065	0.000	49978075	25.0	23.9	
2	5.844	5.844	0.000	63045664	25.0	24.3	
						RPD = 1.93	
24 Endosulfan I							
1	7.107	7.106	0.001	47203817	25.0	24.4	
2	5.896	5.896	0.000	56131543	25.0	24.4	
						RPD = 0.16	
25 4,4'-DDE							
1	7.239	7.239	0.000	49972121	25.0	25.0	
2	6.073	6.071	0.002	61488625	25.0	25.1	
						RPD = 0.54	
26 Dieldrin							
1	7.397	7.397	0.000	52157475	25.0	24.0	
2	6.225	6.224	0.001	61044688	25.0	23.9	
						RPD = 0.11	
29 Endrin							
1	7.652	7.651	0.001	41246587	25.0	24.2	
2	6.596	6.596	0.000	51405694	25.0	24.9	
						RPD = 2.61	
32 4,4'-DDD							
1	7.809	7.809	0.000	32338016	25.0	24.6	
2	6.752	6.751	0.001	35997894	25.0	24.3	
						RPD = 1.35	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
33 Endosulfan II							
1	7.936	7.936	0.000	42152042	25.0	24.6	
2	6.895	6.894	0.001	52483225	25.0	24.9	
						RPD = 1.21	
35 Endrin aldehyde							
1	8.054	8.054	0.000	29206999	25.0	25.1	
2	7.161	7.160	0.001	37439085	25.0	25.6	
						RPD = 1.97	
34 4,4'-DDT							
1	8.139	8.137	0.002	30631282	25.0	25.3	
2	7.070	7.069	0.001	34515532	25.0	25.2	
						RPD = 0.45	
36 Endosulfan sulfate							
1	8.352	8.352	0.000	37706312	25.0	24.0	
2	7.379	7.377	0.002	51246322	25.0	24.7	
						RPD = 2.80	
37 Methoxychlor							
1	8.607	8.606	0.001	16128348	25.0	24.7	
2	7.836	7.835	0.001	16820398	25.0	24.4	
						RPD = 1.14	
38 Endrin ketone							
1	8.815	8.815	0.000	38622750	25.0	24.9	
2	8.023	8.022	0.001	46814399	25.0	24.9	
						RPD = 0.12	
39 Mirex							
1	9.456	9.456	0.000	30594346	25.0	21.5	
2	8.135	8.135	0.000	41703766	25.0	23.8	
						RPD = 10.06	
$ 40 DCB Decachlorobiphenyl							
1	11.066	11.064	0.002	40884174	25.0	21.1	
2	9.260	9.261	-0.001	42322492	25.0	21.4	
						RPD = 1.35	
S 42 Endosulfan, Total							
1					75.0	73.0	
2					75.0	74.0	
						RPD = 1.28	

QC Flag Legend

Processing Flags

Reagents:

8081ABICVL3_00059	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

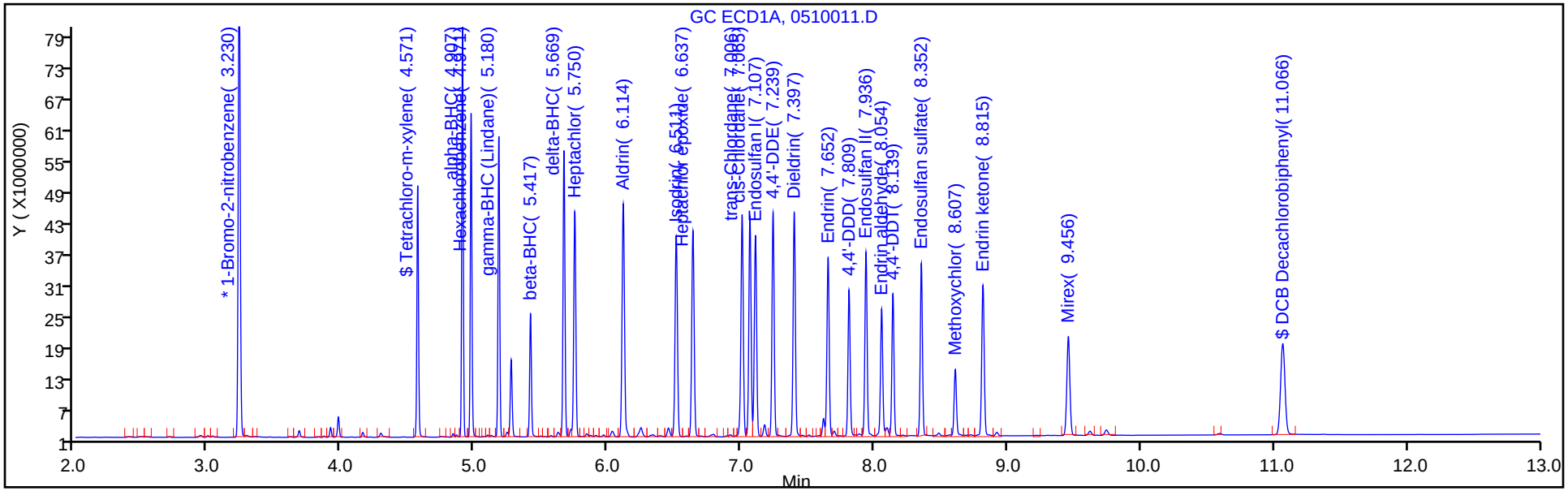
Report Date: 13-May-2024 08:14:37 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

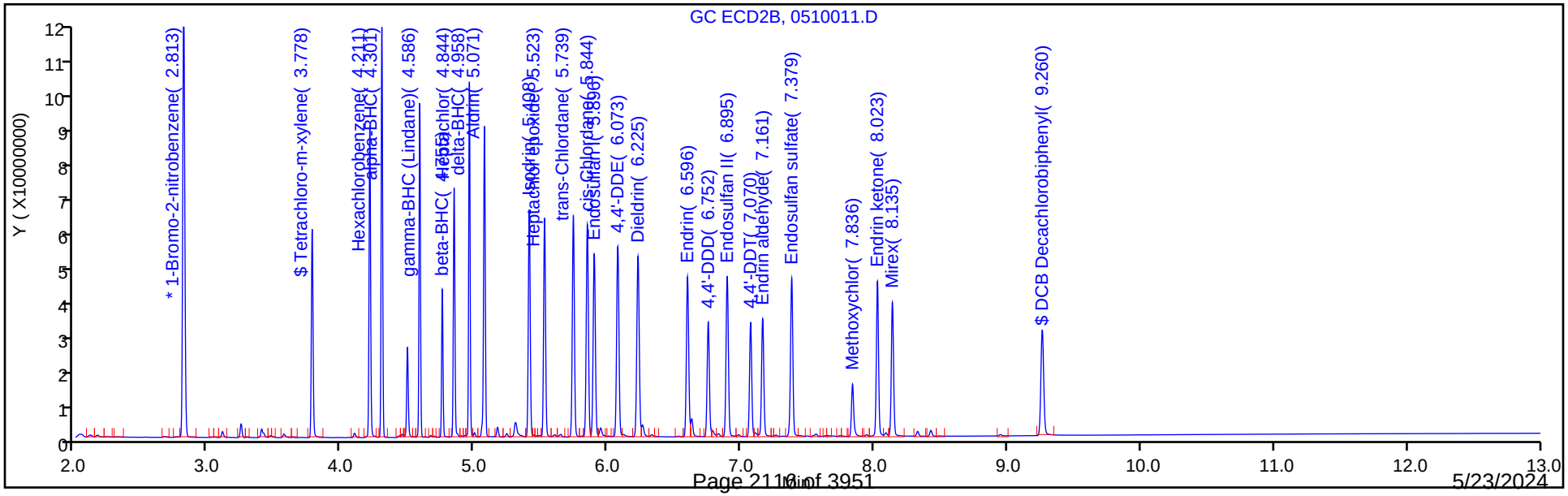
Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510011.D

Injection Date:	10-May-2024 15:59:54	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	ICV AB			Worklist Smp#:	11
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICV 280-652967/11 Calibration Date: 05/10/2024 15:59

Instrument ID: SGC_C Calib Start Date: 05/10/2024 13:54

GC Column: RTI-35silms ID: 0.32(mm) Calib End Date: 05/10/2024 15:41

Lab File ID: 0510011.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Hexachlorobenzene	Ave	1.672	1.617		24.2	25.0	-3.3	20.0
alpha-BHC	Ave	1.981	1.976		24.9	25.0	-0.2	20.0
gamma-BHC (Lindane)	Ave	1.623	1.562		24.1	25.0	-3.8	20.0
beta-BHC	Ave	0.7111	0.6848		24.1	25.0	-3.7	20.0
Heptachlor	Ave	1.291	1.293		25.0	25.0	0.1	20.0
delta-BHC	Ave	1.672	1.662		24.9	25.0	-0.6	20.0
Aldrin	Ave	1.810	1.747		24.1	25.0	-3.5	20.0
Heptachlor epoxide	Ave	1.421	1.391		24.5	25.0	-2.2	20.0
gamma-Chlordane	Ave	1.567	1.520		24.3	25.0	-3.0	20.0
alpha-Chlordane	Ave	1.544	1.502		24.3	25.0	-2.7	20.0
Endosulfan I	Ave	1.370	1.337		24.4	25.0	-2.4	20.0
4,4'-DDE	Ave	1.457	1.465		25.1	25.0	0.6	20.0
Dieldrin	Ave	1.519	1.454		23.9	25.0	-4.2	20.0
Endrin	Ave	1.231	1.225		24.9	25.0	-0.5	20.0
4,4'-DDD	Ave	0.8821	0.8577		24.3	25.0	-2.8	20.0
Endosulfan II	Ave	1.256	1.250		24.9	25.0	-0.4	20.0
4,4'-DDT	Ave	0.8173	0.8224		25.2	25.0	0.6	20.0
Endrin aldehyde	Ave	0.8710	0.8920		25.6	25.0	2.4	20.0
Endosulfan sulfate	Ave	1.237	1.221		24.7	25.0	-1.3	20.0
Methoxychlor	Ave	0.4099	0.4008		24.4	25.0	-2.2	20.0
Endrin ketone	Ave	1.120	1.115		24.9	25.0	-0.4	20.0
Tetrachloro-m-xylene	Ave	1.371	1.186		21.6	25.0	-13.5	20.0
DCB Decachlorobiphenyl	Ave	1.180	1.008		21.4	25.0	-14.6	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICV 280-652967/11 Calibration Date: 05/10/2024 15:59

Instrument ID: SGC_C Calib Start Date: 05/10/2024 13:54

GC Column: RTI-35silms ID: 0.32(mm) Calib End Date: 05/10/2024 15:41

Lab File ID: 0510011.D

Analyte	RT	RT WINDOW	
		FROM	TO
Hexachlorobenzene	4.21	4.20	4.22
alpha-BHC	4.30	4.29	4.31
gamma-BHC (Lindane)	4.59	4.58	4.60
beta-BHC	4.76	4.75	4.77
Heptachlor	4.84	4.83	4.85
delta-BHC	4.96	4.95	4.97
Aldrin	5.07	5.06	5.08
Heptachlor epoxide	5.52	5.51	5.53
gamma-Chlordane	5.74	5.73	5.75
alpha-Chlordane	5.84	5.83	5.85
Endosulfan I	5.90	5.89	5.91
4,4'-DDE	6.07	6.06	6.08
Dieldrin	6.23	6.21	6.23
Endrin	6.60	6.59	6.61
4,4'-DDD	6.75	6.74	6.76
Endosulfan II	6.90	6.88	6.90
4,4'-DDT	7.07	7.06	7.08
Endrin aldehyde	7.16	7.15	7.17
Endosulfan sulfate	7.38	7.37	7.39
Methoxychlor	7.84	7.83	7.85
Endrin ketone	8.02	8.01	8.03
Tetrachloro-m-xylene	3.78	3.77	3.79
DCB Decachlorobiphenyl	9.26	9.25	9.27

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510011.D
Lims ID: ICV AB
Client ID:
Sample Type: ICV
Inject. Date: 10-May-2024 15:59:54 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV AB
Operator ID: mw Instrument ID: SGC_C
Sublist:

Method: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 13-May-2024 08:14:23 Calib Date: 10-May-2024 16:53:03
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510014.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1608

First Level Reviewer: AP6K Date: 13-May-2024 08:08:33

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1					100.0	97.5	
2					100.0	97.9	
						RPD = 0.40	
* 2 1-Bromo-2-nitrobenzene							
1	3.230	3.231	-0.002	99517399	75.0	75.0	
2	2.813	2.817	-0.004	125909407	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.571	4.570	0.001	41875800	25.0	22.7	
2	3.778	3.778	0.000	49770970	25.0	21.6	
						RPD = 4.96	
7 alpha-BHC							
1	4.907	4.906	0.001	64016685	25.0	24.9	
2	4.301	4.301	0.000	82948509	25.0	24.9	
						RPD = 0.05	
6 Hexachlorobenzene							
1	4.971	4.971	0.000	53006477	25.0	24.3	
2	4.211	4.211	0.000	67871321	25.0	24.2	
						RPD = 0.39	
8 gamma-BHC (Lindane)							
1	5.180	5.179	0.001	51435161	25.0	24.1	
2	4.586	4.586	0.000	65545628	25.0	24.1	
						RPD = 0.24	
11 beta-BHC							
1	5.417	5.416	0.001	22402613	25.0	23.6	
2	4.755	4.755	0.000	28740808	25.0	24.1	
						RPD = 1.88	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
13 delta-BHC							
1	5.669	5.668	0.001	55481837	25.0	24.9	
2	4.958	4.958	0.000	69752616	25.0	24.9	
						RPD = 0.04	
12 Heptachlor							
1	5.750	5.749	0.001	48397551	25.0	24.9	
2	4.844	4.844	0.000	54255441	25.0	25.0	
						RPD = 0.56	
15 Aldrin							
1	6.114	6.114	0.000	58253392	25.0	23.5	
2	5.071	5.071	0.000	73336234	25.0	24.1	
						RPD = 2.60	
17 Isodrin							
1	6.511	6.511	0.000	49603684	25.0	26.1	
2	5.408	5.407	0.001	59697827	25.0	25.9	
						RPD = 0.74	
19 Heptachlor epoxide							
1	6.637	6.637	0.000	50764160	25.0	24.8	
2	5.523	5.522	0.001	58363973	25.0	24.5	
						RPD = 1.34	
20 trans-Chlordane							
1	7.006	7.006	0.000	53047456	25.0	24.0	
2	5.739	5.738	0.001	63806783	25.0	24.3	
						RPD = 1.07	
23 cis-Chlordane							
1	7.065	7.065	0.000	49978075	25.0	23.9	
2	5.844	5.844	0.000	63045664	25.0	24.3	
						RPD = 1.93	
24 Endosulfan I							
1	7.107	7.106	0.001	47203817	25.0	24.4	
2	5.896	5.896	0.000	56131543	25.0	24.4	
						RPD = 0.16	
25 4,4'-DDE							
1	7.239	7.239	0.000	49972121	25.0	25.0	
2	6.073	6.071	0.002	61488625	25.0	25.1	
						RPD = 0.54	
26 Dieldrin							
1	7.397	7.397	0.000	52157475	25.0	24.0	
2	6.225	6.224	0.001	61044688	25.0	23.9	
						RPD = 0.11	
29 Endrin							
1	7.652	7.651	0.001	41246587	25.0	24.2	
2	6.596	6.596	0.000	51405694	25.0	24.9	
						RPD = 2.61	
32 4,4'-DDD							
1	7.809	7.809	0.000	32338016	25.0	24.6	
2	6.752	6.751	0.001	35997894	25.0	24.3	
						RPD = 1.35	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
33 Endosulfan II							
1	7.936	7.936	0.000	42152042	25.0	24.6	
2	6.895	6.894	0.001	52483225	25.0	24.9	
						RPD = 1.21	
35 Endrin aldehyde							
1	8.054	8.054	0.000	29206999	25.0	25.1	
2	7.161	7.160	0.001	37439085	25.0	25.6	
						RPD = 1.97	
34 4,4'-DDT							
1	8.139	8.137	0.002	30631282	25.0	25.3	
2	7.070	7.069	0.001	34515532	25.0	25.2	
						RPD = 0.45	
36 Endosulfan sulfate							
1	8.352	8.352	0.000	37706312	25.0	24.0	
2	7.379	7.377	0.002	51246322	25.0	24.7	
						RPD = 2.80	
37 Methoxychlor							
1	8.607	8.606	0.001	16128348	25.0	24.7	
2	7.836	7.835	0.001	16820398	25.0	24.4	
						RPD = 1.14	
38 Endrin ketone							
1	8.815	8.815	0.000	38622750	25.0	24.9	
2	8.023	8.022	0.001	46814399	25.0	24.9	
						RPD = 0.12	
39 Mirex							
1	9.456	9.456	0.000	30594346	25.0	21.5	
2	8.135	8.135	0.000	41703766	25.0	23.8	
						RPD = 10.06	
$ 40 DCB Decachlorobiphenyl							
1	11.066	11.064	0.002	40884174	25.0	21.1	
2	9.260	9.261	-0.001	42322492	25.0	21.4	
						RPD = 1.35	
S 42 Endosulfan, Total							
1					75.0	73.0	
2					75.0	74.0	
						RPD = 1.28	

QC Flag Legend

Processing Flags

Reagents:

8081ABICVL3_00059	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

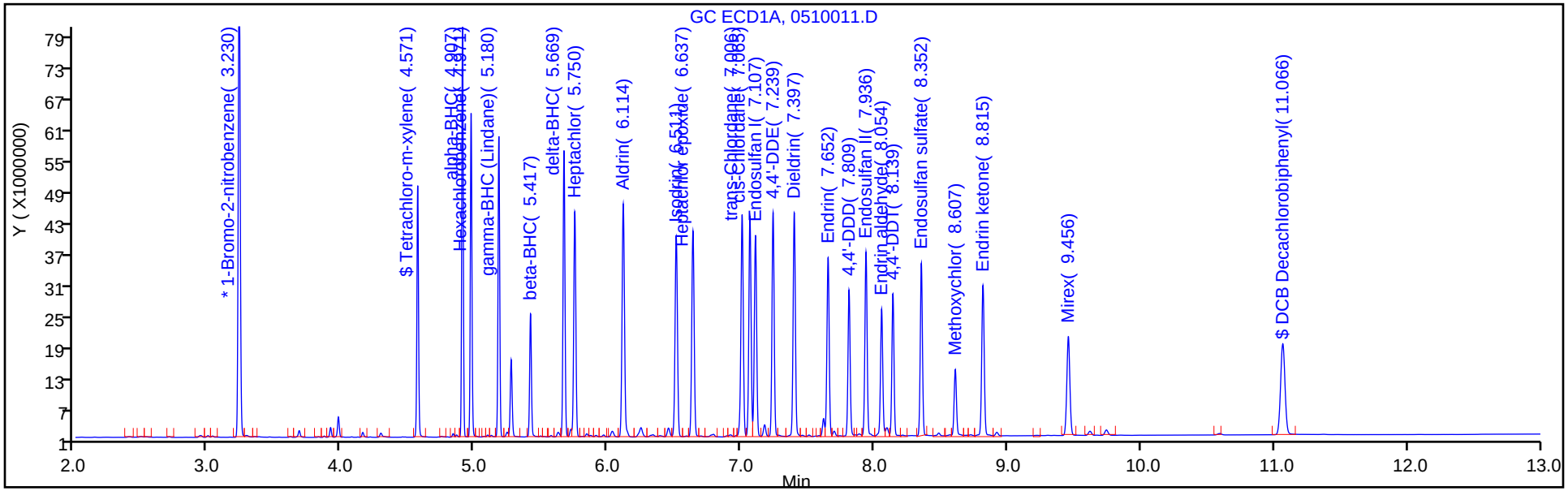
Report Date: 13-May-2024 08:14:37 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

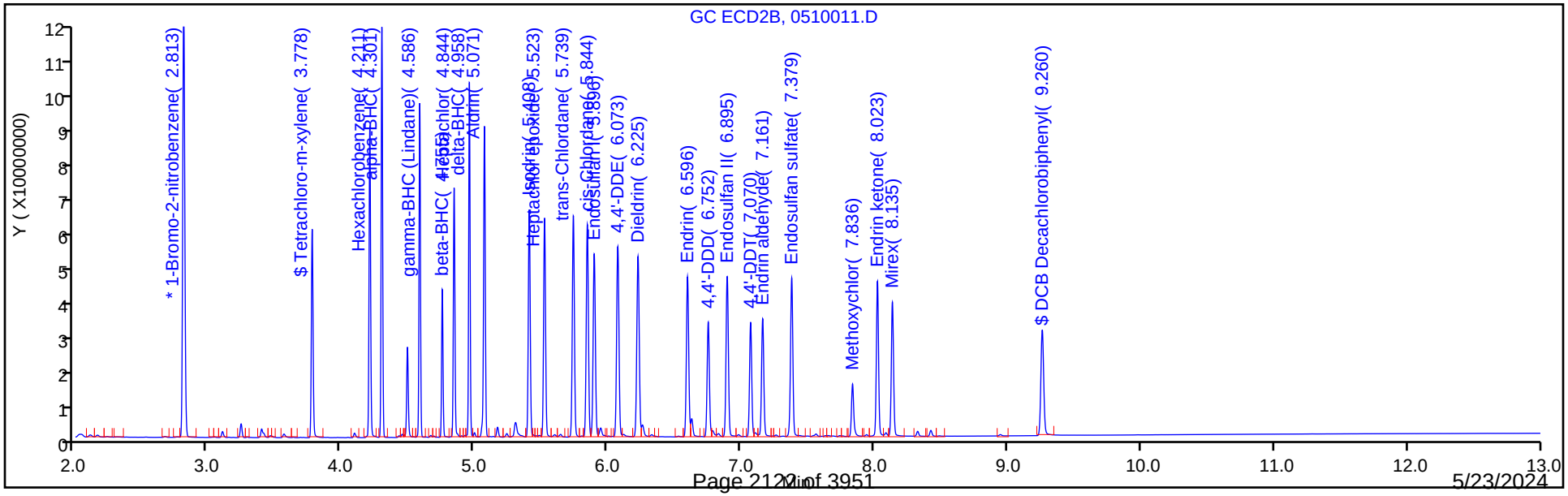
Data File: \\chromfs\Denver\ChromData\SGC_C\20240510-133260.b\0510011.D

Injection Date:	10-May-2024 15:59:54	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	ICV AB			Worklist Smp#:	11
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVIS 280-653121/4 | Calibration Date: 05/13/2024 11:32

Instrument ID: SGC_C | Calib Start Date: 05/10/2024 13:54

GC Column: RTI-XLB ID: 0.32(mm) | Calib End Date: 05/10/2024 15:41

Lab File ID: 0513004.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Ave	1.935	2.247		58.1	50.0	16.1	20.0
Hexachlorobenzene	Ave	1.645	1.897		57.7	50.0	15.3	20.0
gamma-BHC (Lindane)	Ave	1.607	1.808		56.2	50.0	12.5	20.0
beta-BHC	Ave	0.7145	0.7494		52.4	50.0	4.9	20.0
delta-BHC	Ave	1.681	1.907		56.7	50.0	13.4	20.0
Heptachlor	Ave	1.466	1.540		52.5	50.0	5.1	20.0
Aldrin	Ave	1.867	2.225		59.6	50.0	19.2	20.0
Heptachlor epoxide	Ave	1.543	1.749		56.7	50.0	13.3	20.0
gamma-Chlordane	Ave	1.666	1.927		57.8	50.0	15.7	20.0
alpha-Chlordane	Ave	1.579	1.785		56.5	50.0	13.0	20.0
Endosulfan I	Ave	1.455	1.642		56.4	50.0	12.8	20.0
4,4'-DDE	Ave	1.506	1.743		57.9	50.0	15.7	20.0
Dieldrin	Ave	1.640	1.882		57.4	50.0	14.7	20.0
Endrin	Ave	1.283	1.381		53.8	50.0	7.6	20.0
4,4'-DDD	Ave	0.9891	1.087		55.0	50.0	9.9	20.0
Endosulfan II	Ave	1.292	1.425		55.2	50.0	10.3	20.0
Endrin aldehyde	Ave	0.8768	0.9476		54.0	50.0	8.1	20.0
4,4'-DDT	Ave	0.9135	0.9776		53.5	50.0	7.0	20.0
Endosulfan sulfate	Ave	1.184	1.266		53.4	50.0	6.9	20.0
Methoxychlor	Ave	0.4916	0.4787		48.7	50.0	-2.6	20.0
Endrin ketone	Ave	1.170	1.196		51.1	50.0	2.2	20.0
Tetrachloro-m-xylene	Ave	1.389	1.645		59.2	50.0	18.4	20.0
DCB Decachlorobiphenyl	Ave	1.462	1.322		45.2	50.0	-9.6	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVIS 280-653121/4 | Calibration Date: 05/13/2024 11:32

Instrument ID: SGC_C | Calib Start Date: 05/10/2024 13:54

GC Column: RTI-XLB ID: 0.32(mm) | Calib End Date: 05/10/2024 15:41

Lab File ID: 0513004.D

Analyte	RT	RT WINDOW	
		FROM	TO
alpha-BHC	4.90	4.89	4.91
Hexachlorobenzene	4.97	4.96	4.98
gamma-BHC (Lindane)	5.18	5.17	5.19
beta-BHC	5.41	5.40	5.42
delta-BHC	5.67	5.66	5.68
Heptachlor	5.75	5.74	5.76
Aldrin	6.11	6.10	6.12
Heptachlor epoxide	6.63	6.62	6.64
gamma-Chlordane	7.00	6.99	7.01
alpha-Chlordane	7.06	7.05	7.07
Endosulfan I	7.10	7.09	7.11
4,4'-DDE	7.24	7.23	7.25
Dieldrin	7.39	7.38	7.40
Endrin	7.65	7.64	7.66
4,4'-DDD	7.81	7.80	7.82
Endosulfan II	7.93	7.92	7.94
Endrin aldehyde	8.05	8.04	8.06
4,4'-DDT	8.14	8.13	8.15
Endosulfan sulfate	8.35	8.34	8.36
Methoxychlor	8.60	8.59	8.61
Endrin ketone	8.81	8.80	8.82
Tetrachloro-m-xylene	4.57	4.56	4.58
DCB Decachlorobiphenyl	11.06	11.05	11.07

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513004.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 13-May-2024 11:32:08 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:22:21 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 14-May-2024 08:18:18

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.230	3.230	0.000	86564447	75.0	75.0	
2	2.814	2.814	0.000	111232183	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.569	4.569	0.000	94955953	50.0	59.2	
2	3.778	3.778	0.000	118733906	50.0	58.4	
						RPD = 1.43	
7 alpha-BHC							
1	4.904	4.904	0.000	129672066	50.0	58.1	
2	4.300	4.300	0.000	164586996	50.0	56.0	
						RPD = 3.57	
6 Hexachlorobenzene							
1	4.969	4.969	0.000	109480906	50.0	57.7	
2	4.209	4.209	0.000	142124386	50.0	57.3	
						RPD = 0.57	
8 gamma-BHC (Lindane)							
1	5.177	5.177	0.000	104334144	50.0	56.2	
2	4.584	4.584	0.000	131113724	50.0	54.5	
						RPD = 3.19	
11 beta-BHC							
1	5.414	5.414	0.000	43246260	50.0	52.4	
2	4.753	4.753	0.000	55580682	50.0	52.7	
						RPD = 0.51	
13 delta-BHC							
1	5.665	5.665	0.000	110043839	50.0	56.7	
2	4.956	4.956	0.000	134859902	50.0	54.4	
						RPD = 4.15	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
12 Heptachlor							
1	5.747	5.747	0.000	88875734	50.0	52.5	
2	4.842	4.842	0.000	95884090	50.0	50.1	
						RPD = 4.82	
15 Aldrin							
1	6.110	6.110	0.000	128408409	50.0	59.6	
2	5.069	5.069	0.000	154862459	50.0	57.7	
						RPD = 3.24	
17 Isodrin							
1	6.507	6.507	0.000	94995862	50.0	57.4	
2	5.404	5.404	0.000	113434719	50.0	55.7	
						RPD = 3.07	
19 Heptachlor epoxide							
1	6.634	6.634	0.000	100926086	50.0	56.7	
2	5.519	5.519	0.000	111693826	50.0	53.0	
						RPD = 6.71	
20 trans-Chlordane							
1	7.003	7.003	0.000	111194891	50.0	57.8	
2	5.734	5.734	0.000	130965888	50.0	56.4	
						RPD = 2.58	
23 cis-Chlordane							
1	7.061	7.061	0.000	102990288	50.0	56.5	
2	5.839	5.839	0.000	128030133	50.0	55.9	
						RPD = 1.08	
24 Endosulfan I							
1	7.103	7.103	0.000	94752314	50.0	56.4	
2	5.891	5.891	0.000	108803617	50.0	53.6	
						RPD = 5.21	
25 4,4'-DDE							
1	7.235	7.235	0.000	100581488	50.0	57.9	
2	6.067	6.067	0.000	122921325	50.0	56.9	
						RPD = 1.70	
26 Dieldrin							
1	7.394	7.394	0.000	108594241	50.0	57.4	
2	6.219	6.219	0.000	121209978	50.0	53.8	
						RPD = 6.40	
29 Endrin							
1	7.647	7.647	0.000	79679154	50.0	53.8	
2	6.591	6.591	0.000	93330231	50.0	51.1	
						RPD = 5.14	
32 4,4'-DDD							
1	7.805	7.805	0.000	62734914	50.0	55.0	
2	6.747	6.747	0.000	67367122	50.0	51.5	
						RPD = 6.50	
33 Endosulfan II							
1	7.933	7.933	0.000	82219916	50.0	55.2	
2	6.889	6.889	0.000	99261851	50.0	53.3	
						RPD = 3.42	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
35 Endrin aldehyde							
1	8.050	8.050	0.000	54686747	50.0	54.0	
2	7.157	7.157	0.000	66771848	50.0	51.7	
						RPD = 4.44	
34 4,4'-DDT							
1	8.135	8.135	0.000	56418417	50.0	53.5	
2	7.065	7.065	0.000	63773066	50.0	52.6	
						RPD = 1.69	
36 Endosulfan sulfate							
1	8.349	8.349	0.000	73041228	50.0	53.4	
2	7.374	7.374	0.000	95881354	50.0	52.3	
						RPD = 2.23	
37 Methoxychlor							
1	8.603	8.603	0.000	27626163	50.0	48.7	
2	7.831	7.831	0.000	30750650	50.0	50.6	
						RPD = 3.82	
38 Endrin ketone							
1	8.810	8.810	0.000	69016411	50.0	51.1	
2	8.018	8.018	0.000	83746347	50.0	50.4	
						RPD = 1.32	
39 Mirex							
1	9.451	9.451	0.000	56974206	50.0	46.1	
2	8.130	8.130	0.000	81778331	50.0	52.9	
						RPD = 13.67	
$ 40 DCB Decachlorobiphenyl							a
1	11.057	11.057	0.000	76306069	50.0	45.2	a
2	9.257	9.257	0.000	91879566	50.0	52.5	a
						RPD = 14.88	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

8081IcalL4_00073	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

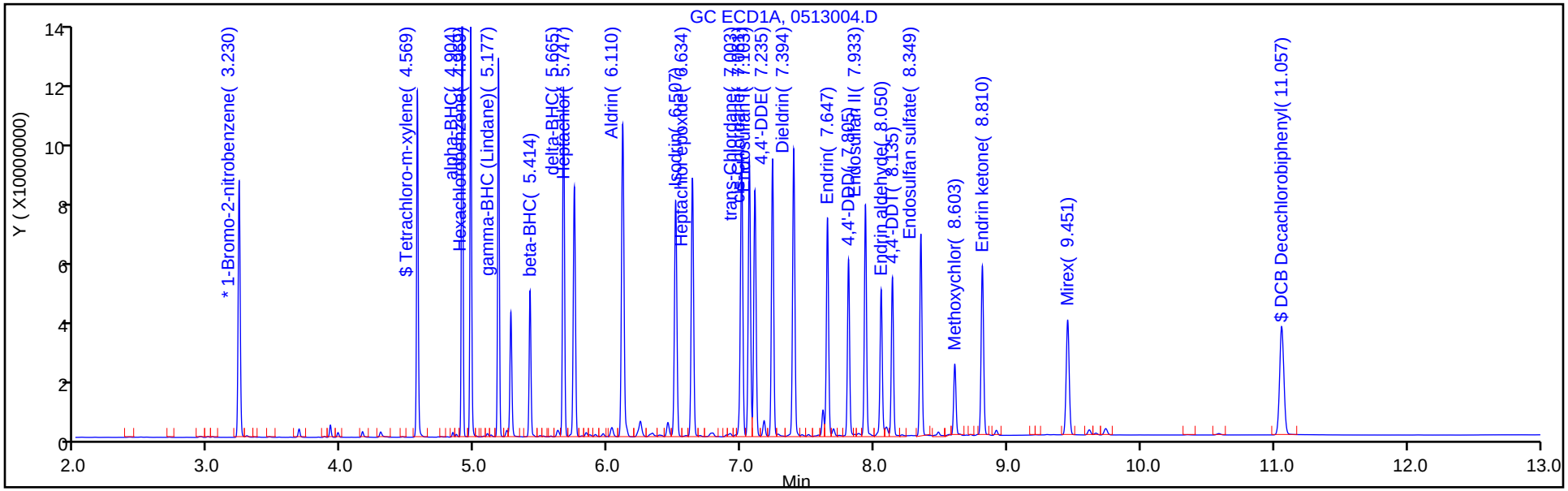
Report Date: 14-May-2024 08:22:21 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

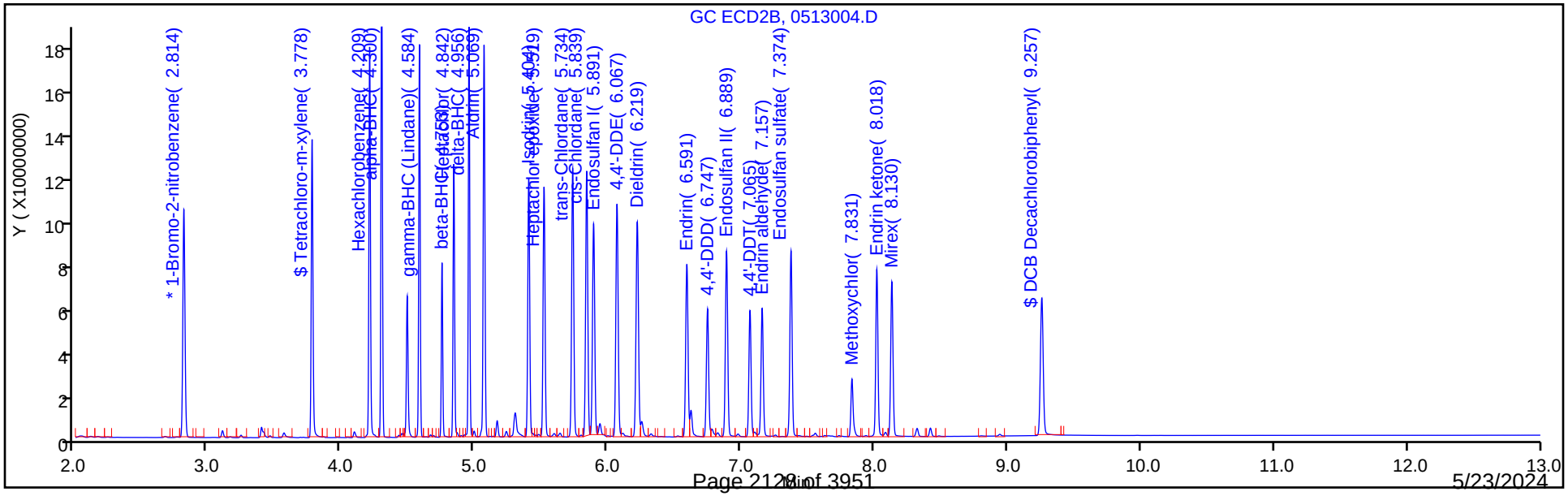
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513004.D

Injection Date:	13-May-2024 11:32:08	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	CCVIS			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

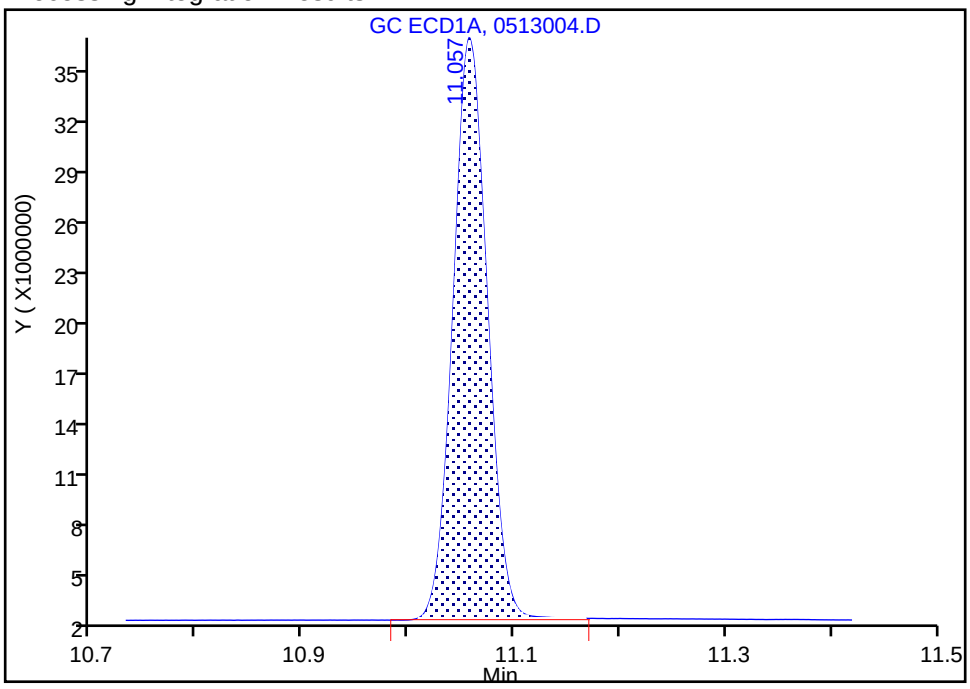
Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513004.D				
Injection Date:	13-May-2024 11:32:08	Instrument ID:	SGC_C		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	mw	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		
Column:	RTI-XLB Chlorinated Pesticides (0.32 mm)	Detector	GC ECD1A		

$ 40 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 1

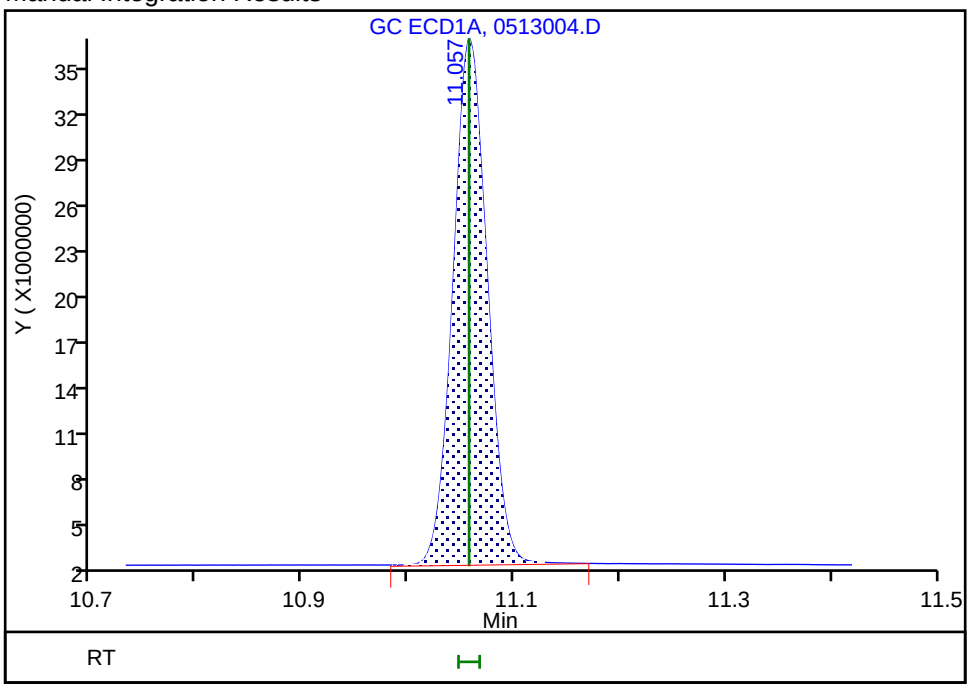
Processing Integration Results

RT: 11.06
Area: 76306069
Amount: 45.215575
Amount Units: ng/mL



Manual Integration Results

RT: 11.06
Area: 76306069
Amount: 45.215575
Amount Units: ng/mL



Reviewer: AP6K, 14-May-2024 08:18:09 -06:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVIS 280-653121/4 Calibration Date: 05/13/2024 11:32

Instrument ID: SGC_C Calib Start Date: 05/10/2024 13:54

GC Column: RTI-35silms ID: 0.32(mm) Calib End Date: 05/10/2024 15:41

Lab File ID: 0513004.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Hexachlorobenzene	Ave	1.672	1.917		57.3	50.0	14.7	20.0
alpha-BHC	Ave	1.981	2.220		56.0	50.0	12.1	20.0
gamma-BHC (Lindane)	Ave	1.623	1.768		54.5	50.0	9.0	20.0
beta-BHC	Ave	0.7111	0.7495		52.7	50.0	5.4	20.0
Heptachlor	Ave	1.291	1.293		50.1	50.0	0.1	20.0
delta-BHC	Ave	1.672	1.819		54.4	50.0	8.8	20.0
Aldrin	Ave	1.810	2.088		57.7	50.0	15.4	20.0
Heptachlor epoxide	Ave	1.421	1.506		53.0	50.0	6.0	20.0
gamma-Chlordane	Ave	1.567	1.766		56.4	50.0	12.7	20.0
alpha-Chlordane	Ave	1.544	1.727		55.9	50.0	11.8	20.0
Endosulfan I	Ave	1.370	1.467		53.6	50.0	7.1	20.0
4,4'-DDE	Ave	1.457	1.658		56.9	50.0	13.8	20.0
Dieldrin	Ave	1.519	1.635		53.8	50.0	7.6	20.0
Endrin	Ave	1.231	1.259		51.1	50.0	2.2	20.0
4,4'-DDD	Ave	0.8821	0.9085		51.5	50.0	3.0	20.0
Endosulfan II	Ave	1.256	1.339		53.3	50.0	6.6	20.0
4,4'-DDT	Ave	0.8173	0.8600		52.6	50.0	5.2	20.0
Endrin aldehyde	Ave	0.8710	0.9004		51.7	50.0	3.4	20.0
Endosulfan sulfate	Ave	1.237	1.293		52.3	50.0	4.5	20.0
Methoxychlor	Ave	0.4099	0.4147		50.6	50.0	1.2	20.0
Endrin ketone	Ave	1.120	1.129		50.4	50.0	0.8	20.0
Tetrachloro-m-xylene	Ave	1.371	1.601		58.4	50.0	16.8	20.0
DCB Decachlorobiphenyl	Ave	1.180	1.239		52.5	50.0	5.0	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVIS 280-653121/4 Calibration Date: 05/13/2024 11:32

Instrument ID: SGC_C Calib Start Date: 05/10/2024 13:54

GC Column: RTI-35silms ID: 0.32(mm) Calib End Date: 05/10/2024 15:41

Lab File ID: 0513004.D

Analyte	RT	RT WINDOW	
		FROM	TO
Hexachlorobenzene	4.21	4.20	4.22
alpha-BHC	4.30	4.29	4.31
gamma-BHC (Lindane)	4.58	4.57	4.59
beta-BHC	4.75	4.74	4.76
Heptachlor	4.84	4.83	4.85
delta-BHC	4.96	4.95	4.97
Aldrin	5.07	5.06	5.08
Heptachlor epoxide	5.52	5.51	5.53
gamma-Chlordane	5.73	5.72	5.74
alpha-Chlordane	5.84	5.83	5.85
Endosulfan I	5.89	5.88	5.90
4,4'-DDE	6.07	6.06	6.08
Dieldrin	6.22	6.21	6.23
Endrin	6.59	6.58	6.60
4,4'-DDD	6.75	6.74	6.76
Endosulfan II	6.89	6.88	6.90
4,4'-DDT	7.07	7.06	7.08
Endrin aldehyde	7.16	7.15	7.17
Endosulfan sulfate	7.37	7.36	7.38
Methoxychlor	7.83	7.82	7.84
Endrin ketone	8.02	8.01	8.03
Tetrachloro-m-xylene	3.78	3.77	3.79
DCB Decachlorobiphenyl	9.26	9.25	9.27

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513004.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 13-May-2024 11:32:08 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:22:21 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 14-May-2024 08:18:18

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.230	3.230	0.000	86564447	75.0	75.0	
2	2.814	2.814	0.000	111232183	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.569	4.569	0.000	94955953	50.0	59.2	
2	3.778	3.778	0.000	118733906	50.0	58.4	
						RPD = 1.43	
7 alpha-BHC							
1	4.904	4.904	0.000	129672066	50.0	58.1	
2	4.300	4.300	0.000	164586996	50.0	56.0	
						RPD = 3.57	
6 Hexachlorobenzene							
1	4.969	4.969	0.000	109480906	50.0	57.7	
2	4.209	4.209	0.000	142124386	50.0	57.3	
						RPD = 0.57	
8 gamma-BHC (Lindane)							
1	5.177	5.177	0.000	104334144	50.0	56.2	
2	4.584	4.584	0.000	131113724	50.0	54.5	
						RPD = 3.19	
11 beta-BHC							
1	5.414	5.414	0.000	43246260	50.0	52.4	
2	4.753	4.753	0.000	55580682	50.0	52.7	
						RPD = 0.51	
13 delta-BHC							
1	5.665	5.665	0.000	110043839	50.0	56.7	
2	4.956	4.956	0.000	134859902	50.0	54.4	
						RPD = 4.15	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
12 Heptachlor							
1	5.747	5.747	0.000	88875734	50.0	52.5	
2	4.842	4.842	0.000	95884090	50.0	50.1	
						RPD = 4.82	
15 Aldrin							
1	6.110	6.110	0.000	128408409	50.0	59.6	
2	5.069	5.069	0.000	154862459	50.0	57.7	
						RPD = 3.24	
17 Isodrin							
1	6.507	6.507	0.000	94995862	50.0	57.4	
2	5.404	5.404	0.000	113434719	50.0	55.7	
						RPD = 3.07	
19 Heptachlor epoxide							
1	6.634	6.634	0.000	100926086	50.0	56.7	
2	5.519	5.519	0.000	111693826	50.0	53.0	
						RPD = 6.71	
20 trans-Chlordane							
1	7.003	7.003	0.000	111194891	50.0	57.8	
2	5.734	5.734	0.000	130965888	50.0	56.4	
						RPD = 2.58	
23 cis-Chlordane							
1	7.061	7.061	0.000	102990288	50.0	56.5	
2	5.839	5.839	0.000	128030133	50.0	55.9	
						RPD = 1.08	
24 Endosulfan I							
1	7.103	7.103	0.000	94752314	50.0	56.4	
2	5.891	5.891	0.000	108803617	50.0	53.6	
						RPD = 5.21	
25 4,4'-DDE							
1	7.235	7.235	0.000	100581488	50.0	57.9	
2	6.067	6.067	0.000	122921325	50.0	56.9	
						RPD = 1.70	
26 Dieldrin							
1	7.394	7.394	0.000	108594241	50.0	57.4	
2	6.219	6.219	0.000	121209978	50.0	53.8	
						RPD = 6.40	
29 Endrin							
1	7.647	7.647	0.000	79679154	50.0	53.8	
2	6.591	6.591	0.000	93330231	50.0	51.1	
						RPD = 5.14	
32 4,4'-DDD							
1	7.805	7.805	0.000	62734914	50.0	55.0	
2	6.747	6.747	0.000	67367122	50.0	51.5	
						RPD = 6.50	
33 Endosulfan II							
1	7.933	7.933	0.000	82219916	50.0	55.2	
2	6.889	6.889	0.000	99261851	50.0	53.3	
						RPD = 3.42	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
35 Endrin aldehyde							
1	8.050	8.050	0.000	54686747	50.0	54.0	
2	7.157	7.157	0.000	66771848	50.0	51.7	
						RPD = 4.44	
34 4,4'-DDT							
1	8.135	8.135	0.000	56418417	50.0	53.5	
2	7.065	7.065	0.000	63773066	50.0	52.6	
						RPD = 1.69	
36 Endosulfan sulfate							
1	8.349	8.349	0.000	73041228	50.0	53.4	
2	7.374	7.374	0.000	95881354	50.0	52.3	
						RPD = 2.23	
37 Methoxychlor							
1	8.603	8.603	0.000	27626163	50.0	48.7	
2	7.831	7.831	0.000	30750650	50.0	50.6	
						RPD = 3.82	
38 Endrin ketone							
1	8.810	8.810	0.000	69016411	50.0	51.1	
2	8.018	8.018	0.000	83746347	50.0	50.4	
						RPD = 1.32	
39 Mirex							
1	9.451	9.451	0.000	56974206	50.0	46.1	
2	8.130	8.130	0.000	81778331	50.0	52.9	
						RPD = 13.67	
$ 40 DCB Decachlorobiphenyl							a
1	11.057	11.057	0.000	76306069	50.0	45.2	a
2	9.257	9.257	0.000	91879566	50.0	52.5	a
						RPD = 14.88	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

8081IcalL4_00073	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

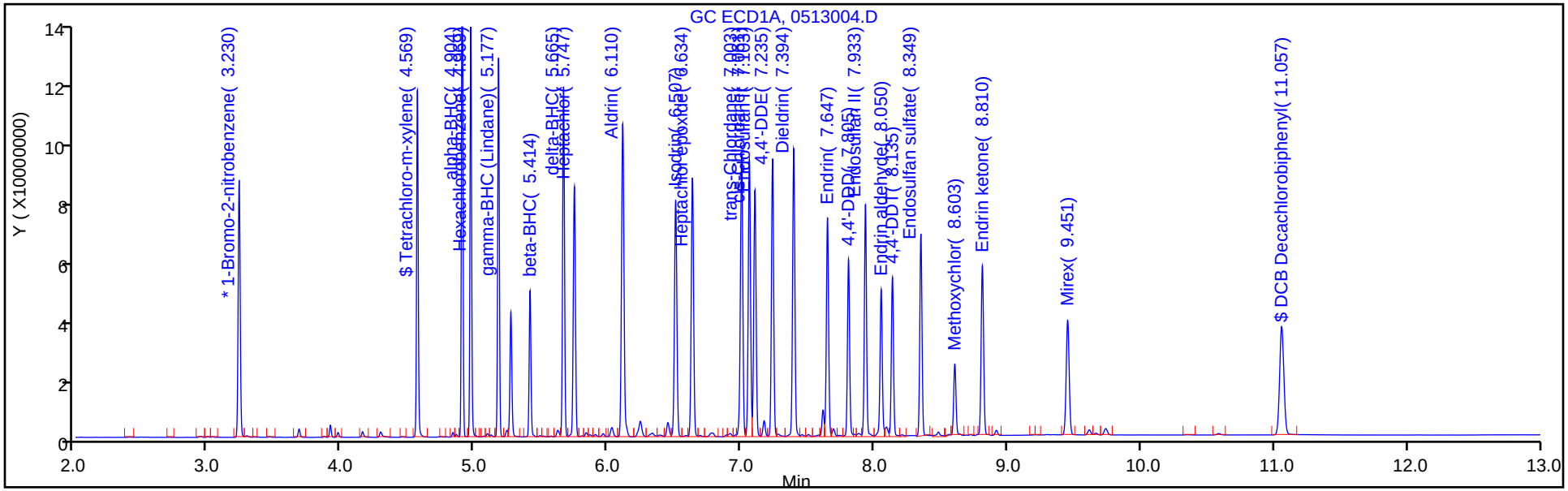
Report Date: 14-May-2024 08:22:22 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

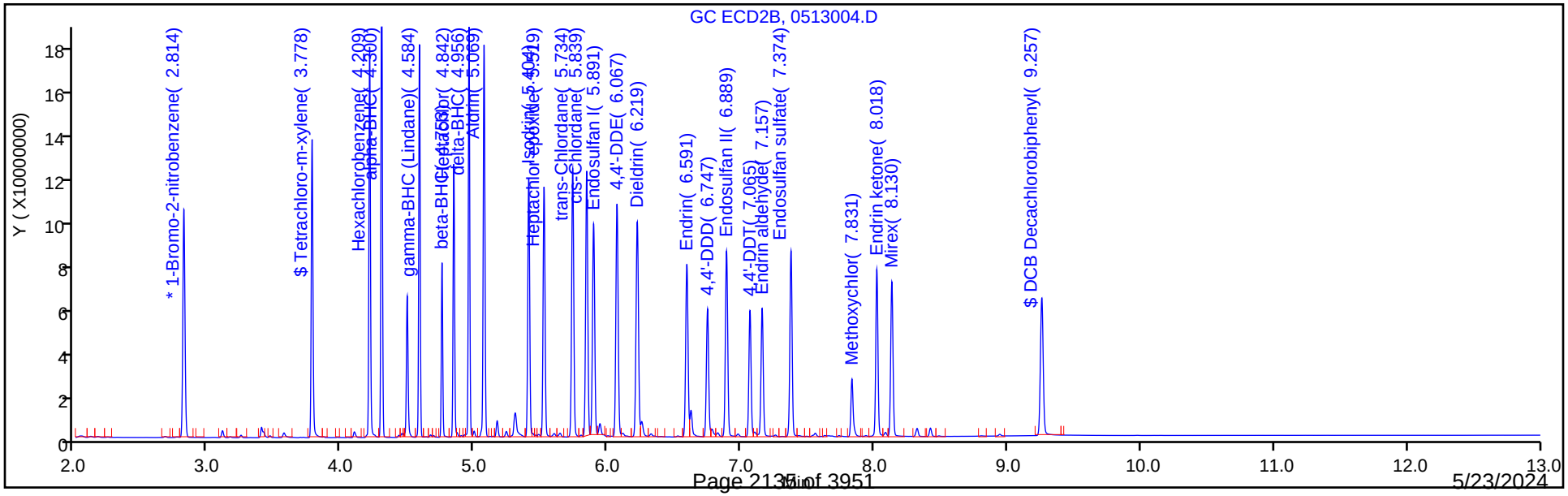
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513004.D

Injection Date:	13-May-2024 11:32:08	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	CCVIS			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

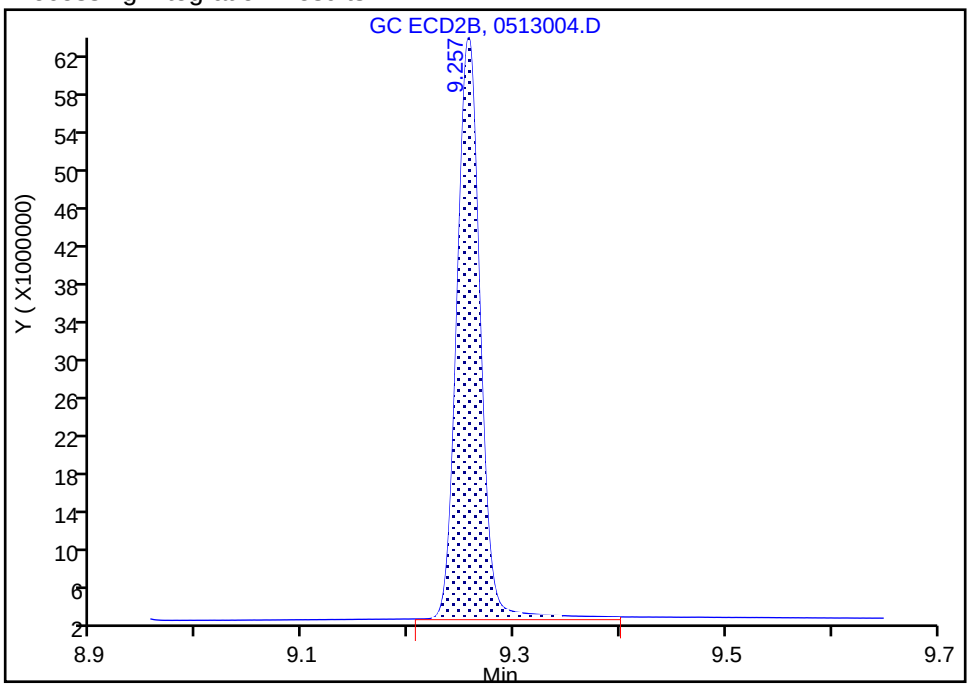
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513004.D
Injection Date: 13-May-2024 11:32:08 Instrument ID: SGC_C
Lims ID: CCVIS
Client ID:
Operator ID: mw ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: C 8081 IS LVI Limit Group: GCSV - 8081B LVI - IS
Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Detector: GC ECD2B

$ 40 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 2

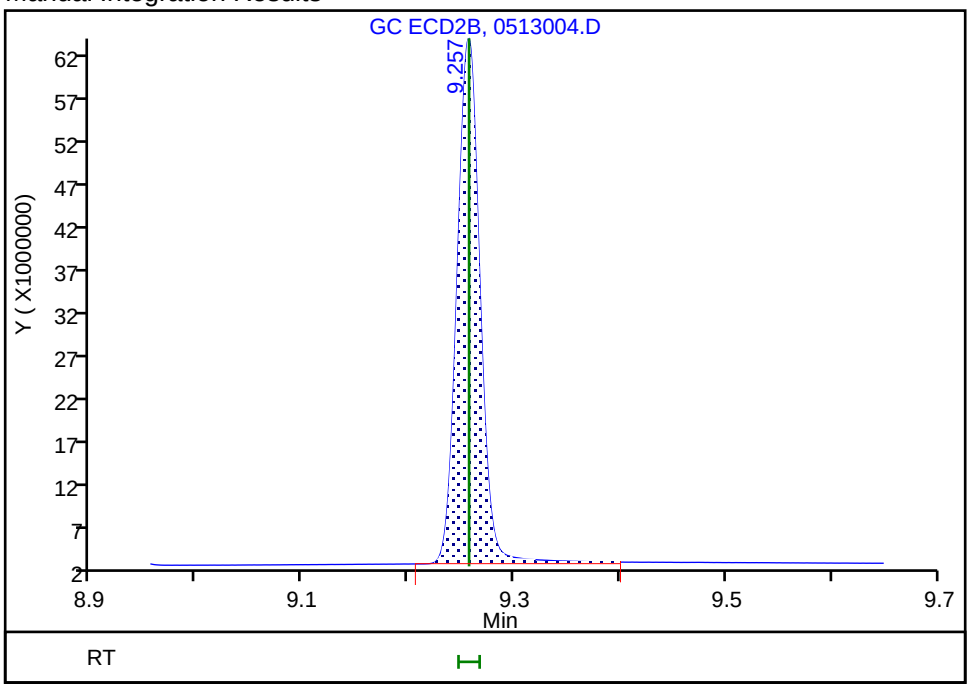
Processing Integration Results

RT: 9.26
Area: 91879566
Amount: 52.486281
Amount Units: ng/mL



Manual Integration Results

RT: 9.26
Area: 91879566
Amount: 52.486281
Amount Units: ng/mL



Reviewer: AP6K, 14-May-2024 08:18:15 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653121/27 Calibration Date: 05/13/2024 18:21

Instrument ID: SGC_C Calib Start Date: 05/10/2024 13:54

GC Column: RTI-XLB ID: 0.32(mm) Calib End Date: 05/10/2024 15:41

Lab File ID: 0513027.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Ave	1.935	2.006		51.8	50.0	3.7	20.0
Hexachlorobenzene	Ave	1.645	1.588		48.3	50.0	-3.5	20.0
gamma-BHC (Lindane)	Ave	1.607	1.693		52.7	50.0	5.3	20.0
beta-BHC	Ave	0.7145	0.6942		48.6	50.0	-2.9	20.0
delta-BHC	Ave	1.681	1.752		52.1	50.0	4.2	20.0
Heptachlor	Ave	1.466	1.463		49.9	50.0	-0.2	20.0
Aldrin	Ave	1.867	1.929		51.7	50.0	3.3	20.0
Heptachlor epoxide	Ave	1.543	1.498		48.5	50.0	-2.9	20.0
gamma-Chlordane	Ave	1.666	1.646		49.4	50.0	-1.2	20.0
alpha-Chlordane	Ave	1.579	1.558		49.3	50.0	-1.3	20.0
Endosulfan I	Ave	1.455	1.393		47.9	50.0	-4.3	20.0
4,4'-DDE	Ave	1.506	1.515		50.3	50.0	0.6	20.0
Dieldrin	Ave	1.640	1.605		48.9	50.0	-2.2	20.0
Endrin	Ave	1.283	1.182		46.0	50.0	-7.9	20.0
4,4'-DDD	Ave	0.9891	1.000		50.6	50.0	1.1	20.0
Endosulfan II	Ave	1.292	1.206		46.7	50.0	-6.7	20.0
Endrin aldehyde	Ave	0.8768	0.7952		45.3	50.0	-9.3	20.0
4,4'-DDT	Ave	0.9135	0.8335		45.6	50.0	-8.8	20.0
Endosulfan sulfate	Ave	1.184	1.066		45.0	50.0	-10.0	20.0
Methoxychlor	Ave	0.4916	0.4040		41.1	50.0	-17.8	20.0
Endrin ketone	Ave	1.170	1.102		47.1	50.0	-5.8	20.0
Tetrachloro-m-xylene	Ave	1.389	1.374		49.5	50.0	-1.1	20.0
DCB Decachlorobiphenyl	Ave	1.462	0.9761		33.4	50.0	-33.2*	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653121/27 Calibration Date: 05/13/2024 18:21

Instrument ID: SGC_C Calib Start Date: 05/10/2024 13:54

GC Column: RTI-XLB ID: 0.32(mm) Calib End Date: 05/10/2024 15:41

Lab File ID: 0513027.D

Analyte	RT	RT WINDOW	
		FROM	TO
alpha-BHC	4.91	4.89	4.91
Hexachlorobenzene	4.97	4.96	4.98
gamma-BHC (Lindane)	5.18	5.17	5.19
beta-BHC	5.42	5.40	5.42
delta-BHC	5.67	5.66	5.68
Heptachlor	5.75	5.74	5.76
Aldrin	6.11	6.10	6.12
Heptachlor epoxide	6.64	6.62	6.64
gamma-Chlordane	7.01	6.99	7.01
alpha-Chlordane	7.07	7.05	7.07
Endosulfan I	7.11	7.09	7.11
4,4'-DDE	7.24	7.23	7.25
Dieldrin	7.40	7.38	7.40
Endrin	7.65	7.64	7.66
4,4'-DDD	7.81	7.80	7.82
Endosulfan II	7.94	7.92	7.94
Endrin aldehyde	8.06	8.04	8.06
4,4'-DDT	8.14	8.13	8.15
Endosulfan sulfate	8.35	8.34	8.36
Methoxychlor	8.61	8.59	8.61
Endrin ketone	8.82	8.80	8.82
Tetrachloro-m-xylene	4.57	4.56	4.58
DCB Decachlorobiphenyl	11.07	11.05	11.07

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513027.D
Lims ID: CCV AB
Client ID:
Sample Type: CCV
Inject. Date: 13-May-2024 18:21:47 ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCV AB
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:54 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 14-May-2024 08:12:17

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						205.2	
2						192.2	
						RPD = 6.53	
* 2 1-Bromo-2-nitrobenzene							
1	3.230	3.231	-0.001	155370478	75.0	75.0	
2	2.814	2.817	-0.003	142825417	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.570	4.569	0.001	142336011	50.0	49.5	
2	3.778	3.778	0.000	123141624	50.0	47.2	
						RPD = 4.77	
7 alpha-BHC							
1	4.907	4.904	0.003	207739595	50.0	51.8	
2	4.301	4.300	0.001	181966353	50.0	48.2	
						RPD = 7.16	
6 Hexachlorobenzene							
1	4.972	4.969	0.003	164522887	50.0	48.3	
2	4.210	4.209	0.001	145948315	50.0	45.8	
						RPD = 5.15	
8 gamma-BHC (Lindane)							
1	5.180	5.177	0.003	175348500	50.0	52.7	
2	4.585	4.584	0.001	151713069	50.0	49.1	
						RPD = 7.02	
11 beta-BHC							
1	5.418	5.414	0.004	71902040	50.0	48.6	
2	4.754	4.753	0.001	63844964	50.0	47.1	
						RPD = 2.98	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
13 delta-BHC							
1	5.669	5.665	0.004	181501785	50.0	52.1	
2	4.958	4.956	0.002	151861490	50.0	47.7	
						RPD = 8.81	
12 Heptachlor							
1	5.751	5.747	0.004	151505625	50.0	49.9	
2	4.844	4.842	0.002	119673137	50.0	48.7	
						RPD = 2.51	
15 Aldrin							
1	6.114	6.110	0.004	199801953	50.0	51.7	
2	5.071	5.069	0.002	166194714	50.0	48.2	
						RPD = 6.89	
17 Isodrin							
1	6.513	6.507	0.006	144627378	50.0	48.7	
2	5.407	5.404	0.003	121921411	50.0	46.6	
						RPD = 4.39	
19 Heptachlor epoxide							
1	6.639	6.634	0.005	155163855	50.0	48.5	
2	5.522	5.519	0.003	129483587	50.0	47.8	
						RPD = 1.45	
20 trans-Chlordane							
1	7.006	7.003	0.003	170501098	50.0	49.4	
2	5.738	5.734	0.004	146267997	50.0	49.0	
						RPD = 0.78	
23 cis-Chlordane							
1	7.066	7.061	0.005	161376190	50.0	49.3	
2	5.843	5.839	0.004	142907703	50.0	48.6	
						RPD = 1.51	
24 Endosulfan I							
1	7.108	7.103	0.005	144298315	50.0	47.9	
2	5.894	5.891	0.003	126402682	50.0	48.5	
						RPD = 1.22	
25 4,4'-DDE							
1	7.240	7.235	0.005	156900192	50.0	50.3	
2	6.071	6.067	0.004	134770537	50.0	48.6	
						RPD = 3.46	
26 Dieldrin							
1	7.399	7.394	0.005	166203428	50.0	48.9	
2	6.224	6.219	0.005	143731031	50.0	49.7	
						RPD = 1.57	
29 Endrin							
1	7.654	7.647	0.007	122396201	50.0	46.0	
2	6.595	6.591	0.004	110079518	50.0	46.9	
						RPD = 1.93	
32 4,4'-DDD							
1	7.811	7.805	0.006	103586199	50.0	50.6	
2	6.750	6.747	0.003	85907254	50.0	51.1	
						RPD = 1.15	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
33 Endosulfan II							
1	7.938	7.933	0.005	124879633	50.0	46.7	
2	6.894	6.889	0.005	115988734	50.0	48.5	
						RPD = 3.85	
35 Endrin aldehyde							
1	8.055	8.050	0.005	82367708	50.0	45.3	
2	7.159	7.157	0.002	80862262	50.0	48.8	
						RPD = 7.23	
34 4,4'-DDT							
1	8.140	8.135	0.005	86337497	50.0	45.6	
2	7.069	7.065	0.004	74691677	50.0	48.0	
						RPD = 5.06	
36 Endosulfan sulfate							
1	8.354	8.349	0.005	110372078	50.0	45.0	
2	7.377	7.374	0.003	113418333	50.0	48.2	
						RPD = 6.78	
37 Methoxychlor							
1	8.609	8.603	0.006	41841473	50.0	41.1	
2	7.834	7.831	0.003	34994310	50.0	44.8	
						RPD = 8.72	
38 Endrin ketone							
1	8.816	8.810	0.006	114196794	50.0	47.1	
2	8.022	8.018	0.004	108292011	50.0	50.8	
						RPD = 7.51	
39 Mirex							
1	9.458	9.451	0.007	86335421	50.0	38.9	
2	8.134	8.130	0.004	95893060	50.0	48.3	
						RPD = 21.45	
$ 40 DCB Decachlorobiphenyl							
1	11.069	11.057	0.012	101106844	50.0	33.4	
2	9.260	9.257	0.003	97666266	50.0	43.5	
						RPD = 26.22	
S 42 Endosulfan, Total							
1						139.5	
2						145.1	
						RPD = 3.92	

QC Flag Legend

Processing Flags

Reagents:

8081IcalL4_00073	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

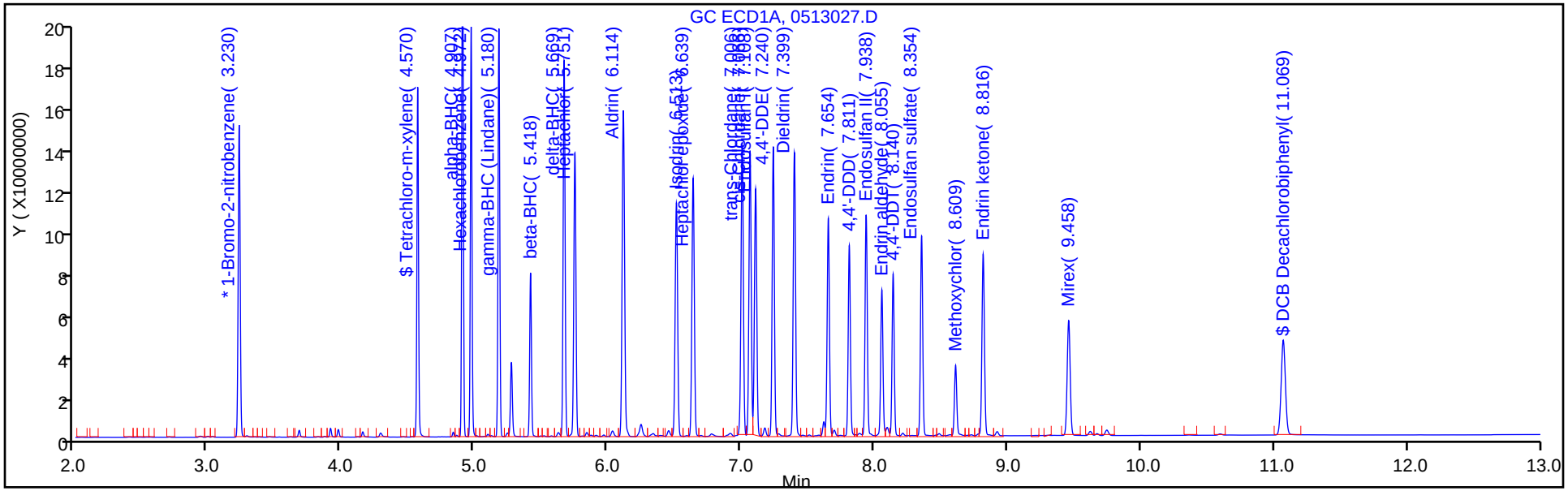
Report Date: 14-May-2024 08:21:54 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

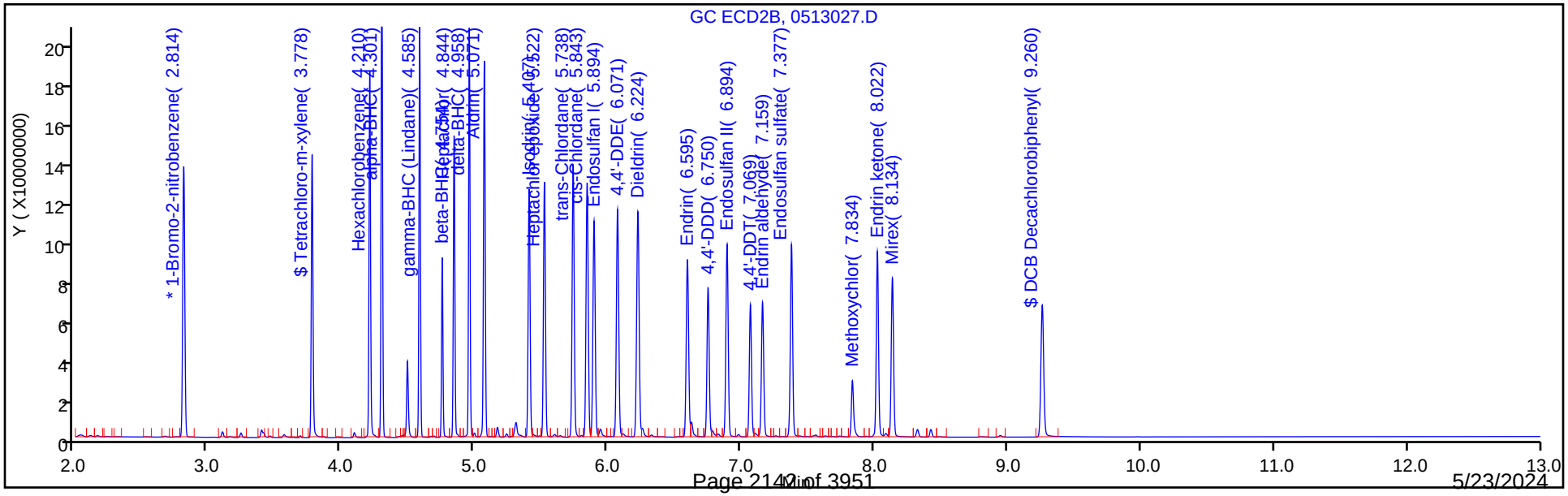
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513027.D

Injection Date:	13-May-2024 18:21:47	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	CCV AB			Worklist Smp#:	27
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653121/27 Calibration Date: 05/13/2024 18:21

Instrument ID: SGC_C Calib Start Date: 05/10/2024 13:54

GC Column: RTI-35silms ID: 0.32(mm) Calib End Date: 05/10/2024 15:41

Lab File ID: 0513027.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Hexachlorobenzene	Ave	1.672	1.533		45.8	50.0	-8.3	20.0
alpha-BHC	Ave	1.981	1.911		48.2	50.0	-3.5	20.0
gamma-BHC (Lindane)	Ave	1.623	1.593		49.1	50.0	-1.8	20.0
beta-BHC	Ave	0.7111	0.6705		47.1	50.0	-5.7	20.0
Heptachlor	Ave	1.291	1.257		48.7	50.0	-2.7	20.0
delta-BHC	Ave	1.672	1.595		47.7	50.0	-4.6	20.0
Aldrin	Ave	1.810	1.745		48.2	50.0	-3.6	20.0
Heptachlor epoxide	Ave	1.421	1.360		47.8	50.0	-4.3	20.0
gamma-Chlordane	Ave	1.567	1.536		49.0	50.0	-2.0	20.0
alpha-Chlordane	Ave	1.544	1.501		48.6	50.0	-2.8	20.0
Endosulfan I	Ave	1.370	1.328		48.5	50.0	-3.1	20.0
4,4'-DDE	Ave	1.457	1.415		48.6	50.0	-2.9	20.0
Dieldrin	Ave	1.519	1.510		49.7	50.0	-0.6	20.0
Endrin	Ave	1.231	1.156		46.9	50.0	-6.1	20.0
4,4'-DDD	Ave	0.8821	0.9022		51.1	50.0	2.3	20.0
Endosulfan II	Ave	1.256	1.218		48.5	50.0	-3.0	20.0
4,4'-DDT	Ave	0.8173	0.7844		48.0	50.0	-4.0	20.0
Endrin aldehyde	Ave	0.8710	0.8492		48.8	50.0	-2.5	20.0
Endosulfan sulfate	Ave	1.237	1.191		48.2	50.0	-3.7	20.0
Methoxychlor	Ave	0.4099	0.3675		44.8	50.0	-10.3	20.0
Endrin ketone	Ave	1.120	1.137		50.8	50.0	1.6	20.0
Tetrachloro-m-xylene	Ave	1.371	1.293		47.2	50.0	-5.7	20.0
DCB Decachlorobiphenyl	Ave	1.180	1.026		43.5	50.0	-13.1	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653121/27 Calibration Date: 05/13/2024 18:21

Instrument ID: SGC_C Calib Start Date: 05/10/2024 13:54

GC Column: RTI-35silms ID: 0.32(mm) Calib End Date: 05/10/2024 15:41

Lab File ID: 0513027.D

Analyte	RT	RT WINDOW	
		FROM	TO
Hexachlorobenzene	4.21	4.20	4.22
alpha-BHC	4.30	4.29	4.31
gamma-BHC (Lindane)	4.59	4.57	4.59
beta-BHC	4.75	4.74	4.76
Heptachlor	4.84	4.83	4.85
delta-BHC	4.96	4.95	4.97
Aldrin	5.07	5.06	5.08
Heptachlor epoxide	5.52	5.51	5.53
gamma-Chlordane	5.74	5.72	5.74
alpha-Chlordane	5.84	5.83	5.85
Endosulfan I	5.89	5.88	5.90
4,4'-DDE	6.07	6.06	6.08
Dieldrin	6.22	6.21	6.23
Endrin	6.60	6.58	6.60
4,4'-DDD	6.75	6.74	6.76
Endosulfan II	6.89	6.88	6.90
4,4'-DDT	7.07	7.06	7.08
Endrin aldehyde	7.16	7.15	7.17
Endosulfan sulfate	7.38	7.36	7.38
Methoxychlor	7.83	7.82	7.84
Endrin ketone	8.02	8.01	8.03
Tetrachloro-m-xylene	3.78	3.77	3.79
DCB Decachlorobiphenyl	9.26	9.25	9.27

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513027.D
Lims ID: CCV AB
Client ID:
Sample Type: CCV
Inject. Date: 13-May-2024 18:21:47 ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCV AB
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:54 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 14-May-2024 08:12:17

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						205.2	
2						192.2	
						RPD = 6.53	
* 2 1-Bromo-2-nitrobenzene							
1	3.230	3.231	-0.001	155370478	75.0	75.0	
2	2.814	2.817	-0.003	142825417	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.570	4.569	0.001	142336011	50.0	49.5	
2	3.778	3.778	0.000	123141624	50.0	47.2	
						RPD = 4.77	
7 alpha-BHC							
1	4.907	4.904	0.003	207739595	50.0	51.8	
2	4.301	4.300	0.001	181966353	50.0	48.2	
						RPD = 7.16	
6 Hexachlorobenzene							
1	4.972	4.969	0.003	164522887	50.0	48.3	
2	4.210	4.209	0.001	145948315	50.0	45.8	
						RPD = 5.15	
8 gamma-BHC (Lindane)							
1	5.180	5.177	0.003	175348500	50.0	52.7	
2	4.585	4.584	0.001	151713069	50.0	49.1	
						RPD = 7.02	
11 beta-BHC							
1	5.418	5.414	0.004	71902040	50.0	48.6	
2	4.754	4.753	0.001	63844964	50.0	47.1	
						RPD = 2.98	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
13 delta-BHC							
1	5.669	5.665	0.004	181501785	50.0	52.1	
2	4.958	4.956	0.002	151861490	50.0	47.7	
						RPD = 8.81	
12 Heptachlor							
1	5.751	5.747	0.004	151505625	50.0	49.9	
2	4.844	4.842	0.002	119673137	50.0	48.7	
						RPD = 2.51	
15 Aldrin							
1	6.114	6.110	0.004	199801953	50.0	51.7	
2	5.071	5.069	0.002	166194714	50.0	48.2	
						RPD = 6.89	
17 Isodrin							
1	6.513	6.507	0.006	144627378	50.0	48.7	
2	5.407	5.404	0.003	121921411	50.0	46.6	
						RPD = 4.39	
19 Heptachlor epoxide							
1	6.639	6.634	0.005	155163855	50.0	48.5	
2	5.522	5.519	0.003	129483587	50.0	47.8	
						RPD = 1.45	
20 trans-Chlordane							
1	7.006	7.003	0.003	170501098	50.0	49.4	
2	5.738	5.734	0.004	146267997	50.0	49.0	
						RPD = 0.78	
23 cis-Chlordane							
1	7.066	7.061	0.005	161376190	50.0	49.3	
2	5.843	5.839	0.004	142907703	50.0	48.6	
						RPD = 1.51	
24 Endosulfan I							
1	7.108	7.103	0.005	144298315	50.0	47.9	
2	5.894	5.891	0.003	126402682	50.0	48.5	
						RPD = 1.22	
25 4,4'-DDE							
1	7.240	7.235	0.005	156900192	50.0	50.3	
2	6.071	6.067	0.004	134770537	50.0	48.6	
						RPD = 3.46	
26 Dieldrin							
1	7.399	7.394	0.005	166203428	50.0	48.9	
2	6.224	6.219	0.005	143731031	50.0	49.7	
						RPD = 1.57	
29 Endrin							
1	7.654	7.647	0.007	122396201	50.0	46.0	
2	6.595	6.591	0.004	110079518	50.0	46.9	
						RPD = 1.93	
32 4,4'-DDD							
1	7.811	7.805	0.006	103586199	50.0	50.6	
2	6.750	6.747	0.003	85907254	50.0	51.1	
						RPD = 1.15	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
33 Endosulfan II							
1	7.938	7.933	0.005	124879633	50.0	46.7	
2	6.894	6.889	0.005	115988734	50.0	48.5	
						RPD = 3.85	
35 Endrin aldehyde							
1	8.055	8.050	0.005	82367708	50.0	45.3	
2	7.159	7.157	0.002	80862262	50.0	48.8	
						RPD = 7.23	
34 4,4'-DDT							
1	8.140	8.135	0.005	86337497	50.0	45.6	
2	7.069	7.065	0.004	74691677	50.0	48.0	
						RPD = 5.06	
36 Endosulfan sulfate							
1	8.354	8.349	0.005	110372078	50.0	45.0	
2	7.377	7.374	0.003	113418333	50.0	48.2	
						RPD = 6.78	
37 Methoxychlor							
1	8.609	8.603	0.006	41841473	50.0	41.1	
2	7.834	7.831	0.003	34994310	50.0	44.8	
						RPD = 8.72	
38 Endrin ketone							
1	8.816	8.810	0.006	114196794	50.0	47.1	
2	8.022	8.018	0.004	108292011	50.0	50.8	
						RPD = 7.51	
39 Mirex							
1	9.458	9.451	0.007	86335421	50.0	38.9	
2	8.134	8.130	0.004	95893060	50.0	48.3	
						RPD = 21.45	
$ 40 DCB Decachlorobiphenyl							
1	11.069	11.057	0.012	101106844	50.0	33.4	
2	9.260	9.257	0.003	97666266	50.0	43.5	
						RPD = 26.22	
S 42 Endosulfan, Total							
1						139.5	
2						145.1	
						RPD = 3.92	

QC Flag Legend

Processing Flags

Reagents:

8081IcalL4_00073	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

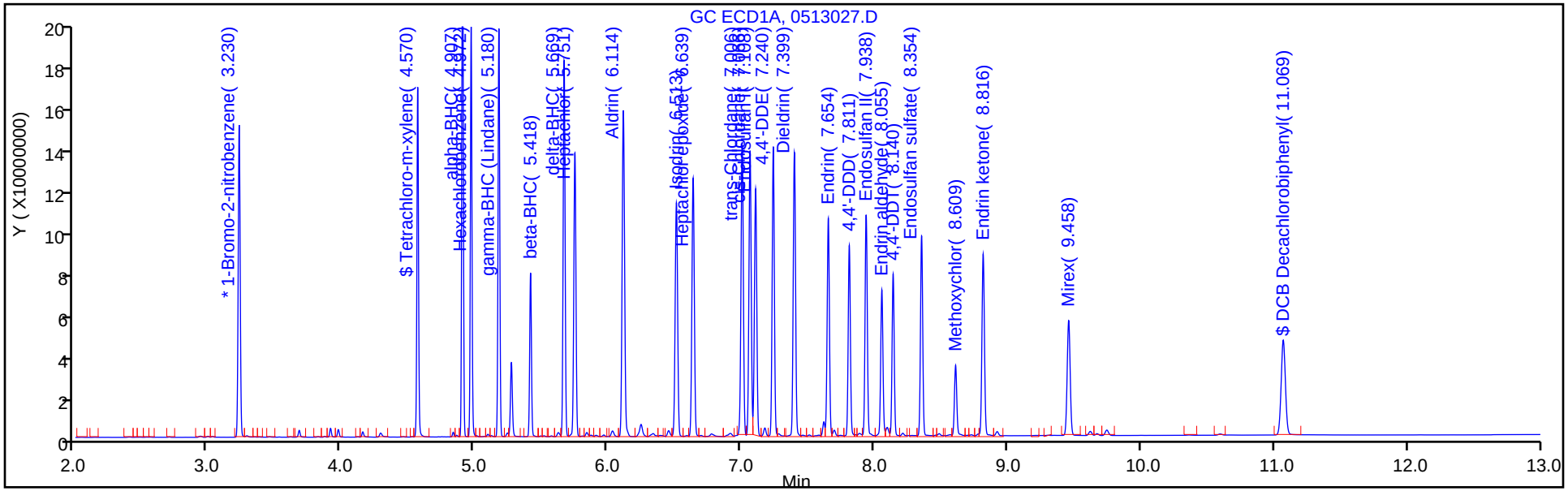
Report Date: 14-May-2024 08:21:54 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

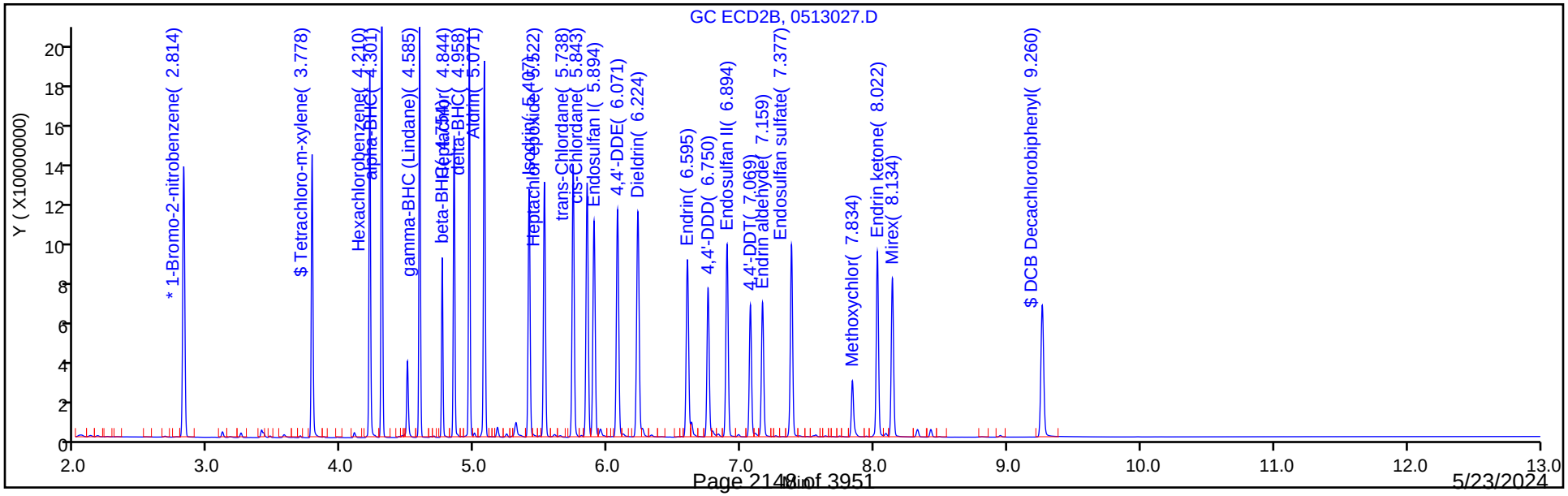
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513027.D

Injection Date:	13-May-2024 18:21:47	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	CCV AB			Worklist Smp#:	27
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVIS 280-653635/4 | Calibration Date: 05/16/2024 11:09

Instrument ID: SGC_C | Calib Start Date: 05/10/2024 13:54

GC Column: RTI-XLB ID: 0.32(mm) | Calib End Date: 05/10/2024 15:41

Lab File ID: 0516004.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Ave	1.935	2.111		54.6	50.0	9.1	20.0
Hexachlorobenzene	Ave	1.645	1.641		49.9	50.0	-0.3	20.0
gamma-BHC (Lindane)	Ave	1.607	1.776		55.3	50.0	10.5	20.0
beta-BHC	Ave	0.7145	0.7379		51.6	50.0	3.3	20.0
delta-BHC	Ave	1.681	1.873		55.7	50.0	11.4	20.0
Heptachlor	Ave	1.466	1.535		52.4	50.0	4.7	20.0
Aldrin	Ave	1.867	1.971		52.8	50.0	5.6	20.0
Heptachlor epoxide	Ave	1.543	1.561		50.6	50.0	1.2	20.0
gamma-Chlordane	Ave	1.666	1.747		52.4	50.0	4.9	20.0
alpha-Chlordane	Ave	1.579	1.641		52.0	50.0	3.9	20.0
Endosulfan I	Ave	1.455	1.466		50.4	50.0	0.8	20.0
4,4'-DDE	Ave	1.506	1.624		53.9	50.0	7.8	20.0
Dieldrin	Ave	1.640	1.695		51.7	50.0	3.3	20.0
Endrin	Ave	1.283	1.311		51.1	50.0	2.1	20.0
4,4'-DDD	Ave	0.9891	1.100		55.6	50.0	11.2	20.0
Endosulfan II	Ave	1.292	1.303		50.4	50.0	0.9	20.0
Endrin aldehyde	Ave	0.8768	0.8698		49.6	50.0	-0.8	20.0
4,4'-DDT	Ave	0.9135	1.012		55.4	50.0	10.7	20.0
Endosulfan sulfate	Ave	1.184	1.160		49.0	50.0	-2.1	20.0
Methoxychlor	Ave	0.4916	0.4670		47.5	50.0	-5.0	20.0
Endrin ketone	Ave	1.170	1.180		50.4	50.0	0.8	20.0
Tetrachloro-m-xylene	Ave	1.389	1.405		50.6	50.0	1.2	20.0
DCB Decachlorobiphenyl	Ave	1.462	1.113		38.1	50.0	-23.9*	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVIS 280-653635/4 | Calibration Date: 05/16/2024 11:09

Instrument ID: SGC_C | Calib Start Date: 05/10/2024 13:54

GC Column: RTI-XLB ID: 0.32(mm) | Calib End Date: 05/10/2024 15:41

Lab File ID: 0516004.D

Analyte	RT	RT WINDOW	
		FROM	TO
alpha-BHC	4.90	4.89	4.91
Hexachlorobenzene	4.97	4.96	4.98
gamma-BHC (Lindane)	5.18	5.17	5.19
beta-BHC	5.41	5.40	5.42
delta-BHC	5.67	5.66	5.68
Heptachlor	5.75	5.74	5.76
Aldrin	6.11	6.10	6.12
Heptachlor epoxide	6.63	6.62	6.64
gamma-Chlordane	7.00	6.99	7.01
alpha-Chlordane	7.06	7.05	7.07
Endosulfan I	7.10	7.09	7.11
4,4'-DDE	7.23	7.22	7.24
Dieldrin	7.39	7.38	7.40
Endrin	7.65	7.64	7.66
4,4'-DDD	7.81	7.80	7.82
Endosulfan II	7.93	7.92	7.94
Endrin aldehyde	8.05	8.04	8.06
4,4'-DDT	8.13	8.12	8.14
Endosulfan sulfate	8.35	8.34	8.36
Methoxychlor	8.60	8.59	8.61
Endrin ketone	8.81	8.80	8.82
Tetrachloro-m-xylene	4.57	4.56	4.58
DCB Decachlorobiphenyl	11.06	11.05	11.07

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516004.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 16-May-2024 11:09:34 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:43:23 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.227	3.227	0.000	150819581	75.0	75.0	
2	2.812	2.812	0.000	142453512	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.567	4.567	0.000	141304481	50.0	50.6	
2	3.775	3.775	0.000	123119341	50.0	47.3	
						RPD = 6.78	
7 alpha-BHC							
1	4.903	4.903	0.000	212277159	50.0	54.6	
2	4.298	4.298	0.000	187461560	50.0	49.8	
						RPD = 9.06	
6 Hexachlorobenzene							
1	4.968	4.968	0.000	165002328	50.0	49.9	
2	4.208	4.208	0.000	145028189	50.0	45.7	
						RPD = 8.78	
8 gamma-BHC (Lindane)							
1	5.176	5.176	0.000	178616444	50.0	55.3	
2	4.582	4.582	0.000	154718502	50.0	50.2	
						RPD = 9.61	
11 beta-BHC							
1	5.413	5.413	0.000	74188717	50.0	51.6	
2	4.752	4.752	0.000	65343002	50.0	48.4	
						RPD = 6.50	
13 delta-BHC							
1	5.665	5.665	0.000	188337827	50.0	55.7	
2	4.954	4.954	0.000	156072928	50.0	49.2	
						RPD = 12.48	
12 Heptachlor							
1	5.745	5.745	0.000	154333672	50.0	52.4	
2	4.840	4.840	0.000	120541549	50.0	49.1	
						RPD = 6.35	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
15 Aldrin							
1	6.109	6.109	0.000	198179796	50.0	52.8	
2	5.067	5.067	0.000	166702112	50.0	48.5	
						RPD = 8.48	
17 Isodrin							
1	6.508	6.508	0.000	145151264	50.0	50.3	
2	5.402	5.402	0.000	122475151	50.0	46.9	
						RPD = 7.01	
19 Heptachlor epoxide							
1	6.633	6.633	0.000	156988386	50.0	50.6	
2	5.517	5.517	0.000	131231960	50.0	48.6	
						RPD = 3.99	
20 trans-Chlordane							
1	7.003	7.003	0.000	175674689	50.0	52.4	
2	5.732	5.732	0.000	149148003	50.0	50.1	
						RPD = 4.53	
23 cis-Chlordane							
1	7.061	7.061	0.000	165010233	50.0	52.0	
2	5.837	5.837	0.000	145152581	50.0	49.5	
						RPD = 4.88	
24 Endosulfan I							
1	7.103	7.103	0.000	147426327	50.0	50.4	
2	5.889	5.889	0.000	127700165	50.0	49.1	
						RPD = 2.62	
25 4,4'-DDE							
1	7.234	7.234	0.000	163304914	50.0	53.9	
2	6.064	6.064	0.000	138439737	50.0	50.0	
						RPD = 7.49	
26 Dieldrin							
1	7.393	7.393	0.000	170392440	50.0	51.7	
2	6.217	6.217	0.000	145546580	50.0	50.5	
						RPD = 2.37	
29 Endrin							
1	7.648	7.648	0.000	131774651	50.0	51.1	
2	6.589	6.589	0.000	116126404	50.0	49.7	
						RPD = 2.82	
32 4,4'-DDD							
1	7.806	7.806	0.000	110575666	50.0	55.6	
2	6.746	6.746	0.000	86532542	50.0	51.6	
						RPD = 7.36	
33 Endosulfan II							
1	7.933	7.933	0.000	130996723	50.0	50.4	
2	6.888	6.888	0.000	117856051	50.0	49.4	
						RPD = 2.05	
35 Endrin aldehyde							
1	8.050	8.050	0.000	87453346	50.0	49.6	
2	7.153	7.153	0.000	81957731	50.0	49.5	
						RPD = 0.12	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
34 4,4'-DDT							
1	8.134	8.134	0.000	101709129	50.0	55.4	
2	7.063	7.063	0.000	81073467	50.0	52.2	
						RPD = 5.84	
36 Endosulfan sulfate							
1	8.348	8.348	0.000	116599665	50.0	49.0	
2	7.372	7.372	0.000	113945920	50.0	48.5	
						RPD = 0.96	
37 Methoxychlor							
1	8.603	8.603	0.000	46958187	50.0	47.5	
2	7.829	7.829	0.000	38860488	50.0	49.9	
						RPD = 4.96	
38 Endrin ketone							
1	8.811	8.811	0.000	118638902	50.0	50.4	
2	8.016	8.016	0.000	107037230	50.0	50.3	
						RPD = 0.18	
39 Mirex							
1	9.450	9.450	0.000	93168865	50.0	43.3	
2	8.128	8.128	0.000	95701407	50.0	48.3	
						RPD = 11.00	
$ 40 DCB Decachlorobiphenyl							
1	11.059	11.059	0.000	111912455	50.0	38.1	
2	9.252	9.252	0.000	102529836	50.0	45.7	
						RPD = 18.31	

Reagents:

8081IcalL4_00073	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

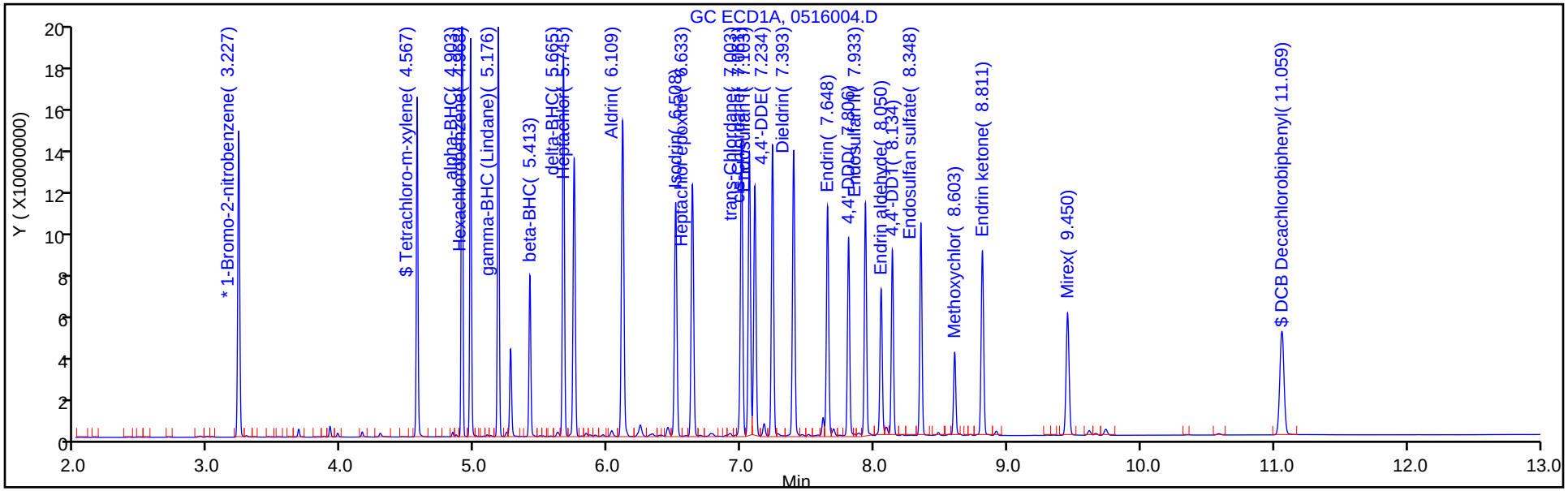
Report Date: 16-May-2024 14:43:23 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

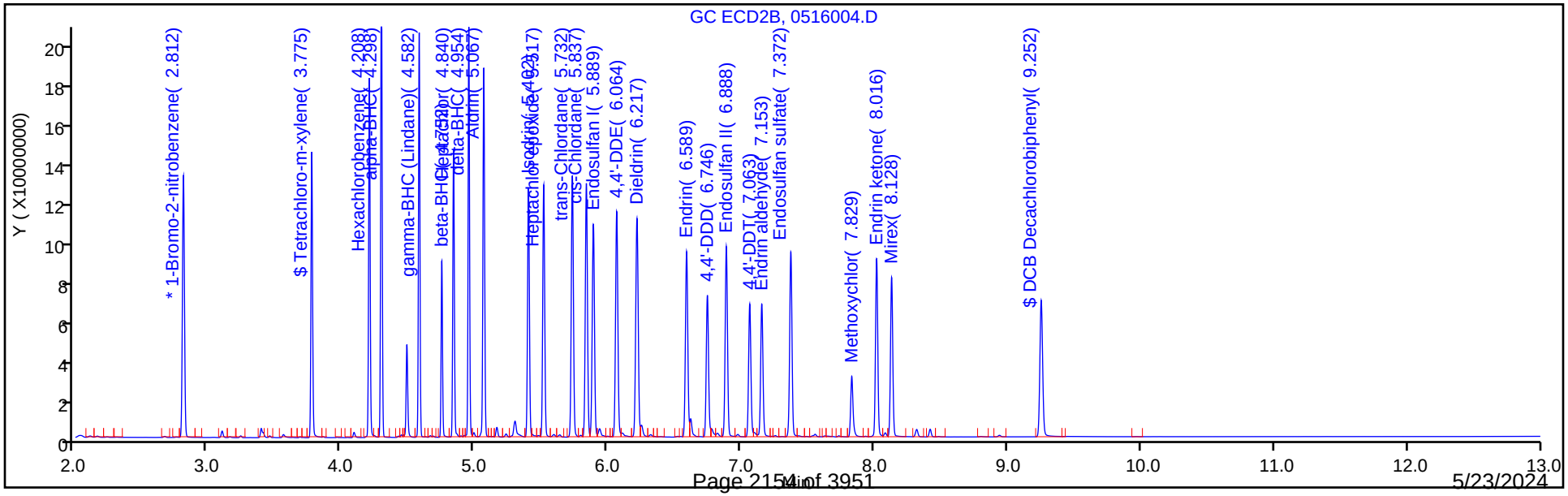
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516004.D

Injection Date:	16-May-2024 11:09:34	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	CCVIS			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVIS 280-653635/4 | Calibration Date: 05/16/2024 11:09

Instrument ID: SGC_C | Calib Start Date: 05/10/2024 13:54

GC Column: RTI-35silms ID: 0.32(mm) | Calib End Date: 05/10/2024 15:41

Lab File ID: 0516004.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Hexachlorobenzene	Ave	1.672	1.527		45.7	50.0	-8.6	20.0
alpha-BHC	Ave	1.981	1.974		49.8	50.0	-0.3	20.0
gamma-BHC (Lindane)	Ave	1.623	1.629		50.2	50.0	0.4	20.0
beta-BHC	Ave	0.7111	0.6880		48.4	50.0	-3.2	20.0
Heptachlor	Ave	1.291	1.269		49.1	50.0	-1.7	20.0
delta-BHC	Ave	1.672	1.643		49.2	50.0	-1.7	20.0
Aldrin	Ave	1.810	1.755		48.5	50.0	-3.0	20.0
Heptachlor epoxide	Ave	1.421	1.382		48.6	50.0	-2.8	20.0
gamma-Chlordane	Ave	1.567	1.570		50.1	50.0	0.2	20.0
alpha-Chlordane	Ave	1.544	1.528		49.5	50.0	-1.0	20.0
Endosulfan I	Ave	1.370	1.345		49.1	50.0	-1.8	20.0
4,4'-DDE	Ave	1.457	1.458		50.0	50.0	0.0	20.0
Dieldrin	Ave	1.519	1.533		50.5	50.0	0.9	20.0
Endrin	Ave	1.231	1.223		49.7	50.0	-0.7	20.0
4,4'-DDD	Ave	0.8821	0.9112		51.6	50.0	3.3	20.0
Endosulfan II	Ave	1.256	1.241		49.4	50.0	-1.2	20.0
4,4'-DDT	Ave	0.8173	0.8537		52.2	50.0	4.5	20.0
Endrin aldehyde	Ave	0.8710	0.8630		49.5	50.0	-0.9	20.0
Endosulfan sulfate	Ave	1.237	1.200		48.5	50.0	-3.0	20.0
Methoxychlor	Ave	0.4099	0.4092		49.9	50.0	-0.2	20.0
Endrin ketone	Ave	1.120	1.127		50.3	50.0	0.6	20.0
Tetrachloro-m-xylene	Ave	1.371	1.296		47.3	50.0	-5.5	20.0
DCB Decachlorobiphenyl	Ave	1.180	1.080		45.7	50.0	-8.5	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVIS 280-653635/4 Calibration Date: 05/16/2024 11:09

Instrument ID: SGC_C Calib Start Date: 05/10/2024 13:54

GC Column: RTI-35silms ID: 0.32(mm) Calib End Date: 05/10/2024 15:41

Lab File ID: 0516004.D

Analyte	RT	RT WINDOW	
		FROM	TO
Hexachlorobenzene	4.21	4.20	4.22
alpha-BHC	4.30	4.29	4.31
gamma-BHC (Lindane)	4.58	4.57	4.59
beta-BHC	4.75	4.74	4.76
Heptachlor	4.84	4.83	4.85
delta-BHC	4.95	4.94	4.96
Aldrin	5.07	5.06	5.08
Heptachlor epoxide	5.52	5.51	5.53
gamma-Chlordane	5.73	5.72	5.74
alpha-Chlordane	5.84	5.83	5.85
Endosulfan I	5.89	5.88	5.90
4,4'-DDE	6.06	6.05	6.07
Dieldrin	6.22	6.21	6.23
Endrin	6.59	6.58	6.60
4,4'-DDD	6.75	6.74	6.76
Endosulfan II	6.89	6.88	6.90
4,4'-DDT	7.06	7.05	7.07
Endrin aldehyde	7.15	7.14	7.16
Endosulfan sulfate	7.37	7.36	7.38
Methoxychlor	7.83	7.82	7.84
Endrin ketone	8.02	8.01	8.03
Tetrachloro-m-xylene	3.78	3.77	3.79
DCB Decachlorobiphenyl	9.25	9.24	9.26

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516004.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 16-May-2024 11:09:34 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:43:23 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.227	3.227	0.000	150819581	75.0	75.0	
2	2.812	2.812	0.000	142453512	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.567	4.567	0.000	141304481	50.0	50.6	
2	3.775	3.775	0.000	123119341	50.0	47.3	
						RPD = 6.78	
7 alpha-BHC							
1	4.903	4.903	0.000	212277159	50.0	54.6	
2	4.298	4.298	0.000	187461560	50.0	49.8	
						RPD = 9.06	
6 Hexachlorobenzene							
1	4.968	4.968	0.000	165002328	50.0	49.9	
2	4.208	4.208	0.000	145028189	50.0	45.7	
						RPD = 8.78	
8 gamma-BHC (Lindane)							
1	5.176	5.176	0.000	178616444	50.0	55.3	
2	4.582	4.582	0.000	154718502	50.0	50.2	
						RPD = 9.61	
11 beta-BHC							
1	5.413	5.413	0.000	74188717	50.0	51.6	
2	4.752	4.752	0.000	65343002	50.0	48.4	
						RPD = 6.50	
13 delta-BHC							
1	5.665	5.665	0.000	188337827	50.0	55.7	
2	4.954	4.954	0.000	156072928	50.0	49.2	
						RPD = 12.48	
12 Heptachlor							
1	5.745	5.745	0.000	154333672	50.0	52.4	
2	4.840	4.840	0.000	120541549	50.0	49.1	
						RPD = 6.35	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
15 Aldrin							
1	6.109	6.109	0.000	198179796	50.0	52.8	
2	5.067	5.067	0.000	166702112	50.0	48.5	
						RPD = 8.48	
17 Isodrin							
1	6.508	6.508	0.000	145151264	50.0	50.3	
2	5.402	5.402	0.000	122475151	50.0	46.9	
						RPD = 7.01	
19 Heptachlor epoxide							
1	6.633	6.633	0.000	156988386	50.0	50.6	
2	5.517	5.517	0.000	131231960	50.0	48.6	
						RPD = 3.99	
20 trans-Chlordane							
1	7.003	7.003	0.000	175674689	50.0	52.4	
2	5.732	5.732	0.000	149148003	50.0	50.1	
						RPD = 4.53	
23 cis-Chlordane							
1	7.061	7.061	0.000	165010233	50.0	52.0	
2	5.837	5.837	0.000	145152581	50.0	49.5	
						RPD = 4.88	
24 Endosulfan I							
1	7.103	7.103	0.000	147426327	50.0	50.4	
2	5.889	5.889	0.000	127700165	50.0	49.1	
						RPD = 2.62	
25 4,4'-DDE							
1	7.234	7.234	0.000	163304914	50.0	53.9	
2	6.064	6.064	0.000	138439737	50.0	50.0	
						RPD = 7.49	
26 Dieldrin							
1	7.393	7.393	0.000	170392440	50.0	51.7	
2	6.217	6.217	0.000	145546580	50.0	50.5	
						RPD = 2.37	
29 Endrin							
1	7.648	7.648	0.000	131774651	50.0	51.1	
2	6.589	6.589	0.000	116126404	50.0	49.7	
						RPD = 2.82	
32 4,4'-DDD							
1	7.806	7.806	0.000	110575666	50.0	55.6	
2	6.746	6.746	0.000	86532542	50.0	51.6	
						RPD = 7.36	
33 Endosulfan II							
1	7.933	7.933	0.000	130996723	50.0	50.4	
2	6.888	6.888	0.000	117856051	50.0	49.4	
						RPD = 2.05	
35 Endrin aldehyde							
1	8.050	8.050	0.000	87453346	50.0	49.6	
2	7.153	7.153	0.000	81957731	50.0	49.5	
						RPD = 0.12	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
34 4,4'-DDT							
1	8.134	8.134	0.000	101709129	50.0	55.4	
2	7.063	7.063	0.000	81073467	50.0	52.2	
						RPD = 5.84	
36 Endosulfan sulfate							
1	8.348	8.348	0.000	116599665	50.0	49.0	
2	7.372	7.372	0.000	113945920	50.0	48.5	
						RPD = 0.96	
37 Methoxychlor							
1	8.603	8.603	0.000	46958187	50.0	47.5	
2	7.829	7.829	0.000	38860488	50.0	49.9	
						RPD = 4.96	
38 Endrin ketone							
1	8.811	8.811	0.000	118638902	50.0	50.4	
2	8.016	8.016	0.000	107037230	50.0	50.3	
						RPD = 0.18	
39 Mirex							
1	9.450	9.450	0.000	93168865	50.0	43.3	
2	8.128	8.128	0.000	95701407	50.0	48.3	
						RPD = 11.00	
$ 40 DCB Decachlorobiphenyl							
1	11.059	11.059	0.000	111912455	50.0	38.1	
2	9.252	9.252	0.000	102529836	50.0	45.7	
						RPD = 18.31	

Reagents:

8081IcalL4_00073	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

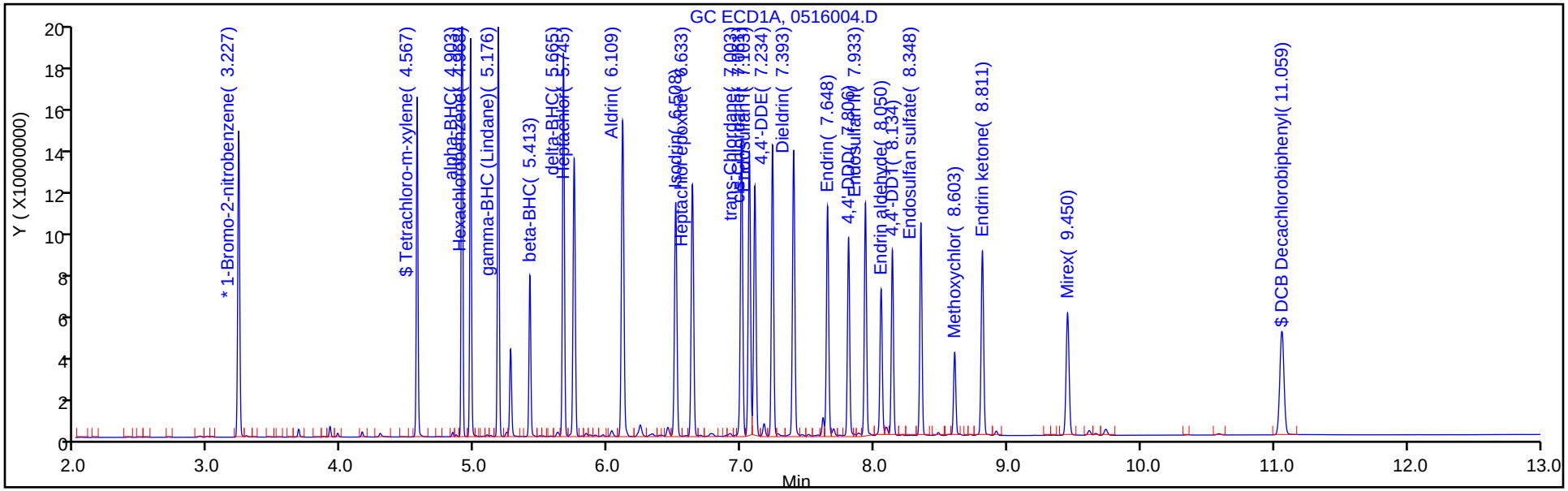
Report Date: 16-May-2024 14:43:23 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

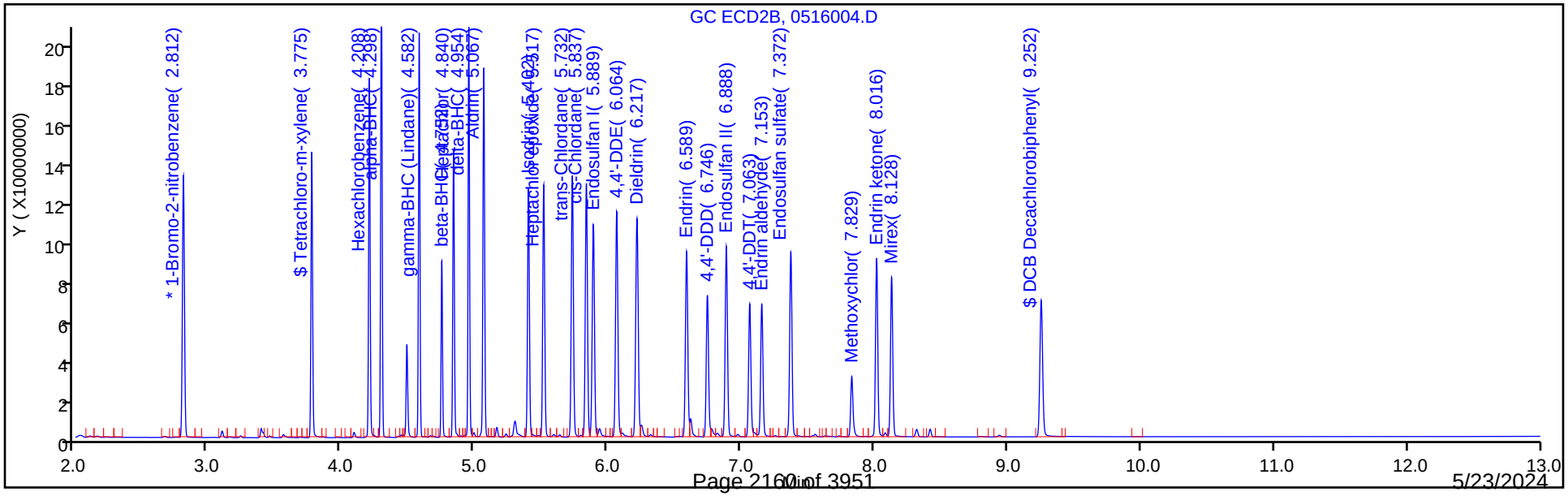
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516004.D

Injection Date:	16-May-2024 11:09:34	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	CCVIS			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653635/14 | Calibration Date: 05/16/2024 14:25

Instrument ID: SGC_C | Calib Start Date: 05/10/2024 13:54

GC Column: RTI-XLB ID: 0.32(mm) | Calib End Date: 05/10/2024 15:41

Lab File ID: 0516015.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Ave	1.935	2.057		53.2	50.0	6.3	20.0
Hexachlorobenzene	Ave	1.645	1.658		50.4	50.0	0.8	20.0
gamma-BHC (Lindane)	Ave	1.607	1.745		54.3	50.0	8.6	20.0
beta-BHC	Ave	0.7145	0.7247		50.7	50.0	1.4	20.0
delta-BHC	Ave	1.681	1.837		54.6	50.0	9.3	20.0
Heptachlor	Ave	1.466	1.514		51.7	50.0	3.3	20.0
Aldrin	Ave	1.867	1.961		52.5	50.0	5.0	20.0
Heptachlor epoxide	Ave	1.543	1.536		49.8	50.0	-0.5	20.0
gamma-Chlordane	Ave	1.666	1.725		51.8	50.0	3.5	20.0
alpha-Chlordane	Ave	1.579	1.614		51.1	50.0	2.2	20.0
Endosulfan I	Ave	1.455	1.453		49.9	50.0	-0.2	20.0
4,4'-DDE	Ave	1.506	1.604		53.3	50.0	6.5	20.0
Dieldrin	Ave	1.640	1.682		51.3	50.0	2.5	20.0
Endrin	Ave	1.283	1.269		49.5	50.0	-1.1	20.0
4,4'-DDD	Ave	0.9891	1.078		54.5	50.0	9.0	20.0
Endosulfan II	Ave	1.292	1.301		50.4	50.0	0.7	20.0
Endrin aldehyde	Ave	0.8768	0.8821		50.3	50.0	0.6	20.0
4,4'-DDT	Ave	0.9135	0.9772		53.5	50.0	7.0	20.0
Endosulfan sulfate	Ave	1.184	1.164		49.1	50.0	-1.7	20.0
Methoxychlor	Ave	0.4916	0.4790		48.7	50.0	-2.6	20.0
Endrin ketone	Ave	1.170	1.208		51.6	50.0	3.2	20.0
Tetrachloro-m-xylene	Ave	1.389	1.413		50.9	50.0	1.7	20.0
DCB Decachlorobiphenyl	Ave	1.462	1.148		39.3	50.0	-21.5*	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653635/14 Calibration Date: 05/16/2024 14:25

Instrument ID: SGC_C Calib Start Date: 05/10/2024 13:54

GC Column: RTI-XLB ID: 0.32(mm) Calib End Date: 05/10/2024 15:41

Lab File ID: 0516015.D

Analyte	RT	RT WINDOW	
		FROM	TO
alpha-BHC	4.91	4.89	4.91
Hexachlorobenzene	4.97	4.96	4.98
gamma-BHC (Lindane)	5.18	5.17	5.19
beta-BHC	5.42	5.40	5.42
delta-BHC	5.67	5.66	5.68
Heptachlor	5.75	5.74	5.76
Aldrin	6.11	6.10	6.12
Heptachlor epoxide	6.64	6.62	6.64
gamma-Chlordane	7.00	6.99	7.01
alpha-Chlordane	7.06	7.05	7.07
Endosulfan I	7.10	7.09	7.11
4,4'-DDE	7.24	7.22	7.24
Dieldrin	7.40	7.38	7.40
Endrin	7.65	7.64	7.66
4,4'-DDD	7.81	7.80	7.82
Endosulfan II	7.93	7.92	7.94
Endrin aldehyde	8.05	8.04	8.06
4,4'-DDT	8.14	8.12	8.14
Endosulfan sulfate	8.35	8.34	8.36
Methoxychlor	8.60	8.59	8.61
Endrin ketone	8.81	8.80	8.82
Tetrachloro-m-xylene	4.57	4.56	4.58
DCB Decachlorobiphenyl	11.06	11.05	11.07

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516015.D
Lims ID: CCV AB
Client ID:
Sample Type: CCV
Inject. Date: 16-May-2024 14:25:07 ALS Bottle#: 15 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCV AB
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:43:19 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						212.8	
2						192.1	
						RPD = 10.20	
* 2 1-Bromo-2-nitrobenzene							
1	3.228	3.228	0.001	146565333	75.0	75.0	
2	2.813	2.813	0.001	141921811	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.568	4.567	0.001	138072031	50.0	50.9	
2	3.776	3.775	0.001	122169337	50.0	47.1	
						RPD = 7.72	
7 alpha-BHC							
1	4.905	4.903	0.002	200998875	50.0	53.2	
2	4.299	4.298	0.001	180854632	50.0	48.3	
						RPD = 9.67	
6 Hexachlorobenzene							
1	4.970	4.968	0.002	161982646	50.0	50.4	
2	4.209	4.208	0.001	145429254	50.0	46.0	
						RPD = 9.14	
8 gamma-BHC (Lindane)							
1	5.177	5.176	0.001	170508630	50.0	54.3	
2	4.583	4.582	0.001	149922331	50.0	48.8	
						RPD = 10.60	
11 beta-BHC							
1	5.415	5.413	0.002	70811439	50.0	50.7	
2	4.753	4.752	0.001	63442094	50.0	47.2	
						RPD = 7.28	
13 delta-BHC							
1	5.667	5.665	0.002	179505676	50.0	54.6	
2	4.956	4.954	0.002	151503426	50.0	47.9	
						RPD = 13.13	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
12 Heptachlor							
1	5.747	5.745	0.002	147981702	50.0	51.7	
2	4.841	4.840	0.001	118524200	50.0	48.5	
						RPD = 6.32	
15 Aldrin							
1	6.111	6.109	0.002	191620709	50.0	52.5	
2	5.068	5.067	0.001	163658249	50.0	47.8	
						RPD = 9.45	
17 Isodrin							
1	6.510	6.508	0.002	139546582	50.0	49.8	
2	5.405	5.402	0.003	120033047	50.0	46.2	
						RPD = 7.58	
19 Heptachlor epoxide							
1	6.635	6.633	0.002	150094623	50.0	49.8	
2	5.519	5.517	0.002	127706659	50.0	47.5	
						RPD = 4.70	
20 trans-Chlordane							
1	7.004	7.003	0.001	168547119	50.0	51.8	
2	5.735	5.732	0.003	144916353	50.0	48.9	
						RPD = 5.76	
23 cis-Chlordane							
1	7.062	7.061	0.001	157725509	50.0	51.1	
2	5.839	5.837	0.002	141452657	50.0	48.4	
						RPD = 5.44	
24 Endosulfan I							
1	7.104	7.103	0.001	141961245	50.0	49.9	
2	5.891	5.889	0.002	124201985	50.0	47.9	
						RPD = 4.11	
25 4,4'-DDE							
1	7.236	7.234	0.002	156739596	50.0	53.3	
2	6.067	6.064	0.003	134792234	50.0	48.9	
						RPD = 8.54	
26 Dieldrin							
1	7.396	7.393	0.003	164300455	50.0	51.3	
2	6.220	6.217	0.003	141218597	50.0	49.1	
						RPD = 4.24	
29 Endrin							
1	7.650	7.648	0.002	124014985	50.0	49.5	
2	6.592	6.589	0.003	110737922	50.0	47.5	
						RPD = 3.99	
32 4,4'-DDD							
1	7.807	7.806	0.001	105350478	50.0	54.5	
2	6.747	6.746	0.001	84909256	50.0	50.9	
						RPD = 6.90	
33 Endosulfan II							
1	7.934	7.933	0.001	127105080	50.0	50.4	
2	6.889	6.888	0.001	115910197	50.0	48.8	
						RPD = 3.19	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
35 Endrin aldehyde							
1	8.051	8.050	0.001	86191933	50.0	50.3	
2	7.156	7.153	0.003	81615045	50.0	49.5	
						RPD = 1.57	
34 4,4'-DDT							
1	8.136	8.134	0.002	95483476	50.0	53.5	
2	7.066	7.063	0.003	77714530	50.0	50.3	
						RPD = 6.24	
36 Endosulfan sulfate							
1	8.351	8.348	0.003	113695945	50.0	49.1	
2	7.375	7.372	0.003	113190871	50.0	48.4	
						RPD = 1.59	
37 Methoxychlor							
1	8.604	8.603	0.001	46804106	50.0	48.7	
2	7.831	7.829	0.002	38185211	50.0	49.2	
						RPD = 1.05	
38 Endrin ketone							
1	8.812	8.811	0.001	118019276	50.0	51.6	
2	8.019	8.016	0.003	107166982	50.0	50.6	
						RPD = 2.02	
39 Mirex							
1	9.452	9.450	0.002	92367160	50.0	44.2	
2	8.131	8.128	0.003	95471714	50.0	48.4	
						RPD = 9.14	
$ 40 DCB Decachlorobiphenyl							
1	11.061	11.059	0.002	112153477	50.0	39.3	
2	9.256	9.252	0.004	103247759	50.0	46.2	
						RPD = 16.32	
S 42 Endosulfan, Total							
1						149.4	
2						145.1	
						RPD = 2.96	

Reagents:

8081IcalL4_00073	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

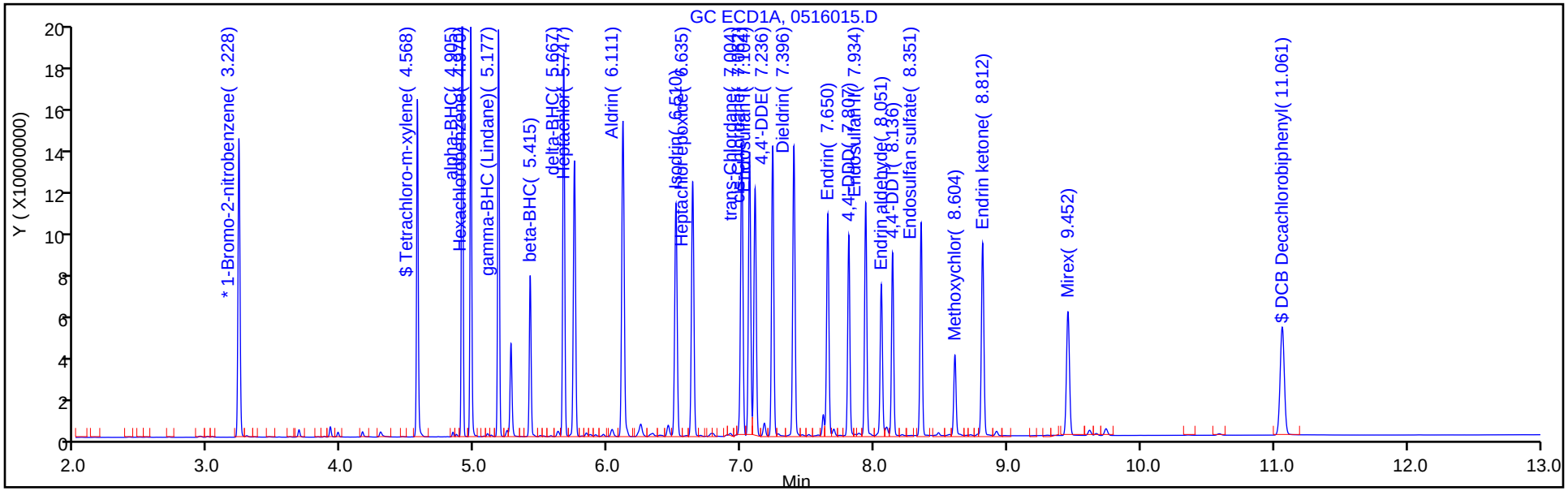
Report Date: 16-May-2024 14:43:19 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

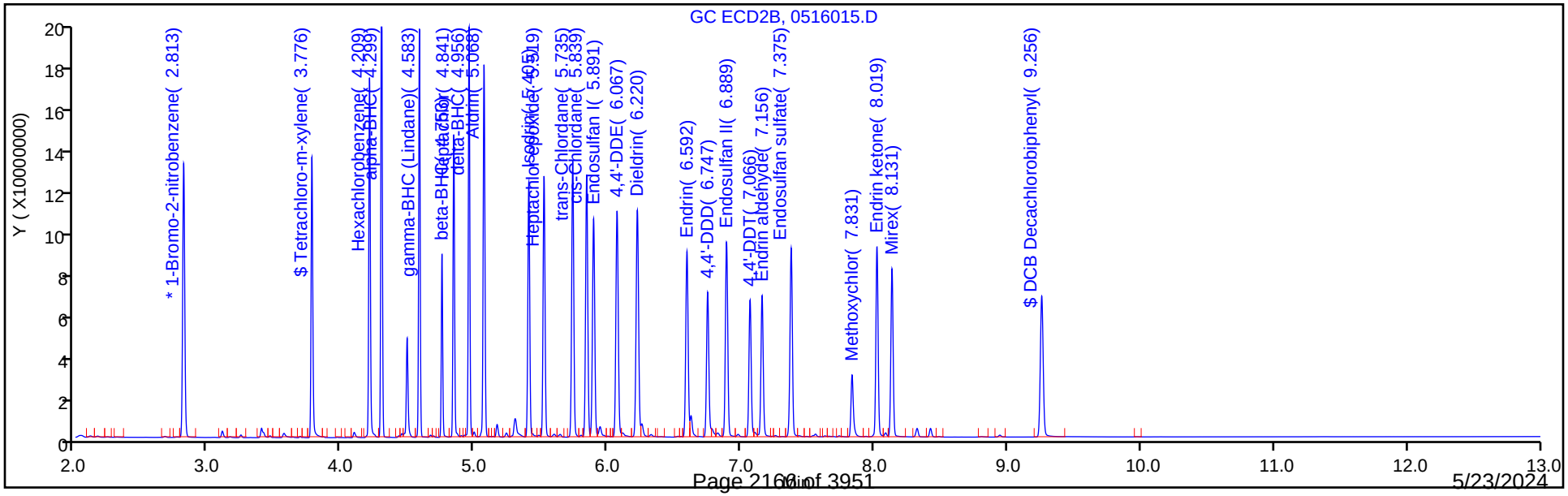
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516015.D

Injection Date:	16-May-2024 14:25:07	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	CCV AB			Worklist Smp#:	14
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653635/14 Calibration Date: 05/16/2024 14:25

Instrument ID: SGC_C Calib Start Date: 05/10/2024 13:54

GC Column: RTI-35silms ID: 0.32(mm) Calib End Date: 05/10/2024 15:41

Lab File ID: 0516015.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Hexachlorobenzene	Ave	1.672	1.537		46.0	50.0	-8.0	20.0
alpha-BHC	Ave	1.981	1.911		48.3	50.0	-3.5	20.0
gamma-BHC (Lindane)	Ave	1.623	1.585		48.8	50.0	-2.3	20.0
beta-BHC	Ave	0.7111	0.6705		47.2	50.0	-5.7	20.0
Heptachlor	Ave	1.291	1.253		48.5	50.0	-3.0	20.0
delta-BHC	Ave	1.672	1.601		47.9	50.0	-4.2	20.0
Aldrin	Ave	1.810	1.730		47.8	50.0	-4.5	20.0
Heptachlor epoxide	Ave	1.421	1.350		47.5	50.0	-5.0	20.0
gamma-Chlordane	Ave	1.567	1.532		48.9	50.0	-2.3	20.0
alpha-Chlordane	Ave	1.544	1.495		48.4	50.0	-3.2	20.0
Endosulfan I	Ave	1.370	1.313		47.9	50.0	-4.2	20.0
4,4'-DDE	Ave	1.457	1.425		48.9	50.0	-2.2	20.0
Dieldrin	Ave	1.519	1.493		49.1	50.0	-1.7	20.0
Endrin	Ave	1.231	1.170		47.5	50.0	-4.9	20.0
4,4'-DDD	Ave	0.8821	0.8974		50.9	50.0	1.7	20.0
Endosulfan II	Ave	1.256	1.225		48.8	50.0	-2.4	20.0
4,4'-DDT	Ave	0.8173	0.8214		50.3	50.0	0.5	20.0
Endrin aldehyde	Ave	0.8710	0.8626		49.5	50.0	-1.0	20.0
Endosulfan sulfate	Ave	1.237	1.196		48.4	50.0	-3.3	20.0
Methoxychlor	Ave	0.4099	0.4036		49.2	50.0	-1.5	20.0
Endrin ketone	Ave	1.120	1.133		50.6	50.0	1.1	20.0
Tetrachloro-m-xylene	Ave	1.371	1.291		47.1	50.0	-5.8	20.0
DCB Decachlorobiphenyl	Ave	1.180	1.091		46.2	50.0	-7.5	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653635/14 Calibration Date: 05/16/2024 14:25

Instrument ID: SGC_C Calib Start Date: 05/10/2024 13:54

GC Column: RTI-35silms ID: 0.32(mm) Calib End Date: 05/10/2024 15:41

Lab File ID: 0516015.D

Analyte	RT	RT WINDOW	
		FROM	TO
Hexachlorobenzene	4.21	4.20	4.22
alpha-BHC	4.30	4.29	4.31
gamma-BHC (Lindane)	4.58	4.57	4.59
beta-BHC	4.75	4.74	4.76
Heptachlor	4.84	4.83	4.85
delta-BHC	4.96	4.94	4.96
Aldrin	5.07	5.06	5.08
Heptachlor epoxide	5.52	5.51	5.53
gamma-Chlordane	5.74	5.72	5.74
alpha-Chlordane	5.84	5.83	5.85
Endosulfan I	5.89	5.88	5.90
4,4'-DDE	6.07	6.05	6.07
Dieldrin	6.22	6.21	6.23
Endrin	6.59	6.58	6.60
4,4'-DDD	6.75	6.74	6.76
Endosulfan II	6.89	6.88	6.90
4,4'-DDT	7.07	7.05	7.07
Endrin aldehyde	7.16	7.14	7.16
Endosulfan sulfate	7.38	7.36	7.38
Methoxychlor	7.83	7.82	7.84
Endrin ketone	8.02	8.01	8.03
Tetrachloro-m-xylene	3.78	3.77	3.79
DCB Decachlorobiphenyl	9.26	9.24	9.26

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516015.D
Lims ID: CCV AB
Client ID:
Sample Type: CCV
Inject. Date: 16-May-2024 14:25:07 ALS Bottle#: 15 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCV AB
Operator ID: mw Instrument ID: SGC_C
Sublist: chrom-C 8081 IS LVI*sub5

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:43:19 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						212.8	
2						192.1	
						RPD = 10.20	
* 2 1-Bromo-2-nitrobenzene							
1	3.228	3.228	0.001	146565333	75.0	75.0	
2	2.813	2.813	0.001	141921811	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.568	4.567	0.001	138072031	50.0	50.9	
2	3.776	3.775	0.001	122169337	50.0	47.1	
						RPD = 7.72	
7 alpha-BHC							
1	4.905	4.903	0.002	200998875	50.0	53.2	
2	4.299	4.298	0.001	180854632	50.0	48.3	
						RPD = 9.67	
6 Hexachlorobenzene							
1	4.970	4.968	0.002	161982646	50.0	50.4	
2	4.209	4.208	0.001	145429254	50.0	46.0	
						RPD = 9.14	
8 gamma-BHC (Lindane)							
1	5.177	5.176	0.001	170508630	50.0	54.3	
2	4.583	4.582	0.001	149922331	50.0	48.8	
						RPD = 10.60	
11 beta-BHC							
1	5.415	5.413	0.002	70811439	50.0	50.7	
2	4.753	4.752	0.001	63442094	50.0	47.2	
						RPD = 7.28	
13 delta-BHC							
1	5.667	5.665	0.002	179505676	50.0	54.6	
2	4.956	4.954	0.002	151503426	50.0	47.9	
						RPD = 13.13	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
12 Heptachlor							
1	5.747	5.745	0.002	147981702	50.0	51.7	
2	4.841	4.840	0.001	118524200	50.0	48.5	
						RPD = 6.32	
15 Aldrin							
1	6.111	6.109	0.002	191620709	50.0	52.5	
2	5.068	5.067	0.001	163658249	50.0	47.8	
						RPD = 9.45	
17 Isodrin							
1	6.510	6.508	0.002	139546582	50.0	49.8	
2	5.405	5.402	0.003	120033047	50.0	46.2	
						RPD = 7.58	
19 Heptachlor epoxide							
1	6.635	6.633	0.002	150094623	50.0	49.8	
2	5.519	5.517	0.002	127706659	50.0	47.5	
						RPD = 4.70	
20 trans-Chlordane							
1	7.004	7.003	0.001	168547119	50.0	51.8	
2	5.735	5.732	0.003	144916353	50.0	48.9	
						RPD = 5.76	
23 cis-Chlordane							
1	7.062	7.061	0.001	157725509	50.0	51.1	
2	5.839	5.837	0.002	141452657	50.0	48.4	
						RPD = 5.44	
24 Endosulfan I							
1	7.104	7.103	0.001	141961245	50.0	49.9	
2	5.891	5.889	0.002	124201985	50.0	47.9	
						RPD = 4.11	
25 4,4'-DDE							
1	7.236	7.234	0.002	156739596	50.0	53.3	
2	6.067	6.064	0.003	134792234	50.0	48.9	
						RPD = 8.54	
26 Dieldrin							
1	7.396	7.393	0.003	164300455	50.0	51.3	
2	6.220	6.217	0.003	141218597	50.0	49.1	
						RPD = 4.24	
29 Endrin							
1	7.650	7.648	0.002	124014985	50.0	49.5	
2	6.592	6.589	0.003	110737922	50.0	47.5	
						RPD = 3.99	
32 4,4'-DDD							
1	7.807	7.806	0.001	105350478	50.0	54.5	
2	6.747	6.746	0.001	84909256	50.0	50.9	
						RPD = 6.90	
33 Endosulfan II							
1	7.934	7.933	0.001	127105080	50.0	50.4	
2	6.889	6.888	0.001	115910197	50.0	48.8	
						RPD = 3.19	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
35 Endrin aldehyde							
1	8.051	8.050	0.001	86191933	50.0	50.3	
2	7.156	7.153	0.003	81615045	50.0	49.5	
						RPD = 1.57	
34 4,4'-DDT							
1	8.136	8.134	0.002	95483476	50.0	53.5	
2	7.066	7.063	0.003	77714530	50.0	50.3	
						RPD = 6.24	
36 Endosulfan sulfate							
1	8.351	8.348	0.003	113695945	50.0	49.1	
2	7.375	7.372	0.003	113190871	50.0	48.4	
						RPD = 1.59	
37 Methoxychlor							
1	8.604	8.603	0.001	46804106	50.0	48.7	
2	7.831	7.829	0.002	38185211	50.0	49.2	
						RPD = 1.05	
38 Endrin ketone							
1	8.812	8.811	0.001	118019276	50.0	51.6	
2	8.019	8.016	0.003	107166982	50.0	50.6	
						RPD = 2.02	
39 Mirex							
1	9.452	9.450	0.002	92367160	50.0	44.2	
2	8.131	8.128	0.003	95471714	50.0	48.4	
						RPD = 9.14	
$ 40 DCB Decachlorobiphenyl							
1	11.061	11.059	0.002	112153477	50.0	39.3	
2	9.256	9.252	0.004	103247759	50.0	46.2	
						RPD = 16.32	
S 42 Endosulfan, Total							
1						149.4	
2						145.1	
						RPD = 2.96	

Reagents:

8081IcalL4_00073	Amount Added: 200.00	Units: uL	
8081_IS_00023	Amount Added: 20.00	Units: uL	Run Reagent

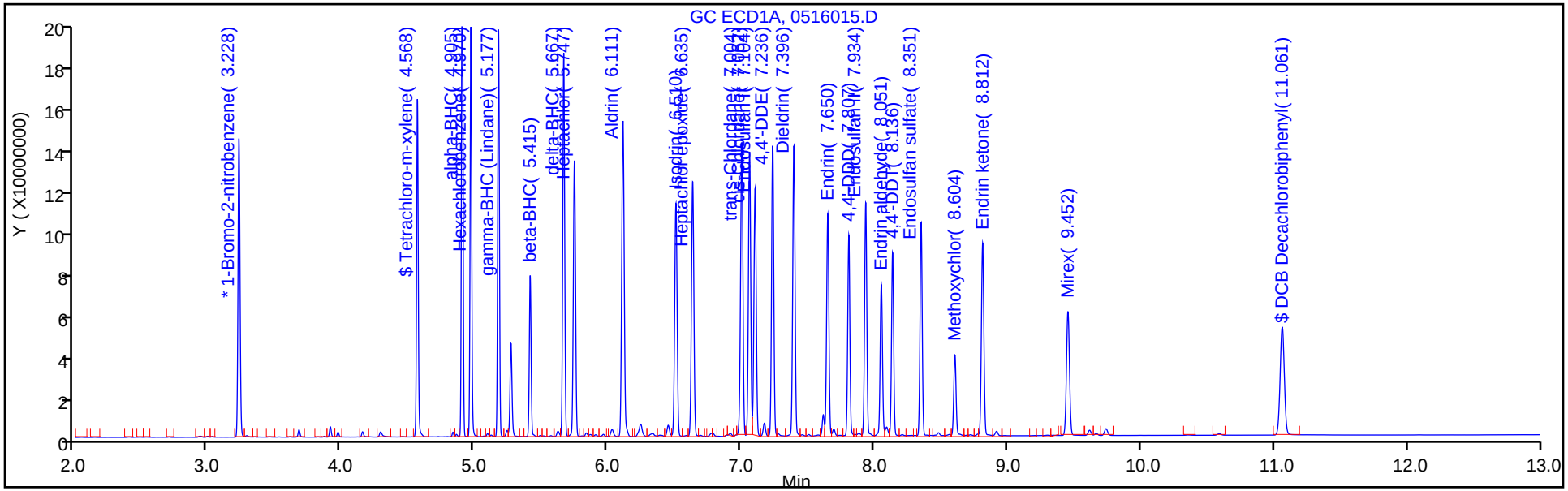
Report Date: 16-May-2024 14:43:20 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

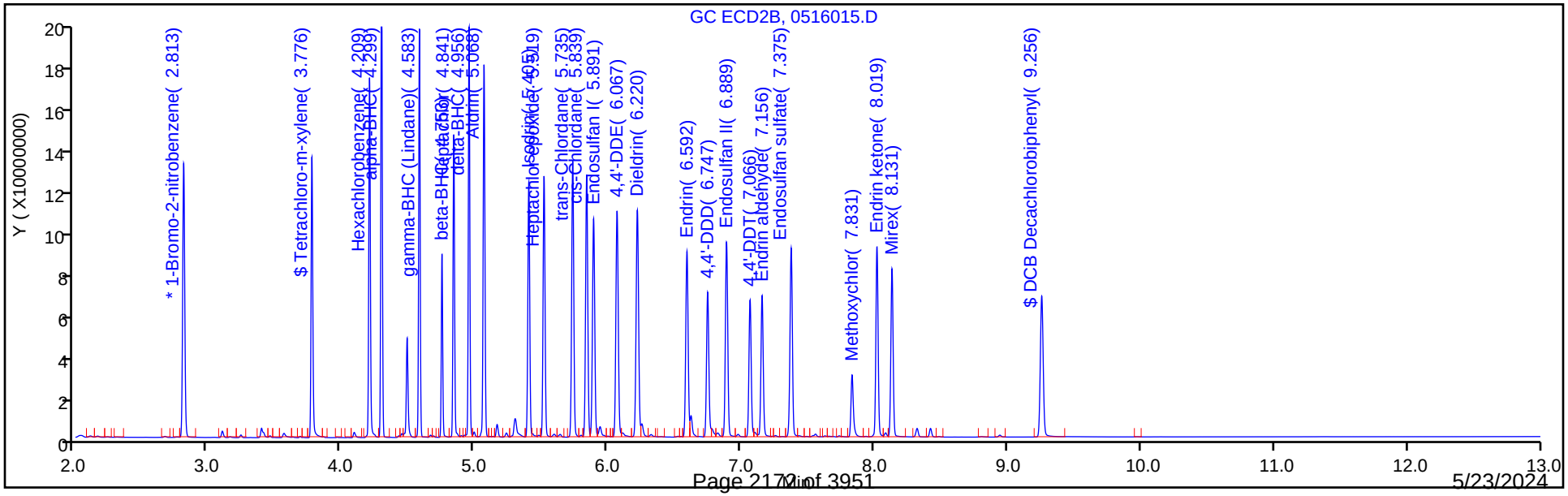
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516015.D

Injection Date:	16-May-2024 14:25:07	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	CCV AB			Worklist Smp#:	14
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-652915/1-A

Matrix: Water | Lab File ID: 0513008.D

Analysis Method: 8081B | Date Collected:

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 250(mL) | Date Analyzed: 05/13/2024 12:43

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-XLB ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653121 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
72-54-8	4,4'-DDD	0.050	U	0.050	0.050	0.0042
72-55-9	4,4'-DDE	0.022	U	0.050	0.022	0.0042
50-29-3	4,4'-DDT	0.050	U	0.050	0.050	0.024
309-00-2	Aldrin	0.021	U	0.050	0.021	0.0062
319-84-6	alpha-BHC	0.029	U	0.050	0.029	0.0097
5103-71-9	alpha-Chlordane	0.029	U	0.050	0.029	0.0088
319-85-7	beta-BHC	0.040	U	0.050	0.040	0.0091
319-86-8	delta-BHC	0.024	U	0.050	0.024	0.0078
60-57-1	Dieldrin	0.016	U	0.050	0.016	0.0046
959-98-8	Endosulfan I	0.022	U	0.050	0.022	0.0058
33213-65-9	Endosulfan II	0.040	U	0.050	0.040	0.0066
1031-07-8	Endosulfan sulfate	0.018	U	0.050	0.018	0.0049
72-20-8	Endrin	0.024	U	0.050	0.024	0.0086
7421-93-4	Endrin aldehyde	0.024	U	0.050	0.024	0.0087
53494-70-5	Endrin ketone	0.035	U	0.050	0.035	0.013
58-89-9	gamma-BHC (Lindane)	0.031	U	0.050	0.031	0.010
5103-74-2	gamma-Chlordane	0.030	U	0.050	0.030	0.0072
76-44-8	Heptachlor	0.050	U	0.050	0.050	0.010
1024-57-3	Heptachlor epoxide	0.036	U	0.050	0.036	0.0032
72-43-5	Methoxychlor	0.036	U	0.10	0.036	0.014
8001-35-2	Toxaphene	3.0	U	3.0	3.0	1.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	61		34-122
877-09-8	Tetrachloro-m-xylene	79		33-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513008.D
Lims ID: MB 280-652915/1-A
Client ID:
Sample Type: MB
Inject. Date: 13-May-2024 12:43:18 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-652915/1-A
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:05 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 14-May-2024 08:07:30

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							7
1		1.000				ND	
2		0.000					
* 2 1-Bromo-2-nitrobenzene							
1	3.231	3.231	0.000	95660295	75.0	75.0	
2	2.817	2.817	0.000	132224529	75.0	75.0	
4 Propachlor							
1		4.041				ND	
2		4.339					
$ 3 Tetrachloro-m-xylene							
1	4.569	4.569	0.000	14025557	10.0	7.92	
2	3.778	3.778	0.000	15687039	10.0	6.49	
						RPD = 19.82	
5 Diallate							
1		4.683				ND	
2		4.042					
14 2,4,5-Trichlorophenol							
1		4.866				ND	
2		4.769					
7 alpha-BHC							
1		4.904				ND	
2		4.300					
6 Hexachlorobenzene							
1	4.969	4.969	0.000	158245		0.0754	
2	4.207	4.209	-0.002	599311		0.2034	
						RPD = 91.80	
8 gamma-BHC (Lindane)							
1		5.177				ND	
2		4.584					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
11 beta-BHC							
1		5.414				ND	
2		4.753					
10 Technical Chlordane							
1		5.535				ND	
1		6.126					
1		7.004					
1		7.115					
1		8.011					
2		4.714					
2		5.189					
2		5.737					
2		5.765					
2		6.932					
9 Chlordane (technical)							
1		5.535				ND	
1		6.126					
1		7.004					
1		7.115					
1		8.011					
2		4.714					
2		5.189					
2		5.737					
2		5.765					
2		6.932					
13 delta-BHC							
1		5.665				ND	
2		4.956					
12 Heptachlor							
1		5.747				ND	
2		4.842					
16 Chlorpyrifos							
1		5.990				ND	
2		5.177					
15 Aldrin							
1		6.110				ND	
2		5.069					
17 Isodrin							
1		6.507				ND	
2		5.404					
19 Heptachlor epoxide							
1		6.634				ND	
2		5.519					
21 2,4'-DDE							
1		6.823				ND	
2		5.750					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
22 Toxaphene							
1		6.896				ND	
1		7.583					
1		8.009					
1		8.269					
1		9.304					
2		6.222					
2		6.637					
2		6.925					
2		7.799					
2		8.164					
20 trans-Chlordane							
1		7.003				ND	
2		5.734					
23 cis-Chlordane							
1		7.061				ND	
2		5.839					
24 Endosulfan I							
1		7.103				ND	
2		5.891					
25 4,4'-DDE							
1		7.235				ND	
2		6.067					
27 2,4'-DDD							
1		7.344				ND	
2		6.314					
26 Dieldrin							
1		7.394				ND	
2		6.219					
28 Chlorobenzilate							
1		7.511				ND	
2		6.431					
29 Endrin							
1		7.647				ND	
2		6.591					
30 2,4'-DDT							
1		7.687				ND	
2		6.648					
32 4,4'-DDD							
1		7.805				ND	
2		6.747					
31 Kepone							
1		7.898				ND	
2		6.714					
33 Endosulfan II							
1		7.933				ND	
2		6.889					
35 Endrin aldehyde							
1		8.050				ND	
2		7.157					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
34 4,4'-DDT							
1		8.135				ND	
2		7.065					
18 Dicofol							
1		8.141				ND	
2		8.545					
36 Endosulfan sulfate							
1		8.349				ND	
2		7.374					
37 Methoxychlor							
1		8.603				ND	
2		7.831					
38 Endrin ketone							
1		8.810				ND	
2		8.018					
39 Mirex							
1		9.451				ND	
2		8.130					
$ 40 DCB Decachlorobiphenyl							
1	11.061	11.057	0.004	11331924	10.0	6.08	
2	9.257	9.257	0.000	11650339	10.0	5.60	
						RPD = 8.18	
41 Tris(2,3-dibromopropyl)phosphate							
1		12.000				ND	
2		12.279					
S 42 Endosulfan, Total							7
1		0.000				ND	
2		0.000					

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

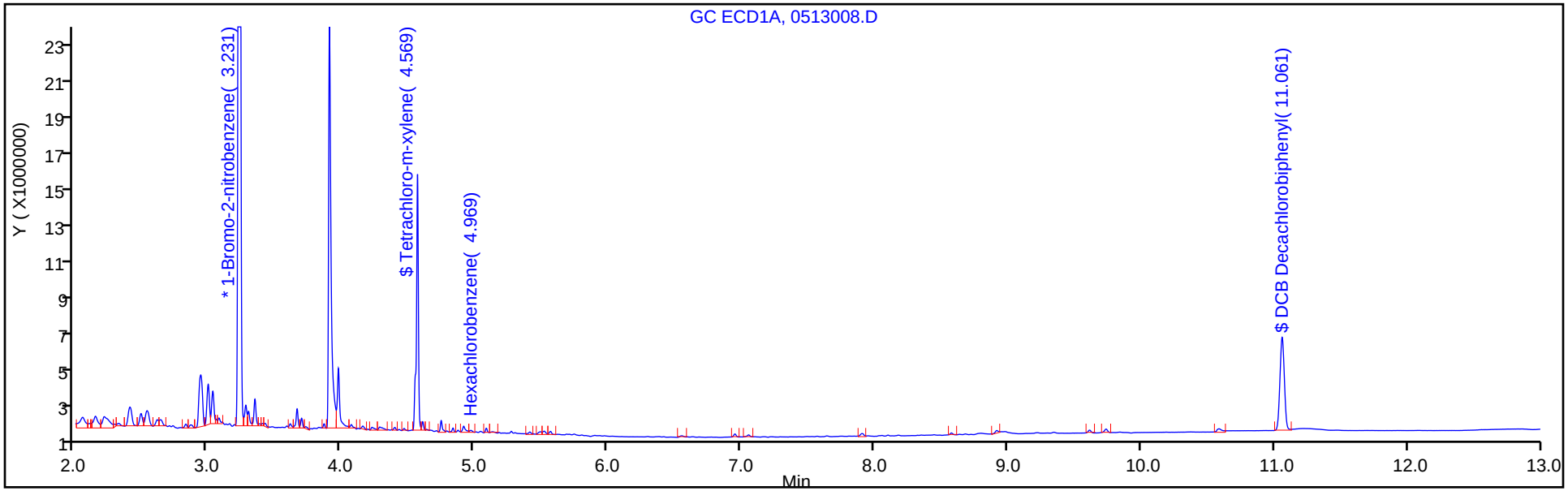
Report Date: 14-May-2024 08:21:22 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

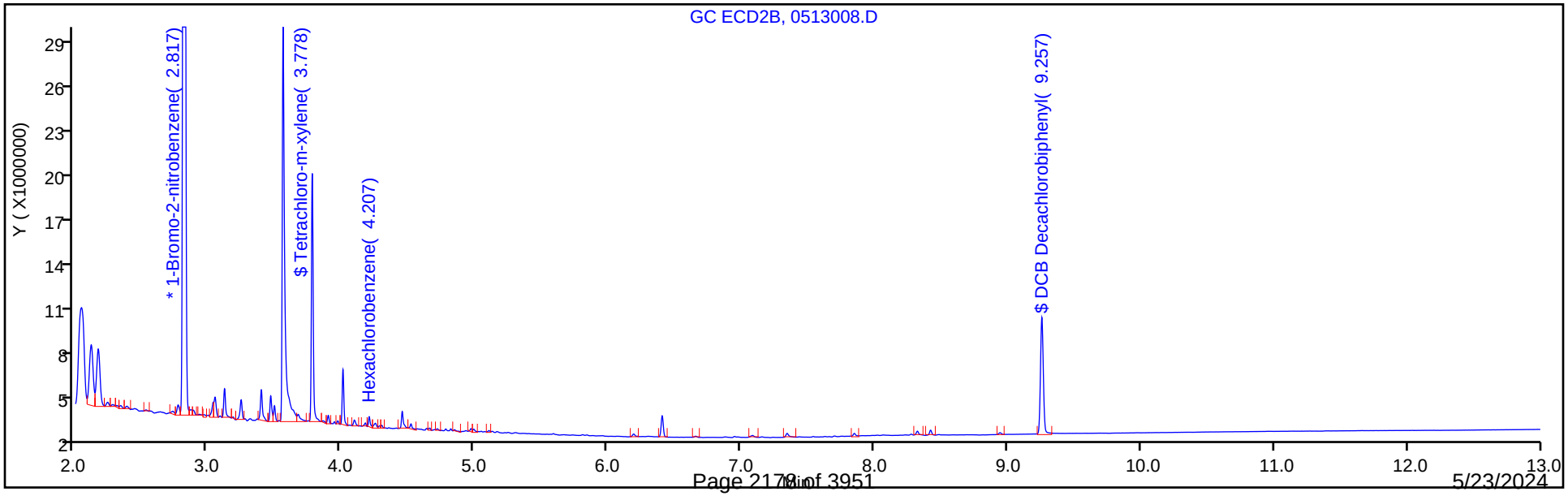
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513008.D

Injection Date:	13-May-2024 12:43:18	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	MB 280-652915/1-A			Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513008.D				
Lims ID:	MB 280-652915/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	13-May-2024 12:43:18	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 280-652915/1-A				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	14-May-2024 08:21:05	Calib Date:	13-May-2024 12:25:32		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1604				
First Level Reviewer: AP6K		Date:	14-May-2024 08:07:30		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	7.92	79.16
$ 40 DCB Decachlorobiphenyl	10.0	6.08	60.76

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	6.49	64.89
$ 40 DCB Decachlorobiphenyl	10.0	5.60	55.99

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-653452/1-A RE

Matrix: Water | Lab File ID: 0516009.D

Analysis Method: 8081B | Date Collected:

Extraction Method: 3510C | Date Extracted: 05/15/2024 10:49

Sample wt/vol: 250(mL) | Date Analyzed: 05/16/2024 12:38

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-XLB ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653635 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
72-54-8	*4,4'-DDD*	*0.050*	*U*	*0.050*	0.050	*0.0042*
72-55-9	*4,4'-DDE*	*0.022*	*U*	*0.050*	0.022	*0.0042*
50-29-3	*4,4'-DDT*	*0.050*	*U*	*0.050*	0.050	*0.024*
309-00-2	*Aldrin*	*0.021*	*U*	*0.050*	0.021	*0.0062*
319-84-6	*alpha-BHC*	*0.029*	*U*	*0.050*	0.029	*0.0097*
5103-71-9	*alpha-Chlordane*	*0.029*	*U*	*0.050*	0.029	*0.0088*
319-85-7	*beta-BHC*	*0.040*	*U*	*0.050*	0.040	*0.0091*
319-86-8	*delta-BHC*	*0.024*	*U*	*0.050*	0.024	*0.0078*
60-57-1	*Dieldrin*	*0.016*	*U*	*0.050*	0.016	*0.0046*
959-98-8	*Endosulfan I*	*0.022*	*U*	*0.050*	0.022	*0.0058*
33213-65-9	*Endosulfan II*	*0.040*	*U*	*0.050*	0.040	*0.0066*
1031-07-8	*Endosulfan sulfate*	*0.018*	*U*	*0.050*	0.018	*0.0049*
72-20-8	*Endrin*	*0.024*	*U*	*0.050*	0.024	*0.0086*
7421-93-4	*Endrin aldehyde*	*0.024*	*U*	*0.050*	0.024	*0.0087*
53494-70-5	*Endrin ketone*	*0.035*	*U*	*0.050*	0.035	*0.013*
58-89-9	*gamma-BHC (Lindane)*	*0.031*	*U*	*0.050*	0.031	*0.010*
5103-74-2	*gamma-Chlordane*	*0.030*	*U*	*0.050*	0.030	*0.0072*
76-44-8	*Heptachlor*	*0.050*	*U*	*0.050*	0.050	*0.010*
1024-57-3	*Heptachlor epoxide*	*0.036*	*U*	*0.050*	0.036	*0.0032*
72-43-5	*Methoxychlor*	*0.036*	*U*	*0.10*	0.036	*0.014*
8001-35-2	*Toxaphene*	*3.0*	*U*	*3.0*	3.0	*1.5*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	72		33-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516009.D
Lims ID: MB 280-653452/1-A RE
Client ID:
Sample Type: MB
Inject. Date: 16-May-2024 12:38:24 ALS Bottle#: 9 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-653452/1-A
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:42:24 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

First Level Reviewer: AP6K Date: 16-May-2024 14:40:57

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							7
1		1.000				ND	
2		0.000					
* 2 1-Bromo-2-nitrobenzene							
1	3.228	3.228	0.000	149090373	75.0	75.0	
2	2.814	2.813	0.001	146012686	75.0	75.0	
4 Propachlor							
1		4.041				ND	
2		4.339					
$ 3 Tetrachloro-m-xylene							
1	4.567	4.567	0.000	19761099	10.0	7.16	
2	3.776	3.775	0.001	17927526	10.0	6.72	
						RPD = 6.36	
5 Diallate							
1		4.683				ND	
2		4.040					
14 2,4,5-Trichlorophenol							
1		4.866				ND	
2		4.769					
7 alpha-BHC							
1		4.903				ND	
2		4.298					
6 Hexachlorobenzene							
1	4.970	4.968	0.002	303500		0.0928	
2	4.205	4.208	-0.003	1418662		0.4359	
						RPD = 129.79	
8 gamma-BHC (Lindane)							
1		5.176				ND	
2		4.582					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
11 beta-BHC							
1		5.413				ND	
2		4.752					
10 Technical Chlordane							
1		5.534				ND	
1		6.124					
1		7.002					
1		7.113					
1		8.009					
2		4.713					
2		5.187					
2		5.733					
2		5.761					
2		6.928					
9 Chlordane (technical)							
1		5.534				ND	
1		6.124					
1		7.002					
1		7.113					
1		8.009					
2		4.713					
2		5.187					
2		5.733					
2		5.761					
2		6.928					
13 delta-BHC							
1		5.665				ND	
2		4.954					
12 Heptachlor							
1	5.741	5.745	-0.004	147486		0.0506	
2	4.846	4.840	0.006	266228		0.1059	
						RPD = 70.63	
16 Chlorpyrifos							
1		5.989				ND	
2		5.175					
15 Aldrin							
1		6.109				ND	
2		5.067					
17 Isodrin							
1		6.508				ND	
2		5.402					
19 Heptachlor epoxide							
1		6.633				ND	
2		5.517					
21 2,4'-DDE							
1		6.822				ND	
2		5.749					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
22 Toxaphene							
1		6.894				ND	
1		7.581					
1		8.006					
1		8.267					
1		9.302					
2		6.217					
2		6.634					
2		6.920					
2		7.796					
2		8.160					
20 trans-Chlordane							
1		7.003				ND	
2		5.732					
23 cis-Chlordane							
1	7.057	7.061	-0.004	518011		0.1650	
2	5.836	5.837	-0.001	105859		0.0352	
						RPD = 129.66	
24 Endosulfan I							
1		7.103				ND	
2		5.889					
25 4,4'-DDE							
1		7.234				ND	
2		6.064					
27 2,4'-DDD							
1		7.343				ND	
2		6.312					
26 Dieldrin							
1		7.393				ND	
2		6.217					
28 Chlorobenzilate							
1		7.509				ND	
2		6.429					
29 Endrin							
1		7.648				ND	
2		6.589					
30 2,4'-DDT							
1		7.686				ND	
2		6.646					
32 4,4'-DDD							
1		7.806				ND	
2		6.746					
31 Kepone							
1		7.897				ND	
2		6.718					
33 Endosulfan II							
1		7.933				ND	
2		6.888					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
35 Endrin aldehyde							
1		8.050				ND	
2		7.153					
34 4,4'-DDT							
1		8.134				ND	
2		7.063					
18 Dicofol							
1		8.140				ND	
2		8.544					
36 Endosulfan sulfate							
1		8.348				ND	
2		7.372					
37 Methoxychlor							
1		8.603				ND	
2		7.829					
38 Endrin ketone							
1		8.811				ND	
2		8.016					
39 Mirex							
1		9.450				ND	
2		8.128					
$ 40 DCB Decachlorobiphenyl							
1	11.060	11.059	0.001	16721455	10.0	5.75	
2	9.254	9.252	0.002	15856609	10.0	6.90	
						RPD = 18.14	
41 Tris(2,3-dibromopropyl)phosphate							
1		12.000				ND	
2		12.279					
S 42 Endosulfan, Total							7
1		0.000				ND	
2		0.000					

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

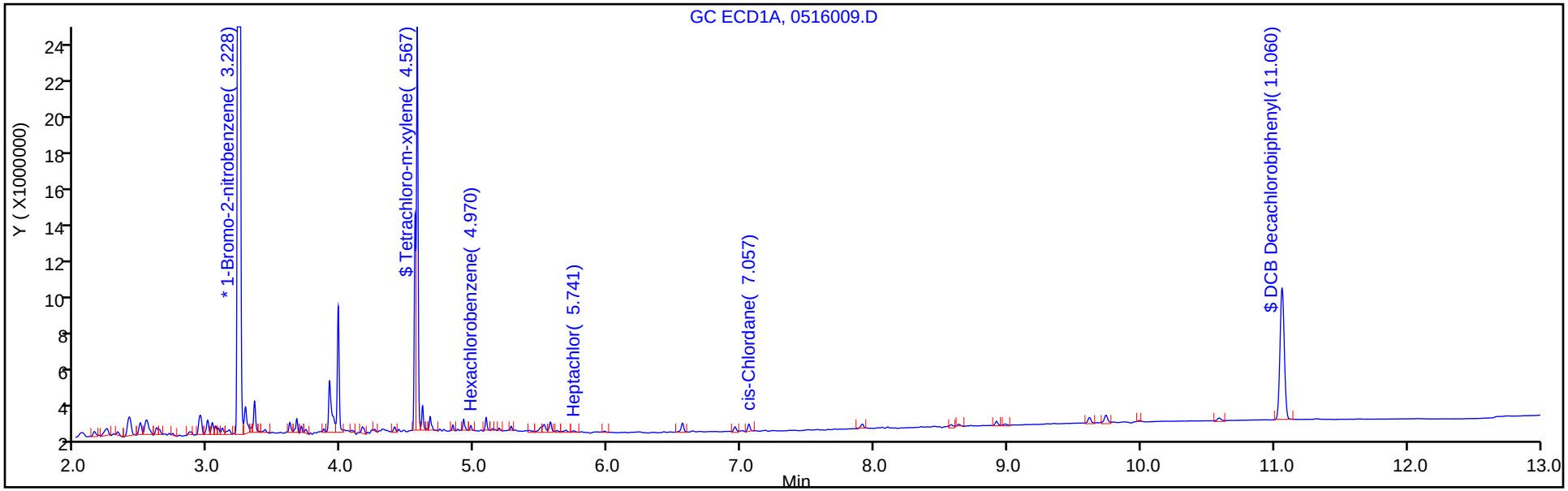
Report Date: 16-May-2024 14:43:07 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

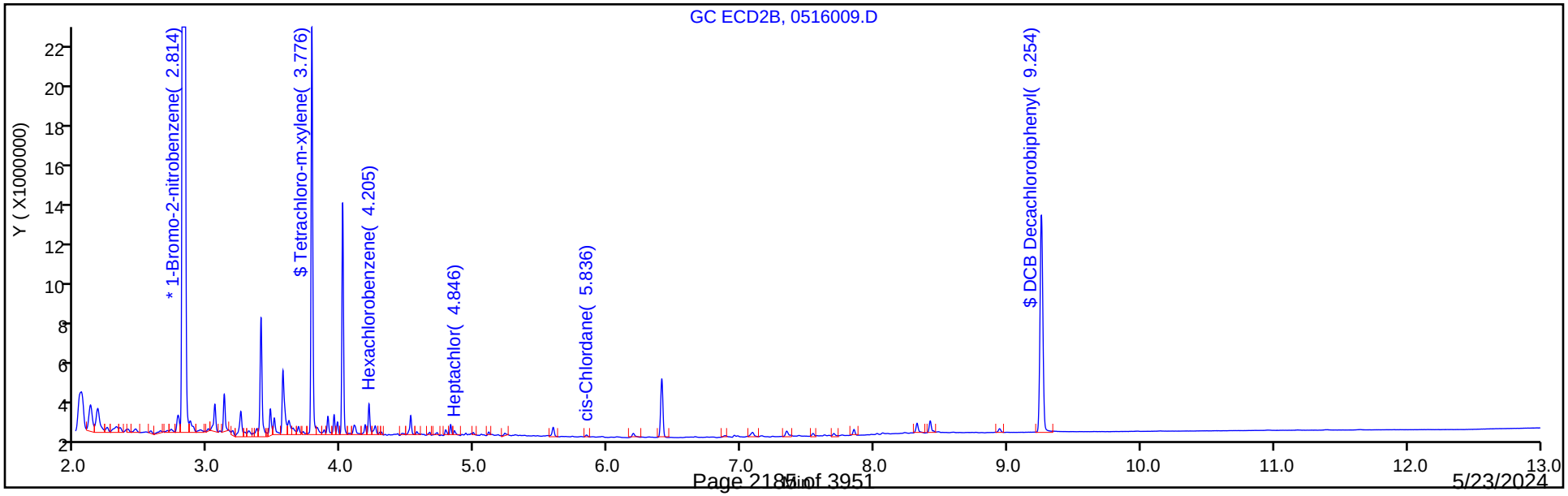
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516009.D

Injection Date:	16-May-2024 12:38:24	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	MB 280-653452/1-A RE			Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516009.D				
Lims ID:	MB 280-653452/1-A RE				
Client ID:					
Sample Type:	MB				
Inject. Date:	16-May-2024 12:38:24	ALS Bottle#:	9	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 280-653452/1-A				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	16-May-2024 14:42:24	Calib Date:	16-May-2024 11:45:09		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1676				
First Level Reviewer: AP6K		Date:	16-May-2024 14:40:57		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	7.16	71.56
$ 40 DCB Decachlorobiphenyl	10.0	5.75	57.53

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	6.72	67.15
$ 40 DCB Decachlorobiphenyl	10.0	6.90	69.00

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-653452/1-A RE

Matrix: Water | Lab File ID: 0516009.D

Analysis Method: 8081B | Date Collected:

Extraction Method: 3510C | Date Extracted: 05/15/2024 10:49

Sample wt/vol: 250(mL) | Date Analyzed: 05/16/2024 12:38

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-35silms ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653635 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	69		34-122

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516009.D
Lims ID: MB 280-653452/1-A RE
Client ID:
Sample Type: MB
Inject. Date: 16-May-2024 12:38:24 ALS Bottle#: 9 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-653452/1-A
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:42:24 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

First Level Reviewer: AP6K Date: 16-May-2024 14:40:57

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							7
1		1.000				ND	
2		0.000					
* 2 1-Bromo-2-nitrobenzene							
1	3.228	3.228	0.000	149090373	75.0	75.0	
2	2.814	2.813	0.001	146012686	75.0	75.0	
4 Propachlor							
1		4.041				ND	
2		4.339					
$ 3 Tetrachloro-m-xylene							
1	4.567	4.567	0.000	19761099	10.0	7.16	
2	3.776	3.775	0.001	17927526	10.0	6.72	
						RPD = 6.36	
5 Diallate							
1		4.683				ND	
2		4.040					
14 2,4,5-Trichlorophenol							
1		4.866				ND	
2		4.769					
7 alpha-BHC							
1		4.903				ND	
2		4.298					
6 Hexachlorobenzene							
1	4.970	4.968	0.002	303500		0.0928	
2	4.205	4.208	-0.003	1418662		0.4359	
						RPD = 129.79	
8 gamma-BHC (Lindane)							
1		5.176				ND	
2		4.582					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
11 beta-BHC							
1		5.413				ND	
2		4.752					
10 Technical Chlordane							
1		5.534				ND	
1		6.124					
1		7.002					
1		7.113					
1		8.009					
2		4.713					
2		5.187					
2		5.733					
2		5.761					
2		6.928					
9 Chlordane (technical)							
1		5.534				ND	
1		6.124					
1		7.002					
1		7.113					
1		8.009					
2		4.713					
2		5.187					
2		5.733					
2		5.761					
2		6.928					
13 delta-BHC							
1		5.665				ND	
2		4.954					
12 Heptachlor							
1	5.741	5.745	-0.004	147486		0.0506	
2	4.846	4.840	0.006	266228		0.1059	
						RPD = 70.63	
16 Chlorpyrifos							
1		5.989				ND	
2		5.175					
15 Aldrin							
1		6.109				ND	
2		5.067					
17 Isodrin							
1		6.508				ND	
2		5.402					
19 Heptachlor epoxide							
1		6.633				ND	
2		5.517					
21 2,4'-DDE							
1		6.822				ND	
2		5.749					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
22 Toxaphene							
1		6.894				ND	
1		7.581					
1		8.006					
1		8.267					
1		9.302					
2		6.217					
2		6.634					
2		6.920					
2		7.796					
2		8.160					
20 trans-Chlordane							
1		7.003				ND	
2		5.732					
23 cis-Chlordane							
1	7.057	7.061	-0.004	518011		0.1650	
2	5.836	5.837	-0.001	105859		0.0352	
						RPD = 129.66	
24 Endosulfan I							
1		7.103				ND	
2		5.889					
25 4,4'-DDE							
1		7.234				ND	
2		6.064					
27 2,4'-DDD							
1		7.343				ND	
2		6.312					
26 Dieldrin							
1		7.393				ND	
2		6.217					
28 Chlorobenzilate							
1		7.509				ND	
2		6.429					
29 Endrin							
1		7.648				ND	
2		6.589					
30 2,4'-DDT							
1		7.686				ND	
2		6.646					
32 4,4'-DDD							
1		7.806				ND	
2		6.746					
31 Kepone							
1		7.897				ND	
2		6.718					
33 Endosulfan II							
1		7.933				ND	
2		6.888					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
35 Endrin aldehyde							
1		8.050				ND	
2		7.153					
34 4,4'-DDT							
1		8.134				ND	
2		7.063					
18 Dicofol							
1		8.140				ND	
2		8.544					
36 Endosulfan sulfate							
1		8.348				ND	
2		7.372					
37 Methoxychlor							
1		8.603				ND	
2		7.829					
38 Endrin ketone							
1		8.811				ND	
2		8.016					
39 Mirex							
1		9.450				ND	
2		8.128					
$ 40 DCB Decachlorobiphenyl							
1	11.060	11.059	0.001	16721455	10.0	5.75	
2	9.254	9.252	0.002	15856609	10.0	6.90	
						RPD = 18.14	
41 Tris(2,3-dibromopropyl)phosphate							
1		12.000				ND	
2		12.279					
S 42 Endosulfan, Total							7
1		0.000				ND	
2		0.000					

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

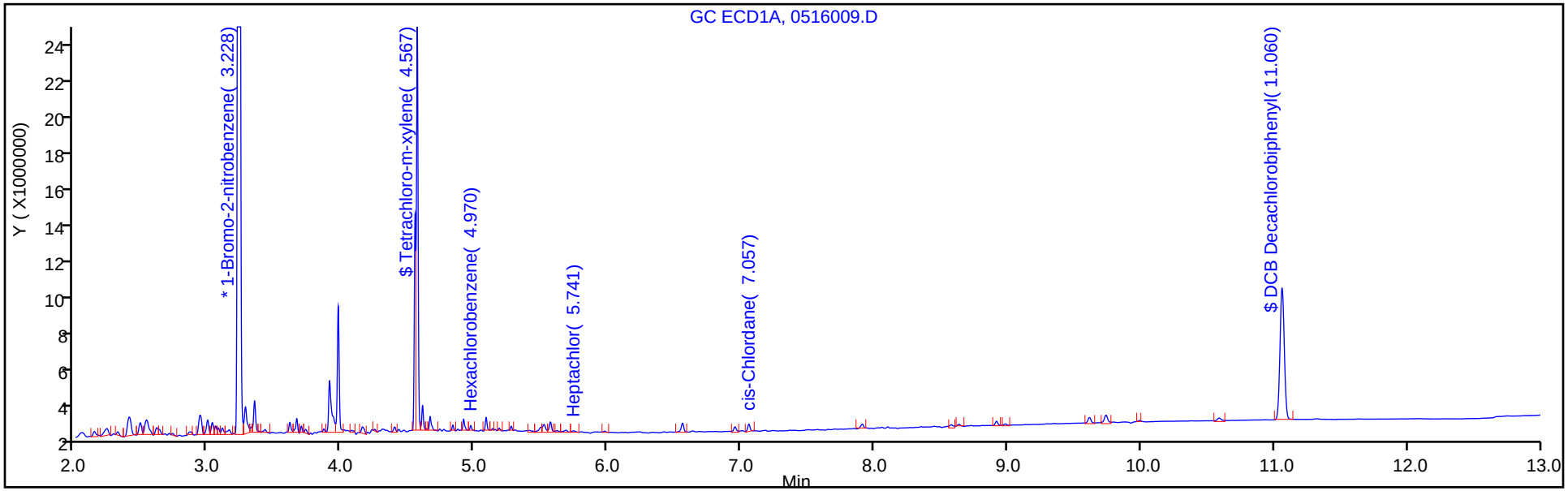
Report Date: 16-May-2024 14:43:07 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

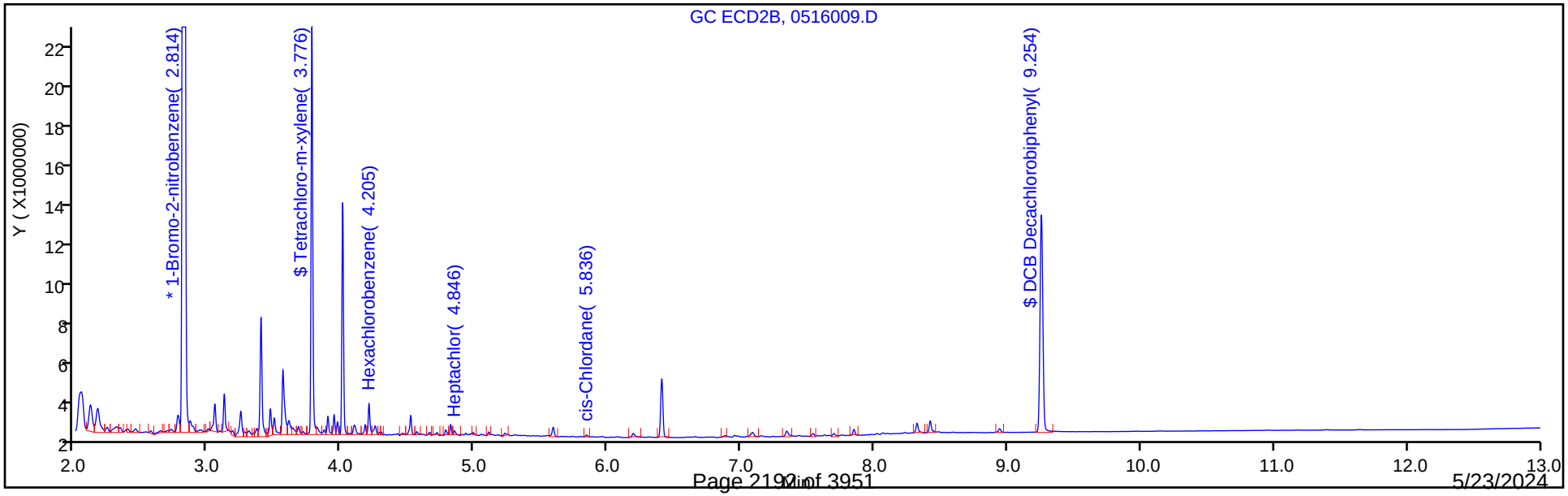
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516009.D

Injection Date:	16-May-2024 12:38:24	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	MB 280-653452/1-A RE			Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516009.D				
Lims ID:	MB 280-653452/1-A RE				
Client ID:					
Sample Type:	MB				
Inject. Date:	16-May-2024 12:38:24	ALS Bottle#:	9	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 280-653452/1-A				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	16-May-2024 14:42:24	Calib Date:	16-May-2024 11:45:09		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1676				
First Level Reviewer: AP6K		Date:	16-May-2024 14:40:57		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	7.16	71.56
$ 40 DCB Decachlorobiphenyl	10.0	5.75	57.53

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	6.72	67.15
$ 40 DCB Decachlorobiphenyl	10.0	6.90	69.00

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-652915/2-A

Matrix: Water | Lab File ID: 0513009.D

Analysis Method: 8081B | Date Collected:

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 250(mL) | Date Analyzed: 05/13/2024 13:01

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-XLB ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653121 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
72-54-8	4,4'-DDD	0.944		0.050	0.050	0.0042
72-55-9	4,4'-DDE	0.923		0.050	0.022	0.0042
50-29-3	4,4'-DDT	0.861		0.050	0.050	0.024
309-00-2	Aldrin	0.572		0.050	0.021	0.0062
319-84-6	alpha-BHC	0.922		0.050	0.029	0.0097
5103-71-9	alpha-Chlordane	0.853		0.050	0.029	0.0088
319-85-7	beta-BHC	0.878		0.050	0.040	0.0091
319-86-8	delta-BHC	0.982		0.050	0.024	0.0078
60-57-1	Dieldrin	0.860		0.050	0.016	0.0046
959-98-8	Endosulfan I	0.883		0.050	0.022	0.0058
33213-65-9	Endosulfan II	0.862		0.050	0.040	0.0066
1031-07-8	Endosulfan sulfate	0.838		0.050	0.018	0.0049
72-20-8	Endrin	0.865		0.050	0.024	0.0086
7421-93-4	Endrin aldehyde	0.870		0.050	0.024	0.0087
53494-70-5	Endrin ketone	0.846		0.050	0.035	0.013
58-89-9	gamma-BHC (Lindane)	0.873		0.050	0.031	0.010
5103-74-2	gamma-Chlordane	0.833		0.050	0.030	0.0072
76-44-8	Heptachlor	0.703		0.050	0.050	0.010
1024-57-3	Heptachlor epoxide	0.887		0.050	0.036	0.0032
72-43-5	Methoxychlor	0.780		0.10	0.036	0.014

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	52		34-122
877-09-8	Tetrachloro-m-xylene	54		33-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513009.D
Lims ID: LCS 280-652915/2-A
Client ID:
Sample Type: LCS
Inject. Date: 13-May-2024 13:01:00 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-652915/2-A
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:05 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.232	3.231	0.001	151495305	75.0	75.0	
2	2.818	2.817	0.001	143486212	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.570	4.569	0.001	15128198	10.0	5.39	
2	3.779	3.778	0.001	13203470	10.0	5.03	
						RPD = 6.88	
7 alpha-BHC							
1	4.906	4.904	0.002	180229891	50.0	46.1	
2	4.301	4.300	0.001	155547845	50.0	41.0	
						RPD = 11.62	
6 Hexachlorobenzene							
1	4.971	4.969	0.002	103182753	50.0	31.0	
2	4.211	4.209	0.002	92454825	50.0	28.9	
						RPD = 7.13	
8 gamma-BHC (Lindane)							
1	5.178	5.177	0.001	141700064	50.0	43.7	
2	4.586	4.584	0.002	125740815	50.0	40.5	
						RPD = 7.47	
11 beta-BHC							
1	5.416	5.414	0.002	63397567	50.0	43.9	
2	4.755	4.753	0.002	55709901	50.0	41.0	
						RPD = 7.00	
13 delta-BHC							
1	5.668	5.665	0.003	166756732	50.0	49.1	
2	4.957	4.956	0.001	137991908	50.0	43.2	
						RPD = 12.89	
12 Heptachlor							
1	5.749	5.747	0.002	104028322	50.0	35.1	
2	4.843	4.842	0.001	82035433	50.0	33.2	
						RPD = 5.66	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
15 Aldrin							
1	6.112	6.110	0.002	107946852	50.0	28.6	
2	5.071	5.069	0.002	94008004	50.0	27.1	
						RPD = 5.29	
19 Heptachlor epoxide							
1	6.636	6.634	0.002	138264256	50.0	44.4	
2	5.521	5.519	0.002	114900656	50.0	42.3	
						RPD = 4.85	
20 trans-Chlordane							
1	7.005	7.003	0.002	140151181	50.0	41.6	
2	5.736	5.734	0.002	118243564	50.0	39.4	
						RPD = 5.44	
23 cis-Chlordane							
1	7.063	7.061	0.002	136087283	50.0	42.7	
2	5.841	5.839	0.002	119678676	50.0	40.5	
						RPD = 5.19	
24 Endosulfan I							
1	7.105	7.103	0.002	129740145	50.0	44.1	
2	5.893	5.891	0.002	111184080	50.0	42.4	
						RPD = 3.96	
25 4,4'-DDE							
1	7.237	7.235	0.002	140384263	50.0	46.1	
2	6.069	6.067	0.002	124675717	50.0	44.7	
						RPD = 3.11	
26 Dieldrin							
1	7.396	7.394	0.002	142524321	50.0	43.0	
2	6.221	6.219	0.002	124388381	50.0	42.8	
						RPD = 0.50	
29 Endrin							
1	7.651	7.647	0.004	112024951	50.0	43.2	
2	6.594	6.591	0.003	102433174	50.0	43.5	
						RPD = 0.60	
32 4,4'-DDD							
1	7.808	7.805	0.003	94312740	50.0	47.2	
2	6.749	6.747	0.002	77592728	50.0	46.0	
						RPD = 2.63	
33 Endosulfan II							
1	7.935	7.933	0.002	112384419	50.0	43.1	
2	6.891	6.889	0.002	106124872	50.0	44.2	
						RPD = 2.51	
35 Endrin aldehyde							
1	8.052	8.050	0.002	77018813	50.0	43.5	
2	7.157	7.157	0.000	75982931	50.0	45.6	
						RPD = 4.74	
34 4,4'-DDT							
1	8.137	8.135	0.002	79453916	50.0	43.1	
2	7.066	7.065	0.001	69847548	50.0	44.7	
						RPD = 3.68	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
36 Endosulfan sulfate							
1	8.351	8.349	0.002	100245869	50.0	41.9	
2	7.376	7.374	0.002	104951418	50.0	44.4	
						RPD = 5.66	
37 Methoxychlor							
1	8.606	8.603	0.003	38738379	50.0	39.0	
2	7.832	7.831	0.001	31822478	50.0	40.6	
						RPD = 3.94	
38 Endrin ketone							
1	8.813	8.810	0.003	100038968	50.0	42.3	
2	8.020	8.018	0.002	95013752	50.0	44.3	
						RPD = 4.68	
39 Mirex							
1	9.453	9.451	0.002	69369757	50.0	32.1	
2	8.133	8.130	0.003	78720293	50.0	39.5	
						RPD = 20.62	
$ 40 DCB Decachlorobiphenyl							
1	11.065	11.057	0.008	15309708	10.0	5.18	
2	9.258	9.257	0.001	14658148	10.0	6.49	
						RPD = 22.40	

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

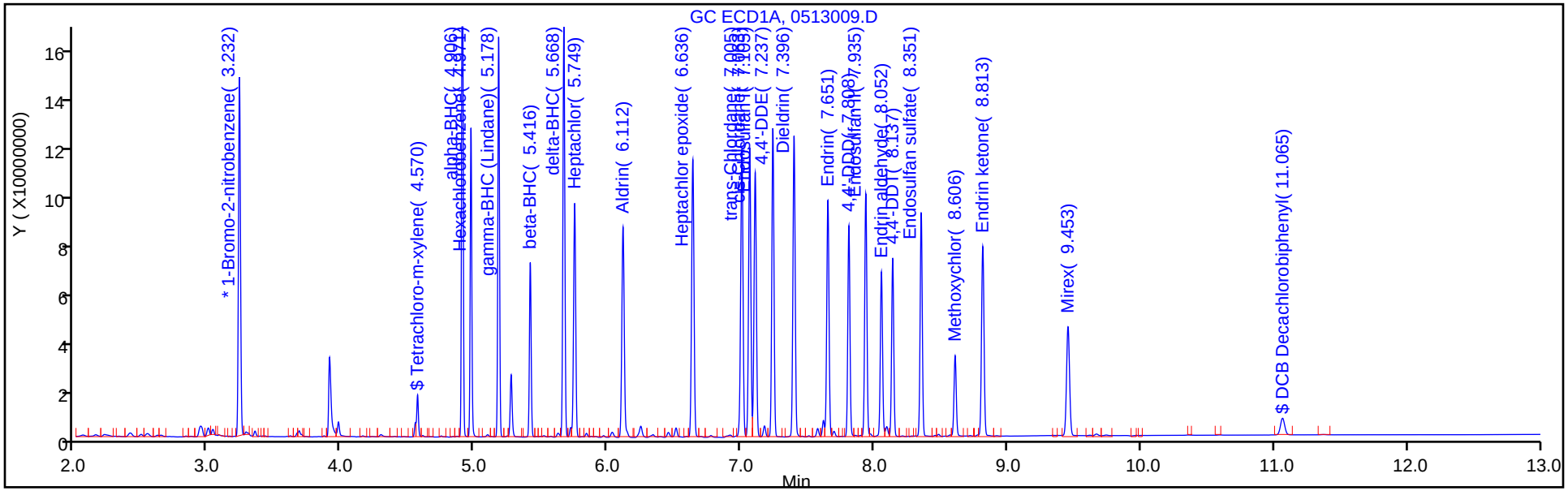
Report Date: 14-May-2024 08:21:24 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

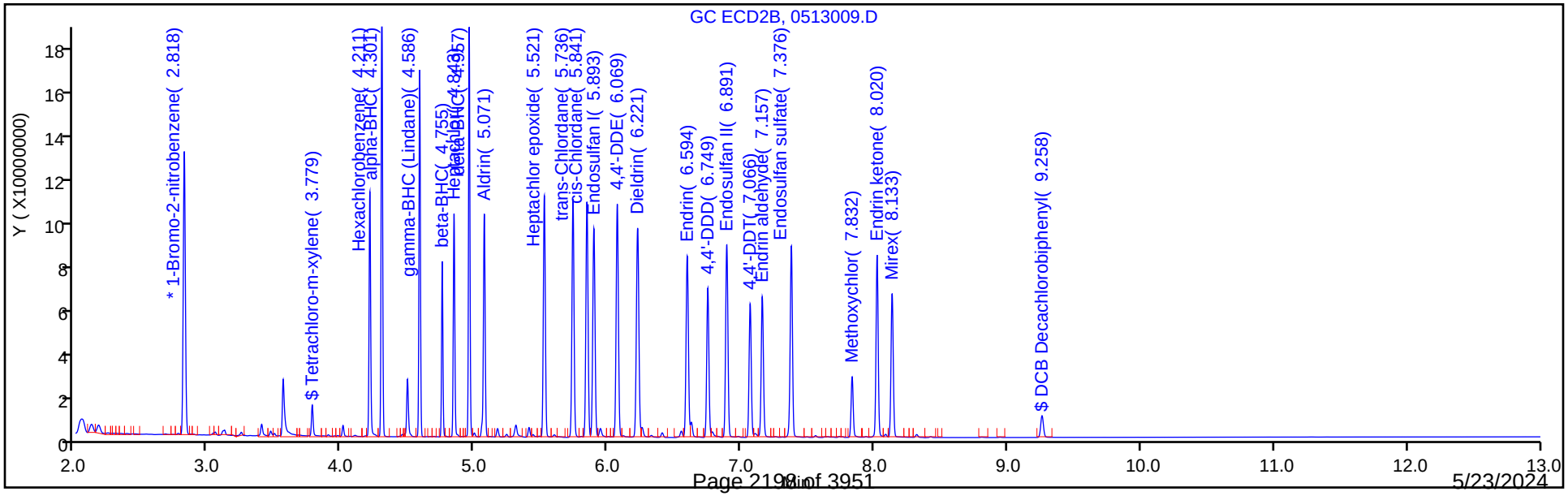
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513009.D

Injection Date:	13-May-2024 13:01:00	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	LCS 280-652915/2-A			Worklist Smp#:	9
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513009.D				
Lims ID:	LCS 280-652915/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	13-May-2024 13:01:00	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-652915/2-A				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	14-May-2024 08:21:05	Calib Date:	13-May-2024 12:25:32		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1604				

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	5.39	53.91
$ 40 DCB Decachlorobiphenyl	10.0	5.18	51.84

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	5.03	50.33
$ 40 DCB Decachlorobiphenyl	10.0	6.49	64.91

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-652915/6-A

Matrix: Water | Lab File ID: 0513011.D

Analysis Method: 8081B | Date Collected:

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 250(mL) | Date Analyzed: 05/13/2024 13:36

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-XLB ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653121 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
8001-35-2	Toxaphene	21.9		3.0	3.0	1.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	42		34-122
877-09-8	Tetrachloro-m-xylene	46		33-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513011.D
Lims ID: LCS 280-652915/6-A
Client ID:
Sample Type: LCS
Inject. Date: 13-May-2024 13:36:44 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-652915/6-A
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:05 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 14-May-2024 08:07:40

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.232	3.231	0.001	149635322	75.0	75.0	
2	2.817	2.817	0.000	144864196	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.570	4.569	0.001	12728216	10.0	4.59	
2	3.779	3.778	0.001	11645160	10.0	4.40	
						RPD = 4.36	
22 Toxaphene							
1	6.898	6.896	0.002	13644101	1000.0	1229.0	
1	7.585	7.583	0.002	29447823	1000.0	1114.2	
1	8.011	8.009	0.002	42328894	1000.0	1205.1	
1	8.271	8.269	0.002	81274341	1000.0	1055.3	
1	9.307	9.304	0.003	37489722	1000.0	860.2	
		Average of Peak Amounts =				1092.8	
2	6.221	6.222	-0.001	23757385	1000.0	966.3	
2	6.638	6.637	0.001	26412116	1000.0	997.9	
2	6.924	6.925	-0.001	48120192	1000.0	1055.1	
2	7.800	7.799	0.001	40619233	1000.0	982.3	
2	8.164	8.164	0.000	39184615	1000.0	892.7	
		Average of Peak Amounts =				978.9	
						RPD = 11.00	
$ 40 DCB Decachlorobiphenyl							
1	11.065	11.057	0.008	12386871	10.0	4.25	
2	9.260	9.257	0.003	13013959	10.0	5.71	
						RPD = 29.38	

QC Flag Legend
Processing Flags

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

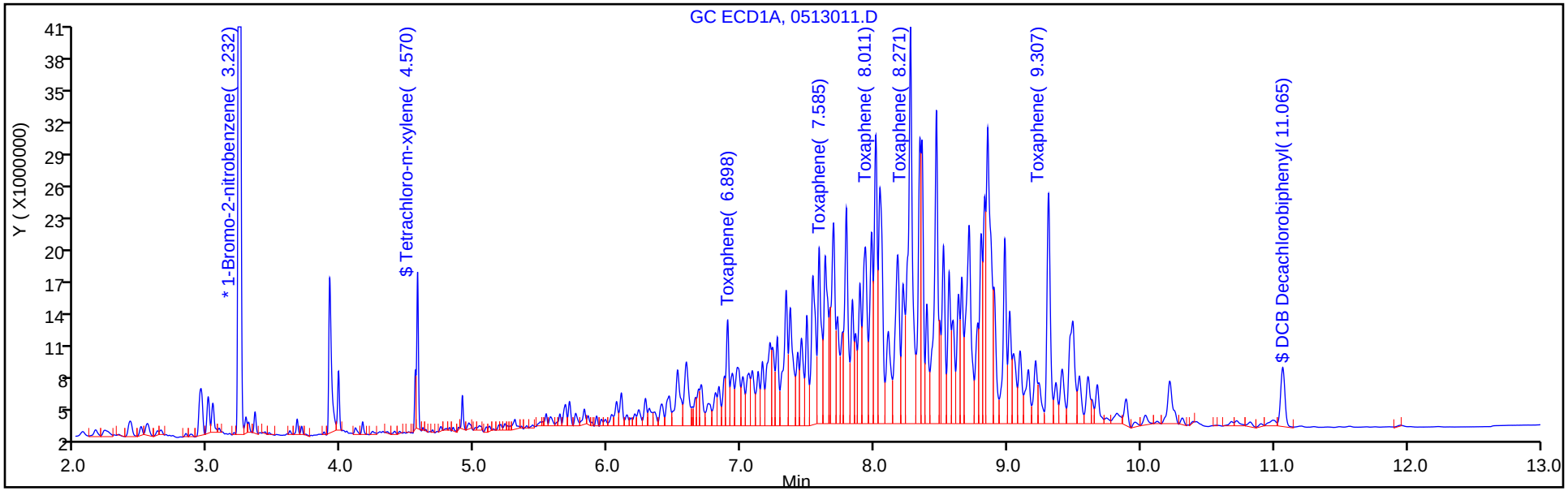
Report Date: 14-May-2024 08:21:27 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

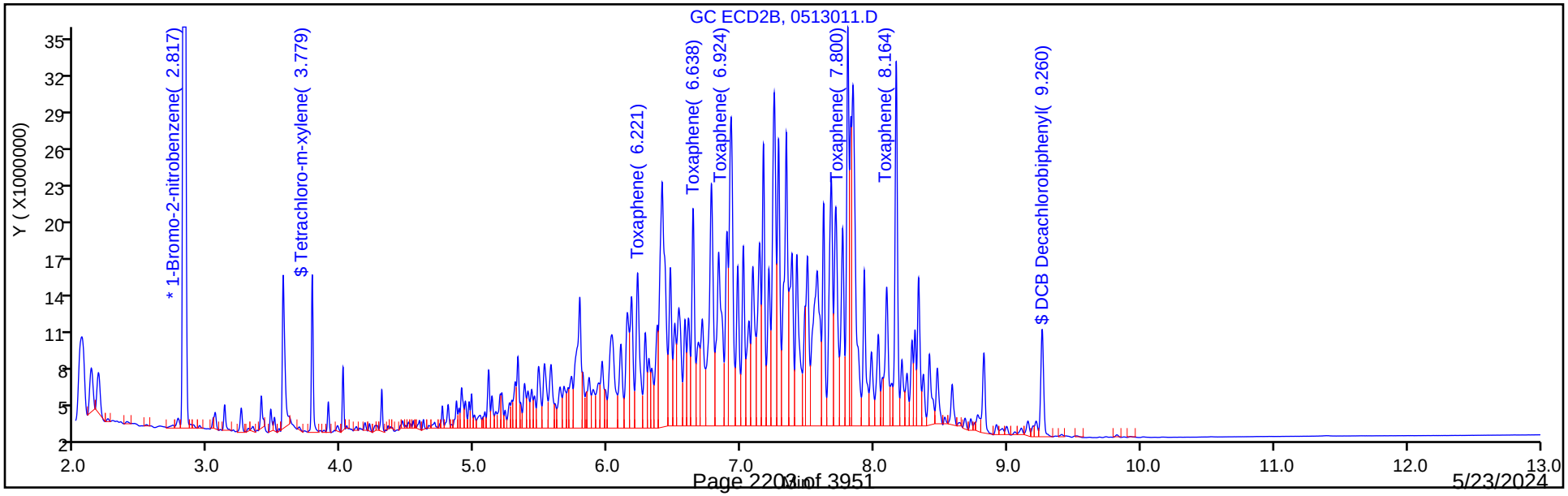
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513011.D

Injection Date:	13-May-2024 13:36:44	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	LCS 280-652915/6-A			Worklist Smp#:	11
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513011.D				
Lims ID:	LCS 280-652915/6-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	13-May-2024 13:36:44	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-652915/6-A				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	14-May-2024 08:21:05	Calib Date:	13-May-2024 12:25:32		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1604				
First Level Reviewer: AP6K		Date:	14-May-2024 08:07:40		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	4.59	45.93
$ 40 DCB Decachlorobiphenyl	10.0	4.25	42.46

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	4.40	43.97
$ 40 DCB Decachlorobiphenyl	10.0	5.71	57.08

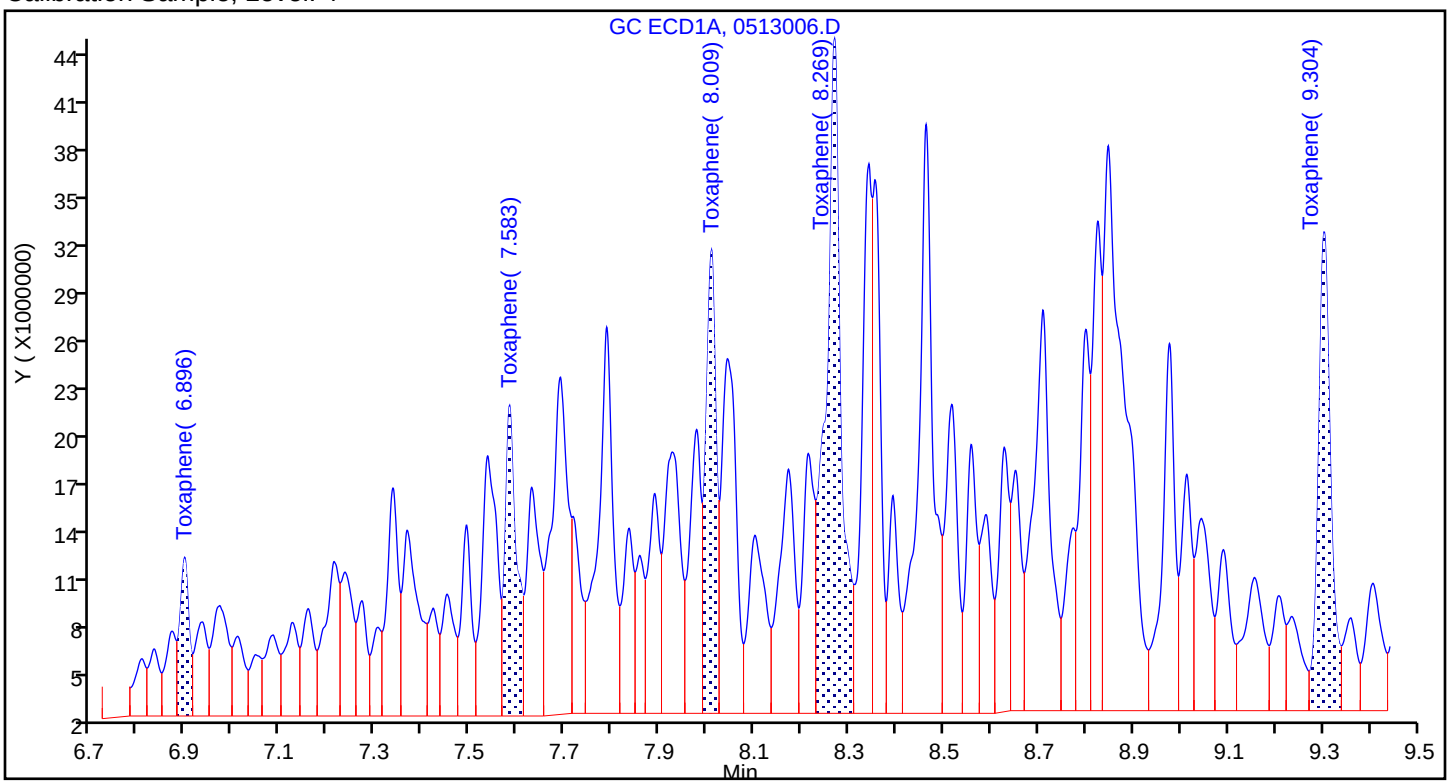
Report Date: 14-May-2024 08:21:28 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

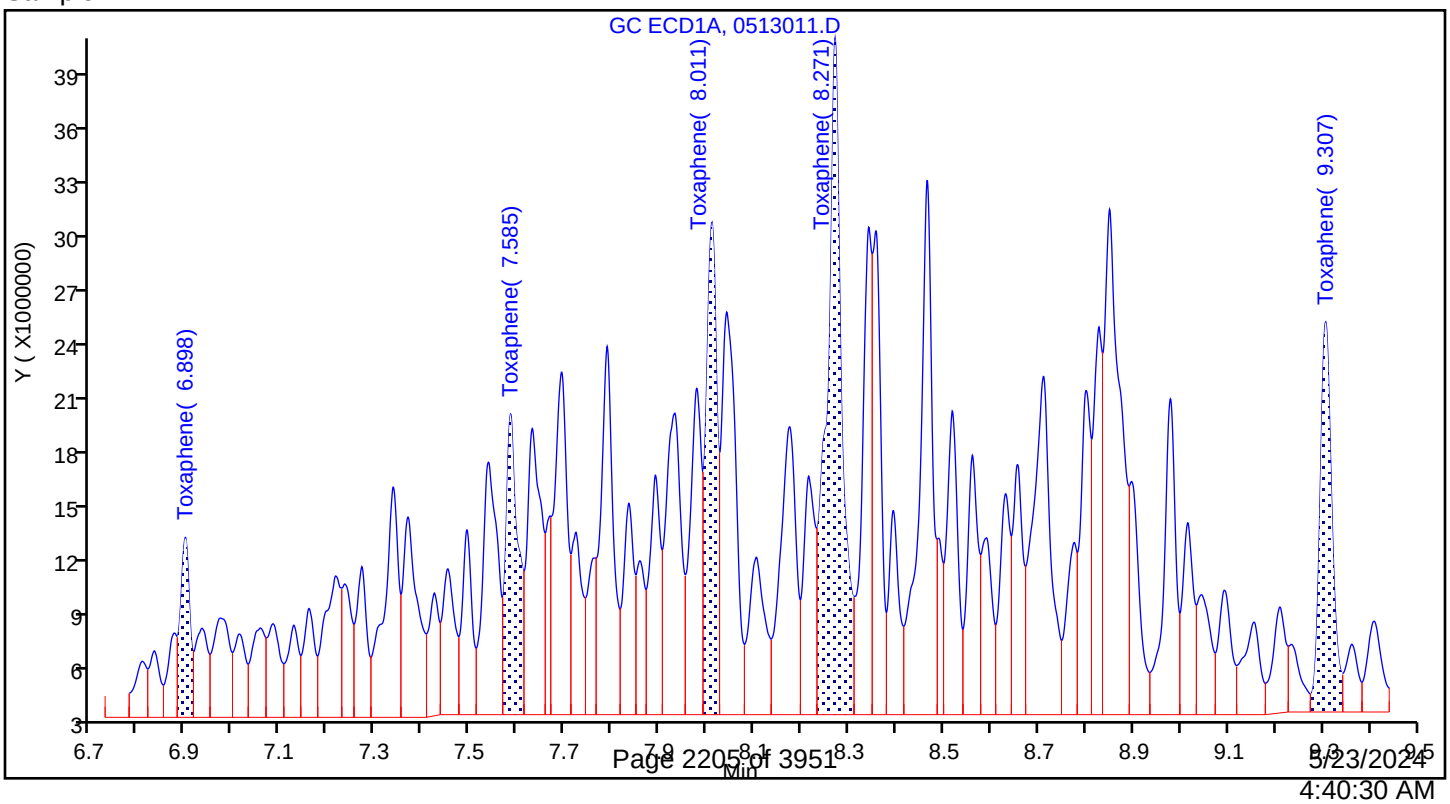
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513011.D
Injection Date: 13-May-2024 13:36:44 Instrument ID: SGC_C
Lims ID: LCS 280-652915/6-A
Client ID:
Operator ID: mw ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: C 8081 IS LVI Limit Group: GCSV - 8081B LVI - IS
Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Detector GC ECD1A

22 Toxaphene, CAS: 8001-35-2

Calibration Sample, Level: 4



Sample



FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-653452/2-A RE

Matrix: Water | Lab File ID: 0516010.D

Analysis Method: 8081B | Date Collected:

Extraction Method: 3510C | Date Extracted: 05/15/2024 10:49

Sample wt/vol: 250(mL) | Date Analyzed: 05/16/2024 12:56

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-XLB ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653635 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
72-54-8	*4,4'-DDD*	*1.02*		*0.050*	0.050	*0.0042*
72-55-9	*4,4'-DDE*	*0.972*		*0.050*	0.022	*0.0042*
50-29-3	*4,4'-DDT*	*0.989*		*0.050*	0.050	*0.024*
309-00-2	*Aldrin*	*0.639*		*0.050*	0.021	*0.0062*
319-84-6	*alpha-BHC*	*0.965*		*0.050*	0.029	*0.0097*
5103-71-9	*alpha-Chlordane*	*0.923*		*0.050*	0.029	*0.0088*
319-85-7	*beta-BHC*	*0.922*		*0.050*	0.040	*0.0091*
319-86-8	*delta-BHC*	*1.01*		*0.050*	0.024	*0.0078*
60-57-1	*Dieldrin*	*0.913*		*0.050*	0.016	*0.0046*
959-98-8	*Endosulfan I*	*0.891*		*0.050*	0.022	*0.0058*
33213-65-9	*Endosulfan II*	*0.921*		*0.050*	0.040	*0.0066*
1031-07-8	*Endosulfan sulfate*	*0.898*		*0.050*	0.018	*0.0049*
72-20-8	*Endrin*	*0.979*		*0.050*	0.024	*0.0086*
7421-93-4	*Endrin aldehyde*	*0.940*		*0.050*	0.024	*0.0087*
53494-70-5	*Endrin ketone*	*0.906*		*0.050*	0.035	*0.013*
58-89-9	*gamma-BHC (Lindane)*	*0.974*		*0.050*	0.031	*0.010*
5103-74-2	*gamma-Chlordane*	*0.900*		*0.050*	0.030	*0.0072*
76-44-8	*Heptachlor*	*0.813*		*0.050*	0.050	*0.010*
1024-57-3	*Heptachlor epoxide*	*0.915*		*0.050*	0.036	*0.0032*
72-43-5	*Methoxychlor*	*0.844*		*0.10*	0.036	*0.014*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	66		33-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516010.D
Lims ID: LCS 280-653452/2-A RE
Client ID:
Sample Type: LCS
Inject. Date: 16-May-2024 12:56:10 ALS Bottle#: 10 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-653452/2-A
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:42:24 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.228	3.228	0.001	163166060	75.0	75.0	
2	2.813	2.813	0.001	160258419	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.568	4.567	0.001	19890657	10.0	6.58	
2	3.776	3.775	0.001	17938120	10.0	6.12	
						RPD = 7.24	
7 alpha-BHC							
1	4.904	4.903	0.001	203088253	50.0	48.2	
2	4.298	4.298	0.000	179838001	50.0	42.5	
						RPD = 12.68	
6 Hexachlorobenzene							
1	4.969	4.968	0.001	123180482	50.0	34.4	
2	4.208	4.208	0.000	111872793	50.0	31.3	
						RPD = 9.41	
8 gamma-BHC (Lindane)							
1	5.178	5.176	0.002	170309006	50.0	48.7	
2	4.583	4.582	0.001	150344156	50.0	43.4	
						RPD = 11.62	
11 beta-BHC							
1	5.414	5.413	0.001	71688796	50.0	46.1	
2	4.752	4.752	0.000	64593729	50.0	42.5	
						RPD = 8.13	
13 delta-BHC							
1	5.667	5.665	0.002	185529157	50.0	50.7	
2	4.955	4.954	0.001	155805346	50.0	43.6	
						RPD = 15.04	
12 Heptachlor							
1	5.748	5.745	0.003	129630254	50.0	40.7	
2	4.840	4.840	0.000	106366346	50.0	38.5	
						RPD = 5.32	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
15 Aldrin							
1	6.111	6.109	0.002	129798387	50.0	32.0	
2	5.068	5.067	0.001	115317770	50.0	29.8	
						RPD = 6.93	
19 Heptachlor epoxide							
1	6.635	6.633	0.002	153607357	50.0	45.8	
2	5.518	5.517	0.001	131924527	50.0	43.4	
						RPD = 5.19	
20 trans-Chlordane							
1	7.003	7.003	0.000	163170071	50.0	45.0	
2	5.733	5.732	0.001	141342912	50.0	42.2	
						RPD = 6.43	
23 cis-Chlordane							
1	7.062	7.061	0.001	158539424	50.0	46.1	
2	5.838	5.837	0.001	140497944	50.0	42.6	
						RPD = 8.05	
24 Endosulfan I							
1	7.103	7.103	0.000	140981002	50.0	44.5	
2	5.891	5.889	0.002	124501256	50.0	42.5	
						RPD = 4.59	
25 4,4'-DDE							
1	7.236	7.234	0.002	159192927	50.0	48.6	
2	6.066	6.064	0.002	137821976	50.0	44.3	
						RPD = 9.29	
26 Dieldrin							
1	7.395	7.393	0.002	162950930	50.0	45.7	
2	6.218	6.217	0.001	143496218	50.0	44.2	
						RPD = 3.23	
29 Endrin							
1	7.648	7.648	0.000	136565074	50.0	48.9	
2	6.591	6.589	0.002	122254858	50.0	46.5	
						RPD = 5.15	
32 4,4'-DDD							
1	7.806	7.806	0.000	109229246	50.0	50.8	
2	6.746	6.746	0.000	90898795	50.0	48.2	
						RPD = 5.12	
33 Endosulfan II							
1	7.933	7.933	0.000	129371495	50.0	46.0	
2	6.888	6.888	0.000	117703212	50.0	43.9	
						RPD = 4.84	
35 Endrin aldehyde							
1	8.052	8.050	0.002	89664104	50.0	47.0	
2	7.156	7.153	0.003	83406157	50.0	44.8	
						RPD = 4.77	
34 4,4'-DDT							
1	8.135	8.134	0.001	98275290	50.0	49.5	
2	7.064	7.063	0.001	82636998	50.0	47.3	
						RPD = 4.40	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
36 Endosulfan sulfate							
1	8.349	8.348	0.001	115719991	50.0	44.9	
2	7.373	7.372	0.001	117444236	50.0	44.4	
						RPD = 1.08	
37 Methoxychlor							
1	8.603	8.603	0.000	45124894	50.0	42.2	
2	7.830	7.829	0.001	36582787	50.0	41.8	
						RPD = 1.01	
38 Endrin ketone							
1	8.812	8.811	0.001	115284656	50.0	45.3	
2	8.018	8.016	0.002	108145073	50.0	45.2	
						RPD = 0.19	
39 Mirex							
1	9.452	9.450	0.002	86399250	50.0	37.1	
2	8.131	8.128	0.003	90802529	50.0	40.8	
						RPD = 9.38	
$ 40 DCB Decachlorobiphenyl							
1	11.062	11.059	0.003	15754160	10.0	4.95	
2	9.254	9.252	0.002	15243113	10.0	6.04	
						RPD = 19.85	

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

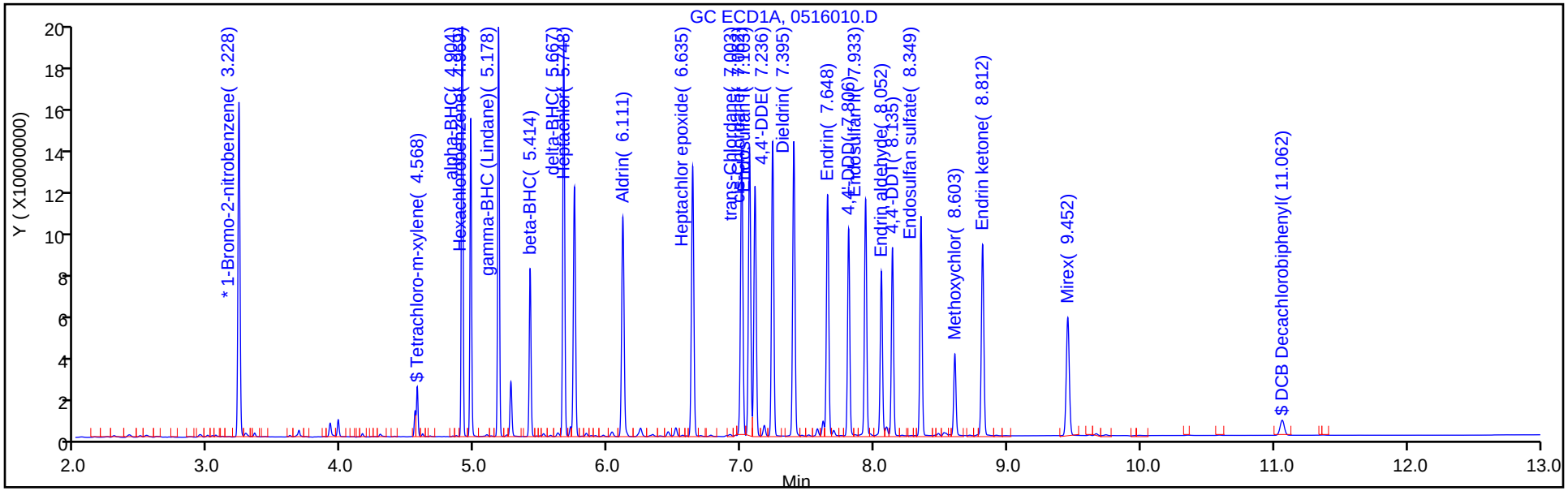
Report Date: 16-May-2024 14:43:09 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

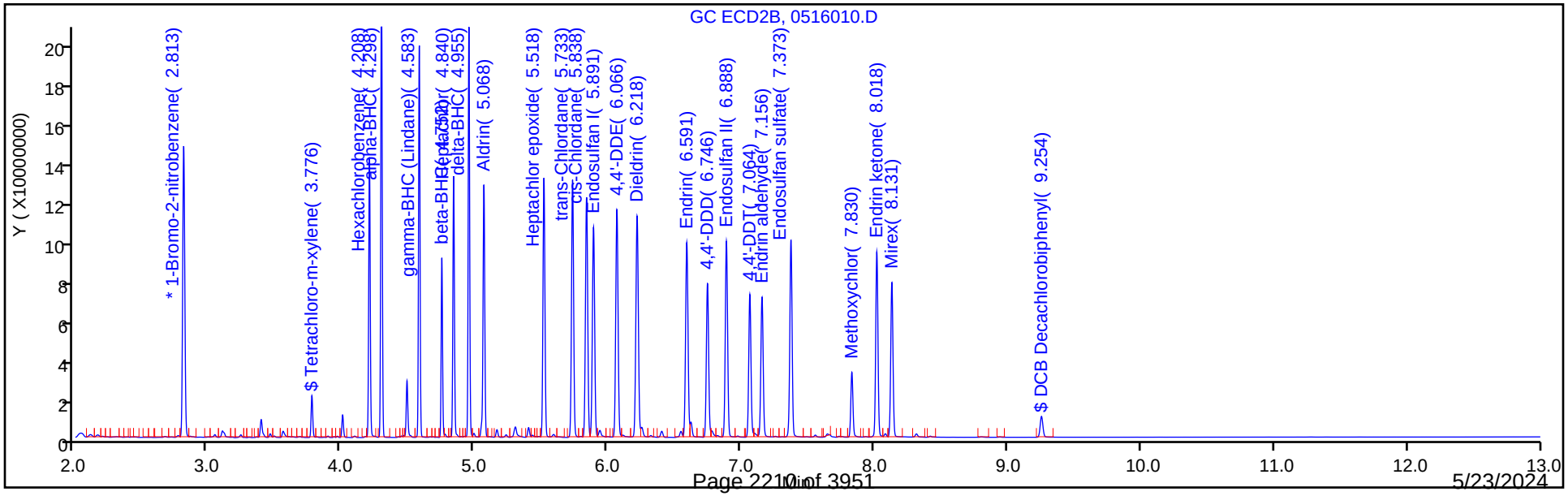
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516010.D

Injection Date:	16-May-2024 12:56:10	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	LCS 280-653452/2-A RE			Worklist Smp#:	9
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
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Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516010.D				
Lims ID:	LCS 280-653452/2-A RE				
Client ID:					
Sample Type:	LCS				
Inject. Date:	16-May-2024 12:56:10	ALS Bottle#:	10	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-653452/2-A				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	16-May-2024 14:42:24	Calib Date:	16-May-2024 11:45:09		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1676				

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	6.58	65.82
$ 40 DCB Decachlorobiphenyl	10.0	4.95	49.53

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	6.12	61.22
$ 40 DCB Decachlorobiphenyl	10.0	6.04	60.44

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-653452/2-A RE

Matrix: Water | Lab File ID: 0516010.D

Analysis Method: 8081B | Date Collected:

Extraction Method: 3510C | Date Extracted: 05/15/2024 10:49

Sample wt/vol: 250(mL) | Date Analyzed: 05/16/2024 12:56

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-35silms ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653635 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	60		34-122

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516010.D
Lims ID: LCS 280-653452/2-A RE
Client ID:
Sample Type: LCS
Inject. Date: 16-May-2024 12:56:10 ALS Bottle#: 10 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-653452/2-A
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:42:24 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.228	3.228	0.001	163166060	75.0	75.0	
2	2.813	2.813	0.001	160258419	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.568	4.567	0.001	19890657	10.0	6.58	
2	3.776	3.775	0.001	17938120	10.0	6.12	
						RPD = 7.24	
7 alpha-BHC							
1	4.904	4.903	0.001	203088253	50.0	48.2	
2	4.298	4.298	0.000	179838001	50.0	42.5	
						RPD = 12.68	
6 Hexachlorobenzene							
1	4.969	4.968	0.001	123180482	50.0	34.4	
2	4.208	4.208	0.000	111872793	50.0	31.3	
						RPD = 9.41	
8 gamma-BHC (Lindane)							
1	5.178	5.176	0.002	170309006	50.0	48.7	
2	4.583	4.582	0.001	150344156	50.0	43.4	
						RPD = 11.62	
11 beta-BHC							
1	5.414	5.413	0.001	71688796	50.0	46.1	
2	4.752	4.752	0.000	64593729	50.0	42.5	
						RPD = 8.13	
13 delta-BHC							
1	5.667	5.665	0.002	185529157	50.0	50.7	
2	4.955	4.954	0.001	155805346	50.0	43.6	
						RPD = 15.04	
12 Heptachlor							
1	5.748	5.745	0.003	129630254	50.0	40.7	
2	4.840	4.840	0.000	106366346	50.0	38.5	
						RPD = 5.32	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
15 Aldrin							
1	6.111	6.109	0.002	129798387	50.0	32.0	
2	5.068	5.067	0.001	115317770	50.0	29.8	
						RPD = 6.93	
19 Heptachlor epoxide							
1	6.635	6.633	0.002	153607357	50.0	45.8	
2	5.518	5.517	0.001	131924527	50.0	43.4	
						RPD = 5.19	
20 trans-Chlordane							
1	7.003	7.003	0.000	163170071	50.0	45.0	
2	5.733	5.732	0.001	141342912	50.0	42.2	
						RPD = 6.43	
23 cis-Chlordane							
1	7.062	7.061	0.001	158539424	50.0	46.1	
2	5.838	5.837	0.001	140497944	50.0	42.6	
						RPD = 8.05	
24 Endosulfan I							
1	7.103	7.103	0.000	140981002	50.0	44.5	
2	5.891	5.889	0.002	124501256	50.0	42.5	
						RPD = 4.59	
25 4,4'-DDE							
1	7.236	7.234	0.002	159192927	50.0	48.6	
2	6.066	6.064	0.002	137821976	50.0	44.3	
						RPD = 9.29	
26 Dieldrin							
1	7.395	7.393	0.002	162950930	50.0	45.7	
2	6.218	6.217	0.001	143496218	50.0	44.2	
						RPD = 3.23	
29 Endrin							
1	7.648	7.648	0.000	136565074	50.0	48.9	
2	6.591	6.589	0.002	122254858	50.0	46.5	
						RPD = 5.15	
32 4,4'-DDD							
1	7.806	7.806	0.000	109229246	50.0	50.8	
2	6.746	6.746	0.000	90898795	50.0	48.2	
						RPD = 5.12	
33 Endosulfan II							
1	7.933	7.933	0.000	129371495	50.0	46.0	
2	6.888	6.888	0.000	117703212	50.0	43.9	
						RPD = 4.84	
35 Endrin aldehyde							
1	8.052	8.050	0.002	89664104	50.0	47.0	
2	7.156	7.153	0.003	83406157	50.0	44.8	
						RPD = 4.77	
34 4,4'-DDT							
1	8.135	8.134	0.001	98275290	50.0	49.5	
2	7.064	7.063	0.001	82636998	50.0	47.3	
						RPD = 4.40	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
36 Endosulfan sulfate							
1	8.349	8.348	0.001	115719991	50.0	44.9	
2	7.373	7.372	0.001	117444236	50.0	44.4	
						RPD = 1.08	
37 Methoxychlor							
1	8.603	8.603	0.000	45124894	50.0	42.2	
2	7.830	7.829	0.001	36582787	50.0	41.8	
						RPD = 1.01	
38 Endrin ketone							
1	8.812	8.811	0.001	115284656	50.0	45.3	
2	8.018	8.016	0.002	108145073	50.0	45.2	
						RPD = 0.19	
39 Mirex							
1	9.452	9.450	0.002	86399250	50.0	37.1	
2	8.131	8.128	0.003	90802529	50.0	40.8	
						RPD = 9.38	
$ 40 DCB Decachlorobiphenyl							
1	11.062	11.059	0.003	15754160	10.0	4.95	
2	9.254	9.252	0.002	15243113	10.0	6.04	
						RPD = 19.85	

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

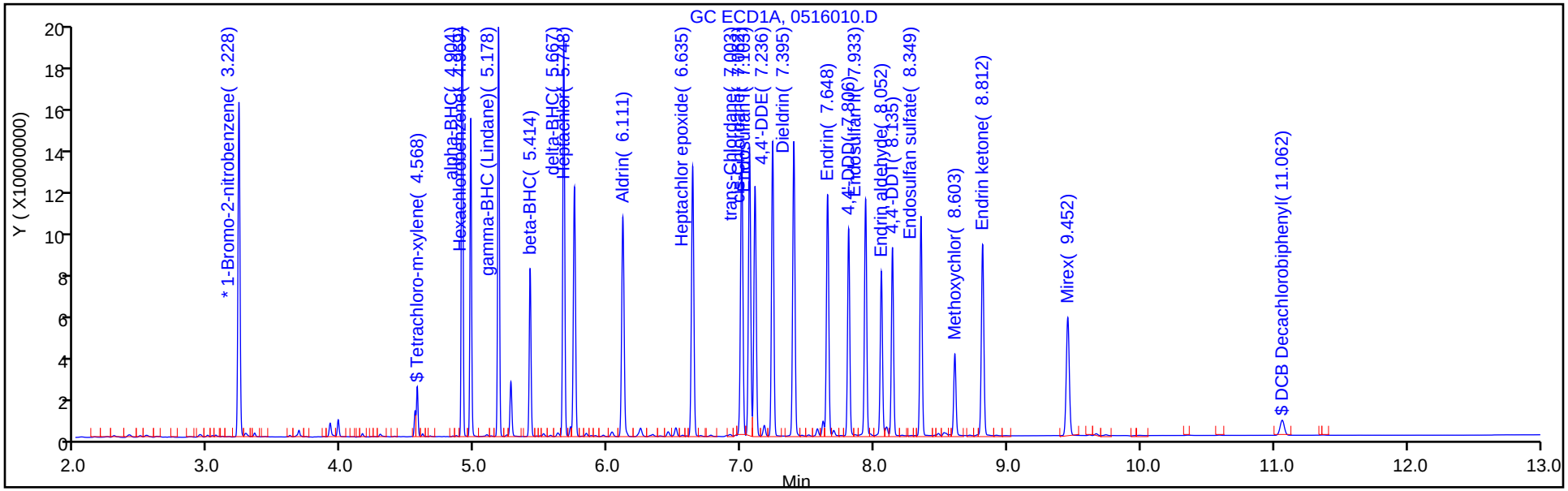
Report Date: 16-May-2024 14:43:09 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

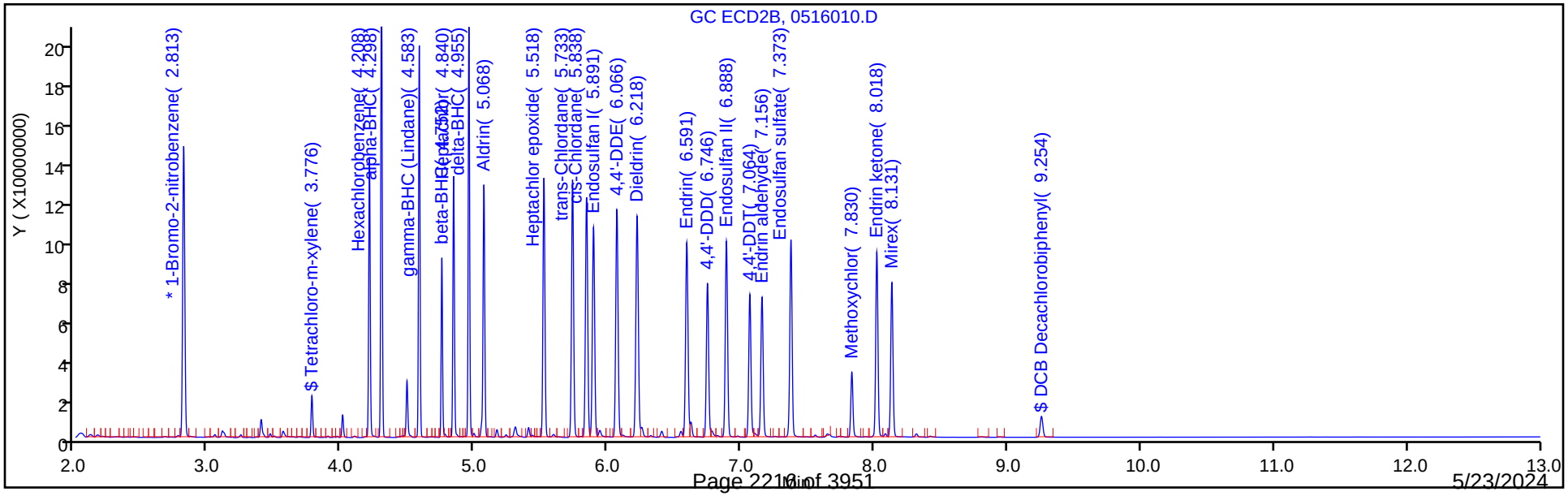
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516010.D

Injection Date:	16-May-2024 12:56:10	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	LCS 280-653452/2-A RE			Worklist Smp#:	9
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
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Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516010.D				
Lims ID:	LCS 280-653452/2-A RE				
Client ID:					
Sample Type:	LCS				
Inject. Date:	16-May-2024 12:56:10	ALS Bottle#:	10	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-653452/2-A				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	16-May-2024 14:42:24	Calib Date:	16-May-2024 11:45:09		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1676				

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	6.58	65.82
$ 40 DCB Decachlorobiphenyl	10.0	4.95	49.53

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	6.12	61.22
$ 40 DCB Decachlorobiphenyl	10.0	6.04	60.44

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-652915/3-A

Matrix: Water | Lab File ID: 0513010.D

Analysis Method: 8081B | Date Collected:

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 250(mL) | Date Analyzed: 05/13/2024 13:18

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-XLB ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653121 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
72-54-8	4,4'-DDD	1.02		0.050	0.050	0.0042
72-55-9	4,4'-DDE	1.01		0.050	0.022	0.0042
50-29-3	4,4'-DDT	0.923		0.050	0.050	0.024
309-00-2	Aldrin	0.578		0.050	0.021	0.0062
319-84-6	alpha-BHC	1.02		0.050	0.029	0.0097
5103-71-9	alpha-Chlordane	0.922		0.050	0.029	0.0088
319-85-7	beta-BHC	0.970		0.050	0.040	0.0091
319-86-8	delta-BHC	1.07		0.050	0.024	0.0078
60-57-1	Dieldrin	0.925		0.050	0.016	0.0046
959-98-8	Endosulfan I	0.952		0.050	0.022	0.0058
33213-65-9	Endosulfan II	0.930		0.050	0.040	0.0066
1031-07-8	Endosulfan sulfate	0.902		0.050	0.018	0.0049
72-20-8	Endrin	0.930		0.050	0.024	0.0086
7421-93-4	Endrin aldehyde	0.948		0.050	0.024	0.0087
53494-70-5	Endrin ketone	0.911		0.050	0.035	0.013
58-89-9	gamma-BHC (Lindane)	1.00		0.050	0.031	0.010
5103-74-2	gamma-Chlordane	0.900		0.050	0.030	0.0072
76-44-8	Heptachlor	0.735		0.050	0.050	0.010
1024-57-3	Heptachlor epoxide	0.966		0.050	0.036	0.0032
72-43-5	Methoxychlor	0.826		0.10	0.036	0.014

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	43		34-122
877-09-8	Tetrachloro-m-xylene	51		33-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513010.D
Lims ID: LCSD 280-652915/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 13-May-2024 13:18:58 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-652915/3-A
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:05 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.232	3.231	0.001	146330587	75.0	75.0	
2	2.816	2.817	-0.001	139575073	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.569	4.569	0.000	13878681	10.0	5.12	
2	3.778	3.778	0.000	12154725	10.0	4.76	
						RPD = 7.24	
7 alpha-BHC							
1	4.907	4.904	0.003	191617804	50.0	50.8	
2	4.301	4.300	0.001	166014478	50.0	45.0	
						RPD = 11.94	
6 Hexachlorobenzene							
1	4.971	4.969	0.002	102351909	50.0	31.9	
2	4.210	4.209	0.001	92516898	50.0	29.7	
						RPD = 6.96	
8 gamma-BHC (Lindane)							
1	5.179	5.177	0.002	157562348	50.0	50.2	
2	4.585	4.584	0.001	134084244	50.0	44.4	
						RPD = 12.35	
11 beta-BHC							
1	5.417	5.414	0.003	67619172	50.0	48.5	
2	4.754	4.753	0.001	59207614	50.0	44.7	
						RPD = 8.06	
13 delta-BHC							
1	5.668	5.665	0.003	176244822	50.0	53.7	
2	4.957	4.956	0.001	145475372	50.0	46.8	
						RPD = 13.85	
12 Heptachlor							
1	5.749	5.747	0.002	105021105	50.0	36.7	
2	4.842	4.842	0.000	83389897	50.0	34.7	
						RPD = 5.68	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
15 Aldrin							
1	6.113	6.110	0.003	105369659	50.0	28.9	
2	5.071	5.069	0.002	92132652	50.0	27.3	
						RPD = 5.60	
19 Heptachlor epoxide							
1	6.637	6.634	0.003	145358931	50.0	48.3	
2	5.522	5.519	0.003	120044953	50.0	45.4	
						RPD = 6.18	
20 trans-Chlordane							
1	7.006	7.003	0.003	146196453	50.0	45.0	
2	5.737	5.734	0.003	123526360	50.0	42.4	
						RPD = 5.99	
23 cis-Chlordane							
1	7.065	7.061	0.004	142002511	50.0	46.1	
2	5.842	5.839	0.003	125196638	50.0	43.6	
						RPD = 5.64	
24 Endosulfan I							
1	7.106	7.103	0.003	135172367	50.0	47.6	
2	5.894	5.891	0.003	115992845	50.0	45.5	
						RPD = 4.54	
25 4,4'-DDE							
1	7.238	7.235	0.003	148185697	50.0	50.4	
2	6.071	6.067	0.004	131608022	50.0	48.5	
						RPD = 3.82	
26 Dieldrin							
1	7.397	7.394	0.003	148002289	50.0	46.3	
2	6.223	6.219	0.004	129515631	50.0	45.8	
						RPD = 0.93	
29 Endrin							
1	7.652	7.647	0.005	116439760	50.0	46.5	
2	6.595	6.591	0.004	105744368	50.0	46.1	
						RPD = 0.79	
32 4,4'-DDD							
1	7.810	7.805	0.005	98715602	50.0	51.2	
2	6.750	6.747	0.003	81337457	50.0	49.5	
						RPD = 3.19	
33 Endosulfan II							
1	7.937	7.933	0.004	117190123	50.0	46.5	
2	6.892	6.889	0.003	110258775	50.0	47.2	
						RPD = 1.44	
35 Endrin aldehyde							
1	8.053	8.050	0.003	81090875	50.0	47.4	
2	7.159	7.157	0.002	79706921	50.0	49.2	
						RPD = 3.67	
34 4,4'-DDT							
1	8.137	8.135	0.002	82250027	50.0	46.1	
2	7.067	7.065	0.002	72298476	50.0	47.5	
						RPD = 2.96	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
36 Endosulfan sulfate							
1	8.352	8.349	0.003	104165739	50.0	45.1	
2	7.377	7.374	0.003	108777093	50.0	47.3	
						RPD = 4.70	
37 Methoxychlor							
1	8.607	8.603	0.004	39604742	50.0	41.3	
2	7.833	7.831	0.002	31691124	50.0	41.5	
						RPD = 0.61	
38 Endrin ketone							
1	8.814	8.810	0.004	103965757	50.0	45.5	
2	8.021	8.018	0.003	98110858	50.0	47.1	
						RPD = 3.33	
39 Mirex							
1	9.456	9.451	0.005	73055301	50.0	35.0	
2	8.133	8.130	0.003	82378355	50.0	42.4	
						RPD = 19.30	
$ 40 DCB Decachlorobiphenyl							
1	11.067	11.057	0.010	12127745	10.0	4.25	
2	9.259	9.257	0.002	12195312	10.0	5.55	
						RPD = 26.54	

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

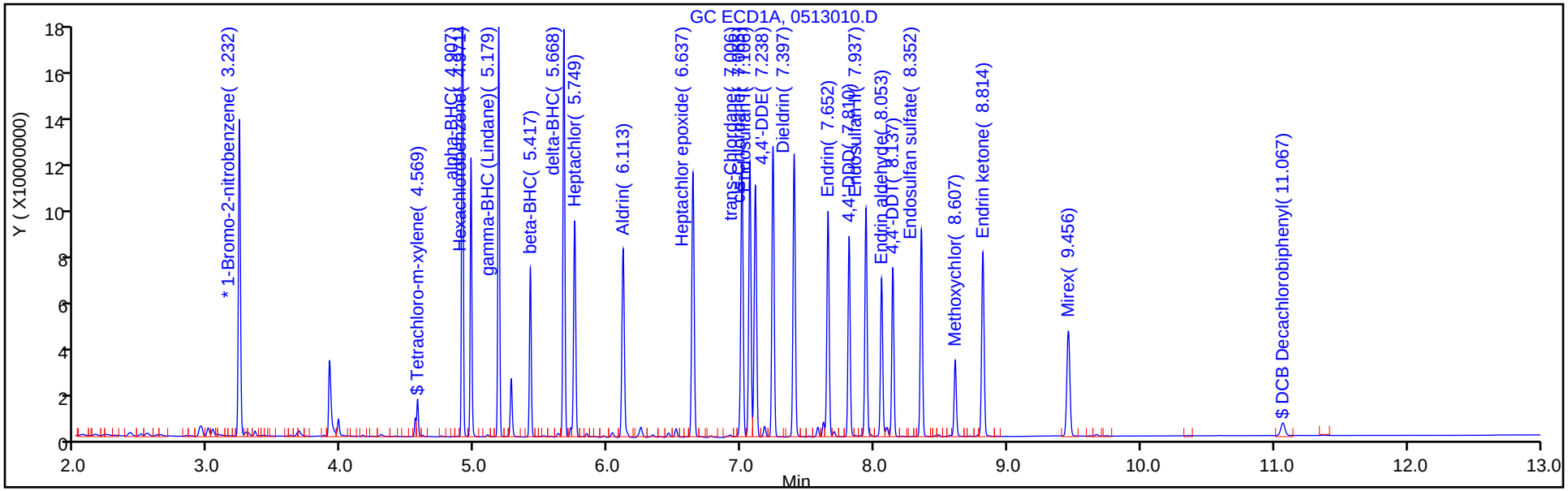
Report Date: 14-May-2024 08:21:25 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

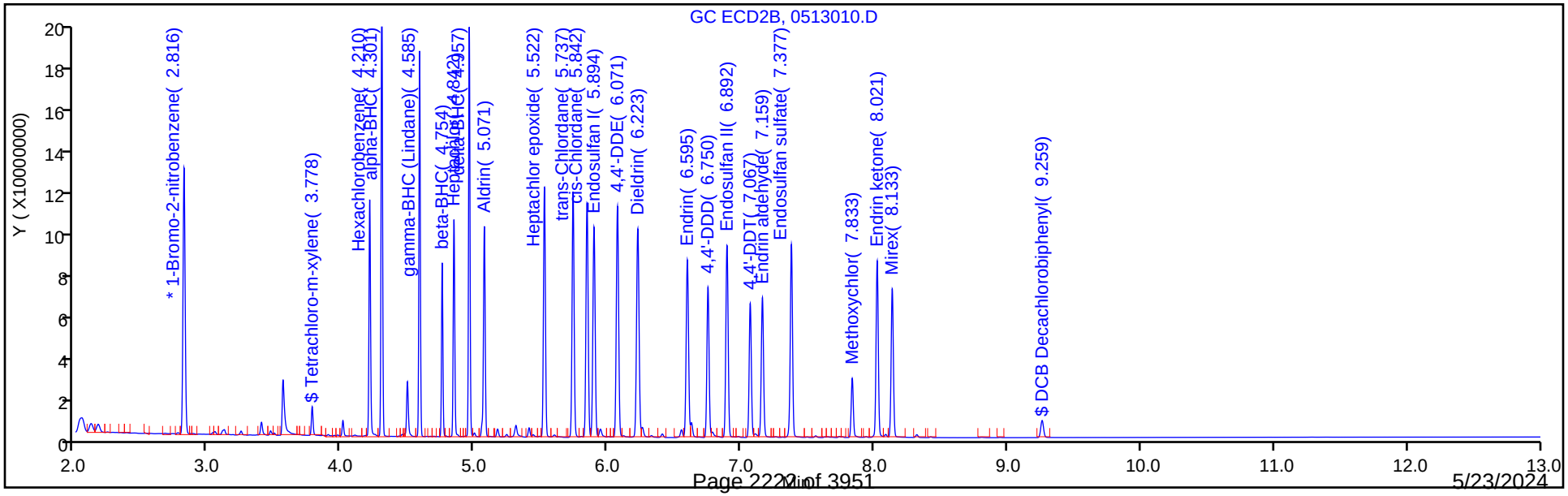
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513010.D

Injection Date:	13-May-2024 13:18:58	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	LCSD 280-652915/3-A			Worklist Smp#:	10
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513010.D				
Lims ID:	LCSD 280-652915/3-A				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	13-May-2024 13:18:58	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCSD 280-652915/3-A				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	14-May-2024 08:21:05	Calib Date:	13-May-2024 12:25:32		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1604				

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	5.12	51.21
$ 40 DCB Decachlorobiphenyl	10.0	4.25	42.51

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	4.76	47.63
$ 40 DCB Decachlorobiphenyl	10.0	5.55	55.52

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-652915/7-A

Matrix: Water | Lab File ID: 0513012.D

Analysis Method: 8081B | Date Collected:

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 250(mL) | Date Analyzed: 05/13/2024 13:54

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-XLB ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653121 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
8001-35-2	Toxaphene	24.5	M	3.0	3.0	1.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	43		34-122
877-09-8	Tetrachloro-m-xylene	49		33-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513012.D
Lims ID: LCSD 280-652915/7-A
Client ID:
Sample Type: LCSD
Inject. Date: 13-May-2024 13:54:28 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-652915/7-A
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:05 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 14-May-2024 08:07:54

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.232	3.231	0.001	149671415	75.0	75.0	
2	2.817	2.817	0.000	145443940	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.570	4.569	0.001	13521336	10.0	4.88	
2	3.779	3.778	0.001	12272526	10.0	4.61	
						RPD = 5.53	
22 Toxaphene							M
1	6.897	6.896	0.001	14820407	1000.0	1334.7	M
1	7.585	7.583	0.002	32210896	1000.0	1218.4	M
1	8.011	8.009	0.002	47237818	1000.0	1344.5	M
1	8.271	8.269	0.002	94091277	1000.0	1221.4	M
1	9.306	9.304	0.002	43767843	1000.0	1004.0	M
		Average of Peak Amounts =				1224.6	
2	6.222	6.222	0.000	27706650	1000.0	1122.4	M
2	6.637	6.637	0.000	30493058	1000.0	1147.5	M
2	6.923	6.925	-0.002	56313558	1000.0	1229.8	M
2	7.800	7.799	0.001	47713253	1000.0	1149.3	M
2	8.163	8.164	-0.001	47452380	1000.0	1076.8	M
		Average of Peak Amounts =				1145.2	
						RPD = 6.71	
$ 40 DCB Decachlorobiphenyl							
1	11.066	11.057	0.009	12516498	10.0	4.29	
2	9.259	9.257	0.002	13721712	10.0	5.99	
						RPD = 33.16	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

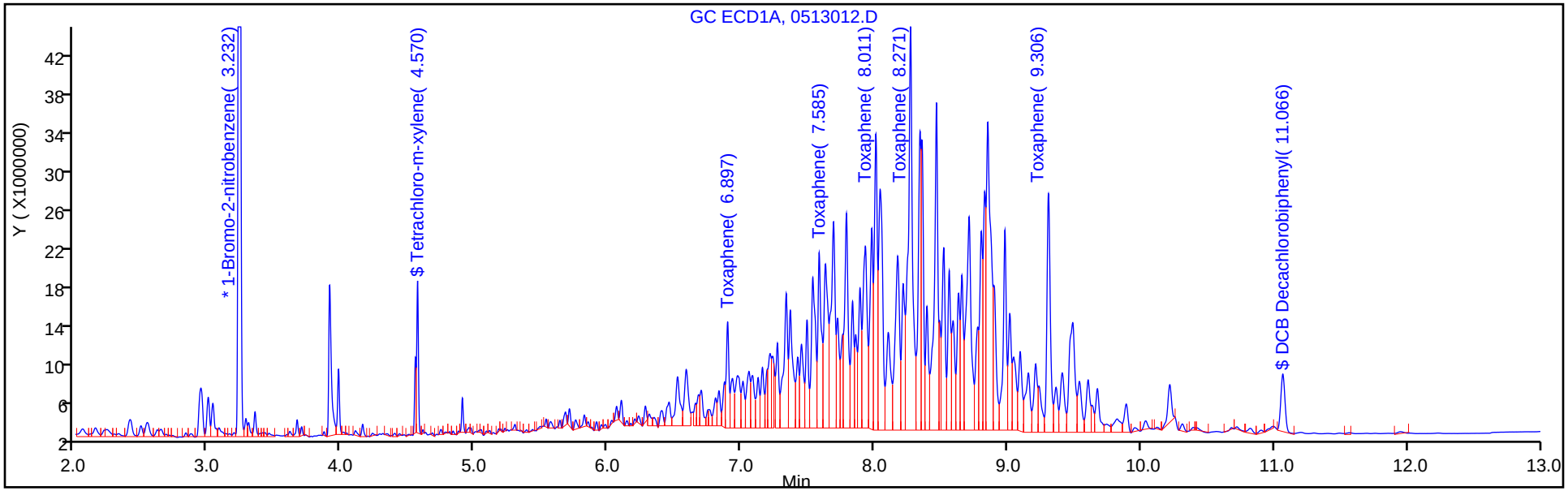
Report Date: 14-May-2024 08:21:29 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

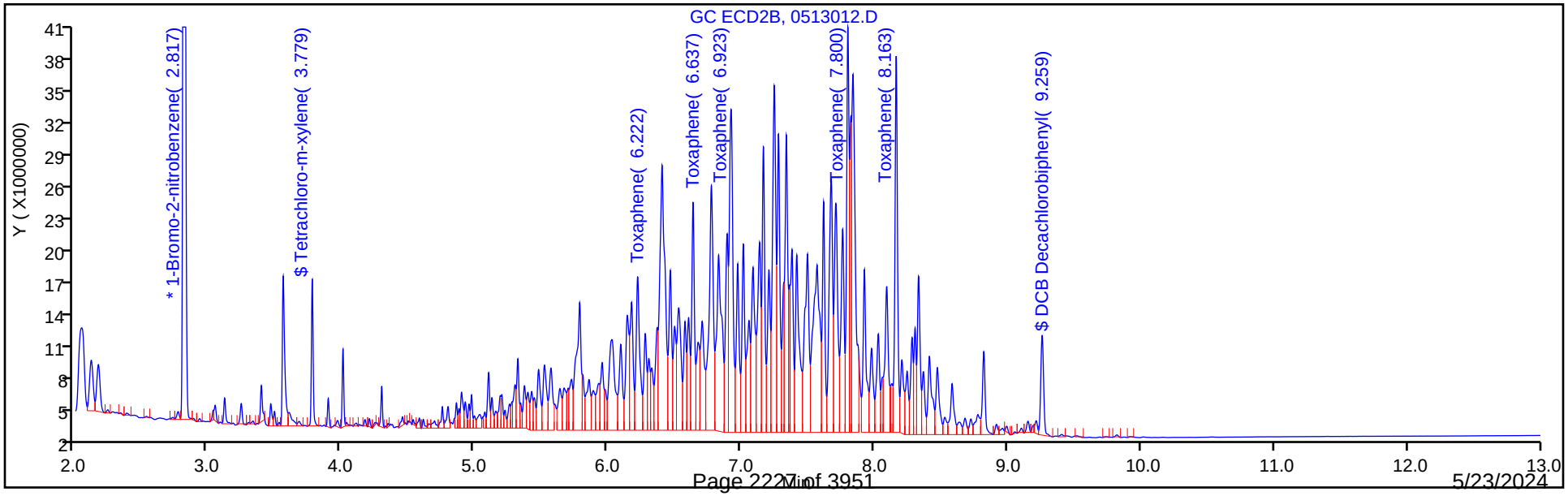
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513012.D

Injection Date:	13-May-2024 13:54:28	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	LCSD 280-652915/7-A			Worklist Smp#:	12
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513012.D				
Lims ID:	LCSD 280-652915/7-A				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	13-May-2024 13:54:28	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCSD 280-652915/7-A				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	14-May-2024 08:21:05	Calib Date:	13-May-2024 12:25:32		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1604				
First Level Reviewer: AP6K		Date:	14-May-2024 08:07:54		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	4.88	48.77
$ 40 DCB Decachlorobiphenyl	10.0	4.29	42.90

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	4.61	46.15
$ 40 DCB Decachlorobiphenyl	10.0	5.99	59.95

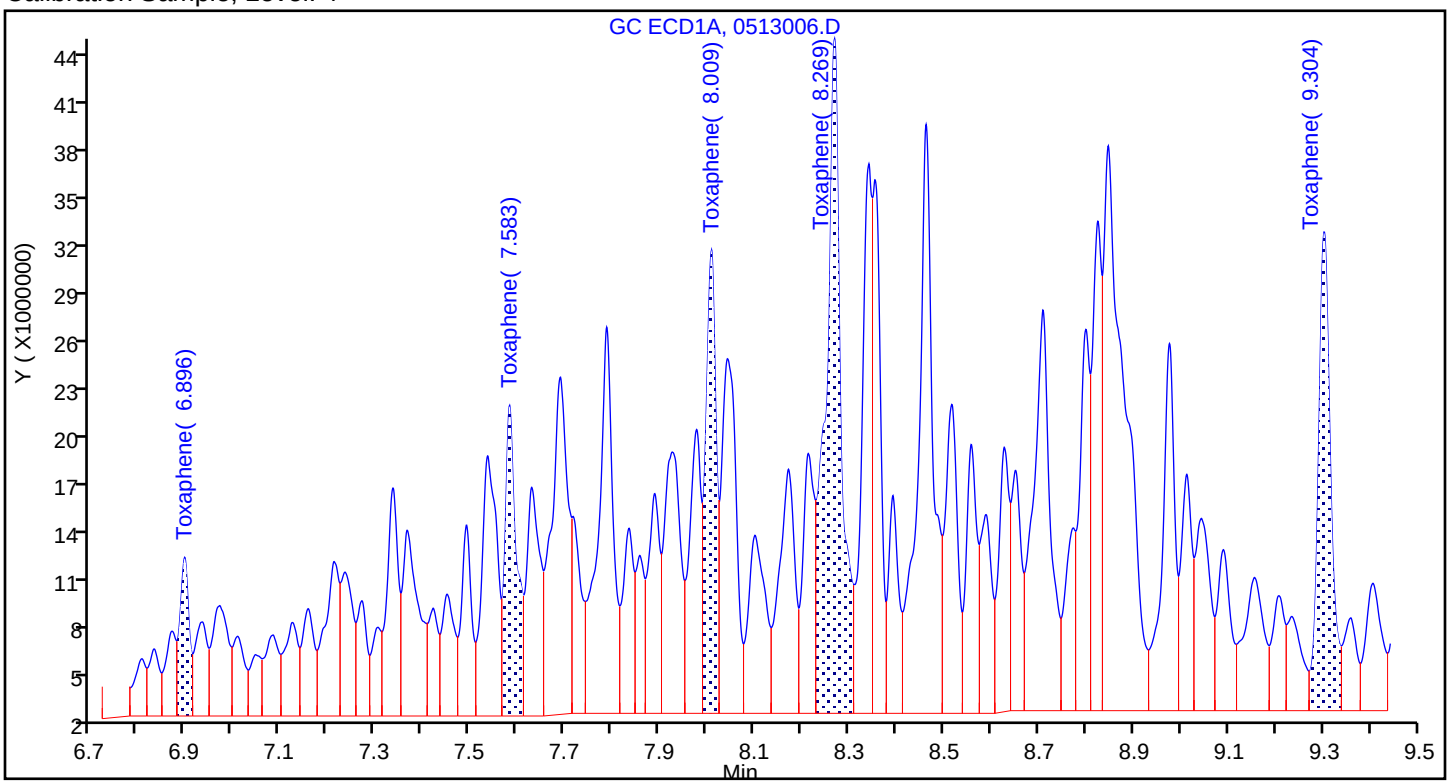
Report Date: 14-May-2024 08:21:29 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

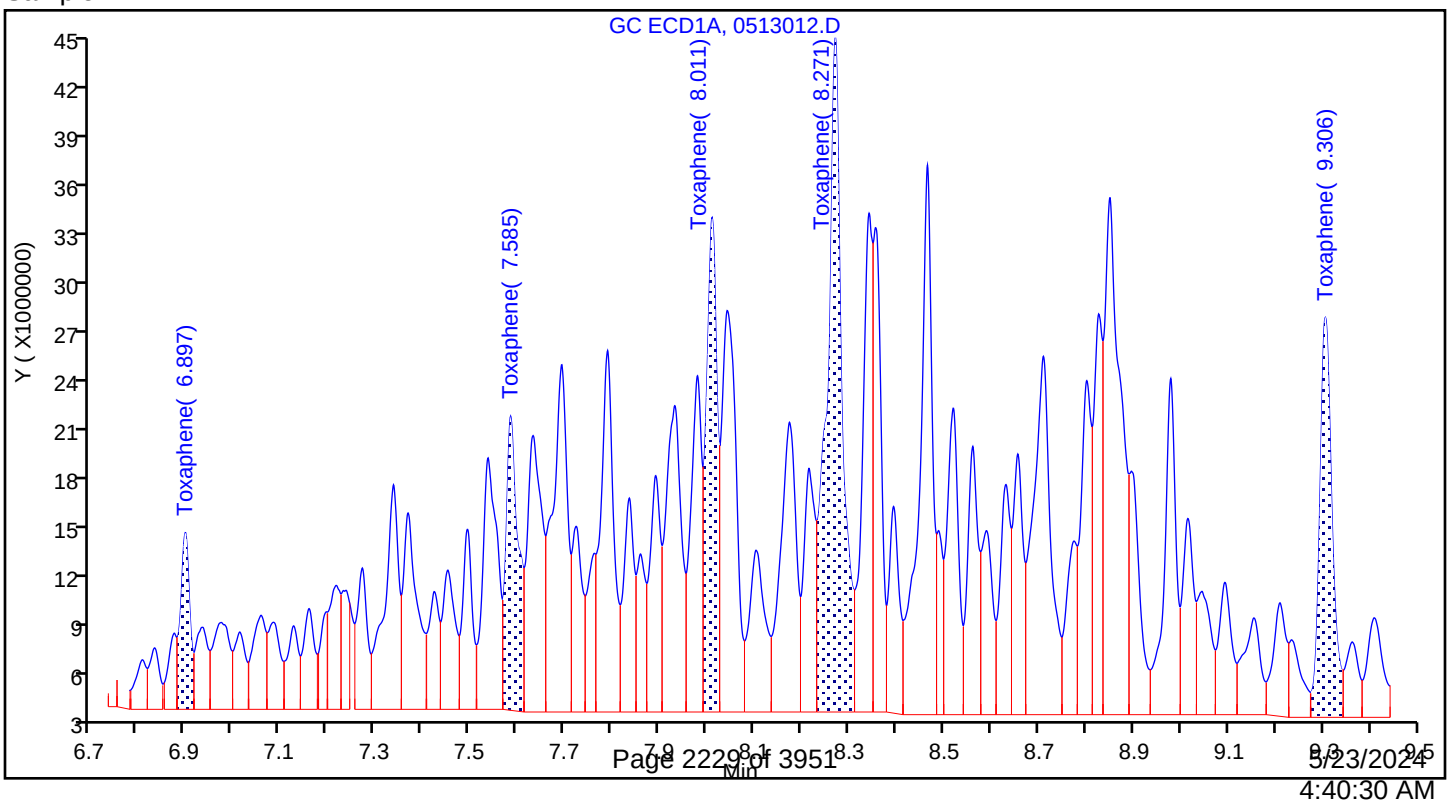
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513012.D
Injection Date: 13-May-2024 13:54:28 Instrument ID: SGC_C
Lims ID: LCSD 280-652915/7-A
Client ID:
Operator ID: mw ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: C 8081 IS LVI Limit Group: GCSV - 8081B LVI - IS
Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Detector GC ECD1A

22 Toxaphene, CAS: 8001-35-2

Calibration Sample, Level: 4



Sample

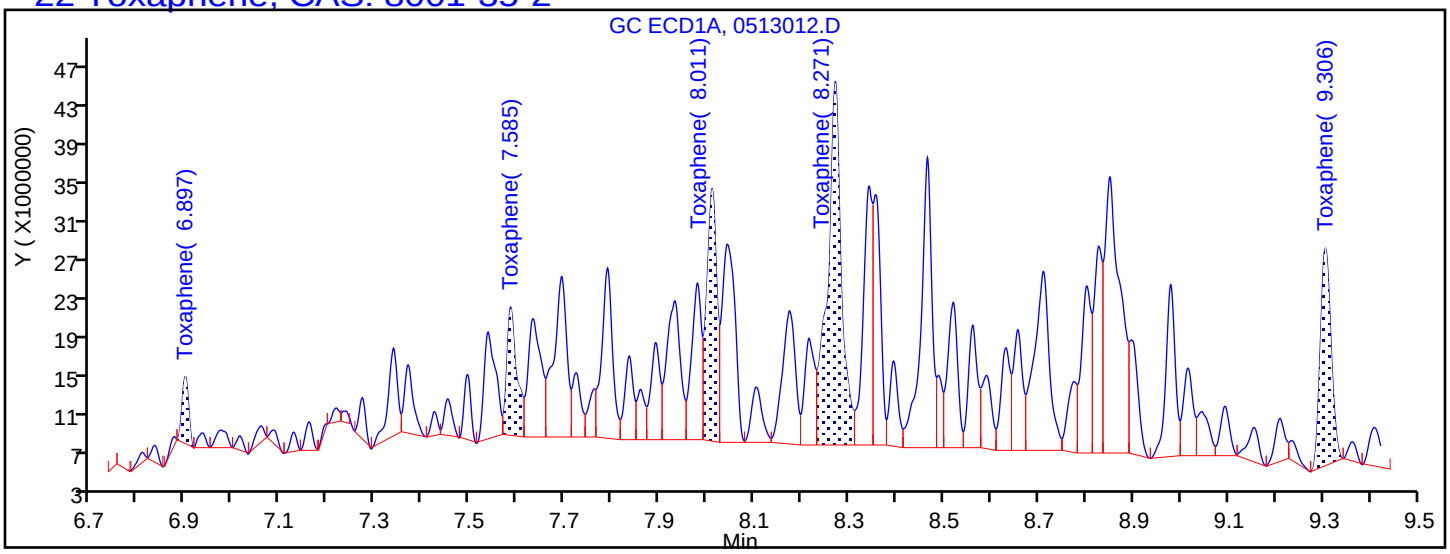


Report Date: 14-May-2024 08:21:29 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

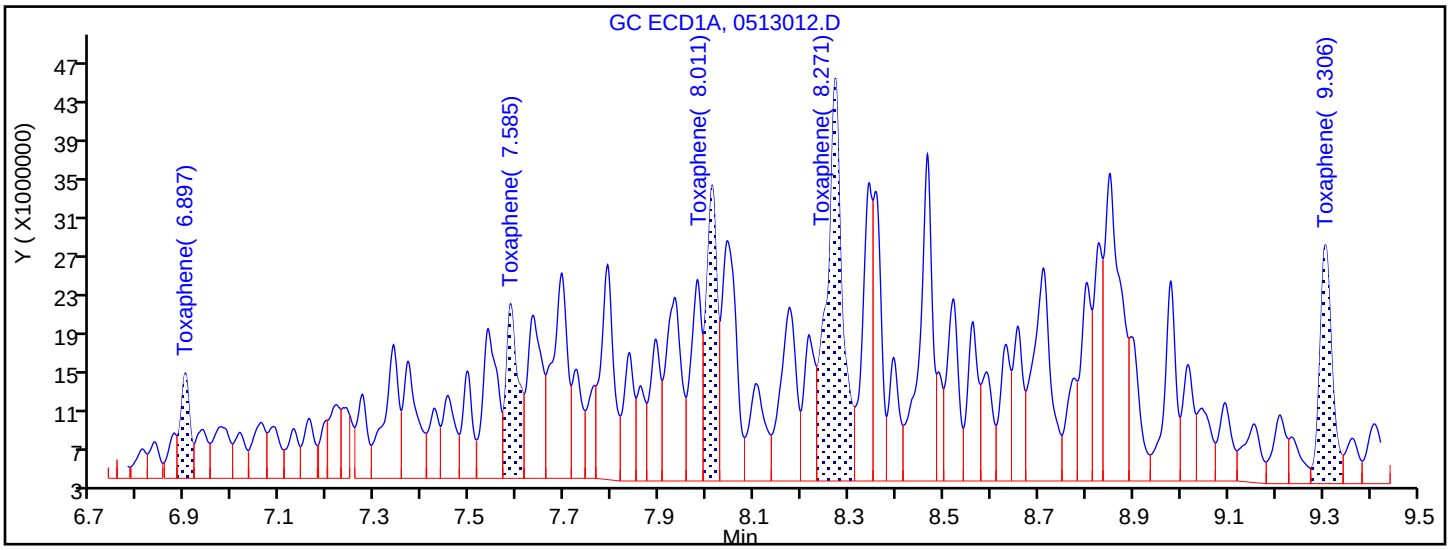
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513012.D
Injection Date: 13-May-2024 13:54:28 Instrument ID: SGC_C
Lims ID: LCSD 280-652915/7-A
Client ID:
Operator ID: mw ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: C 8081 IS LVI Limit Group: GCSV - 8081B LVI - IS
Column: RTI-XLB Chlorinated Pesticides (0.32mm) Detector GC ECD1A

22 Toxaphene, CAS: 8001-35-2



Processing Integration Results

6.897	Response = 6571310
7.585	Response = 19224774
8.011	Response = 38188538
8.271	Response = 74914667
9.306	Response = 35243598



Manual Integration Results

6.897	Response = 14820407	M
7.585	Response = 32210896	M
8.011	Response = 47237818	M
8.271	Response = 94091277	M
9.306	Response = 43767843	M

Reviewer: AP6K, 14-May-2024 08:07:48 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-653452/3-A RE

Matrix: Water | Lab File ID: 0516011.D

Analysis Method: 8081B | Date Collected:

Extraction Method: 3510C | Date Extracted: 05/15/2024 10:49

Sample wt/vol: 250(mL) | Date Analyzed: 05/16/2024 13:14

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-XLB ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653635 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
72-54-8	*4,4'-DDD*	*1.08*		*0.050*	0.050	*0.0042*
72-55-9	*4,4'-DDE*	*1.01*		*0.050*	0.022	*0.0042*
50-29-3	*4,4'-DDT*	*1.10*		*0.050*	0.050	*0.024*
309-00-2	*Aldrin*	*0.659*		*0.050*	0.021	*0.0062*
319-84-6	*alpha-BHC*	*0.995*		*0.050*	0.029	*0.0097*
5103-71-9	*alpha-Chlordane*	*0.945*		*0.050*	0.029	*0.0088*
319-85-7	*beta-BHC*	*0.964*		*0.050*	0.040	*0.0091*
319-86-8	*delta-BHC*	*1.06*		*0.050*	0.024	*0.0078*
60-57-1	*Dieldrin*	*0.943*		*0.050*	0.016	*0.0046*
959-98-8	*Endosulfan I*	*0.922*		*0.050*	0.022	*0.0058*
33213-65-9	*Endosulfan II*	*0.935*		*0.050*	0.040	*0.0066*
1031-07-8	*Endosulfan sulfate*	*0.953*		*0.050*	0.018	*0.0049*
72-20-8	*Endrin*	*0.985*		*0.050*	0.024	*0.0086*
7421-93-4	*Endrin aldehyde*	*0.987*		*0.050*	0.024	*0.0087*
53494-70-5	*Endrin ketone*	*0.986*		*0.050*	0.035	*0.013*
58-89-9	*gamma-BHC (Lindane)*	*1.01*		*0.050*	0.031	*0.010*
5103-74-2	*gamma-Chlordane*	*0.927*		*0.050*	0.030	*0.0072*
76-44-8	*Heptachlor*	*0.856*		*0.050*	0.050	*0.010*
1024-57-3	*Heptachlor epoxide*	*0.945*		*0.050*	0.036	*0.0032*
72-43-5	*Methoxychlor*	*0.986*		*0.10*	0.036	*0.014*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	67		33-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516011.D
Lims ID: LCSD 280-653452/3-A RE
Client ID:
Sample Type: LCSD
Inject. Date: 16-May-2024 13:14:02 ALS Bottle#: 11 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-653452/3-A
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:42:24 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.227	3.228	0.000	154287704	75.0	75.0	
2	2.812	2.813	0.000	149253092	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.568	4.567	0.001	19094897	10.0	6.68	
2	3.775	3.775	0.000	17425611	10.0	6.39	
						RPD = 4.54	
7 alpha-BHC							
1	4.905	4.903	0.002	197929094	50.0	49.7	
2	4.299	4.298	0.001	175714891	50.0	44.6	
						RPD = 10.91	
6 Hexachlorobenzene							
1	4.969	4.968	0.001	122443791	50.0	36.2	
2	4.208	4.208	0.000	111462317	50.0	33.5	
						RPD = 7.67	
8 gamma-BHC (Lindane)							
1	5.177	5.176	0.001	167519882	50.0	50.7	
2	4.582	4.582	0.000	146061338	50.0	45.2	
						RPD = 11.34	
11 beta-BHC							
1	5.415	5.413	0.002	70829530	50.0	48.2	
2	4.752	4.752	0.000	63587409	50.0	44.9	
						RPD = 6.98	
13 delta-BHC							
1	5.667	5.665	0.002	182813724	50.0	52.9	
2	4.955	4.954	0.001	154154125	50.0	46.3	
						RPD = 13.12	
12 Heptachlor							
1	5.747	5.745	0.002	129095968	50.0	42.8	
2	4.841	4.840	0.001	105521396	50.0	41.1	
						RPD = 4.19	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
15 Aldrin							
1	6.112	6.109	0.003	126480280	50.0	32.9	
2	5.068	5.067	0.001	112470680	50.0	31.2	
						RPD = 5.32	
19 Heptachlor epoxide							
1	6.636	6.633	0.003	149978776	50.0	47.2	
2	5.518	5.517	0.001	129034242	50.0	45.6	
						RPD = 3.50	
20 trans-Chlordane							
1	7.004	7.003	0.001	158845101	50.0	46.3	
2	5.734	5.732	0.002	137314468	50.0	44.0	
						RPD = 5.12	
23 cis-Chlordane							
1	7.062	7.061	0.001	153537164	50.0	47.3	
2	5.838	5.837	0.001	136932174	50.0	44.6	
						RPD = 5.90	
24 Endosulfan I							
1	7.104	7.103	0.001	137942937	50.0	46.1	
2	5.891	5.889	0.002	121486232	50.0	44.6	
						RPD = 3.35	
25 4,4'-DDE							
1	7.237	7.234	0.003	156452424	50.0	50.5	
2	6.067	6.064	0.003	136147679	50.0	47.0	
						RPD = 7.26	
26 Dieldrin							
1	7.395	7.393	0.002	159128558	50.0	47.2	
2	6.219	6.217	0.002	140594031	50.0	46.5	
						RPD = 1.38	
29 Endrin							
1	7.649	7.648	0.001	129930997	50.0	49.2	
2	6.591	6.589	0.002	120758169	50.0	49.3	
						RPD = 0.11	
32 4,4'-DDD							
1	7.807	7.806	0.001	110168549	50.0	54.1	
2	6.747	6.746	0.001	92531082	50.0	52.7	
						RPD = 2.68	
33 Endosulfan II							
1	7.934	7.933	0.001	124228939	50.0	46.8	
2	6.889	6.888	0.001	116405299	50.0	46.6	
						RPD = 0.37	
35 Endrin aldehyde							
1	8.052	8.050	0.002	88976644	50.0	49.3	
2	7.156	7.153	0.003	84550100	50.0	48.8	
						RPD = 1.12	
34 4,4'-DDT							
1	8.135	8.134	0.001	102968074	50.0	54.8	
2	7.064	7.063	0.001	87243976	50.0	53.6	
						RPD = 2.12	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
36 Endosulfan sulfate							
1	8.350	8.348	0.002	116024913	50.0	47.6	
2	7.373	7.372	0.001	117538575	50.0	47.8	
						RPD = 0.25	
37 Methoxychlor							
1	8.604	8.603	0.001	49858007	50.0	49.3	
2	7.830	7.829	0.001	39943562	50.0	49.0	
						RPD = 0.68	
38 Endrin ketone							
1	8.812	8.811	0.001	118749546	50.0	49.3	
2	8.017	8.016	0.001	111008800	50.0	49.8	
						RPD = 0.98	
39 Mirex							
1	9.452	9.450	0.002	85553286	50.0	38.9	
2	8.131	8.128	0.003	90480834	50.0	43.6	
						RPD = 11.52	
$ 40 DCB Decachlorobiphenyl							
1	11.062	11.059	0.003	14383520	10.0	4.78	
2	9.254	9.252	0.002	13821111	10.0	5.88	
						RPD = 20.67	

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

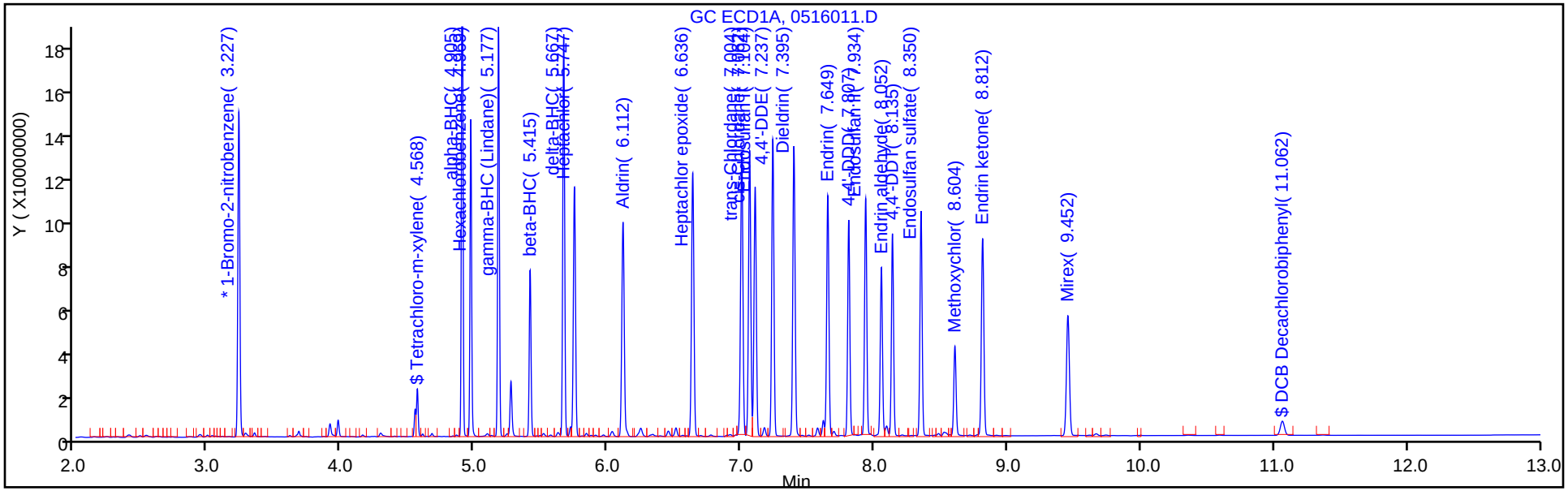
Report Date: 16-May-2024 14:43:11 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

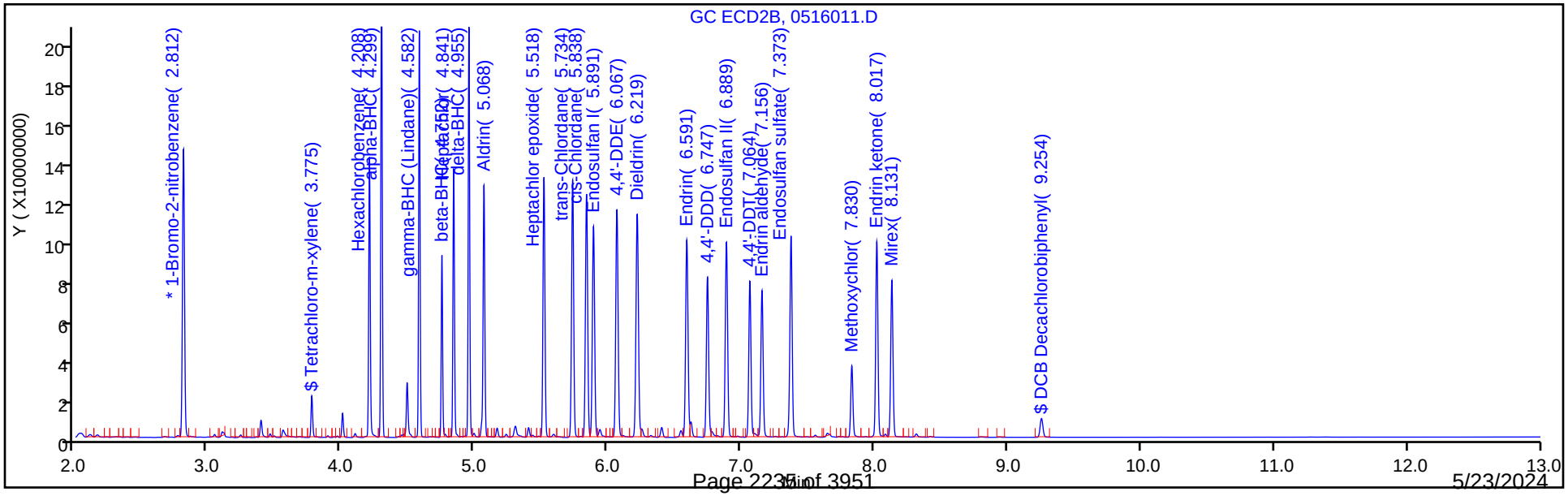
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516011.D

Injection Date:	16-May-2024 13:14:02	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	LCSD 280-653452/3-A RE			Worklist Smp#:	10
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516011.D				
Lims ID:	LCSD 280-653452/3-A RE				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	16-May-2024 13:14:02	ALS Bottle#:	11	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCSD 280-653452/3-A				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	16-May-2024 14:42:24	Calib Date:	16-May-2024 11:45:09		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1676				

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	6.68	66.82
$ 40 DCB Decachlorobiphenyl	10.0	4.78	47.82

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	6.39	63.85
$ 40 DCB Decachlorobiphenyl	10.0	5.88	58.84

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-653452/3-A RE

Matrix: Water | Lab File ID: 0516011.D

Analysis Method: 8081B | Date Collected:

Extraction Method: 3510C | Date Extracted: 05/15/2024 10:49

Sample wt/vol: 250(mL) | Date Analyzed: 05/16/2024 13:14

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-35silms ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653635 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	59		34-122

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516011.D
Lims ID: LCSD 280-653452/3-A RE
Client ID:
Sample Type: LCSD
Inject. Date: 16-May-2024 13:14:02 ALS Bottle#: 11 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-653452/3-A
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:42:24 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
* 2 1-Bromo-2-nitrobenzene							
1	3.227	3.228	0.000	154287704	75.0	75.0	
2	2.812	2.813	0.000	149253092	75.0	75.0	
$ 3 Tetrachloro-m-xylene							
1	4.568	4.567	0.001	19094897	10.0	6.68	
2	3.775	3.775	0.000	17425611	10.0	6.39	
						RPD = 4.54	
7 alpha-BHC							
1	4.905	4.903	0.002	197929094	50.0	49.7	
2	4.299	4.298	0.001	175714891	50.0	44.6	
						RPD = 10.91	
6 Hexachlorobenzene							
1	4.969	4.968	0.001	122443791	50.0	36.2	
2	4.208	4.208	0.000	111462317	50.0	33.5	
						RPD = 7.67	
8 gamma-BHC (Lindane)							
1	5.177	5.176	0.001	167519882	50.0	50.7	
2	4.582	4.582	0.000	146061338	50.0	45.2	
						RPD = 11.34	
11 beta-BHC							
1	5.415	5.413	0.002	70829530	50.0	48.2	
2	4.752	4.752	0.000	63587409	50.0	44.9	
						RPD = 6.98	
13 delta-BHC							
1	5.667	5.665	0.002	182813724	50.0	52.9	
2	4.955	4.954	0.001	154154125	50.0	46.3	
						RPD = 13.12	
12 Heptachlor							
1	5.747	5.745	0.002	129095968	50.0	42.8	
2	4.841	4.840	0.001	105521396	50.0	41.1	
						RPD = 4.19	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
15 Aldrin							
1	6.112	6.109	0.003	126480280	50.0	32.9	
2	5.068	5.067	0.001	112470680	50.0	31.2	
						RPD = 5.32	
19 Heptachlor epoxide							
1	6.636	6.633	0.003	149978776	50.0	47.2	
2	5.518	5.517	0.001	129034242	50.0	45.6	
						RPD = 3.50	
20 trans-Chlordane							
1	7.004	7.003	0.001	158845101	50.0	46.3	
2	5.734	5.732	0.002	137314468	50.0	44.0	
						RPD = 5.12	
23 cis-Chlordane							
1	7.062	7.061	0.001	153537164	50.0	47.3	
2	5.838	5.837	0.001	136932174	50.0	44.6	
						RPD = 5.90	
24 Endosulfan I							
1	7.104	7.103	0.001	137942937	50.0	46.1	
2	5.891	5.889	0.002	121486232	50.0	44.6	
						RPD = 3.35	
25 4,4'-DDE							
1	7.237	7.234	0.003	156452424	50.0	50.5	
2	6.067	6.064	0.003	136147679	50.0	47.0	
						RPD = 7.26	
26 Dieldrin							
1	7.395	7.393	0.002	159128558	50.0	47.2	
2	6.219	6.217	0.002	140594031	50.0	46.5	
						RPD = 1.38	
29 Endrin							
1	7.649	7.648	0.001	129930997	50.0	49.2	
2	6.591	6.589	0.002	120758169	50.0	49.3	
						RPD = 0.11	
32 4,4'-DDD							
1	7.807	7.806	0.001	110168549	50.0	54.1	
2	6.747	6.746	0.001	92531082	50.0	52.7	
						RPD = 2.68	
33 Endosulfan II							
1	7.934	7.933	0.001	124228939	50.0	46.8	
2	6.889	6.888	0.001	116405299	50.0	46.6	
						RPD = 0.37	
35 Endrin aldehyde							
1	8.052	8.050	0.002	88976644	50.0	49.3	
2	7.156	7.153	0.003	84550100	50.0	48.8	
						RPD = 1.12	
34 4,4'-DDT							
1	8.135	8.134	0.001	102968074	50.0	54.8	
2	7.064	7.063	0.001	87243976	50.0	53.6	
						RPD = 2.12	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
36 Endosulfan sulfate							
1	8.350	8.348	0.002	116024913	50.0	47.6	
2	7.373	7.372	0.001	117538575	50.0	47.8	
						RPD = 0.25	
37 Methoxychlor							
1	8.604	8.603	0.001	49858007	50.0	49.3	
2	7.830	7.829	0.001	39943562	50.0	49.0	
						RPD = 0.68	
38 Endrin ketone							
1	8.812	8.811	0.001	118749546	50.0	49.3	
2	8.017	8.016	0.001	111008800	50.0	49.8	
						RPD = 0.98	
39 Mirex							
1	9.452	9.450	0.002	85553286	50.0	38.9	
2	8.131	8.128	0.003	90480834	50.0	43.6	
						RPD = 11.52	
$ 40 DCB Decachlorobiphenyl							
1	11.062	11.059	0.003	14383520	10.0	4.78	
2	9.254	9.252	0.002	13821111	10.0	5.88	
						RPD = 20.67	

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

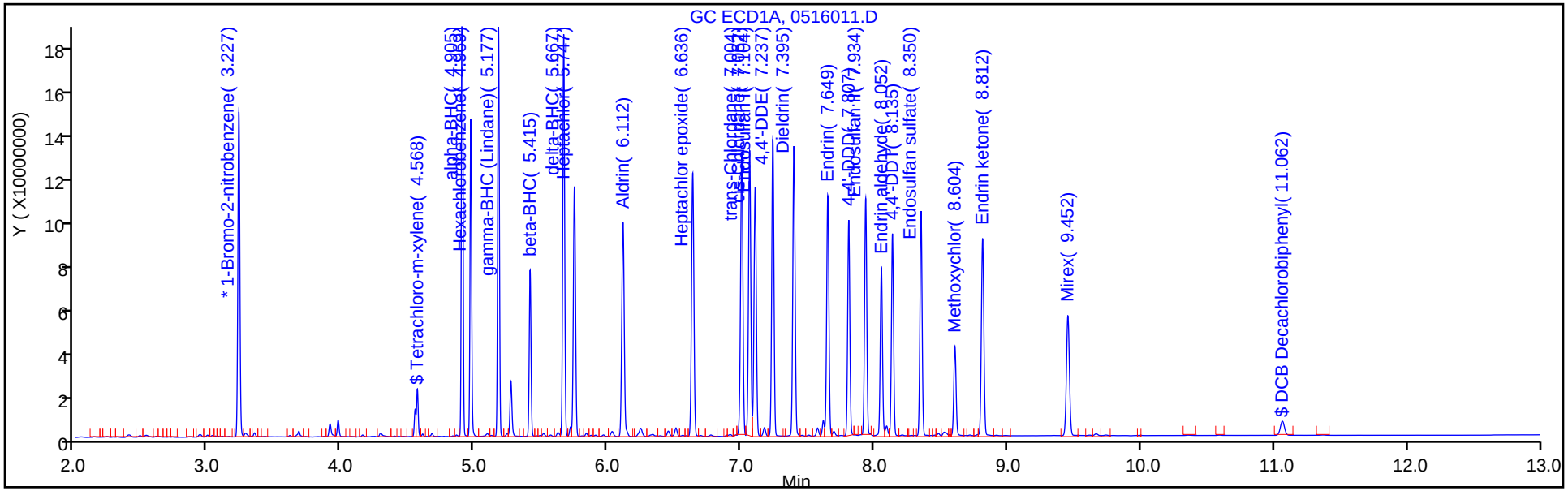
Report Date: 16-May-2024 14:43:11 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

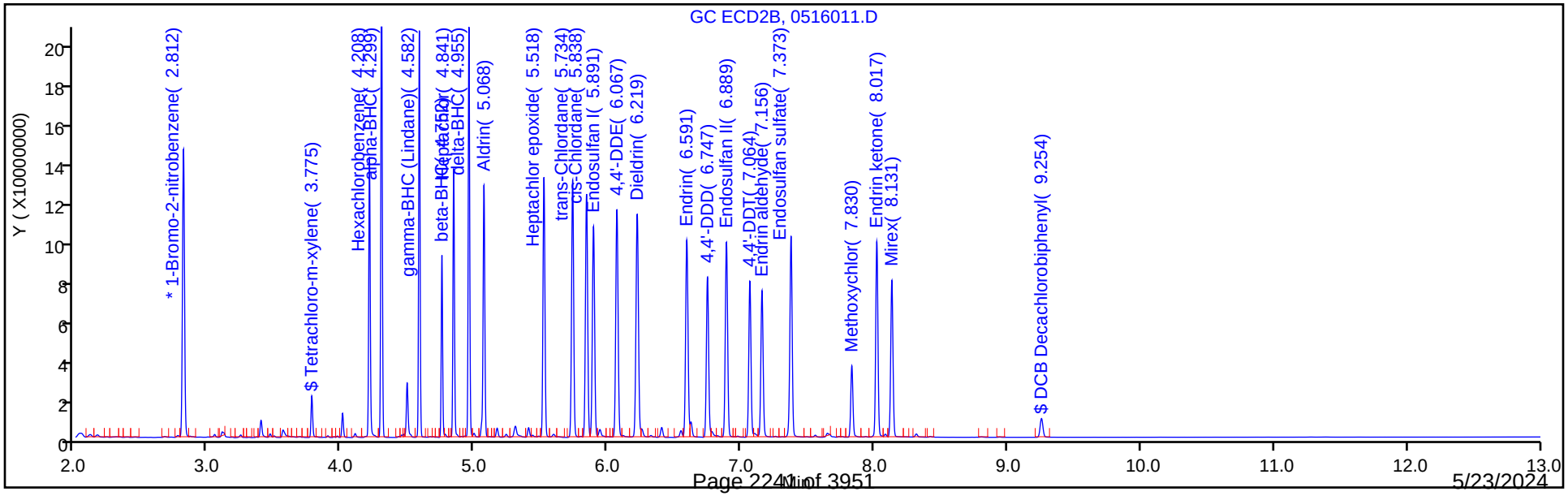
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516011.D

Injection Date:	16-May-2024 13:14:02	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	LCSD 280-653452/3-A RE			Worklist Smp#:	10
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
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Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516011.D				
Lims ID:	LCSD 280-653452/3-A RE				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	16-May-2024 13:14:02	ALS Bottle#:	11	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCSD 280-653452/3-A				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	16-May-2024 14:42:24	Calib Date:	16-May-2024 11:45:09		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1676				

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	6.68	66.82
$ 40 DCB Decachlorobiphenyl	10.0	4.78	47.82

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	6.39	63.85
$ 40 DCB Decachlorobiphenyl	10.0	5.88	58.84

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MS | Lab Sample ID: 280-191098-1 MS

Matrix: Water | Lab File ID: 0513020.D

Analysis Method: 8081B | Date Collected: 05/06/2024 10:16

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 246.4(mL) | Date Analyzed: 05/13/2024 16:17

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-XLB ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653121 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
72-54-8	4,4'-DDD	1.05	Q	0.051	0.051	0.0043
72-55-9	4,4'-DDE	0.983	Q	0.051	0.022	0.0043
50-29-3	4,4'-DDT	0.975	M Q	0.051	0.051	0.024
309-00-2	Aldrin	0.449	Q J1	0.051	0.021	0.0063
319-84-6	alpha-BHC	0.993	Q	0.051	0.029	0.0098
5103-71-9	alpha-Chlordane	0.915	Q	0.051	0.029	0.0089
319-85-7	beta-BHC	0.956	Q	0.051	0.041	0.0092
319-86-8	delta-BHC	1.04	Q	0.051	0.024	0.0079
60-57-1	Dieldrin	0.896	Q	0.051	0.016	0.0047
959-98-8	Endosulfan I	0.914	Q	0.051	0.022	0.0059
33213-65-9	Endosulfan II	0.914	Q	0.051	0.041	0.0067
1031-07-8	Endosulfan sulfate	0.902	Q	0.051	0.018	0.0050
72-20-8	Endrin	0.937	Q	0.051	0.024	0.0087
7421-93-4	Endrin aldehyde	0.945	Q	0.051	0.024	0.0088
53494-70-5	Endrin ketone	0.925	Q	0.051	0.036	0.013
58-89-9	gamma-BHC (Lindane)	1.00	Q	0.051	0.031	0.010
5103-74-2	gamma-Chlordane	0.873	Q	0.051	0.030	0.0073
76-44-8	Heptachlor	0.698	Q	0.051	0.051	0.010
1024-57-3	Heptachlor epoxide	0.925	Q	0.051	0.037	0.0032
72-43-5	Methoxychlor	0.843	Q	0.10	0.037	0.014

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	54		33-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513020.D
Lims ID: 280-191098-I-1-A MS
Client ID: DET-003-240401-GW
Sample Type: MS
Inject. Date: 13-May-2024 16:17:13 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-I-1-A MS
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:05 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 14-May-2024 08:10:04

	Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S	1 Hexachlorocyclohexane, technical							
	1						196.9	
	2						174.3	
							RPD = 12.18	
*	2 1-Bromo-2-nitrobenzene							
	1	3.232	3.231	0.001	164175424	75.0	75.0	
	2	2.815	2.817	-0.001	160670963	75.0	75.0	
	4 Propachlor							
	1		4.041				ND	
	2		4.339					
$	3 Tetrachloro-m-xylene							
	1	4.570	4.569	0.001	16512081	10.0	5.43	
	2	3.779	3.778	0.001	14877470	10.0	5.06	
							RPD = 6.97	
	5 Diallate							
	1		4.683				ND	
	2		4.042					
	14 2,4,5-Trichlorophenol							
	1		4.866				ND	
	2		4.769					
	7 alpha-BHC							
	1	4.907	4.904	0.003	207233375	50.0	48.9	
	2	4.301	4.300	0.001	180100318	50.0	42.4	
							RPD = 14.19	
	6 Hexachlorobenzene							
	1	4.971	4.969	0.002	91206619	50.0	25.3	
	2	4.211	4.209	0.002	83356329	50.0	23.3	
							RPD = 8.43	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
8 gamma-BHC (Lindane)							
1	5.180	5.177	0.003	173762381	50.0	49.4	
2	4.585	4.584	0.001	151060432	50.0	43.5	
						RPD = 12.79	
11 beta-BHC							
1	5.417	5.414	0.003	73718521	50.0	47.1	
2	4.755	4.753	0.002	65764061	50.0	43.2	
						RPD = 8.76	
10 Technical Chlordane							
1		5.535				ND	
1		6.126					
1		7.004					
1		7.115					
1		8.011					
2		4.714					
2		5.189					
2		5.737					
2		5.765					
2		6.932					
9 Chlordane (technical)							
1		5.535				ND	
1		6.126					
1		7.004					
1		7.115					
1		8.011					
2		4.714					
2		5.189					
2		5.737					
2		5.765					
2		6.932					
13 delta-BHC							
1	5.670	5.665	0.005	189338985	50.0	51.4	
2	4.958	4.956	0.002	161930040	50.0	45.2	
						RPD = 12.87	
12 Heptachlor							
1	5.750	5.747	0.003	110289271	50.0	34.4	
2	4.844	4.842	0.002	91343505	50.0	33.0	
						RPD = 4.03	
16 Chlorpyrifos							
1		5.990				ND	
2		5.177					
15 Aldrin							
1	6.115	6.110	0.005	90501742	50.0	22.1	
2	5.070	5.069	0.001	82417602	50.0	21.3	
						RPD = 4.10	
17 Isodrin							
1	6.512	6.507	0.005	3232681		1.03	
2	5.406	5.404	0.002	3514606		1.19	
						RPD = 14.76	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
19 Heptachlor epoxide							
1	6.638	6.634	0.004	153956258	50.0	45.6	
2	5.522	5.519	0.003	130300509	50.0	42.8	
						RPD = 6.29	
21 2,4'-DDE							
1		6.823				ND	
2		5.750					
22 Toxaphene							
1		6.896				ND	
1		7.583					
1		8.009					
1		8.269					
1		9.304					
2		6.222					
2		6.637					
2		6.925					
2		7.799					
2		8.164					
20 trans-Chlordane							
1	7.007	7.003	0.004	156982473	50.0	43.0	
2	5.737	5.734	0.003	137386869	50.0	40.9	
						RPD = 5.05	
23 cis-Chlordane							
1	7.066	7.061	0.005	155814500	50.0	45.1	
2	5.842	5.839	0.003	137341651	50.0	41.5	
						RPD = 8.23	
24 Endosulfan I							
1	7.107	7.103	0.004	143433863	50.0	45.0	
2	5.895	5.891	0.004	125810023	50.0	42.9	
						RPD = 4.91	
25 4,4'-DDE							
1	7.240	7.235	0.005	159769225	50.0	48.5	
2	6.070	6.067	0.003	142206823	50.0	45.6	
						RPD = 6.17	
27 2,4'-DDD							
1		7.344				ND	
2		6.314					
26 Dieldrin							
1	7.399	7.394	0.005	158532483	50.0	44.2	
2	6.222	6.219	0.003	142733696	50.0	43.9	
						RPD = 0.66	
28 Chlorobenzilate							
1		7.511				ND	
2		6.431					
29 Endrin							
1	7.652	7.647	0.005	129706153	50.0	46.2	
2	6.595	6.591	0.004	119920961	50.0	45.5	
						RPD = 1.57	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
30 2,4'-DDT							
1		7.687				ND	
2		6.648					
32 4,4'-DDD							
1	7.810	7.805	0.005	112449844	50.0	51.9	
2	6.750	6.747	0.003	96239840	50.0	50.9	
						RPD = 1.96	
31 Kepone							
1		7.898				ND	
2		6.714					
33 Endosulfan II							
1	7.937	7.933	0.004	127281022	50.0	45.0	
2	6.892	6.889	0.003	121274876	50.0	45.1	
						RPD = 0.14	
35 Endrin aldehyde							
1	8.055	8.050	0.005	89420694	50.0	46.6	
2	7.159	7.157	0.002	88424087	50.0	47.4	
						RPD = 1.70	
34 4,4'-DDT							a
1	8.139	8.135	0.004	96070906	50.0	48.0	a
2	7.068	7.065	0.003	85706133	50.0	49.0	a
						RPD = 1.87	
18 Dicofol							
1		8.141				ND	
2		8.545					
36 Endosulfan sulfate							
1	8.353	8.349	0.004	115261847	50.0	44.5	
2	7.376	7.374	0.002	120386927	50.0	45.4	
						RPD = 2.15	
37 Methoxychlor							
1	8.608	8.603	0.005	44683842	50.0	41.5	
2	7.833	7.831	0.002	35720056	50.0	40.7	
						RPD = 2.05	
38 Endrin ketone							
1	8.815	8.810	0.005	116804695	50.0	45.6	
2	8.020	8.018	0.002	112782579	50.0	47.0	
						RPD = 3.06	
39 Mirex							
1	9.457	9.451	0.006	81241713	50.0	34.7	
2	8.134	8.130	0.004	91038262	50.0	40.8	
						RPD = 16.13	
$ 40 DCB Decachlorobiphenyl							
1	11.068	11.057	0.011	7017544	10.0	2.19	
2	9.259	9.257	0.002	7081158	10.0	2.80	
						RPD = 24.35	
41 Tris(2,3-dibromopropyl)phosphate							
1		12.000				ND	
2		12.279					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 42 Endosulfan, Total							
1						134.5	
2						133.4	
						RPD = 0.85	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

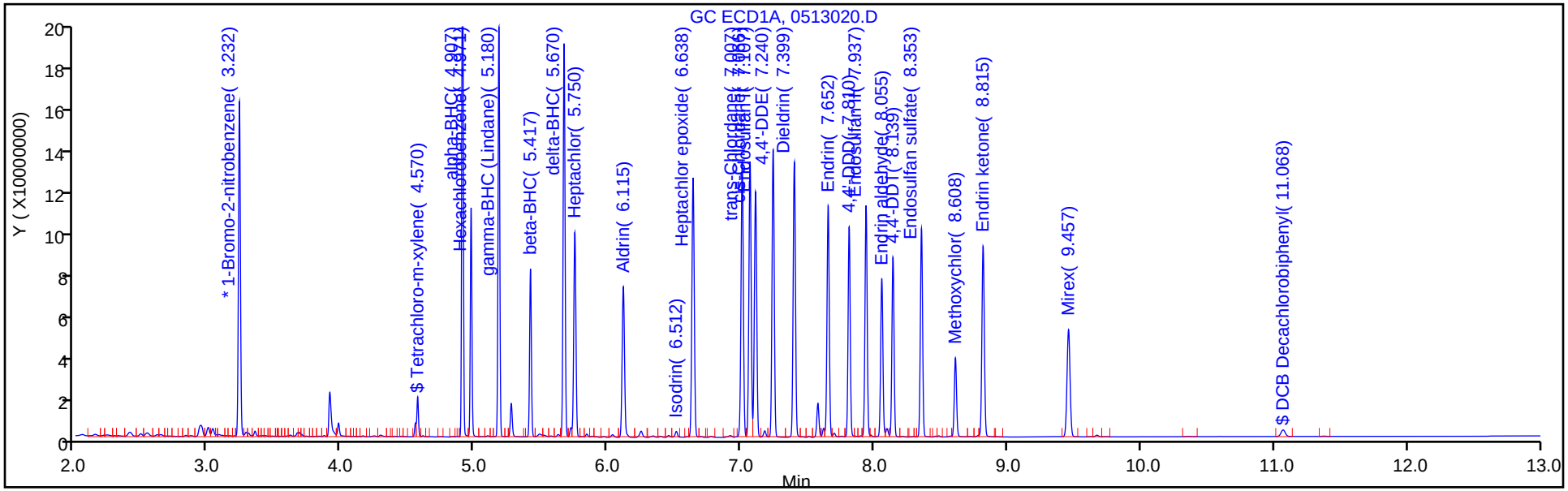
Report Date: 14-May-2024 08:21:41 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

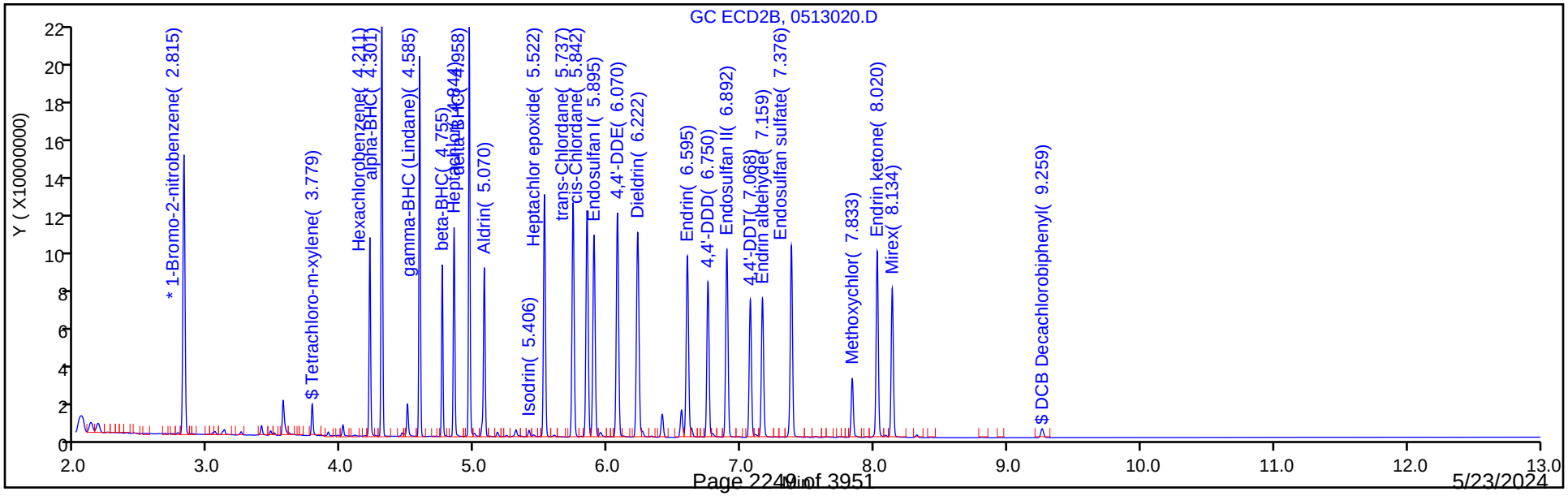
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513020.D

Injection Date:	13-May-2024 16:17:13	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	280-191098-I-1-A MS			Worklist Smp#:	20
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513020.D				
Lims ID:	280-191098-I-1-A MS				
Client ID:	DET-003-240401-GW				
Sample Type:	MS				
Inject. Date:	13-May-2024 16:17:13	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-I-1-A MS				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	14-May-2024 08:21:05	Calib Date:	13-May-2024 12:25:32		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1604				
First Level Reviewer: AP6K		Date:	14-May-2024 08:10:04		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	5.43	54.30
$ 40 DCB Decachlorobiphenyl	10.0	2.19	21.93

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	5.06	50.64
$ 40 DCB Decachlorobiphenyl	10.0	2.80	28.00

Manual Integration/User Assign Peak Report

Eurofins Denver

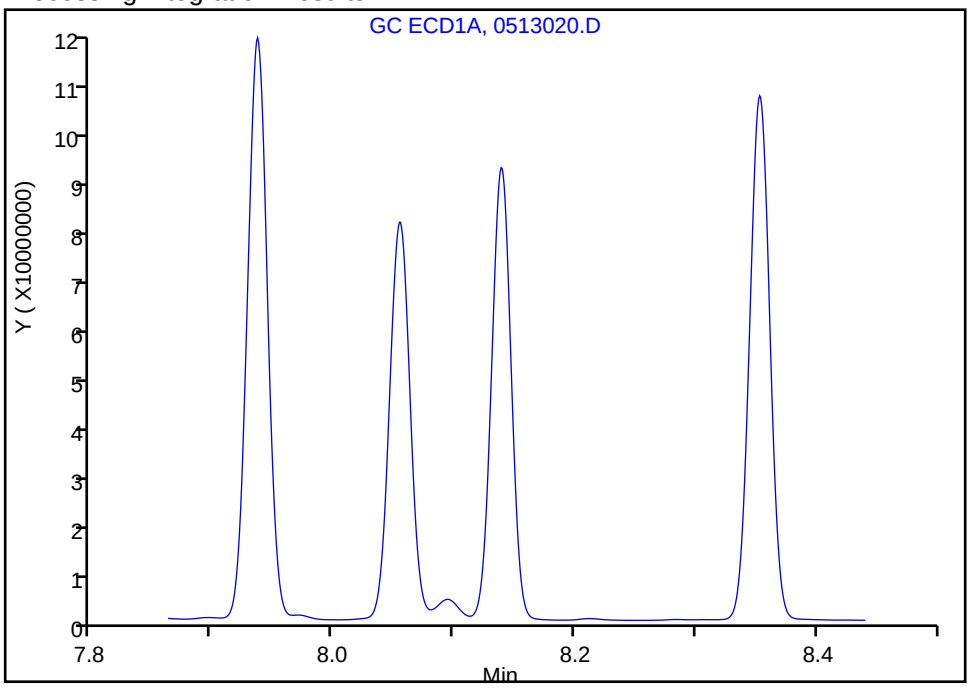
Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513020.D				
Injection Date:	13-May-2024 16:17:13	Instrument ID:	SGC_C		
Lims ID:	280-191098-I-1-A MS				
Client ID:	DET-003-240401-GW				
Operator ID:	mw	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		
Column:	RTI-XLB Chlorinated Pesticides (0.32 mm)	Detector	GC ECD1A		

34 4,4'-DDT, CAS: 50-29-3

Signal: 1

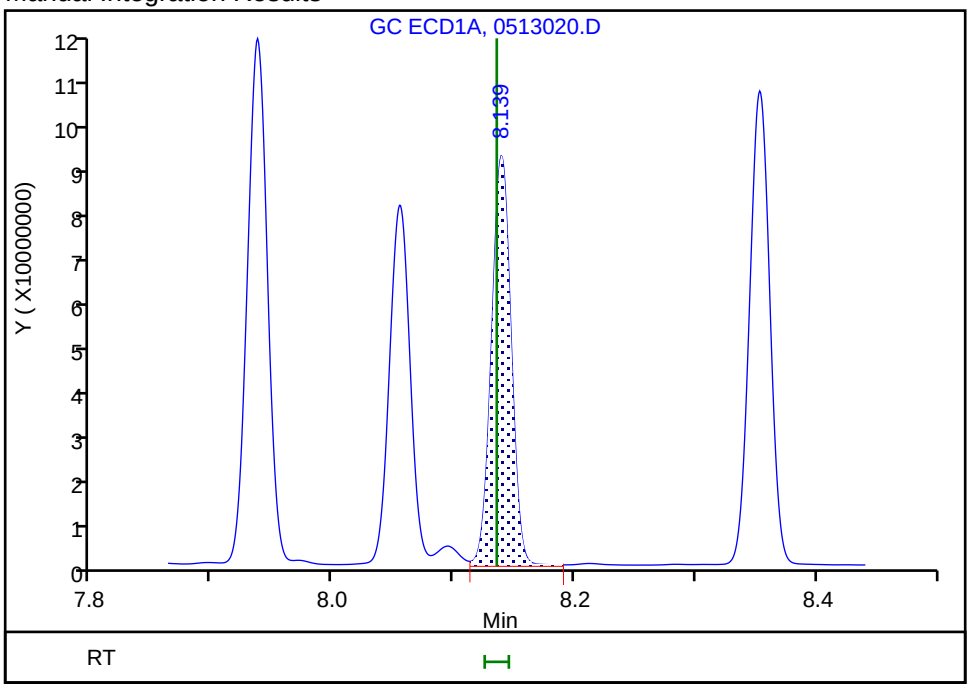
Not Detected
Expected RT: 8.14

Processing Integration Results



Manual Integration Results

RT: 8.14
Area: 96070906
Amount: 48.044972
Amount Units: ng/mL



Reviewer: AP6K, 14-May-2024 08:09:57 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MS | Lab Sample ID: 280-191098-1 MS

Matrix: Water | Lab File ID: 0513020.D

Analysis Method: 8081B | Date Collected: 05/06/2024 10:16

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 246.4(mL) | Date Analyzed: 05/13/2024 16:17

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-35silms ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653121 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	28	Q	34-122

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513020.D
Lims ID: 280-191098-I-1-A MS
Client ID: DET-003-240401-GW
Sample Type: MS
Inject. Date: 13-May-2024 16:17:13 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-I-1-A MS
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:05 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 14-May-2024 08:10:04

	Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S	1 Hexachlorocyclohexane, technical							
	1						196.9	
	2						174.3	
							RPD = 12.18	
*	2 1-Bromo-2-nitrobenzene							
	1	3.232	3.231	0.001	164175424	75.0	75.0	
	2	2.815	2.817	-0.001	160670963	75.0	75.0	
	4 Propachlor							
	1		4.041				ND	
	2		4.339					
$	3 Tetrachloro-m-xylene							
	1	4.570	4.569	0.001	16512081	10.0	5.43	
	2	3.779	3.778	0.001	14877470	10.0	5.06	
							RPD = 6.97	
	5 Diallate							
	1		4.683				ND	
	2		4.042					
	14 2,4,5-Trichlorophenol							
	1		4.866				ND	
	2		4.769					
	7 alpha-BHC							
	1	4.907	4.904	0.003	207233375	50.0	48.9	
	2	4.301	4.300	0.001	180100318	50.0	42.4	
							RPD = 14.19	
	6 Hexachlorobenzene							
	1	4.971	4.969	0.002	91206619	50.0	25.3	
	2	4.211	4.209	0.002	83356329	50.0	23.3	
							RPD = 8.43	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
8 gamma-BHC (Lindane)							
1	5.180	5.177	0.003	173762381	50.0	49.4	
2	4.585	4.584	0.001	151060432	50.0	43.5	
						RPD = 12.79	
11 beta-BHC							
1	5.417	5.414	0.003	73718521	50.0	47.1	
2	4.755	4.753	0.002	65764061	50.0	43.2	
						RPD = 8.76	
10 Technical Chlordane							
1		5.535				ND	
1		6.126					
1		7.004					
1		7.115					
1		8.011					
2		4.714					
2		5.189					
2		5.737					
2		5.765					
2		6.932					
9 Chlordane (technical)							
1		5.535				ND	
1		6.126					
1		7.004					
1		7.115					
1		8.011					
2		4.714					
2		5.189					
2		5.737					
2		5.765					
2		6.932					
13 delta-BHC							
1	5.670	5.665	0.005	189338985	50.0	51.4	
2	4.958	4.956	0.002	161930040	50.0	45.2	
						RPD = 12.87	
12 Heptachlor							
1	5.750	5.747	0.003	110289271	50.0	34.4	
2	4.844	4.842	0.002	91343505	50.0	33.0	
						RPD = 4.03	
16 Chlorpyrifos							
1		5.990				ND	
2		5.177					
15 Aldrin							
1	6.115	6.110	0.005	90501742	50.0	22.1	
2	5.070	5.069	0.001	82417602	50.0	21.3	
						RPD = 4.10	
17 Isodrin							
1	6.512	6.507	0.005	3232681		1.03	
2	5.406	5.404	0.002	3514606		1.19	
						RPD = 14.76	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
19 Heptachlor epoxide							
1	6.638	6.634	0.004	153956258	50.0	45.6	
2	5.522	5.519	0.003	130300509	50.0	42.8	
						RPD = 6.29	
21 2,4'-DDE							
1		6.823				ND	
2		5.750					
22 Toxaphene							
1		6.896				ND	
1		7.583					
1		8.009					
1		8.269					
1		9.304					
2		6.222					
2		6.637					
2		6.925					
2		7.799					
2		8.164					
20 trans-Chlordane							
1	7.007	7.003	0.004	156982473	50.0	43.0	
2	5.737	5.734	0.003	137386869	50.0	40.9	
						RPD = 5.05	
23 cis-Chlordane							
1	7.066	7.061	0.005	155814500	50.0	45.1	
2	5.842	5.839	0.003	137341651	50.0	41.5	
						RPD = 8.23	
24 Endosulfan I							
1	7.107	7.103	0.004	143433863	50.0	45.0	
2	5.895	5.891	0.004	125810023	50.0	42.9	
						RPD = 4.91	
25 4,4'-DDE							
1	7.240	7.235	0.005	159769225	50.0	48.5	
2	6.070	6.067	0.003	142206823	50.0	45.6	
						RPD = 6.17	
27 2,4'-DDD							
1		7.344				ND	
2		6.314					
26 Dieldrin							
1	7.399	7.394	0.005	158532483	50.0	44.2	
2	6.222	6.219	0.003	142733696	50.0	43.9	
						RPD = 0.66	
28 Chlorobenzilate							
1		7.511				ND	
2		6.431					
29 Endrin							
1	7.652	7.647	0.005	129706153	50.0	46.2	
2	6.595	6.591	0.004	119920961	50.0	45.5	
						RPD = 1.57	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
30 2,4'-DDT							
1		7.687				ND	
2		6.648					
32 4,4'-DDD							
1	7.810	7.805	0.005	112449844	50.0	51.9	
2	6.750	6.747	0.003	96239840	50.0	50.9	
						RPD = 1.96	
31 Kepone							
1		7.898				ND	
2		6.714					
33 Endosulfan II							
1	7.937	7.933	0.004	127281022	50.0	45.0	
2	6.892	6.889	0.003	121274876	50.0	45.1	
						RPD = 0.14	
35 Endrin aldehyde							
1	8.055	8.050	0.005	89420694	50.0	46.6	
2	7.159	7.157	0.002	88424087	50.0	47.4	
						RPD = 1.70	
34 4,4'-DDT							a
1	8.139	8.135	0.004	96070906	50.0	48.0	a
2	7.068	7.065	0.003	85706133	50.0	49.0	a
						RPD = 1.87	
18 Dicofol							
1		8.141				ND	
2		8.545					
36 Endosulfan sulfate							
1	8.353	8.349	0.004	115261847	50.0	44.5	
2	7.376	7.374	0.002	120386927	50.0	45.4	
						RPD = 2.15	
37 Methoxychlor							
1	8.608	8.603	0.005	44683842	50.0	41.5	
2	7.833	7.831	0.002	35720056	50.0	40.7	
						RPD = 2.05	
38 Endrin ketone							
1	8.815	8.810	0.005	116804695	50.0	45.6	
2	8.020	8.018	0.002	112782579	50.0	47.0	
						RPD = 3.06	
39 Mirex							
1	9.457	9.451	0.006	81241713	50.0	34.7	
2	8.134	8.130	0.004	91038262	50.0	40.8	
						RPD = 16.13	
$ 40 DCB Decachlorobiphenyl							
1	11.068	11.057	0.011	7017544	10.0	2.19	
2	9.259	9.257	0.002	7081158	10.0	2.80	
						RPD = 24.35	
41 Tris(2,3-dibromopropyl)phosphate							
1		12.000				ND	
2		12.279					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 42 Endosulfan, Total							
1						134.5	
2						133.4	
						RPD = 0.85	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

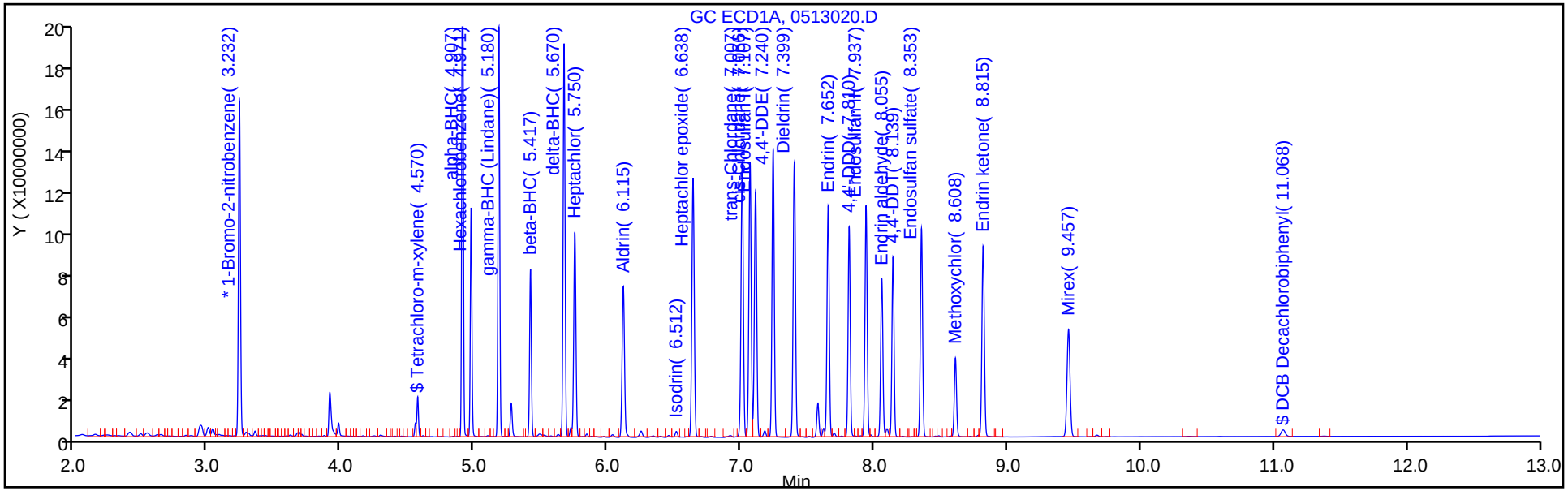
Report Date: 14-May-2024 08:21:42 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

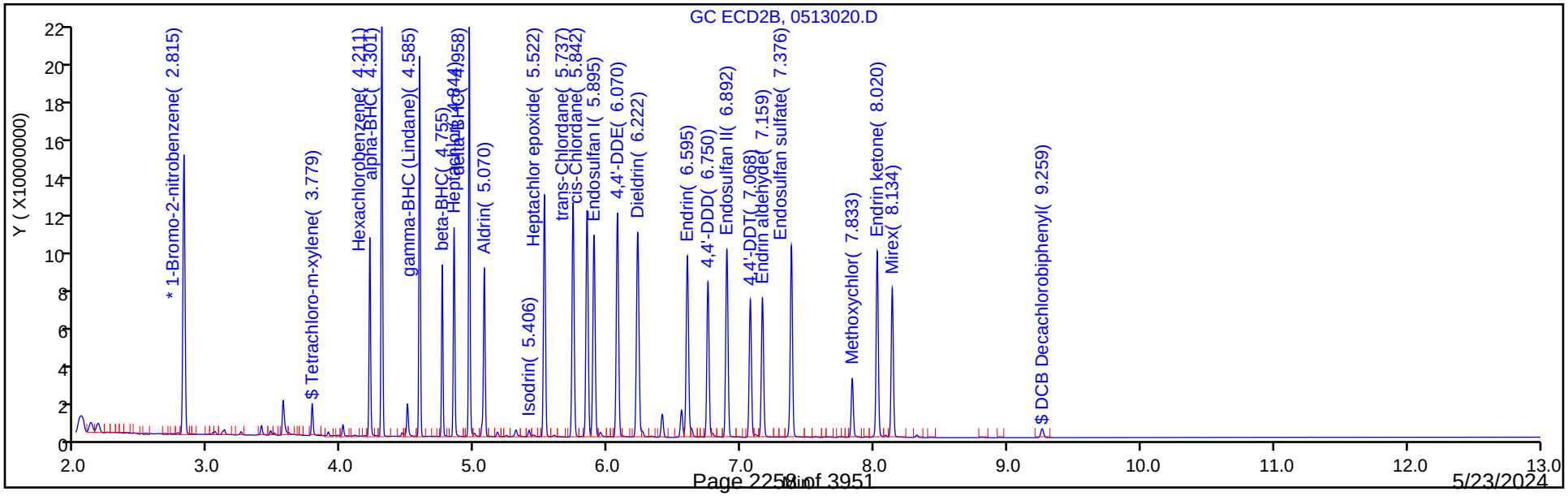
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513020.D

Injection Date:	13-May-2024 16:17:13	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	280-191098-I-1-A MS			Worklist Smp#:	20
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513020.D				
Lims ID:	280-191098-I-1-A MS				
Client ID:	DET-003-240401-GW				
Sample Type:	MS				
Inject. Date:	13-May-2024 16:17:13	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-I-1-A MS				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	14-May-2024 08:21:05	Calib Date:	13-May-2024 12:25:32		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1604				
First Level Reviewer: AP6K		Date:	14-May-2024 08:10:04		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	5.43	54.30
$ 40 DCB Decachlorobiphenyl	10.0	2.19	21.93

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	5.06	50.64
$ 40 DCB Decachlorobiphenyl	10.0	2.80	28.00

Manual Integration/User Assign Peak Report

Eurofins Denver

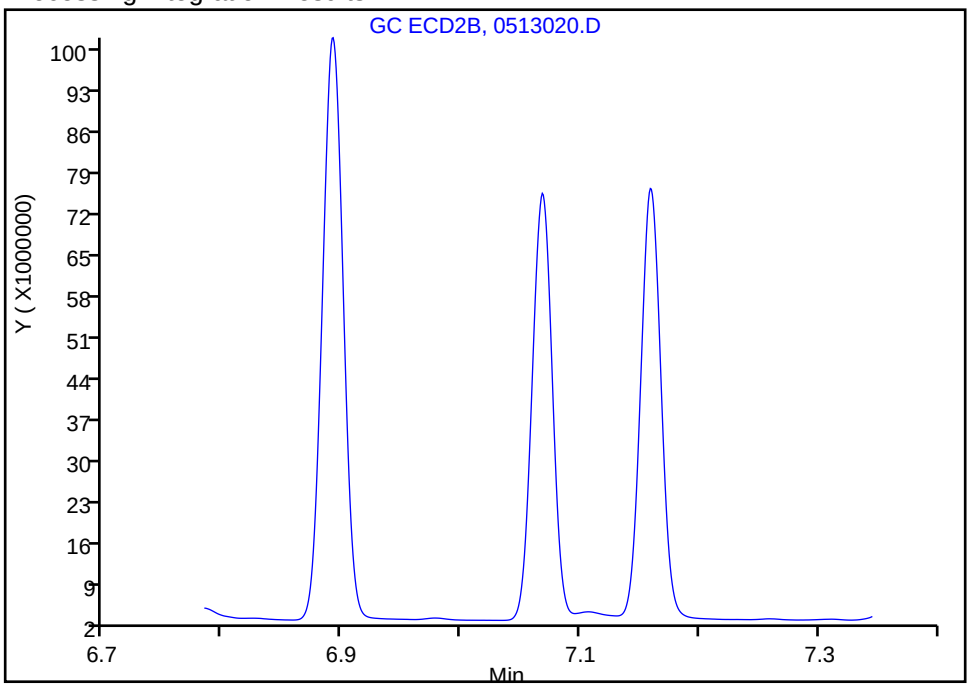
Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513020.D				
Injection Date:	13-May-2024 16:17:13	Instrument ID:	SGC_C		
Lims ID:	280-191098-I-1-A MS				
Client ID:	DET-003-240401-GW				
Operator ID:	mw	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		
Column:	RTI-35silms Chlorinated Pesticides (0.32 mm)	Detector:	GC ECD2B		

34 4,4'-DDT, CAS: 50-29-3

Signal: 2

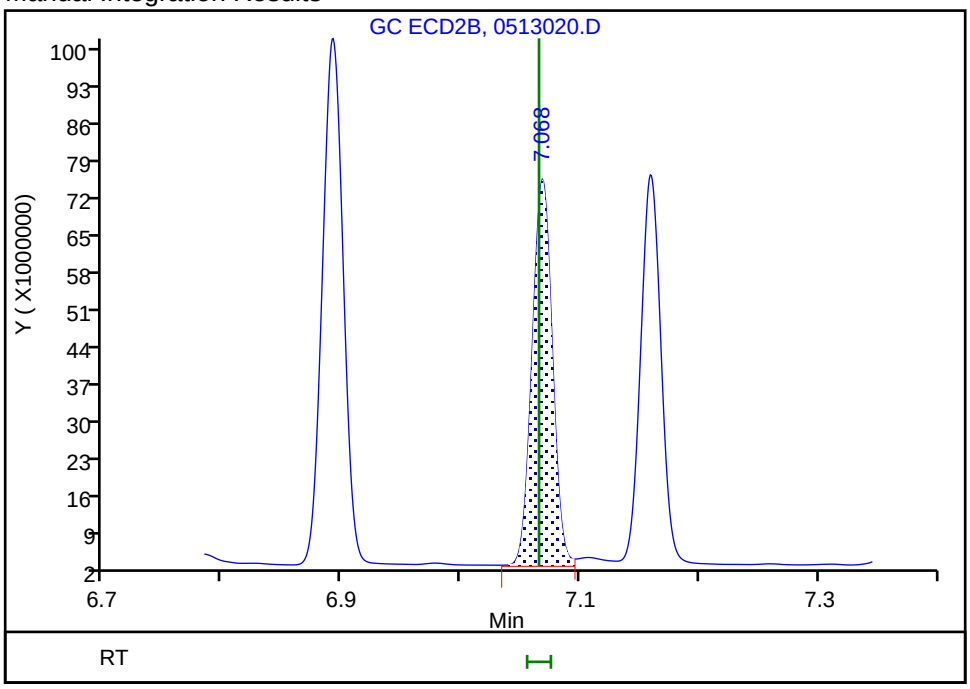
Not Detected
Expected RT: 7.07

Processing Integration Results



Manual Integration Results

RT: 7.07
Area: 85706133
Amount: 48.953171
Amount Units: ng/mL



Reviewer: AP6K, 14-May-2024 08:09:54 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MS | Lab Sample ID: 280-191098-1 MS

Matrix: Water | Lab File ID: 0513022.D

Analysis Method: 8081B | Date Collected: 05/06/2024 10:16

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 244.8(mL) | Date Analyzed: 05/13/2024 16:52

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-XLB ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653121 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
8001-35-2	Toxaphene	22.4	M	3.1	3.1	1.5

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513022.D
Lims ID: 280-191098-G-1-B MS
Client ID: DET-003-240401-GW
Sample Type: MS
Inject. Date: 13-May-2024 16:52:43 ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-G-1-B MS
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:05 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 14-May-2024 08:10:39

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						0.7877	
2						1.00	
						RPD = 23.43	
* 2 1-Bromo-2-nitrobenzene							
1	3.231	3.231	0.000	149330811	75.0	75.0	
2	2.817	2.817	0.000	145707366	75.0	75.0	
4 Propachlor							
1	4.038	4.041	-0.003	221866		NC	
2	4.348	4.339	0.009	232312		NC	
						RPD = 0.00	
$ 3 Tetrachloro-m-xylene							
1	4.570	4.569	0.001	14383546	10.0	5.20	
2	3.778	3.778	0.000	13299015	10.0	4.99	
						RPD = 4.09	
5 Diallate							
1	4.680	4.683	-0.003	271036		4.47	
2	4.037	4.042	-0.005	167780		2.89	
						RPD = 42.82	
14 2,4,5-Trichlorophenol							
1		4.866				ND	
2		4.769					
7 alpha-BHC							
1	4.907	4.904	0.003	2911129		0.7557	
2	4.301	4.300	0.001	2676357		0.6955	
						RPD = 8.29	
6 Hexachlorobenzene							
1		4.969				ND	
2		4.209					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
8 gamma-BHC (Lindane)							
1	5.179	5.177	0.002	102661		0.0321	
2	4.583	4.584	-0.001	949748		0.3013	
						RPD = 161.50	
11 beta-BHC							
1		5.414				ND	
2		4.753					
10 Technical Chlordane							
1		5.535				ND	
1		6.126					
1		7.004					
1		7.115					
1		8.011					
2		4.714					
2		5.189					
2		5.737					
2		5.765					
2		6.932					
9 Chlordane (technical)							
1		5.535				ND	
1		6.126					
1		7.004					
1		7.115					
1		8.011					
2		4.714					
2		5.189					
2		5.737					
2		5.765					
2		6.932					
13 delta-BHC							
1		5.665				ND	
2		4.956					
12 Heptachlor							
1		5.747				ND	
2		4.842					
16 Chlorpyrifos							
1		5.990				ND	
2		5.177					
15 Aldrin							
1		6.110				ND	
2		5.069					
17 Isodrin							
1		6.507				ND	
2		5.404					
19 Heptachlor epoxide							
1		6.634				ND	
2		5.519					
21 2,4'-DDE							
1		6.823				ND	
2		5.750					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
22 Toxaphene							M
1	6.899	6.896	0.003	13869997	1000.0	1251.9	M
1	7.586	7.583	0.003	30732693	1000.0	1165.2	M
1	8.012	8.009	0.003	43381919	1000.0	1237.6	M
1	8.272	8.269	0.003	71892931	1000.0	935.4	M
1	9.308	9.304	0.004	38788473	1000.0	891.8	M
		Average of Peak Amounts =				1096.4	
2	6.223	6.222	0.001	26207597	1000.0	1059.7	
2	6.639	6.637	0.002	28610333	1000.0	1074.7	
2	6.923	6.925	-0.002	52951210	1000.0	1154.3	
2	7.801	7.799	0.002	45035889	1000.0	1082.8	
2	8.163	8.164	-0.001	44724769	1000.0	1013.1	
		Average of Peak Amounts =				1076.9	
						RPD = 1.79	
20 trans-Chlordane							
1		7.003				ND	
2		5.734					
23 cis-Chlordane							
1		7.061				ND	
2		5.839					
24 Endosulfan I							
1		7.103				ND	
2		5.891					
25 4,4'-DDE							
1		7.235				ND	
2		6.067					
27 2,4'-DDD							M
1	7.338	7.344	-0.006	27349418		17.0	
2	6.306	6.314	-0.008	8127232		5.92	
						RPD = 96.51	
26 Dieldrin							
1		7.394				ND	
2		6.219					
28 Chlorobenzilate							
1		7.511				ND	
2		6.431					
29 Endrin							
1		7.647				ND	
2		6.591					
30 2,4'-DDT							M
1	7.693	7.687	0.006	34807396		22.2	
2	6.639	6.648	-0.009	28610333		21.0	
						RPD = 5.29	
32 4,4'-DDD							
1		7.805				ND	
2		6.747					
31 Kepone							
1		7.898				ND	
2		6.714					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
33 Endosulfan II							M
1	7.933	7.933	0.000	38372772		14.9	
2	6.894	6.889	0.005	24943514		10.2	
						RPD = 37.36	
35 Endrin aldehyde							M
1	8.043	8.050	-0.007	48730723		27.9	
2	7.167	7.157	0.010	34135089		20.2	
						RPD = 32.20	
34 4,4'-DDT							
1		8.135				ND	
2		7.065					
18 Dicofol							
1		8.141				ND	
2		8.545					
36 Endosulfan sulfate							M
1	8.356	8.349	0.007	29471402		12.5	
2	7.381	7.374	0.007	24842405		10.3	
						RPD = 18.94	
37 Methoxychlor							
1		8.603				ND	
2		7.831					
38 Endrin ketone							
1		8.810				ND	
2		8.018					
39 Mirex							
1		9.451				ND	
2		8.130					
$ 40 DCB Decachlorobiphenyl							
1	11.068	11.057	0.011	10795224	10.0	3.71	
2	9.260	9.257	0.003	11828265	10.0	5.16	
						RPD = 32.71	
41 Tris(2,3-dibromopropyl)phosphate							
1		12.000				ND	
2		12.279					
S 42 Endosulfan, Total							
1						27.4	
2						20.6	
						RPD = 28.59	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

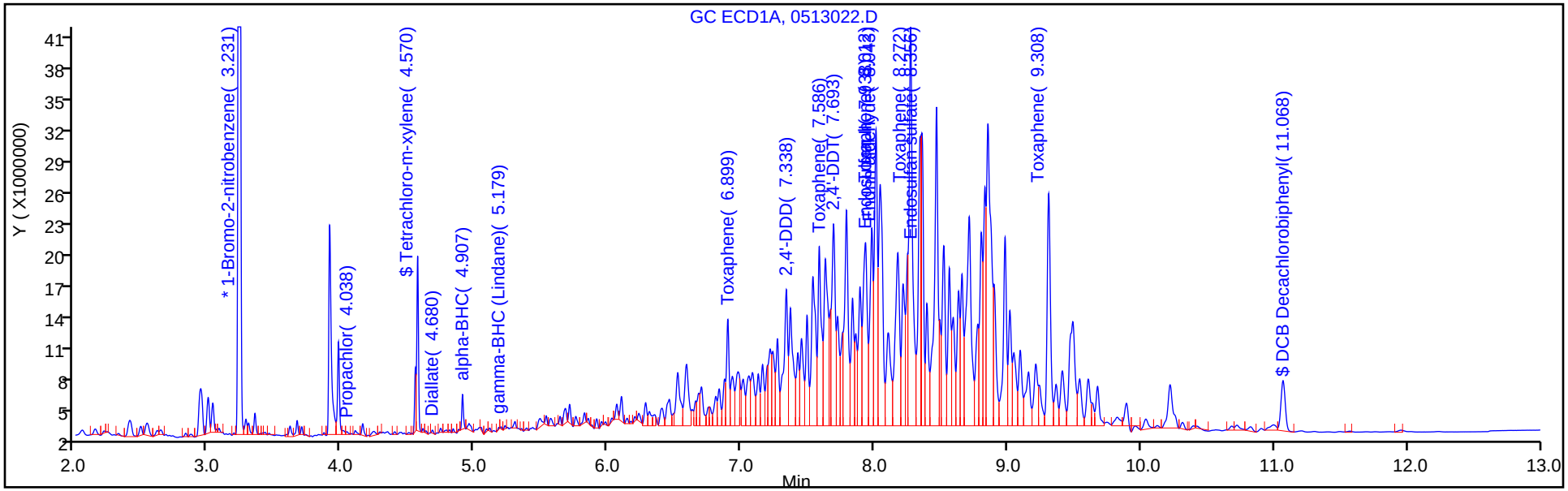
Report Date: 14-May-2024 08:21:45 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

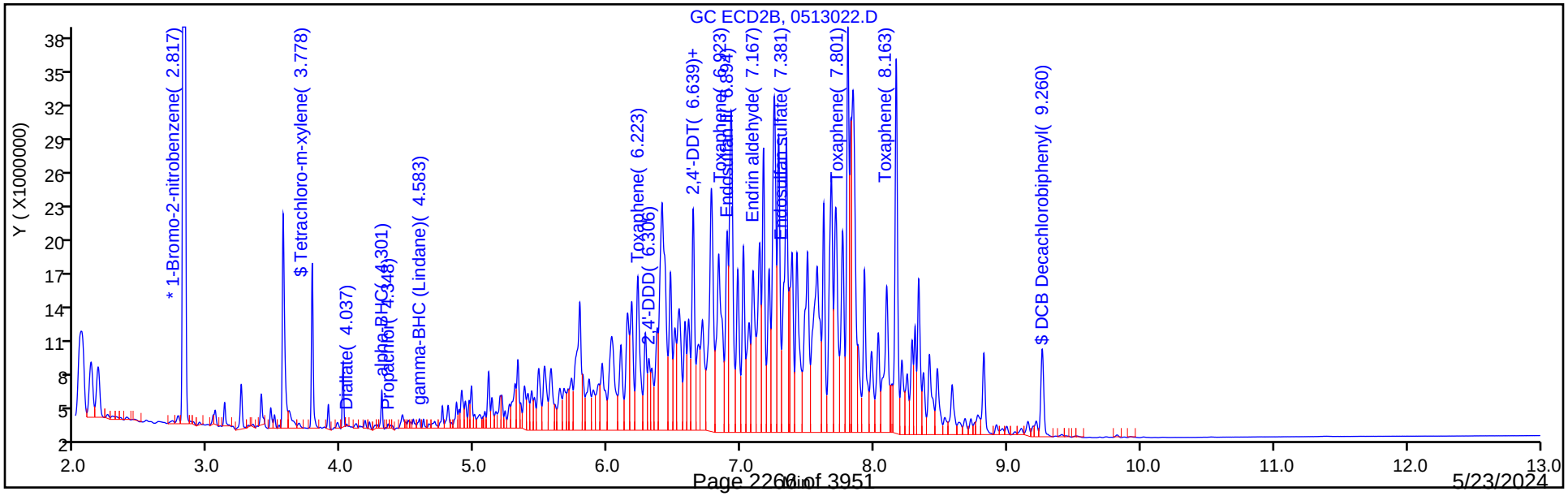
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513022.D

Injection Date:	13-May-2024 16:52:43	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	280-191098-G-1-B MS			Worklist Smp#:	22
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513022.D				
Lims ID:	280-191098-G-1-B MS				
Client ID:	DET-003-240401-GW				
Sample Type:	MS				
Inject. Date:	13-May-2024 16:52:43	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-G-1-B MS				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	14-May-2024 08:21:05	Calib Date:	13-May-2024 12:25:32		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1604				
First Level Reviewer: AP6K		Date:	14-May-2024 08:10:39		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	5.20	52.00
$ 40 DCB Decachlorobiphenyl	10.0	3.71	37.08

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	4.99	49.92
$ 40 DCB Decachlorobiphenyl	10.0	5.16	51.58

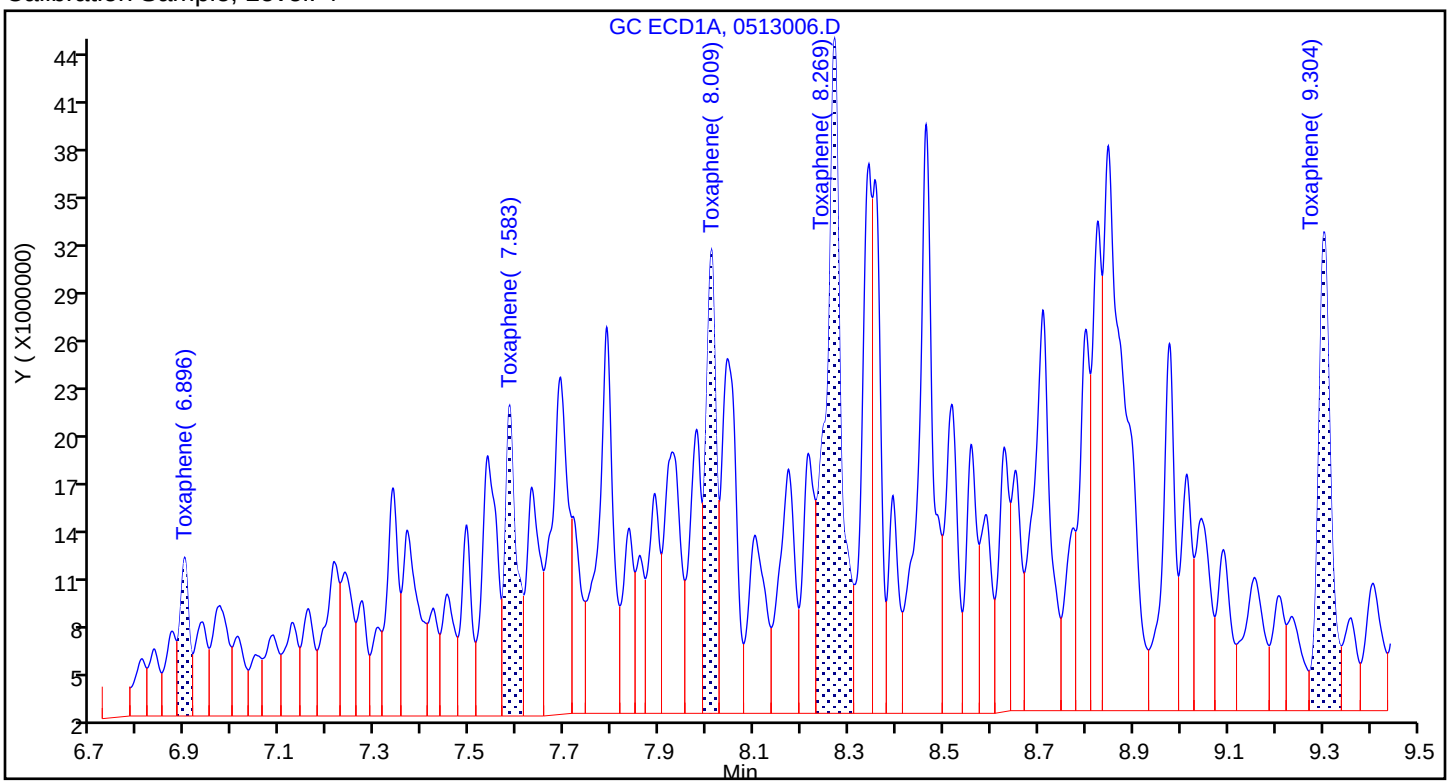
Report Date: 14-May-2024 08:21:46 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

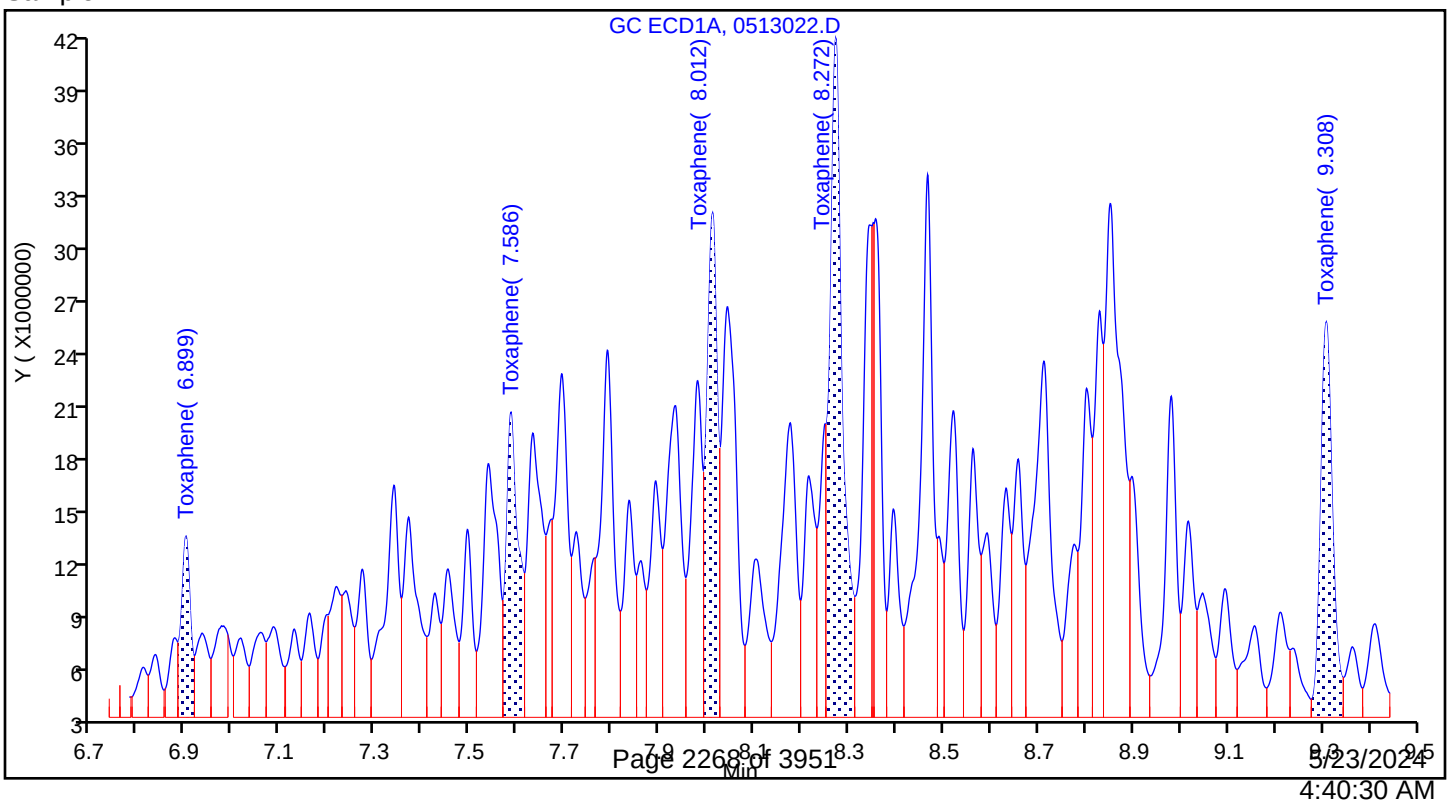
Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513022.D				
Injection Date:	13-May-2024 16:52:43	Instrument ID:	SGC_C		
Lims ID:	280-191098-G-1-B MS				
Client ID:	DET-003-240401-GW				
Operator ID:	mw	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		
Column:	RTI-XLB Chlorinated Pesticides (0.32 mm)	Detector	GC ECD1A		

22 Toxaphene, CAS: 8001-35-2

Calibration Sample, Level: 4



Sample



Manual Integration/User Assign Peak Report

Eurofins Denver

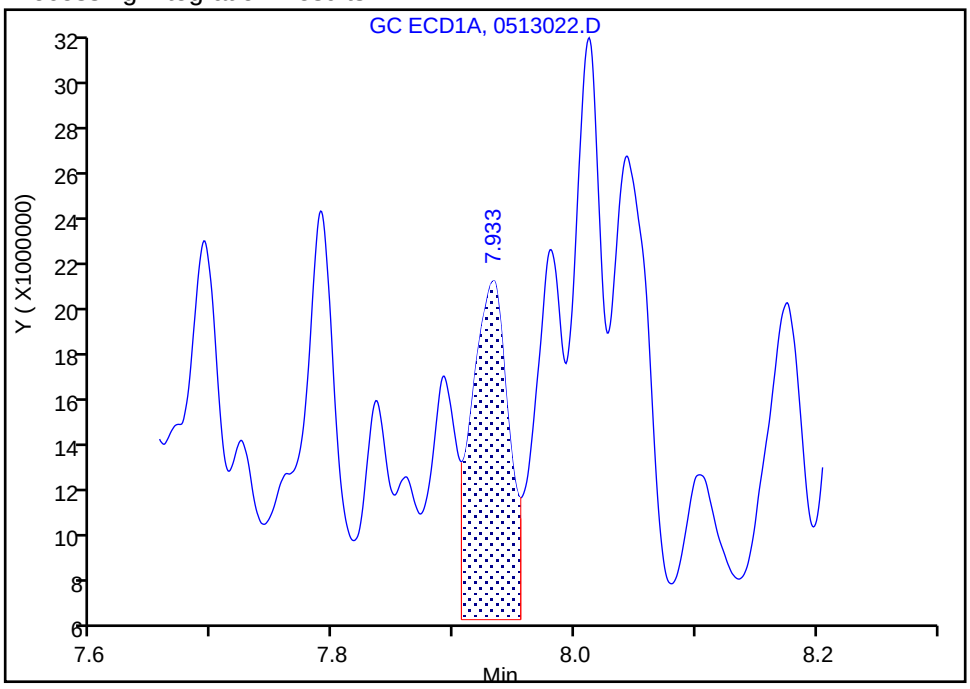
Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513022.D				
Injection Date:	13-May-2024 16:52:43	Instrument ID:	SGC_C		
Lims ID:	280-191098-G-1-B MS				
Client ID:	DET-003-240401-GW				
Operator ID:	mw	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		
Column:	RTI-XLB Chlorinated Pesticides (0.32 mm)	Detector	GC ECD1A		

33 Endosulfan II, CAS: 33213-65-9

Signal: 1

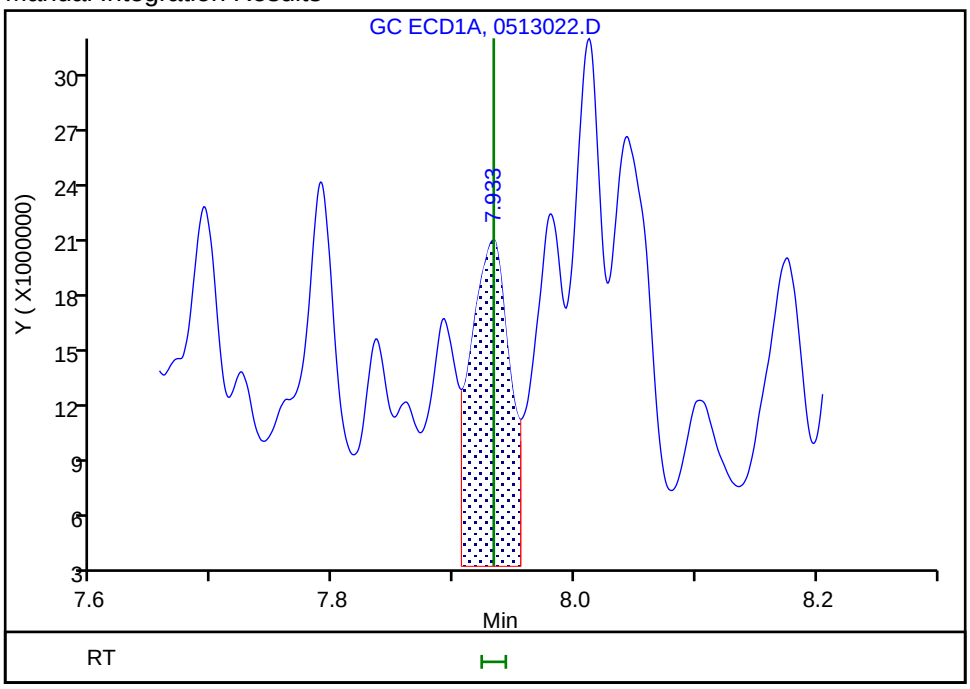
Processing Integration Results

RT: 7.93
Area: 31317967
Amount: 12.178366
Amount Units: ng/mL



Manual Integration Results

RT: 7.93
Area: 38372772
Amount: 14.921711
Amount Units: ng/mL



Reviewer: AP6K, 14-May-2024 08:10:32 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

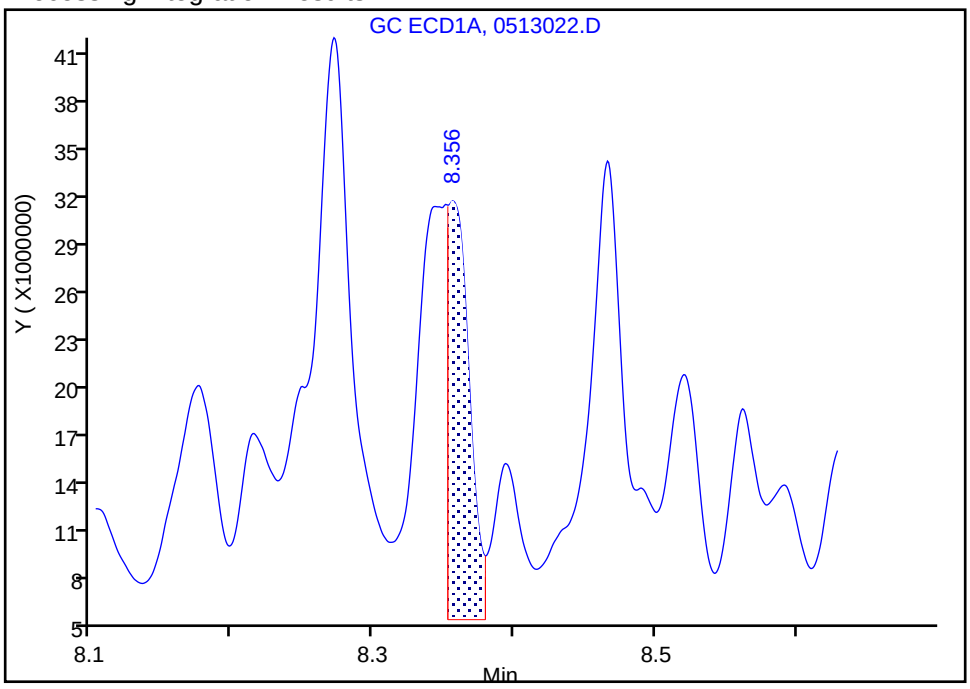
Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513022.D				
Injection Date:	13-May-2024 16:52:43	Instrument ID:	SGC_C		
Lims ID:	280-191098-G-1-B MS				
Client ID:	DET-003-240401-GW				
Operator ID:	mw	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		
Column:	RTI-XLB Chlorinated Pesticides (0.32 mm)	Detector	GC ECD1A		

36 Endosulfan sulfate, CAS: 1031-07-8

Signal: 1

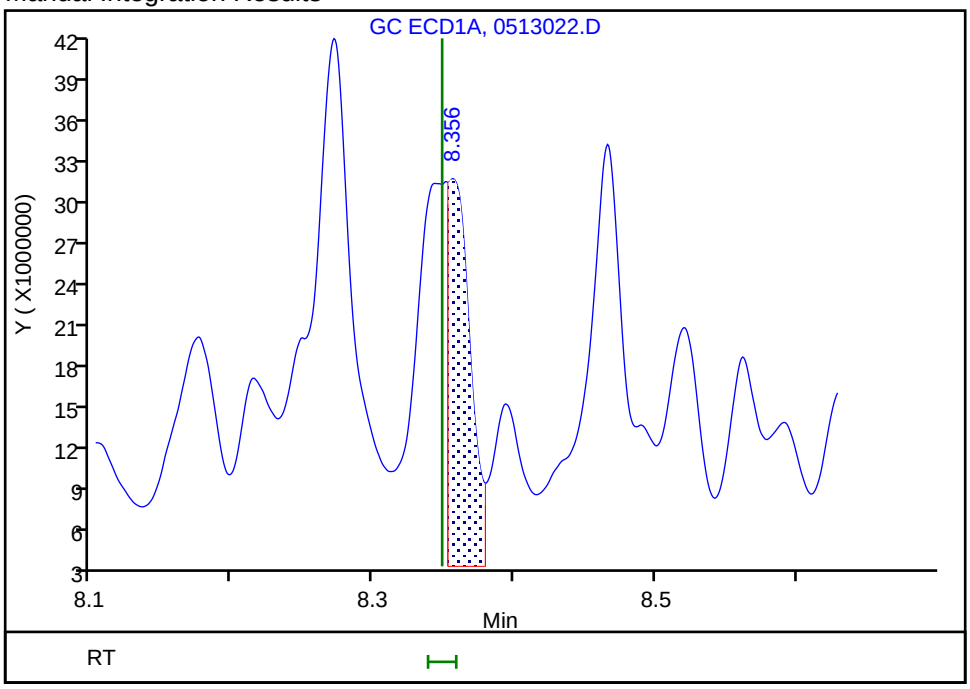
Processing Integration Results

RT: 8.36
Area: 26386615
Amount: 11.192844
Amount Units: ng/mL



Manual Integration Results

RT: 8.36
Area: 29471402
Amount: 12.501368
Amount Units: ng/mL



Reviewer: AP6K, 14-May-2024 08:10:32 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

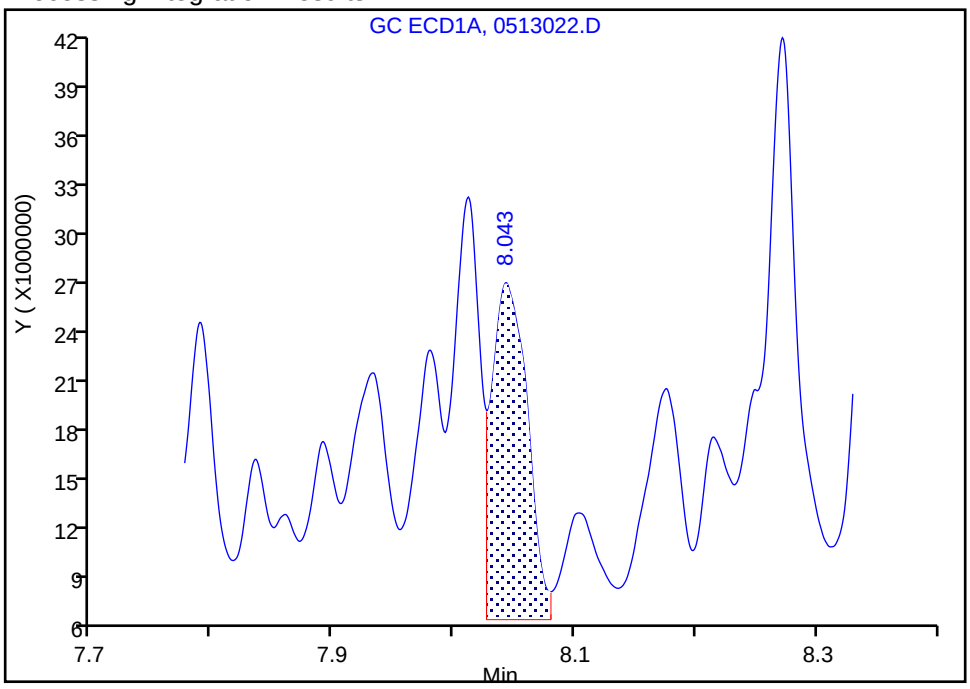
Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513022.D				
Injection Date:	13-May-2024 16:52:43	Instrument ID:	SGC_C		
Lims ID:	280-191098-G-1-B MS				
Client ID:	DET-003-240401-GW				
Operator ID:	mw	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		
Column:	RTI-XLB Chlorinated Pesticides (0.32 mm)	Detector	GC ECD1A		

35 Endrin aldehyde, CAS: 7421-93-4

Signal: 1

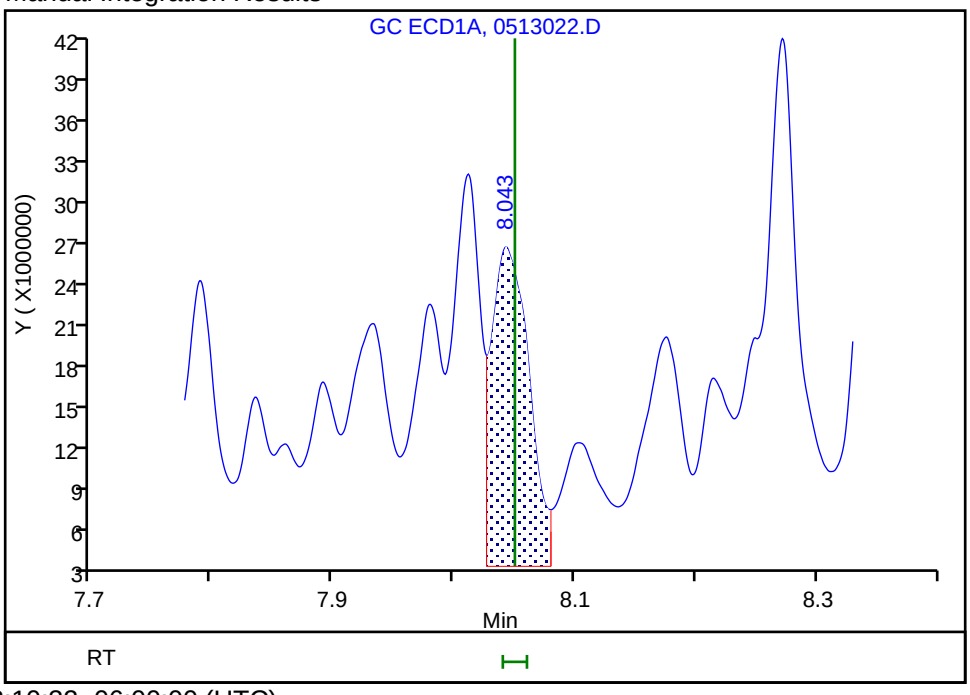
Processing Integration Results

RT: 8.04
Area: 41496623
Amount: 23.770042
Amount Units: ng/mL



Manual Integration Results

RT: 8.04
Area: 48730723
Amount: 27.913869
Amount Units: ng/mL



Reviewer: AP6K, 14-May-2024 08:10:32 -06:00:00 (UTC)

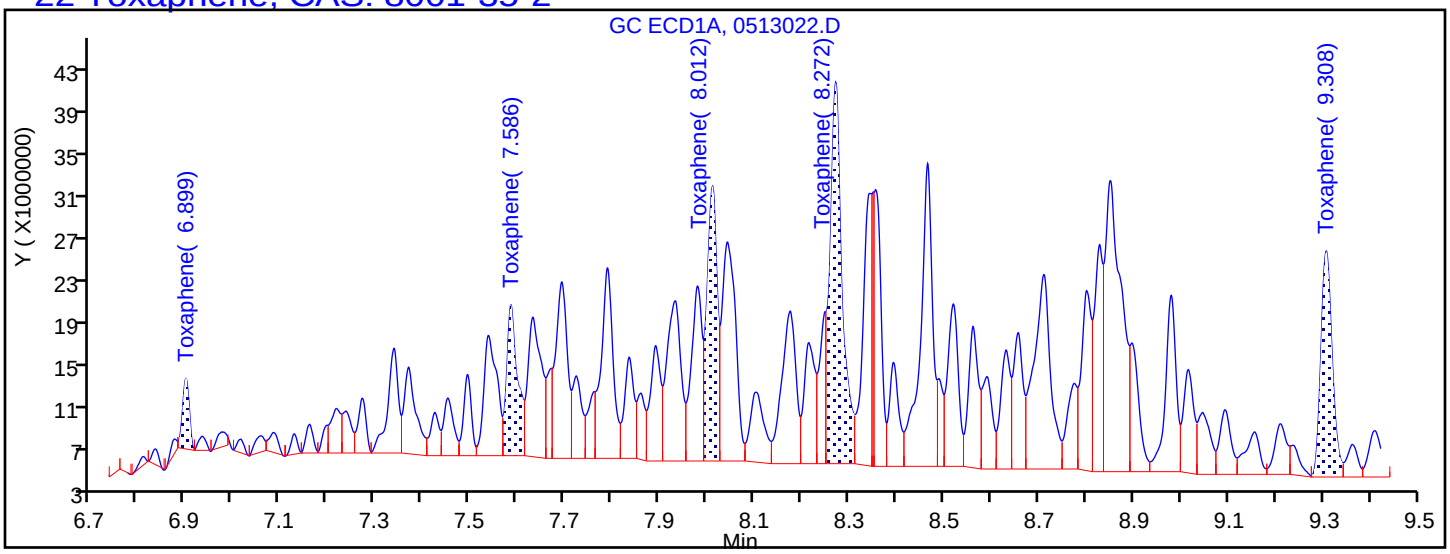
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Report Date: 14-May-2024 08:21:46 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

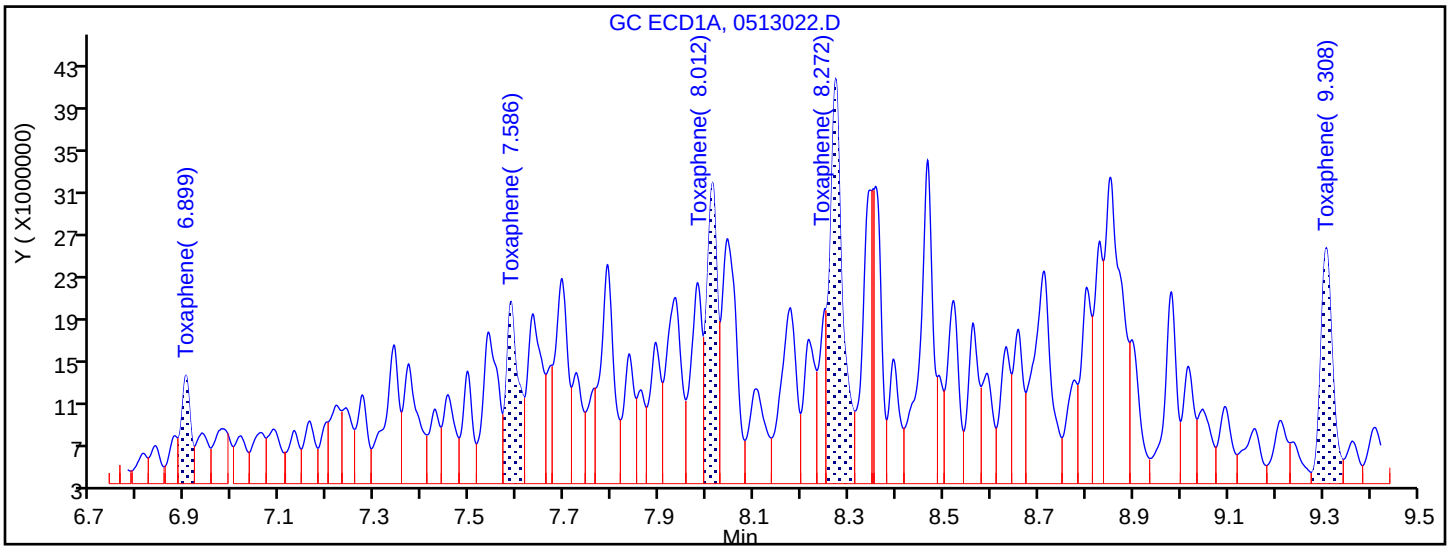
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513022.D
Injection Date: 13-May-2024 16:52:43 Instrument ID: SGC_C
Lims ID: 280-191098-G-1-B MS
Client ID: DET-003-240401-GW
Operator ID: mw ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: C 8081 IS LVI Limit Group: GCSV - 8081B LVI - IS
Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Detector GC ECD1A

22 Toxaphene, CAS: 8001-35-2



Processing Integration Results

6.899	Response = 6461096
7.586	Response = 23163632
8.012	Response = 38652131
8.272	Response = 64526801
9.308	Response = 35050629



Manual Integration Results

6.899	Response = 13869997	M
7.586	Response = 30732693	M
8.012	Response = 43381919	M
8.272	Response = 71892931	M
9.308	Response = 38788473	M

Reviewer: AP6K, 14-May-2024 08:10:32 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MS | Lab Sample ID: 280-191098-1 MS

Matrix: Water | Lab File ID: 0513022.D

Analysis Method: 8081B | Date Collected: 05/06/2024 10:16

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 244.8(mL) | Date Analyzed: 05/13/2024 16:52

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-35silms ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653121 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	52		34-122

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513022.D
Lims ID: 280-191098-G-1-B MS
Client ID: DET-003-240401-GW
Sample Type: MS
Inject. Date: 13-May-2024 16:52:43 ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-G-1-B MS
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:05 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 14-May-2024 08:10:39

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						0.7877	
2						1.00	
						RPD = 23.43	
* 2 1-Bromo-2-nitrobenzene							
1	3.231	3.231	0.000	149330811	75.0	75.0	
2	2.817	2.817	0.000	145707366	75.0	75.0	
4 Propachlor							
1	4.038	4.041	-0.003	221866		NC	
2	4.348	4.339	0.009	232312		NC	
						RPD = 0.00	
$ 3 Tetrachloro-m-xylene							
1	4.570	4.569	0.001	14383546	10.0	5.20	
2	3.778	3.778	0.000	13299015	10.0	4.99	
						RPD = 4.09	
5 Diallate							
1	4.680	4.683	-0.003	271036		4.47	
2	4.037	4.042	-0.005	167780		2.89	
						RPD = 42.82	
14 2,4,5-Trichlorophenol							
1		4.866				ND	
2		4.769					
7 alpha-BHC							
1	4.907	4.904	0.003	2911129		0.7557	
2	4.301	4.300	0.001	2676357		0.6955	
						RPD = 8.29	
6 Hexachlorobenzene							
1		4.969				ND	
2		4.209					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
8 gamma-BHC (Lindane)							
1	5.179	5.177	0.002	102661		0.0321	
2	4.583	4.584	-0.001	949748		0.3013	
						RPD = 161.50	
11 beta-BHC							
1		5.414				ND	
2		4.753					
10 Technical Chlordane							
1		5.535				ND	
1		6.126					
1		7.004					
1		7.115					
1		8.011					
2		4.714					
2		5.189					
2		5.737					
2		5.765					
2		6.932					
9 Chlordane (technical)							
1		5.535				ND	
1		6.126					
1		7.004					
1		7.115					
1		8.011					
2		4.714					
2		5.189					
2		5.737					
2		5.765					
2		6.932					
13 delta-BHC							
1		5.665				ND	
2		4.956					
12 Heptachlor							
1		5.747				ND	
2		4.842					
16 Chlorpyrifos							
1		5.990				ND	
2		5.177					
15 Aldrin							
1		6.110				ND	
2		5.069					
17 Isodrin							
1		6.507				ND	
2		5.404					
19 Heptachlor epoxide							
1		6.634				ND	
2		5.519					
21 2,4'-DDE							
1		6.823				ND	
2		5.750					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
22 Toxaphene							M
1	6.899	6.896	0.003	13869997	1000.0	1251.9	M
1	7.586	7.583	0.003	30732693	1000.0	1165.2	M
1	8.012	8.009	0.003	43381919	1000.0	1237.6	M
1	8.272	8.269	0.003	71892931	1000.0	935.4	M
1	9.308	9.304	0.004	38788473	1000.0	891.8	M
		Average of Peak Amounts =				1096.4	
2	6.223	6.222	0.001	26207597	1000.0	1059.7	
2	6.639	6.637	0.002	28610333	1000.0	1074.7	
2	6.923	6.925	-0.002	52951210	1000.0	1154.3	
2	7.801	7.799	0.002	45035889	1000.0	1082.8	
2	8.163	8.164	-0.001	44724769	1000.0	1013.1	
		Average of Peak Amounts =				1076.9	
						RPD = 1.79	
20 trans-Chlordane							
1		7.003				ND	
2		5.734					
23 cis-Chlordane							
1		7.061				ND	
2		5.839					
24 Endosulfan I							
1		7.103				ND	
2		5.891					
25 4,4'-DDE							
1		7.235				ND	
2		6.067					
27 2,4'-DDD							M
1	7.338	7.344	-0.006	27349418		17.0	
2	6.306	6.314	-0.008	8127232		5.92	
						RPD = 96.51	
26 Dieldrin							
1		7.394				ND	
2		6.219					
28 Chlorobenzilate							
1		7.511				ND	
2		6.431					
29 Endrin							
1		7.647				ND	
2		6.591					
30 2,4'-DDT							M
1	7.693	7.687	0.006	34807396		22.2	
2	6.639	6.648	-0.009	28610333		21.0	
						RPD = 5.29	
32 4,4'-DDD							
1		7.805				ND	
2		6.747					
31 Kepone							
1		7.898				ND	
2		6.714					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
33 Endosulfan II							M
1	7.933	7.933	0.000	38372772		14.9	
2	6.894	6.889	0.005	24943514		10.2	
						RPD = 37.36	
35 Endrin aldehyde							M
1	8.043	8.050	-0.007	48730723		27.9	
2	7.167	7.157	0.010	34135089		20.2	
						RPD = 32.20	
34 4,4'-DDT							
1		8.135				ND	
2		7.065					
18 Dicofol							
1		8.141				ND	
2		8.545					
36 Endosulfan sulfate							M
1	8.356	8.349	0.007	29471402		12.5	
2	7.381	7.374	0.007	24842405		10.3	
						RPD = 18.94	
37 Methoxychlor							
1		8.603				ND	
2		7.831					
38 Endrin ketone							
1		8.810				ND	
2		8.018					
39 Mirex							
1		9.451				ND	
2		8.130					
$ 40 DCB Decachlorobiphenyl							
1	11.068	11.057	0.011	10795224	10.0	3.71	
2	9.260	9.257	0.003	11828265	10.0	5.16	
						RPD = 32.71	
41 Tris(2,3-dibromopropyl)phosphate							
1		12.000				ND	
2		12.279					
S 42 Endosulfan, Total							
1						27.4	
2						20.6	
						RPD = 28.59	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

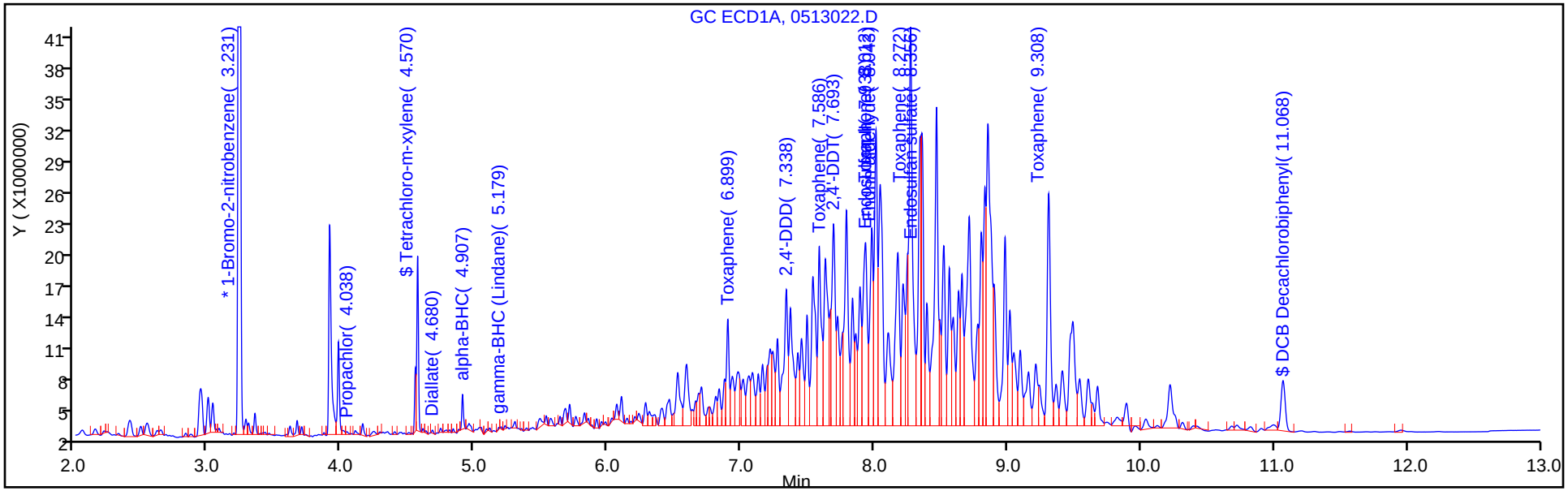
Report Date: 14-May-2024 08:21:46 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

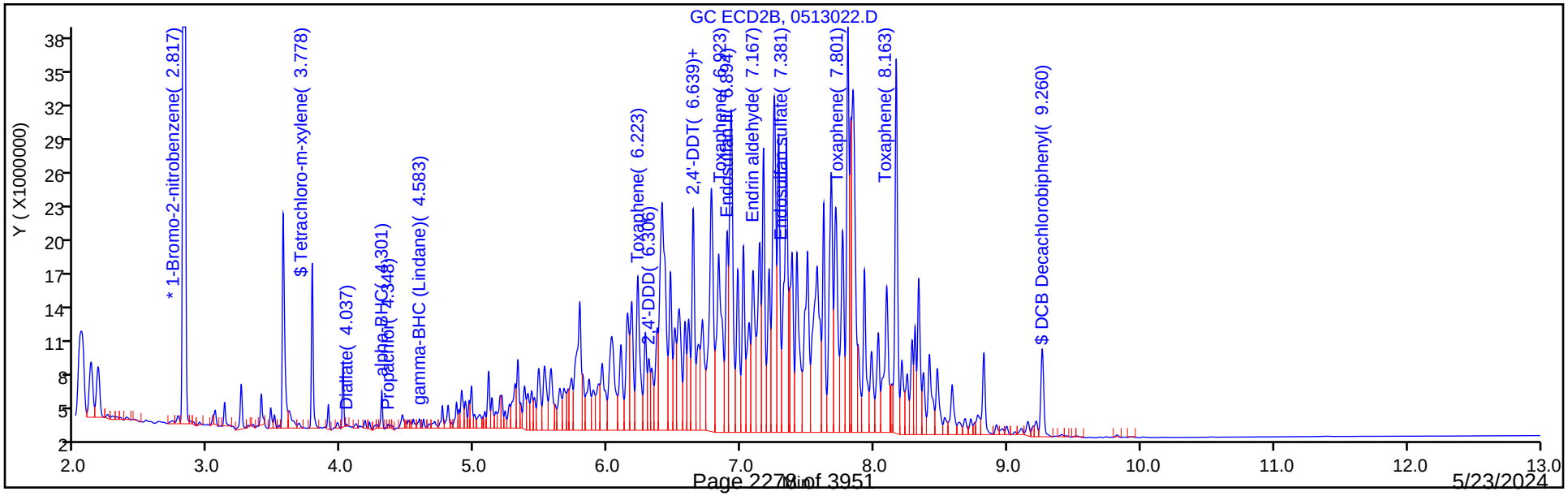
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513022.D

Injection Date:	13-May-2024 16:52:43	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	280-191098-G-1-B MS			Worklist Smp#:	22
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513022.D				
Lims ID:	280-191098-G-1-B MS				
Client ID:	DET-003-240401-GW				
Sample Type:	MS				
Inject. Date:	13-May-2024 16:52:43	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-G-1-B MS				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	14-May-2024 08:21:05	Calib Date:	13-May-2024 12:25:32		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1604				
First Level Reviewer: AP6K		Date:	14-May-2024 08:10:39		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	5.20	52.00
$ 40 DCB Decachlorobiphenyl	10.0	3.71	37.08

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	4.99	49.92
$ 40 DCB Decachlorobiphenyl	10.0	5.16	51.58

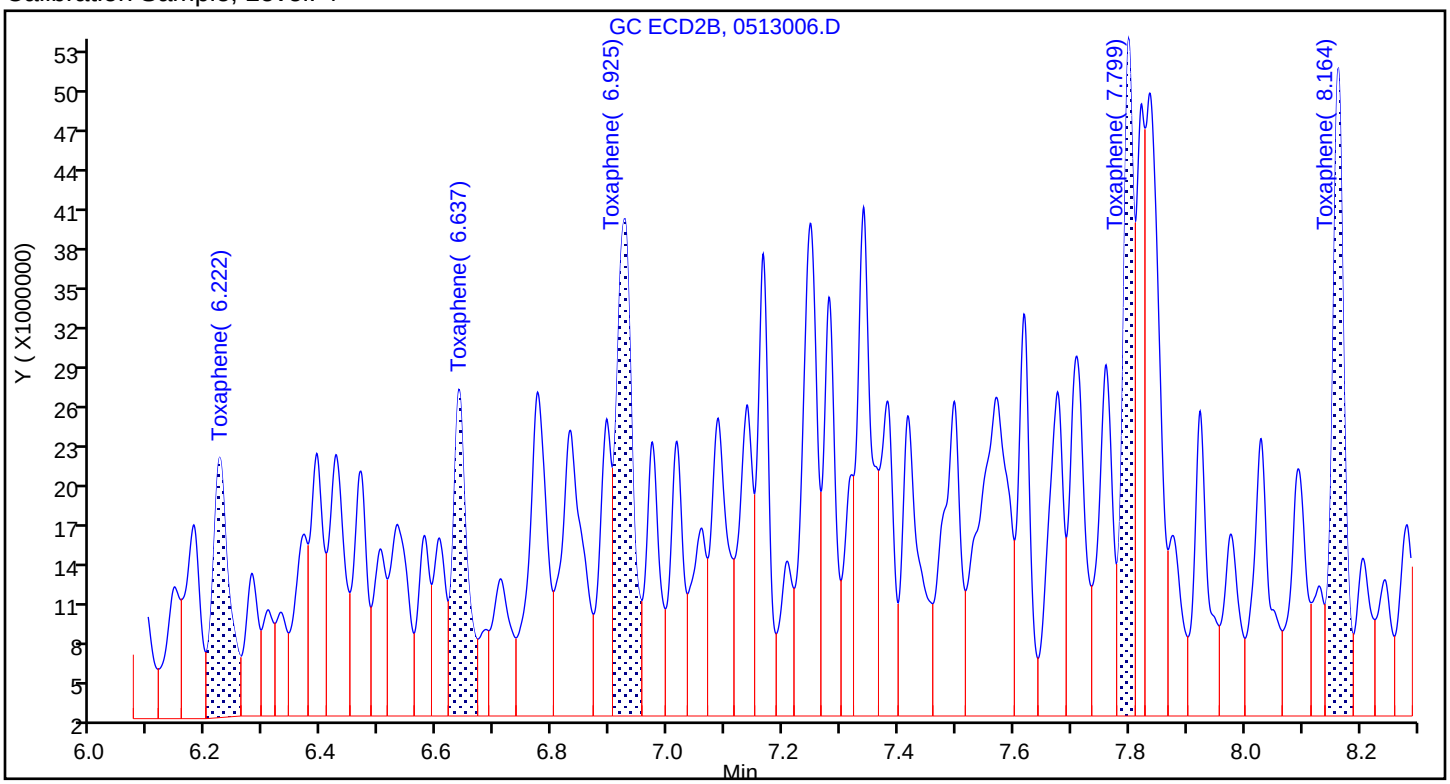
Report Date: 14-May-2024 08:21:46 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

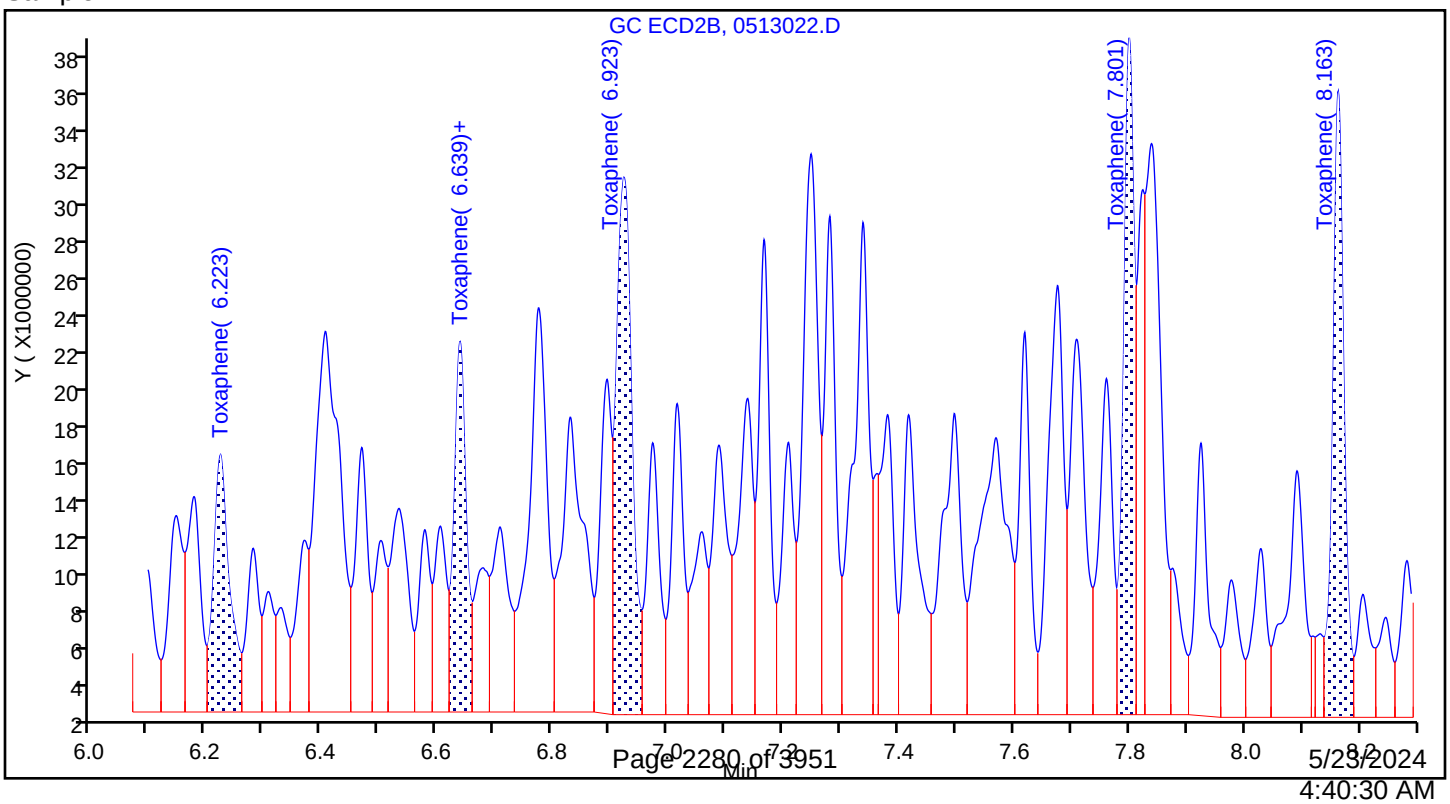
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513022.D
Injection Date: 13-May-2024 16:52:43 Instrument ID: SGC_C
Lims ID: 280-191098-G-1-B MS
Client ID: DET-003-240401-GW
Operator ID: mw ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: C 8081 IS LVI Limit Group: GCSV - 8081B LVI - IS
Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Detector: GC ECD2B

22 Toxaphene, CAS: 8001-35-2

Calibration Sample, Level: 4



Sample



FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MS RE | Lab Sample ID: 280-191098-1 MS RE

Matrix: Water | Lab File ID: 0516013.D

Analysis Method: 8081B | Date Collected: 05/06/2024 10:16

Extraction Method: 3510C | Date Extracted: 05/15/2024 10:49

Sample wt/vol: 247.3(mL) | Date Analyzed: 05/16/2024 13:49

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-XLB ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653635 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
72-54-8	*4,4'-DDD*	*1.14*	*H*	*0.051*	0.051	*0.0042*
72-55-9	*4,4'-DDE*	*1.08*	*H*	*0.051*	0.022	*0.0042*
50-29-3	*4,4'-DDT*	*1.12*	*H*	*0.051*	0.051	*0.024*
309-00-2	*Aldrin*	*0.768*	*H*	*0.051*	0.021	*0.0063*
319-84-6	*alpha-BHC*	*1.04*	*H*	*0.051*	0.029	*0.0098*
5103-71-9	*alpha-Chlordane*	*1.02*	*H*	*0.051*	0.029	*0.0089*
319-85-7	*beta-BHC*	*1.01*	*H*	*0.051*	0.040	*0.0092*
319-86-8	*delta-BHC*	*1.11*	*H*	*0.051*	0.024	*0.0079*
60-57-1	*Dieldrin*	*1.01*	*H*	*0.051*	0.016	*0.0047*
959-98-8	*Endosulfan I*	*0.984*	*H*	*0.051*	0.022	*0.0059*
33213-65-9	*Endosulfan II*	*1.02*	*H*	*0.051*	0.040	*0.0067*
1031-07-8	*Endosulfan sulfate*	*1.02*	*H*	*0.051*	0.018	*0.0050*
72-20-8	*Endrin*	*1.08*	*H*	*0.051*	0.024	*0.0087*
7421-93-4	*Endrin aldehyde*	*1.05*	*H*	*0.051*	0.024	*0.0087*
53494-70-5	*Endrin ketone*	*1.03*	*H*	*0.051*	0.035	*0.013*
58-89-9	*gamma-BHC (Lindane)*	*1.06*	*H*	*0.051*	0.031	*0.010*
5103-74-2	*gamma-Chlordane*	*1.00*	*H*	*0.051*	0.030	*0.0072*
76-44-8	*Heptachlor*	*0.956*	*H*	*0.051*	0.051	*0.010*
1024-57-3	*Heptachlor epoxide*	*1.01*	*H*	*0.051*	0.036	*0.0032*
72-43-5	*Methoxychlor*	*0.997*	*H*	*0.10*	0.036	*0.014*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	73		33-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516013.D
Lims ID: 280-191098-H-1-B MS RE
Client ID: DET-003-240401-GW
Sample Type: MS
Inject. Date: 16-May-2024 13:49:30 ALS Bottle#: 13 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-H-1-B MS
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:42:24 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						208.8	
2						184.9	
						RPD = 12.11	
* 2 1-Bromo-2-nitrobenzene							
1	3.229	3.228	0.002	148654501	75.0	75.0	
2	2.814	2.813	0.002	145898934	75.0	75.0	
4 Propachlor							
1		4.041				ND	
2		4.339					
$ 3 Tetrachloro-m-xylene							
1	4.568	4.567	0.001	20142493	10.0	7.32	
2	3.777	3.775	0.002	18303857	10.0	6.86	
						RPD = 6.41	
5 Diallate							
1		4.683				ND	
2		4.040					
14 2,4,5-Trichlorophenol							
1	4.862	4.866	-0.004	612905		NC	
2	4.777	4.769	0.008	1608503		NC	
						RPD = 0.00	
7 alpha-BHC							
1	4.905	4.903	0.002	197908920	50.0	51.6	
2	4.299	4.298	0.001	175013734	50.0	45.4	
						RPD = 12.74	
6 Hexachlorobenzene							
1	4.969	4.968	0.001	136276017	50.0	41.8	
2	4.208	4.208	0.000	124537376	50.0	38.3	
						RPD = 8.72	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
8 gamma-BHC (Lindane)							
1	5.178	5.176	0.002	166545582	50.0	52.3	
2	4.583	4.582	0.001	146509737	50.0	46.4	
						RPD = 11.89	
11 beta-BHC							
1	5.415	5.413	0.002	70604177	50.0	49.9	
2	4.753	4.752	0.001	63410710	50.0	45.8	
						RPD = 8.38	
10 Technical Chlordane							
1		5.534				ND	
1		6.124					
1		7.002					
1		7.113					
1		8.009					
2		4.713					
2		5.187					
2		5.733					
2		5.761					
2		6.928					
9 Chlordane (technical)							
1		5.534				ND	
1		6.124					
1		7.002					
1		7.113					
1		8.009					
2		4.713					
2		5.187					
2		5.733					
2		5.761					
2		6.928					
13 delta-BHC							
1	5.667	5.665	0.002	183339165	50.0	55.0	
2	4.956	4.954	0.002	153606172	50.0	47.2	
						RPD = 15.20	
12 Heptachlor							
1	5.748	5.745	0.003	137354997	50.0	47.3	
2	4.841	4.840	0.001	112772677	50.0	44.9	
						RPD = 5.19	
16 Chlorpyrifos							
1		5.989				ND	
2		5.175					
15 Aldrin							
1	6.111	6.109	0.002	140659763	50.0	38.0	
2	5.068	5.067	0.001	124067004	50.0	35.2	
						RPD = 7.58	
17 Isodrin							
1	6.509	6.508	0.001	5382047		1.89	
2	5.403	5.402	0.001	5152675		1.93	
						RPD = 1.78	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
19 Heptachlor epoxide							
1	6.635	6.633	0.002	152629706	50.0	49.9	
2	5.518	5.517	0.001	130421438	50.0	47.2	
						RPD = 5.62	
21 2,4'-DDE							
1		6.822				ND	
2		5.749					
22 Toxaphene							
1		6.894				ND	
1		7.581					
1		8.006					
1		8.267					
1		9.302					
2		6.217					
2		6.634					
2		6.920					
2		7.796					
2		8.160					
20 trans-Chlordane							
1	7.004	7.003	0.001	164103347	50.0	49.7	
2	5.734	5.732	0.002	142003745	50.0	46.6	
						RPD = 6.46	
23 cis-Chlordane							
1	7.063	7.061	0.002	158304560	50.0	50.6	
2	5.839	5.837	0.002	140607413	50.0	46.8	
						RPD = 7.75	
24 Endosulfan I							
1	7.104	7.103	0.001	140311121	50.0	48.6	
2	5.891	5.889	0.002	123821432	50.0	46.5	
						RPD = 4.59	
25 4,4'-DDE							
1	7.236	7.234	0.002	158832361	50.0	53.2	
2	6.067	6.064	0.003	138333529	50.0	48.8	
						RPD = 8.62	
27 2,4'-DDD							
1		7.343				ND	
2		6.312					
26 Dieldrin							
1	7.395	7.393	0.002	162367549	50.0	50.0	
2	6.220	6.217	0.003	142530725	50.0	48.2	
						RPD = 3.48	
28 Chlorobenzilate							
1		7.509				ND	
2		6.429					
29 Endrin							
1	7.649	7.648	0.001	135342628	50.0	53.2	
2	6.592	6.589	0.003	121603541	50.0	50.8	
						RPD = 4.72	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
30 2,4'-DDT							
1		7.686				ND	
2		6.646					
32 4,4'-DDD							
1	7.807	7.806	0.001	110117355	50.0	56.2	
2	6.748	6.746	0.002	91394648	50.0	53.3	
						RPD = 5.31	
31 Kepone							
1		7.897				ND	
2		6.718					
33 Endosulfan II							
1	7.934	7.933	0.001	128570371	50.0	50.2	
2	6.889	6.888	0.001	118544648	50.0	48.5	
						RPD = 3.43	
35 Endrin aldehyde							
1	8.052	8.050	0.002	89878628	50.0	51.7	
2	7.156	7.153	0.003	85422132	50.0	50.4	
						RPD = 2.55	
34 4,4'-DDT							
1	8.137	8.134	0.003	100511902	50.0	55.5	
2	7.065	7.063	0.002	83784284	50.0	52.7	
						RPD = 5.20	
18 Dicofol							
1		8.140				ND	
2		8.544					
36 Endosulfan sulfate							
1	8.350	8.348	0.002	118218804	50.0	50.4	
2	7.374	7.372	0.002	119860791	50.0	49.8	
						RPD = 1.11	
37 Methoxychlor							
1	8.604	8.603	0.001	48056880	50.0	49.3	
2	7.831	7.829	0.002	38395661	50.0	48.2	
						RPD = 2.39	
38 Endrin ketone							
1	8.813	8.811	0.002	117894399	50.0	50.8	
2	8.018	8.016	0.002	110021749	50.0	50.5	
						RPD = 0.64	
39 Mirex							
1	9.453	9.450	0.003	87838982	50.0	41.4	
2	8.131	8.128	0.003	91825923	50.0	45.3	
						RPD = 8.92	
$ 40 DCB Decachlorobiphenyl							
1	11.061	11.059	0.002	16537878	10.0	5.71	
2	9.255	9.252	0.003	15741112	10.0	6.86	
						RPD = 18.29	
41 Tris(2,3-dibromopropyl)phosphate							
1		12.000				ND	
2		12.279					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 42 Endosulfan, Total							
1						149.2	
2						144.8	
						RPD = 3.02	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

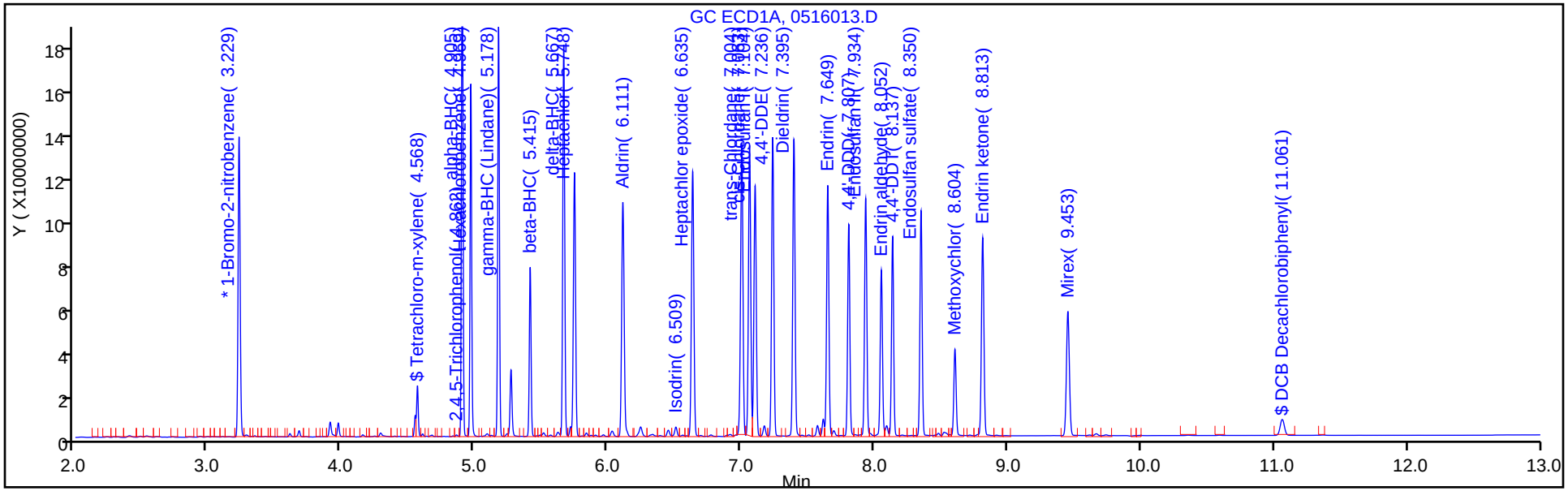
Report Date: 16-May-2024 14:43:15 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

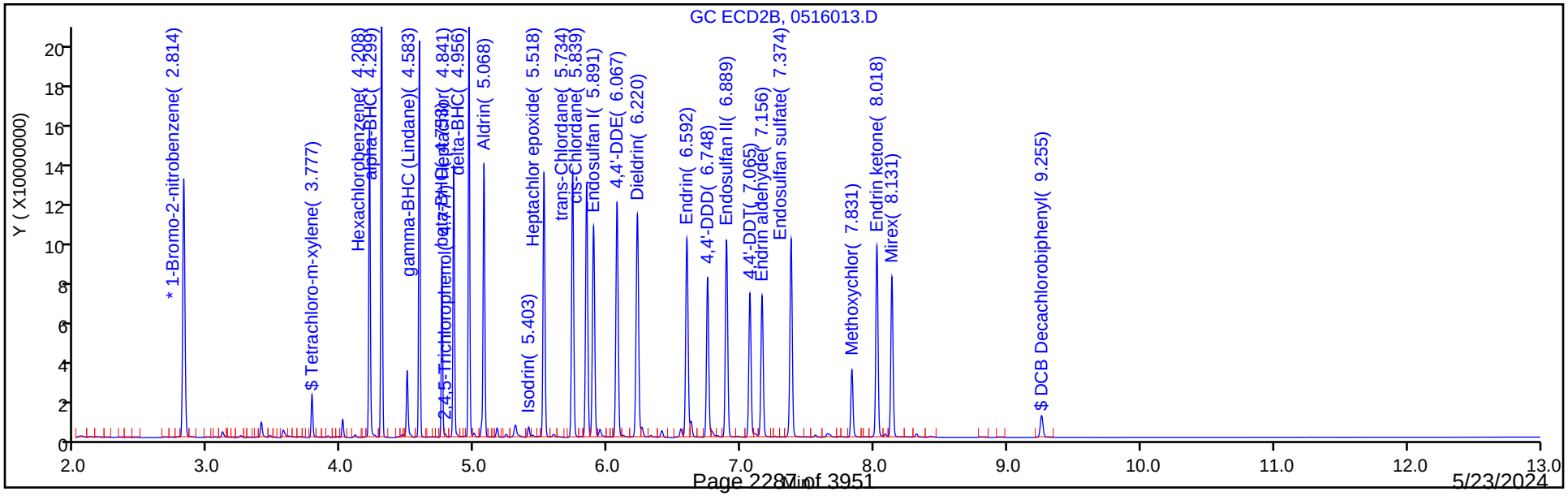
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516013.D

Injection Date:	16-May-2024 13:49:30	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	280-191098-H-1-B MS RE			Worklist Smp#:	12
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516013.D				
Lims ID:	280-191098-H-1-B MS RE				
Client ID:	DET-003-240401-GW				
Sample Type:	MS				
Inject. Date:	16-May-2024 13:49:30	ALS Bottle#:	13	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-H-1-B MS				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	16-May-2024 14:42:24	Calib Date:	16-May-2024 11:45:09		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1676				

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	7.32	73.16
$ 40 DCB Decachlorobiphenyl	10.0	5.71	57.07

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	6.86	68.61
$ 40 DCB Decachlorobiphenyl	10.0	6.86	68.56

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MS RE | Lab Sample ID: 280-191098-1 MS RE

Matrix: Water | Lab File ID: 0516013.D

Analysis Method: 8081B | Date Collected: 05/06/2024 10:16

Extraction Method: 3510C | Date Extracted: 05/15/2024 10:49

Sample wt/vol: 247.3(mL) | Date Analyzed: 05/16/2024 13:49

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-35silms ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653635 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	69		34-122

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516013.D
Lims ID: 280-191098-H-1-B MS RE
Client ID: DET-003-240401-GW
Sample Type: MS
Inject. Date: 16-May-2024 13:49:30 ALS Bottle#: 13 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-H-1-B MS
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:42:24 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						208.8	
2						184.9	
						RPD = 12.11	
* 2 1-Bromo-2-nitrobenzene							
1	3.229	3.228	0.002	148654501	75.0	75.0	
2	2.814	2.813	0.002	145898934	75.0	75.0	
4 Propachlor							
1		4.041				ND	
2		4.339					
$ 3 Tetrachloro-m-xylene							
1	4.568	4.567	0.001	20142493	10.0	7.32	
2	3.777	3.775	0.002	18303857	10.0	6.86	
						RPD = 6.41	
5 Diallate							
1		4.683				ND	
2		4.040					
14 2,4,5-Trichlorophenol							
1	4.862	4.866	-0.004	612905		NC	
2	4.777	4.769	0.008	1608503		NC	
						RPD = 0.00	
7 alpha-BHC							
1	4.905	4.903	0.002	197908920	50.0	51.6	
2	4.299	4.298	0.001	175013734	50.0	45.4	
						RPD = 12.74	
6 Hexachlorobenzene							
1	4.969	4.968	0.001	136276017	50.0	41.8	
2	4.208	4.208	0.000	124537376	50.0	38.3	
						RPD = 8.72	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
8 gamma-BHC (Lindane)							
1	5.178	5.176	0.002	166545582	50.0	52.3	
2	4.583	4.582	0.001	146509737	50.0	46.4	
						RPD = 11.89	
11 beta-BHC							
1	5.415	5.413	0.002	70604177	50.0	49.9	
2	4.753	4.752	0.001	63410710	50.0	45.8	
						RPD = 8.38	
10 Technical Chlordane							
1		5.534				ND	
1		6.124					
1		7.002					
1		7.113					
1		8.009					
2		4.713					
2		5.187					
2		5.733					
2		5.761					
2		6.928					
9 Chlordane (technical)							
1		5.534				ND	
1		6.124					
1		7.002					
1		7.113					
1		8.009					
2		4.713					
2		5.187					
2		5.733					
2		5.761					
2		6.928					
13 delta-BHC							
1	5.667	5.665	0.002	183339165	50.0	55.0	
2	4.956	4.954	0.002	153606172	50.0	47.2	
						RPD = 15.20	
12 Heptachlor							
1	5.748	5.745	0.003	137354997	50.0	47.3	
2	4.841	4.840	0.001	112772677	50.0	44.9	
						RPD = 5.19	
16 Chlorpyrifos							
1		5.989				ND	
2		5.175					
15 Aldrin							
1	6.111	6.109	0.002	140659763	50.0	38.0	
2	5.068	5.067	0.001	124067004	50.0	35.2	
						RPD = 7.58	
17 Isodrin							
1	6.509	6.508	0.001	5382047		1.89	
2	5.403	5.402	0.001	5152675		1.93	
						RPD = 1.78	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
19 Heptachlor epoxide							
1	6.635	6.633	0.002	152629706	50.0	49.9	
2	5.518	5.517	0.001	130421438	50.0	47.2	
						RPD = 5.62	
21 2,4'-DDE							
1		6.822				ND	
2		5.749					
22 Toxaphene							
1		6.894				ND	
1		7.581					
1		8.006					
1		8.267					
1		9.302					
2		6.217					
2		6.634					
2		6.920					
2		7.796					
2		8.160					
20 trans-Chlordane							
1	7.004	7.003	0.001	164103347	50.0	49.7	
2	5.734	5.732	0.002	142003745	50.0	46.6	
						RPD = 6.46	
23 cis-Chlordane							
1	7.063	7.061	0.002	158304560	50.0	50.6	
2	5.839	5.837	0.002	140607413	50.0	46.8	
						RPD = 7.75	
24 Endosulfan I							
1	7.104	7.103	0.001	140311121	50.0	48.6	
2	5.891	5.889	0.002	123821432	50.0	46.5	
						RPD = 4.59	
25 4,4'-DDE							
1	7.236	7.234	0.002	158832361	50.0	53.2	
2	6.067	6.064	0.003	138333529	50.0	48.8	
						RPD = 8.62	
27 2,4'-DDD							
1		7.343				ND	
2		6.312					
26 Dieldrin							
1	7.395	7.393	0.002	162367549	50.0	50.0	
2	6.220	6.217	0.003	142530725	50.0	48.2	
						RPD = 3.48	
28 Chlorobenzilate							
1		7.509				ND	
2		6.429					
29 Endrin							
1	7.649	7.648	0.001	135342628	50.0	53.2	
2	6.592	6.589	0.003	121603541	50.0	50.8	
						RPD = 4.72	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
30 2,4'-DDT							
1		7.686				ND	
2		6.646					
32 4,4'-DDD							
1	7.807	7.806	0.001	110117355	50.0	56.2	
2	6.748	6.746	0.002	91394648	50.0	53.3	
						RPD = 5.31	
31 Kepone							
1		7.897				ND	
2		6.718					
33 Endosulfan II							
1	7.934	7.933	0.001	128570371	50.0	50.2	
2	6.889	6.888	0.001	118544648	50.0	48.5	
						RPD = 3.43	
35 Endrin aldehyde							
1	8.052	8.050	0.002	89878628	50.0	51.7	
2	7.156	7.153	0.003	85422132	50.0	50.4	
						RPD = 2.55	
34 4,4'-DDT							
1	8.137	8.134	0.003	100511902	50.0	55.5	
2	7.065	7.063	0.002	83784284	50.0	52.7	
						RPD = 5.20	
18 Dicofol							
1		8.140				ND	
2		8.544					
36 Endosulfan sulfate							
1	8.350	8.348	0.002	118218804	50.0	50.4	
2	7.374	7.372	0.002	119860791	50.0	49.8	
						RPD = 1.11	
37 Methoxychlor							
1	8.604	8.603	0.001	48056880	50.0	49.3	
2	7.831	7.829	0.002	38395661	50.0	48.2	
						RPD = 2.39	
38 Endrin ketone							
1	8.813	8.811	0.002	117894399	50.0	50.8	
2	8.018	8.016	0.002	110021749	50.0	50.5	
						RPD = 0.64	
39 Mirex							
1	9.453	9.450	0.003	87838982	50.0	41.4	
2	8.131	8.128	0.003	91825923	50.0	45.3	
						RPD = 8.92	
$ 40 DCB Decachlorobiphenyl							
1	11.061	11.059	0.002	16537878	10.0	5.71	
2	9.255	9.252	0.003	15741112	10.0	6.86	
						RPD = 18.29	
41 Tris(2,3-dibromopropyl)phosphate							
1		12.000				ND	
2		12.279					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 42 Endosulfan, Total							
1						149.2	
2						144.8	
						RPD = 3.02	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

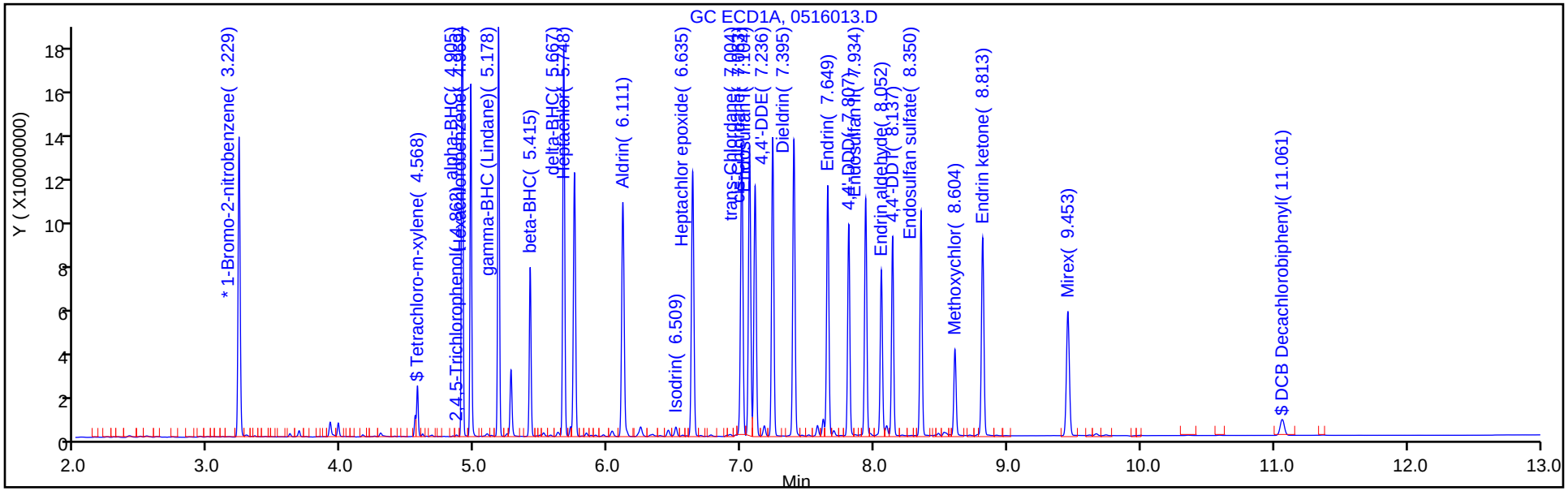
Report Date: 16-May-2024 14:43:15 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

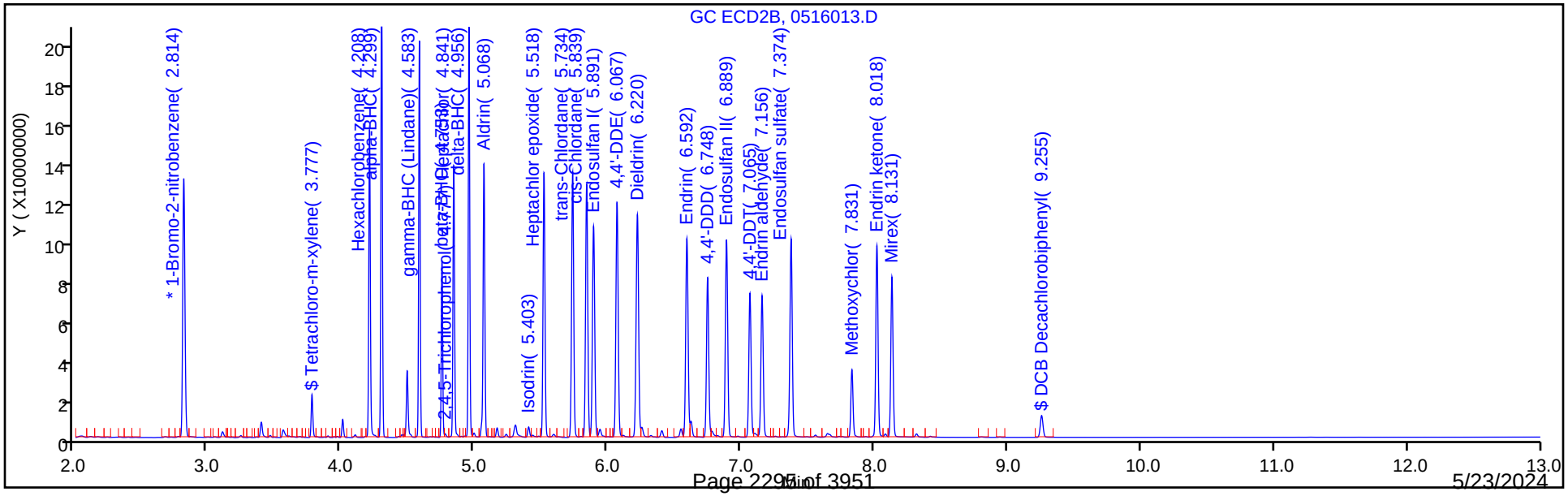
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516013.D

Injection Date:	16-May-2024 13:49:30	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	280-191098-H-1-B MS RE			Worklist Smp#:	12
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516013.D				
Lims ID:	280-191098-H-1-B MS RE				
Client ID:	DET-003-240401-GW				
Sample Type:	MS				
Inject. Date:	16-May-2024 13:49:30	ALS Bottle#:	13	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-H-1-B MS				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	16-May-2024 14:42:24	Calib Date:	16-May-2024 11:45:09		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1676				

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	7.32	73.16
$ 40 DCB Decachlorobiphenyl	10.0	5.71	57.07

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	6.86	68.61
$ 40 DCB Decachlorobiphenyl	10.0	6.86	68.56

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MSD | Lab Sample ID: 280-191098-1 MSD

Matrix: Water | Lab File ID: 0513021.D

Analysis Method: 8081B | Date Collected: 05/06/2024 10:16

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 249.2(mL) | Date Analyzed: 05/13/2024 16:34

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-XLB ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653121 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
72-54-8	4,4'-DDD	0.906	Q	0.050	0.050	0.0042
72-55-9	4,4'-DDE	0.886	Q	0.050	0.022	0.0042
50-29-3	4,4'-DDT	0.836	M Q	0.050	0.050	0.024
309-00-2	Aldrin	0.423	Q J1	0.050	0.021	0.0062
319-84-6	alpha-BHC	0.887	Q	0.050	0.029	0.0097
5103-71-9	alpha-Chlordane	0.812	Q	0.050	0.029	0.0088
319-85-7	beta-BHC	0.844	Q	0.050	0.040	0.0091
319-86-8	delta-BHC	0.928	Q	0.050	0.024	0.0078
60-57-1	Dieldrin	0.820	Q	0.050	0.016	0.0046
959-98-8	Endosulfan I	0.827	Q	0.050	0.022	0.0059
33213-65-9	Endosulfan II	0.819	Q	0.050	0.040	0.0066
1031-07-8	Endosulfan sulfate	0.799	Q	0.050	0.018	0.0049
72-20-8	Endrin	0.824	Q	0.050	0.024	0.0086
7421-93-4	Endrin aldehyde	0.827	Q	0.050	0.024	0.0087
53494-70-5	Endrin ketone	0.806	Q	0.050	0.035	0.013
58-89-9	gamma-BHC (Lindane)	0.879	Q	0.050	0.031	0.010
5103-74-2	gamma-Chlordane	0.794	Q	0.050	0.030	0.0072
76-44-8	Heptachlor	0.608	Q	0.050	0.050	0.010
1024-57-3	Heptachlor epoxide	0.842	Q	0.050	0.036	0.0032
72-43-5	Methoxychlor	0.741	Q	0.10	0.036	0.014

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	51		33-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513021.D
Lims ID: 280-191098-G-1-A MSD
Client ID: DET-003-240401-GW
Sample Type: MSD
Inject. Date: 13-May-2024 16:34:54 ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-G-1-A MSD
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:05 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 14-May-2024 08:10:21

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						176.3	
2						158.9	
						RPD = 10.38	
* 2 1-Bromo-2-nitrobenzene							
1	3.230	3.231	-0.001	156106803	75.0	75.0	
2	2.816	2.817	-0.001	150888528	75.0	75.0	
4 Propachlor							
1		4.041				ND	
2		4.339					
$ 3 Tetrachloro-m-xylene							
1	4.570	4.569	0.001	14790326	10.0	5.12	
2	3.778	3.778	0.000	13224750	10.0	4.79	
						RPD = 6.49	
5 Diallate							
1		4.683				ND	
2		4.042					
14 2,4,5-Trichlorophenol							
1	4.866	4.866	0.000	339753		NC	
2	4.781	4.769	0.012	455370		NC	
						RPD = 0.00	
7 alpha-BHC							
1	4.906	4.904	0.002	178000285	50.0	44.2	
2	4.301	4.300	0.001	155894027	50.0	39.1	
						RPD = 12.18	
6 Hexachlorobenzene							
1	4.971	4.969	0.002	82249581	50.0	24.0	
2	4.211	4.209	0.002	76053783	50.0	22.6	
						RPD = 6.02	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
8 gamma-BHC (Lindane)							
1	5.179	5.177	0.002	146564733	50.0	43.8	
2	4.586	4.584	0.002	128524344	50.0	39.4	
						RPD = 10.69	
11 beta-BHC							
1	5.416	5.414	0.002	62540608	50.0	42.1	
2	4.755	4.753	0.002	56201204	50.0	39.3	
						RPD = 6.80	
10 Technical Chlordane							
1		5.535				ND	
1		6.126					
1		7.004					
1		7.115					
1		8.011					
2		4.714					
2		5.189					
2		5.737					
2		5.765					
2		6.932					
9 Chlordane (technical)							
1		5.535				ND	
1		6.126					
1		7.004					
1		7.115					
1		8.011					
2		4.714					
2		5.189					
2		5.737					
2		5.765					
2		6.932					
13 delta-BHC							
1	5.669	5.665	0.004	161884337	50.0	46.3	
2	4.958	4.956	0.002	138324420	50.0	41.1	
						RPD = 11.72	
12 Heptachlor							
1	5.750	5.747	0.003	92470892	50.0	30.3	
2	4.844	4.842	0.002	77076011	50.0	29.7	
						RPD = 2.15	
16 Chlorpyrifos							
1		5.990				ND	
2		5.177					
15 Aldrin							
1	6.114	6.110	0.004	81969538	50.0	21.1	
2	5.071	5.069	0.002	74214774	50.0	20.4	
						RPD = 3.44	
17 Isodrin							
1	6.512	6.507	0.005	3330359		1.12	
2	5.407	5.404	0.003	3869674		1.40	
						RPD = 22.58	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
19 Heptachlor epoxide							
1	6.638	6.634	0.004	134814388	50.0	42.0	
2	5.522	5.519	0.003	114374455	50.0	40.0	
						RPD = 4.81	
21 2,4'-DDE							
1		6.823				ND	
2		5.750					
22 Toxaphene							
1		6.896				ND	
1		7.583					
1		8.009					
1		8.269					
1		9.304					
2		6.222					
2		6.637					
2		6.925					
2		7.799					
2		8.164					
20 trans-Chlordane							
1	7.006	7.003	0.003	137283866	50.0	39.6	
2	5.737	5.734	0.003	119803056	50.0	38.0	
						RPD = 4.09	
23 cis-Chlordane							
1	7.066	7.061	0.005	132960117	50.0	40.5	
2	5.843	5.839	0.004	120828185	50.0	38.9	
						RPD = 3.94	
24 Endosulfan I							
1	7.107	7.103	0.004	124823887	50.0	41.2	
2	5.896	5.891	0.005	111996802	50.0	40.6	
						RPD = 1.40	
25 4,4'-DDE							
1	7.240	7.235	0.005	138361663	50.0	44.1	
2	6.071	6.067	0.004	124110338	50.0	42.3	
						RPD = 4.15	
27 2,4'-DDD							
1		7.344				ND	
2		6.314					
26 Dieldrin							
1	7.398	7.394	0.004	139568963	50.0	40.9	
2	6.224	6.219	0.005	124699744	50.0	40.8	
						RPD = 0.18	
28 Chlorobenzilate							
1		7.511				ND	
2		6.431					
29 Endrin							
1	7.651	7.647	0.004	109734567	50.0	41.1	
2	6.596	6.591	0.005	101487311	50.0	41.0	
						RPD = 0.30	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
30 2,4'-DDT							
1		7.687				ND	
2		6.648					
32 4,4'-DDD							
1	7.810	7.805	0.005	92912721	50.0	45.1	
2	6.751	6.747	0.004	79640394	50.0	44.9	
						RPD = 0.56	
31 Kepone							
1		7.898				ND	
2		6.714					
33 Endosulfan II							
1	7.937	7.933	0.004	109742451	50.0	40.8	
2	6.893	6.889	0.004	104332887	50.0	41.3	
						RPD = 1.16	
35 Endrin aldehyde							
1	8.055	8.050	0.005	75227915	50.0	41.2	
2	7.161	7.157	0.004	74157694	50.0	42.3	
						RPD = 2.63	
34 4,4'-DDT							a
1	8.139	8.135	0.004	79197326	50.0	41.7	a
2	7.069	7.065	0.004	70926251	50.0	43.1	a
						RPD = 3.50	
18 Dicofol							
1		8.141				ND	
2		8.545					
36 Endosulfan sulfate							
1	8.353	8.349	0.004	98178417	50.0	39.8	
2	7.378	7.374	0.004	102636490	50.0	41.2	
						RPD = 3.48	
37 Methoxychlor							
1	8.608	8.603	0.005	37804764	50.0	36.9	
2	7.834	7.831	0.003	30328991	50.0	36.8	
						RPD = 0.45	
38 Endrin ketone							
1	8.816	8.810	0.006	97879288	50.0	40.2	
2	8.022	8.018	0.004	94881398	50.0	42.1	
						RPD = 4.69	
39 Mirex							
1	9.457	9.451	0.006	69010135	50.0	31.0	
2	8.135	8.130	0.005	77866118	50.0	37.1	
						RPD = 18.04	
$ 40 DCB Decachlorobiphenyl							
1	11.067	11.057	0.010	7366120	10.0	2.42	
2	9.261	9.257	0.004	7357616	10.0	3.10	
						RPD = 24.57	
41 Tris(2,3-dibromopropyl)phosphate							
1		12.000				ND	
2		12.279					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 42 Endosulfan, Total							
1						121.9	
2						123.2	
						RPD = 1.07	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

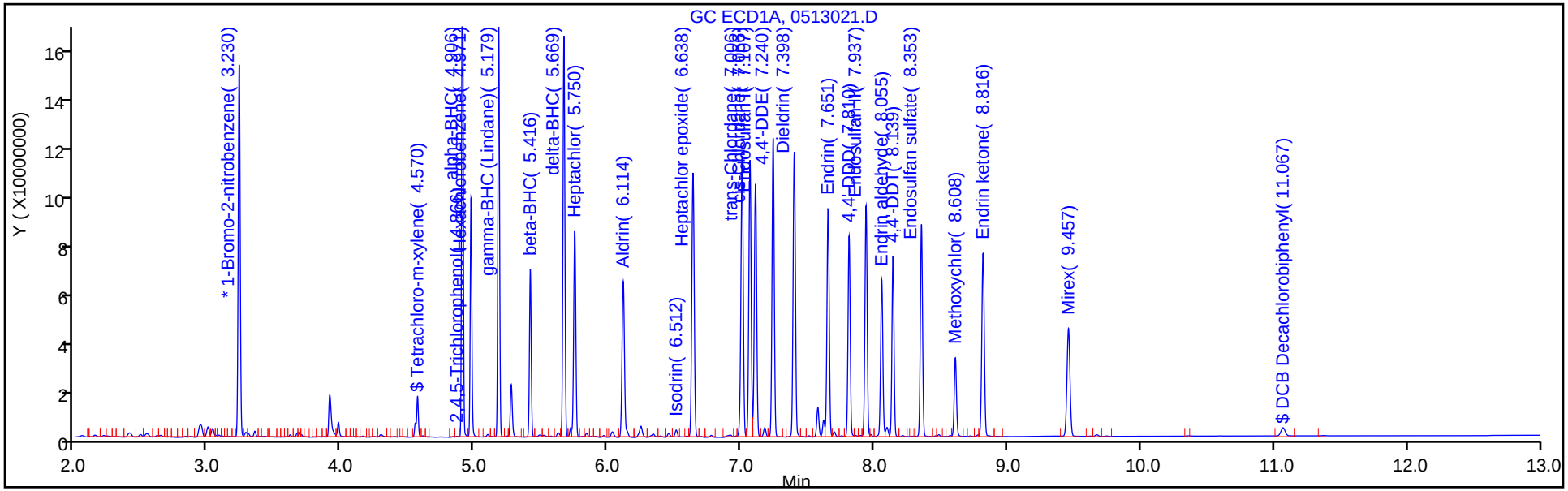
Report Date: 14-May-2024 08:21:43 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

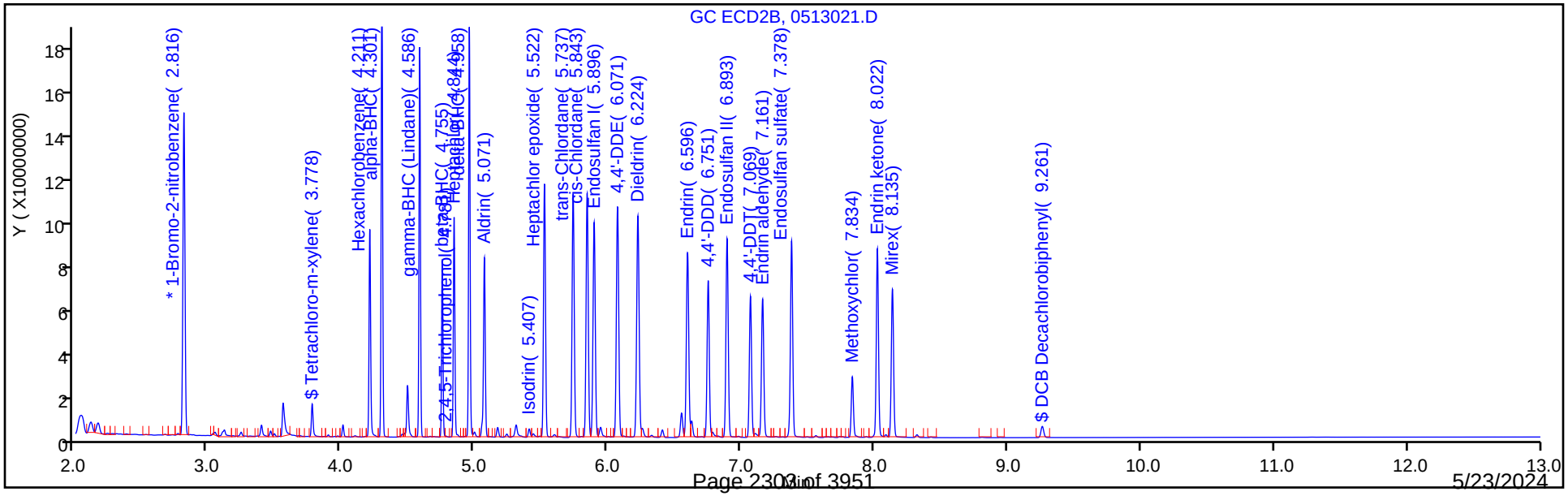
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513021.D

Injection Date:	13-May-2024 16:34:54	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	280-191098-G-1-A MSD			Worklist Smp#:	21
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
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Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513021.D				
Lims ID:	280-191098-G-1-A MSD				
Client ID:	DET-003-240401-GW				
Sample Type:	MSD				
Inject. Date:	13-May-2024 16:34:54	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-G-1-A MSD				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	14-May-2024 08:21:05	Calib Date:	13-May-2024 12:25:32		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1604				
First Level Reviewer: AP6K		Date:	14-May-2024 08:10:21		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	5.12	51.15
$ 40 DCB Decachlorobiphenyl	10.0	2.42	24.20

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	4.79	47.94
$ 40 DCB Decachlorobiphenyl	10.0	3.10	30.98

Manual Integration/User Assign Peak Report

Eurofins Denver

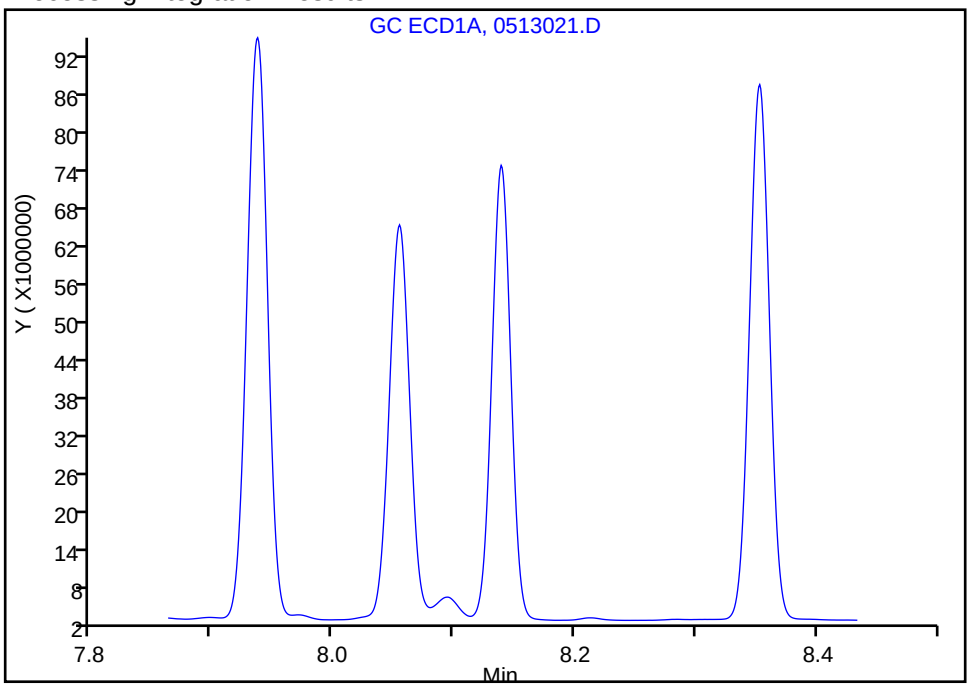
Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513021.D				
Injection Date:	13-May-2024 16:34:54	Instrument ID:	SGC_C		
Lims ID:	280-191098-G-1-A MSD				
Client ID:	DET-003-240401-GW				
Operator ID:	mw	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		
Column:	RTI-XLB Chlorinated Pesticides (0.32 mm)	Detector	GC ECD1A		

34 4,4'-DDT, CAS: 50-29-3

Signal: 1

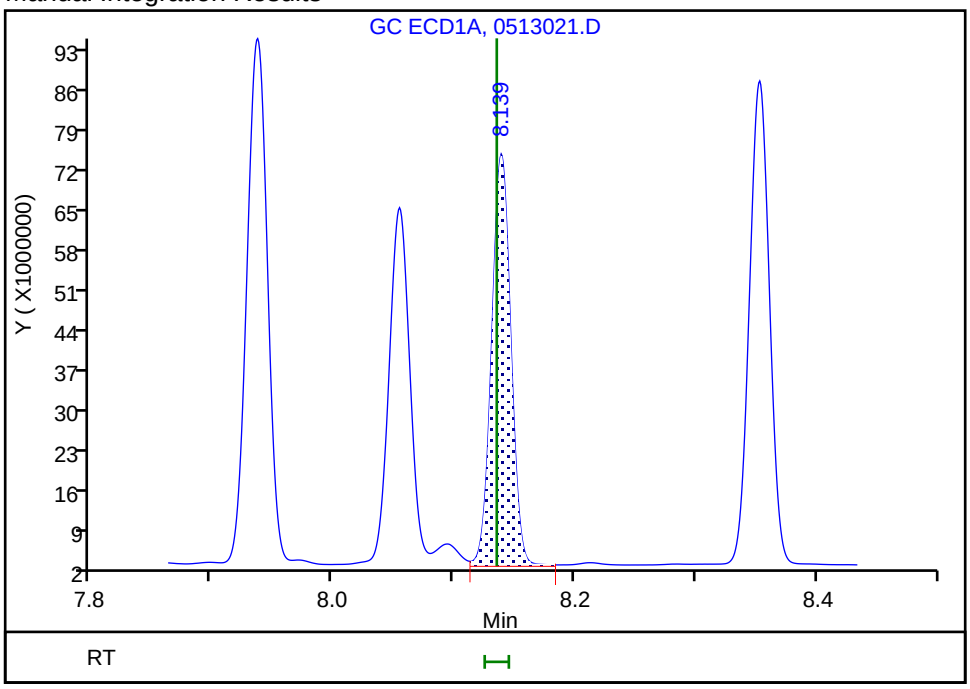
Not Detected
Expected RT: 8.14

Processing Integration Results



Manual Integration Results

RT: 8.14
Area: 79197326
Amount: 41.653633
Amount Units: ng/mL



Reviewer: AP6K, 14-May-2024 08:10:16 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MSD | Lab Sample ID: 280-191098-1 MSD

Matrix: Water | Lab File ID: 0513021.D

Analysis Method: 8081B | Date Collected: 05/06/2024 10:16

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 249.2(mL) | Date Analyzed: 05/13/2024 16:34

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-35silms ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653121 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	31	Q	34-122

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513021.D
Lims ID: 280-191098-G-1-A MSD
Client ID: DET-003-240401-GW
Sample Type: MSD
Inject. Date: 13-May-2024 16:34:54 ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-G-1-A MSD
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:05 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 14-May-2024 08:10:21

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						176.3	
2						158.9	
						RPD = 10.38	
* 2 1-Bromo-2-nitrobenzene							
1	3.230	3.231	-0.001	156106803	75.0	75.0	
2	2.816	2.817	-0.001	150888528	75.0	75.0	
4 Propachlor							
1		4.041				ND	
2		4.339					
$ 3 Tetrachloro-m-xylene							
1	4.570	4.569	0.001	14790326	10.0	5.12	
2	3.778	3.778	0.000	13224750	10.0	4.79	
						RPD = 6.49	
5 Diallate							
1		4.683				ND	
2		4.042					
14 2,4,5-Trichlorophenol							
1	4.866	4.866	0.000	339753		NC	
2	4.781	4.769	0.012	455370		NC	
						RPD = 0.00	
7 alpha-BHC							
1	4.906	4.904	0.002	178000285	50.0	44.2	
2	4.301	4.300	0.001	155894027	50.0	39.1	
						RPD = 12.18	
6 Hexachlorobenzene							
1	4.971	4.969	0.002	82249581	50.0	24.0	
2	4.211	4.209	0.002	76053783	50.0	22.6	
						RPD = 6.02	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
8 gamma-BHC (Lindane)							
1	5.179	5.177	0.002	146564733	50.0	43.8	
2	4.586	4.584	0.002	128524344	50.0	39.4	
						RPD = 10.69	
11 beta-BHC							
1	5.416	5.414	0.002	62540608	50.0	42.1	
2	4.755	4.753	0.002	56201204	50.0	39.3	
						RPD = 6.80	
10 Technical Chlordane							
1		5.535				ND	
1		6.126					
1		7.004					
1		7.115					
1		8.011					
2		4.714					
2		5.189					
2		5.737					
2		5.765					
2		6.932					
9 Chlordane (technical)							
1		5.535				ND	
1		6.126					
1		7.004					
1		7.115					
1		8.011					
2		4.714					
2		5.189					
2		5.737					
2		5.765					
2		6.932					
13 delta-BHC							
1	5.669	5.665	0.004	161884337	50.0	46.3	
2	4.958	4.956	0.002	138324420	50.0	41.1	
						RPD = 11.72	
12 Heptachlor							
1	5.750	5.747	0.003	92470892	50.0	30.3	
2	4.844	4.842	0.002	77076011	50.0	29.7	
						RPD = 2.15	
16 Chlorpyrifos							
1		5.990				ND	
2		5.177					
15 Aldrin							
1	6.114	6.110	0.004	81969538	50.0	21.1	
2	5.071	5.069	0.002	74214774	50.0	20.4	
						RPD = 3.44	
17 Isodrin							
1	6.512	6.507	0.005	3330359		1.12	
2	5.407	5.404	0.003	3869674		1.40	
						RPD = 22.58	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
19 Heptachlor epoxide							
1	6.638	6.634	0.004	134814388	50.0	42.0	
2	5.522	5.519	0.003	114374455	50.0	40.0	
						RPD = 4.81	
21 2,4'-DDE							
1		6.823				ND	
2		5.750					
22 Toxaphene							
1		6.896				ND	
1		7.583					
1		8.009					
1		8.269					
1		9.304					
2		6.222					
2		6.637					
2		6.925					
2		7.799					
2		8.164					
20 trans-Chlordane							
1	7.006	7.003	0.003	137283866	50.0	39.6	
2	5.737	5.734	0.003	119803056	50.0	38.0	
						RPD = 4.09	
23 cis-Chlordane							
1	7.066	7.061	0.005	132960117	50.0	40.5	
2	5.843	5.839	0.004	120828185	50.0	38.9	
						RPD = 3.94	
24 Endosulfan I							
1	7.107	7.103	0.004	124823887	50.0	41.2	
2	5.896	5.891	0.005	111996802	50.0	40.6	
						RPD = 1.40	
25 4,4'-DDE							
1	7.240	7.235	0.005	138361663	50.0	44.1	
2	6.071	6.067	0.004	124110338	50.0	42.3	
						RPD = 4.15	
27 2,4'-DDD							
1		7.344				ND	
2		6.314					
26 Dieldrin							
1	7.398	7.394	0.004	139568963	50.0	40.9	
2	6.224	6.219	0.005	124699744	50.0	40.8	
						RPD = 0.18	
28 Chlorobenzilate							
1		7.511				ND	
2		6.431					
29 Endrin							
1	7.651	7.647	0.004	109734567	50.0	41.1	
2	6.596	6.591	0.005	101487311	50.0	41.0	
						RPD = 0.30	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
30 2,4'-DDT							
1		7.687				ND	
2		6.648					
32 4,4'-DDD							
1	7.810	7.805	0.005	92912721	50.0	45.1	
2	6.751	6.747	0.004	79640394	50.0	44.9	
						RPD = 0.56	
31 Kepone							
1		7.898				ND	
2		6.714					
33 Endosulfan II							
1	7.937	7.933	0.004	109742451	50.0	40.8	
2	6.893	6.889	0.004	104332887	50.0	41.3	
						RPD = 1.16	
35 Endrin aldehyde							
1	8.055	8.050	0.005	75227915	50.0	41.2	
2	7.161	7.157	0.004	74157694	50.0	42.3	
						RPD = 2.63	
34 4,4'-DDT							a
1	8.139	8.135	0.004	79197326	50.0	41.7	a
2	7.069	7.065	0.004	70926251	50.0	43.1	a
						RPD = 3.50	
18 Dicofol							
1		8.141				ND	
2		8.545					
36 Endosulfan sulfate							
1	8.353	8.349	0.004	98178417	50.0	39.8	
2	7.378	7.374	0.004	102636490	50.0	41.2	
						RPD = 3.48	
37 Methoxychlor							
1	8.608	8.603	0.005	37804764	50.0	36.9	
2	7.834	7.831	0.003	30328991	50.0	36.8	
						RPD = 0.45	
38 Endrin ketone							
1	8.816	8.810	0.006	97879288	50.0	40.2	
2	8.022	8.018	0.004	94881398	50.0	42.1	
						RPD = 4.69	
39 Mirex							
1	9.457	9.451	0.006	69010135	50.0	31.0	
2	8.135	8.130	0.005	77866118	50.0	37.1	
						RPD = 18.04	
$ 40 DCB Decachlorobiphenyl							
1	11.067	11.057	0.010	7366120	10.0	2.42	
2	9.261	9.257	0.004	7357616	10.0	3.10	
						RPD = 24.57	
41 Tris(2,3-dibromopropyl)phosphate							
1		12.000				ND	
2		12.279					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 42 Endosulfan, Total							
1						121.9	
2						123.2	
						RPD = 1.07	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

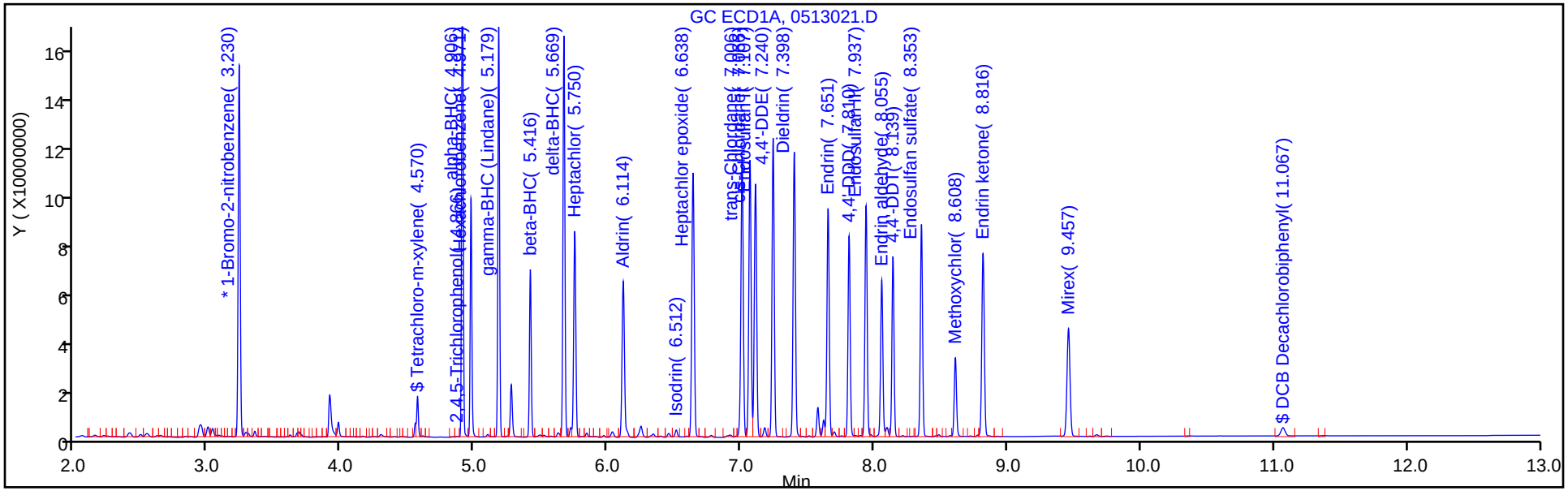
Report Date: 14-May-2024 08:21:44 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

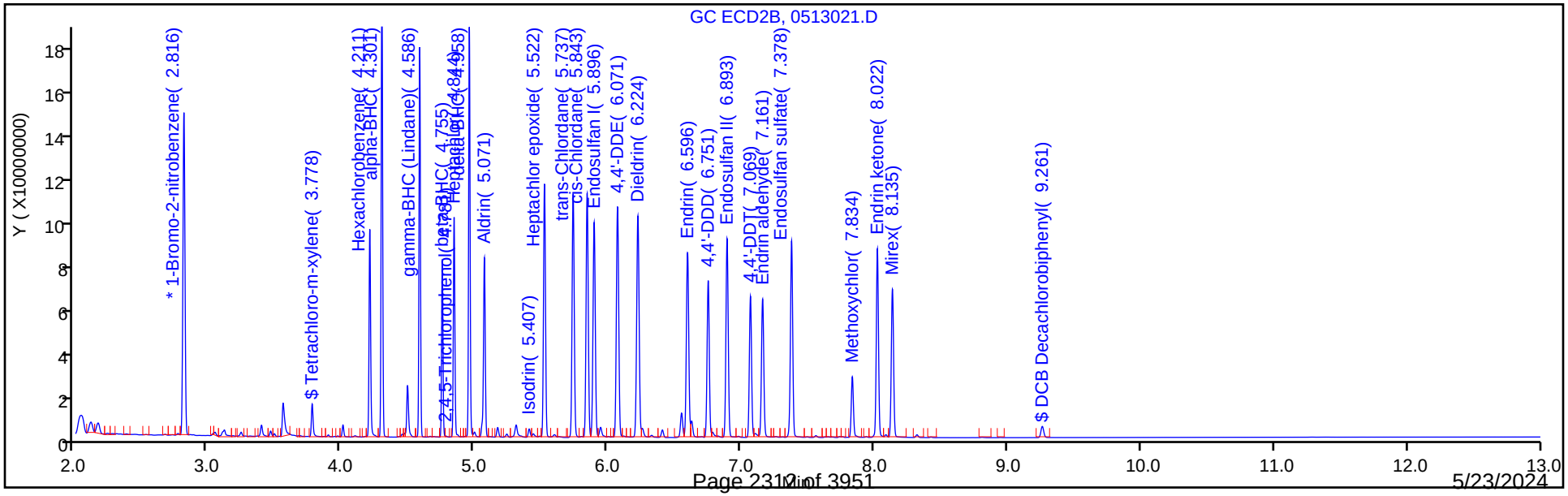
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513021.D

Injection Date:	13-May-2024 16:34:54	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	280-191098-G-1-A MSD			Worklist Smp#:	21
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513021.D				
Lims ID:	280-191098-G-1-A MSD				
Client ID:	DET-003-240401-GW				
Sample Type:	MSD				
Inject. Date:	13-May-2024 16:34:54	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-G-1-A MSD				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	14-May-2024 08:21:05	Calib Date:	13-May-2024 12:25:32		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1604				
First Level Reviewer: AP6K		Date:	14-May-2024 08:10:21		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	5.12	51.15
$ 40 DCB Decachlorobiphenyl	10.0	2.42	24.20

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	4.79	47.94
$ 40 DCB Decachlorobiphenyl	10.0	3.10	30.98

Manual Integration/User Assign Peak Report

Eurofins Denver

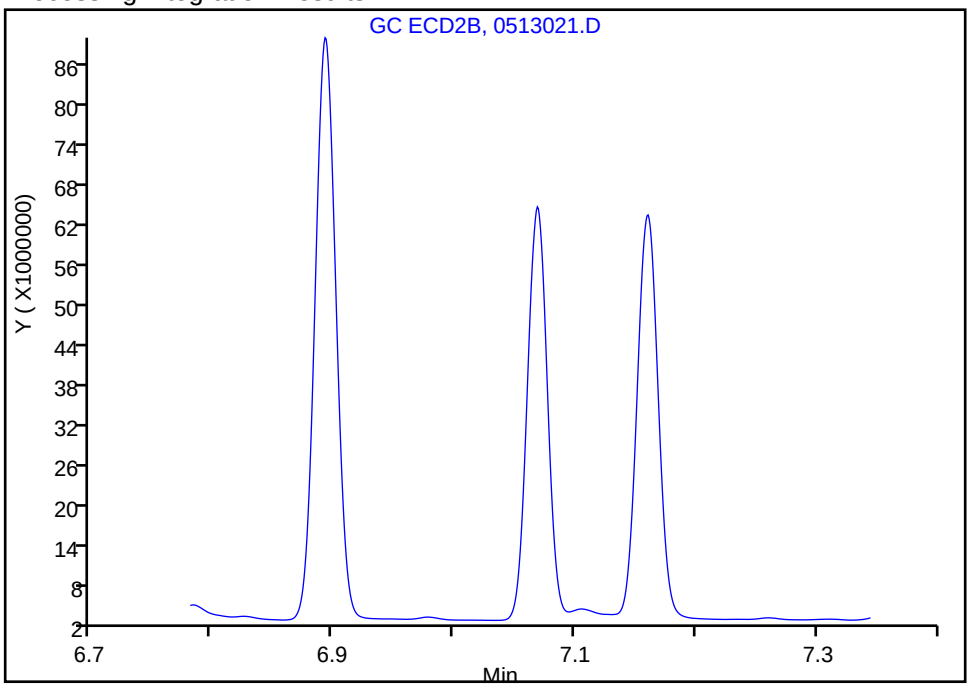
Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513021.D				
Injection Date:	13-May-2024 16:34:54	Instrument ID:	SGC_C		
Lims ID:	280-191098-G-1-A MSD				
Client ID:	DET-003-240401-GW				
Operator ID:	mw	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		
Column:	RTI-35silms Chlorinated Pesticides (0.32 mm)	Detector:	GC ECD2B		

34 4,4'-DDT, CAS: 50-29-3

Signal: 2

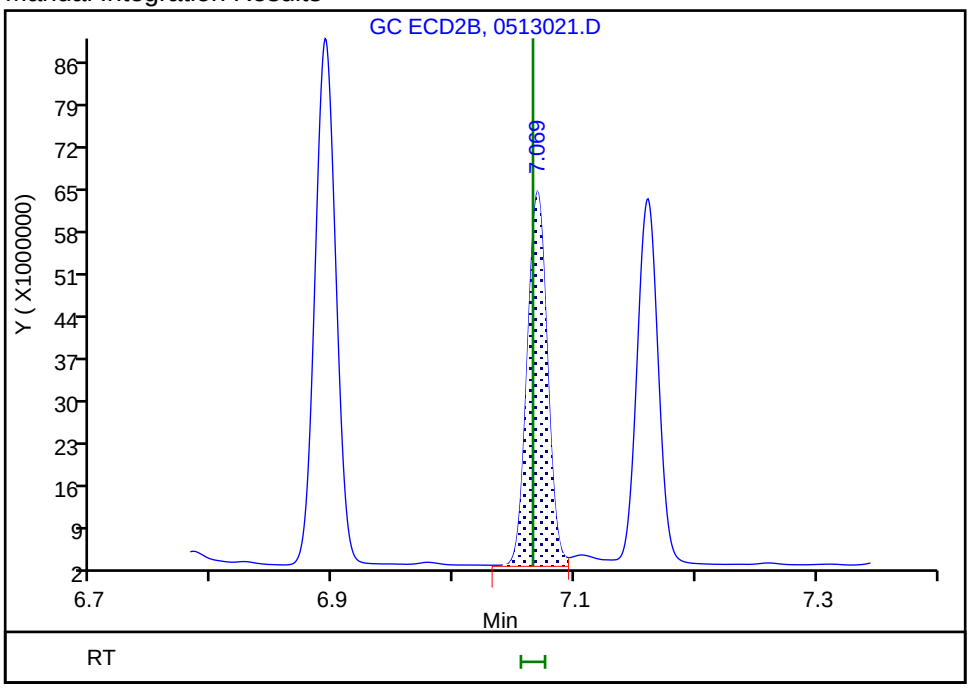
Not Detected
Expected RT: 7.07

Processing Integration Results



Manual Integration Results

RT: 7.07
Area: 70926251
Amount: 43.137712
Amount Units: ng/mL



Reviewer: AP6K, 14-May-2024 08:10:13 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MSD | Lab Sample ID: 280-191098-1 MSD

Matrix: Water | Lab File ID: 0513023.D

Analysis Method: 8081B | Date Collected: 05/06/2024 10:16

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 246.7(mL) | Date Analyzed: 05/13/2024 17:10

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-XLB ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653121 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
8001-35-2	Toxaphene	21.7	M Q	3.0	3.0	1.5

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513023.D
Lims ID: 280-191098-D-1-B MSD
Client ID: DET-003-240401-GW
Sample Type: MSD
Inject. Date: 13-May-2024 17:10:33 ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-D-1-B MSD
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:05 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 14-May-2024 08:11:01

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						0.7012	
2						0.6186	
						RPD = 12.51	
* 2 1-Bromo-2-nitrobenzene							
1	3.232	3.231	0.001	163987560	75.0	75.0	
2	2.816	2.817	-0.001	161033031	75.0	75.0	
4 Propachlor							
1		4.041				ND	
2		4.339					
$ 3 Tetrachloro-m-xylene							
1	4.570	4.569	0.001	17119560	10.0	5.64	
2	3.779	3.778	0.001	13693384	10.0	4.65	
						RPD = 19.16	
5 Diallate							
1	4.681	4.683	-0.002	208627		3.13	
2	4.038	4.042	-0.004	135937		2.12	
						RPD = 38.52	
14 2,4,5-Trichlorophenol							
1		4.866				ND	
2		4.769					
7 alpha-BHC							
1	4.907	4.904	0.003	2966280		0.7012	
2	4.301	4.300	0.001	2630664		0.6186	
						RPD = 12.51	
6 Hexachlorobenzene							
1	4.970	4.969	0.001	296048		0.0823	
2	4.210	4.209	0.001	793475		0.2211	
						RPD = 91.49	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
8 gamma-BHC (Lindane)							
1		5.177				ND	
2		4.584					
11 beta-BHC							
1		5.414				ND	
2		4.753					
10 Technical Chlordane							
1		5.535				ND	
1		6.126					
1		7.004					
1		7.115					
1		8.011					
2		4.714					
2		5.189					
2		5.737					
2		5.765					
2		6.932					
9 Chlordane (technical)							
1		5.535				ND	
1		6.126					
1		7.004					
1		7.115					
1		8.011					
2		4.714					
2		5.189					
2		5.737					
2		5.765					
2		6.932					
13 delta-BHC							
1		5.665				ND	
2		4.956					
12 Heptachlor							
1		5.747				ND	
2		4.842					
16 Chlorpyrifos							
1		5.990				ND	
2		5.177					
15 Aldrin							
1		6.110				ND	
2		5.069					
17 Isodrin							
1		6.507				ND	
2		5.404					
19 Heptachlor epoxide							
1		6.634				ND	
2		5.519					
21 2,4'-DDE							
1		6.823				ND	
2		5.750					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
22 Toxaphene							M
1	6.898	6.896	0.002	13600149	1000.0	1117.9	M
1	7.585	7.583	0.002	30824169	1000.0	1064.2	M
1	8.011	8.009	0.002	46186424	1000.0	1199.8	M
1	8.271	8.269	0.002	92150288	1000.0	1091.8	M
1	9.309	9.304	0.005	41573042	1000.0	870.4	M
		Average of Peak Amounts =				1068.8	
2	6.222	6.222	0.000	26478438	1000.0	968.8	M
2	6.638	6.637	0.001	28936347	1000.0	983.5	M
2	6.924	6.925	-0.001	54083513	1000.0	1066.7	M
2	7.801	7.799	0.002	47694147	1000.0	1037.6	M
2	8.164	8.164	0.000	46563829	1000.0	954.3	M
		Average of Peak Amounts =				1002.2	
						RPD = 6.43	
20 trans-Chlordane							
1		7.003				ND	
2		5.734					
23 cis-Chlordane							
1		7.061				ND	
2		5.839					
24 Endosulfan I							
1		7.103				ND	
2		5.891					
25 4,4'-DDE							
1		7.235				ND	
2		6.067					
27 2,4'-DDD							M
1	7.338	7.344	-0.006	22160034		12.5	
2	6.306	6.314	-0.008	8205148		5.41	
						RPD = 79.31	
26 Dieldrin							
1		7.394				ND	
2		6.219					
28 Chlorobenzilate							
1		7.511				ND	
2		6.431					
29 Endrin							
1		7.647				ND	
2		6.591					
30 2,4'-DDT							
1		7.687				ND	
2		6.648					
32 4,4'-DDD							
1		7.805				ND	
2		6.747					
31 Kepone							
1		7.898				ND	
2		6.714					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
33 Endosulfan II							M
1	7.932	7.933	-0.001	40011165		14.2	
2	6.895	6.889	0.006	25105296		9.31	
						RPD = 41.37	
35 Endrin aldehyde							
1		8.050				ND	
2		7.157					
34 4,4'-DDT							
1		8.135				ND	
2		7.065					
18 Dicofol							
1		8.141				ND	
2		8.545					
36 Endosulfan sulfate							M
1	8.343	8.349	-0.006	41621423		16.1	
2	7.381	7.374	0.007	23522152		8.86	
						RPD = 57.91	
37 Methoxychlor							
1		8.603				ND	
2		7.831					
38 Endrin ketone							
1		8.810				ND	
2		8.018					
39 Mirex							
1		9.451				ND	
2		8.130					
$ 40 DCB Decachlorobiphenyl							
1	11.068	11.057	0.011	8407096	10.0	2.63	
2	9.259	9.257	0.002	9743608	10.0	3.84	
						RPD = 37.53	
41 Tris(2,3-dibromopropyl)phosphate							
1		12.000				ND	
2		12.279					
S 42 Endosulfan, Total							
1						30.2	
2						18.2	
						RPD = 49.89	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

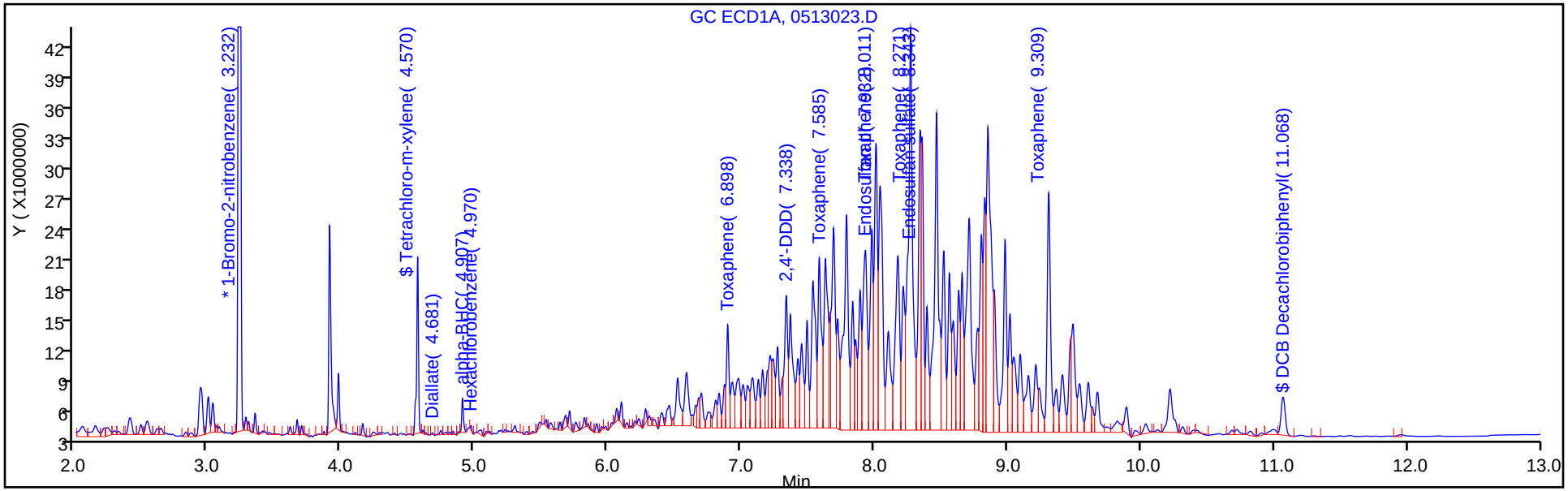
Report Date: 14-May-2024 08:21:48 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

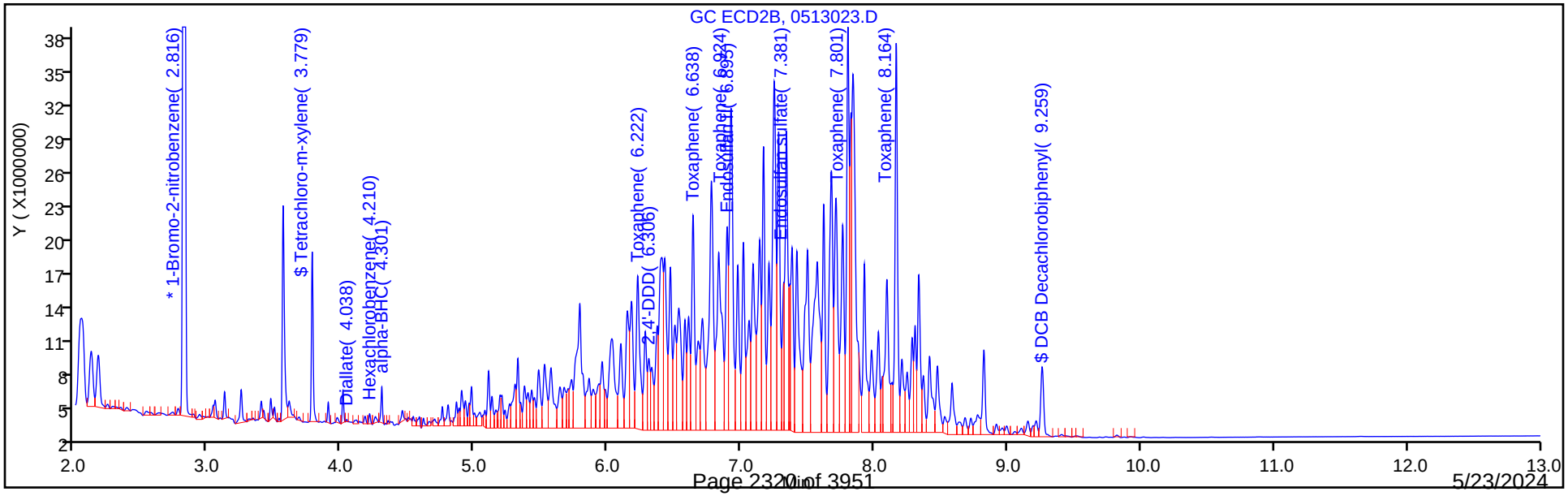
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513023.D

Injection Date:	13-May-2024 17:10:33	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	280-191098-D-1-B MSD			Worklist Smp#:	23
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513023.D				
Lims ID:	280-191098-D-1-B MSD				
Client ID:	DET-003-240401-GW				
Sample Type:	MSD				
Inject. Date:	13-May-2024 17:10:33	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-D-1-B MSD				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	14-May-2024 08:21:05	Calib Date:	13-May-2024 12:25:32		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1604				
First Level Reviewer: AP6K		Date:	14-May-2024 08:11:01		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	5.64	56.36
$ 40 DCB Decachlorobiphenyl	10.0	2.63	26.30

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	4.65	46.51
$ 40 DCB Decachlorobiphenyl	10.0	3.84	38.45

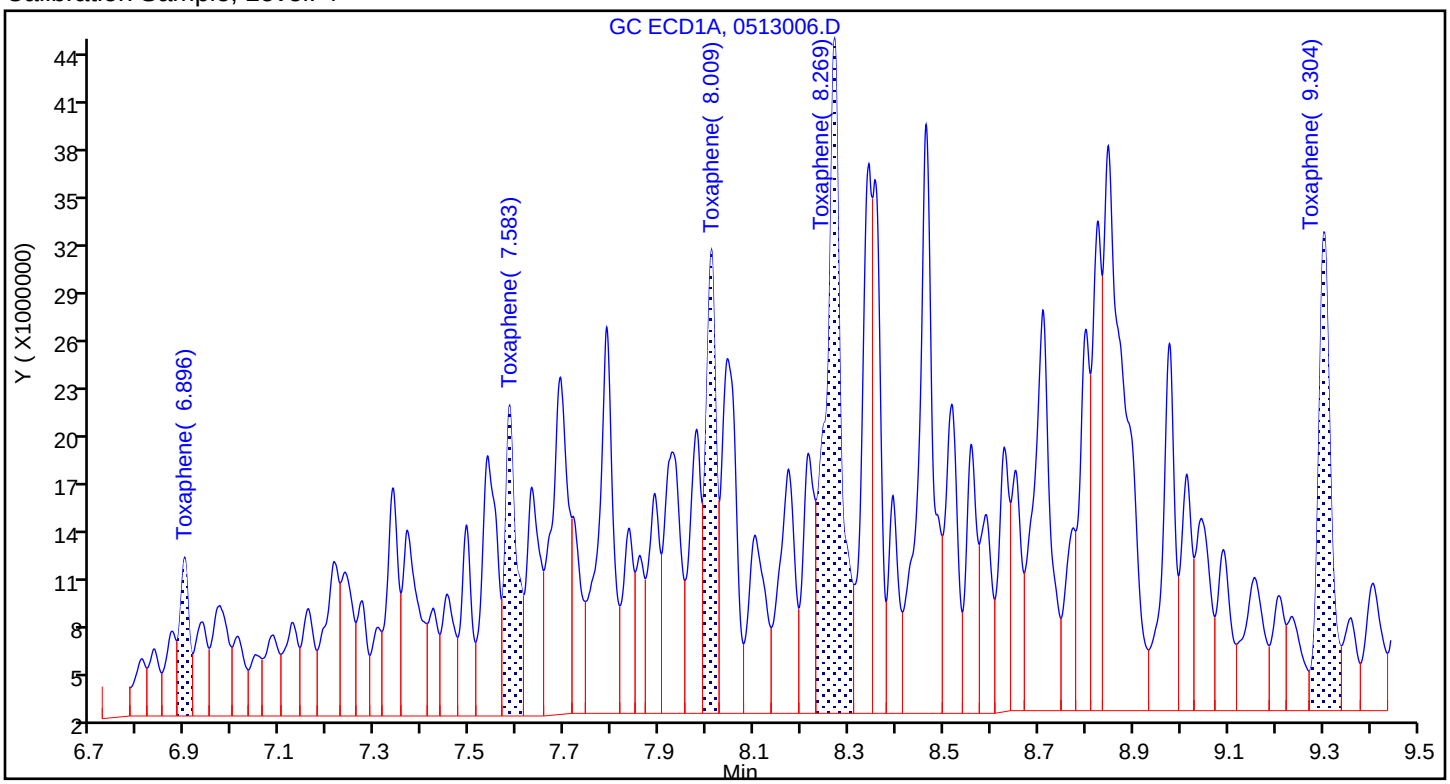
Report Date: 14-May-2024 08:21:48 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

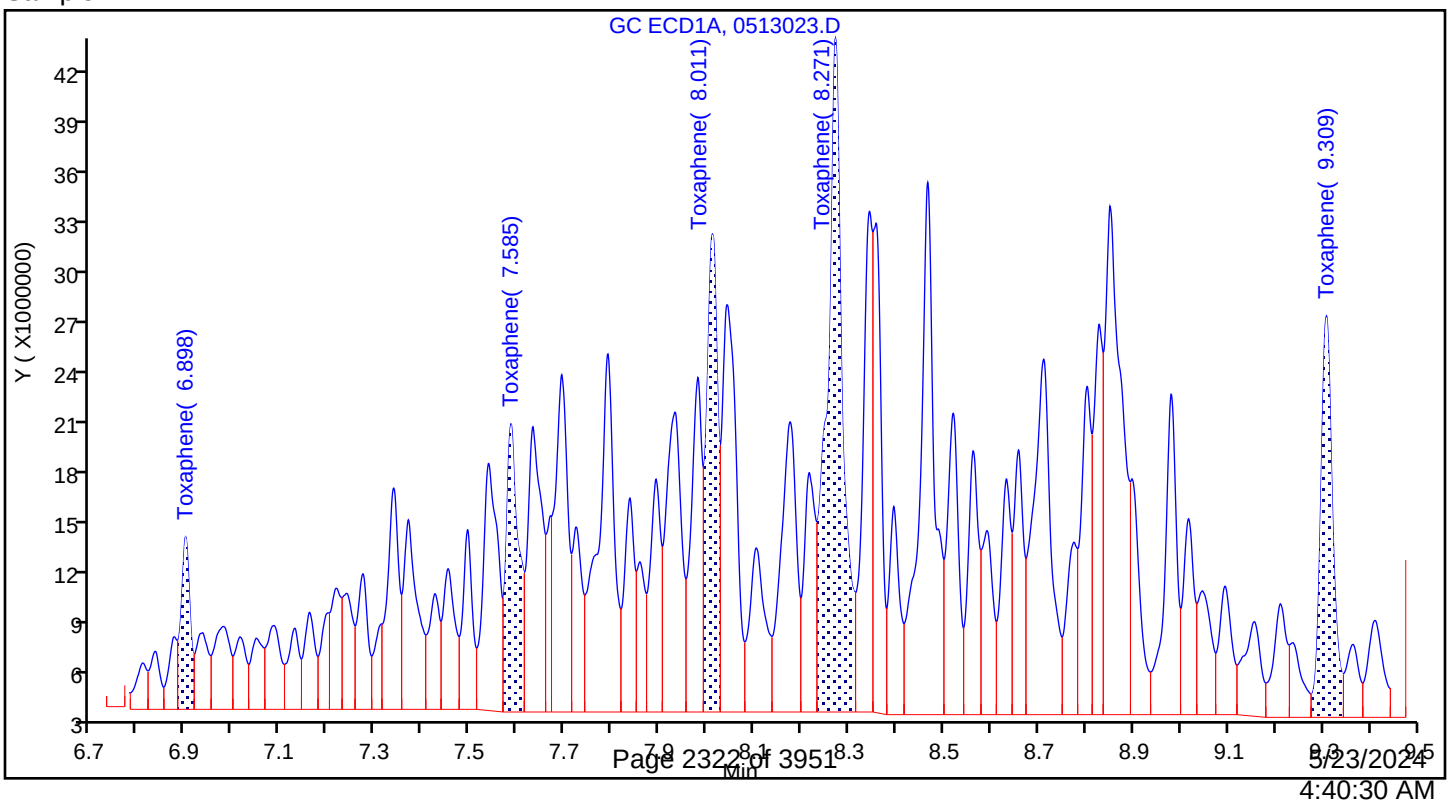
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513023.D
Injection Date: 13-May-2024 17:10:33 Instrument ID: SGC_C
Lims ID: 280-191098-D-1-B MSD
Client ID: DET-003-240401-GW
Operator ID: mw ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: C 8081 IS LVI Limit Group: GCSV - 8081B LVI - IS
Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Detector GC ECD1A

22 Toxaphene, CAS: 8001-35-2

Calibration Sample, Level: 4



Sample



Manual Integration/User Assign Peak Report

Eurofins Denver

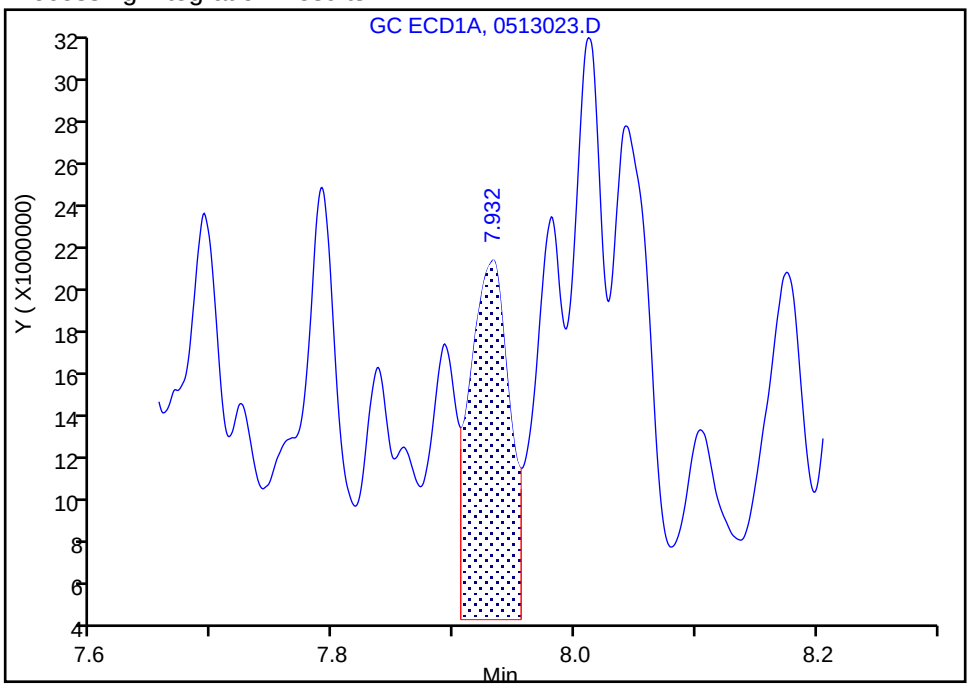
Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513023.D				
Injection Date:	13-May-2024 17:10:33	Instrument ID:	SGC_C		
Lims ID:	280-191098-D-1-B MSD				
Client ID:	DET-003-240401-GW				
Operator ID:	mw	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		
Column:	RTI-XLB Chlorinated Pesticides (0.32 mm)	Detector	GC ECD1A		

33 Endosulfan II, CAS: 33213-65-9

Signal: 1

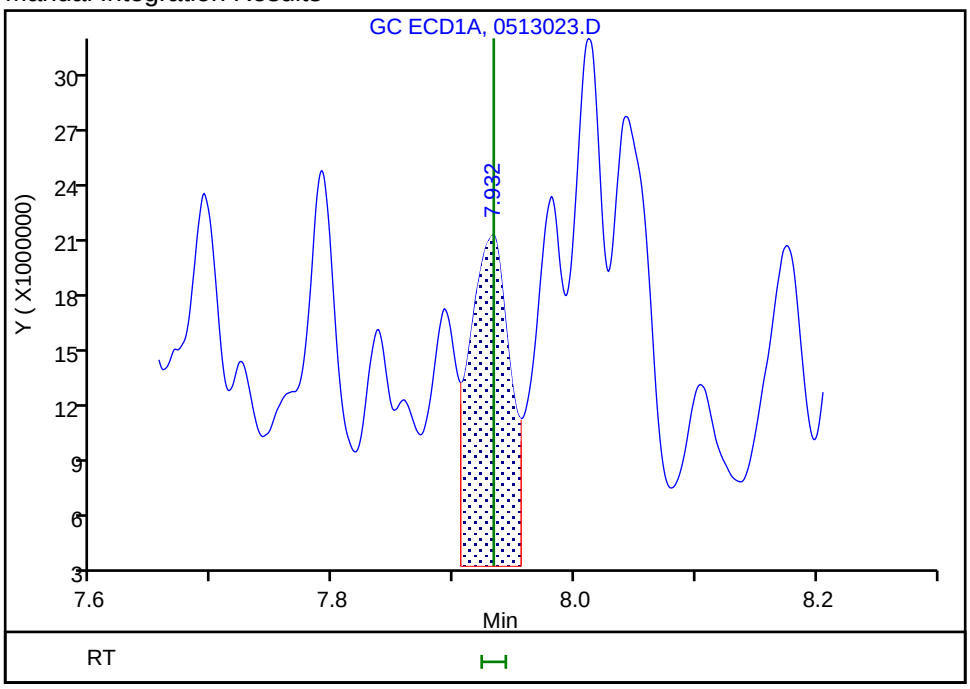
Processing Integration Results

RT: 7.93
Area: 37995140
Amount: 13.454328
Amount Units: ng/mL



Manual Integration Results

RT: 7.93
Area: 40011165
Amount: 14.168216
Amount Units: ng/mL



Reviewer: AP6K, 14-May-2024 08:10:55 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

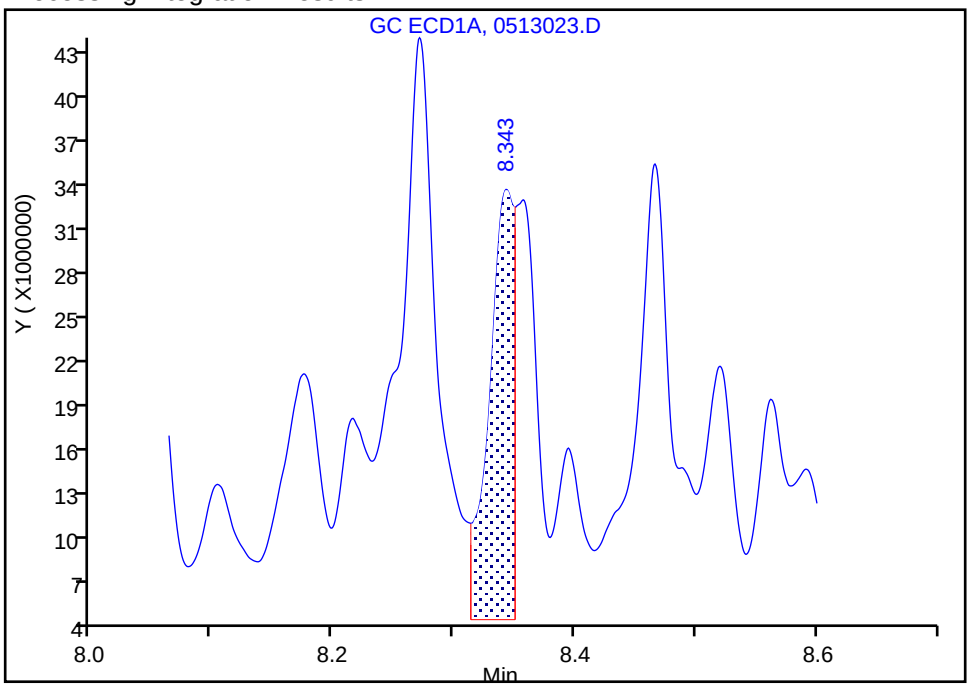
Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513023.D				
Injection Date:	13-May-2024 17:10:33	Instrument ID:	SGC_C		
Lims ID:	280-191098-D-1-B MSD				
Client ID:	DET-003-240401-GW				
Operator ID:	mw	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		
Column:	RTI-XLB Chlorinated Pesticides (0.32 mm)	Detector	GC ECD1A		

36 Endosulfan sulfate, CAS: 1031-07-8

Signal: 1

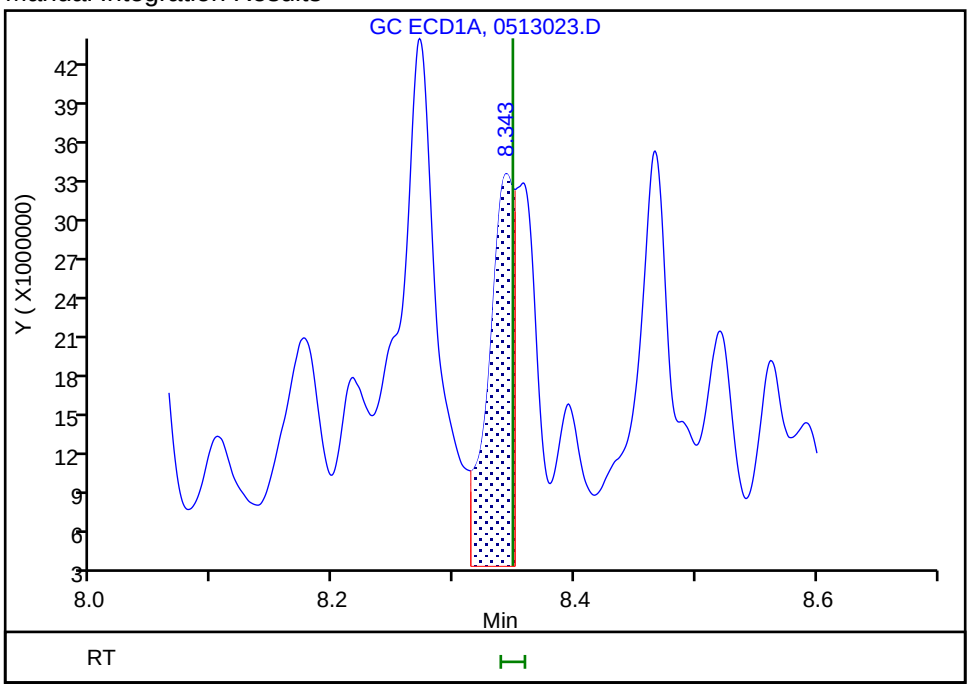
Processing Integration Results

RT: 8.34
Area: 40307898
Amount: 15.569886
Amount Units: ng/mL



Manual Integration Results

RT: 8.34
Area: 41621423
Amount: 16.077266
Amount Units: ng/mL



Reviewer: AP6K, 14-May-2024 08:10:55 -06:00:00 (UTC)

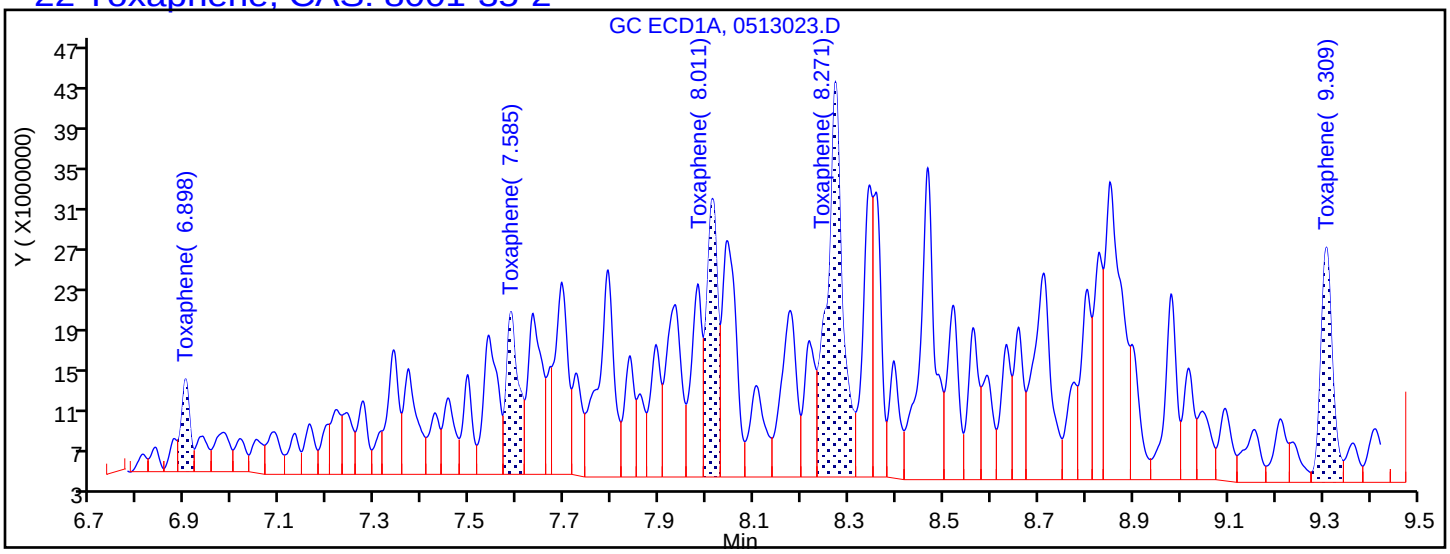
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Report Date: 14-May-2024 08:21:48 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

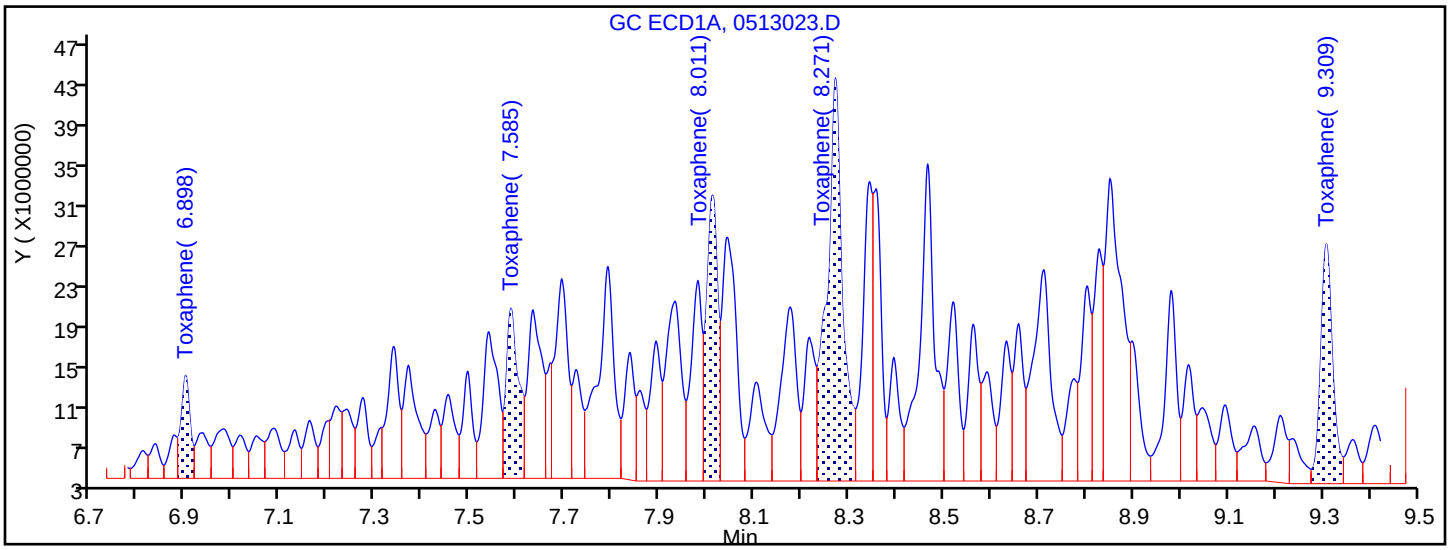
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513023.D
Injection Date: 13-May-2024 17:10:33 Instrument ID: SGC_C
Lims ID: 280-191098-D-1-B MSD
Client ID: DET-003-240401-GW
Operator ID: mw ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: C 8081 IS LVI Limit Group: GCSV - 8081B LVI - IS
Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Detector GC ECD1A

22 Toxaphene, CAS: 8001-35-2



Processing Integration Results

6.898	Response = 11784664
7.585	Response = 28838869
8.011	Response = 44773534
8.271	Response = 89170611
9.309	Response = 39873588



Manual Integration Results

6.898	Response = 13600149	M
7.585	Response = 30824169	M
8.011	Response = 46186424	M
8.271	Response = 92150288	M
9.309	Response = 41573042	M

Reviewer: AP6K, 14-May-2024 08:10:55 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MSD | Lab Sample ID: 280-191098-1 MSD

Matrix: Water | Lab File ID: 0513023.D

Analysis Method: 8081B | Date Collected: 05/06/2024 10:16

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 246.7(mL) | Date Analyzed: 05/13/2024 17:10

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-35silms ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653121 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	38		34-122

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513023.D
Lims ID: 280-191098-D-1-B MSD
Client ID: DET-003-240401-GW
Sample Type: MSD
Inject. Date: 13-May-2024 17:10:33 ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-D-1-B MSD
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 14-May-2024 08:21:05 Calib Date: 13-May-2024 12:25:32
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1604

First Level Reviewer: AP6K Date: 14-May-2024 08:11:01

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						0.7012	
2						0.6186	
						RPD = 12.51	
* 2 1-Bromo-2-nitrobenzene							
1	3.232	3.231	0.001	163987560	75.0	75.0	
2	2.816	2.817	-0.001	161033031	75.0	75.0	
4 Propachlor							
1		4.041				ND	
2		4.339					
$ 3 Tetrachloro-m-xylene							
1	4.570	4.569	0.001	17119560	10.0	5.64	
2	3.779	3.778	0.001	13693384	10.0	4.65	
						RPD = 19.16	
5 Diallate							
1	4.681	4.683	-0.002	208627		3.13	
2	4.038	4.042	-0.004	135937		2.12	
						RPD = 38.52	
14 2,4,5-Trichlorophenol							
1		4.866				ND	
2		4.769					
7 alpha-BHC							
1	4.907	4.904	0.003	2966280		0.7012	
2	4.301	4.300	0.001	2630664		0.6186	
						RPD = 12.51	
6 Hexachlorobenzene							
1	4.970	4.969	0.001	296048		0.0823	
2	4.210	4.209	0.001	793475		0.2211	
						RPD = 91.49	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
8 gamma-BHC (Lindane)							
1		5.177				ND	
2		4.584					
11 beta-BHC							
1		5.414				ND	
2		4.753					
10 Technical Chlordane							
1		5.535				ND	
1		6.126					
1		7.004					
1		7.115					
1		8.011					
2		4.714					
2		5.189					
2		5.737					
2		5.765					
2		6.932					
9 Chlordane (technical)							
1		5.535				ND	
1		6.126					
1		7.004					
1		7.115					
1		8.011					
2		4.714					
2		5.189					
2		5.737					
2		5.765					
2		6.932					
13 delta-BHC							
1		5.665				ND	
2		4.956					
12 Heptachlor							
1		5.747				ND	
2		4.842					
16 Chlorpyrifos							
1		5.990				ND	
2		5.177					
15 Aldrin							
1		6.110				ND	
2		5.069					
17 Isodrin							
1		6.507				ND	
2		5.404					
19 Heptachlor epoxide							
1		6.634				ND	
2		5.519					
21 2,4'-DDE							
1		6.823				ND	
2		5.750					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
22 Toxaphene							M
1	6.898	6.896	0.002	13600149	1000.0	1117.9	M
1	7.585	7.583	0.002	30824169	1000.0	1064.2	M
1	8.011	8.009	0.002	46186424	1000.0	1199.8	M
1	8.271	8.269	0.002	92150288	1000.0	1091.8	M
1	9.309	9.304	0.005	41573042	1000.0	870.4	M
		Average of Peak Amounts =				1068.8	
2	6.222	6.222	0.000	26478438	1000.0	968.8	M
2	6.638	6.637	0.001	28936347	1000.0	983.5	M
2	6.924	6.925	-0.001	54083513	1000.0	1066.7	M
2	7.801	7.799	0.002	47694147	1000.0	1037.6	M
2	8.164	8.164	0.000	46563829	1000.0	954.3	M
		Average of Peak Amounts =				1002.2	
						RPD = 6.43	
20 trans-Chlordane							
1		7.003				ND	
2		5.734					
23 cis-Chlordane							
1		7.061				ND	
2		5.839					
24 Endosulfan I							
1		7.103				ND	
2		5.891					
25 4,4'-DDE							
1		7.235				ND	
2		6.067					
27 2,4'-DDD							M
1	7.338	7.344	-0.006	22160034		12.5	
2	6.306	6.314	-0.008	8205148		5.41	
						RPD = 79.31	
26 Dieldrin							
1		7.394				ND	
2		6.219					
28 Chlorobenzilate							
1		7.511				ND	
2		6.431					
29 Endrin							
1		7.647				ND	
2		6.591					
30 2,4'-DDT							
1		7.687				ND	
2		6.648					
32 4,4'-DDD							
1		7.805				ND	
2		6.747					
31 Kepone							
1		7.898				ND	
2		6.714					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
33 Endosulfan II							M
1	7.932	7.933	-0.001	40011165		14.2	
2	6.895	6.889	0.006	25105296		9.31	
						RPD = 41.37	
35 Endrin aldehyde							
1		8.050				ND	
2		7.157					
34 4,4'-DDT							
1		8.135				ND	
2		7.065					
18 Dicofol							
1		8.141				ND	
2		8.545					
36 Endosulfan sulfate							M
1	8.343	8.349	-0.006	41621423		16.1	
2	7.381	7.374	0.007	23522152		8.86	
						RPD = 57.91	
37 Methoxychlor							
1		8.603				ND	
2		7.831					
38 Endrin ketone							
1		8.810				ND	
2		8.018					
39 Mirex							
1		9.451				ND	
2		8.130					
$ 40 DCB Decachlorobiphenyl							
1	11.068	11.057	0.011	8407096	10.0	2.63	
2	9.259	9.257	0.002	9743608	10.0	3.84	
						RPD = 37.53	
41 Tris(2,3-dibromopropyl)phosphate							
1		12.000				ND	
2		12.279					
S 42 Endosulfan, Total							
1						30.2	
2						18.2	
						RPD = 49.89	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

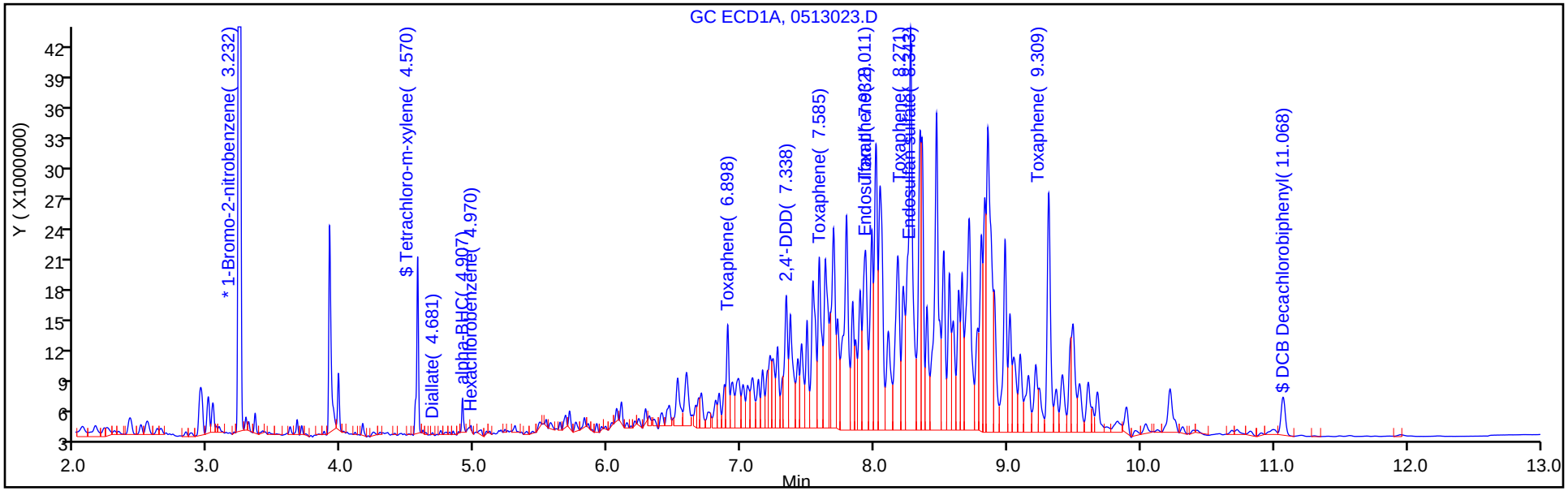
Report Date: 14-May-2024 08:21:48 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

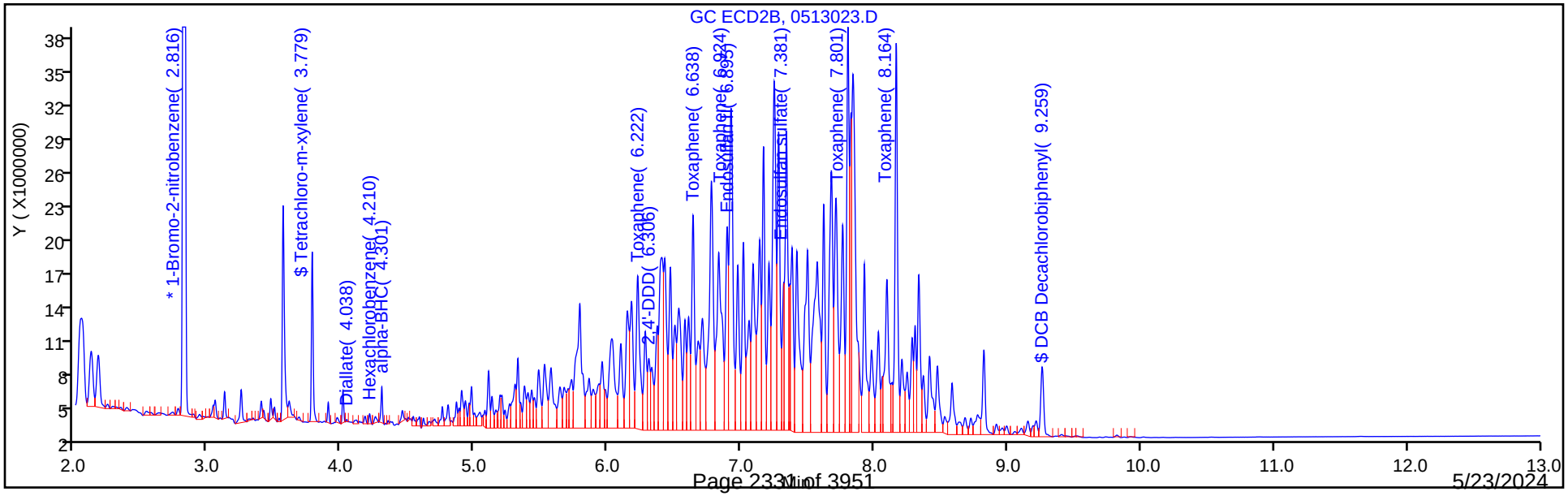
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513023.D

Injection Date:	13-May-2024 17:10:33	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	280-191098-D-1-B MSD			Worklist Smp#:	23
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513023.D				
Lims ID:	280-191098-D-1-B MSD				
Client ID:	DET-003-240401-GW				
Sample Type:	MSD				
Inject. Date:	13-May-2024 17:10:33	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-D-1-B MSD				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	14-May-2024 08:21:05	Calib Date:	13-May-2024 12:25:32		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513007.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1604				
First Level Reviewer: AP6K		Date:	14-May-2024 08:11:01		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	5.64	56.36
$ 40 DCB Decachlorobiphenyl	10.0	2.63	26.30

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	4.65	46.51
$ 40 DCB Decachlorobiphenyl	10.0	3.84	38.45

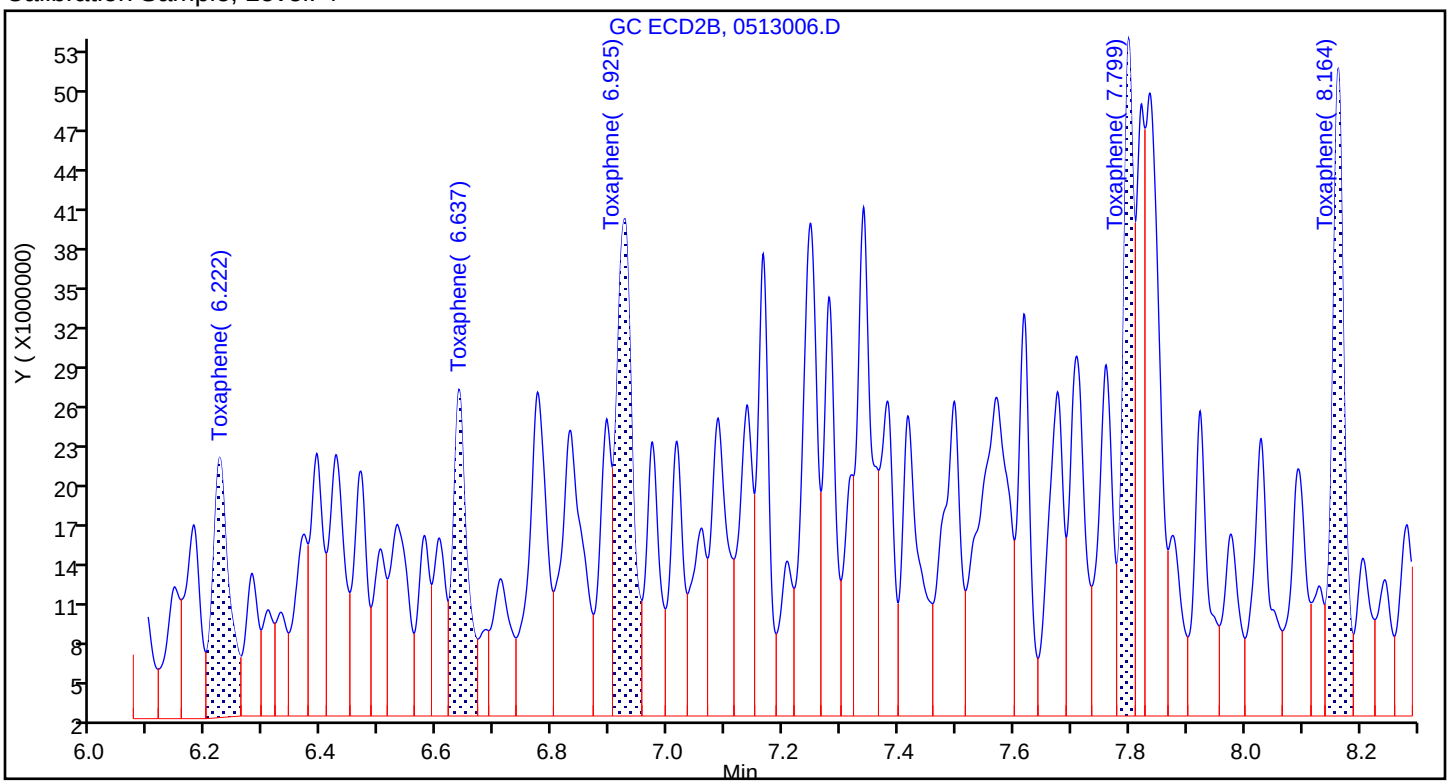
Report Date: 14-May-2024 08:21:48 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

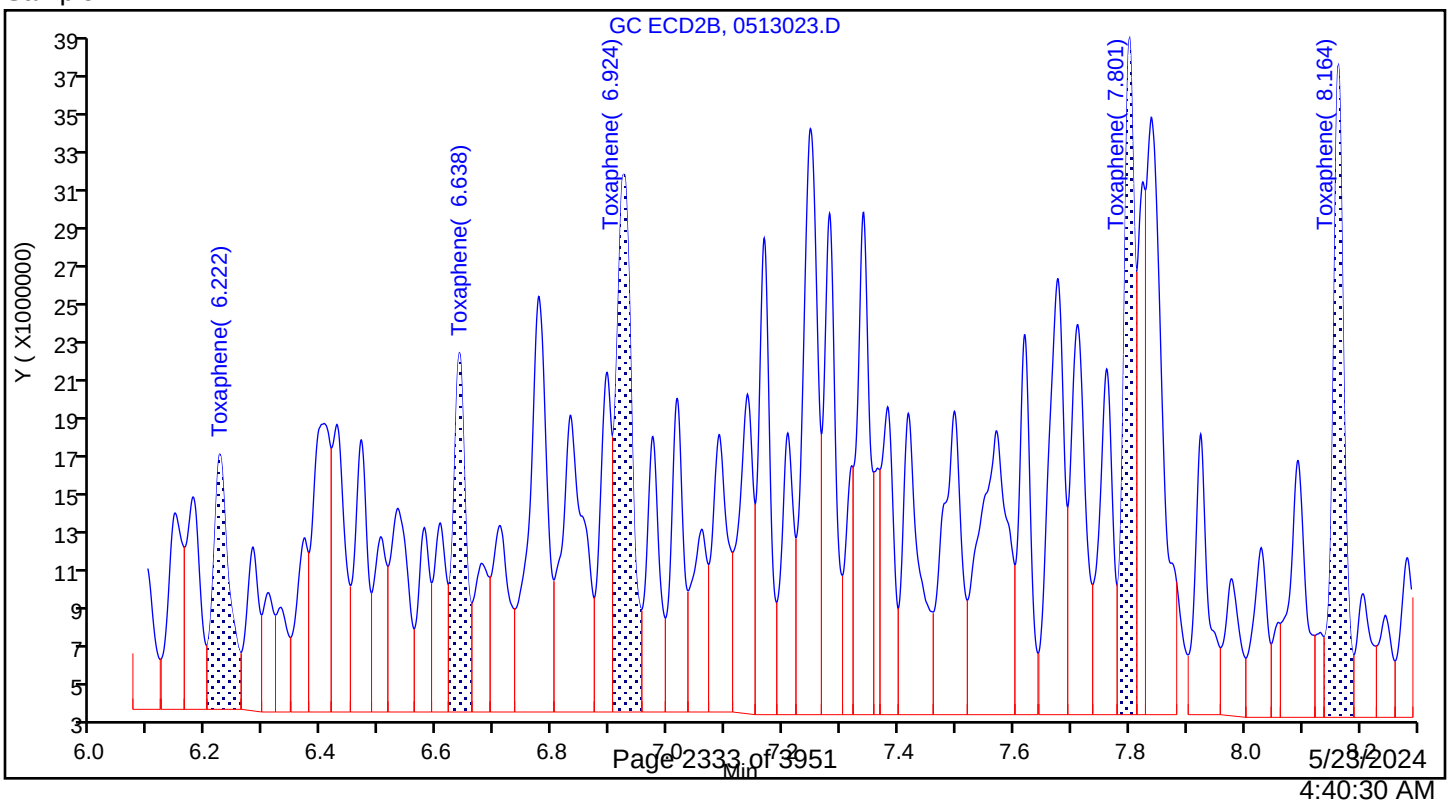
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513023.D
Injection Date: 13-May-2024 17:10:33 Instrument ID: SGC_C
Lims ID: 280-191098-D-1-B MSD
Client ID: DET-003-240401-GW
Operator ID: mw ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: C 8081 IS LVI Limit Group: GCSV - 8081B LVI - IS
Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Detector: GC ECD2B

22 Toxaphene, CAS: 8001-35-2

Calibration Sample, Level: 4



Sample



Manual Integration/User Assign Peak Report

Eurofins Denver

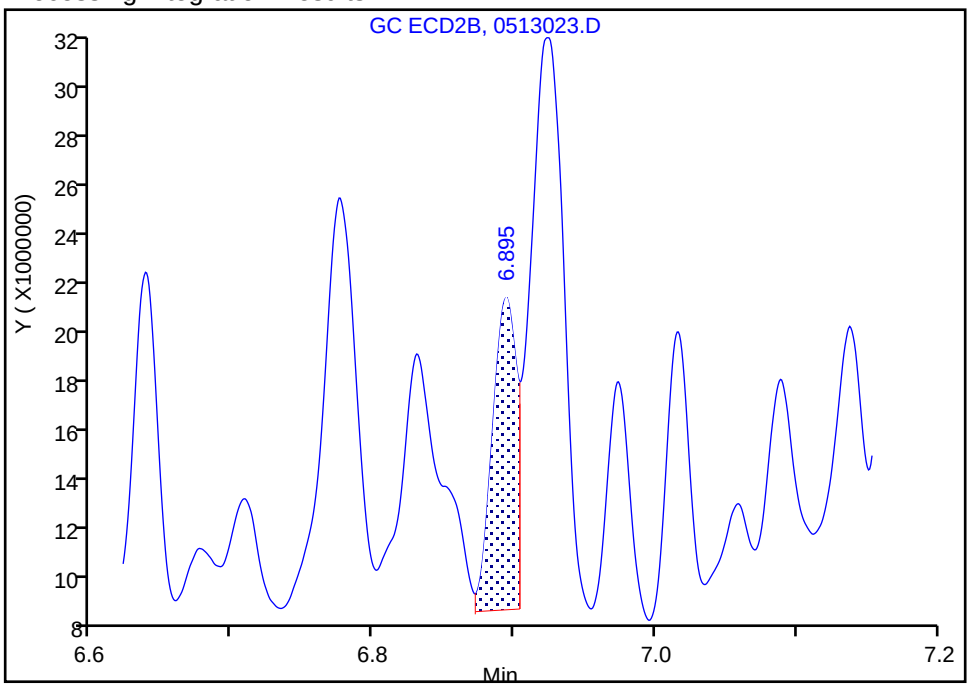
Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513023.D				
Injection Date:	13-May-2024 17:10:33	Instrument ID:	SGC_C		
Lims ID:	280-191098-D-1-B MSD				
Client ID:	DET-003-240401-GW				
Operator ID:	mw	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		
Column:	RTI-35silms Chlorinated Pesticides (0.32 mm)	Detector:	GC ECD2B		

33 Endosulfan II, CAS: 33213-65-9

Signal: 2

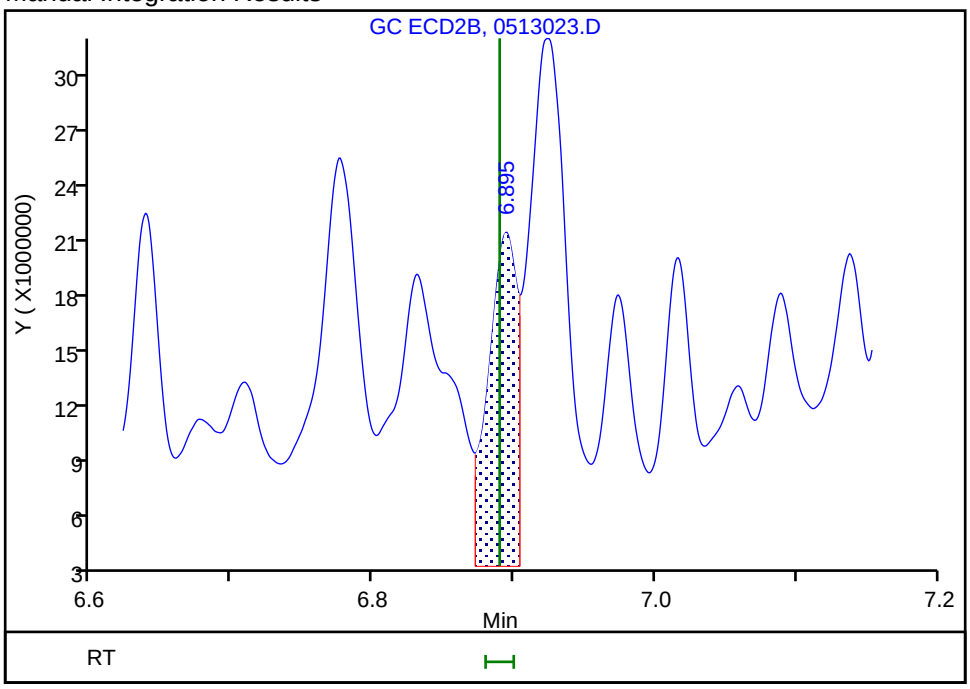
Processing Integration Results

RT: 6.89
Area: 14958117
Amount: 5.547871
Amount Units: ng/mL



Manual Integration Results

RT: 6.89
Area: 25105296
Amount: 9.311395
Amount Units: ng/mL



Reviewer: AP6K, 14-May-2024 08:10:49 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

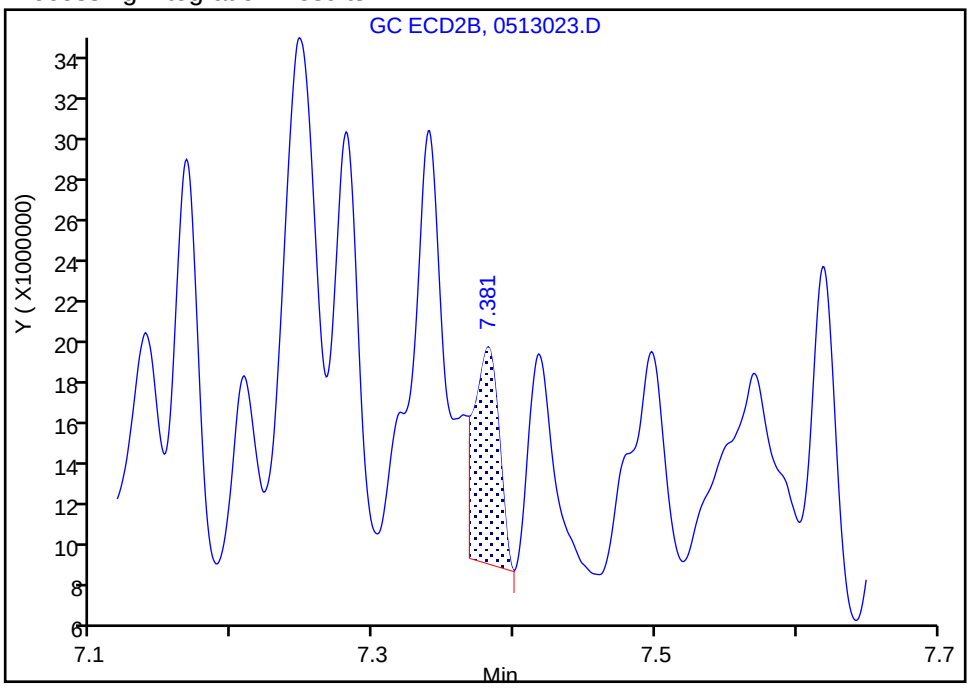
Data File:	\\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513023.D				
Injection Date:	13-May-2024 17:10:33	Instrument ID:	SGC_C		
Lims ID:	280-191098-D-1-B MSD				
Client ID:	DET-003-240401-GW				
Operator ID:	mw	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		
Column:	RTI-35silms Chlorinated Pesticides (0.32 mm)	Detector:	GC ECD2B		

36 Endosulfan sulfate, CAS: 1031-07-8

Signal: 2

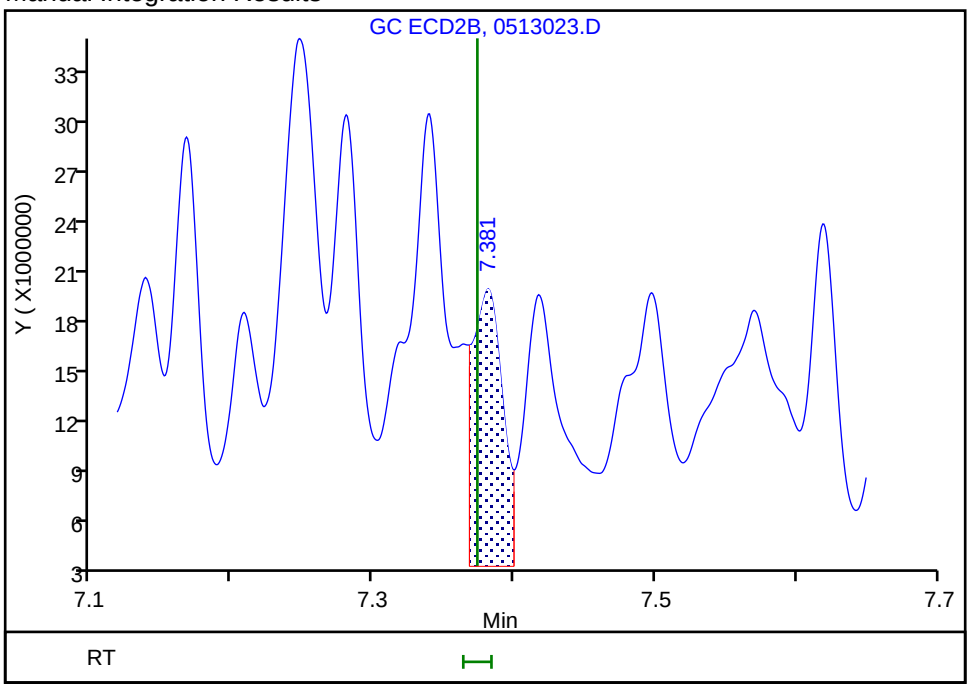
Processing Integration Results

RT: 7.38
Area: 12368331
Amount: 4.657561
Amount Units: ng/mL



Manual Integration Results

RT: 7.38
Area: 23522152
Amount: 8.857772
Amount Units: ng/mL



Reviewer: AP6K, 14-May-2024 08:10:49 -06:00:00 (UTC)

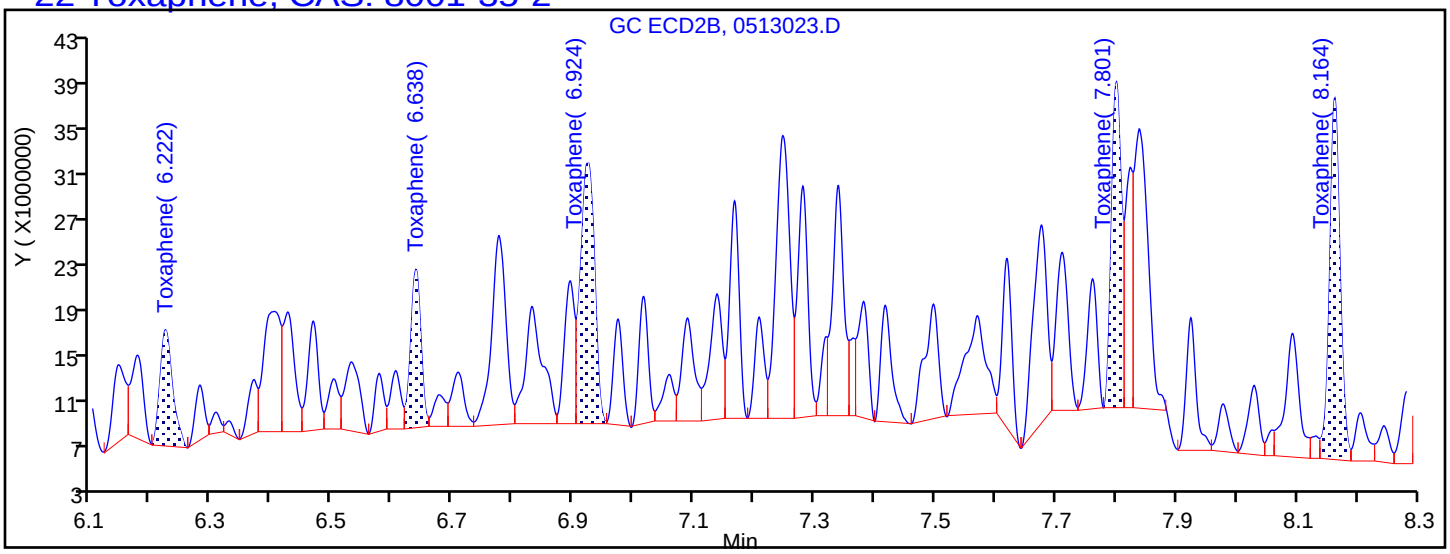
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Report Date: 14-May-2024 08:21:48 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

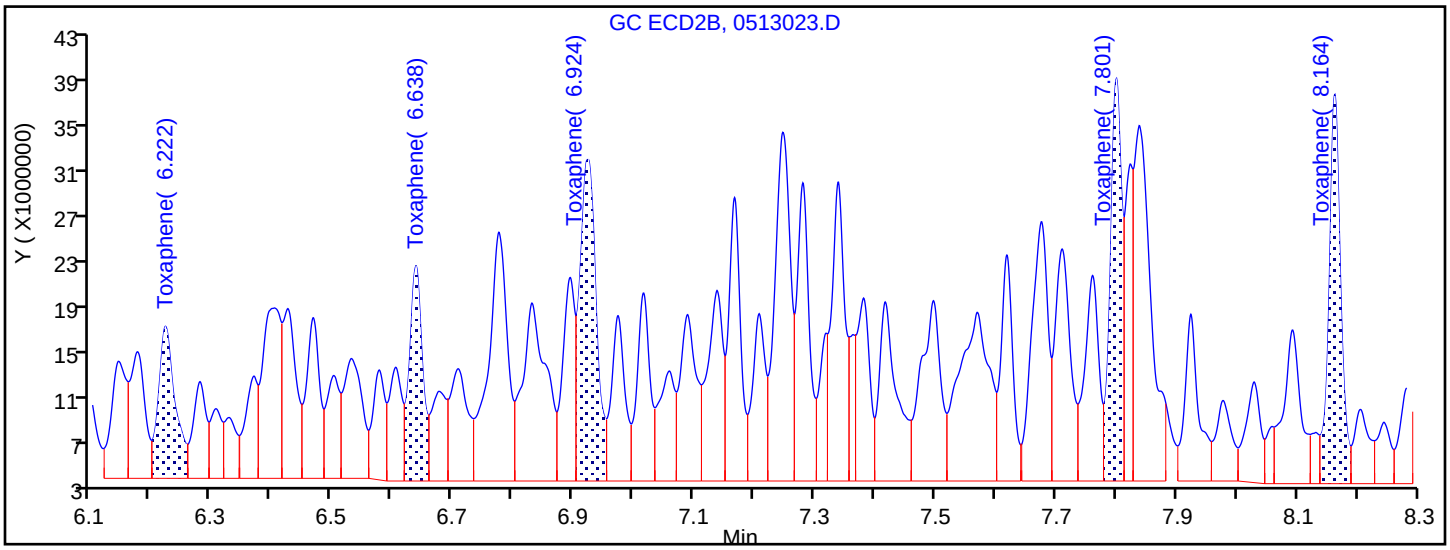
Data File: \\chromfs\Denver\ChromData\SGC_C\20240513-133310.b\0513023.D
Injection Date: 13-May-2024 17:10:33 Instrument ID: SGC_C
Lims ID: 280-191098-D-1-B MSD
Client ID: DET-003-240401-GW
Operator ID: mw ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: C 8081 IS LVI Limit Group: GCSV - 8081B LVI - IS
Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Detector: GC ECD2B

22 Toxaphene, CAS: 8001-35-2



Processing Integration Results

6.222	Response = 14951136
6.638	Response = 16850636
6.924	Response = 37562917
7.801	Response = 33624739
8.164	Response = 39245138



Manual Integration Results

6.222	Response = 26478438	M
6.638	Response = 28936347	M
6.924	Response = 54083513	M
7.801	Response = 47694147	M
8.164	Response = 46563829	M

Reviewer: AP6K, 14-May-2024 08:10:49 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MSD RE | Lab Sample ID: 280-191098-1 MSD RE

Matrix: Water | Lab File ID: 0516014.D

Analysis Method: 8081B | Date Collected: 05/06/2024 10:16

Extraction Method: 3510C | Date Extracted: 05/15/2024 10:49

Sample wt/vol: 247(mL) | Date Analyzed: 05/16/2024 14:07

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-XLB ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653635 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
72-54-8	*4,4'-DDD*	*1.08*	*H*	*0.051*	0.051	*0.0043*
72-55-9	*4,4'-DDE*	*1.02*	*H*	*0.051*	0.022	*0.0043*
50-29-3	*4,4'-DDT*	*1.06*	*H*	*0.051*	0.051	*0.024*
309-00-2	*Aldrin*	*0.737*	*H*	*0.051*	0.021	*0.0063*
319-84-6	*alpha-BHC*	*0.994*	*H*	*0.051*	0.029	*0.0098*
5103-71-9	*alpha-Chlordane*	*0.958*	*H*	*0.051*	0.029	*0.0089*
319-85-7	*beta-BHC*	*0.958*	*H*	*0.051*	0.040	*0.0092*
319-86-8	*delta-BHC*	*1.05*	*H*	*0.051*	0.024	*0.0079*
60-57-1	*Dieldrin*	*0.953*	*H*	*0.051*	0.016	*0.0047*
959-98-8	*Endosulfan I*	*0.925*	*H*	*0.051*	0.022	*0.0059*
33213-65-9	*Endosulfan II*	*0.953*	*H*	*0.051*	0.040	*0.0067*
1031-07-8	*Endosulfan sulfate*	*0.961*	*H*	*0.051*	0.018	*0.0050*
72-20-8	*Endrin*	*0.997*	*H*	*0.051*	0.024	*0.0087*
7421-93-4	*Endrin aldehyde*	*1.00*	*H*	*0.051*	0.024	*0.0088*
53494-70-5	*Endrin ketone*	*0.971*	*H*	*0.051*	0.035	*0.013*
58-89-9	*gamma-BHC (Lindane)*	*1.01*	*H*	*0.051*	0.031	*0.010*
5103-74-2	*gamma-Chlordane*	*0.948*	*H*	*0.051*	0.030	*0.0072*
76-44-8	*Heptachlor*	*0.905*	*H*	*0.051*	0.051	*0.010*
1024-57-3	*Heptachlor epoxide*	*0.952*	*H*	*0.051*	0.036	*0.0032*
72-43-5	*Methoxychlor*	*0.943*	*H*	*0.10*	0.036	*0.014*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	68		33-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516014.D
Lims ID: 280-191098-F-1-B MSD RE
Client ID: DET-003-240401-GW
Sample Type: MSD
Inject. Date: 16-May-2024 14:07:17 ALS Bottle#: 14 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-F-1-B MSD
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:42:24 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						198.1	
2						176.4	
						RPD = 11.59	
* 2 1-Bromo-2-nitrobenzene							
1	3.228	3.228	0.000	154153491	75.0	75.0	
2	2.813	2.813	0.000	151011062	75.0	75.0	
4 Propachlor							
1		4.041				ND	
2		4.339					
$ 3 Tetrachloro-m-xylene							
1	4.568	4.567	0.001	19377663	10.0	6.79	
2	3.776	3.775	0.001	17319616	10.0	6.27	
						RPD = 7.87	
5 Diallate							
1		4.683				ND	
2		4.040					
14 2,4,5-Trichlorophenol							
1	4.862	4.866	-0.004	822442		NC	
2	4.777	4.769	0.008	1521936		NC	
						RPD = 0.00	
7 alpha-BHC							
1	4.905	4.903	0.002	195363060	50.0	49.1	
2	4.300	4.298	0.002	172909439	50.0	43.4	
						RPD = 12.47	
6 Hexachlorobenzene							
1	4.970	4.968	0.002	132203941	50.0	39.1	
2	4.209	4.208	0.001	121242487	50.0	36.0	
						RPD = 8.18	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
8 gamma-BHC (Lindane)							
1	5.178	5.176	0.002	164461373	50.0	49.8	
2	4.583	4.582	0.001	144795065	50.0	44.3	
						RPD = 11.62	
11 beta-BHC							
1	5.415	5.413	0.002	69527854	50.0	47.3	
2	4.752	4.752	0.000	62709858	50.0	43.8	
						RPD = 7.77	
10 Technical Chlordane							
1		5.534				ND	
1		6.124					
1		7.002					
1		7.113					
1		8.009					
2		4.713					
2		5.187					
2		5.733					
2		5.761					
2		6.928					
9 Chlordane (technical)							
1		5.534				ND	
1		6.124					
1		7.002					
1		7.113					
1		8.009					
2		4.713					
2		5.187					
2		5.733					
2		5.761					
2		6.928					
13 delta-BHC							
1	5.668	5.665	0.003	179270197	50.0	51.9	
2	4.955	4.954	0.001	151245470	50.0	44.9	
						RPD = 14.32	
12 Heptachlor							
1	5.749	5.745	0.004	134690612	50.0	44.7	
2	4.841	4.840	0.001	110007533	50.0	42.3	
						RPD = 5.52	
16 Chlorpyrifos							
1		5.989				ND	
2		5.175					
15 Aldrin							
1	6.112	6.109	0.003	139756249	50.0	36.4	
2	5.068	5.067	0.001	123620568	50.0	33.9	
						RPD = 7.11	
17 Isodrin							
1	6.510	6.508	0.002	5915215		2.01	
2	5.404	5.402	0.002	5202323		1.88	
						RPD = 6.52	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
19 Heptachlor epoxide							
1	6.635	6.633	0.002	149199358	50.0	47.0	
2	5.519	5.517	0.002	127693815	50.0	44.6	
						RPD = 5.28	
21 2,4'-DDE							
1		6.822				ND	
2		5.749					
22 Toxaphene							
1		6.894				ND	
1		7.581					
1		8.006					
1		8.267					
1		9.302					
2		6.217					
2		6.634					
2		6.920					
2		7.796					
2		8.160					
20 trans-Chlordane							
1	7.004	7.003	0.001	160335407	50.0	46.8	
2	5.734	5.732	0.002	137695339	50.0	43.6	
						RPD = 7.03	
23 cis-Chlordane							
1	7.062	7.061	0.001	153651344	50.0	47.3	
2	5.839	5.837	0.002	136832521	50.0	44.0	
						RPD = 7.30	
24 Endosulfan I							
1	7.104	7.103	0.001	136724476	50.0	45.7	
2	5.890	5.889	0.001	120295375	50.0	43.6	
						RPD = 4.70	
25 4,4'-DDE							
1	7.237	7.234	0.003	156096493	50.0	50.4	
2	6.066	6.064	0.002	136327246	50.0	46.5	
						RPD = 8.16	
27 2,4'-DDD							
1		7.343				ND	
2		6.312					
26 Dieldrin							
1	7.396	7.393	0.003	158612314	50.0	47.1	
2	6.220	6.217	0.003	138476384	50.0	45.3	
						RPD = 3.84	
28 Chlorobenzilate							
1		7.509				ND	
2		6.429					
29 Endrin							
1	7.650	7.648	0.002	129846486	50.0	49.2	
2	6.591	6.589	0.002	116856157	50.0	47.1	
						RPD = 4.36	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
30 2,4'-DDT							
1		7.686				ND	
2		6.646					
32 4,4'-DDD							
1	7.807	7.806	0.001	108335588	50.0	53.3	
2	6.747	6.746	0.001	88440998	50.0	49.8	
						RPD = 6.78	
31 Kepone							
1		7.897				ND	
2		6.718					
33 Endosulfan II							
1	7.934	7.933	0.001	125014419	50.0	47.1	
2	6.889	6.888	0.001	114745988	50.0	45.4	
						RPD = 3.70	
35 Endrin aldehyde							
1	8.052	8.050	0.002	89196805	50.0	49.5	
2	7.155	7.153	0.002	84018214	50.0	47.9	
						RPD = 3.26	
34 4,4'-DDT							
1	8.136	8.134	0.002	98545889	50.0	52.5	
2	7.065	7.063	0.002	81577718	50.0	49.6	
						RPD = 5.70	
18 Dicofol							
1		8.140				ND	
2		8.544					
36 Endosulfan sulfate							
1	8.350	8.348	0.002	115519680	50.0	47.5	
2	7.374	7.372	0.002	116098729	50.0	46.6	
						RPD = 1.80	
37 Methoxychlor							
1	8.604	8.603	0.001	47092314	50.0	46.6	
2	7.830	7.829	0.001	37138414	50.0	45.0	
						RPD = 3.51	
38 Endrin ketone							
1	8.813	8.811	0.002	115420854	50.0	48.0	
2	8.018	8.016	0.002	107321098	50.0	47.6	
						RPD = 0.81	
39 Mirex							
1	9.453	9.450	0.003	86750090	50.0	39.4	
2	8.130	8.128	0.002	89320811	50.0	42.5	
						RPD = 7.59	
$ 40 DCB Decachlorobiphenyl							
1	11.061	11.059	0.002	12984959	10.0	4.32	
2	9.255	9.252	0.003	12340419	10.0	5.19	
						RPD = 18.33	
41 Tris(2,3-dibromopropyl)phosphate							
1		12.000				ND	
2		12.279					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 42 Endosulfan, Total							
1						140.3	
2						135.6	
						RPD = 3.38	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

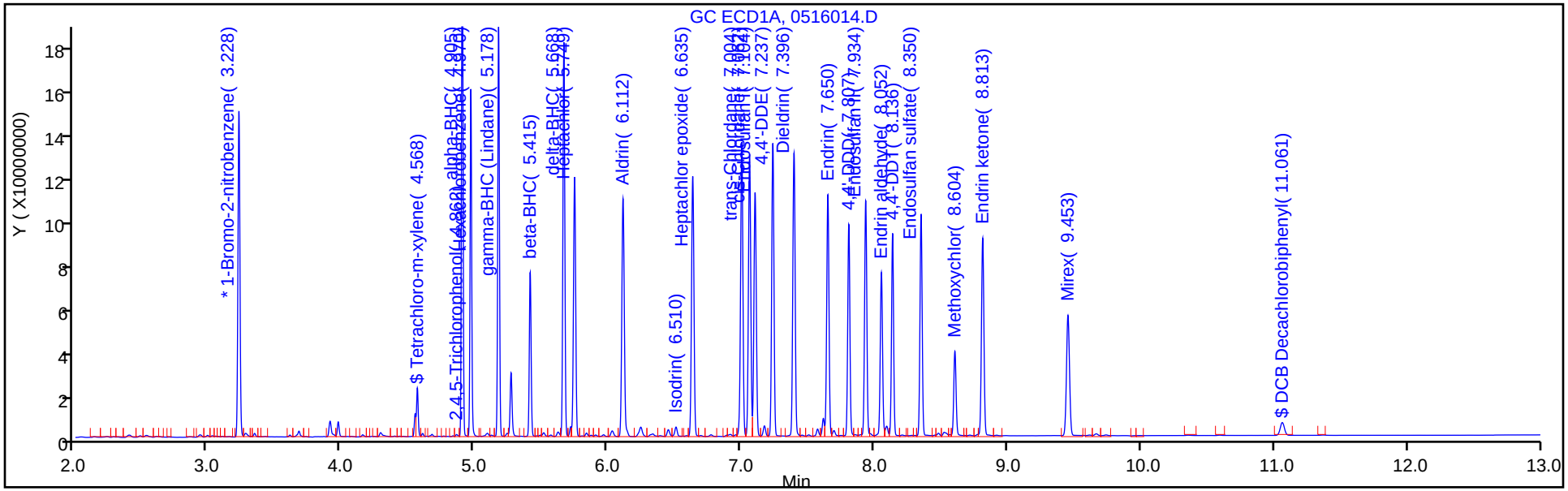
Report Date: 16-May-2024 14:43:17 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

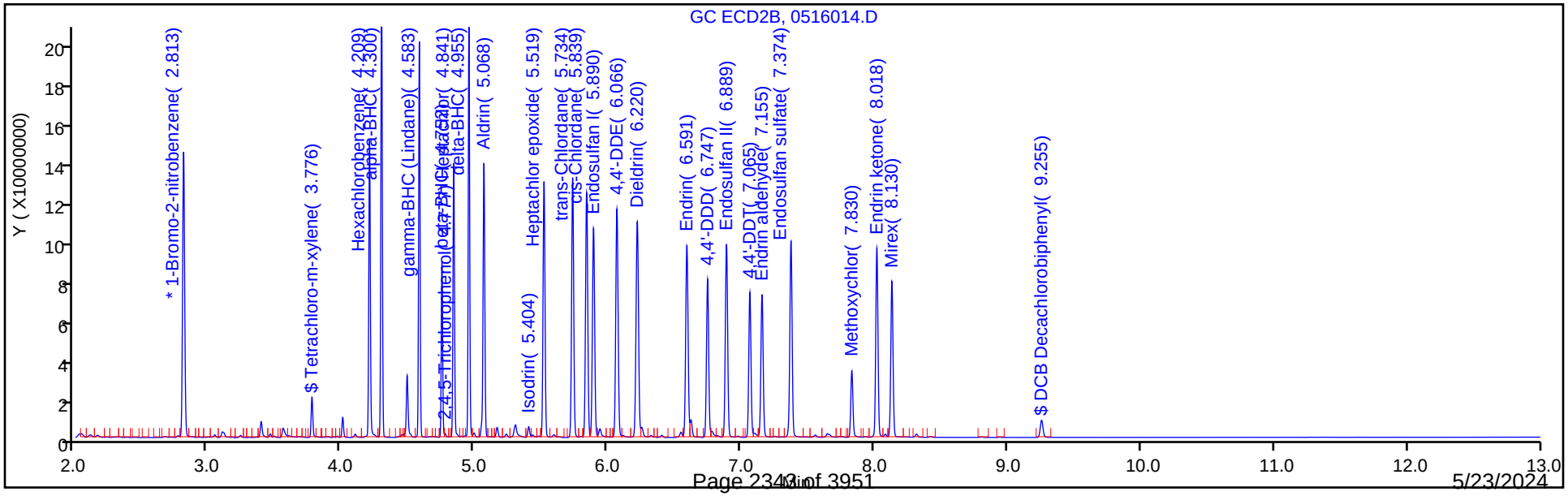
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516014.D

Injection Date:	16-May-2024 14:07:17	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	280-191098-F-1-B MSD RE			Worklist Smp#:	13
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516014.D				
Lims ID:	280-191098-F-1-B MSD RE				
Client ID:	DET-003-240401-GW				
Sample Type:	MSD				
Inject. Date:	16-May-2024 14:07:17	ALS Bottle#:	14	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-F-1-B MSD				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	16-May-2024 14:42:24	Calib Date:	16-May-2024 11:45:09		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1676				

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	6.79	67.87
$ 40 DCB Decachlorobiphenyl	10.0	4.32	43.21

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	6.27	62.73
$ 40 DCB Decachlorobiphenyl	10.0	5.19	51.93

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MSD RE | Lab Sample ID: 280-191098-1 MSD RE

Matrix: Water | Lab File ID: 0516014.D

Analysis Method: 8081B | Date Collected: 05/06/2024 10:16

Extraction Method: 3510C | Date Extracted: 05/15/2024 10:49

Sample wt/vol: 247(mL) | Date Analyzed: 05/16/2024 14:07

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTI-35silms ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653635 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	52		34-122

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516014.D
Lims ID: 280-191098-F-1-B MSD RE
Client ID: DET-003-240401-GW
Sample Type: MSD
Inject. Date: 16-May-2024 14:07:17 ALS Bottle#: 14 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-F-1-B MSD
Operator ID: mw Instrument ID: SGC_C

Method: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m
Limit Group: GCSV - 8081B LVI - IS
Last Update: 16-May-2024 14:42:24 Calib Date: 16-May-2024 11:45:09
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D

Column 1 : RTI-XLB Chlorinated Pesticides (0.32 mm) Det: GC ECD1A
Column 2 : RTI-35silms Chlorinated Pesticides (0.32 mm) Det: GC ECD2B
Process Host: CTX1676

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 1 Hexachlorocyclohexane, technical							
1						198.1	
2						176.4	
						RPD = 11.59	
* 2 1-Bromo-2-nitrobenzene							
1	3.228	3.228	0.000	154153491	75.0	75.0	
2	2.813	2.813	0.000	151011062	75.0	75.0	
4 Propachlor							
1		4.041				ND	
2		4.339					
$ 3 Tetrachloro-m-xylene							
1	4.568	4.567	0.001	19377663	10.0	6.79	
2	3.776	3.775	0.001	17319616	10.0	6.27	
						RPD = 7.87	
5 Diallate							
1		4.683				ND	
2		4.040					
14 2,4,5-Trichlorophenol							
1	4.862	4.866	-0.004	822442		NC	
2	4.777	4.769	0.008	1521936		NC	
						RPD = 0.00	
7 alpha-BHC							
1	4.905	4.903	0.002	195363060	50.0	49.1	
2	4.300	4.298	0.002	172909439	50.0	43.4	
						RPD = 12.47	
6 Hexachlorobenzene							
1	4.970	4.968	0.002	132203941	50.0	39.1	
2	4.209	4.208	0.001	121242487	50.0	36.0	
						RPD = 8.18	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
8 gamma-BHC (Lindane)							
1	5.178	5.176	0.002	164461373	50.0	49.8	
2	4.583	4.582	0.001	144795065	50.0	44.3	
						RPD = 11.62	
11 beta-BHC							
1	5.415	5.413	0.002	69527854	50.0	47.3	
2	4.752	4.752	0.000	62709858	50.0	43.8	
						RPD = 7.77	
10 Technical Chlordane							
1		5.534				ND	
1		6.124					
1		7.002					
1		7.113					
1		8.009					
2		4.713					
2		5.187					
2		5.733					
2		5.761					
2		6.928					
9 Chlordane (technical)							
1		5.534				ND	
1		6.124					
1		7.002					
1		7.113					
1		8.009					
2		4.713					
2		5.187					
2		5.733					
2		5.761					
2		6.928					
13 delta-BHC							
1	5.668	5.665	0.003	179270197	50.0	51.9	
2	4.955	4.954	0.001	151245470	50.0	44.9	
						RPD = 14.32	
12 Heptachlor							
1	5.749	5.745	0.004	134690612	50.0	44.7	
2	4.841	4.840	0.001	110007533	50.0	42.3	
						RPD = 5.52	
16 Chlorpyrifos							
1		5.989				ND	
2		5.175					
15 Aldrin							
1	6.112	6.109	0.003	139756249	50.0	36.4	
2	5.068	5.067	0.001	123620568	50.0	33.9	
						RPD = 7.11	
17 Isodrin							
1	6.510	6.508	0.002	5915215		2.01	
2	5.404	5.402	0.002	5202323		1.88	
						RPD = 6.52	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
19 Heptachlor epoxide							
1	6.635	6.633	0.002	149199358	50.0	47.0	
2	5.519	5.517	0.002	127693815	50.0	44.6	
						RPD = 5.28	
21 2,4'-DDE							
1		6.822				ND	
2		5.749					
22 Toxaphene							
1		6.894				ND	
1		7.581					
1		8.006					
1		8.267					
1		9.302					
2		6.217					
2		6.634					
2		6.920					
2		7.796					
2		8.160					
20 trans-Chlordane							
1	7.004	7.003	0.001	160335407	50.0	46.8	
2	5.734	5.732	0.002	137695339	50.0	43.6	
						RPD = 7.03	
23 cis-Chlordane							
1	7.062	7.061	0.001	153651344	50.0	47.3	
2	5.839	5.837	0.002	136832521	50.0	44.0	
						RPD = 7.30	
24 Endosulfan I							
1	7.104	7.103	0.001	136724476	50.0	45.7	
2	5.890	5.889	0.001	120295375	50.0	43.6	
						RPD = 4.70	
25 4,4'-DDE							
1	7.237	7.234	0.003	156096493	50.0	50.4	
2	6.066	6.064	0.002	136327246	50.0	46.5	
						RPD = 8.16	
27 2,4'-DDD							
1		7.343				ND	
2		6.312					
26 Dieldrin							
1	7.396	7.393	0.003	158612314	50.0	47.1	
2	6.220	6.217	0.003	138476384	50.0	45.3	
						RPD = 3.84	
28 Chlorobenzilate							
1		7.509				ND	
2		6.429					
29 Endrin							
1	7.650	7.648	0.002	129846486	50.0	49.2	
2	6.591	6.589	0.002	116856157	50.0	47.1	
						RPD = 4.36	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
30 2,4'-DDT							
1		7.686				ND	
2		6.646					
32 4,4'-DDD							
1	7.807	7.806	0.001	108335588	50.0	53.3	
2	6.747	6.746	0.001	88440998	50.0	49.8	
						RPD = 6.78	
31 Kepone							
1		7.897				ND	
2		6.718					
33 Endosulfan II							
1	7.934	7.933	0.001	125014419	50.0	47.1	
2	6.889	6.888	0.001	114745988	50.0	45.4	
						RPD = 3.70	
35 Endrin aldehyde							
1	8.052	8.050	0.002	89196805	50.0	49.5	
2	7.155	7.153	0.002	84018214	50.0	47.9	
						RPD = 3.26	
34 4,4'-DDT							
1	8.136	8.134	0.002	98545889	50.0	52.5	
2	7.065	7.063	0.002	81577718	50.0	49.6	
						RPD = 5.70	
18 Dicofol							
1		8.140				ND	
2		8.544					
36 Endosulfan sulfate							
1	8.350	8.348	0.002	115519680	50.0	47.5	
2	7.374	7.372	0.002	116098729	50.0	46.6	
						RPD = 1.80	
37 Methoxychlor							
1	8.604	8.603	0.001	47092314	50.0	46.6	
2	7.830	7.829	0.001	37138414	50.0	45.0	
						RPD = 3.51	
38 Endrin ketone							
1	8.813	8.811	0.002	115420854	50.0	48.0	
2	8.018	8.016	0.002	107321098	50.0	47.6	
						RPD = 0.81	
39 Mirex							
1	9.453	9.450	0.003	86750090	50.0	39.4	
2	8.130	8.128	0.002	89320811	50.0	42.5	
						RPD = 7.59	
$ 40 DCB Decachlorobiphenyl							
1	11.061	11.059	0.002	12984959	10.0	4.32	
2	9.255	9.252	0.003	12340419	10.0	5.19	
						RPD = 18.33	
41 Tris(2,3-dibromopropyl)phosphate							
1		12.000				ND	
2		12.279					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/mL	OnCol Amt ng/mL	Flags
S 42 Endosulfan, Total							
1						140.3	
2						135.6	
						RPD = 3.38	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

8081_IS_00023 Amount Added: 20.00 Units: uL Run Reagent

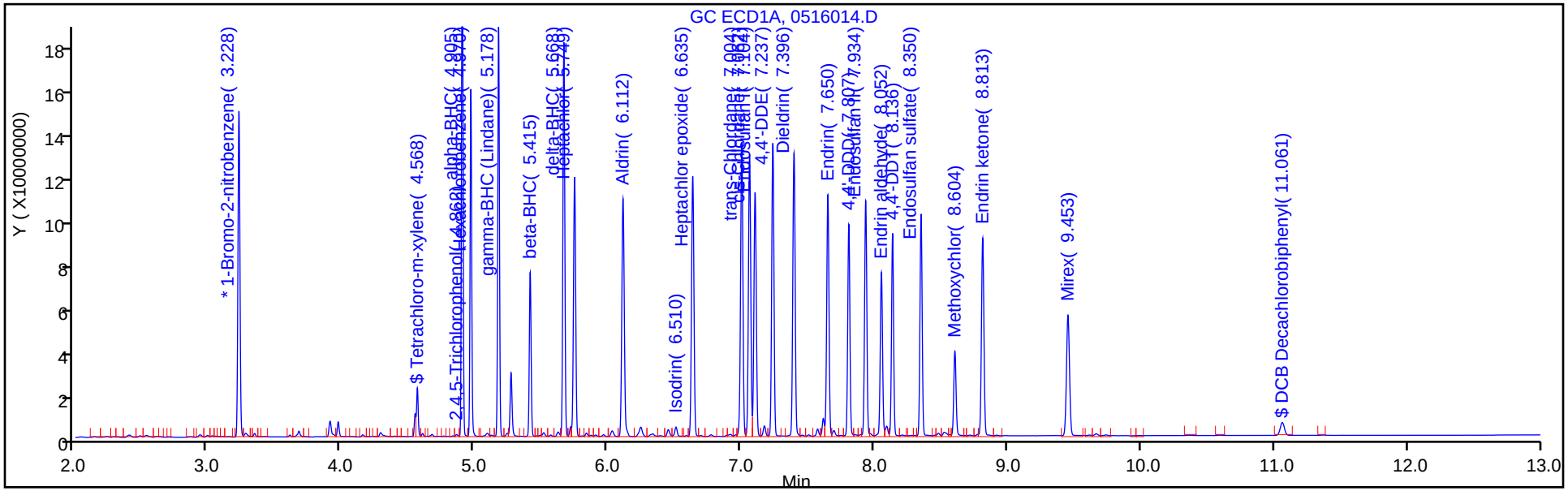
Report Date: 16-May-2024 14:43:17 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

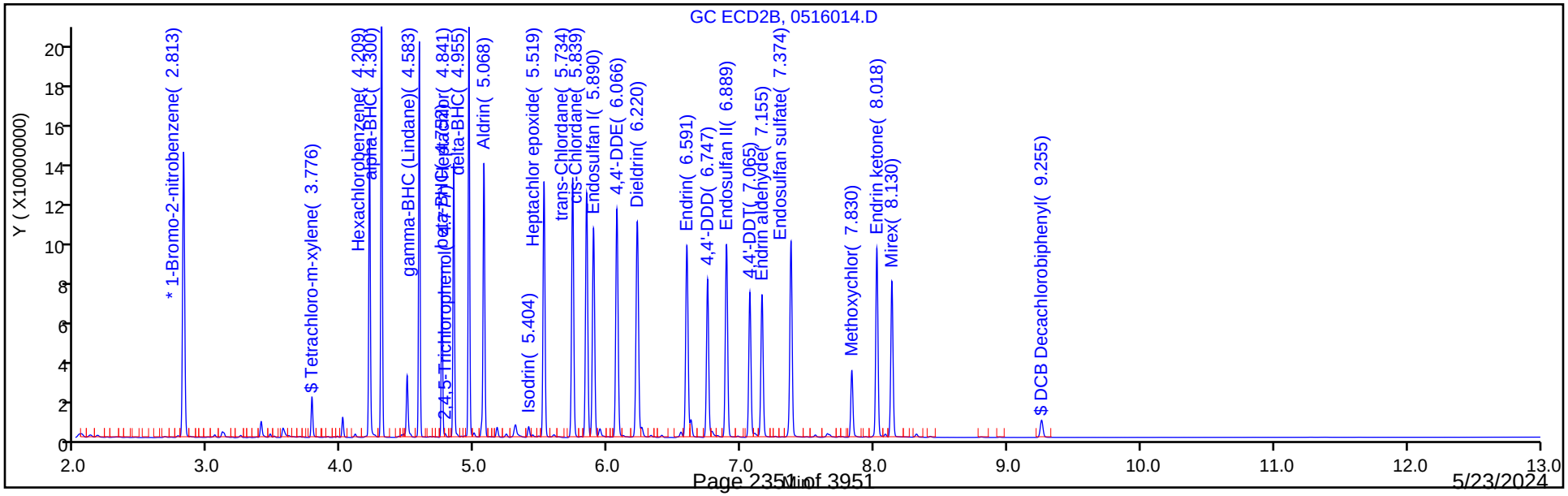
Data File: \\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516014.D

Injection Date:	16-May-2024 14:07:17	Instrument ID:	SGC_C	Operator ID:	mw
Lims ID:	280-191098-F-1-B MSD RE			Worklist Smp#:	13
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	C 8081 IS LVI	Limit Group:	GCSV - 8081B LVI - IS		

Column: RTI-XLB Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



Column: RTI-35silms Chlorinated Pesticides (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516014.D				
Lims ID:	280-191098-F-1-B MSD RE				
Client ID:	DET-003-240401-GW				
Sample Type:	MSD				
Inject. Date:	16-May-2024 14:07:17	ALS Bottle#:	14	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-F-1-B MSD				
Operator ID:	mw	Instrument ID:	SGC_C		
Method:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\C 8081 IS LVI.m				
Limit Group:	GCSV - 8081B LVI - IS				
Last Update:	16-May-2024 14:42:24	Calib Date:	16-May-2024 11:45:09		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_C\20240516-133454.b\0516006.D				
Column 1 :	RTI-XLB Chlorinated Pesticides (0.32 mm)		Det: GC ECD1A		
Column 2 :	RTI-35silms Chlorinated Pesticides (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1676				

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	6.79	67.87
$ 40 DCB Decachlorobiphenyl	10.0	4.32	43.21

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 3 Tetrachloro-m-xylene	10.0	6.27	62.73
$ 40 DCB Decachlorobiphenyl	10.0	5.19	51.93

PESTICIDES ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_C Start Date: 05/09/2024 16:30

Analysis Batch Number: 652720 End Date: 05/09/2024 20:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PEM 280-652720/3		05/09/2024 16:30	1		RTI-XLB 0.32(mm)
PEM 280-652720/3		05/09/2024 16:30	1		RTI-35silms 0.32(mm)
STD8 280-652720/4 IC		05/09/2024 16:48	1		RTI-XLB 0.32(mm)
STD8 280-652720/4 IC		05/09/2024 16:48	1		RTI-35silms 0.32(mm)
STD7 280-652720/5 IC		05/09/2024 17:06	1		RTI-XLB 0.32(mm)
STD7 280-652720/5 IC		05/09/2024 17:06	1		RTI-35silms 0.32(mm)
ICIS 280-652720/6		05/09/2024 17:24	1	0509006.D	RTI-XLB 0.32(mm)
ICIS 280-652720/6		05/09/2024 17:24	1	0509006.D	RTI-35silms 0.32(mm)
STD5 280-652720/7 IC		05/09/2024 17:41	1		RTI-XLB 0.32(mm)
STD5 280-652720/7 IC		05/09/2024 17:41	1		RTI-35silms 0.32(mm)
STD4 280-652720/8 IC		05/09/2024 17:59	1		RTI-XLB 0.32(mm)
STD4 280-652720/8 IC		05/09/2024 17:59	1		RTI-35silms 0.32(mm)
STD3 280-652720/9 IC		05/09/2024 18:17	1		RTI-XLB 0.32(mm)
STD3 280-652720/9 IC		05/09/2024 18:17	1		RTI-35silms 0.32(mm)
STD2 280-652720/10 IC		05/09/2024 18:35	1		RTI-XLB 0.32(mm)
STD2 280-652720/10 IC		05/09/2024 18:35	1		RTI-35silms 0.32(mm)
STD1 280-652720/11 IC		05/09/2024 18:53	1		RTI-XLB 0.32(mm)
STD1 280-652720/11 IC		05/09/2024 18:53	1		RTI-35silms 0.32(mm)
ICV 280-652720/12		05/09/2024 19:10	1	0509012.D	RTI-XLB 0.32(mm)
ICV 280-652720/12		05/09/2024 19:10	1	0509012.D	RTI-35silms 0.32(mm)
CCVIS 280-652720/13		05/09/2024 19:28	1		RTI-XLB 0.32(mm)
CCVIS 280-652720/13		05/09/2024 19:28	1		RTI-35silms 0.32(mm)
STD4 280-652720/14 IC		05/09/2024 19:46	1		RTI-XLB 0.32(mm)
STD4 280-652720/14 IC		05/09/2024 19:46	1		RTI-35silms 0.32(mm)
STD3 280-652720/15 IC		05/09/2024 20:04	1		RTI-XLB 0.32(mm)
STD3 280-652720/15 IC		05/09/2024 20:04	1		RTI-35silms 0.32(mm)
ZZZZZ		05/09/2024 20:21	10		RTI-XLB 0.32(mm)
ZZZZZ		05/09/2024 20:21	10		RTI-35silms 0.32(mm)
CCV 280-652720/18		05/09/2024 20:57	1		RTI-XLB 0.32(mm)
CCV 280-652720/18		05/09/2024 20:57	1		RTI-35silms 0.32(mm)

PESTICIDES ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_C Start Date: 05/10/2024 13:37

Analysis Batch Number: 652967 End Date: 05/10/2024 20:08

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PEM 280-652967/3		05/10/2024 13:37	1		RTI-XLB 0.32(mm)
PEM 280-652967/3		05/10/2024 13:37	1		RTI-35silms 0.32(mm)
STD7 280-652967/4 IC		05/10/2024 13:54	1	0510004.D	RTI-XLB 0.32(mm)
STD7 280-652967/4 IC		05/10/2024 13:54	1	0510004.D	RTI-35silms 0.32(mm)
STD6 280-652967/5 IC		05/10/2024 14:12	1	0510005.D	RTI-XLB 0.32(mm)
STD6 280-652967/5 IC		05/10/2024 14:12	1	0510005.D	RTI-35silms 0.32(mm)
ICIS 280-652967/6		05/10/2024 14:30	1	0510006.D	RTI-XLB 0.32(mm)
ICIS 280-652967/6		05/10/2024 14:30	1	0510006.D	RTI-35silms 0.32(mm)
STD4 280-652967/7 IC		05/10/2024 14:48	1	0510007.D	RTI-XLB 0.32(mm)
STD4 280-652967/7 IC		05/10/2024 14:48	1	0510007.D	RTI-35silms 0.32(mm)
STD3 280-652967/8 IC		05/10/2024 15:06	1	0510008.D	RTI-XLB 0.32(mm)
STD3 280-652967/8 IC		05/10/2024 15:06	1	0510008.D	RTI-35silms 0.32(mm)
STD2 280-652967/9 IC		05/10/2024 15:24	1	0510009.D	RTI-XLB 0.32(mm)
STD2 280-652967/9 IC		05/10/2024 15:24	1	0510009.D	RTI-35silms 0.32(mm)
STD1 280-652967/10 IC		05/10/2024 15:41	1	0510010.D	RTI-XLB 0.32(mm)
STD1 280-652967/10 IC		05/10/2024 15:41	1	0510010.D	RTI-35silms 0.32(mm)
ICV 280-652967/11		05/10/2024 15:59	1	0510011.D	RTI-XLB 0.32(mm)
ICV 280-652967/11		05/10/2024 15:59	1	0510011.D	RTI-35silms 0.32(mm)
CCV 280-652967/12		05/10/2024 16:17	1		RTI-XLB 0.32(mm)
CCV 280-652967/12		05/10/2024 16:17	1		RTI-35silms 0.32(mm)
STD4 280-652967/13 IC		05/10/2024 16:35	1		RTI-XLB 0.32(mm)
STD4 280-652967/13 IC		05/10/2024 16:35	1		RTI-35silms 0.32(mm)
STD3 280-652967/14 IC		05/10/2024 16:53	1		RTI-XLB 0.32(mm)
STD3 280-652967/14 IC		05/10/2024 16:53	1		RTI-35silms 0.32(mm)
CCV 280-652967/19		05/10/2024 18:22	1		RTI-XLB 0.32(mm)
CCV 280-652967/19		05/10/2024 18:22	1		RTI-35silms 0.32(mm)
CCV 280-652967/20		05/10/2024 18:39	1		RTI-XLB 0.32(mm)
CCV 280-652967/20		05/10/2024 18:39	1		RTI-35silms 0.32(mm)
ZZZZZ		05/10/2024 18:57	1		RTI-XLB 0.32(mm)
ZZZZZ		05/10/2024 18:57	1		RTI-35silms 0.32(mm)
ZZZZZ		05/10/2024 19:15	1		RTI-XLB 0.32(mm)
ZZZZZ		05/10/2024 19:15	1		RTI-35silms 0.32(mm)
ZZZZZ		05/10/2024 19:33	1		RTI-XLB 0.32(mm)
ZZZZZ		05/10/2024 19:33	1		RTI-35silms 0.32(mm)
ZZZZZ		05/10/2024 19:51	1		RTI-XLB 0.32(mm)
ZZZZZ		05/10/2024 19:51	1		RTI-35silms 0.32(mm)
ZZZZZ		05/10/2024 20:08	1		RTI-XLB 0.32(mm)
ZZZZZ		05/10/2024 20:08	1		RTI-35silms 0.32(mm)

PESTICIDES ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_C Start Date: 05/13/2024 11:14

Analysis Batch Number: 653121 End Date: 05/13/2024 21:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PEM 280-653121/3		05/13/2024 11:14	1	0513003.D	RTI-XLB 0.32(mm)
PEM 280-653121/3		05/13/2024 11:14	1	0513003.D	RTI-35silms 0.32(mm)
CCVIS 280-653121/4		05/13/2024 11:32	1	0513004.D	RTI-XLB 0.32(mm)
CCVIS 280-653121/4		05/13/2024 11:32	1	0513004.D	RTI-35silms 0.32(mm)
CCV 280-653121/5		05/13/2024 11:49	1		RTI-XLB 0.32(mm)
CCV 280-653121/5		05/13/2024 11:49	1		RTI-35silms 0.32(mm)
STD4 280-653121/6 IC		05/13/2024 12:07	1	0513006.D	RTI-XLB 0.32(mm)
STD4 280-653121/6 IC		05/13/2024 12:07	1	0513006.D	RTI-35silms 0.32(mm)
STD3 280-653121/7 IC		05/13/2024 12:25	1	0513007.D	RTI-XLB 0.32(mm)
STD3 280-653121/7 IC		05/13/2024 12:25	1	0513007.D	RTI-35silms 0.32(mm)
MB 280-652915/1-A		05/13/2024 12:43	1	0513008.D	RTI-XLB 0.32(mm)
MB 280-652915/1-A		05/13/2024 12:43	1	0513008.D	RTI-35silms 0.32(mm)
LCS 280-652915/2-A		05/13/2024 13:01	1	0513009.D	RTI-XLB 0.32(mm)
LCS 280-652915/2-A		05/13/2024 13:01	1	0513009.D	RTI-35silms 0.32(mm)
LCSD 280-652915/3-A		05/13/2024 13:18	1	0513010.D	RTI-XLB 0.32(mm)
LCSD 280-652915/3-A		05/13/2024 13:18	1	0513010.D	RTI-35silms 0.32(mm)
LCS 280-652915/6-A		05/13/2024 13:36	1	0513011.D	RTI-XLB 0.32(mm)
LCS 280-652915/6-A		05/13/2024 13:36	1	0513011.D	RTI-35silms 0.32(mm)
LCSD 280-652915/7-A		05/13/2024 13:54	1	0513012.D	RTI-XLB 0.32(mm)
LCSD 280-652915/7-A		05/13/2024 13:54	1	0513012.D	RTI-35silms 0.32(mm)
ZZZZZ		05/13/2024 14:12	1		RTI-XLB 0.32(mm)
ZZZZZ		05/13/2024 14:12	1		RTI-35silms 0.32(mm)
ZZZZZ		05/13/2024 14:30	1		RTI-XLB 0.32(mm)
ZZZZZ		05/13/2024 14:30	1		RTI-35silms 0.32(mm)
ZZZZZ		05/13/2024 14:47	1		RTI-XLB 0.32(mm)
ZZZZZ		05/13/2024 14:47	1		RTI-35silms 0.32(mm)
ZZZZZ		05/13/2024 15:05	1		RTI-XLB 0.32(mm)
ZZZZZ		05/13/2024 15:05	1		RTI-35silms 0.32(mm)
ZZZZZ		05/13/2024 15:23	1		RTI-XLB 0.32(mm)
ZZZZZ		05/13/2024 15:23	1		RTI-35silms 0.32(mm)
ZZZZZ		05/13/2024 15:41	1		RTI-XLB 0.32(mm)
ZZZZZ		05/13/2024 15:41	1		RTI-35silms 0.32(mm)
280-191098-1	DET-003-240401-GW	05/13/2024 15:59	1	0513019.D	RTI-XLB 0.32(mm)
280-191098-1	DET-003-240401-GW	05/13/2024 15:59	1	0513019.D	RTI-35silms 0.32(mm)
280-191098-1 MS	DET-003-240401-GW MS	05/13/2024 16:17	1	0513020.D	RTI-XLB 0.32(mm)
280-191098-1 MS	DET-003-240401-GW MS	05/13/2024 16:17	1	0513020.D	RTI-35silms 0.32(mm)
280-191098-1 MSD	DET-003-240401-GW MSD	05/13/2024 16:34	1	0513021.D	RTI-XLB 0.32(mm)
280-191098-1 MSD	DET-003-240401-GW MSD	05/13/2024 16:34	1	0513021.D	RTI-35silms 0.32(mm)
280-191098-1 MS	DET-003-240401-GW MS	05/13/2024 16:52	1	0513022.D	RTI-XLB 0.32(mm)
280-191098-1 MS	DET-003-240401-GW MS	05/13/2024 16:52	1	0513022.D	RTI-35silms 0.32(mm)
280-191098-1 MSD	DET-003-240401-GW MSD	05/13/2024 17:10	1	0513023.D	RTI-XLB 0.32(mm)
280-191098-1 MSD	DET-003-240401-GW MSD	05/13/2024 17:10	1	0513023.D	RTI-35silms 0.32(mm)
280-191098-2	DET-003-240402-GW	05/13/2024 17:28	1	0513024.D	RTI-XLB 0.32(mm)
280-191098-2	DET-003-240402-GW	05/13/2024 17:28	1	0513024.D	RTI-35silms 0.32(mm)
280-191098-5	DET-004-240401-GW	05/13/2024 17:46	1	0513025.D	RTI-XLB 0.32(mm)

PESTICIDES ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_C Start Date: 05/13/2024 11:14

Analysis Batch Number: 653121 End Date: 05/13/2024 21:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
280-191098-5	DET-004-240401-GW	05/13/2024 17:46	1	0513025.D	RTI-35silms 0.32(mm)
ZZZZZ		05/13/2024 18:03	1		RTI-XLB 0.32(mm)
ZZZZZ		05/13/2024 18:03	1		RTI-35silms 0.32(mm)
CCV 280-653121/27		05/13/2024 18:21	1	0513027.D	RTI-XLB 0.32(mm)
CCV 280-653121/27		05/13/2024 18:21	1	0513027.D	RTI-35silms 0.32(mm)
ZZZZZ		05/13/2024 18:39	1		RTI-XLB 0.32(mm)
ZZZZZ		05/13/2024 18:39	1		RTI-35silms 0.32(mm)
ZZZZZ		05/13/2024 18:57	1		RTI-XLB 0.32(mm)
ZZZZZ		05/13/2024 18:57	1		RTI-35silms 0.32(mm)
ZZZZZ		05/13/2024 19:15	1		RTI-XLB 0.32(mm)
ZZZZZ		05/13/2024 19:15	1		RTI-35silms 0.32(mm)
ZZZZZ		05/13/2024 19:33	1		RTI-XLB 0.32(mm)
ZZZZZ		05/13/2024 19:33	1		RTI-35silms 0.32(mm)
ZZZZZ		05/13/2024 19:50	1		RTI-XLB 0.32(mm)
ZZZZZ		05/13/2024 19:50	1		RTI-35silms 0.32(mm)
ZZZZZ		05/13/2024 20:08	1		RTI-XLB 0.32(mm)
ZZZZZ		05/13/2024 20:08	1		RTI-35silms 0.32(mm)
ZZZZZ		05/13/2024 20:26	1		RTI-XLB 0.32(mm)
ZZZZZ		05/13/2024 20:26	1		RTI-35silms 0.32(mm)
ZZZZZ		05/13/2024 20:44	1		RTI-XLB 0.32(mm)
ZZZZZ		05/13/2024 20:44	1		RTI-35silms 0.32(mm)
ZZZZZ		05/13/2024 21:02	1		RTI-XLB 0.32(mm)
ZZZZZ		05/13/2024 21:02	1		RTI-35silms 0.32(mm)
CCV 280-653121/37		05/13/2024 21:20	1		RTI-XLB 0.32(mm)
CCV 280-653121/37		05/13/2024 21:20	1		RTI-35silms 0.32(mm)

PESTICIDES ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_C Start Date: 05/16/2024 10:51

Analysis Batch Number: 653635 End Date: 05/16/2024 14:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PEM 280-653635/3		05/16/2024 10:51	1	0516003.D	RTI-XLB 0.32(mm)
PEM 280-653635/3		05/16/2024 10:51	1	0516003.D	RTI-35silms 0.32(mm)
CCVIS 280-653635/4		05/16/2024 11:09	1	0516004.D	RTI-XLB 0.32(mm)
CCVIS 280-653635/4		05/16/2024 11:09	1	0516004.D	RTI-35silms 0.32(mm)
STD4 280-653635/5 IC		05/16/2024 11:27	1	0516005.D	RTI-XLB 0.32(mm)
STD4 280-653635/5 IC		05/16/2024 11:27	1	0516005.D	RTI-35silms 0.32(mm)
STD3 280-653635/6 IC		05/16/2024 11:45	1	0516006.D	RTI-XLB 0.32(mm)
STD3 280-653635/6 IC		05/16/2024 11:45	1	0516006.D	RTI-35silms 0.32(mm)
MB 280-653452/1-A RE		05/16/2024 12:38	1	0516009.D	RTI-XLB 0.32(mm)
MB 280-653452/1-A RE		05/16/2024 12:38	1	0516009.D	RTI-35silms 0.32(mm)
LCS 280-653452/2-A RE		05/16/2024 12:56	1	0516010.D	RTI-XLB 0.32(mm)
LCS 280-653452/2-A RE		05/16/2024 12:56	1	0516010.D	RTI-35silms 0.32(mm)
LCSD 280-653452/3-A RE		05/16/2024 13:14	1	0516011.D	RTI-XLB 0.32(mm)
LCSD 280-653452/3-A RE		05/16/2024 13:14	1	0516011.D	RTI-35silms 0.32(mm)
280-191098-1 RE	DET-003-240401-GW RE	05/16/2024 13:31	1	0516012.D	RTI-XLB 0.32(mm)
280-191098-1 RE	DET-003-240401-GW RE	05/16/2024 13:31	1	0516012.D	RTI-35silms 0.32(mm)
280-191098-1 MS RE	DET-003-240401-GW MS RE	05/16/2024 13:49	1	0516013.D	RTI-XLB 0.32(mm)
280-191098-1 MS RE	DET-003-240401-GW MS RE	05/16/2024 13:49	1	0516013.D	RTI-35silms 0.32(mm)
280-191098-1 MSD RE	DET-003-240401-GW MSD RE	05/16/2024 14:07	1	0516014.D	RTI-XLB 0.32(mm)
280-191098-1 MSD RE	DET-003-240401-GW MSD RE	05/16/2024 14:07	1	0516014.D	RTI-35silms 0.32(mm)
CCV 280-653635/14		05/16/2024 14:25	1	0516015.D	RTI-XLB 0.32(mm)
CCV 280-653635/14		05/16/2024 14:25	1	0516015.D	RTI-35silms 0.32(mm)

PESTICIDES BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 652720 Batch Start Date: 05/09/24 16:30 Batch Analyst: Quince, Sierra M

Batch Method: 8081B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	8081_IS 00023	8081AP9ICV 00006	8081AP9L5 00016		
ICIS 280-652720/6		8081B			1 mL	20 uL		200 uL		
ICV 280-652720/12		8081B			1 mL	20 uL	200 uL			

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PESTICIDES BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 652915 Batch Start Date: 05/10/24 11:46 Batch Analyst: Najera, Diego

Batch Method: 3510C Batch End Date: 05/10/24 15:47

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	ReceivedpH	8081 LCS 00724
MB 280-652915/1		3510C, 8081B					250 mL	5 mL	5 SU	
LCS 280-652915/2		3510C, 8081B					250 mL	5 mL	5 SU	0.5 mL
LCSD 280-652915/3		3510C, 8081B					250 mL	5 mL	5 SU	0.5 mL
LCS 280-652915/6		3510C, 8081B					250 mL	5 mL	5 SU	
LCSD 280-652915/7		3510C, 8081B					250 mL	5 mL	5 SU	
280-191098-D-1	DET-003-240401-GW	3510C, 8081B	Water	T	423.3 g	182.0 g	241.3 mL	5 mL	6 SU	
280-191098-I-1 MS	DET-003-240401-GW	3510C, 8081B	Water	T	424.6 g	178.2 g	246.4 mL	5 mL	6 SU	0.5 mL
280-191098-G-1 MSD	DET-003-240401-GW	3510C, 8081B	Water	T	428.8 g	179.6 g	249.2 mL	5 mL	6 SU	0.5 mL
280-191098-G-1 MS	DET-003-240401-GW	3510C, 8081B	Water	T	427.0 g	182.2 g	244.8 mL	5 mL	7 SU	
280-191098-D-1 MSD	DET-003-240401-GW	3510C, 8081B	Water	T	425.9 g	179.2 g	246.7 mL	5 mL	6 SU	
280-191098-F-2	DET-003-240402-GW	3510C, 8081B	Water	T	423.4 g	178.9 g	244.5 mL	5 mL	6 SU	
280-191098-D-5	DET-004-240401-GW	3510C, 8081B	Water	T	415.5 g	177.7 g	237.8 mL	5 mL	6 SU	

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	8081/82 Surr 00162	8081Toxaphene 00068				
MB 280-652915/1		3510C, 8081B			0.25 mL					
LCS 280-652915/2		3510C, 8081B			0.25 mL					
LCSD 280-652915/3		3510C, 8081B			0.25 mL					
LCS 280-652915/6		3510C, 8081B			0.25 mL	0.25 mL				
LCSD 280-652915/7		3510C, 8081B			0.25 mL	0.25 mL				
280-191098-D-1	DET-003-240401-GW	3510C, 8081B	Water	T	0.25 mL					
280-191098-I-1 MS	DET-003-240401-GW	3510C, 8081B	Water	T	0.25 mL					
280-191098-G-1 MSD	DET-003-240401-GW	3510C, 8081B	Water	T	0.25 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PESTICIDES BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 652915 Batch Start Date: 05/10/24 11:46 Batch Analyst: Najera, Diego

Batch Method: 3510C Batch End Date: 05/10/24 15:47

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	8081/82 Surr 00162	8081Toxaphene 00068				
280-191098-G-1 MS	DET-003-240401-GW	3510C, 8081B	Water	T	0.25 mL	0.25 mL				
280-191098-D-1 MSD	DET-003-240401-GW	3510C, 8081B	Water	T	0.25 mL	0.25 mL				
280-191098-F-2	DET-003-240402-GW	3510C, 8081B	Water	T	0.25 mL					
280-191098-D-5	DET-004-240401-GW	3510C, 8081B	Water	T	0.25 mL					

Batch Notes	
Method/Fraction	3510C_LVI/8081/8082
Balance ID	834419814
Balance is Level? (Y/N)	yes
pH Indicator ID	HC318548
Pipette/Syringe/Dispenser ID	Nexia
Analyst ID - Extraction	DN
Analyst ID - Spike Analyst	DN
Analyst ID - Spike Witness Analyst	REVIEWER:GS
Sufficient Volume for Batch QC	YES
NaCl ID	Baked_NaCl_00029
Prep Solvent ID	Mecl2_Cycl_00637
Prep Solvent Volume Used	90 mL
Glass Wool ID	Glass_Wool_OP_00005
Na2SO4 ID	Na2SO4_00151
Analyst ID - Concentration	DN
Equipment ID - Concentration 1	TV1 , TV3 , TV2 , UTME
Concentration 1 Uncorrected Temperature	40 , 40 , 40 , 40 Degrees C
Concentration 1 Corrected Temperature	39.7 , 39.8 , 39.9 , 39.2 Degrees C
Exchange Solvent ID	Hexane_Cycl_00087
Pipette Tip Lot ID	B10705329S
Batch Comment	DV-OP-0006/0007 ; TROLL @ 5.00 mL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PESTICIDES BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 652915 Batch Start Date: 05/10/24 11:46 Batch Analyst: Najera, Diego

Batch Method: 3510C Batch End Date: 05/10/24 15:47

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PESTICIDES BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 652967 Batch Start Date: 05/10/24 13:37 Batch Analyst: Quince, Sierra M

Batch Method: 8081B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	8081_IS 00023	8081ABICVL3 00059	8081icalL0.5 00002	8081IcalL1 00047	8081IcalL2 00047
STD7 280-652967/4 IC		8081B			1 mL	20 uL				
STD6 280-652967/5 IC		8081B			1 mL	20 uL				
ICIS 280-652967/6		8081B			1 mL	20 uL				
STD4 280-652967/7 IC		8081B			1 mL	20 uL				
STD3 280-652967/8 IC		8081B			1 mL	20 uL				200 uL
STD2 280-652967/9 IC		8081B			1 mL	20 uL			200 uL	
STD1 280-652967/10 IC		8081B			1 mL	20 uL		200 uL		
ICV 280-652967/11		8081B			1 mL	20 uL	200 uL			

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	8081IcalL3 00051	8081IcalL4 00073	8081IcalL5 00048	8081IcalL6 00049		
STD7 280-652967/4 IC		8081B						200 uL		
STD6 280-652967/5 IC		8081B					200 uL			
ICIS 280-652967/6		8081B				200 uL				
STD4 280-652967/7 IC		8081B			200 uL					
STD3 280-652967/8 IC		8081B								
STD2 280-652967/9 IC		8081B								
STD1 280-652967/10 IC		8081B								
ICV 280-652967/11		8081B								

Batch Notes	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PESTICIDES BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 652967 Batch Start Date: 05/10/24 13:37 Batch Analyst: Quince, Sierra M

Batch Method: 8081B Batch End Date:

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PESTICIDES BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 653452 Batch Start Date: 05/15/24 10:49 Batch Analyst: Najera, Diego

Batch Method: 3510C Batch End Date: 05/15/24 13:21

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	ReceivedpH	8081 LCS 00724
MB 280-653452/1		3510C, 8081B					250 mL	5 mL	5 SU	
LCS 280-653452/2		3510C, 8081B					250 mL	5 mL	5 SU	0.5 mL
LCSD 280-653452/3		3510C, 8081B					250 mL	5 mL	5 SU	0.5 mL
280-191098-I-1	DET-003-240401-GW	3510C, 8081B	Water	T	447.8 g	179.8 g	268 mL	5 mL	6 SU	
280-191098-H-1 MS	DET-003-240401-GW	3510C, 8081B	Water	T	425.5 g	178.2 g	247.3 mL	5 mL	6 SU	0.5 mL
280-191098-F-1 MSD	DET-003-240401-GW	3510C, 8081B	Water	T	424.9 g	177.9 g	247 mL	5 mL	6 SU	0.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	8081/82 Surr 00162					
MB 280-653452/1		3510C, 8081B			0.25 mL					
LCS 280-653452/2		3510C, 8081B			0.25 mL					
LCSD 280-653452/3		3510C, 8081B			0.25 mL					
280-191098-I-1	DET-003-240401-GW	3510C, 8081B	Water	T	0.25 mL					
280-191098-H-1 MS	DET-003-240401-GW	3510C, 8081B	Water	T	0.25 mL					
280-191098-F-1 MSD	DET-003-240401-GW	3510C, 8081B	Water	T	0.25 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PESTICIDES BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 653452 Batch Start Date: 05/15/24 10:49 Batch Analyst: Najera, Diego

Batch Method: 3510C Batch End Date: 05/15/24 13:21

Batch Notes	
Method/Fraction	3510C_LVI/8081/8082
Balance ID	834419820
Balance is Level? (Y/N)	yes
pH Indicator ID	HC329089
Pipette/Syringe/Dispenser ID	Nexia
Analyst ID - Extraction	DN, GS (trainers), ZS (trainee)
Analyst ID - Spike Analyst	DN
Analyst ID - Spike Witness Analyst	REVIEWER:EW
Sufficient Volume for Batch QC	YES(81)
NaCl ID	Baked_NaCl_00029
Prep Solvent ID	Mecl2_Cycl_00637
Prep Solvent Volume Used	90 mL
Glass Wool ID	Glass_Wool_OP_00005
Na2SO4 ID	Na2SO4_00150
Analyst ID - Concentration	GS
Equipment ID - Concentration 1	TV 1, 2
Concentration 1 Uncorrected Temperature	40, 40 Degrees C
Concentration 1 Corrected Temperature	39.7, 39.9 Degrees C
Exchange Solvent ID	Hexane_Cycl_00088
Pipette Tip Lot ID	B10705329S
Batch Comment	DV-OP-0006/0007 Troll @ 5.00 mL

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8082A_DOD5

Polychlorinated Biphenyls (PCBs) by Gas Chromatography

FORM II
PCBS SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): CLP1 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	TCX1	#	DCBP1	#
DET-003-240401-GW	280-191098-1	97		37	
DET-003-240402-GW	280-191098-2	88		53	M
DET-004-240401-GW	280-191098-5	79		48	M
	MB 280-652915/1-A	93		68	M
	LCS 280-652915/4-A	81		81	M
	LCSD 280-652915/5-A	90		72	M
DET-003-240401-GW MS	280-191098-1 MS	82		68	
DET-003-240401-GW MSD	280-191098-1 MSD	83		57	M

	QC LIMITS
TCX = Tetrachloro-m-xylene	25-120
DCBP = DCB Decachlorobiphenyl	30-136

Column to be used to flag recovery values

FORM II 8082A

FORM III
PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0513033.D

Lab ID: LCS 280-652915/4-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
PCB-1016	2.00	2.15	107	46-129	
PCB-1260	2.00	2.23	111	45-134	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
PCBS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0513034.D

Lab ID: LCSD 280-652915/5-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
PCB-1016	2.00	2.29	115	6	30	46-129	
PCB-1260	2.00	2.39	119	7	30	45-134	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
PCBS MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0513036.D

Lab ID: 280-191098-1 MS Client ID: DET-003-240401-GW MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
PCB-1016	2.02	0.62 U	2.36	117	46-129	
PCB-1260	2.02	0.31 U	2.31	114	45-134	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
PCBS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0513037.D

Lab ID: 280-191098-1 MSD Client ID: DET-003-240401-GW MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
PCB-1016	2.02	2.56	127	8	30	46-129	
PCB-1260	2.02	2.43	121	5	30	45-134	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM IV
PCBS METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: MB 280-652915/1-A

Matrix: Water Date Extracted: 05/10/2024 11:46

Lab File ID:(1) 0513032.D Lab File ID:(2) 0513032.D

Date Analyzed:(1) 05/13/2024 18:26 Date Analyzed:(2) 05/13/2024 18:26

Instrument ID:(1) SGC_J Instrument ID:(2) SGC_J

GC Column:(1) CLP1 ID: 0.32(mm) GC Column:(2) CLP2 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 280-652915/4-A	05/13/2024 18:43	05/13/2024 18:43
	LCSD 280-652915/5-A	05/13/2024 19:00	05/13/2024 19:00
DET-003-240401-GW	280-191098-1	05/13/2024 19:16	05/13/2024 19:16
DET-003-240401-GW MS	280-191098-1 MS	05/13/2024 19:33	05/13/2024 19:33
DET-003-240401-GW MSD	280-191098-1 MSD	05/13/2024 19:50	05/13/2024 19:50
DET-003-240402-GW	280-191098-2	05/13/2024 20:07	05/13/2024 20:07
DET-004-240401-GW	280-191098-5	05/13/2024 20:23	05/13/2024 20:23

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Sample No.: ICIS 280-646944/6 Date Analyzed: 03/25/2024 10:54

Instrument ID: SGC_J GC Column: CLP1 ID: 0.32(mm)

Lab File ID (Standard): 0325006.D Heated Purge: (Y/N) N

Calibration ID: 91433

		BNB					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MID-POINT		92655166	2.83				
UPPER LIMIT		185310332	3.33				
LOWER LIMIT		46327583	2.33				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-646944/11		93917251	2.83				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Sample No.: ICIS 280-646944/6 Date Analyzed: 03/25/2024 10:54

Instrument ID: SGC_J GC Column: CLP2 ID: 0.32(mm)

Lab File ID (Standard): 0325006.D Heated Purge: (Y/N) N

Calibration ID: 91434

		BNB					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MID-POINT		103331114	2.77				
UPPER LIMIT		206662228	3.27				
LOWER LIMIT		51665557	2.27				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-646944/11		105670663	2.77				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Sample No.: CCVIS 280-653123/4 Date Analyzed: 05/13/2024 10:35

Instrument ID: SGC_J GC Column: CLP1 ID: 0.32(mm)

Lab File ID (Standard): 0513004.D Heated Purge: (Y/N) N

Calibration ID: 93235

		BNB					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		94250210	2.83				
UPPER LIMIT		188500420	3.33				
LOWER LIMIT		47125105	2.33				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 280-653123/31		105505779	2.83				
MB 280-652915/1-A		91401394	2.83				
LCS 280-652915/4-A		90320968	2.83				
LCSD 280-652915/5-A		85732617	2.83				
280-191098-1	DET-003-240401-GW	85883436	2.83				
280-191098-1 MS	DET-003-240401-GW MS	83403641	2.83				
280-191098-1 MSD	DET-003-240401-GW MSD	81217923	2.83				
280-191098-2	DET-003-240402-GW	89477526	2.83				
280-191098-5	DET-004-240401-GW	88336439	2.83				
CCV 280-653123/40		111934509	2.83				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Sample No.: CCVIS 280-653123/4 Date Analyzed: 05/13/2024 10:35

Instrument ID: SGC_J GC Column: CLP2 ID: 0.32(mm)

Lab File ID (Standard): 0513004.D Heated Purge: (Y/N) N

Calibration ID: 93236

		BNB					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		101845043	2.77				
UPPER LIMIT		203690086	3.27				
LOWER LIMIT		50922522	2.27				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 280-653123/31		115051479	2.77				
MB 280-652915/1-A		96897212	2.77				
LCS 280-652915/4-A		94145381	2.77				
LCSD 280-652915/5-A		89475846	2.77				
280-191098-1	DET-003-240401-GW	89326440	2.77				
280-191098-1 MS	DET-003-240401-GW MS	86640282	2.77				
280-191098-1 MSD	DET-003-240401-GW MSD	84112684	2.77				
280-191098-2	DET-003-240402-GW	91821987	2.77				
280-191098-5	DET-004-240401-GW	91088354	2.77				
CCV 280-653123/40		117364678	2.77				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MS Lab Sample ID: 280-191098-1 MS

Instrument ID (1): SGC_J Instrument ID (2): SGC_J

Date Analyzed (1): 05/13/2024 19:33 Date Analyzed (2): 05/13/2024 19:33

GC Column (1): CLP1 ID: 0.32(mm) GC Column (2): CLP2 ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1016	1	1	3.95	3.93	3.98	2.17	2.36	9.4
		2	4.27	4.25	4.30	2.33		
		3	4.71	4.68	4.73	2.28		
		4	4.83	4.80	4.85	2.13		
		5	5.24	5.21	5.26	2.87		
	2	1	4.09	4.07	4.12	2.16	2.15	
		2	4.45	4.42	4.47	2.12		
		3	4.87	4.84	4.89	2.14		
		4	5.00	4.97	5.02	2.14		
		5	5.47	5.44	5.49	2.17		
PCB-1260	1	1	6.56	6.53	6.58	2.30	2.31	2.8
		2	6.89	6.86	6.91	2.35		
		3	7.22	7.20	7.25	2.37		
		4	8.06	8.03	8.08	2.26		
		5	8.42	8.40	8.45	2.29		
	2	1	6.88	6.85	6.90	2.04	2.25	
		2	7.13	7.10	7.15	2.36		
		3	7.57	7.54	7.59	2.37		
		4	8.39	8.36	8.41	2.24		
		5	8.86	8.84	8.89	2.23		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MSD Lab Sample ID: 280-191098-1 MSD

Instrument ID (1): SGC_J Instrument ID (2): SGC_J

Date Analyzed (1): 05/13/2024 19:50 Date Analyzed (2): 05/13/2024 19:50

GC Column (1): CLP1 ID: 0.32(mm) GC Column (2): CLP2 ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1016	1	1	3.95	3.93	3.98	2.37	2.56	10.3
		2	4.27	4.25	4.30	2.53		
		3	4.70	4.68	4.73	2.38		
		4	4.83	4.80	4.85	2.30		
		5	5.23	5.21	5.26	3.20		
	2	1	4.09	4.07	4.12	2.44	2.31	
		2	4.45	4.42	4.47	2.25		
		3	4.87	4.84	4.89	2.25		
		4	5.00	4.97	5.02	2.27		
		5	5.46	5.44	5.49	2.31		
PCB-1260	1	1	6.56	6.53	6.58	2.42	2.43	3.3
		2	6.89	6.86	6.91	2.47		
		3	7.22	7.20	7.25	2.50		
		4	8.06	8.03	8.08	2.37		
		5	8.42	8.40	8.45	2.41		
	2	1	6.87	6.85	6.90	2.15	2.36	
		2	7.13	7.10	7.15	2.48		
		3	7.57	7.54	7.59	2.50		
		4	8.39	8.36	8.41	2.34		
		5	8.86	8.84	8.89	2.31		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-652915/4-A

Instrument ID (1): SGC_J | Instrument ID (2): SGC_J

Date Analyzed (1): 05/13/2024 18:43 | Date Analyzed (2): 05/13/2024 18:43

GC Column (1): CLP1 ID: 0.32(mm) | GC Column (2): CLP2 ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1016	1	1	3.95	3.93	3.98	2.04	2.15	8.9
		2	4.27	4.25	4.30	2.20		
		3	4.71	4.68	4.73	2.06		
		4	4.83	4.80	4.85	1.94		
		5	5.23	5.21	5.26	2.50		
	2	1	4.09	4.07	4.12	2.02	1.97	
		2	4.45	4.42	4.47	1.91		
		3	4.87	4.84	4.89	1.96		
		4	5.00	4.97	5.02	1.95		
		5	5.47	5.44	5.49	1.99		
PCB-1260	1	1	6.56	6.53	6.58	2.16	2.23	3.8
		2	6.89	6.86	6.91	2.20		
		3	7.22	7.20	7.25	2.26		
		4	8.06	8.03	8.08	2.25		
		5	8.43	8.40	8.45	2.28		
	2	1	6.88	6.85	6.90	1.89	2.14	
		2	7.13	7.10	7.15	2.18		
		3	7.57	7.54	7.59	2.22		
		4	8.39	8.36	8.41	2.19		
		5	8.86	8.84	8.89	2.24		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 280-652915/5-A

Instrument ID (1): SGC_J Instrument ID (2): SGC_J

Date Analyzed (1): 05/13/2024 19:00 Date Analyzed (2): 05/13/2024 19:00

GC Column (1): CLP1 ID: 0.32(mm) GC Column (2): CLP2 ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1016	1	1	3.95	3.93	3.98	2.19	2.29	5.8
		2	4.27	4.25	4.30	2.37		
		3	4.70	4.68	4.73	2.22		
		4	4.83	4.80	4.85	2.16		
		5	5.23	5.21	5.26	2.51		
	2	1	4.09	4.07	4.12	2.18	2.16	
		2	4.45	4.42	4.47	2.13		
		3	4.87	4.84	4.89	2.12		
		4	5.00	4.97	5.02	2.15		
		5	5.46	5.44	5.49	2.23		
PCB-1260	1	1	6.56	6.53	6.58	2.31	2.39	3.0
		2	6.89	6.86	6.91	2.37		
		3	7.22	7.20	7.25	2.42		
		4	8.06	8.03	8.08	2.41		
		5	8.42	8.40	8.45	2.42		
	2	1	6.87	6.85	6.90	2.04	2.31	
		2	7.13	7.10	7.15	2.35		
		3	7.57	7.54	7.59	2.41		
		4	8.39	8.36	8.41	2.38		
		5	8.86	8.84	8.89	2.40		

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW Lab Sample ID: 280-191098-1

Matrix: Water Lab File ID: 0513035.D

Analysis Method: 8082A Date Collected: 05/06/2024 10:16

Extraction Method: 3510C Date Extracted: 05/10/2024 11:46

Sample wt/vol: 241.3(mL) Date Analyzed: 05/13/2024 19:16

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP1 ID: 0.32(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653123 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
12674-11-2	PCB-1016	0.62	U M	1.0	0.62	0.18
11104-28-2	PCB-1221	0.27	U	1.0	0.27	0.19
11141-16-5	PCB-1232	0.31	U	1.0	0.31	0.13
53469-21-9	PCB-1242	0.31	U	1.0	0.31	0.11
12672-29-6	PCB-1248	0.62	U	1.0	0.62	0.18
11097-69-1	PCB-1254	0.27	U	1.0	0.27	0.15
11096-82-5	PCB-1260	0.31	U	1.0	0.31	0.092

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	37		30-136
877-09-8	Tetrachloro-m-xylene	97		25-120

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513035.D
Lims ID: 280-191098-D-1-A
Client ID: DET-003-240401-GW
Sample Type: Client
Inject. Date: 13-May-2024 19:16:59 ALS Bottle#: 34 Worklist Smp#: 35
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-D-1-A
Operator ID: SMP Instrument ID: SGC_J

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:55:25 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 14-May-2024 09:24:14

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene						
1	2.826	2.824	0.002	85883436	100.0	
2	2.769	2.767	0.002	89326440	100.0	
					RPD = 0.00	
$ 14 Tetrachloro-m-xylene						
1	3.613	3.615	-0.002	10348173	9.73	
2	3.659	3.659	0.000	6865823	6.61	
					RPD = 38.16	
3 PCB-1221						
1		3.784			ND	
1		3.914				
1		3.950				
2		3.917				
2		4.040				
2		4.090				
7 PCB-1232						
1		3.950			ND	
1		4.270				
1		4.683				
1		4.830				
1		5.233				
2		4.090				
2		4.447				
2		4.870				
2		4.997				
2		5.913				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/ml	Flags
1 PCB-1016						U
1		3.952			ND	
1		4.272				
1		4.705				
1		4.829				
1		5.235				
2		4.092				
2		4.449				
2		4.869				
2		4.995				
2		5.462				
10 PCB-1242						
1		3.961			ND	
1		4.277				
1		4.694				
1		4.837				
1		5.681				
2		4.091				
2		4.447				
2		4.871				
2		4.997				
2		5.867				
4 PCB-1248						
1		4.270			ND	
1		4.683				
1		5.233				
1		5.670				
1		6.350				
2		4.853				
2		5.463				
2		5.590				
2		5.863				
2		6.163				
9 PCB-1254						
1		5.674			ND	
1		5.907				
1		6.350				
1		6.887				
1		7.224				
2		5.907				
2		6.117				
2		6.644				
2		6.914				
2		7.567				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/ml	Flags
12 PCB-1260						
1		6.559			ND	
1		6.885				
1		7.222				
1		8.059				
1		8.422				
2		6.872				
2		7.129				
2		7.565				
2		8.382				
2		8.862				
5 PCB-1262						
1		6.560			ND	
1		6.887				
1		7.363				
1		8.060				
1		8.470				
2		6.873				
2		7.683				
2		8.057				
2		8.383				
2		8.857				
13 PCB-1268						
1		8.481			ND	
1		8.531				
1		8.781				
1		9.254				
1		9.637				
2		8.854				
2		8.917				
2		9.251				
2		9.644				
2		10.044				
$ 15 DCB Decachlorobiphenyl						
1	9.866	9.865	0.001	3704230	3.69	
2	10.323	10.319	0.004	3556043	3.69	
					RPD = 0.06	
S 8 Polychlorinated biphenyls, Total						
1		0.000			ND	
2		0.000				

QC Flag Legend

Processing Flags

Review Flags

U - Marked Undetected

Reagents:

BNB IS_00027 Amount Added: 20.00 Units: uL Run Reagent

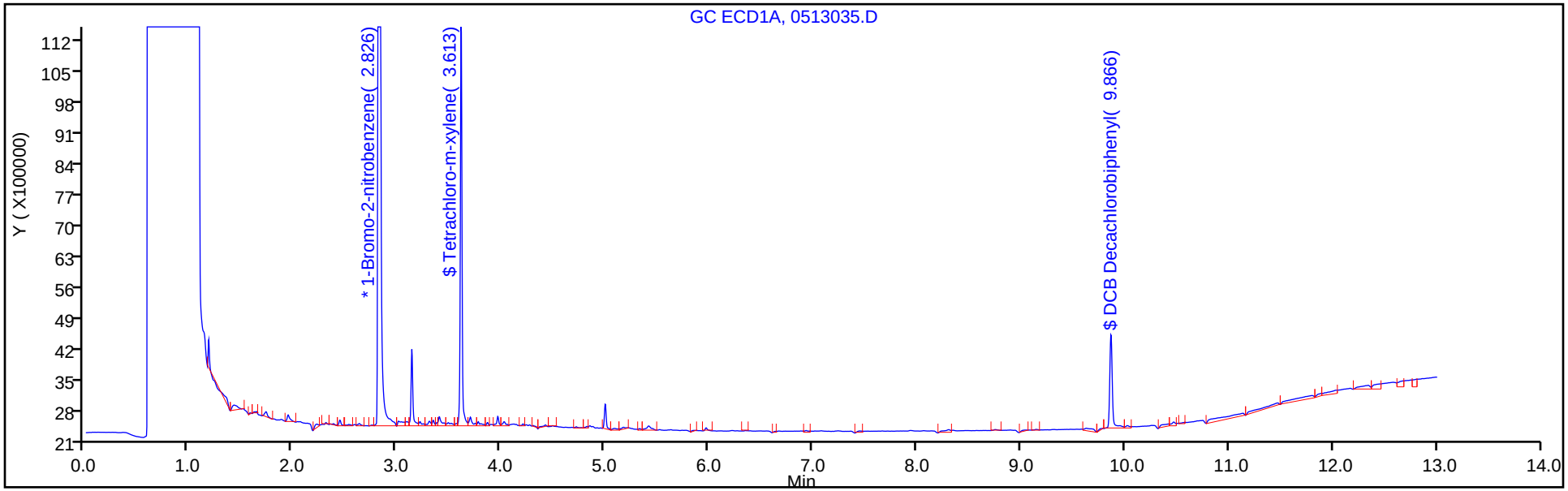
Report Date: 14-May-2024 12:55:42 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

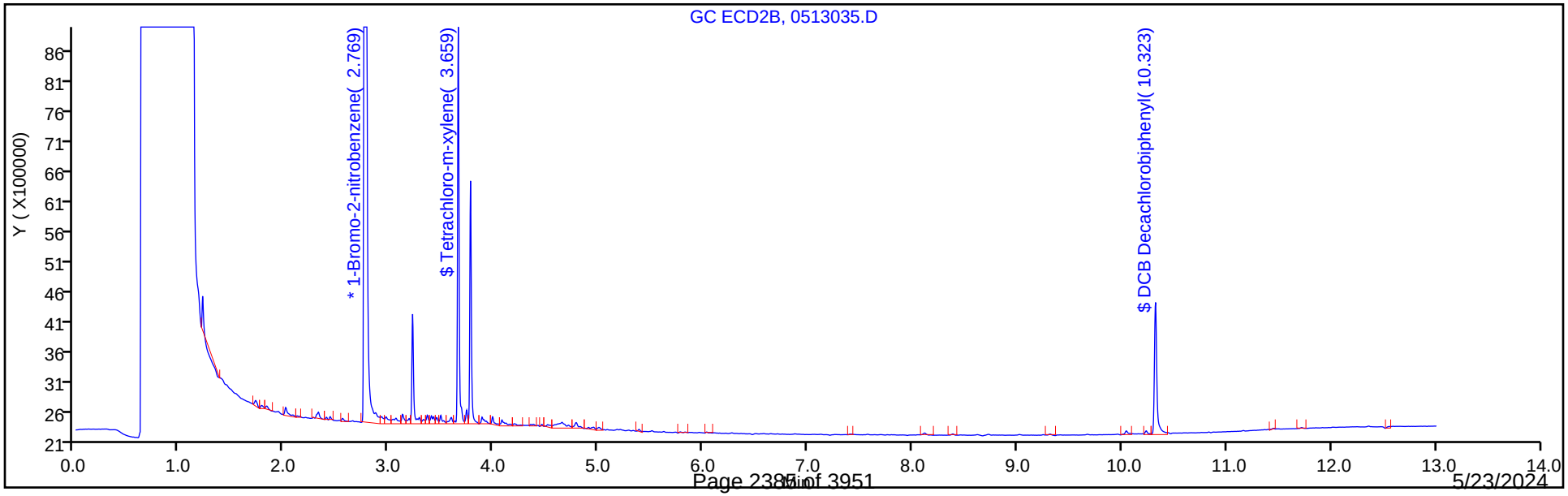
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513035.D

Injection Date:	13-May-2024 19:16:59	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	280-191098-D-1-A	Lab Sample ID:	280-191098-1	Worklist Smp#:	35
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	34
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513035.D				
Lims ID:	280-191098-D-1-A				
Client ID:	DET-003-240401-GW				
Sample Type:	Client				
Inject. Date:	13-May-2024 19:16:59	ALS Bottle#:	34	Worklist Smp#:	35
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-D-1-A				
Operator ID:	SMP	Instrument ID:	SGC_J		
Method:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m				
Limit Group:	GCSV - 8082A - IS				
Last Update:	14-May-2024 12:55:25	Calib Date:	13-May-2024 11:46:10		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D				
Column 1 :	CLP1 Pesticides Column 1 (0.32 mm)		Det: GC ECD1A		
Column 2 :	CLP2 Pesticides Column 2 (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1674				
First Level Reviewer:	USP3	Date:	14-May-2024 09:24:14		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 14 Tetrachloro-m-xylene	10.0	9.73	97.27
$ 15 DCB Decachlorobiphenyl	10.0	3.69	36.91

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 14 Tetrachloro-m-xylene	10.0	6.61	66.10
$ 15 DCB Decachlorobiphenyl	10.0	3.69	36.88

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240402-GW Lab Sample ID: 280-191098-2

Matrix: Water Lab File ID: 0513038.D

Analysis Method: 8082A Date Collected: 05/06/2024 10:16

Extraction Method: 3510C Date Extracted: 05/10/2024 11:46

Sample wt/vol: 244.5(mL) Date Analyzed: 05/13/2024 20:07

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP1 ID: 0.32(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653123 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
12674-11-2	PCB-1016	0.61	U	1.0	0.61	0.17
11104-28-2	PCB-1221	0.26	U	1.0	0.26	0.18
11141-16-5	PCB-1232	0.31	U	1.0	0.31	0.13
53469-21-9	PCB-1242	0.31	U	1.0	0.31	0.11
12672-29-6	PCB-1248	0.61	U	1.0	0.61	0.17
11097-69-1	PCB-1254	0.26	U	1.0	0.26	0.14
11096-82-5	PCB-1260	0.31	U	1.0	0.31	0.091

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	53	M	30-136
877-09-8	Tetrachloro-m-xylene	88		25-120

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513038.D
Lims ID: 280-191098-F-2-A
Client ID: DET-003-240402-GW
Sample Type: Client
Inject. Date: 13-May-2024 20:07:04 ALS Bottle#: 37 Worklist Smp#: 38
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-F-2-A
Operator ID: SMP Instrument ID: SGC_J

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:55:25 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 14-May-2024 09:27:27

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene						
1	2.827	2.824	0.003	89477526	100.0	
2	2.770	2.767	0.003	91821987	100.0	
					RPD = 0.00	
$ 14 Tetrachloro-m-xylene						
1	3.617	3.615	0.002	9786309	8.77	
2	3.660	3.659	0.001	6972729	6.53	
					RPD = 29.38	
3 PCB-1221						
1		3.784			ND	
1		3.914				
1		3.950				
2		3.917				
2		4.040				
2		4.090				
7 PCB-1232						
1		3.950			ND	
1		4.270				
1		4.683				
1		4.830				
1		5.233				
2		4.090				
2		4.447				
2		4.870				
2		4.997				
2		5.913				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/ml	Flags
1 PCB-1016						
1		3.952			ND	
1		4.272				
1		4.705				
1		4.829				
1		5.235				
2		4.092				
2		4.449				
2		4.869				
2		4.995				
2		5.462				
10 PCB-1242						
1		3.961			ND	
1		4.277				
1		4.694				
1		4.837				
1		5.681				
2		4.091				
2		4.447				
2		4.871				
2		4.997				
2		5.867				
4 PCB-1248						
1		4.270			ND	
1		4.683				
1		5.233				
1		5.670				
1		6.350				
2		4.853				
2		5.463				
2		5.590				
2		5.863				
2		6.163				
9 PCB-1254						
1		5.674			ND	
1		5.907				
1		6.350				
1		6.887				
1		7.224				
2		5.907				
2		6.117				
2		6.644				
2		6.914				
2		7.567				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/ml	Flags
12 PCB-1260						
1		6.559			ND	
1		6.885				
1		7.222				
1		8.059				
1		8.422				
2		6.872				
2		7.129				
2		7.565				
2		8.382				
2		8.862				
$ 15 DCB Decachlorobiphenyl						M
1	9.867	9.865	0.002	5506491	5.33	M
2	10.323	10.319	0.004	5405689	5.75	
					RPD = 7.56	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

BNB IS_00027 Amount Added: 20.00 Units: uL Run Reagent

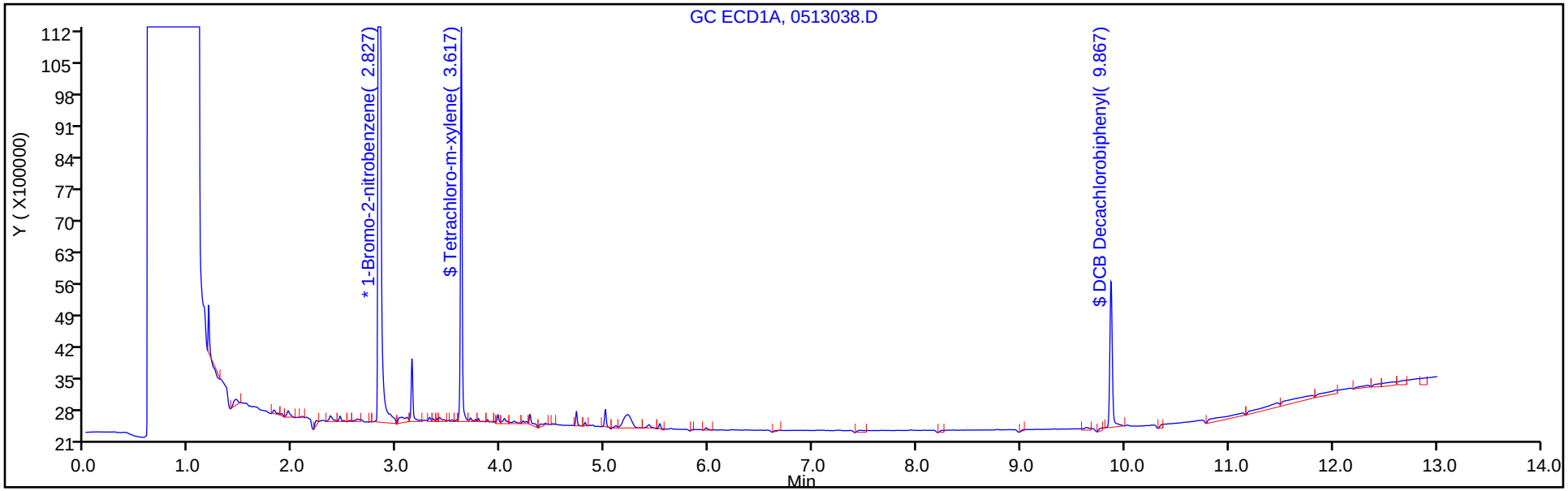
Report Date: 14-May-2024 12:55:53 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

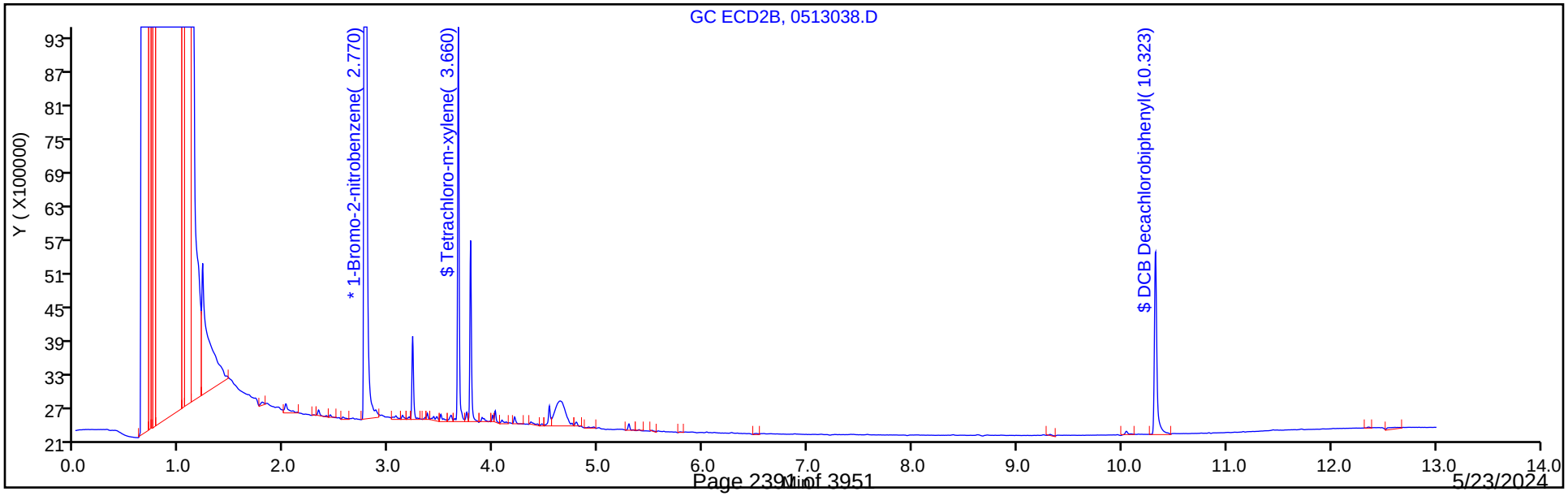
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513038.D

Injection Date:	13-May-2024 20:07:04	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	280-191098-F-2-A	Lab Sample ID:	280-191098-2	Worklist Smp#:	38
Client ID:	DET-003-240402-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	37
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



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Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513038.D				
Lims ID:	280-191098-F-2-A				
Client ID:	DET-003-240402-GW				
Sample Type:	Client				
Inject. Date:	13-May-2024 20:07:04	ALS Bottle#:	37	Worklist Smp#:	38
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-F-2-A				
Operator ID:	SMP	Instrument ID:	SGC_J		
Method:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m				
Limit Group:	GCSV - 8082A - IS				
Last Update:	14-May-2024 12:55:25	Calib Date:	13-May-2024 11:46:10		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D				
Column 1 :	CLP1 Pesticides Column 1 (0.32 mm)		Det: GC ECD1A		
Column 2 :	CLP2 Pesticides Column 2 (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1674				
First Level Reviewer:	USP3	Date:	14-May-2024 09:27:27		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 14 Tetrachloro-m-xylene	10.0	8.77	87.73
$ 15 DCB Decachlorobiphenyl	10.0	5.33	53.31

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 14 Tetrachloro-m-xylene	10.0	6.53	65.26
$ 15 DCB Decachlorobiphenyl	10.0	5.75	57.49

Manual Integration/User Assign Peak Report

Eurofins Denver

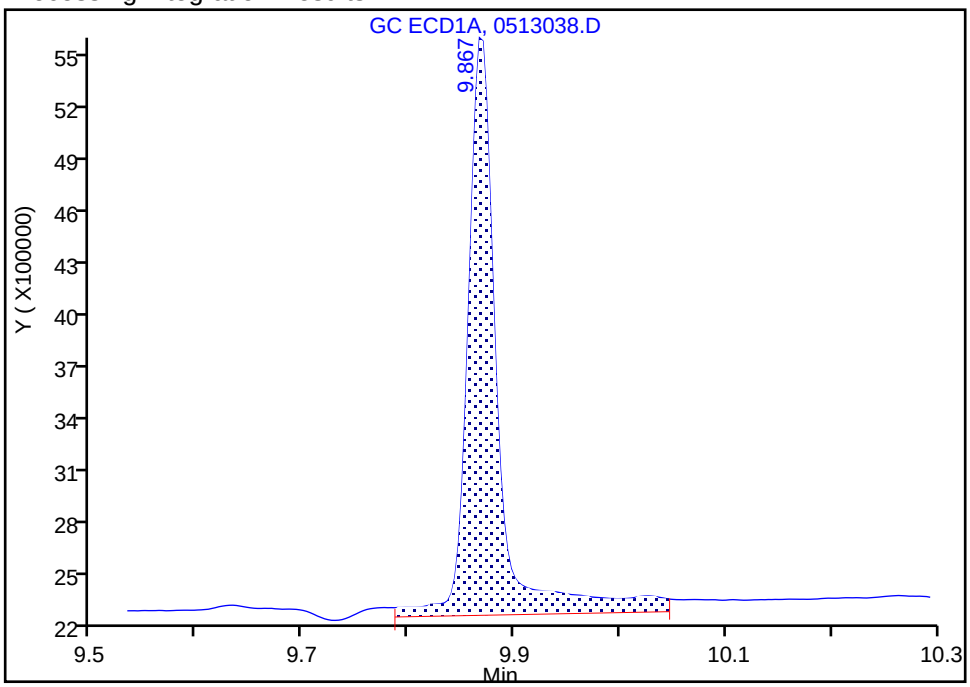
Data File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513038.D				
Injection Date:	13-May-2024 20:07:04	Instrument ID:	SGC_J		
Lims ID:	280-191098-F-2-A	Lab Sample ID:	280-191098-2		
Client ID:	DET-003-240402-GW				
Operator ID:	SMP	ALS Bottle#:	37	Worklist Smp#:	38
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		
Column:	CLP1 Pesticides Column 1 (0.32 mm)	Detector	GC ECD1A		

$ 15 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 1

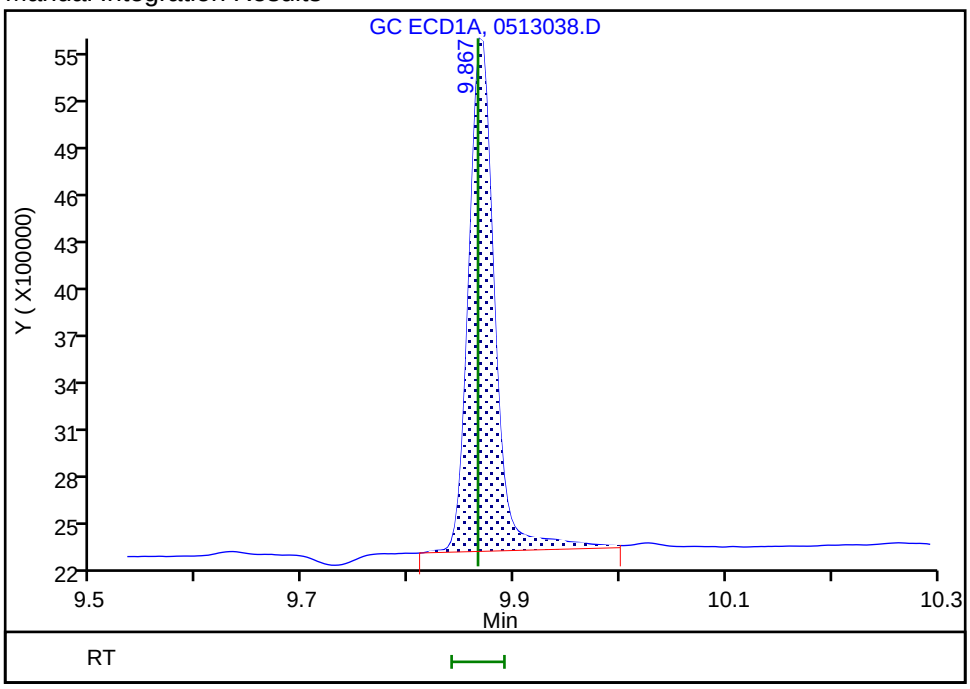
Processing Integration Results

RT: 9.87
Area: 6513036
Amount: 6.332974
Amount Units: ng/ml



Manual Integration Results

RT: 9.87
Area: 5506491
Amount: 5.330743
Amount Units: ng/ml



Reviewer: USP3, 14-May-2024 09:27:25 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-004-240401-GW | Lab Sample ID: 280-191098-5

Matrix: Water | Lab File ID: 0513039.D

Analysis Method: 8082A | Date Collected: 05/06/2024 10:35

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 237.8(mL) | Date Analyzed: 05/13/2024 20:23

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP1 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653123 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
12674-11-2	PCB-1016	0.63	U	1.1	0.63	0.18
11104-28-2	PCB-1221	0.27	U	1.1	0.27	0.19
11141-16-5	PCB-1232	0.32	U	1.1	0.32	0.14
53469-21-9	PCB-1242	0.32	U	1.1	0.32	0.11
12672-29-6	PCB-1248	0.63	U	1.1	0.63	0.18
11097-69-1	PCB-1254	0.27	U	1.1	0.27	0.15
11096-82-5	PCB-1260	0.32	U	1.1	0.32	0.094

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	48	M	30-136
877-09-8	Tetrachloro-m-xylene	79		25-120

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513039.D
Lims ID: 280-191098-D-5-A
Client ID: DET-004-240401-GW
Sample Type: Client
Inject. Date: 13-May-2024 20:23:44 ALS Bottle#: 38 Worklist Smp#: 39
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-D-5-A
Operator ID: SMP Instrument ID: SGC_J

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:55:25 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 14-May-2024 09:28:03

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene						
1	2.825	2.824	0.001	88336439	100.0	
2	2.768	2.767	0.001	91088354	100.0	
					RPD = 0.00	
$ 14 Tetrachloro-m-xylene						
1	3.615	3.615	0.000	8756636	7.89	
2	3.658	3.659	-0.001	6546004	6.16	
					RPD = 24.76	
3 PCB-1221						
1		3.784			ND	
1		3.914				
1		3.950				
2		3.917				
2		4.040				
2		4.090				
7 PCB-1232						
1		3.950			ND	
1		4.270				
1		4.683				
1		4.830				
1		5.233				
2		4.090				
2		4.447				
2		4.870				
2		4.997				
2		5.913				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/ml	Flags
1 PCB-1016						
1		3.952			ND	
1		4.272				
1		4.705				
1		4.829				
1		5.235				
2		4.092				
2		4.449				
2		4.869				
2		4.995				
2		5.462				
10 PCB-1242						
1		3.961			ND	
1		4.277				
1		4.694				
1		4.837				
1		5.681				
2		4.091				
2		4.447				
2		4.871				
2		4.997				
2		5.867				
4 PCB-1248						
1		4.270			ND	
1		4.683				
1		5.233				
1		5.670				
1		6.350				
2		4.853				
2		5.463				
2		5.590				
2		5.863				
2		6.163				
9 PCB-1254						
1		5.674			ND	
1		5.907				
1		6.350				
1		6.887				
1		7.224				
2		5.907				
2		6.117				
2		6.644				
2		6.914				
2		7.567				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/ml	Flags
12 PCB-1260						
1		6.559			ND	
1		6.885				
1		7.222				
1		8.059				
1		8.422				
2		6.872				
2		7.129				
2		7.565				
2		8.382				
2		8.862				
$ 15 DCB Decachlorobiphenyl						M
1	9.868	9.865	0.003	4926379	4.82	M
2	10.322	10.319	0.003	4927670	5.23	
					RPD = 8.30	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

BNB IS_00027 Amount Added: 20.00 Units: uL Run Reagent

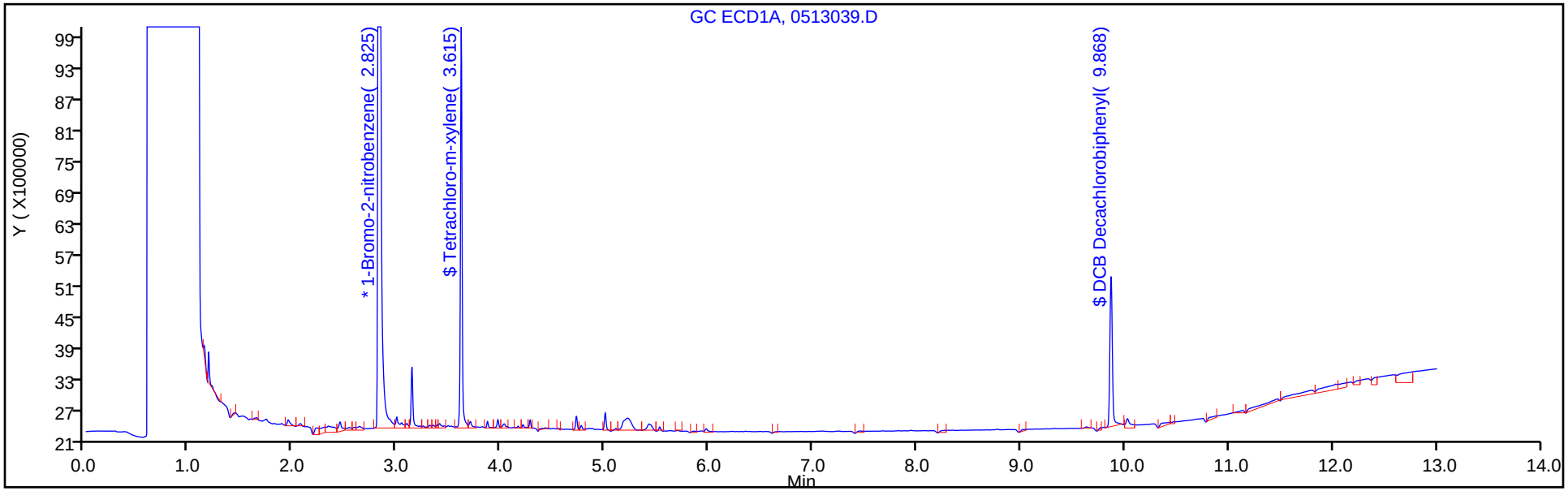
Report Date: 14-May-2024 12:55:55 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

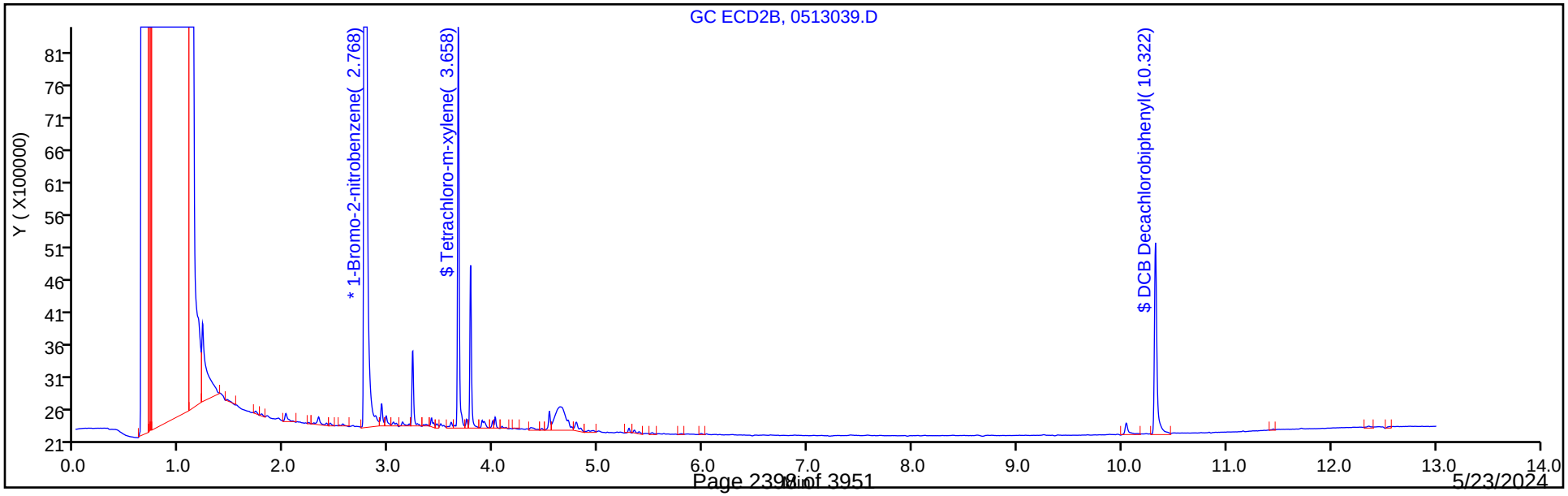
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513039.D

Injection Date:	13-May-2024 20:23:44	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	280-191098-D-5-A	Lab Sample ID:	280-191098-5	Worklist Smp#:	39
Client ID:	DET-004-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	38
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
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Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513039.D				
Lims ID:	280-191098-D-5-A				
Client ID:	DET-004-240401-GW				
Sample Type:	Client				
Inject. Date:	13-May-2024 20:23:44	ALS Bottle#:	38	Worklist Smp#:	39
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-D-5-A				
Operator ID:	SMP	Instrument ID:	SGC_J		
Method:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m				
Limit Group:	GCSV - 8082A - IS				
Last Update:	14-May-2024 12:55:25	Calib Date:	13-May-2024 11:46:10		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D				
Column 1 :	CLP1 Pesticides Column 1 (0.32 mm)		Det: GC ECD1A		
Column 2 :	CLP2 Pesticides Column 2 (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1674				
First Level Reviewer: USP3		Date:	14-May-2024 09:28:03		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 14 Tetrachloro-m-xylene	10.0	7.89	78.94
$ 15 DCB Decachlorobiphenyl	10.0	4.82	48.16

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 14 Tetrachloro-m-xylene	10.0	6.16	61.55
$ 15 DCB Decachlorobiphenyl	10.0	5.23	52.33

Manual Integration/User Assign Peak Report

Eurofins Denver

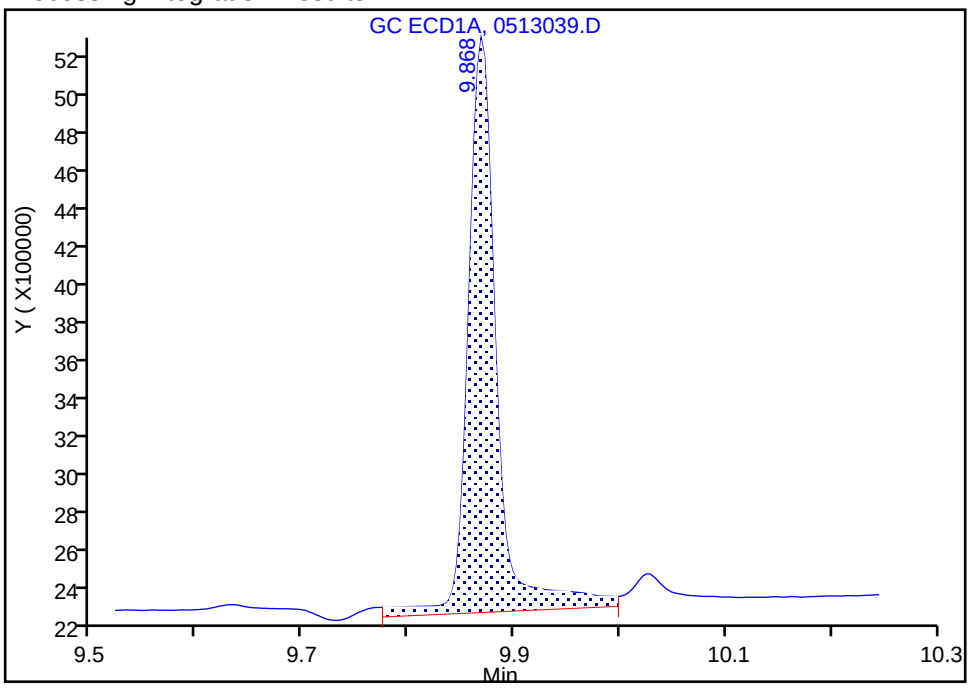
Data File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513039.D				
Injection Date:	13-May-2024 20:23:44	Instrument ID:	SGC_J		
Lims ID:	280-191098-D-5-A	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	SMP	ALS Bottle#:	38	Worklist Smp#:	39
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		
Column:	CLP1 Pesticides Column 1 (0.32 mm)	Detector	GC ECD1A		

$ 15 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 1

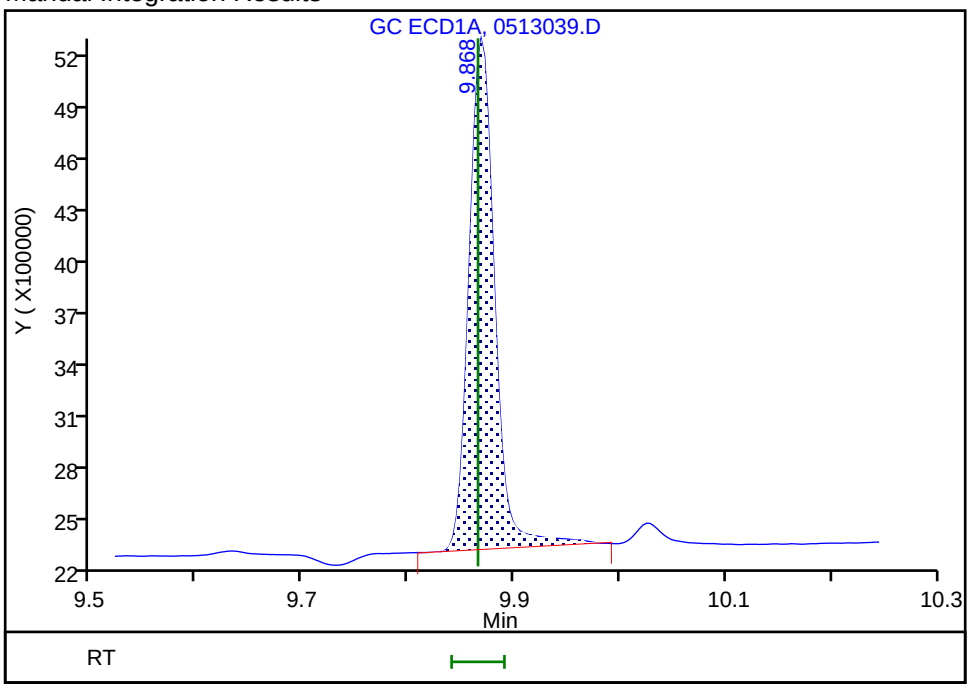
Processing Integration Results

RT: 9.87
Area: 5653461
Amount: 5.549799
Amount Units: ng/ml



Manual Integration Results

RT: 9.87
Area: 4926379
Amount: 4.816481
Amount Units: ng/ml



Reviewer: USP3, 14-May-2024 09:28:01 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 646944

SDG No.:

Instrument ID: SGC_J GC Column: CLP1 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/25/2024 10:20 Calibration End Date: 03/25/2024 12:01 Calibration ID: 91433

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 280-646944/10	0325010.D
Level 2	STD2 280-646944/9	0325009.D
Level 3	STD3 280-646944/8	0325008.D
Level 4	STD4 280-646944/7	0325007.D
Level 5	ICIS 280-646944/6	0325006.D
Level 6	STD6 280-646944/5	0325005.D
Level 7	STD7 280-646944/4	0325004.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1016 Peak 1	0.0291 0.0191	0.0253 0.0178	0.0240	0.0225	0.0202	Lin2	0.2556	0.0197							0.9930		0.9900
PCB-1016 Peak 2	0.0607 0.0369	0.0482 0.0354	0.0491	0.0429	0.0390	Lin2	0.5848	0.0380							0.9920		0.9900
PCB-1016 Peak 3	0.0663 0.0484	0.0573 0.0473	0.0594	0.0529	0.0505	Lin2	0.4374	0.0496							0.9960		0.9900
PCB-1016 Peak 4	0.0538 0.0343	0.0469 0.0325	0.0416	0.0391	0.0357	Lin2	0.5139	0.0347							0.9960		0.9900
PCB-1016 Peak 5	0.0529 0.0365	0.0476 0.0341	0.0441	0.0413	0.0391	Lin2	0.4273	0.0374							0.9950		0.9900
PCB-1260 Peak 1	0.0708 0.0479	0.0611 0.0462	0.0572	0.0552	0.0506	Lin2	0.5699	0.0491							0.9970		0.9900
PCB-1260 Peak 2	0.1076 0.0747	0.0937 0.0716	0.0885	0.0840	0.0790	Lin2	0.8299	0.0762							0.9970		0.9900
PCB-1260 Peak 3	0.1175 0.0841	0.1046 0.0811	0.0991	0.0951	0.0890	Lin2	0.8364	0.0863							0.9970		0.9900
PCB-1260 Peak 4	0.1534 0.1137	0.1361 0.1095	0.1306	0.1256	0.1198	Lin2	0.9890	0.1158							0.9980		0.9900
PCB-1260 Peak 5	0.0763 0.0568	0.0677 0.0556	0.0645	0.0626	0.0598	Lin2	0.4784	0.0579							0.9980		0.9900
Tetrachloro-m-xylene	1.6985 1.1411	1.4662 1.0964	1.4046	1.2806	1.1988	Lin2	0.7092	1.1659							0.9960		0.9900
DCB Decachlorobiphenyl	1.2786 1.1183	1.0982 1.0723	1.2560	1.1619	1.1426	Lin2	0.1708	1.1224							0.9960		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 646944

SDG No.:

Instrument ID: SGC_J | GC Column: CLP1 | ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/25/2024 10:20 | Calibration End Date: 03/25/2024 12:01 | Calibration ID: 91433

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 280-646944/10	0325010.D
Level 2	STD2 280-646944/9	0325009.D
Level 3	STD3 280-646944/8	0325008.D
Level 4	STD4 280-646944/7	0325007.D
Level 5	ICIS 280-646944/6	0325006.D
Level 6	STD6 280-646944/5	0325005.D
Level 7	STD7 280-646944/4	0325004.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
PCB-1016 Peak 1	BNB	Lin2	682677 13551006	1211326 16685358	2268677	4251953	9343337	25.0 750	50.0 1000	100	200	500
PCB-1016 Peak 2	BNB	Lin2	1424620 26172555	2307428 33189225	4649628	8107606	18075456	25.0 750	50.0 1000	100	200	500
PCB-1016 Peak 3	BNB	Lin2	1557109 34376012	2743159 44305307	5626869	9991995	23400328	25.0 750	50.0 1000	100	200	500
PCB-1016 Peak 4	BNB	Lin2	1263236 24359659	2243878 30428598	3940343	7389392	16532443	25.0 750	50.0 1000	100	200	500
PCB-1016 Peak 5	BNB	Lin2	1242623 25945004	2280160 32005158	4175719	7794976	18092959	25.0 750	50.0 1000	100	200	500
PCB-1260 Peak 1	BNB	Lin2	1661809 34024707	2923758 43347712	5418530	10425954	23450614	25.0 750	50.0 1000	100	200	500
PCB-1260 Peak 2	BNB	Lin2	2526963 53026410	4484607 67100829	8378968	15858858	36599004	25.0 750	50.0 1000	100	200	500
PCB-1260 Peak 3	BNB	Lin2	2759103 59701170	5006434 76008168	9390153	17954058	41222626	25.0 750	50.0 1000	100	200	500
PCB-1260 Peak 4	BNB	Lin2	3601567 80733313	6514374 102651639	12369542	23729323	55501667	25.0 750	50.0 1000	100	200	500
PCB-1260 Peak 5	BNB	Lin2	1791107 40350366	3239497 52131196	6104403	11819625	27695033	25.0 750	50.0 1000	100	200	500
Tetrachloro-m-xylene	BNB	Lin2	1994374 40504763	3509208 51394164	6651389	12093341	27769567	1.25 37.5	2.50 50.0	5.00	10.0	25.0
DCB Decachlorobiphenyl	BNB	Lin2	1501308 39695221	2628418 50262121	5947494	10971522	26467172	1.25 37.5	2.50 50.0	5.00	10.0	25.0

Curve Type Legend:
Lin2 = Linear 1/conc^2 ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325004.D
Lims ID: STD7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 25-Mar-2024 10:20:58 ALS Bottle#: 3 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD7
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub1

Method: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 26-Mar-2024 08:00:48 Calib Date: 25-Mar-2024 13:41:25
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325017.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1643

First Level Reviewer: USP3 Date: 25-Mar-2024 11:30:19

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.827	2.827	0.000	93749329	100.0	100.0	
2	2.770	2.770	0.000	102706844	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.617	3.617	0.000	51394164	50.0	46.4	
2	3.660	3.660	0.000	54137339	50.0	47.6	
						RPD = 2.45	
1 PCB-1016							
1	3.953	3.953	0.000	16685358	1000.0	892.3	
1	4.270	4.270	0.000	33189225	1000.0	917.0	
1	4.707	4.707	0.000	44305307	1000.0	943.4	
1	4.830	4.830	0.000	30428598	1000.0	919.8	
1	5.237	5.237	0.000	32005158	1000.0	901.6	
		Average of Peak Amounts =				914.8	
2	4.094	4.094	0.000	17385669	1000.0	919.1	
2	4.450	4.450	0.000	35052733	1000.0	918.1	
2	4.870	4.870	0.000	74689901	1000.0	942.8	
2	5.000	5.000	0.000	31683209	1000.0	935.8	
2	5.467	5.467	0.000	24727862	1000.0	942.2	
		Average of Peak Amounts =				931.6	
						RPD = 1.82	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							
1	6.563	6.563	0.000	43347712	1000.0	929.7	
1	6.890	6.890	0.000	67100829	1000.0	928.8	
1	7.227	7.227	0.000	76008168	1000.0	929.8	
1	8.063	8.063	0.000	102651639	1000.0	937.4	
1	8.427	8.427	0.000	52131196	1000.0	952.2	
		Average of Peak Amounts =				935.6	
2	6.877	6.877	0.000	48563961	1000.0	926.9	
2	7.134	7.134	0.000	52019793	1000.0	916.2	
2	7.574	7.574	0.000	72517656	1000.0	934.5	
2	8.390	8.390	0.000	94719522	1000.0	940.9	
2	8.867	8.867	0.000	66365872	1000.0	926.7	
		Average of Peak Amounts =				929.0	
						RPD = 0.70	
$ 15 DCB Decachlorobiphenyl							
1	9.870	9.870	0.000	50262121	50.0	47.6	
2	10.327	10.327	0.000	44678635	50.0	46.4	
						RPD = 2.54	

QC Flag Legend

Processing Flags

Reagents:

AR_1660_L7_00046	Amount Added: 200.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

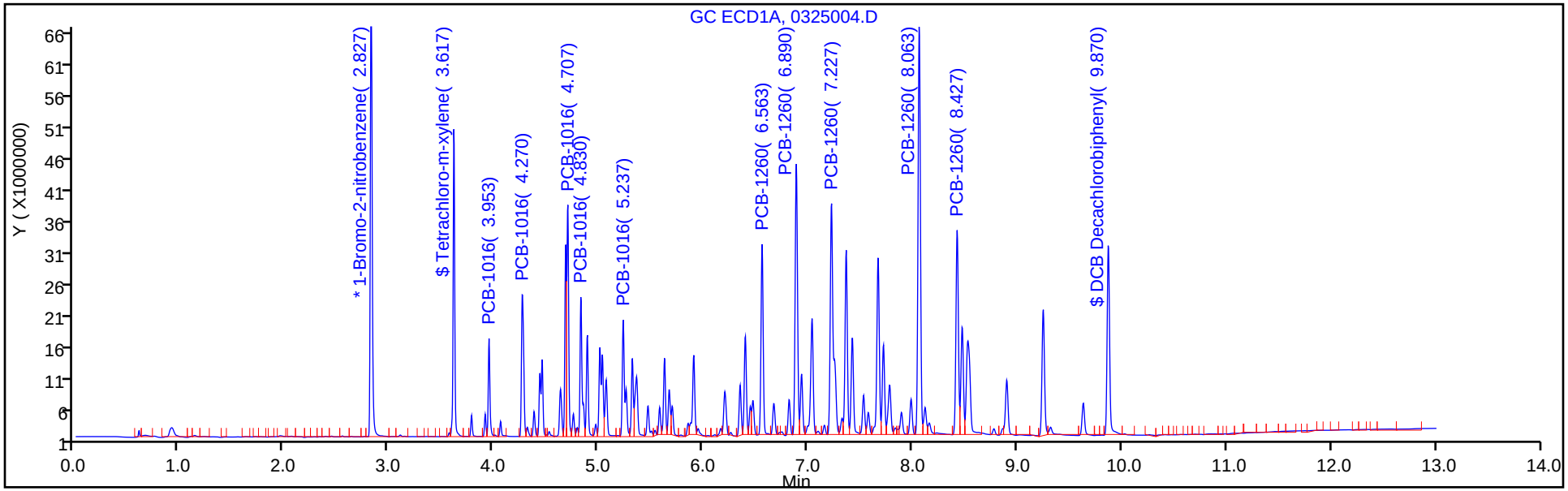
Report Date: 26-Mar-2024 08:00:49 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

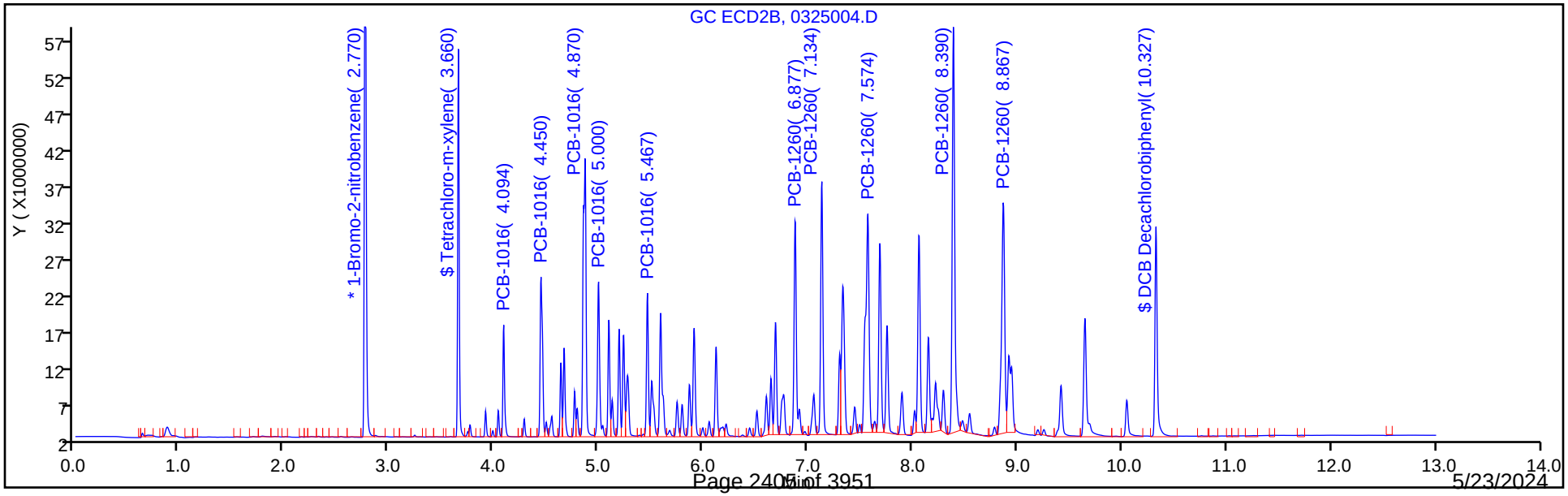
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325004.D

Injection Date:	25-Mar-2024 10:20:58	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	STD7			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325005.D
Lims ID: STD6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 25-Mar-2024 10:37:45 ALS Bottle#: 4 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD6
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub1

Method: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 26-Mar-2024 08:00:54 Calib Date: 25-Mar-2024 13:41:25
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325017.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1643

First Level Reviewer: USP3 Date: 25-Mar-2024 11:32:09

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.828	2.827	0.001	94652530	100.0	100.0	
2	2.768	2.770	-0.002	105098999	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.618	3.617	0.001	40504763	37.5	36.1	
2	3.662	3.660	0.002	42478556	37.5	36.4	
						RPD = 0.79	
1 PCB-1016							M
1	3.955	3.953	0.002	13551006	750.0	715.2	
1	4.271	4.270	0.001	26172555	750.0	712.8	
1	4.705	4.707	-0.002	34376012	750.0	722.9	
1	4.831	4.830	0.001	24359659	750.0	726.3	
1	5.235	5.237	-0.002	25945004	750.0	721.6	M
		Average of Peak Amounts =				719.8	
2	4.092	4.094	-0.002	13864797	750.0	713.9	
2	4.448	4.450	-0.002	27863901	750.0	710.6	
2	4.872	4.870	0.002	59319907	750.0	729.5	
2	4.998	5.000	-0.002	25255934	750.0	726.7	
2	5.468	5.467	0.001	19695434	750.0	731.0	
		Average of Peak Amounts =				722.4	
						RPD = 0.36	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							M
1	6.561	6.563	-0.002	34024707	750.0	720.2	
1	6.888	6.890	-0.002	53026410	750.0	724.6	
1	7.225	7.227	-0.002	59701170	750.0	721.2	
1	8.065	8.063	0.002	80733313	750.0	728.3	
1	8.428	8.427	0.001	40350366	750.0	728.1	
		Average of Peak Amounts =				724.5	
2	6.878	6.877	0.001	39242967	750.0	729.7	M
2	7.132	7.134	-0.002	43608152	750.0	748.7	
2	7.572	7.574	-0.002	59401981	750.0	746.1	
2	8.392	8.390	0.002	78169798	750.0	756.6	
2	8.868	8.867	0.001	55014201	750.0	749.1	
		Average of Peak Amounts =				746.0	
						RPD = 2.93	
$ 15 DCB Decachlorobiphenyl							
1	9.871	9.870	0.001	39695221	37.5	37.2	
2	10.325	10.327	-0.002	35474925	37.5	35.9	
						RPD = 3.64	
S 8 Polychlorinated biphenyls, Total							
1						1444.3	
2						1468.4	
						RPD = 1.66	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

AR_1660_L7_00046	Amount Added: 150.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

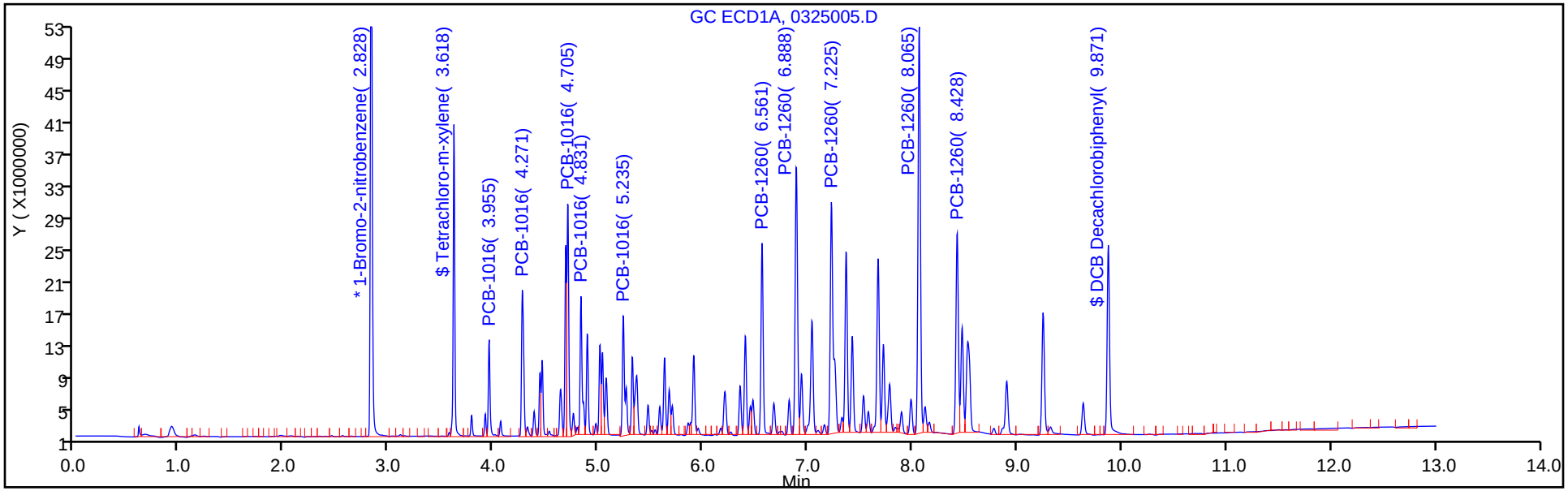
Report Date: 26-Mar-2024 08:00:54 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

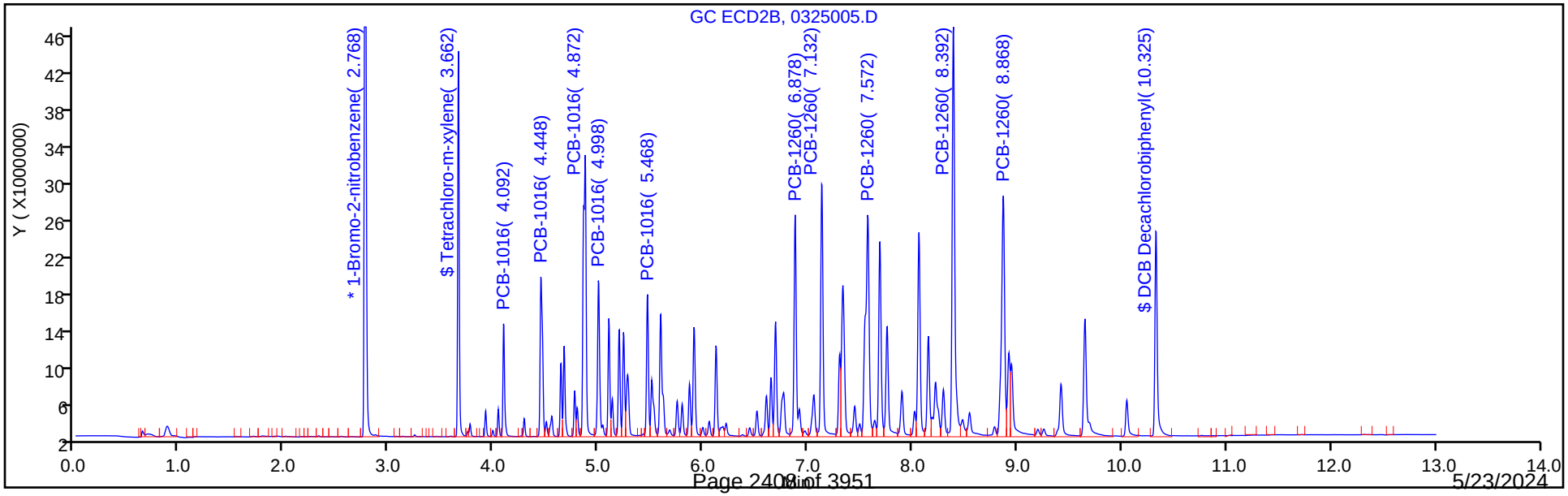
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325005.D

Injection Date:	25-Mar-2024 10:37:45	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	STD6			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



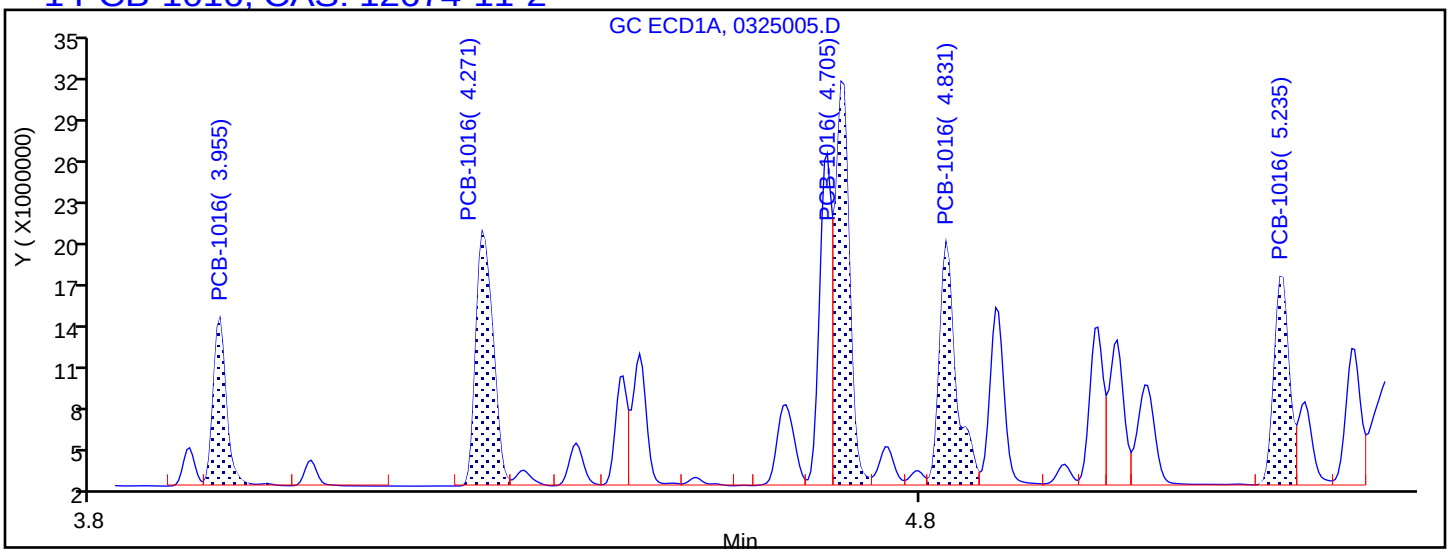
5/23/2024
4:40:30 AM

Report Date: 26-Mar-2024 08:00:55 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

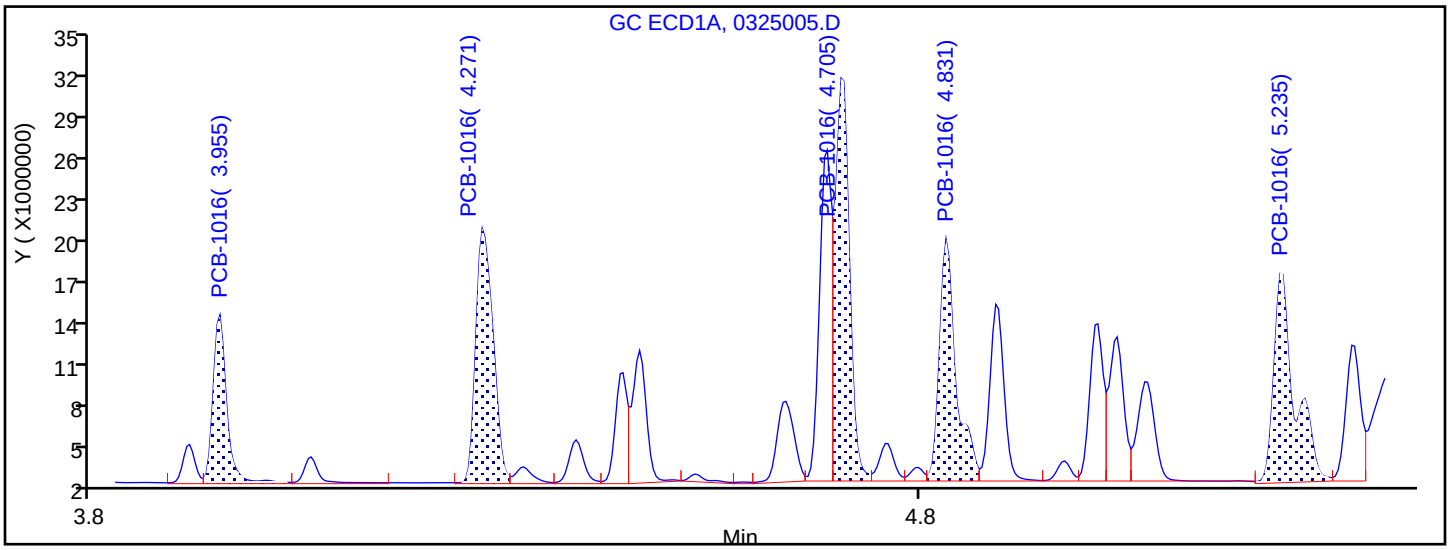
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325005.D
Injection Date: 25-Mar-2024 10:37:45 Instrument ID: SGC_J
Lims ID: STD6
Client ID:
Operator ID: SMP ALS Bottle#: 4 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP1 Pesticides Column 1 (0.32 mm) Detector GC ECD1A

1 PCB-1016, CAS: 12674-11-2



Processing Integration Results

3.955	Response = 13551006
4.271	Response = 26172555
4.705	Response = 34376012
4.831	Response = 24359659
5.235	Response = 18933801



Manual Integration Results

3.955	Response = 13551006	
4.271	Response = 26172555	
4.705	Response = 34376012	
4.831	Response = 24359659	
5.235	Response = 25945004	M

Reviewer: USP3, 25-Mar-2024 12:45:24 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325006.D
Lims ID: ICIS
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 25-Mar-2024 10:54:24 ALS Bottle#: 5 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub1

Method: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 26-Mar-2024 08:00:59 Calib Date: 25-Mar-2024 13:41:25
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325017.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1643

First Level Reviewer: USP3 Date: 25-Mar-2024 11:32:52

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.828	2.828	0.000	92655166	100.0	100.0	
2	2.768	2.768	0.000	103331114	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.618	3.618	0.000	27769567	25.0	25.1	
2	3.662	3.662	0.000	28752425	25.0	24.9	
						RPD = 0.68	
1 PCB-1016							M
1	3.955	3.955	0.000	9343337	500.0	499.9	
1	4.271	4.271	0.000	18075456	500.0	498.4	
1	4.705	4.705	0.000	23400328	500.0	500.0	
1	4.831	4.831	0.000	16532443	500.0	499.0	
1	5.235	5.235	0.000	18092959	500.0	510.8	M
		Average of Peak Amounts =				501.6	
2	4.095	4.095	0.000	9444761	500.0	491.4	
2	4.452	4.452	0.000	19184958	500.0	494.1	
2	4.872	4.872	0.000	39728622	500.0	493.7	
2	4.998	4.998	0.000	16759850	500.0	487.1	
2	5.468	5.468	0.000	12880876	500.0	482.8	
		Average of Peak Amounts =				489.8	
						RPD = 2.38	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							M
1	6.561	6.561	0.000	23450614	500.0	503.7	
1	6.888	6.888	0.000	36599004	500.0	507.7	
1	7.225	7.225	0.000	41222626	500.0	505.8	
1	8.065	8.065	0.000	55501667	500.0	509.0	
1	8.428	8.428	0.000	27695033	500.0	508.0	
		Average of Peak Amounts =				506.8	
2	6.878	6.878	0.000	26371175	500.0	495.5	M
2	7.135	7.135	0.000	27671348	500.0	479.6	
2	7.575	7.575	0.000	37921156	500.0	481.1	
2	8.392	8.392	0.000	50185444	500.0	490.1	
2	8.868	8.868	0.000	35605159	500.0	490.1	
		Average of Peak Amounts =				487.2	
						RPD = 3.94	
$ 15 DCB Decachlorobiphenyl							
1	9.871	9.871	0.000	26467172	25.0	25.3	
2	10.328	10.328	0.000	24352108	25.0	24.9	
						RPD = 1.72	
S 8 Polychlorinated biphenyls, Total							
1						1008.5	
2						977.1	
						RPD = 3.16	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

AR_1660_L7_00046	Amount Added: 100.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

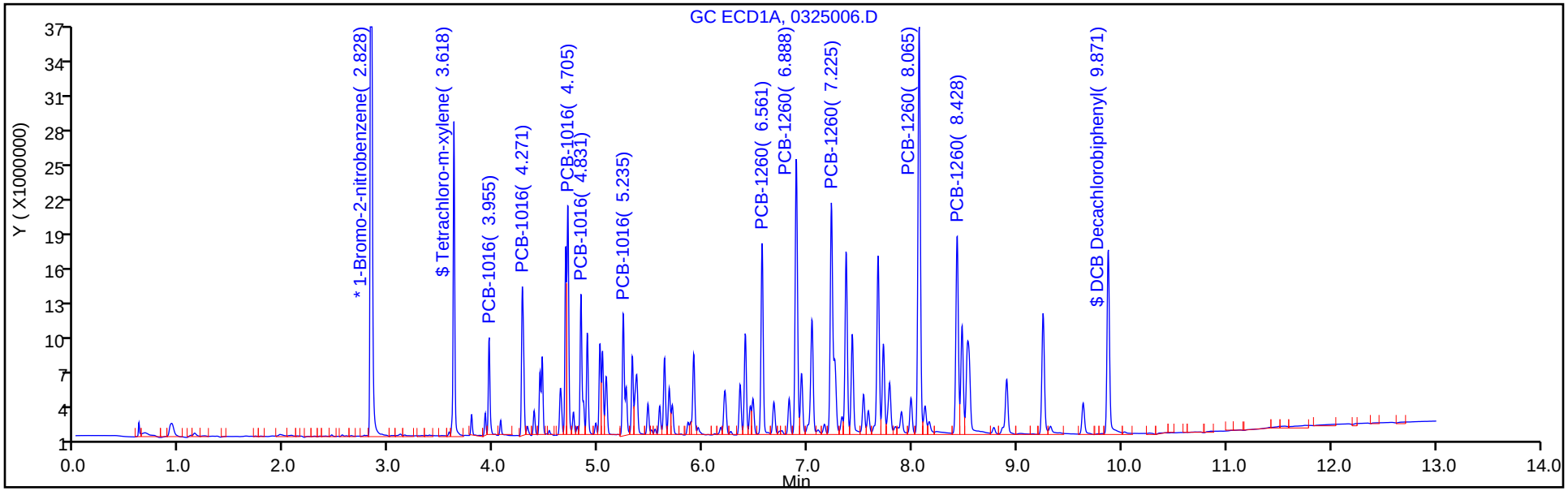
Report Date: 26-Mar-2024 08:00:59 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

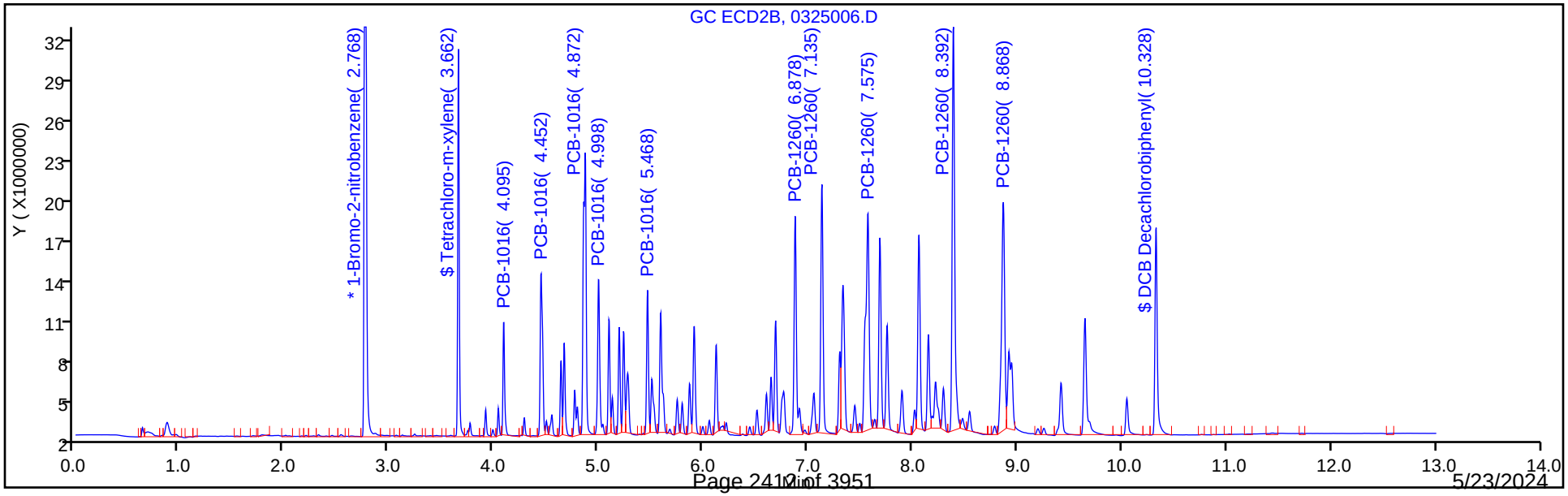
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325006.D

Injection Date:	25-Mar-2024 10:54:24	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	ICIS			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



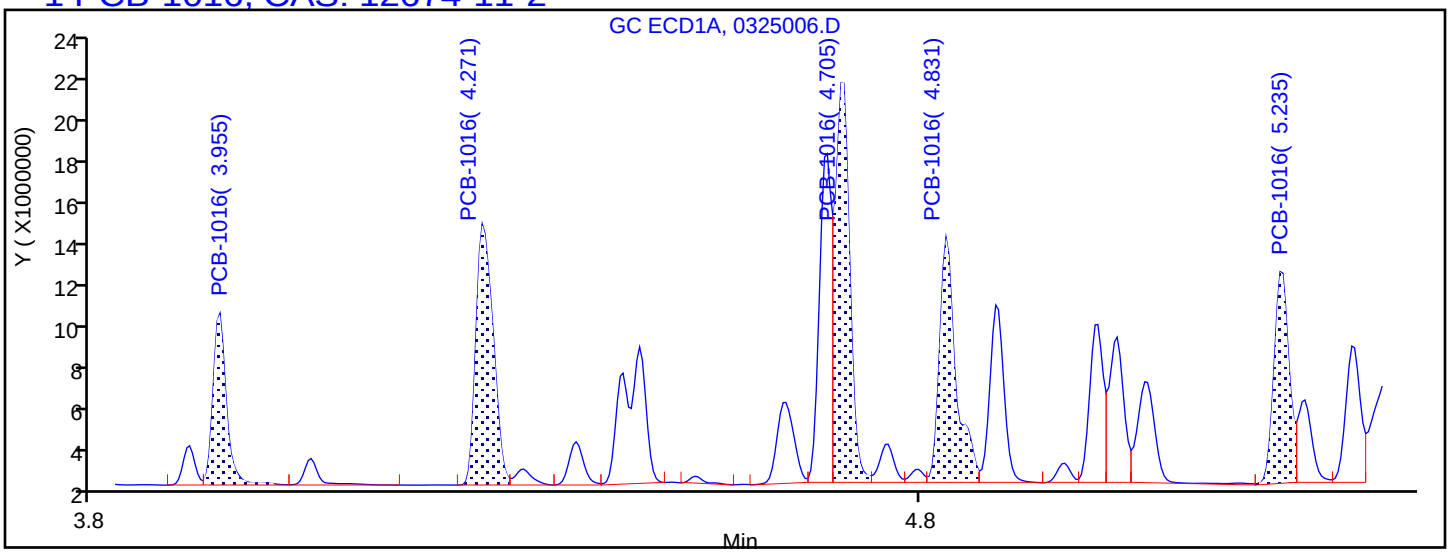
5/23/2024
4:40:30 AM

Report Date: 26-Mar-2024 08:00:59 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

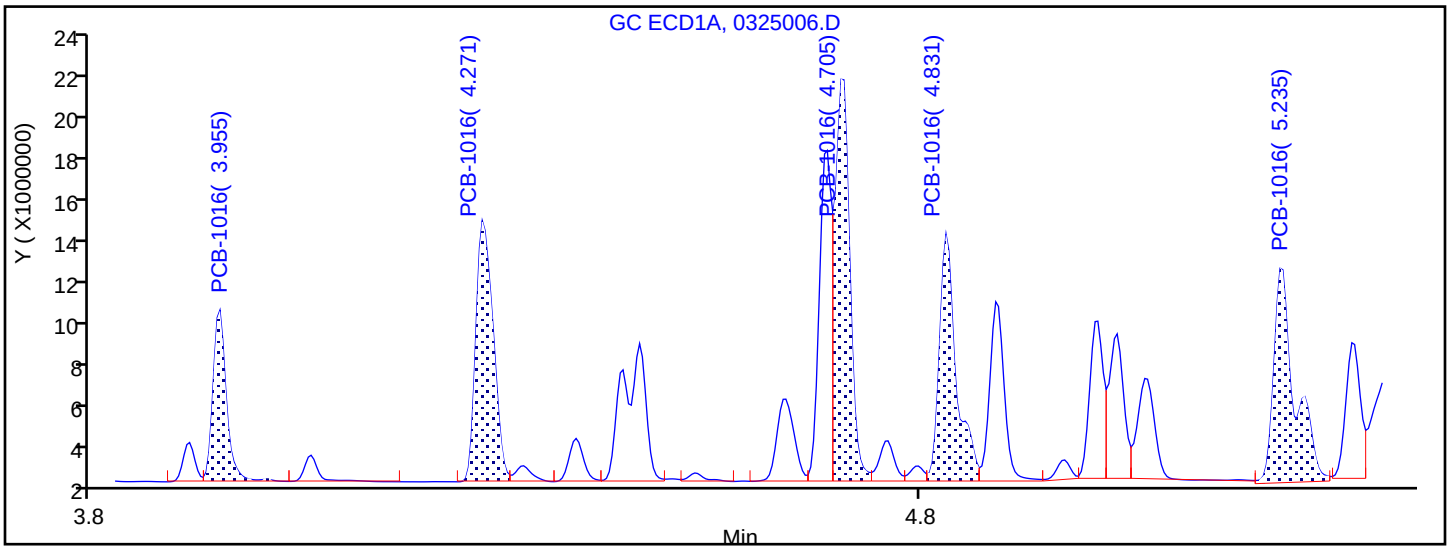
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325006.D
Injection Date: 25-Mar-2024 10:54:24 Instrument ID: SGC_J
Lims ID: ICIS
Client ID:
Operator ID: SMP ALS Bottle#: 5 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP1 Pesticides Column 1 (0.32 mm) Detector GC ECD1A

1 PCB-1016, CAS: 12674-11-2



Processing Integration Results

3.955	Response = 9343337
4.271	Response = 18075456
4.705	Response = 23400328
4.831	Response = 16532443
5.235	Response = 12948763



Manual Integration Results

3.955	Response = 9343337	
4.271	Response = 18075456	
4.705	Response = 23400328	
4.831	Response = 16532443	
5.235	Response = 18092959	M

Reviewer: USP3, 25-Mar-2024 12:45:09 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325007.D
Lims ID: STD4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 25-Mar-2024 11:11:06 ALS Bottle#: 6 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD4
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub1

Method: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 26-Mar-2024 08:01:05 Calib Date: 25-Mar-2024 13:41:25
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325017.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1643

First Level Reviewer: USP3 Date: 25-Mar-2024 11:30:35

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.826	2.828	-0.002	94431461	100.0	100.0	
2	2.770	2.768	0.002	105595070	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.619	3.618	0.001	12093341	10.0	10.4	
2	3.660	3.662	-0.002	12313868	10.0	10.2	
						RPD = 1.46	
1 PCB-1016							M
1	3.953	3.955	-0.002	4251953	200.0	216.0	
1	4.273	4.271	0.002	8107606	200.0	210.7	
1	4.706	4.705	0.001	9991995	200.0	204.4	M
1	4.833	4.831	0.002	7389392	200.0	210.5	
1	5.236	5.235	0.001	7794976	200.0	209.3	
		Average of Peak Amounts =				210.2	
2	4.093	4.095	-0.002	4308585	200.0	213.5	
2	4.450	4.452	-0.002	8726037	200.0	213.5	
2	4.873	4.872	0.001	17794453	200.0	210.8	
2	5.000	4.998	0.002	7685508	200.0	212.8	
2	5.466	5.468	-0.002	5902989	200.0	210.7	
		Average of Peak Amounts =				212.3	
						RPD = 0.97	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							M
1	6.563	6.561	0.002	10425954	200.0	213.2	
1	6.889	6.888	0.001	15858858	200.0	209.6	
1	7.226	7.225	0.001	17954058	200.0	210.6	
1	8.066	8.065	0.001	23729323	200.0	208.5	
1	8.426	8.428	-0.002	11819625	200.0	207.9	
		Average of Peak Amounts =				210.0	
2	6.880	6.878	0.002	11775316	200.0	210.6	M
2	7.133	7.135	-0.002	13028543	200.0	215.4	
2	7.573	7.575	-0.002	17552511	200.0	212.6	
2	8.390	8.392	-0.002	22954430	200.0	213.0	
2	8.866	8.868	-0.002	16069502	200.0	211.5	
		Average of Peak Amounts =				212.6	
						RPD = 1.26	
$ 15 DCB Decachlorobiphenyl							
1	9.873	9.871	0.002	10971522	10.0	10.2	
2	10.326	10.328	-0.002	10800313	10.0	10.4	
						RPD = 2.36	
S 8 Polychlorinated biphenyls, Total							
1						420.2	
2						424.9	
						RPD = 1.12	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

AR_1660_L7_00046	Amount Added: 40.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

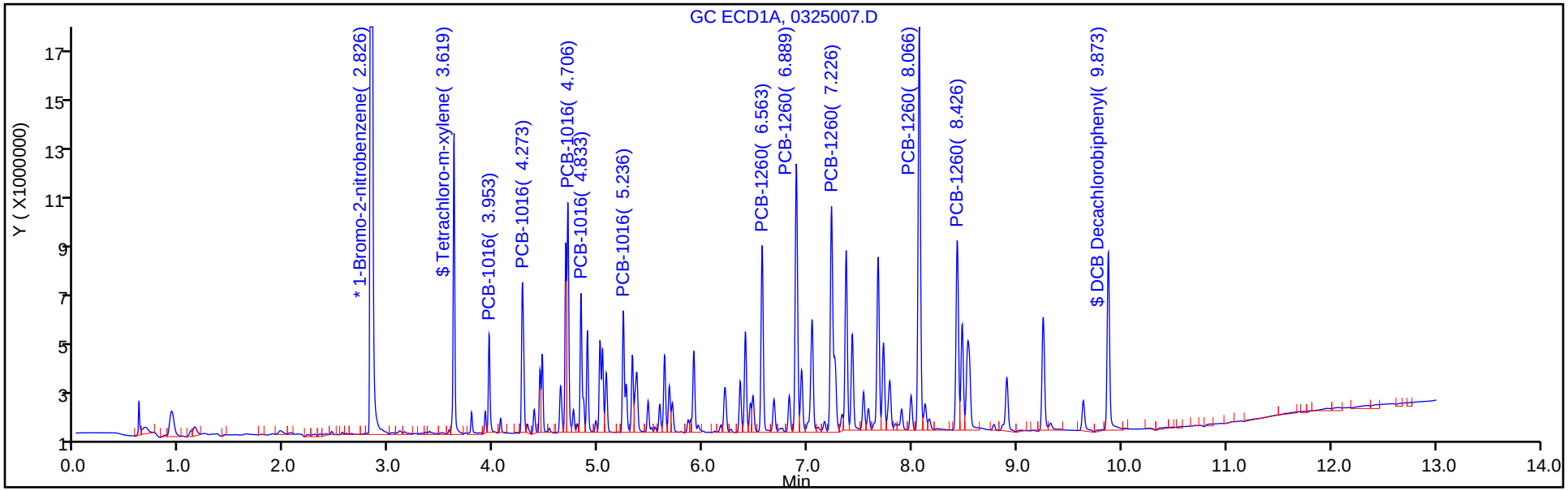
Report Date: 26-Mar-2024 08:01:05 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

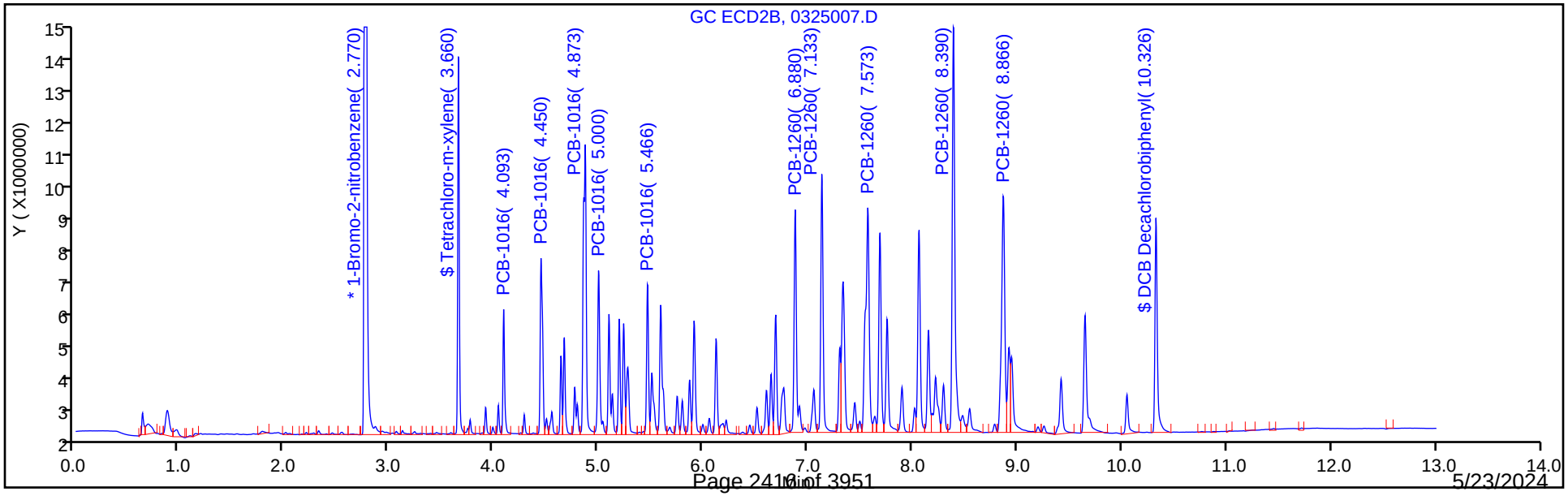
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325007.D

Injection Date:	25-Mar-2024 11:11:06	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	STD4			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
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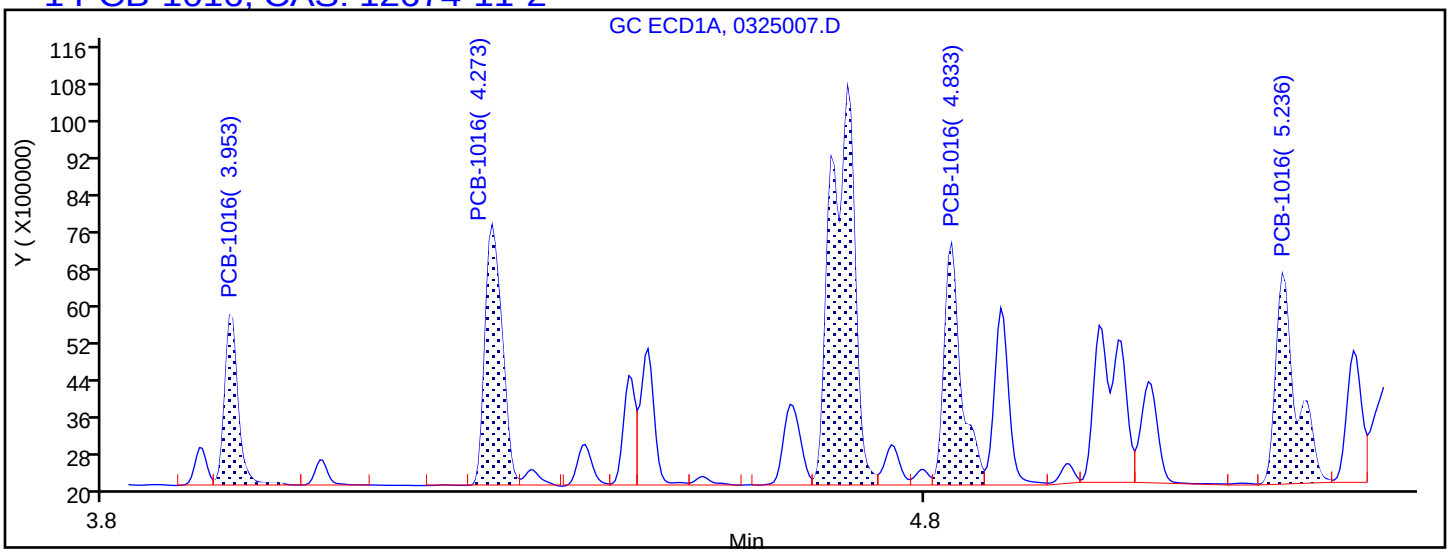
Report Date: 26-Mar-2024 08:01:05 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

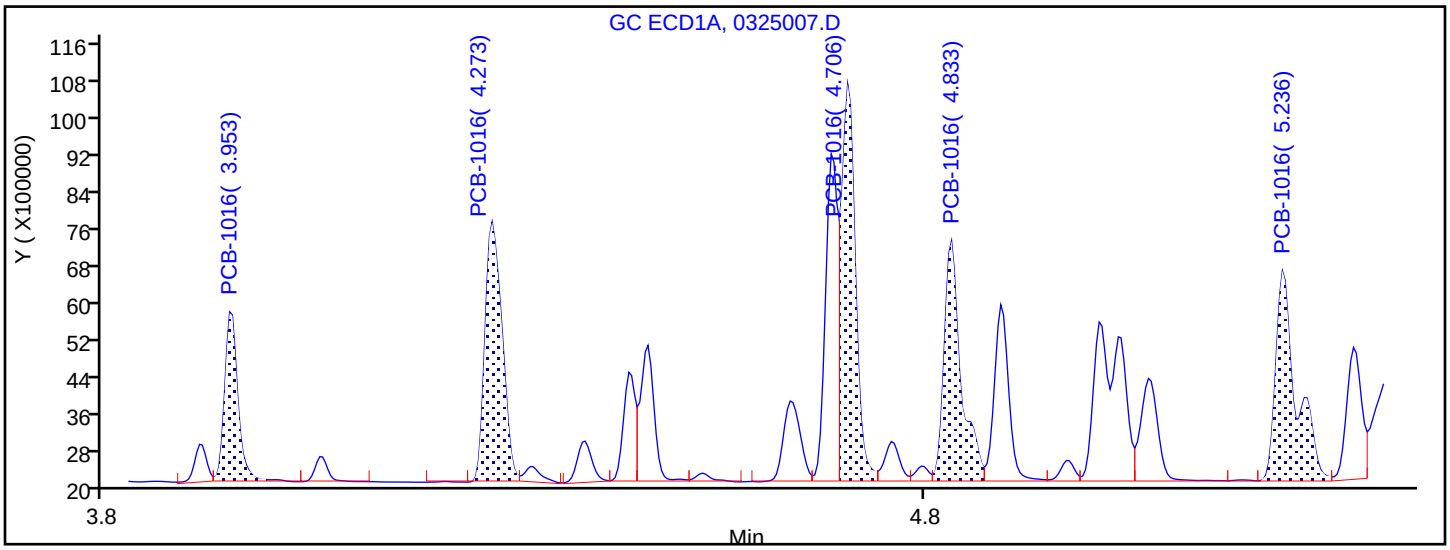
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325007.D
Injection Date: 25-Mar-2024 11:11:06 Instrument ID: SGC_J
Lims ID: STD4
Client ID:
Operator ID: SMP ALS Bottle#: 6 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP1 Pesticides Column 1 (0.32 mm) Detector GC ECD1A

1 PCB-1016, CAS: 12674-11-2



Processing Integration Results

3.953	Response = 4251953
4.273	Response = 8107606
4.686	Response = 17332476
4.833	Response = 7389392
5.236	Response = 7794976



Manual Integration Results

3.953	Response = 4251953	
4.273	Response = 8107606	
4.706	Response = 9991995	M
4.833	Response = 7389392	
5.236	Response = 7794976	

Reviewer: USP3, 25-Mar-2024 12:43:56 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325008.D
Lims ID: STD3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 25-Mar-2024 11:27:46 ALS Bottle#: 7 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD3
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub1

Method: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 26-Mar-2024 08:01:10 Calib Date: 25-Mar-2024 13:41:25
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325017.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1643

First Level Reviewer: USP3 Date: 25-Mar-2024 12:41:47

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.827	2.828	-0.001	94707781	100.0	100.0	
2	2.771	2.768	0.003	106395746	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.617	3.618	-0.001	6651389	5.00	5.42	
2	3.661	3.662	-0.001	6743717	5.00	5.38	
						RPD = 0.59	
1 PCB-1016							
1	3.954	3.955	-0.001	2268677	100.0	108.8	
1	4.271	4.271	0.000	4649628	100.0	113.9	
1	4.707	4.705	0.002	5626869	100.0	110.9	
1	4.831	4.831	0.000	3940343	100.0	105.0	
1	5.237	5.235	0.002	4175719	100.0	106.5	
		Average of Peak Amounts =				109.0	
2	4.094	4.095	-0.001	2325287	100.0	109.4	
2	4.451	4.452	-0.001	4706227	100.0	108.9	
2	4.871	4.872	-0.001	9399037	100.0	105.7	
2	5.001	4.998	0.003	4082265	100.0	107.2	
2	5.468	5.468	0.000	3159757	100.0	107.0	
		Average of Peak Amounts =				107.7	
						RPD = 1.27	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							M
1	6.564	6.561	0.003	5418530	100.0	104.9	
1	6.891	6.888	0.003	8378968	100.0	105.3	
1	7.224	7.225	-0.001	9390153	100.0	105.2	
1	8.064	8.065	-0.001	12369542	100.0	104.3	
1	8.427	8.428	-0.001	6104403	100.0	103.1	
		Average of Peak Amounts =				104.5	
2	6.878	6.878	0.000	6258453	100.0	106.1	M
2	7.134	7.135	-0.001	6808507	100.0	106.8	
2	7.574	7.575	-0.001	9154086	100.0	105.4	
2	8.391	8.392	-0.001	11734001	100.0	102.4	
2	8.868	8.868	0.000	8332055	100.0	104.5	
		Average of Peak Amounts =				105.1	
						RPD = 0.50	
$ 15 DCB Decachlorobiphenyl							
1	9.871	9.871	0.000	5947494	5.00	5.44	
2	10.328	10.328	0.000	5896853	5.00	5.38	
						RPD = 1.22	
S 8 Polychlorinated biphenyls, Total							
1						213.6	
2						212.7	
						RPD = 0.40	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

AR_1660_L7_00046	Amount Added: 20.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

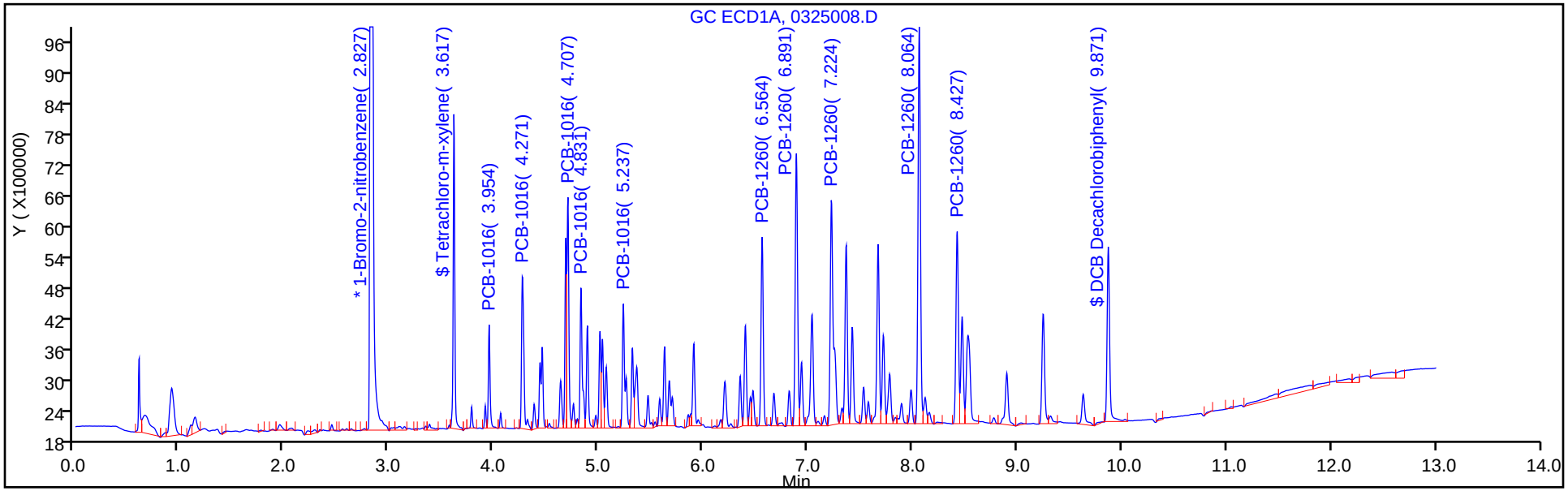
Report Date: 26-Mar-2024 08:01:10 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

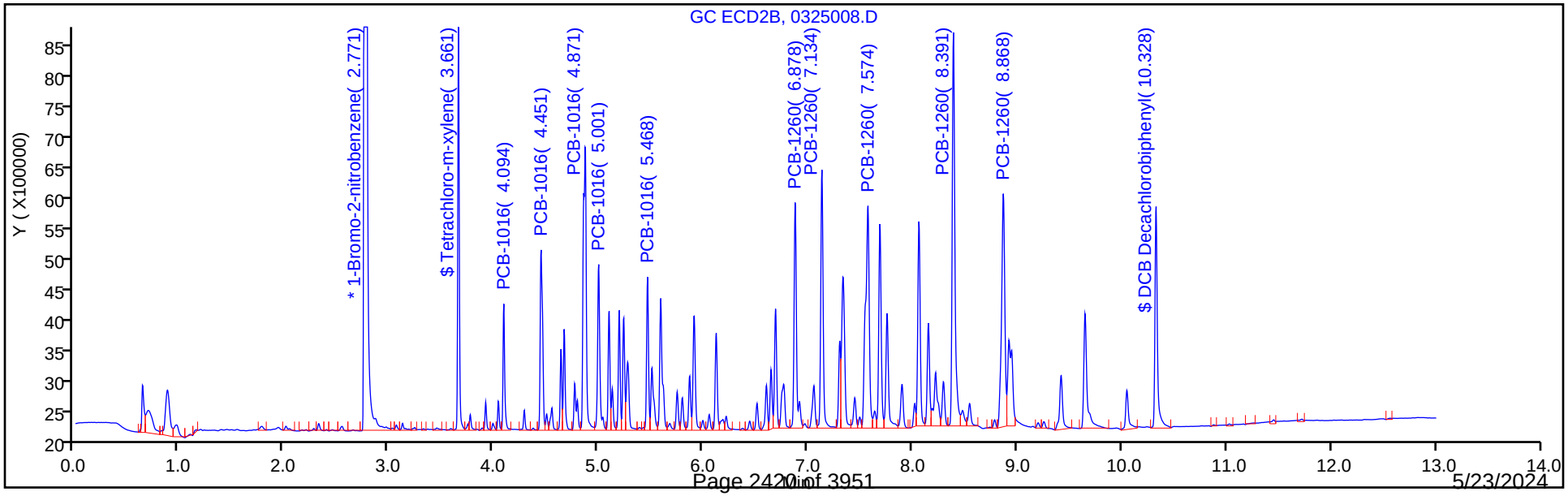
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325008.D

Injection Date:	25-Mar-2024 11:27:46	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	STD3			Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
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Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325009.D
Lims ID: STD2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 25-Mar-2024 11:44:33 ALS Bottle#: 8 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD2
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub1

Method: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 26-Mar-2024 08:01:15 Calib Date: 25-Mar-2024 13:41:25
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325017.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1643

First Level Reviewer: USP3 Date: 25-Mar-2024 12:42:21

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.827	2.828	-0.001	95736878	100.0	100.0	
2	2.771	2.768	0.003	107069309	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.617	3.618	-0.001	3509208	2.50	2.54	
2	3.661	3.662	-0.001	3401751	2.50	2.51	
						RPD = 1.09	
1 PCB-1016							M
1	3.954	3.955	-0.001	1211326	50.0	51.4	
1	4.274	4.271	0.003	2307428	50.0	48.1	
1	4.707	4.705	0.002	2743159	50.0	48.9	
1	4.834	4.831	0.003	2243878	50.0	52.7	
1	5.237	5.235	0.002	2280160	50.0	52.3	M
		Average of Peak Amounts =				50.7	
2	4.094	4.095	-0.001	1205476	50.0	51.2	
2	4.451	4.452	-0.001	2486429	50.0	51.6	
2	4.874	4.872	0.002	4938645	50.0	50.4	
2	5.001	4.998	0.003	2134546	50.0	50.7	
2	5.468	5.468	0.000	1673836	50.0	51.4	
		Average of Peak Amounts =				51.1	
						RPD = 0.79	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							M
1	6.564	6.561	0.003	2923758	50.0	50.6	
1	6.891	6.888	0.003	4484607	50.0	50.6	
1	7.227	7.225	0.002	5006434	50.0	50.9	
1	8.064	8.065	-0.001	6514374	50.0	50.2	
1	8.427	8.428	-0.001	3239497	50.0	50.2	
		Average of Peak Amounts =				50.5	
2	6.881	6.878	0.003	3343460	50.0	51.4	M
2	7.134	7.135	-0.001	3548737	50.0	50.4	
2	7.574	7.575	-0.001	4843663	50.0	50.9	
2	8.391	8.392	-0.001	6299384	50.0	49.3	
2	8.868	8.868	0.000	4404378	50.0	50.7	
		Average of Peak Amounts =				50.5	
						RPD = 0.06	
$ 15 DCB Decachlorobiphenyl							
1	9.871	9.871	0.000	2628418	2.50	2.29	
2	10.328	10.328	0.000	3191101	2.50	2.61	
						RPD = 12.76	
S 8 Polychlorinated biphenyls, Total							
1						101.2	
2						101.6	
						RPD = 0.43	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

AR_1660_L7_00046	Amount Added: 10.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

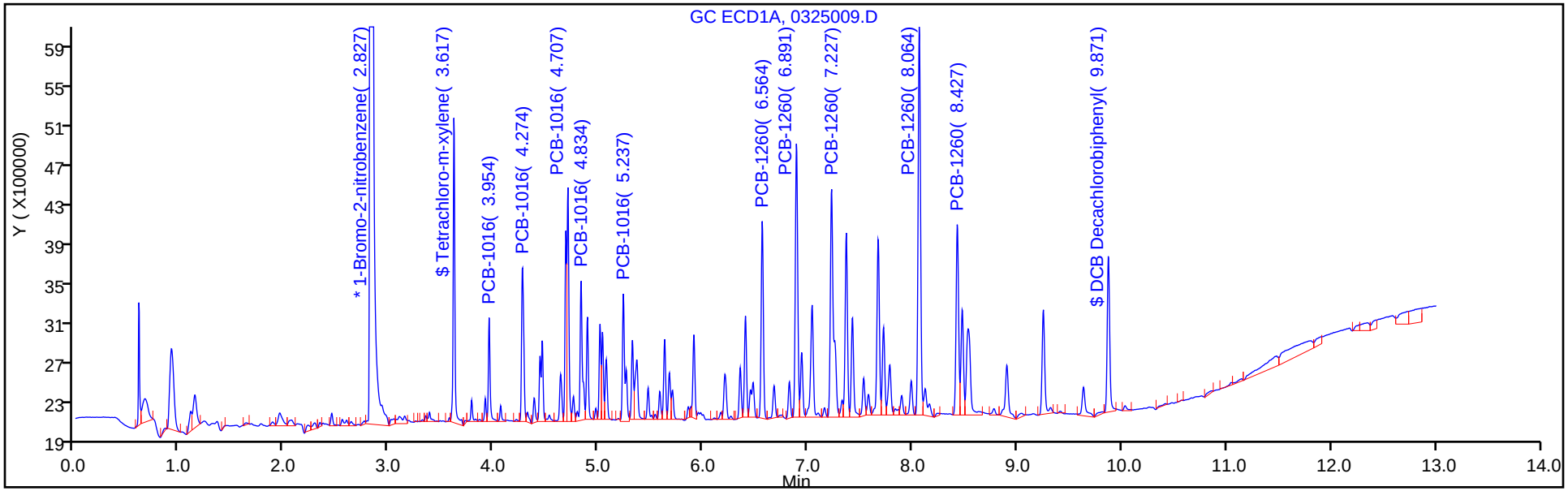
Report Date: 26-Mar-2024 08:01:16 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

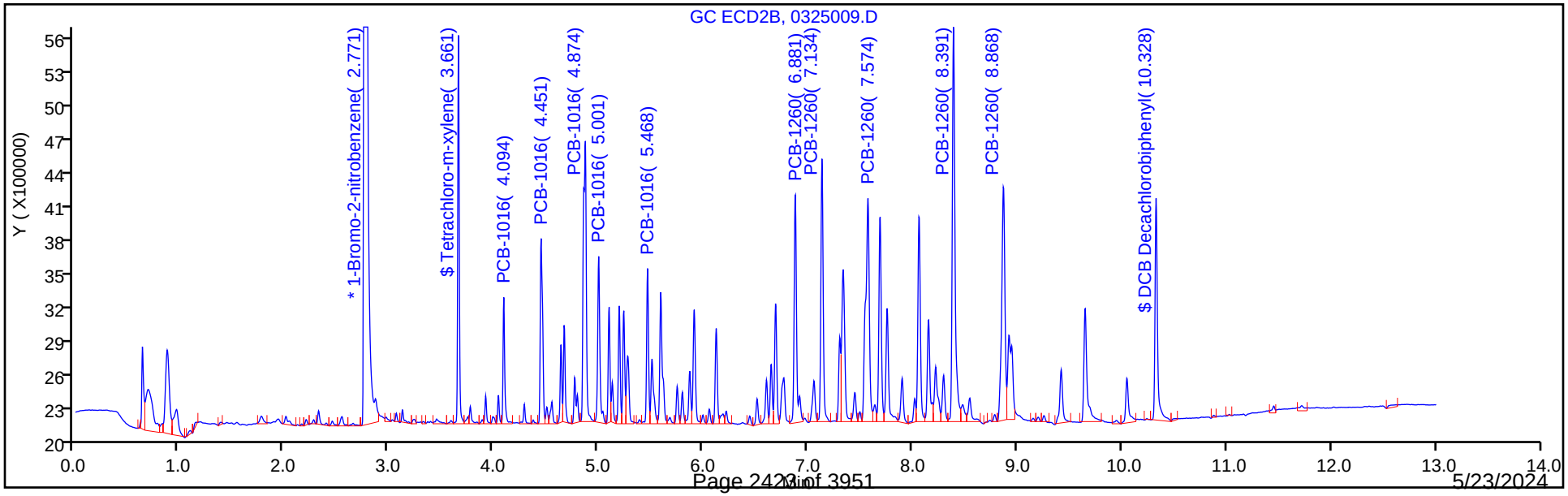
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325009.D

Injection Date:	25-Mar-2024 11:44:33	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	STD2			Worklist Smp#:	9
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



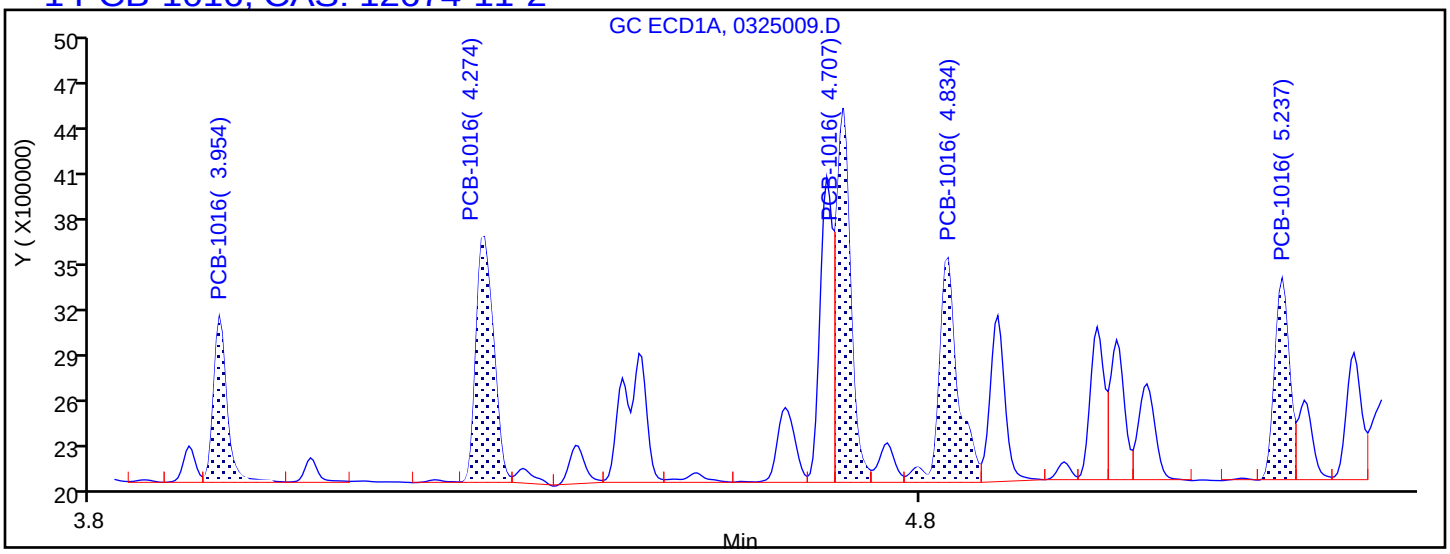
5/23/2024
4:40:30 AM

Report Date: 26-Mar-2024 08:01:16 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

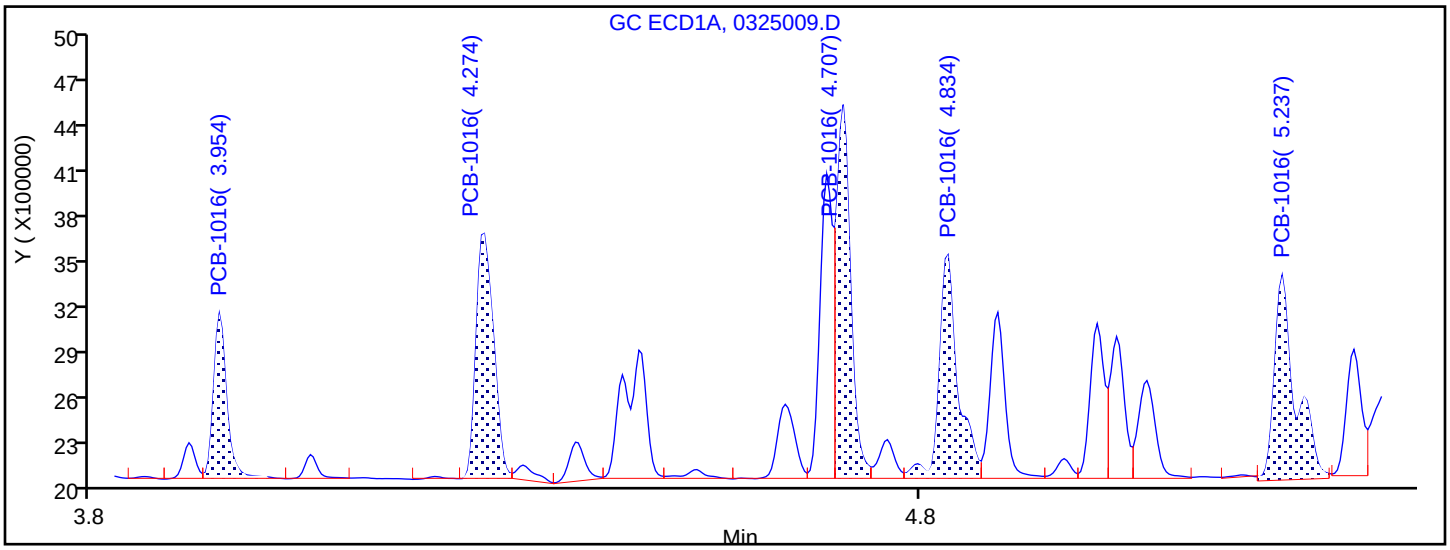
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325009.D
Injection Date: 25-Mar-2024 11:44:33 Instrument ID: SGC_J
Lims ID: STD2
Client ID:
Operator ID: SMP ALS Bottle#: 8 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP1 Pesticides Column 1 (0.32 mm) Detector GC ECD1A

1 PCB-1016, CAS: 12674-11-2



Processing Integration Results

3.954	Response = 1211326
4.274	Response = 2307428
4.707	Response = 2743159
4.834	Response = 2243878
5.237	Response = 1590424



Manual Integration Results

3.954	Response = 1211326	
4.274	Response = 2307428	
4.707	Response = 2743159	
4.834	Response = 2243878	
5.237	Response = 2280160	M

Reviewer: USP3, 25-Mar-2024 12:44:47 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325010.D
Lims ID: STD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 25-Mar-2024 12:01:15 ALS Bottle#: 9 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD1
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub1

Method: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 26-Mar-2024 08:01:20 Calib Date: 25-Mar-2024 13:41:25
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325017.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1643

First Level Reviewer: USP3 Date: 25-Mar-2024 12:43:29

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.827	2.828	-0.001	93934119	100.0	100.0	
2	2.771	2.768	0.003	105352147	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.617	3.618	-0.001	1994374	1.25	1.21	
2	3.661	3.662	-0.001	1859039	1.25	1.22	
						RPD = 0.87	
1 PCB-1016							M
1	3.954	3.955	-0.001	682677	25.0	24.0	
1	4.274	4.271	0.003	1424620	25.0	24.5	
1	4.707	4.705	0.002	1557109	25.0	24.6	
1	4.834	4.831	0.003	1263236	25.0	23.9	
1	5.237	5.235	0.002	1242623	25.0	23.9	M
		Average of Peak Amounts =				24.2	
2	4.094	4.095	-0.001	664158	25.0	24.0	
2	4.451	4.452	-0.001	1375601	25.0	23.9	
2	4.874	4.872	0.002	2771970	25.0	24.4	
2	5.001	4.998	0.003	1193189	25.0	24.3	
2	5.468	5.468	0.000	921863	25.0	24.1	
		Average of Peak Amounts =				24.2	
						RPD = 0.13	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							
1	6.564	6.561	0.003	1661809	25.0	24.4	
1	6.891	6.888	0.003	2526963	25.0	24.4	
1	7.227	7.225	0.002	2759103	25.0	24.3	
1	8.064	8.065	-0.001	3601567	25.0	24.6	
1	8.427	8.428	-0.001	1791107	25.0	24.7	
		Average of Peak Amounts =				24.5	
2	6.881	6.878	0.003	1843665	25.0	24.2	
2	7.134	7.135	-0.001	1992776	25.0	24.3	
2	7.574	7.575	-0.001	2674460	25.0	24.3	
2	8.391	8.392	-0.001	3706895	25.0	24.9	
2	8.868	8.868	0.000	2421257	25.0	24.4	
		Average of Peak Amounts =				24.4	
						RPD = 0.22	
$ 15 DCB Decachlorobiphenyl							
1	9.871	9.871	0.000	1501308	1.25	1.27	
2	10.328	10.328	0.000	1766938	1.25	1.20	
						RPD = 6.04	
S 8 Polychlorinated biphenyls, Total							
1						48.7	
2						48.6	
						RPD = 0.17	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

AR_1660_L7_00046	Amount Added: 5.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

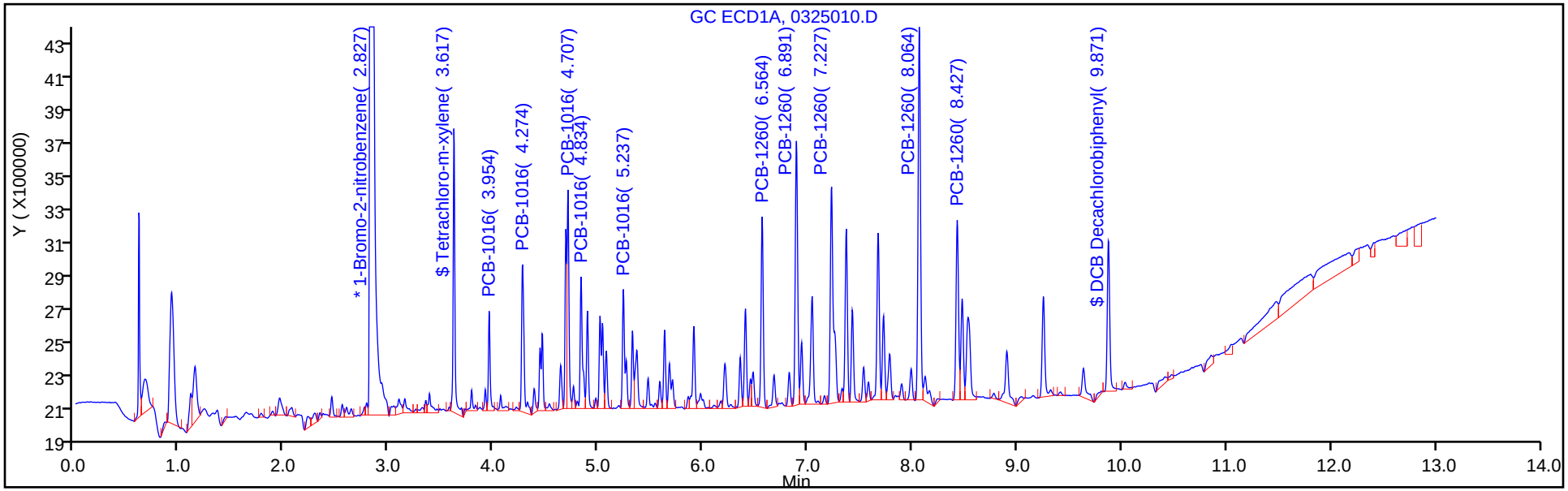
Report Date: 26-Mar-2024 08:01:20 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

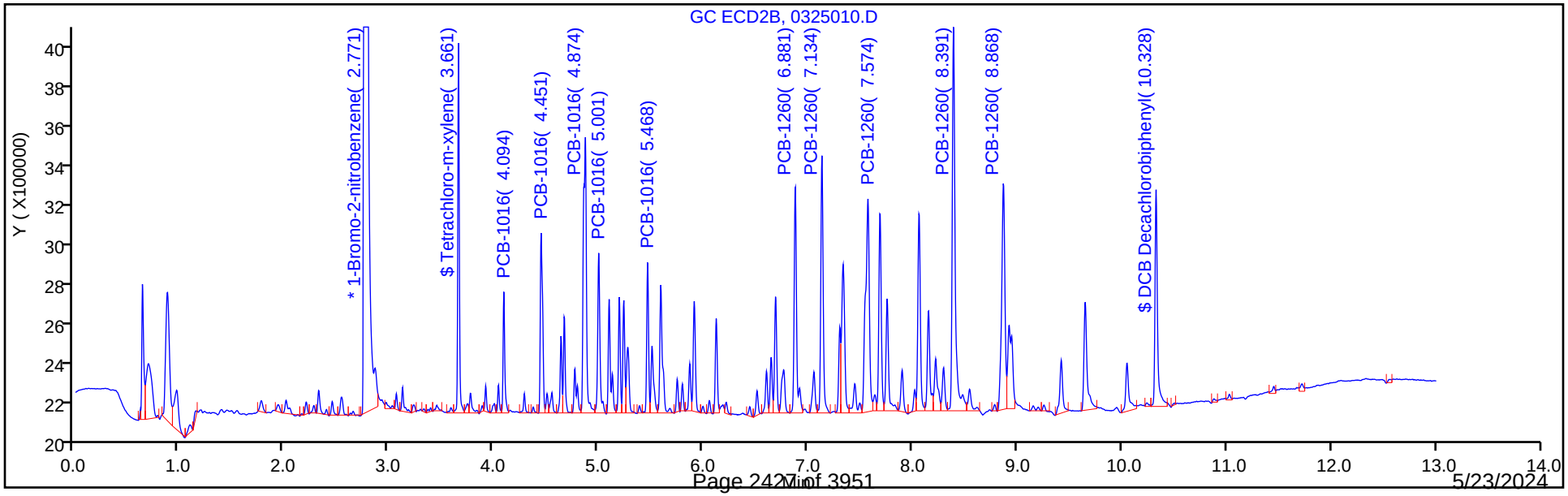
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325010.D

Injection Date:	25-Mar-2024 12:01:15	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	STD1			Worklist Smp#:	10
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



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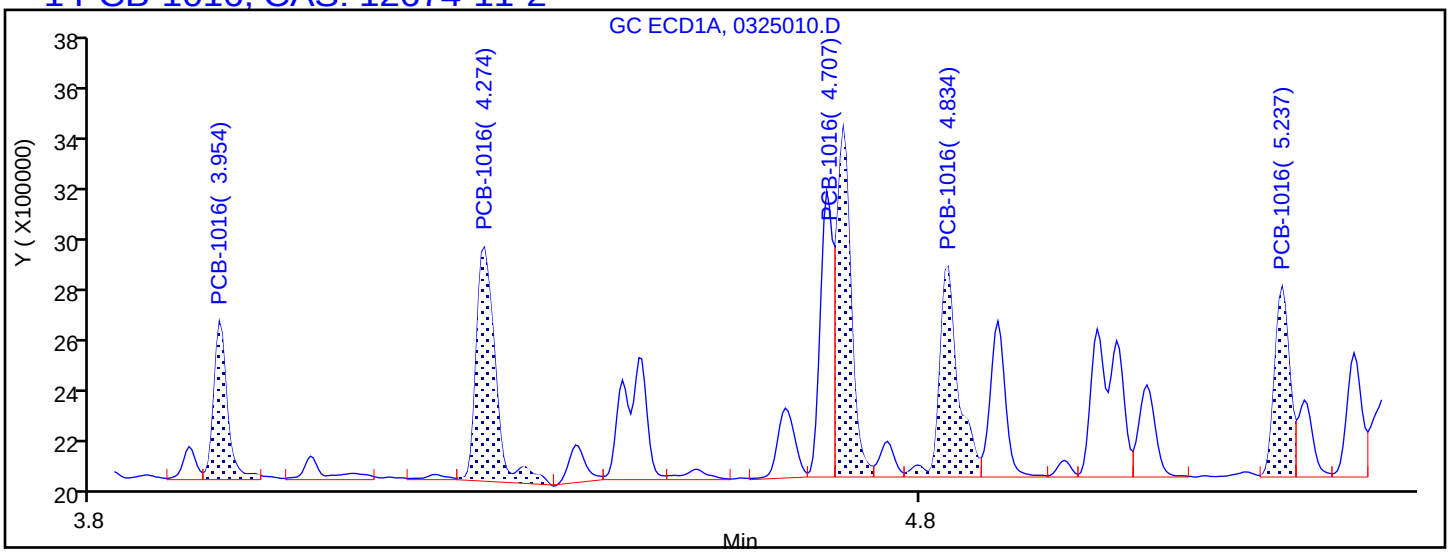
Report Date: 26-Mar-2024 08:01:21 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

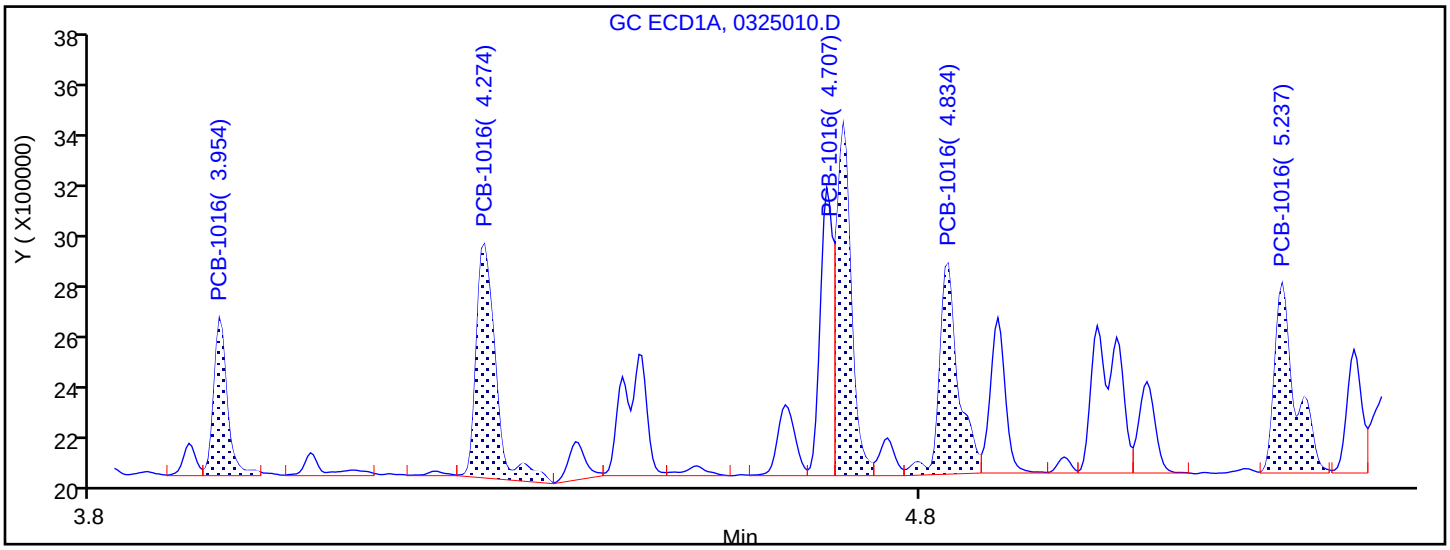
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325010.D
Injection Date: 25-Mar-2024 12:01:15 Instrument ID: SGC_J
Lims ID: STD1
Client ID:
Operator ID: SMP ALS Bottle#: 9 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP1 Pesticides Column 1 (0.32 mm) Detector GC ECD1A

1 PCB-1016, CAS: 12674-11-2



Processing Integration Results

3.954	Response = 682677
4.274	Response = 1424620
4.707	Response = 1557109
4.834	Response = 1263236
5.237	Response = 891463



Manual Integration Results

3.954	Response = 682677	
4.274	Response = 1424620	
4.707	Response = 1557109	
4.834	Response = 1263236	
5.237	Response = 1242623	M

Reviewer: USP3, 25-Mar-2024 12:44:33 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Split Peak

Calibration / Tetrachloro-m-xylene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

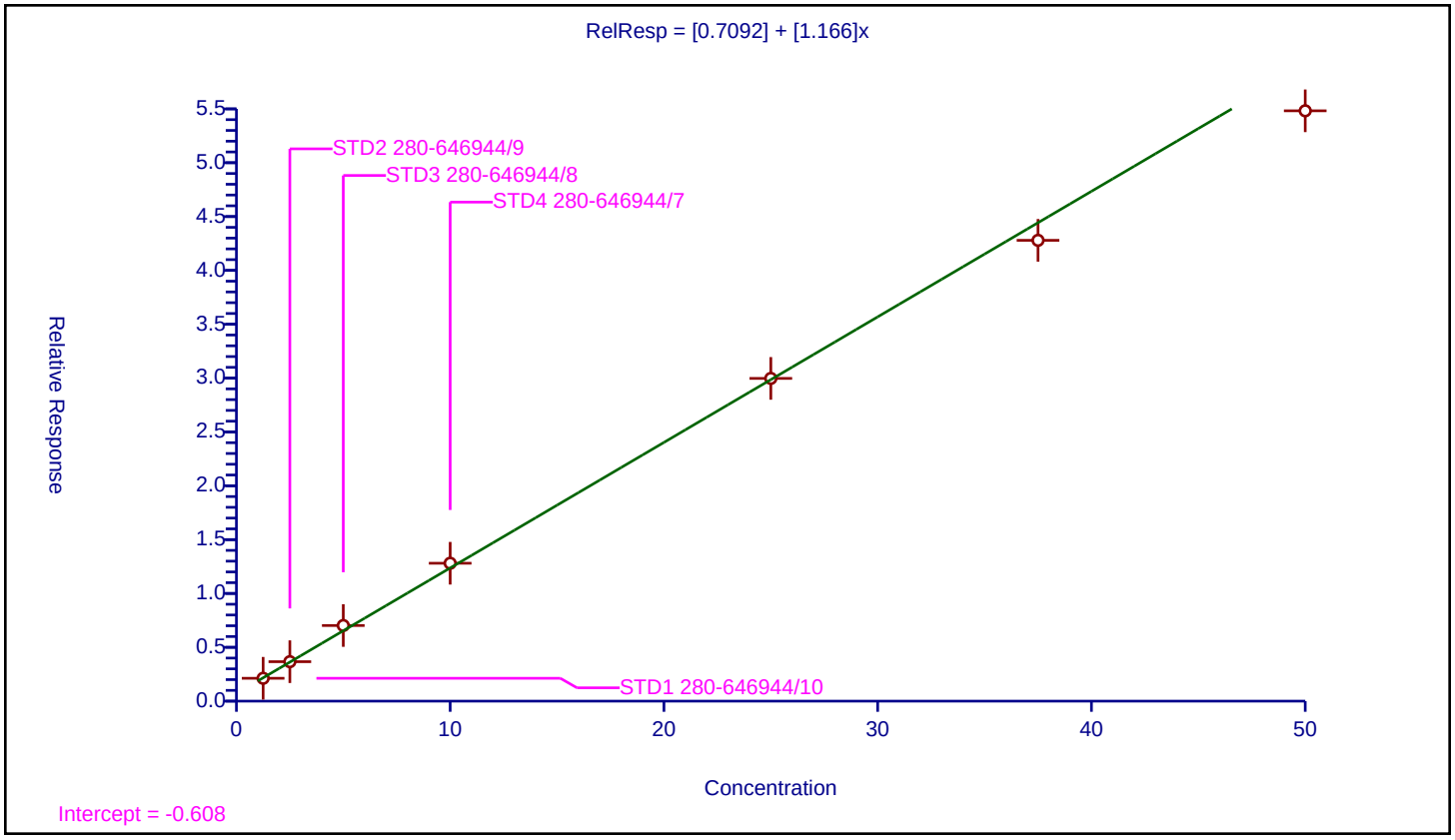
Curve Coefficients

Intercept:	0.7092
Slope:	1.166

Error Coefficients

Relative Standard Deviation:	5.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	1.25	2.123163	100.0	93934119.0	1.69853	Y
2	STD2 280-646944/9	2.5	3.665472	100.0	95736878.0	1.466189	Y
3	STD3 280-646944/8	5.0	7.023065	100.0	94707781.0	1.404613	Y
4	STD4 280-646944/7	10.0	12.806475	100.0	94431461.0	1.280647	Y
5	ICIS 280-646944/6	25.0	29.970878	100.0	92655166.0	1.198835	Y
6	STD6 280-646944/5	37.5	42.793112	100.0	94652530.0	1.14115	Y
7	STD7 280-646944/4	50.0	54.820834	100.0	93749329.0	1.096417	Y



5/23/2024
4:40:30 AM

Calibration / PCB-1016 Peak 1

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

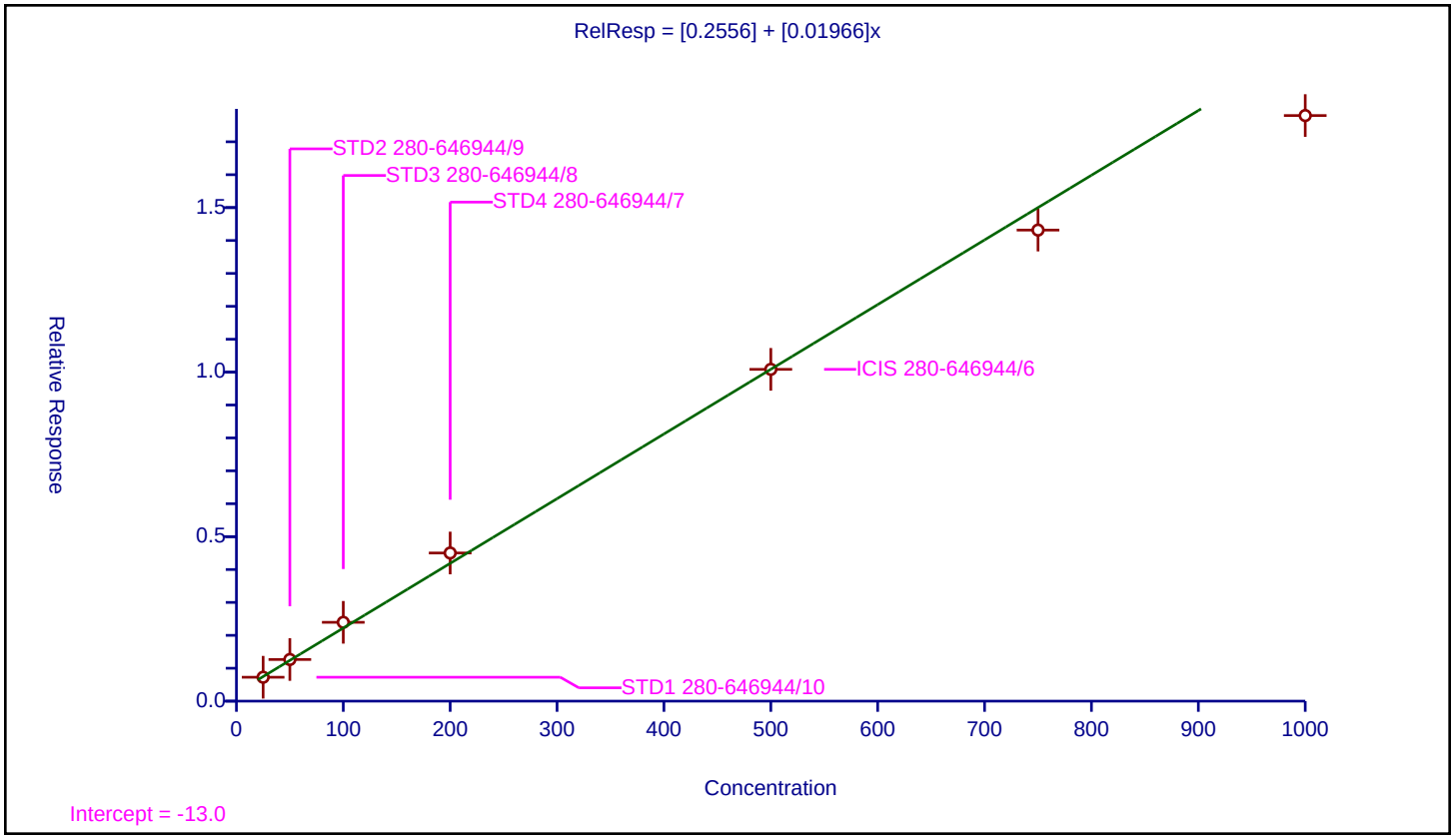
Curve Coefficients

Intercept:	0.2556
Slope:	0.01966

Error Coefficients

Relative Standard Deviation:	7.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	25.0	0.726761	100.0	93934119.0	0.02907	Y
2	STD2 280-646944/9	50.0	1.265266	100.0	95736878.0	0.025305	Y
3	STD3 280-646944/8	100.0	2.395449	100.0	94707781.0	0.023954	Y
4	STD4 280-646944/7	200.0	4.502687	100.0	94431461.0	0.022513	Y
5	ICIS 280-646944/6	500.0	10.083989	100.0	92655166.0	0.020168	Y
6	STD6 280-646944/5	750.0	14.316581	100.0	94652530.0	0.019089	Y
7	STD7 280-646944/4	1000.0	17.797843	100.0	93749329.0	0.017798	Y



5/23/2024
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Calibration / PCB-1016 Peak 2

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

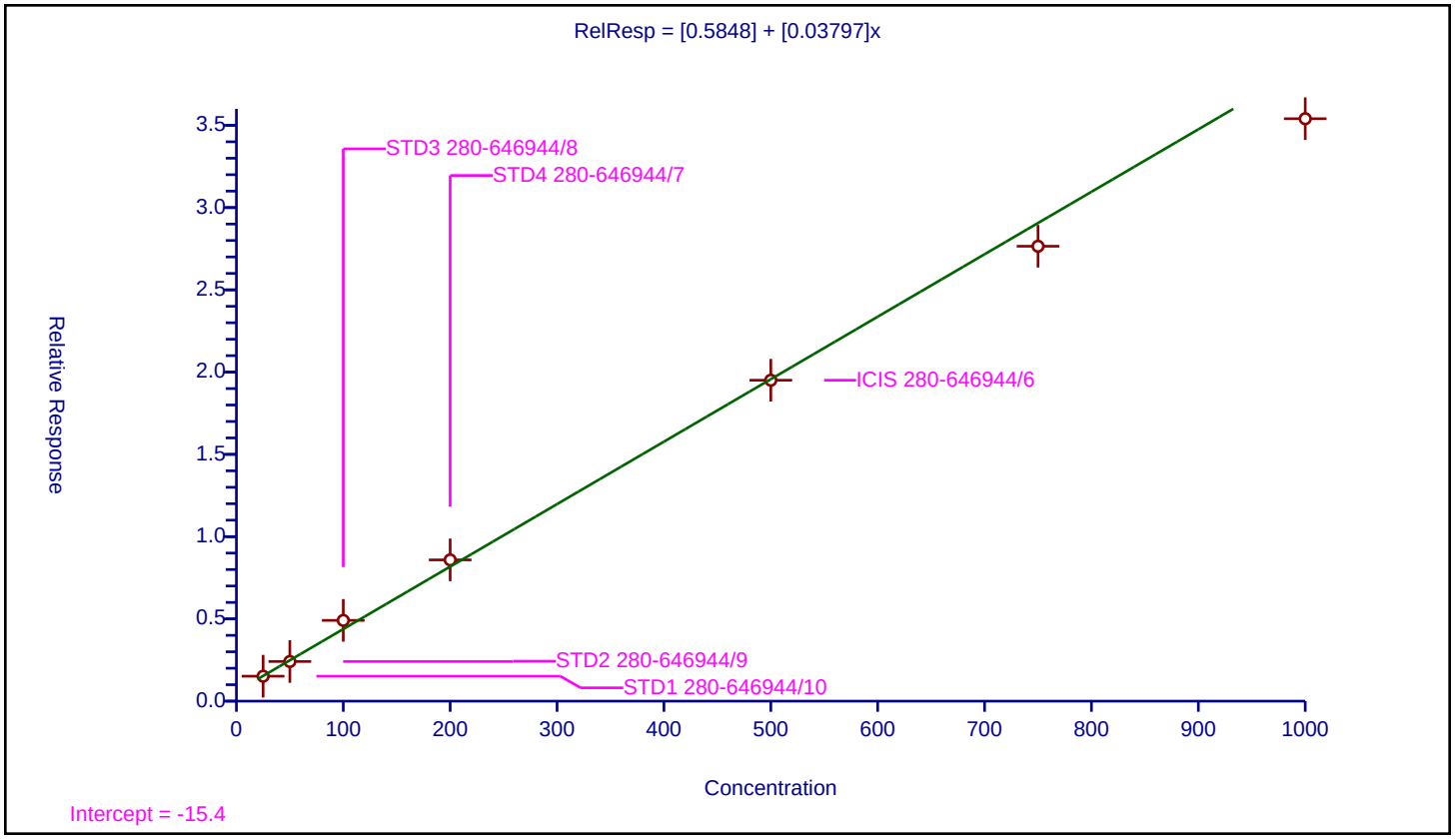
Curve Coefficients

Intercept:	0.5848
Slope:	0.03797

Error Coefficients

Relative Standard Deviation:	8.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	25.0	1.516616	100.0	93934119.0	0.060665	Y
2	STD2 280-646944/9	50.0	2.410177	100.0	95736878.0	0.048204	Y
3	STD3 280-646944/8	100.0	4.909447	100.0	94707781.0	0.049094	Y
4	STD4 280-646944/7	200.0	8.585704	100.0	94431461.0	0.042929	Y
5	ICIS 280-646944/6	500.0	19.508309	100.0	92655166.0	0.039017	Y
6	STD6 280-646944/5	750.0	27.651194	100.0	94652530.0	0.036868	Y
7	STD7 280-646944/4	1000.0	35.402093	100.0	93749329.0	0.035402	Y



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Calibration / PCB-1016 Peak 3

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

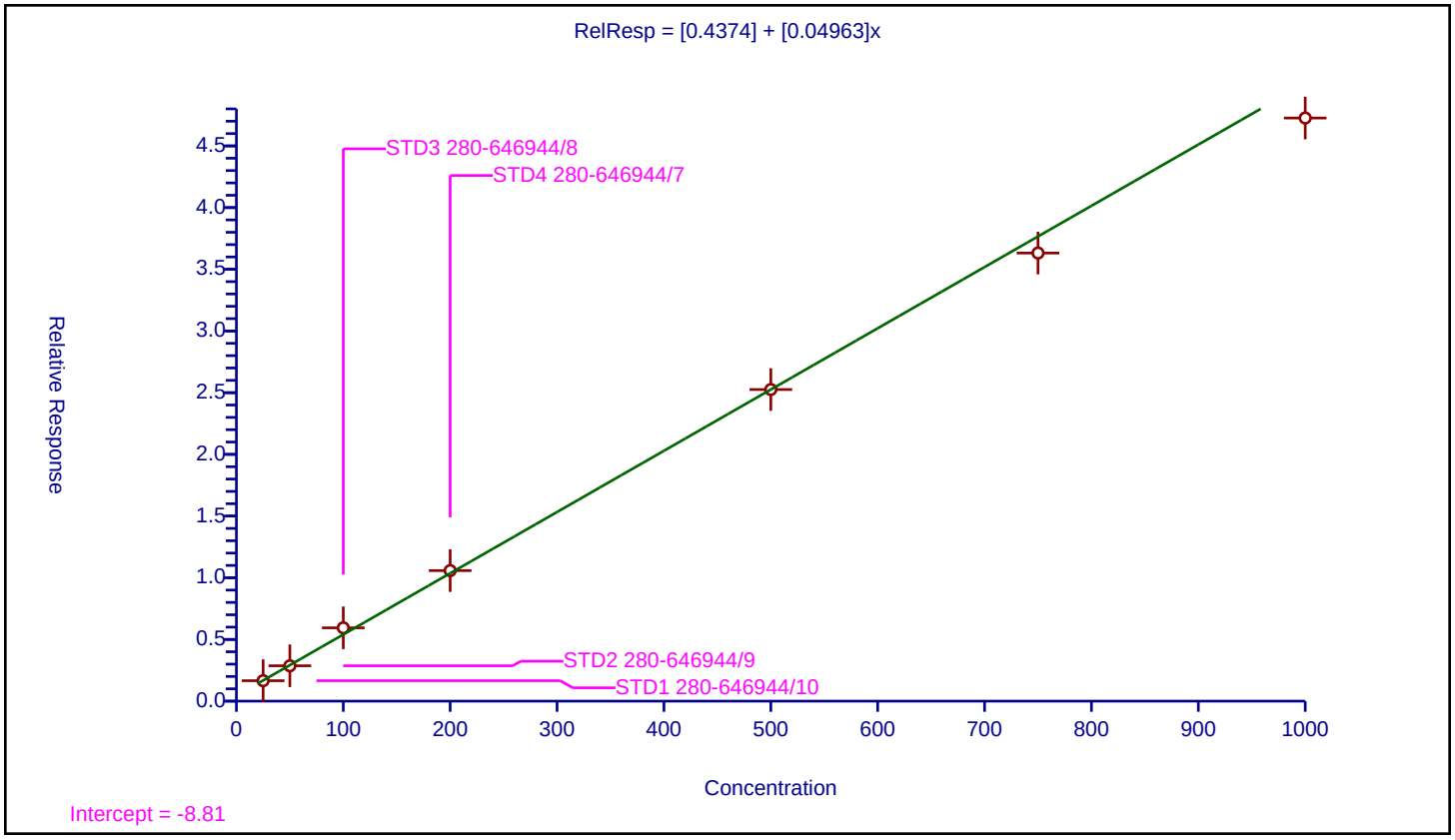
Curve Coefficients

Intercept:	0.4374
Slope:	0.04963

Error Coefficients

Relative Standard Deviation:	5.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	25.0	1.657661	100.0	93934119.0	0.066306	Y
2	STD2 280-646944/9	50.0	2.865311	100.0	95736878.0	0.057306	Y
3	STD3 280-646944/8	100.0	5.941295	100.0	94707781.0	0.059413	Y
4	STD4 280-646944/7	200.0	10.581214	100.0	94431461.0	0.052906	Y
5	ICIS 280-646944/6	500.0	25.255287	100.0	92655166.0	0.050511	Y
6	STD6 280-646944/5	750.0	36.318112	100.0	94652530.0	0.048424	Y
7	STD7 280-646944/4	1000.0	47.259332	100.0	93749329.0	0.047259	Y



Calibration / PCB-1016 Peak 4

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

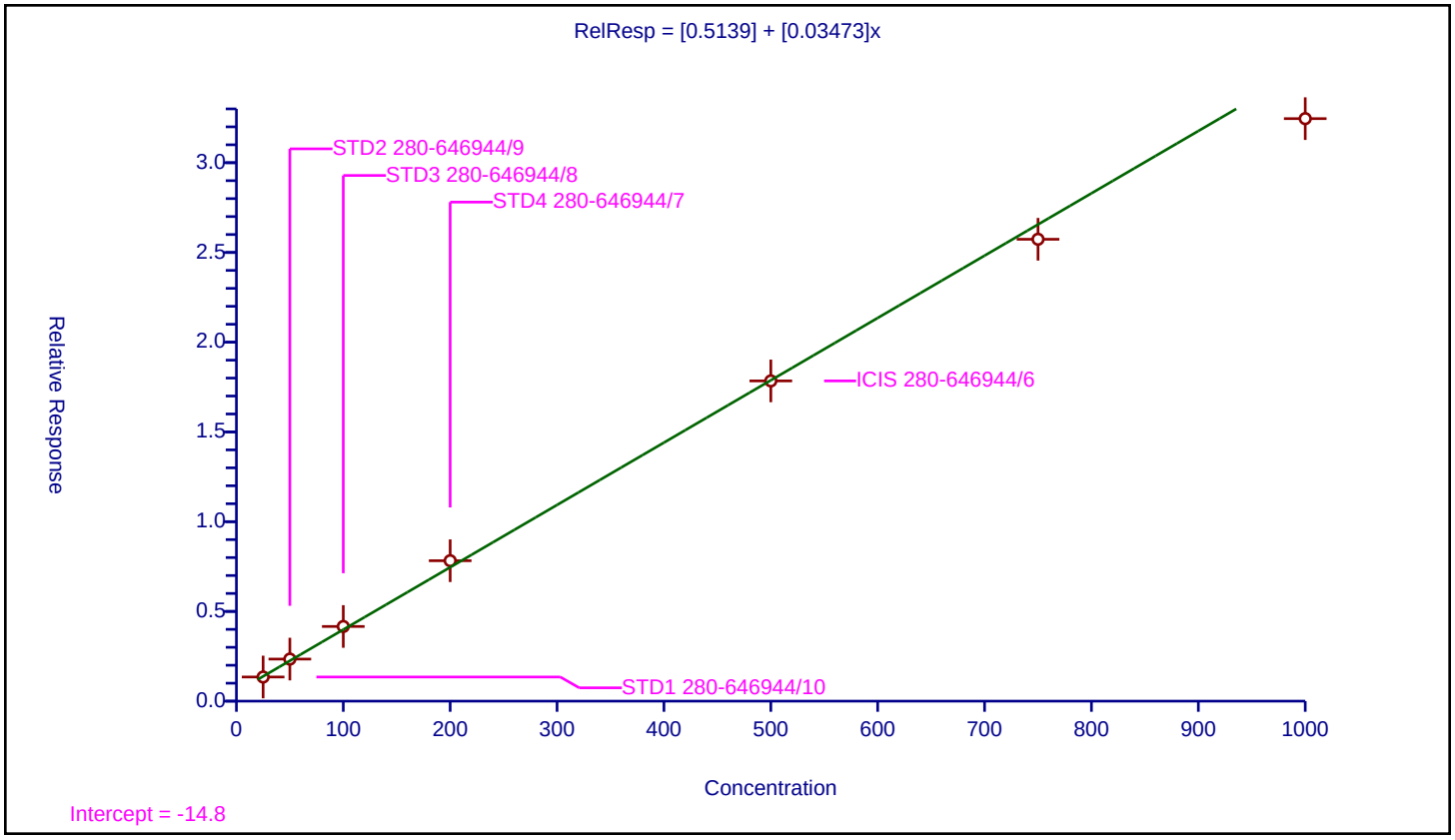
Curve Coefficients

Intercept:	0.5139
Slope:	0.03473

Error Coefficients

Relative Standard Deviation:	5.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	25.0	1.344811	100.0	93934119.0	0.053792	Y
2	STD2 280-646944/9	50.0	2.343797	100.0	95736878.0	0.046876	Y
3	STD3 280-646944/8	100.0	4.160527	100.0	94707781.0	0.041605	Y
4	STD4 280-646944/7	200.0	7.825138	100.0	94431461.0	0.039126	Y
5	ICIS 280-646944/6	500.0	17.84298	100.0	92655166.0	0.035686	Y
6	STD6 280-646944/5	750.0	25.735877	100.0	94652530.0	0.034315	Y
7	STD7 280-646944/4	1000.0	32.457404	100.0	93749329.0	0.032457	Y



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Calibration / PCB-1016 Peak 5

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

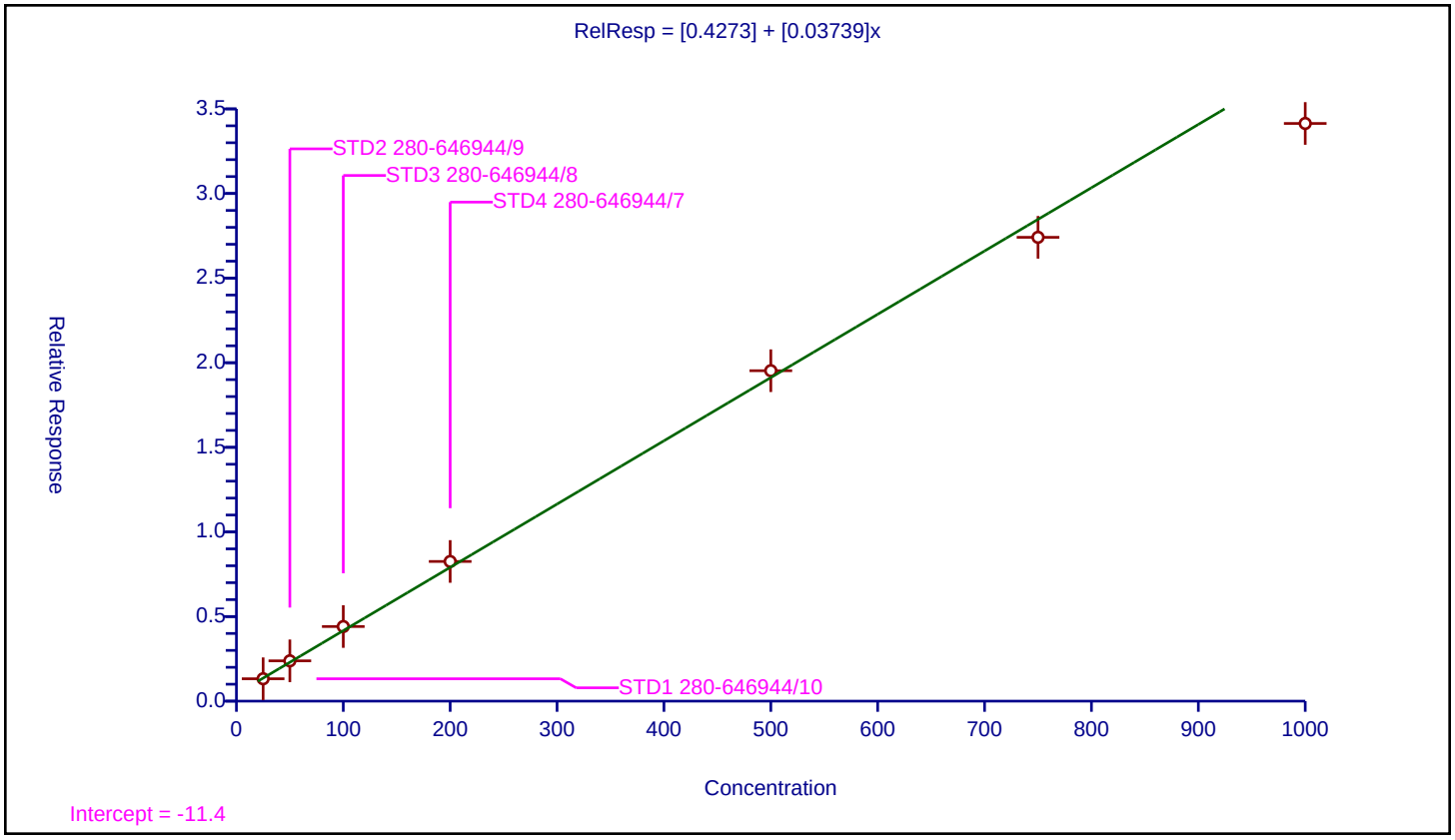
Curve Coefficients

Intercept:	0.4273
Slope:	0.03739

Error Coefficients

Relative Standard Deviation:	6.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	25.0	1.322867	100.0	93934119.0	0.052915	Y
2	STD2 280-646944/9	50.0	2.381695	100.0	95736878.0	0.047634	Y
3	STD3 280-646944/8	100.0	4.409056	100.0	94707781.0	0.044091	Y
4	STD4 280-646944/7	200.0	8.254639	100.0	94431461.0	0.041273	Y
5	ICIS 280-646944/6	500.0	19.527199	100.0	92655166.0	0.039054	Y
6	STD6 280-646944/5	750.0	27.410788	100.0	94652530.0	0.036548	Y
7	STD7 280-646944/4	1000.0	34.13908	100.0	93749329.0	0.034139	Y



5/23/2024
4:40:30 AM

Calibration / PCB-1260 Peak 1

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

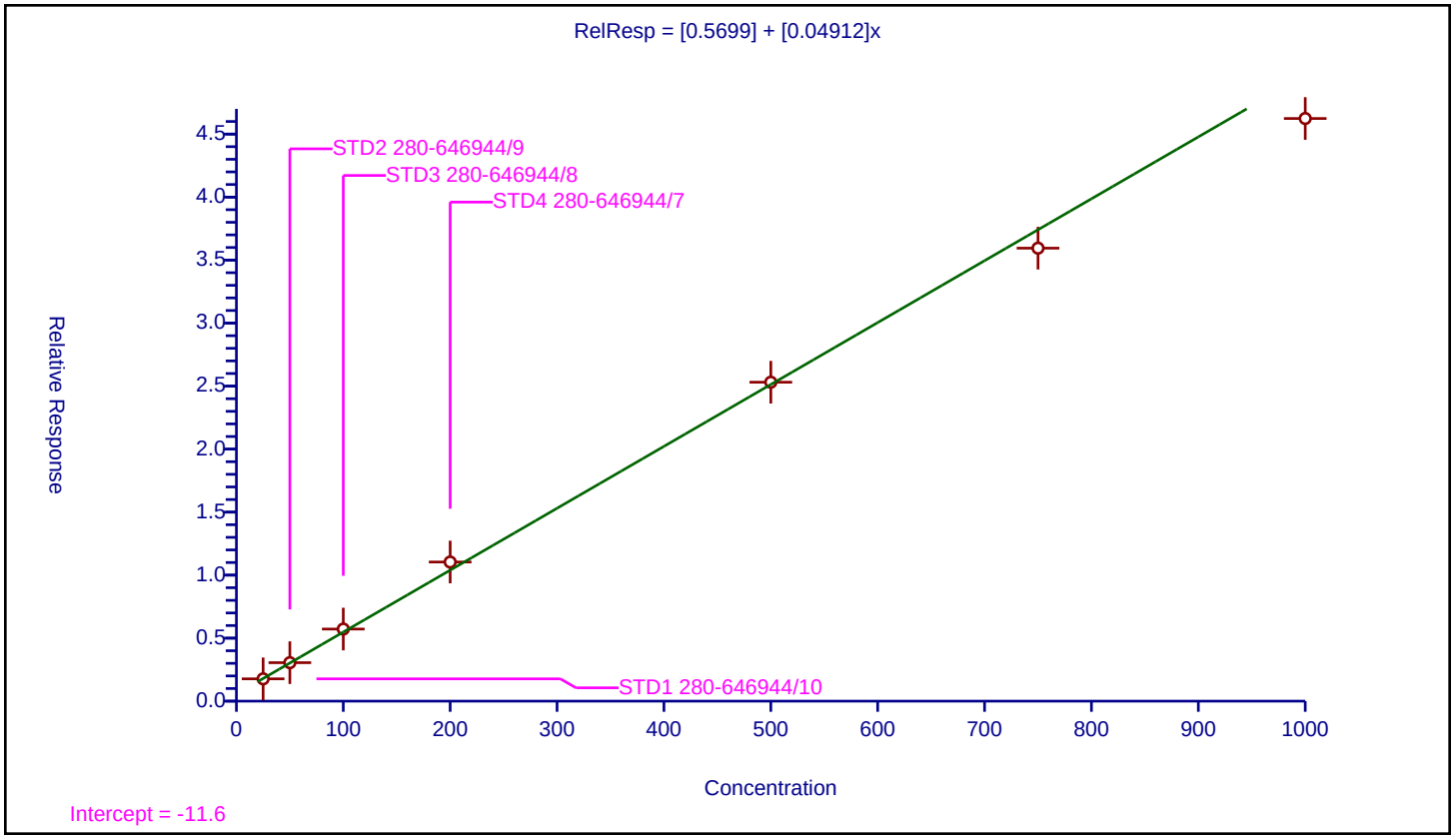
Curve Coefficients

Intercept:	0.5699
Slope:	0.04912

Error Coefficients

Relative Standard Deviation:	5.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	25.0	1.769122	100.0	93934119.0	0.070765	Y
2	STD2 280-646944/9	50.0	3.053952	100.0	95736878.0	0.061079	Y
3	STD3 280-646944/8	100.0	5.721314	100.0	94707781.0	0.057213	Y
4	STD4 280-646944/7	200.0	11.040763	100.0	94431461.0	0.055204	Y
5	ICIS 280-646944/6	500.0	25.309559	100.0	92655166.0	0.050619	Y
6	STD6 280-646944/5	750.0	35.94696	100.0	94652530.0	0.047929	Y
7	STD7 280-646944/4	1000.0	46.23789	100.0	93749329.0	0.046238	Y



5/23/2024
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Calibration / PCB-1260 Peak 2

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

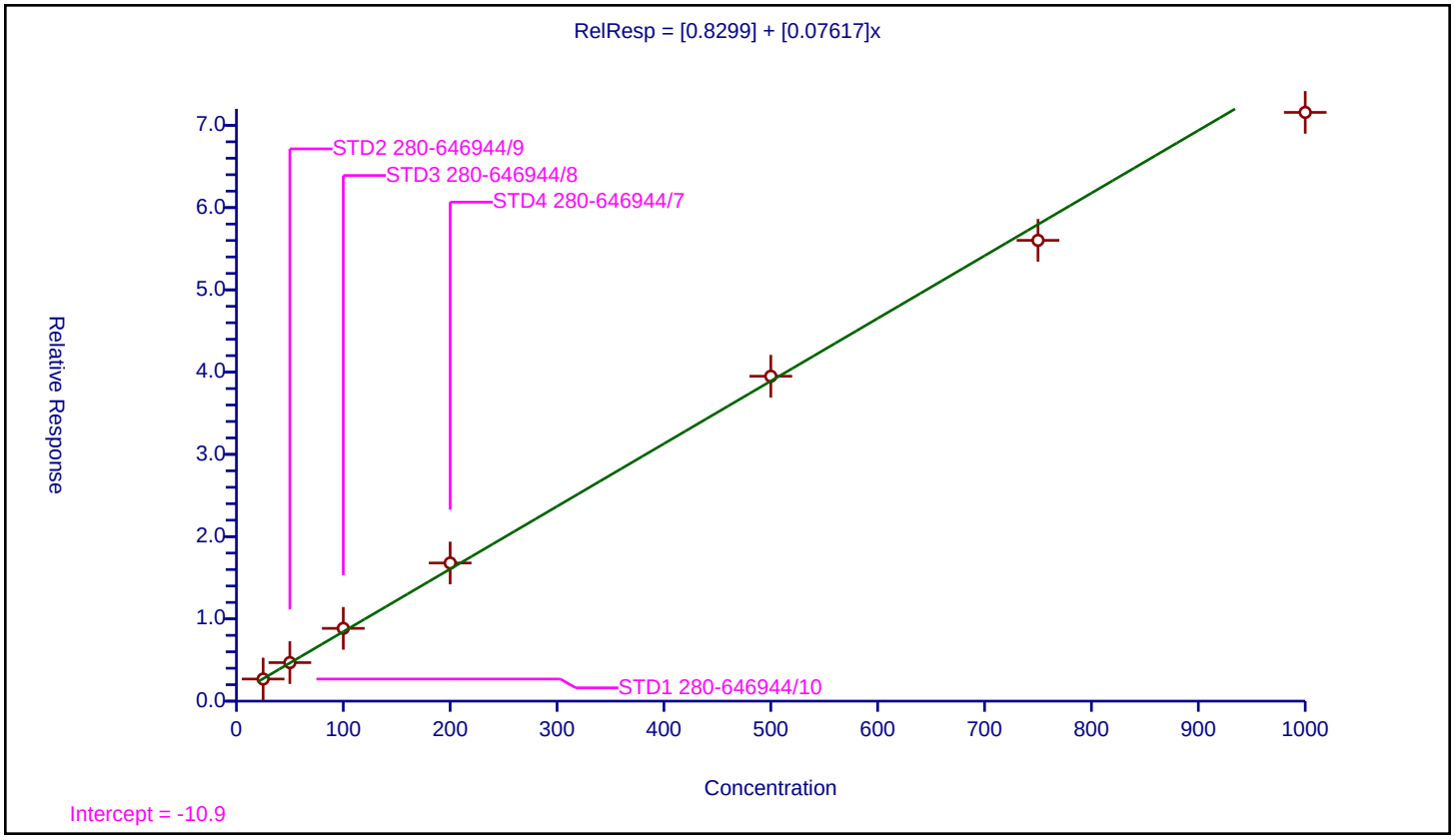
Curve Coefficients

Intercept:	0.8299
Slope:	0.07617

Error Coefficients

Relative Standard Deviation:	4.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	25.0	2.690144	100.0	93934119.0	0.107606	Y
2	STD2 280-646944/9	50.0	4.684305	100.0	95736878.0	0.093686	Y
3	STD3 280-646944/8	100.0	8.84718	100.0	94707781.0	0.088472	Y
4	STD4 280-646944/7	200.0	16.794041	100.0	94431461.0	0.08397	Y
5	ICIS 280-646944/6	500.0	39.50023	100.0	92655166.0	0.079	Y
6	STD6 280-646944/5	750.0	56.022179	100.0	94652530.0	0.074696	Y
7	STD7 280-646944/4	1000.0	71.57473	100.0	93749329.0	0.071575	Y



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Calibration / PCB-1260 Peak 3

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

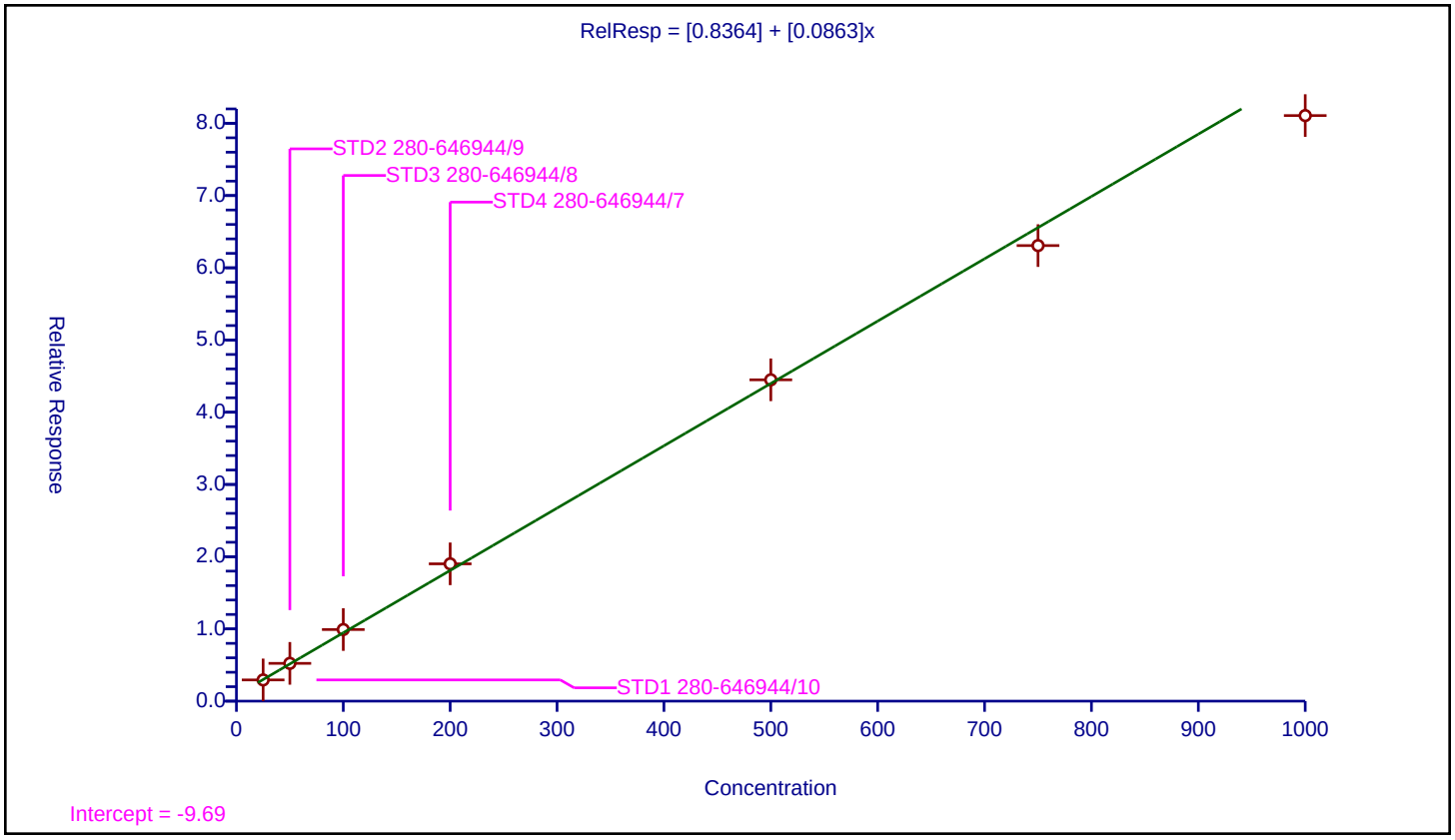
Curve Coefficients

Intercept:	0.8364
Slope:	0.0863

Error Coefficients

Relative Standard Deviation:	5.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	25.0	2.937275	100.0	93934119.0	0.117491	Y
2	STD2 280-646944/9	50.0	5.229368	100.0	95736878.0	0.104587	Y
3	STD3 280-646944/8	100.0	9.91487	100.0	94707781.0	0.099149	Y
4	STD4 280-646944/7	200.0	19.012793	100.0	94431461.0	0.095064	Y
5	ICIS 280-646944/6	500.0	44.49037	100.0	92655166.0	0.088981	Y
6	STD6 280-646944/5	750.0	63.074035	100.0	94652530.0	0.084099	Y
7	STD7 280-646944/4	1000.0	81.075959	100.0	93749329.0	0.081076	Y



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Calibration / PCB-1260 Peak 4

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

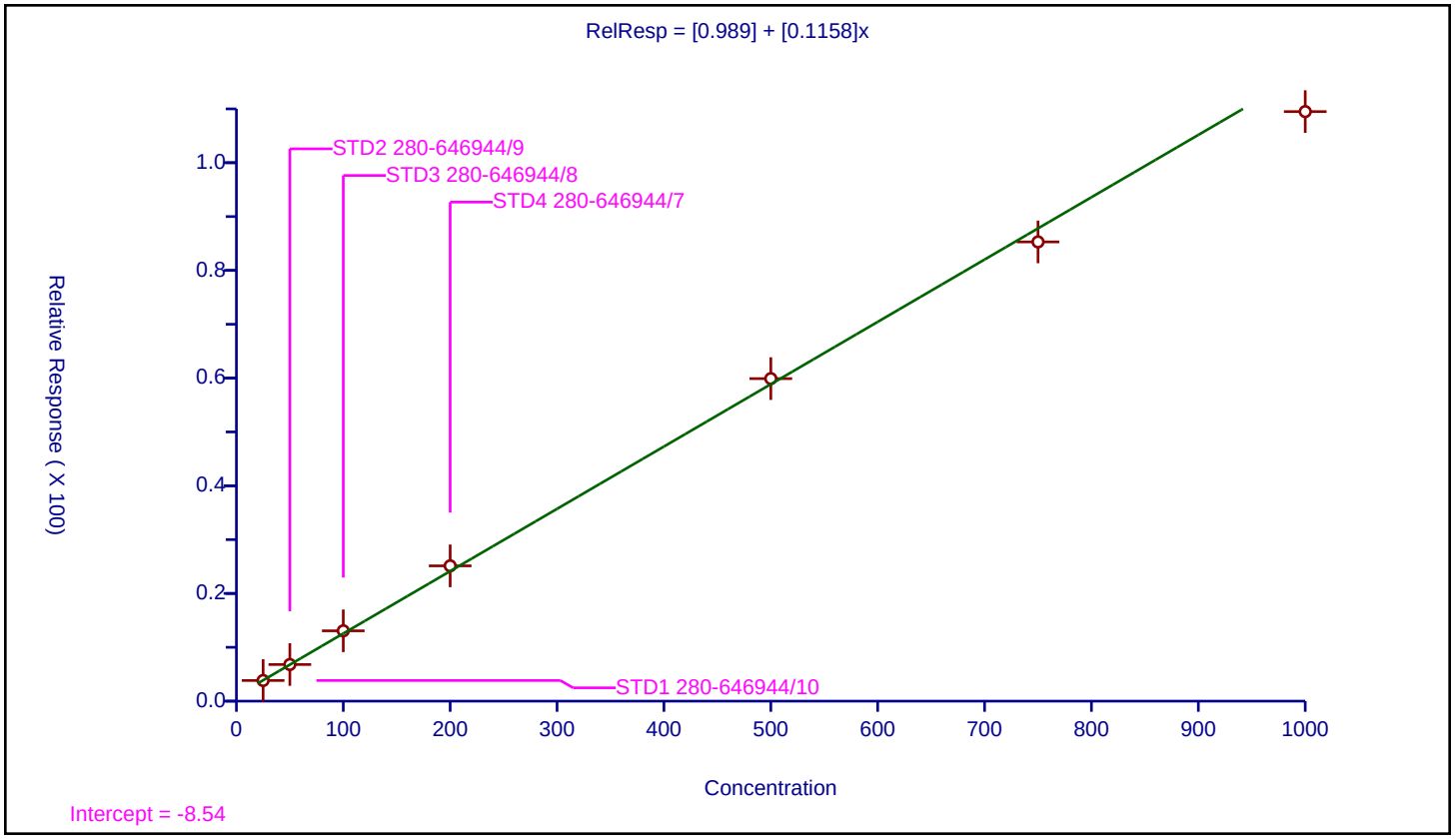
Curve Coefficients

Intercept:	0.989
Slope:	0.1158

Error Coefficients

Relative Standard Deviation:	4.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	25.0	3.834141	100.0	93934119.0	0.153366	Y
2	STD2 280-646944/9	50.0	6.804456	100.0	95736878.0	0.136089	Y
3	STD3 280-646944/8	100.0	13.060745	100.0	94707781.0	0.130607	Y
4	STD4 280-646944/7	200.0	25.12862	100.0	94431461.0	0.125643	Y
5	ICIS 280-646944/6	500.0	59.901319	100.0	92655166.0	0.119803	Y
6	STD6 280-646944/5	750.0	85.294406	100.0	94652530.0	0.113726	Y
7	STD7 280-646944/4	1000.0	109.495865	100.0	93749329.0	0.109496	Y



Calibration / PCB-1260 Peak 5

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

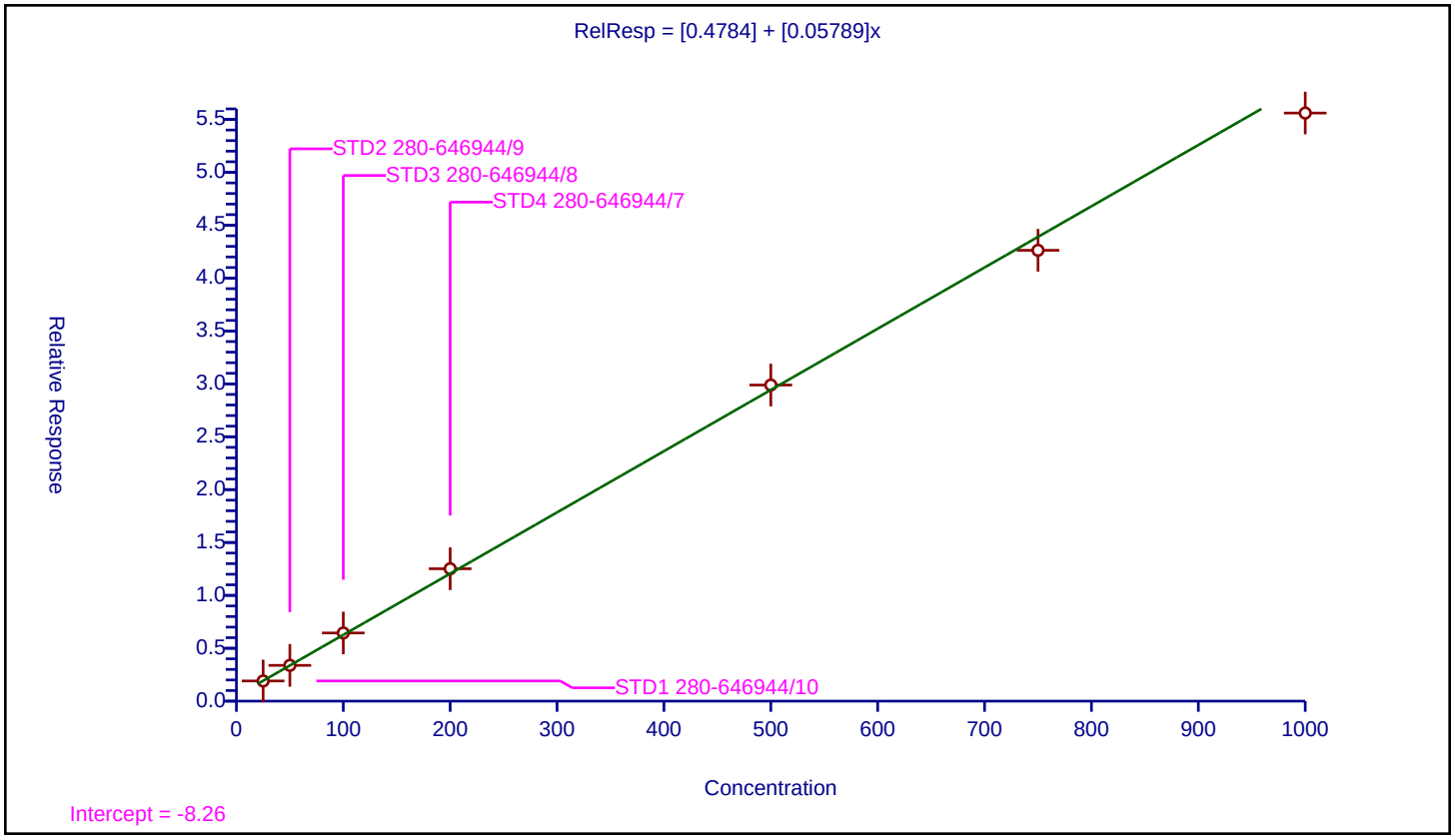
Curve Coefficients

Intercept:	0.4784
Slope:	0.05789

Error Coefficients

Relative Standard Deviation:	3.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	25.0	1.906769	100.0	93934119.0	0.076271	Y
2	STD2 280-646944/9	50.0	3.38375	100.0	95736878.0	0.067675	Y
3	STD3 280-646944/8	100.0	6.445514	100.0	94707781.0	0.064455	Y
4	STD4 280-646944/7	200.0	12.516618	100.0	94431461.0	0.062583	Y
5	ICIS 280-646944/6	500.0	29.890436	100.0	92655166.0	0.059781	Y
6	STD6 280-646944/5	750.0	42.629992	100.0	94652530.0	0.05684	Y
7	STD7 280-646944/4	1000.0	55.607007	100.0	93749329.0	0.055607	Y



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Calibration / DCB Decachlorobiphenyl

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

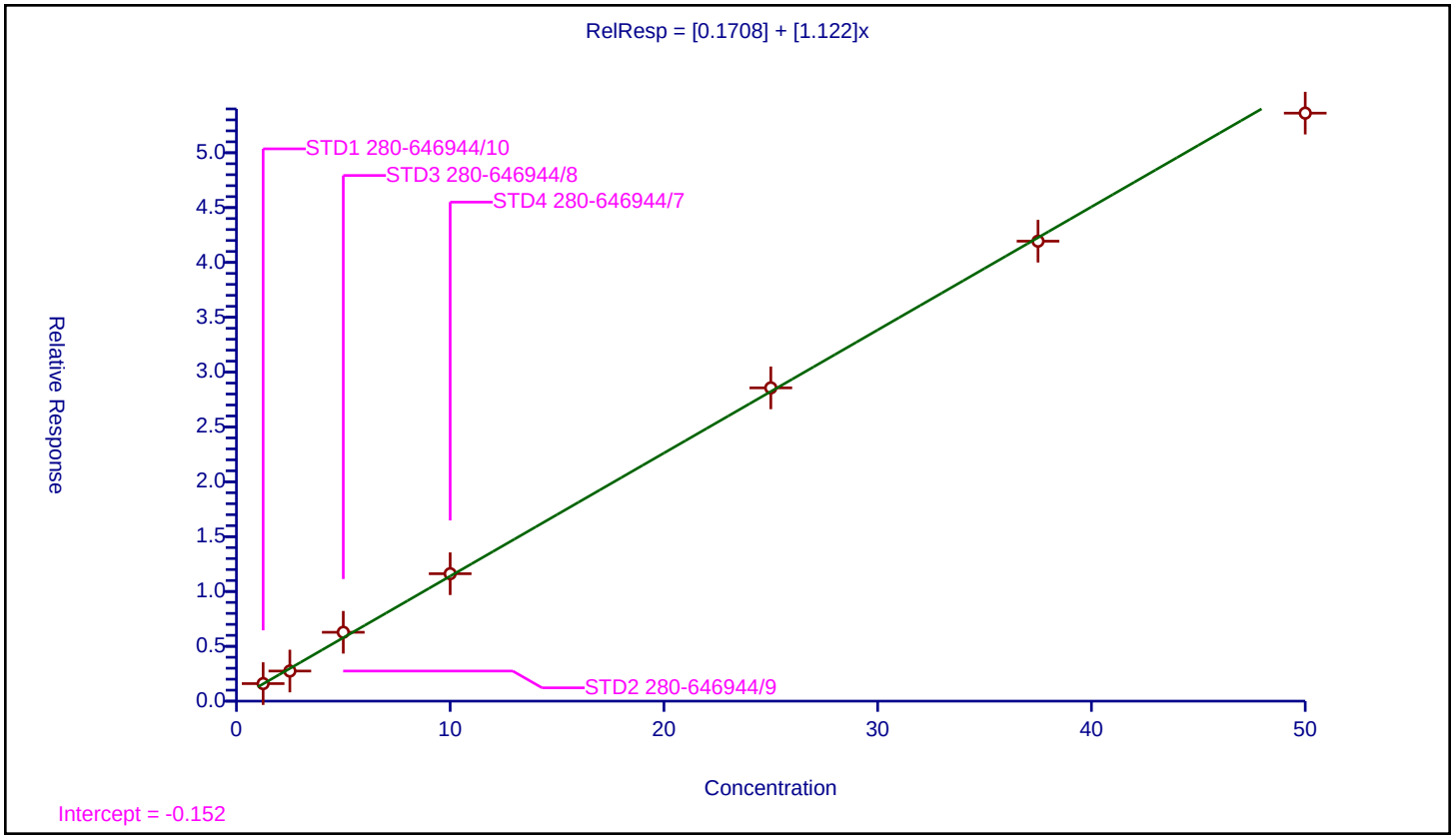
Curve Coefficients

Intercept:	0.1708
Slope:	1.122

Error Coefficients

Relative Standard Deviation:	6.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	1.25	1.598256	100.0	93934119.0	1.278605	Y
2	STD2 280-646944/9	2.5	2.74546	100.0	95736878.0	1.098184	Y
3	STD3 280-646944/8	5.0	6.279837	100.0	94707781.0	1.255967	Y
4	STD4 280-646944/7	10.0	11.618503	100.0	94431461.0	1.16185	Y
5	ICIS 280-646944/6	25.0	28.565242	100.0	92655166.0	1.14261	Y
6	STD6 280-646944/5	37.5	41.937834	100.0	94652530.0	1.118342	Y
7	STD7 280-646944/4	50.0	53.613313	100.0	93749329.0	1.072266	Y



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FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 646944

SDG No.:

Instrument ID: SGC_J GC Column: CLP2 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/25/2024 10:20 Calibration End Date: 03/25/2024 12:01 Calibration ID: 91434

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 280-646944/10	0325010.D
Level 2	STD2 280-646944/9	0325009.D
Level 3	STD3 280-646944/8	0325008.D
Level 4	STD4 280-646944/7	0325007.D
Level 5	ICIS 280-646944/6	0325006.D
Level 6	STD6 280-646944/5	0325005.D
Level 7	STD7 280-646944/4	0325004.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1016 Peak 1	0.0252 0.0176	0.0225 0.0169	0.0219	0.0204	0.0183	Lin2	0.1933	0.0182							0.9940		0.9900
PCB-1016 Peak 2	0.0522 0.0353	0.0464 0.0341	0.0442	0.0413	0.0371	Lin2	0.4270	0.0367							0.9940		0.9900
PCB-1016 Peak 3	0.1052 0.0753	0.0923 0.0727	0.0883	0.0843	0.0769	Lin2	0.7654	0.0763							0.9970		0.9900
PCB-1016 Peak 4	0.0453 0.0320	0.0399 0.0308	0.0384	0.0364	0.0324	Lin2	0.3413	0.0326							0.9960		0.9900
PCB-1016 Peak 5	0.0350 0.0250	0.0313 0.0241	0.0297	0.0280	0.0249	Lin2	0.2648	0.0253							0.9960		0.9900
PCB-1260 Peak 1	0.0700 0.0498	0.0625 0.0473	0.0588	0.0558	0.0510	Lin2	0.5302	0.0504							0.9960		0.9900
PCB-1260 Peak 2	0.0757 0.0553	0.0663 0.0506	0.0640	0.0617	0.0536	Lin2	0.5605	0.0547							0.9950		0.9900
PCB-1260 Peak 3	0.1015 0.0754	0.0905 0.0706	0.0860	0.0831	0.0734	Lin2	0.7185	0.0748							0.9970		0.9900
PCB-1260 Peak 4	0.1407 0.0992	0.1177 0.0922	0.1103	0.1087	0.0971	Lin2	1.1096	0.0968							0.9980		0.9900
PCB-1260 Peak 5	0.0919 0.0698	0.0823 0.0646	0.0783	0.0761	0.0689	Lin2	0.6110	0.0691							0.9970		0.9900
Tetrachloro-m-xylene	1.4117 1.0778	1.2709 1.0542	1.2677	1.1661	1.1130	Lin2	0.4197	1.0994							0.9980		0.9900
DCB Decachlorobiphenyl	1.3417 0.9001	1.1922 0.8700	1.1085	1.0228	0.9427	Lin2	0.5699	0.9248							0.9960		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 646944

SDG No.:

Instrument ID: SGC_J | GC Column: CLP2 | ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/25/2024 10:20 | Calibration End Date: 03/25/2024 12:01 | Calibration ID: 91434

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 280-646944/10	0325010.D
Level 2	STD2 280-646944/9	0325009.D
Level 3	STD3 280-646944/8	0325008.D
Level 4	STD4 280-646944/7	0325007.D
Level 5	ICIS 280-646944/6	0325006.D
Level 6	STD6 280-646944/5	0325005.D
Level 7	STD7 280-646944/4	0325004.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
PCB-1016 Peak 1	BNB	Lin2	664158 13864797	1205476 17385669	2325287	4308585	9444761	25.0 750	50.0 1000	100	200	500
PCB-1016 Peak 2	BNB	Lin2	1375601 27863901	2486429 35052733	4706227	8726037	19184958	25.0 750	50.0 1000	100	200	500
PCB-1016 Peak 3	BNB	Lin2	2771970 59319907	4938645 74689901	9399037	17794453	39728622	25.0 750	50.0 1000	100	200	500
PCB-1016 Peak 4	BNB	Lin2	1193189 25255934	2134546 31683209	4082265	7685508	16759850	25.0 750	50.0 1000	100	200	500
PCB-1016 Peak 5	BNB	Lin2	921863 19695434	1673836 24727862	3159757	5902989	12880876	25.0 750	50.0 1000	100	200	500
PCB-1260 Peak 1	BNB	Lin2	1843665 39242967	3343460 48563961	6258453	11775316	26371175	25.0 750	50.0 1000	100	200	500
PCB-1260 Peak 2	BNB	Lin2	1992776 43608152	3548737 52019793	6808507	13028543	27671348	25.0 750	50.0 1000	100	200	500
PCB-1260 Peak 3	BNB	Lin2	2674460 59401981	4843663 72517656	9154086	17552511	37921156	25.0 750	50.0 1000	100	200	500
PCB-1260 Peak 4	BNB	Lin2	3706895 78169798	6299384 94719522	11734001	22954430	50185444	25.0 750	50.0 1000	100	200	500
PCB-1260 Peak 5	BNB	Lin2	2421257 55014201	4404378 66365872	8332055	16069502	35605159	25.0 750	50.0 1000	100	200	500
Tetrachloro-m-xylene	BNB	Lin2	1859039 42478556	3401751 54137339	6743717	12313868	28752425	1.25 37.5	2.50 50.0	5.00	10.0	25.0
DCB Decachlorobiphenyl	BNB	Lin2	1766938 35474925	3191101 44678635	5896853	10800313	24352108	1.25 37.5	2.50 50.0	5.00	10.0	25.0

Curve Type Legend:
Lin2 = Linear 1/conc^2 ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325004.D
Lims ID: STD7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 25-Mar-2024 10:20:58 ALS Bottle#: 3 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD7
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub1

Method: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 26-Mar-2024 08:00:48 Calib Date: 25-Mar-2024 13:41:25
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325017.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1643

First Level Reviewer: USP3 Date: 25-Mar-2024 11:30:19

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.827	2.827	0.000	93749329	100.0	100.0	
2	2.770	2.770	0.000	102706844	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.617	3.617	0.000	51394164	50.0	46.4	
2	3.660	3.660	0.000	54137339	50.0	47.6	
						RPD = 2.45	
1 PCB-1016							
1	3.953	3.953	0.000	16685358	1000.0	892.3	
1	4.270	4.270	0.000	33189225	1000.0	917.0	
1	4.707	4.707	0.000	44305307	1000.0	943.4	
1	4.830	4.830	0.000	30428598	1000.0	919.8	
1	5.237	5.237	0.000	32005158	1000.0	901.6	
		Average of Peak Amounts =				914.8	
2	4.094	4.094	0.000	17385669	1000.0	919.1	
2	4.450	4.450	0.000	35052733	1000.0	918.1	
2	4.870	4.870	0.000	74689901	1000.0	942.8	
2	5.000	5.000	0.000	31683209	1000.0	935.8	
2	5.467	5.467	0.000	24727862	1000.0	942.2	
		Average of Peak Amounts =				931.6	
						RPD = 1.82	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							
1	6.563	6.563	0.000	43347712	1000.0	929.7	
1	6.890	6.890	0.000	67100829	1000.0	928.8	
1	7.227	7.227	0.000	76008168	1000.0	929.8	
1	8.063	8.063	0.000	102651639	1000.0	937.4	
1	8.427	8.427	0.000	52131196	1000.0	952.2	
		Average of Peak Amounts =				935.6	
2	6.877	6.877	0.000	48563961	1000.0	926.9	
2	7.134	7.134	0.000	52019793	1000.0	916.2	
2	7.574	7.574	0.000	72517656	1000.0	934.5	
2	8.390	8.390	0.000	94719522	1000.0	940.9	
2	8.867	8.867	0.000	66365872	1000.0	926.7	
		Average of Peak Amounts =				929.0	
						RPD = 0.70	
$ 15 DCB Decachlorobiphenyl							
1	9.870	9.870	0.000	50262121	50.0	47.6	
2	10.327	10.327	0.000	44678635	50.0	46.4	
						RPD = 2.54	

QC Flag Legend

Processing Flags

Reagents:

AR_1660_L7_00046	Amount Added: 200.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

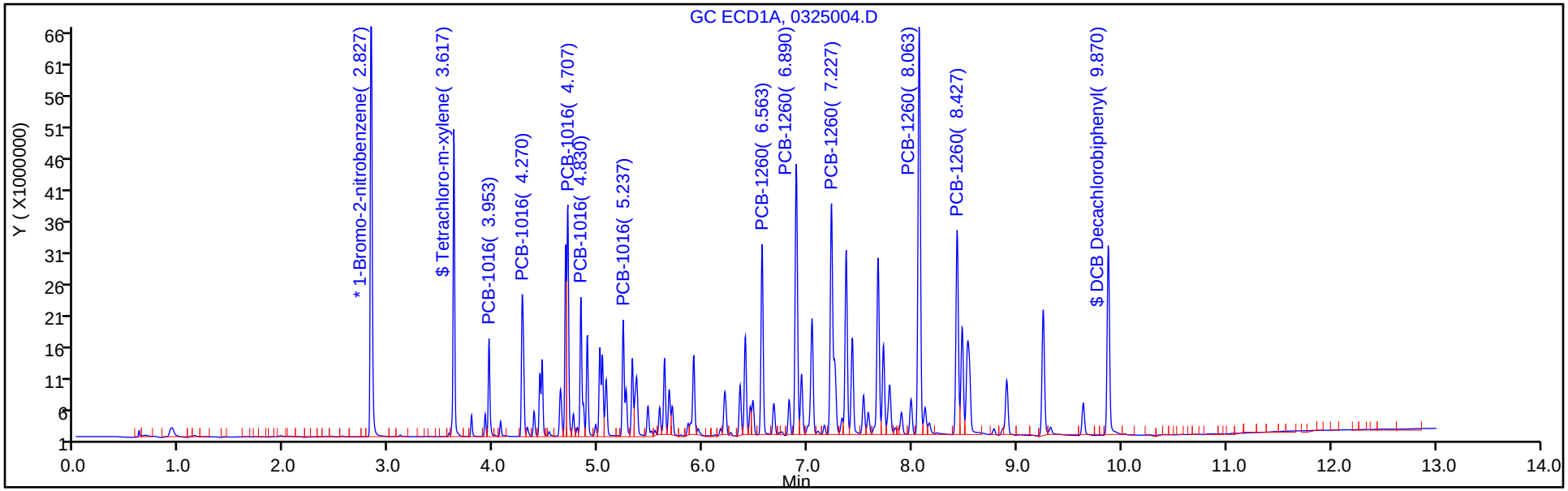
Report Date: 26-Mar-2024 08:00:50 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

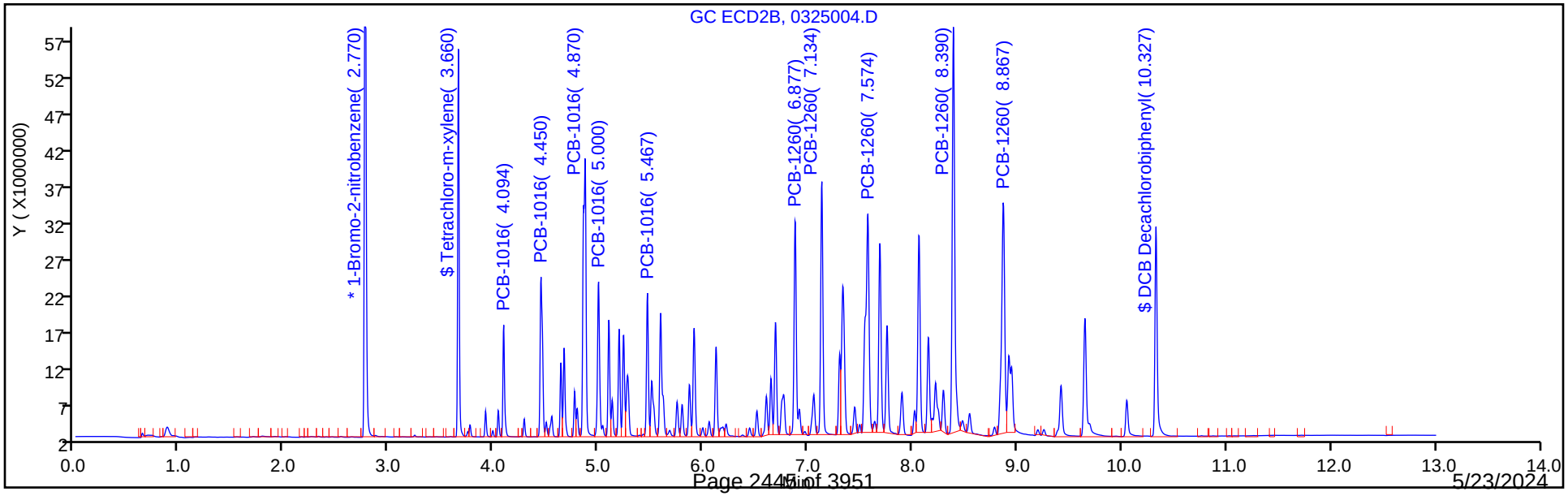
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325004.D

Injection Date:	25-Mar-2024 10:20:58	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	STD7			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325005.D
Lims ID: STD6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 25-Mar-2024 10:37:45 ALS Bottle#: 4 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD6
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub1

Method: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 26-Mar-2024 08:00:54 Calib Date: 25-Mar-2024 13:41:25
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325017.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1643

First Level Reviewer: USP3 Date: 25-Mar-2024 11:32:09

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.828	2.827	0.001	94652530	100.0	100.0	
2	2.768	2.770	-0.002	105098999	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.618	3.617	0.001	40504763	37.5	36.1	
2	3.662	3.660	0.002	42478556	37.5	36.4	
						RPD = 0.79	
1 PCB-1016							M
1	3.955	3.953	0.002	13551006	750.0	715.2	
1	4.271	4.270	0.001	26172555	750.0	712.8	
1	4.705	4.707	-0.002	34376012	750.0	722.9	
1	4.831	4.830	0.001	24359659	750.0	726.3	
1	5.235	5.237	-0.002	25945004	750.0	721.6	M
		Average of Peak Amounts =				719.8	
2	4.092	4.094	-0.002	13864797	750.0	713.9	
2	4.448	4.450	-0.002	27863901	750.0	710.6	
2	4.872	4.870	0.002	59319907	750.0	729.5	
2	4.998	5.000	-0.002	25255934	750.0	726.7	
2	5.468	5.467	0.001	19695434	750.0	731.0	
		Average of Peak Amounts =				722.4	
						RPD = 0.36	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							M
1	6.561	6.563	-0.002	34024707	750.0	720.2	
1	6.888	6.890	-0.002	53026410	750.0	724.6	
1	7.225	7.227	-0.002	59701170	750.0	721.2	
1	8.065	8.063	0.002	80733313	750.0	728.3	
1	8.428	8.427	0.001	40350366	750.0	728.1	
		Average of Peak Amounts =				724.5	
2	6.878	6.877	0.001	39242967	750.0	729.7	M
2	7.132	7.134	-0.002	43608152	750.0	748.7	
2	7.572	7.574	-0.002	59401981	750.0	746.1	
2	8.392	8.390	0.002	78169798	750.0	756.6	
2	8.868	8.867	0.001	55014201	750.0	749.1	
		Average of Peak Amounts =				746.0	
						RPD = 2.93	
$ 15 DCB Decachlorobiphenyl							
1	9.871	9.870	0.001	39695221	37.5	37.2	
2	10.325	10.327	-0.002	35474925	37.5	35.9	
						RPD = 3.64	
S 8 Polychlorinated biphenyls, Total							
1						1444.3	
2						1468.4	
						RPD = 1.66	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

AR_1660_L7_00046	Amount Added: 150.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

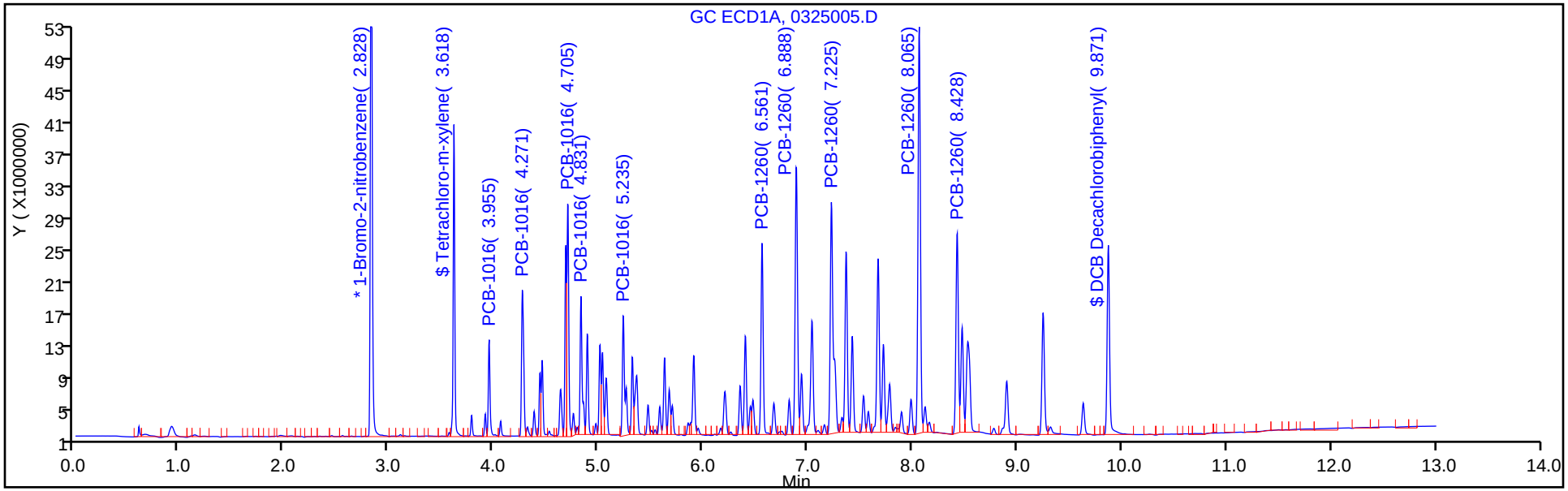
Report Date: 26-Mar-2024 08:00:55 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

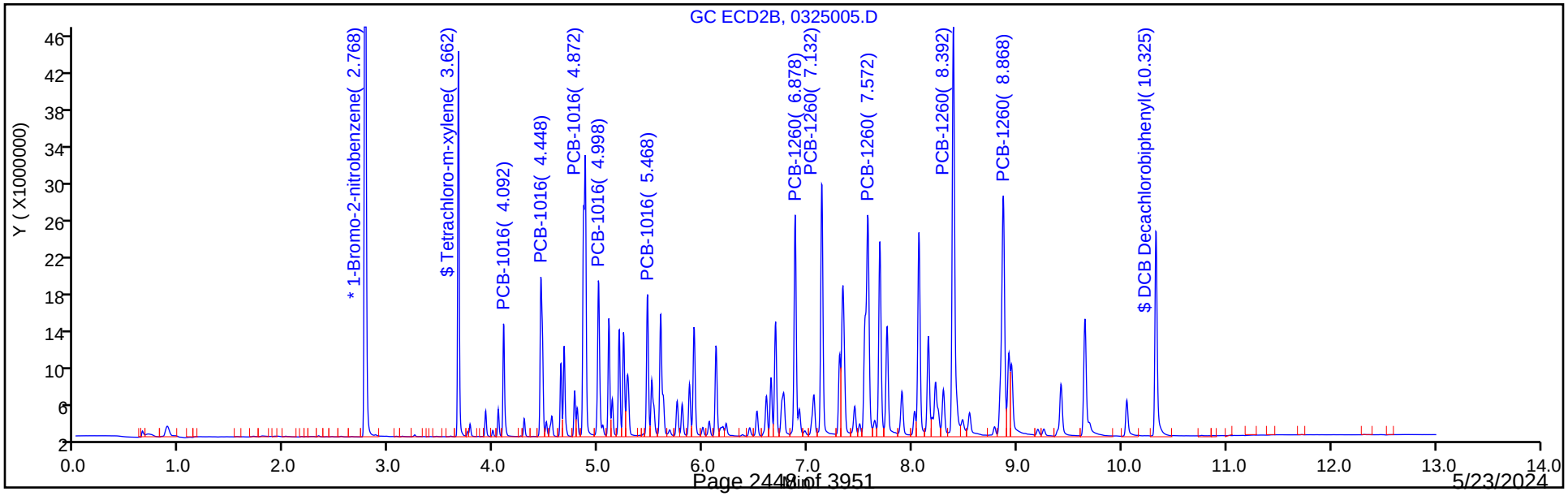
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325005.D

Injection Date:	25-Mar-2024 10:37:45	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	STD6			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



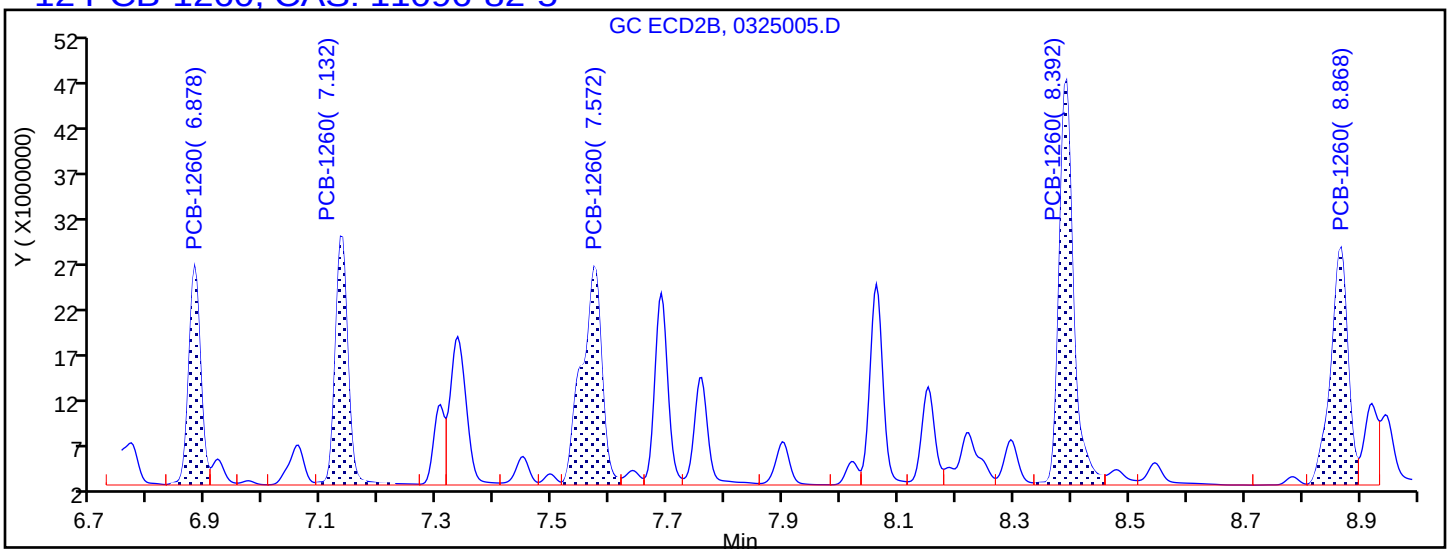
5/23/2024
4:40:30 AM

Report Date: 26-Mar-2024 08:00:55 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

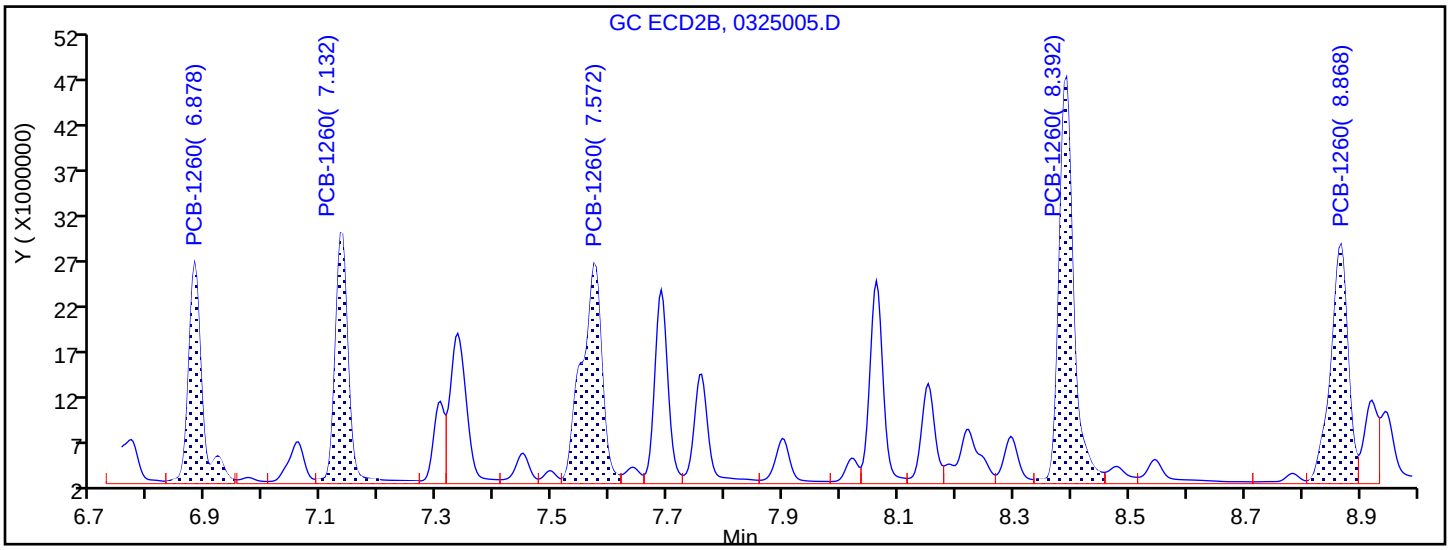
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325005.D
Injection Date: 25-Mar-2024 10:37:45 Instrument ID: SGC_J
Lims ID: STD6
Client ID:
Operator ID: SMP ALS Bottle#: 4 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP2 Pesticides Column 2 (0.32 mm) Detector GC ECD2B

12 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.878	Response = 35052668
7.132	Response = 43608152
7.572	Response = 59401981
8.392	Response = 78169798
8.868	Response = 55014201



Manual Integration Results

6.878	Response = 39242967	M
7.132	Response = 43608152	
7.572	Response = 59401981	
8.392	Response = 78169798	
8.868	Response = 55014201	

Reviewer: USP3, 25-Mar-2024 12:55:34 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325006.D
Lims ID: ICIS
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 25-Mar-2024 10:54:24 ALS Bottle#: 5 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub1

Method: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 26-Mar-2024 08:00:59 Calib Date: 25-Mar-2024 13:41:25
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325017.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1643

First Level Reviewer: USP3 Date: 25-Mar-2024 11:32:52

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.828	2.828	0.000	92655166	100.0	100.0	
2	2.768	2.768	0.000	103331114	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.618	3.618	0.000	27769567	25.0	25.1	
2	3.662	3.662	0.000	28752425	25.0	24.9	
						RPD = 0.68	
1 PCB-1016							M
1	3.955	3.955	0.000	9343337	500.0	499.9	
1	4.271	4.271	0.000	18075456	500.0	498.4	
1	4.705	4.705	0.000	23400328	500.0	500.0	
1	4.831	4.831	0.000	16532443	500.0	499.0	
1	5.235	5.235	0.000	18092959	500.0	510.8	M
		Average of Peak Amounts =				501.6	
2	4.095	4.095	0.000	9444761	500.0	491.4	
2	4.452	4.452	0.000	19184958	500.0	494.1	
2	4.872	4.872	0.000	39728622	500.0	493.7	
2	4.998	4.998	0.000	16759850	500.0	487.1	
2	5.468	5.468	0.000	12880876	500.0	482.8	
		Average of Peak Amounts =				489.8	
						RPD = 2.38	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							M
1	6.561	6.561	0.000	23450614	500.0	503.7	
1	6.888	6.888	0.000	36599004	500.0	507.7	
1	7.225	7.225	0.000	41222626	500.0	505.8	
1	8.065	8.065	0.000	55501667	500.0	509.0	
1	8.428	8.428	0.000	27695033	500.0	508.0	
		Average of Peak Amounts =				506.8	
2	6.878	6.878	0.000	26371175	500.0	495.5	M
2	7.135	7.135	0.000	27671348	500.0	479.6	
2	7.575	7.575	0.000	37921156	500.0	481.1	
2	8.392	8.392	0.000	50185444	500.0	490.1	
2	8.868	8.868	0.000	35605159	500.0	490.1	
		Average of Peak Amounts =				487.2	
						RPD = 3.94	
$ 15 DCB Decachlorobiphenyl							
1	9.871	9.871	0.000	26467172	25.0	25.3	
2	10.328	10.328	0.000	24352108	25.0	24.9	
						RPD = 1.72	
S 8 Polychlorinated biphenyls, Total							
1						1008.5	
2						977.1	
						RPD = 3.16	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

AR_1660_L7_00046	Amount Added: 100.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

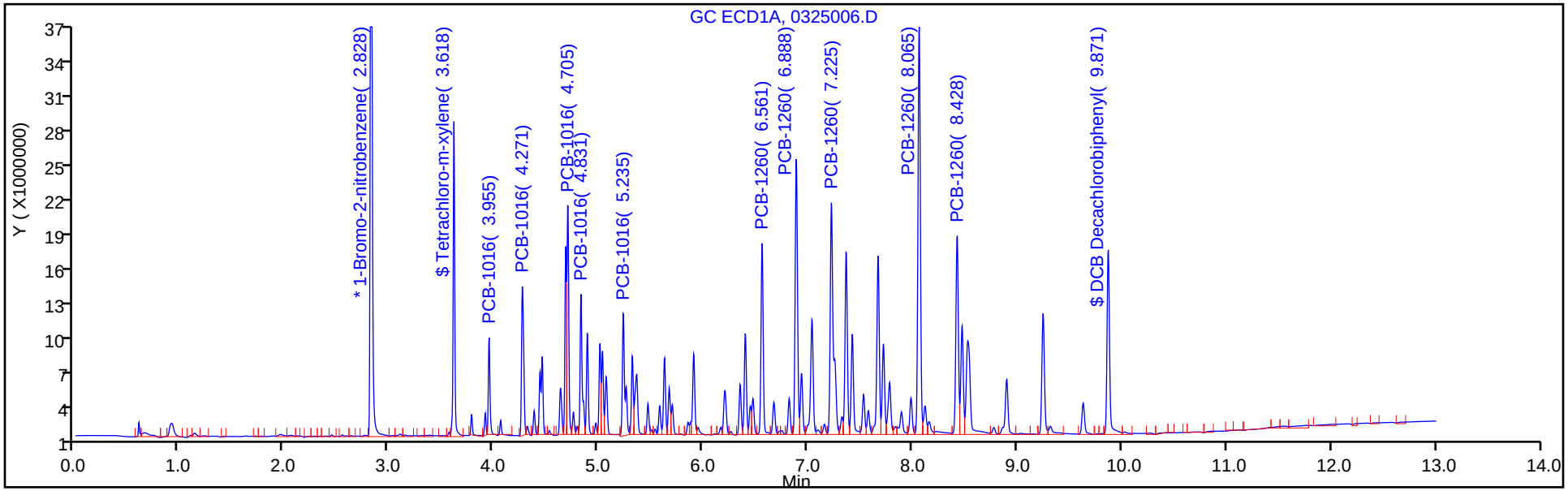
Report Date: 26-Mar-2024 08:00:59 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

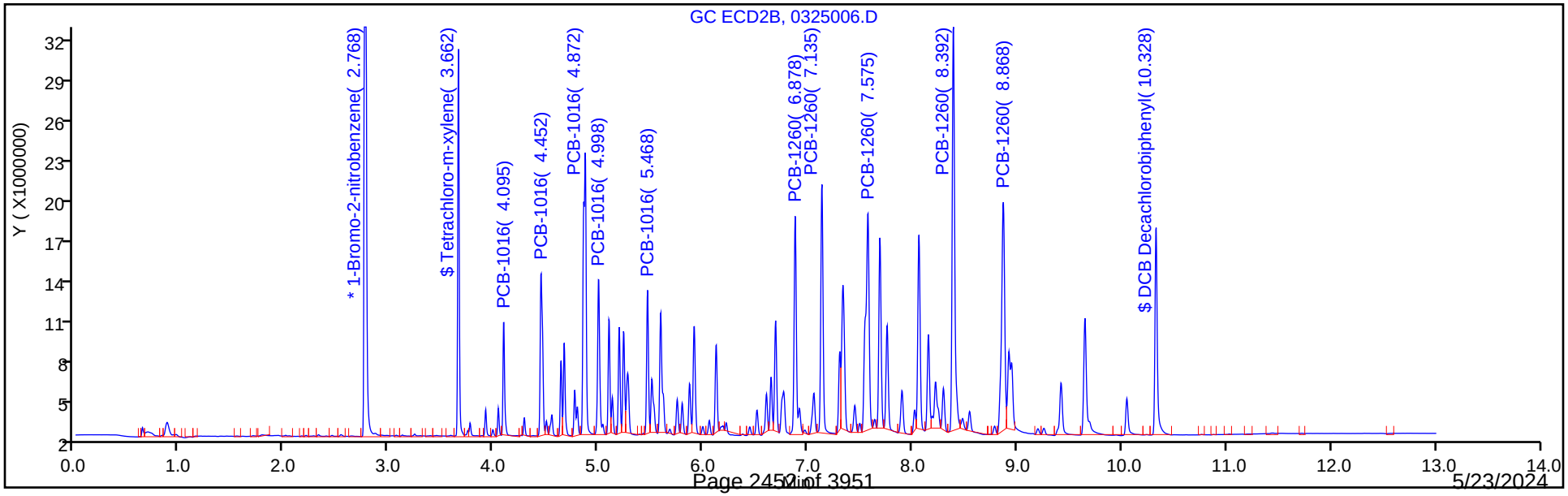
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325006.D

Injection Date:	25-Mar-2024 10:54:24	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	ICIS			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



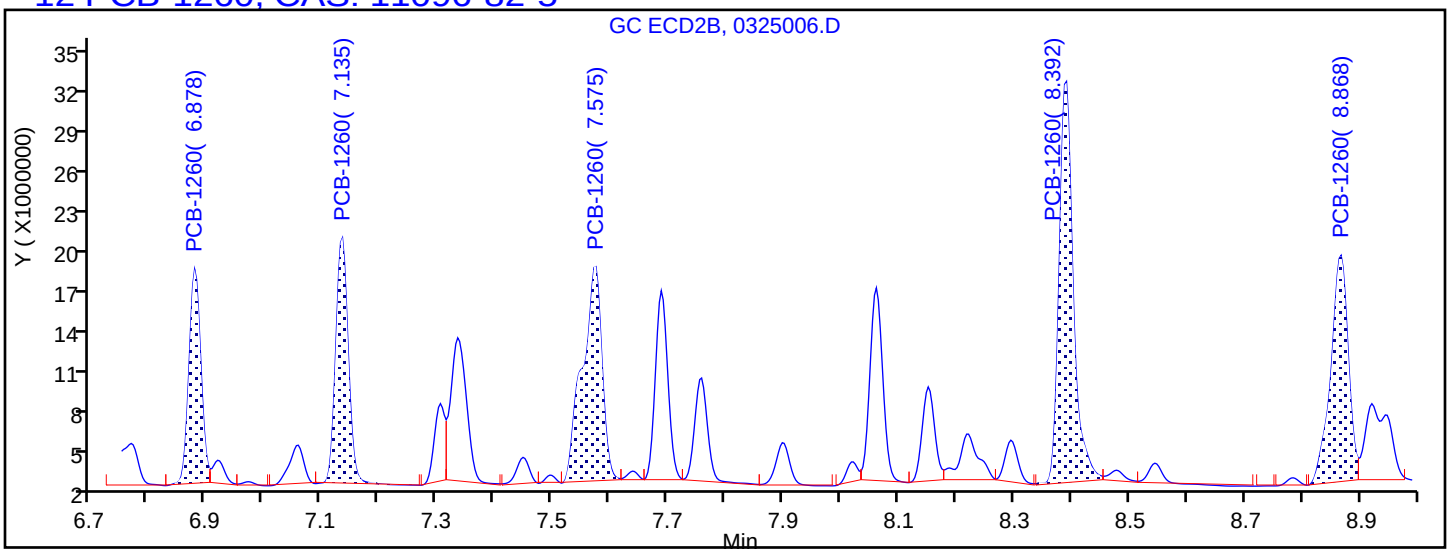
5/23/2024
4:40:30 AM

Report Date: 26-Mar-2024 08:01:00 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

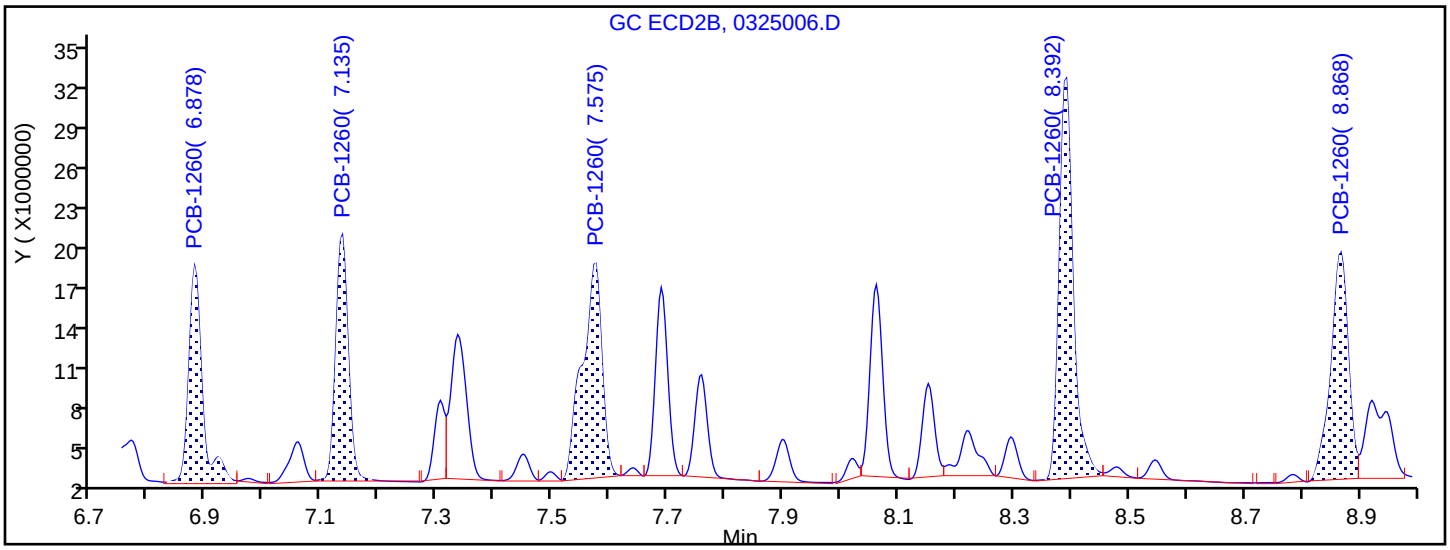
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325006.D
Injection Date: 25-Mar-2024 10:54:24 Instrument ID: SGC_J
Lims ID: ICIS
Client ID:
Operator ID: SMP ALS Bottle#: 5 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP2 Pesticides Column 2 (0.32 mm) Detector GC ECD2B

12 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.878	Response = 22751425
7.135	Response = 27671348
7.575	Response = 37921156
8.392	Response = 50185444
8.868	Response = 35605159



Manual Integration Results

6.878	Response = 26371175	M
7.135	Response = 27671348	
7.575	Response = 37921156	
8.392	Response = 50185444	
8.868	Response = 35605159	

Reviewer: USP3, 25-Mar-2024 12:55:18 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325007.D
Lims ID: STD4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 25-Mar-2024 11:11:06 ALS Bottle#: 6 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD4
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub1

Method: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 26-Mar-2024 08:01:05 Calib Date: 25-Mar-2024 13:41:25
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325017.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1643

First Level Reviewer: USP3 Date: 25-Mar-2024 11:30:35

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.826	2.828	-0.002	94431461	100.0	100.0	
2	2.770	2.768	0.002	105595070	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.619	3.618	0.001	12093341	10.0	10.4	
2	3.660	3.662	-0.002	12313868	10.0	10.2	
						RPD = 1.46	
1 PCB-1016							M
1	3.953	3.955	-0.002	4251953	200.0	216.0	
1	4.273	4.271	0.002	8107606	200.0	210.7	
1	4.706	4.705	0.001	9991995	200.0	204.4	M
1	4.833	4.831	0.002	7389392	200.0	210.5	
1	5.236	5.235	0.001	7794976	200.0	209.3	
		Average of Peak Amounts =				210.2	
2	4.093	4.095	-0.002	4308585	200.0	213.5	
2	4.450	4.452	-0.002	8726037	200.0	213.5	
2	4.873	4.872	0.001	17794453	200.0	210.8	
2	5.000	4.998	0.002	7685508	200.0	212.8	
2	5.466	5.468	-0.002	5902989	200.0	210.7	
		Average of Peak Amounts =				212.3	
						RPD = 0.97	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							M
1	6.563	6.561	0.002	10425954	200.0	213.2	
1	6.889	6.888	0.001	15858858	200.0	209.6	
1	7.226	7.225	0.001	17954058	200.0	210.6	
1	8.066	8.065	0.001	23729323	200.0	208.5	
1	8.426	8.428	-0.002	11819625	200.0	207.9	
		Average of Peak Amounts =				210.0	
2	6.880	6.878	0.002	11775316	200.0	210.6	M
2	7.133	7.135	-0.002	13028543	200.0	215.4	
2	7.573	7.575	-0.002	17552511	200.0	212.6	
2	8.390	8.392	-0.002	22954430	200.0	213.0	
2	8.866	8.868	-0.002	16069502	200.0	211.5	
		Average of Peak Amounts =				212.6	
						RPD = 1.26	
$ 15 DCB Decachlorobiphenyl							
1	9.873	9.871	0.002	10971522	10.0	10.2	
2	10.326	10.328	-0.002	10800313	10.0	10.4	
						RPD = 2.36	
S 8 Polychlorinated biphenyls, Total							
1						420.2	
2						424.9	
						RPD = 1.12	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

AR_1660_L7_00046	Amount Added: 40.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

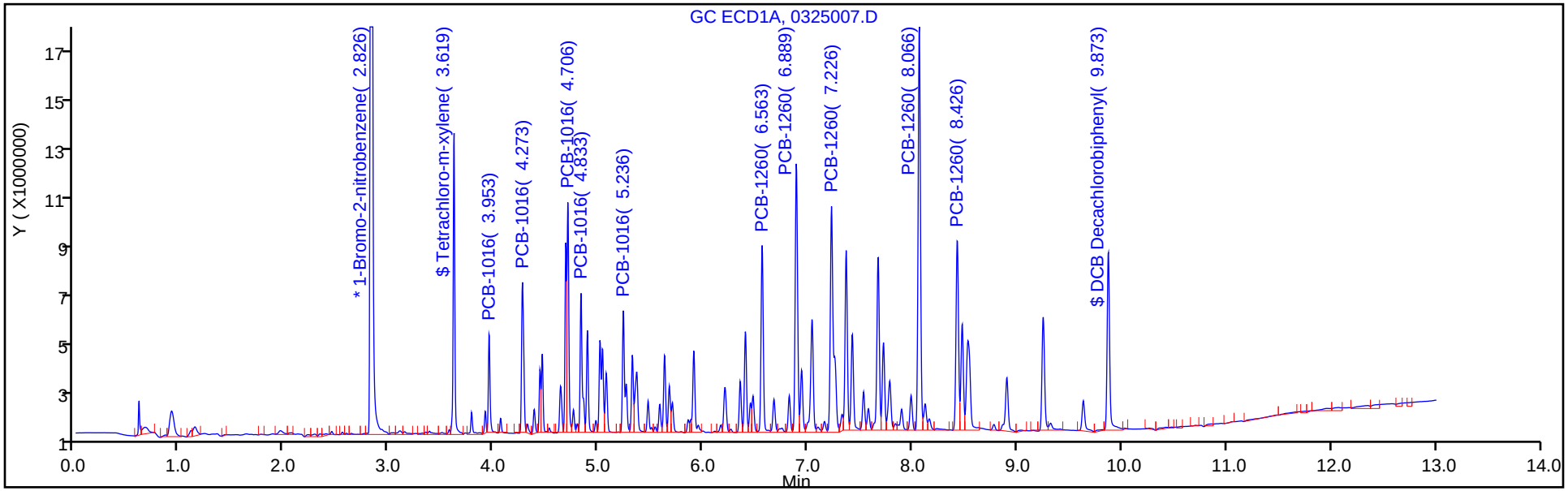
Report Date: 26-Mar-2024 08:01:05 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

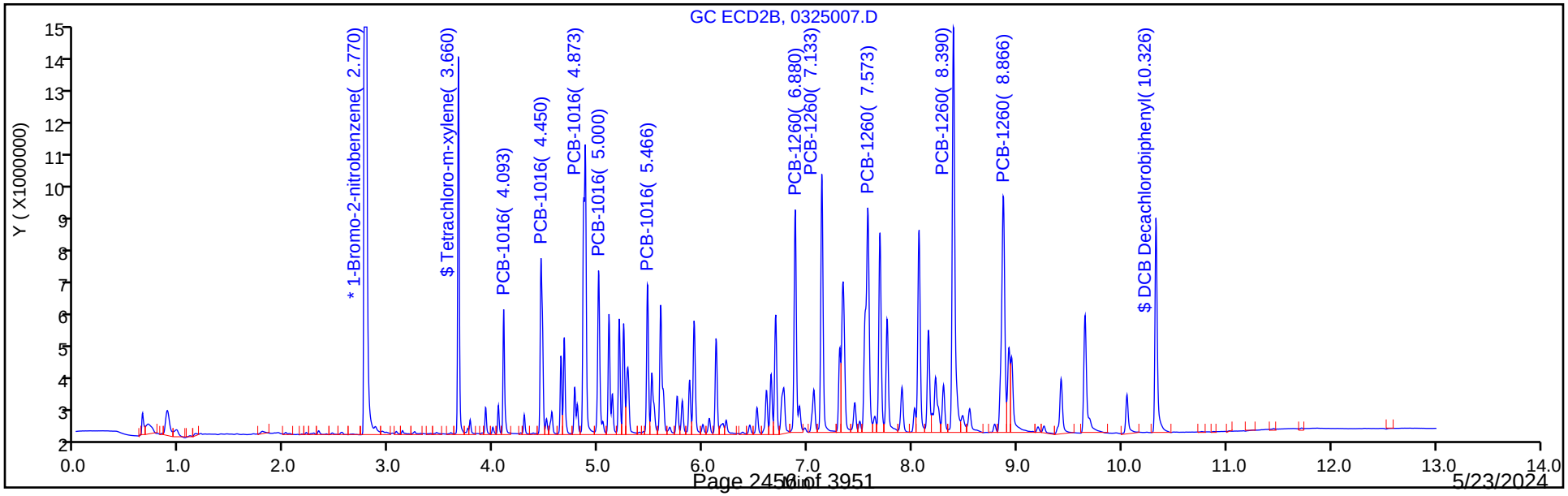
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325007.D

Injection Date:	25-Mar-2024 11:11:06	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	STD4			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



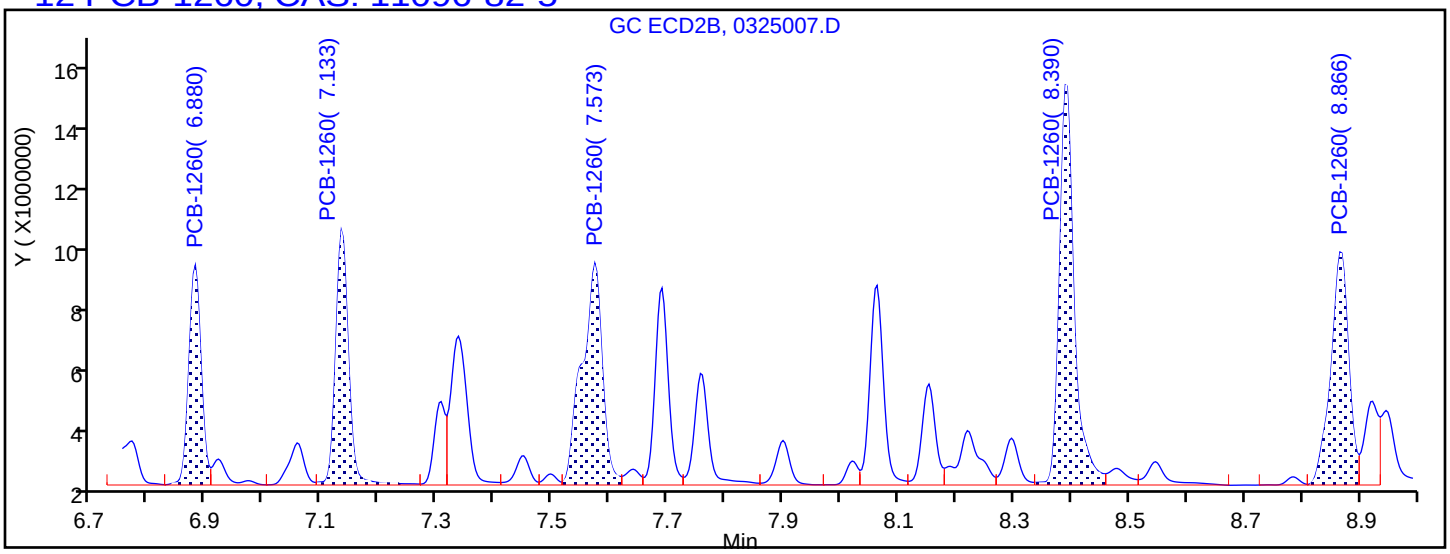
5/23/2024
4:40:30 AM

Report Date: 26-Mar-2024 08:01:05 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

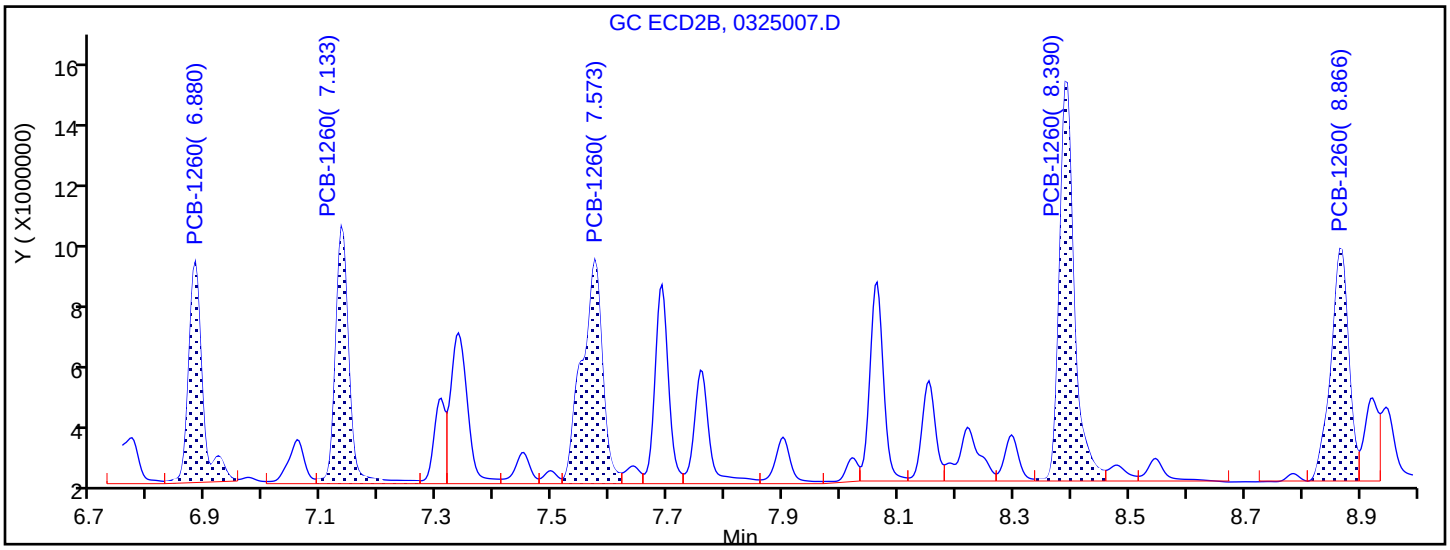
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325007.D
Injection Date: 25-Mar-2024 11:11:06 Instrument ID: SGC_J
Lims ID: STD4
Client ID:
Operator ID: SMP ALS Bottle#: 6 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP2 Pesticides Column 2 (0.32 mm) Detector GC ECD2B

12 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.880	Response = 10567684
7.133	Response = 13028543
7.573	Response = 17552511
8.390	Response = 22954430
8.866	Response = 16069502



Manual Integration Results

6.880	Response = 11775316	M
7.133	Response = 13028543	
7.573	Response = 17552511	
8.390	Response = 22954430	
8.866	Response = 16069502	

Reviewer: USP3, 25-Mar-2024 12:55:06 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325008.D
Lims ID: STD3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 25-Mar-2024 11:27:46 ALS Bottle#: 7 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD3
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub1

Method: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 26-Mar-2024 08:01:10 Calib Date: 25-Mar-2024 13:41:25
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325017.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1643

First Level Reviewer: USP3 Date: 25-Mar-2024 12:41:47

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.827	2.828	-0.001	94707781	100.0	100.0	
2	2.771	2.768	0.003	106395746	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.617	3.618	-0.001	6651389	5.00	5.42	
2	3.661	3.662	-0.001	6743717	5.00	5.38	
						RPD = 0.59	
1 PCB-1016							
1	3.954	3.955	-0.001	2268677	100.0	108.8	
1	4.271	4.271	0.000	4649628	100.0	113.9	
1	4.707	4.705	0.002	5626869	100.0	110.9	
1	4.831	4.831	0.000	3940343	100.0	105.0	
1	5.237	5.235	0.002	4175719	100.0	106.5	
		Average of Peak Amounts =				109.0	
2	4.094	4.095	-0.001	2325287	100.0	109.4	
2	4.451	4.452	-0.001	4706227	100.0	108.9	
2	4.871	4.872	-0.001	9399037	100.0	105.7	
2	5.001	4.998	0.003	4082265	100.0	107.2	
2	5.468	5.468	0.000	3159757	100.0	107.0	
		Average of Peak Amounts =				107.7	
						RPD = 1.27	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							M
1	6.564	6.561	0.003	5418530	100.0	104.9	
1	6.891	6.888	0.003	8378968	100.0	105.3	
1	7.224	7.225	-0.001	9390153	100.0	105.2	
1	8.064	8.065	-0.001	12369542	100.0	104.3	
1	8.427	8.428	-0.001	6104403	100.0	103.1	
		Average of Peak Amounts =				104.5	
2	6.878	6.878	0.000	6258453	100.0	106.1	M
2	7.134	7.135	-0.001	6808507	100.0	106.8	
2	7.574	7.575	-0.001	9154086	100.0	105.4	
2	8.391	8.392	-0.001	11734001	100.0	102.4	
2	8.868	8.868	0.000	8332055	100.0	104.5	
		Average of Peak Amounts =				105.1	
						RPD = 0.50	
$ 15 DCB Decachlorobiphenyl							
1	9.871	9.871	0.000	5947494	5.00	5.44	
2	10.328	10.328	0.000	5896853	5.00	5.38	
						RPD = 1.22	
S 8 Polychlorinated biphenyls, Total							
1						213.6	
2						212.7	
						RPD = 0.40	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

AR_1660_L7_00046	Amount Added: 20.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

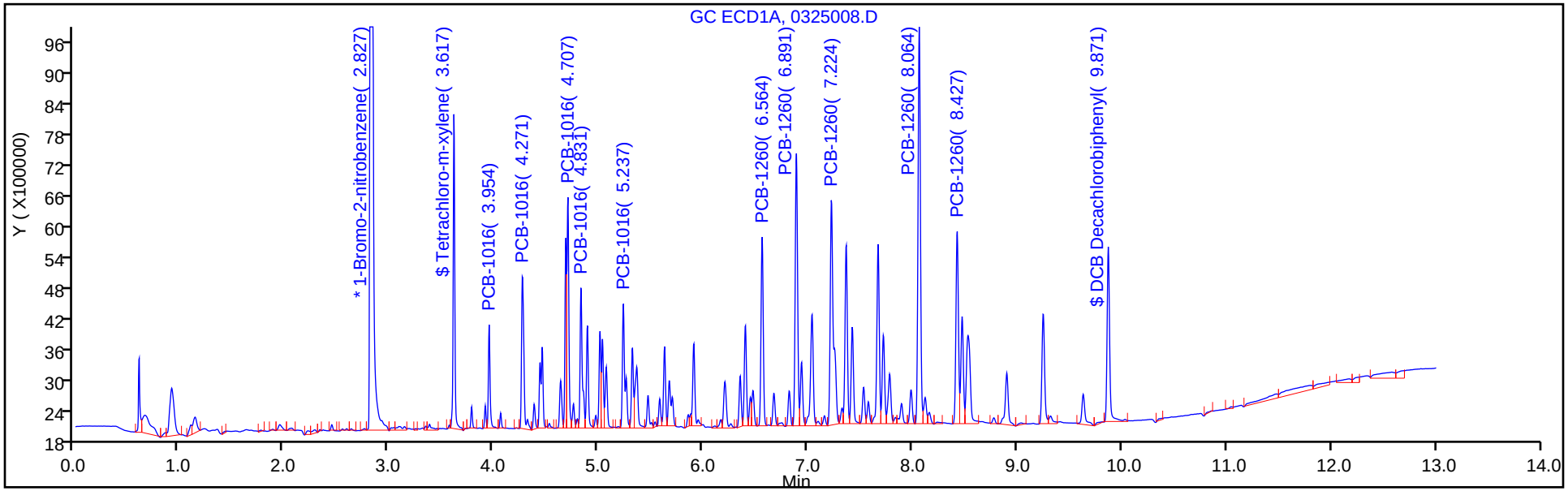
Report Date: 26-Mar-2024 08:01:11 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

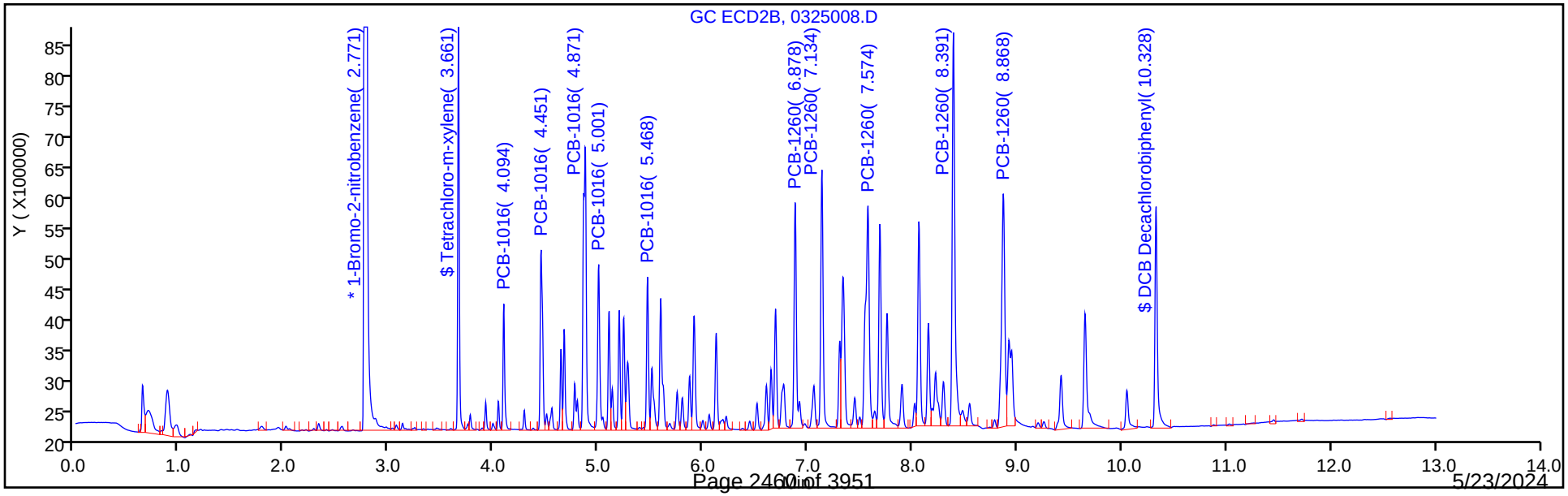
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325008.D

Injection Date:	25-Mar-2024 11:27:46	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	STD3			Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



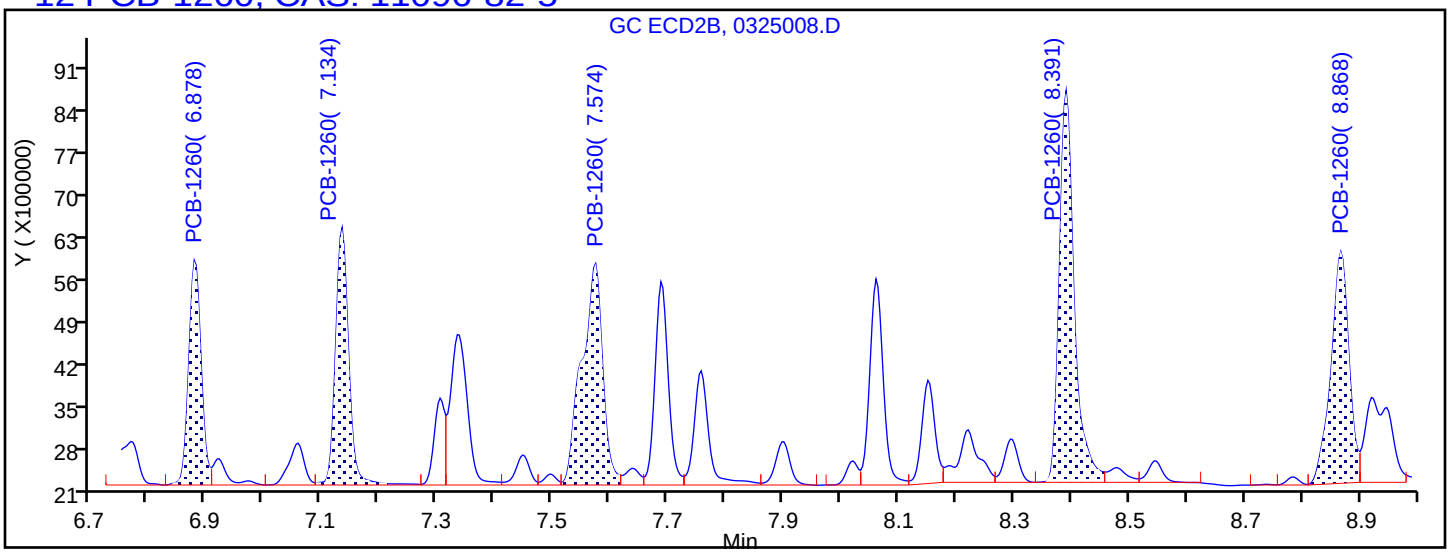
5/23/2024
4:40:30 AM

Report Date: 26-Mar-2024 08:01:11 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

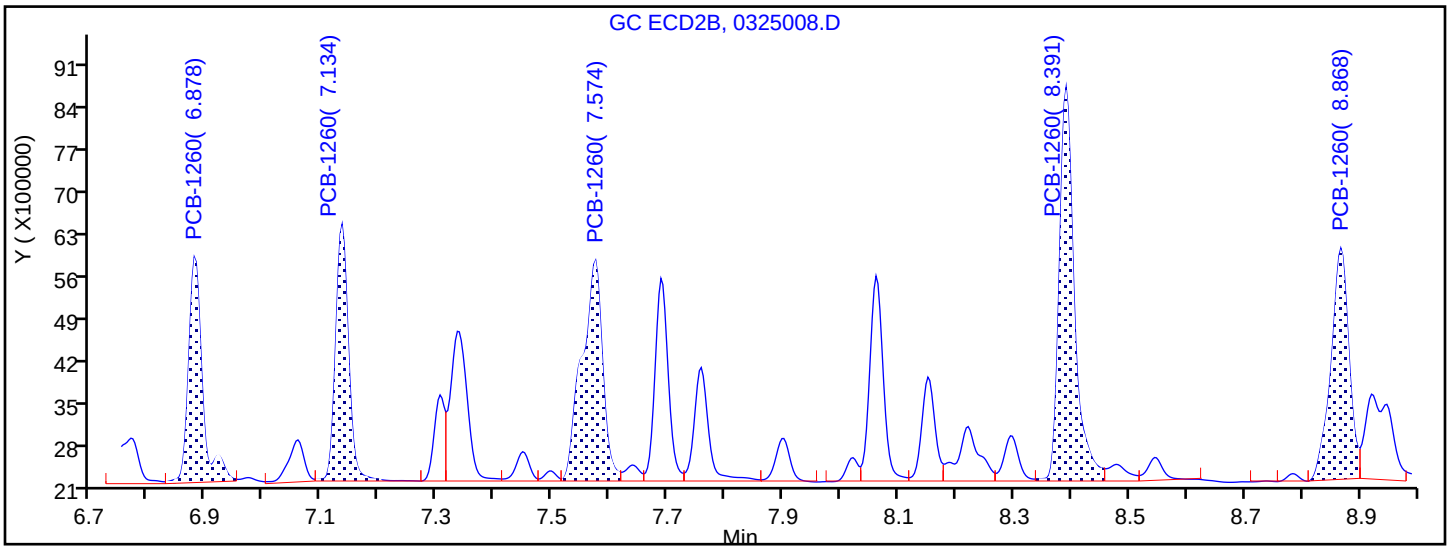
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325008.D
Injection Date: 25-Mar-2024 11:27:46 Instrument ID: SGC_J
Lims ID: STD3
Client ID:
Operator ID: SMP ALS Bottle#: 7 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP2 Pesticides Column 2 (0.32 mm) Detector GC ECD2B

12 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.878	Response = 5637179
7.134	Response = 6808507
7.574	Response = 9154086
8.391	Response = 11734001
8.868	Response = 8332055



Manual Integration Results

6.878	Response = 6258453	M
7.134	Response = 6808507	
7.574	Response = 9154086	
8.391	Response = 11734001	
8.868	Response = 8332055	

Reviewer: USP3, 25-Mar-2024 12:54:51 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325009.D
Lims ID: STD2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 25-Mar-2024 11:44:33 ALS Bottle#: 8 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD2
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub1

Method: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 26-Mar-2024 08:01:15 Calib Date: 25-Mar-2024 13:41:25
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325017.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1643

First Level Reviewer: USP3 Date: 25-Mar-2024 12:42:21

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.827	2.828	-0.001	95736878	100.0	100.0	
2	2.771	2.768	0.003	107069309	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.617	3.618	-0.001	3509208	2.50	2.54	
2	3.661	3.662	-0.001	3401751	2.50	2.51	
						RPD = 1.09	
1 PCB-1016							M
1	3.954	3.955	-0.001	1211326	50.0	51.4	
1	4.274	4.271	0.003	2307428	50.0	48.1	
1	4.707	4.705	0.002	2743159	50.0	48.9	
1	4.834	4.831	0.003	2243878	50.0	52.7	
1	5.237	5.235	0.002	2280160	50.0	52.3	M
		Average of Peak Amounts =				50.7	
2	4.094	4.095	-0.001	1205476	50.0	51.2	
2	4.451	4.452	-0.001	2486429	50.0	51.6	
2	4.874	4.872	0.002	4938645	50.0	50.4	
2	5.001	4.998	0.003	2134546	50.0	50.7	
2	5.468	5.468	0.000	1673836	50.0	51.4	
		Average of Peak Amounts =				51.1	
						RPD = 0.79	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							M
1	6.564	6.561	0.003	2923758	50.0	50.6	
1	6.891	6.888	0.003	4484607	50.0	50.6	
1	7.227	7.225	0.002	5006434	50.0	50.9	
1	8.064	8.065	-0.001	6514374	50.0	50.2	
1	8.427	8.428	-0.001	3239497	50.0	50.2	
		Average of Peak Amounts =				50.5	
2	6.881	6.878	0.003	3343460	50.0	51.4	M
2	7.134	7.135	-0.001	3548737	50.0	50.4	
2	7.574	7.575	-0.001	4843663	50.0	50.9	
2	8.391	8.392	-0.001	6299384	50.0	49.3	
2	8.868	8.868	0.000	4404378	50.0	50.7	
		Average of Peak Amounts =				50.5	
						RPD = 0.06	
$ 15 DCB Decachlorobiphenyl							
1	9.871	9.871	0.000	2628418	2.50	2.29	
2	10.328	10.328	0.000	3191101	2.50	2.61	
						RPD = 12.76	
S 8 Polychlorinated biphenyls, Total							
1						101.2	
2						101.6	
						RPD = 0.43	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

AR_1660_L7_00046	Amount Added: 10.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

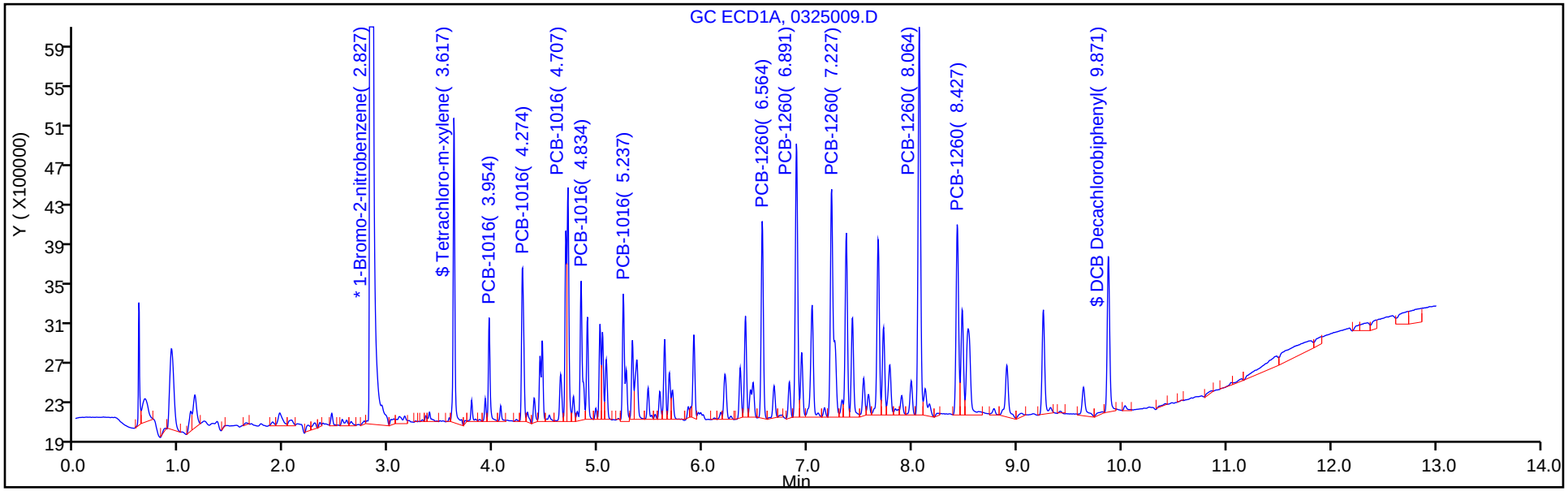
Report Date: 26-Mar-2024 08:01:16 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

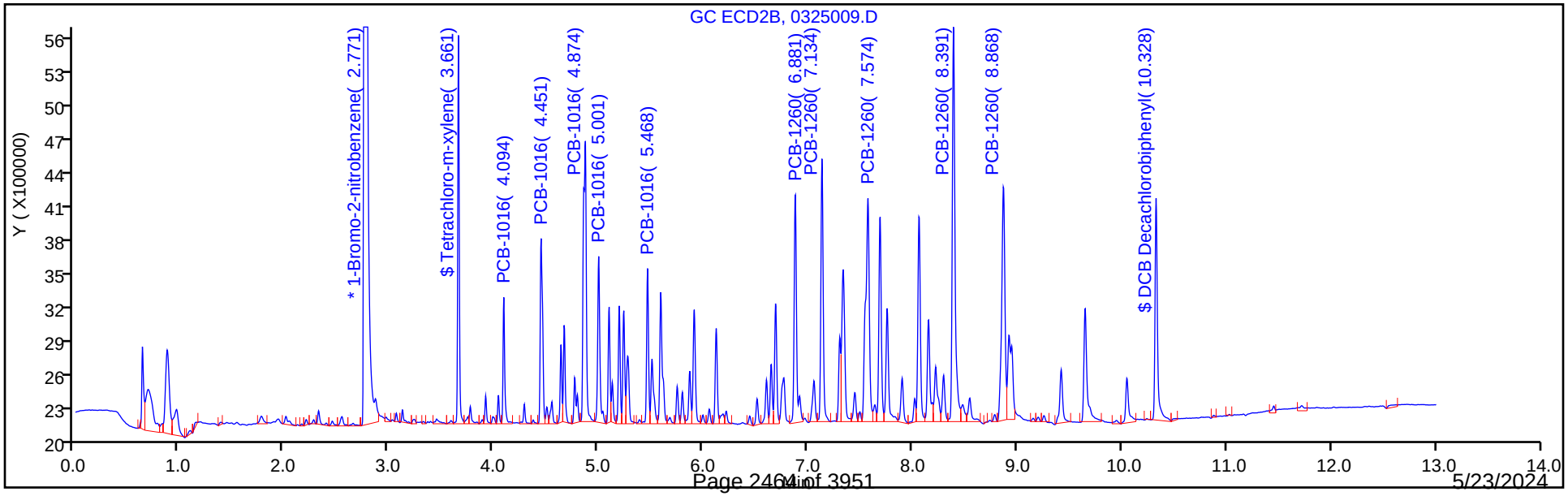
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325009.D

Injection Date:	25-Mar-2024 11:44:33	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	STD2			Worklist Smp#:	9
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



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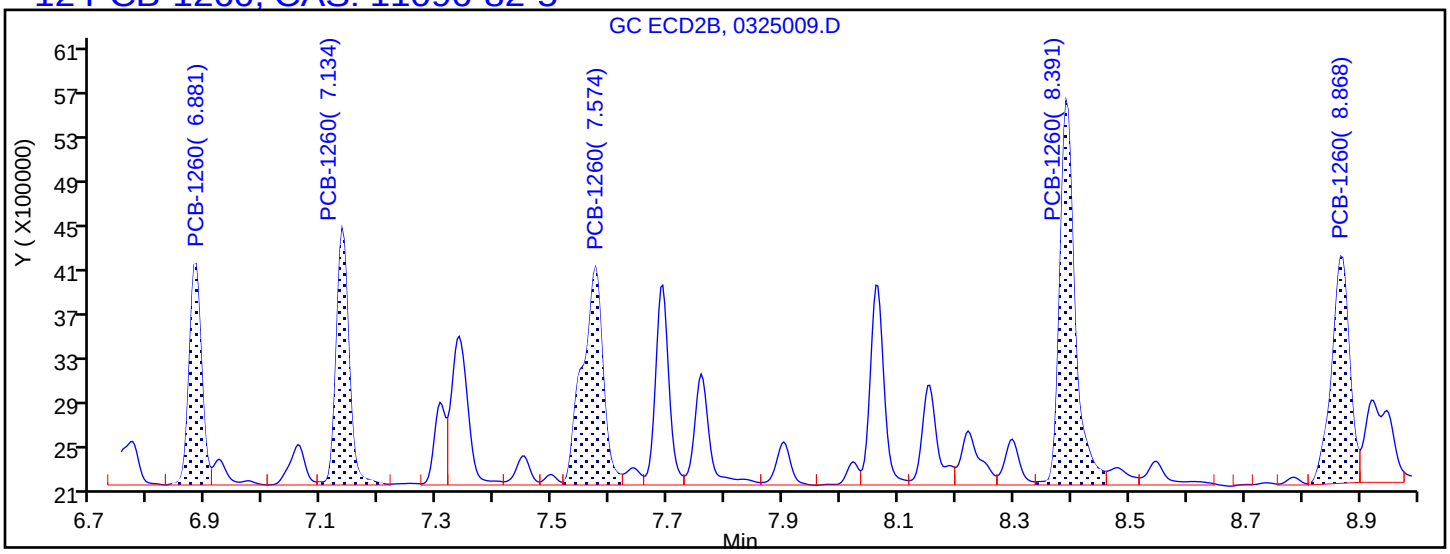
Report Date: 26-Mar-2024 08:01:16 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

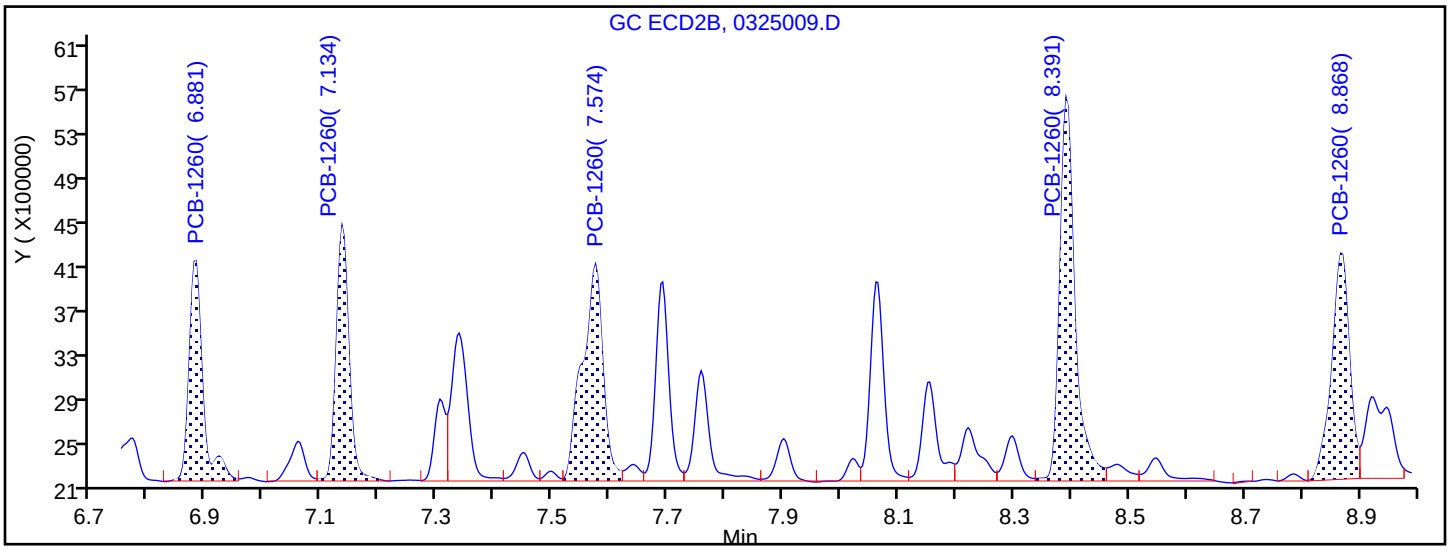
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325009.D
Injection Date: 25-Mar-2024 11:44:33 Instrument ID: SGC_J
Lims ID: STD2
Client ID:
Operator ID: SMP ALS Bottle#: 8 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP2 Pesticides Column 2 (0.32 mm) Detector GC ECD2B

12 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.881	Response = 2982573
7.134	Response = 3548737
7.574	Response = 4843663
8.391	Response = 6299384
8.868	Response = 4404378



Manual Integration Results

6.881	Response = 3343460	M
7.134	Response = 3548737	
7.574	Response = 4843663	
8.391	Response = 6299384	
8.868	Response = 4404378	

Reviewer: USP3, 25-Mar-2024 12:54:37 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325010.D
Lims ID: STD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 25-Mar-2024 12:01:15 ALS Bottle#: 9 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD1
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub1

Method: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 26-Mar-2024 08:01:20 Calib Date: 25-Mar-2024 13:41:25
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325017.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1643

First Level Reviewer: USP3 Date: 25-Mar-2024 12:43:29

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.827	2.828	-0.001	93934119	100.0	100.0	
2	2.771	2.768	0.003	105352147	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.617	3.618	-0.001	1994374	1.25	1.21	
2	3.661	3.662	-0.001	1859039	1.25	1.22	
						RPD = 0.87	
1 PCB-1016							M
1	3.954	3.955	-0.001	682677	25.0	24.0	
1	4.274	4.271	0.003	1424620	25.0	24.5	
1	4.707	4.705	0.002	1557109	25.0	24.6	
1	4.834	4.831	0.003	1263236	25.0	23.9	
1	5.237	5.235	0.002	1242623	25.0	23.9	M
		Average of Peak Amounts =				24.2	
2	4.094	4.095	-0.001	664158	25.0	24.0	
2	4.451	4.452	-0.001	1375601	25.0	23.9	
2	4.874	4.872	0.002	2771970	25.0	24.4	
2	5.001	4.998	0.003	1193189	25.0	24.3	
2	5.468	5.468	0.000	921863	25.0	24.1	
		Average of Peak Amounts =				24.2	
						RPD = 0.13	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							
1	6.564	6.561	0.003	1661809	25.0	24.4	
1	6.891	6.888	0.003	2526963	25.0	24.4	
1	7.227	7.225	0.002	2759103	25.0	24.3	
1	8.064	8.065	-0.001	3601567	25.0	24.6	
1	8.427	8.428	-0.001	1791107	25.0	24.7	
		Average of Peak Amounts =				24.5	
2	6.881	6.878	0.003	1843665	25.0	24.2	
2	7.134	7.135	-0.001	1992776	25.0	24.3	
2	7.574	7.575	-0.001	2674460	25.0	24.3	
2	8.391	8.392	-0.001	3706895	25.0	24.9	
2	8.868	8.868	0.000	2421257	25.0	24.4	
		Average of Peak Amounts =				24.4	
						RPD = 0.22	
$ 15 DCB Decachlorobiphenyl							
1	9.871	9.871	0.000	1501308	1.25	1.27	
2	10.328	10.328	0.000	1766938	1.25	1.20	
						RPD = 6.04	
S 8 Polychlorinated biphenyls, Total							
1						48.7	
2						48.6	
						RPD = 0.17	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

AR_1660_L7_00046	Amount Added: 5.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

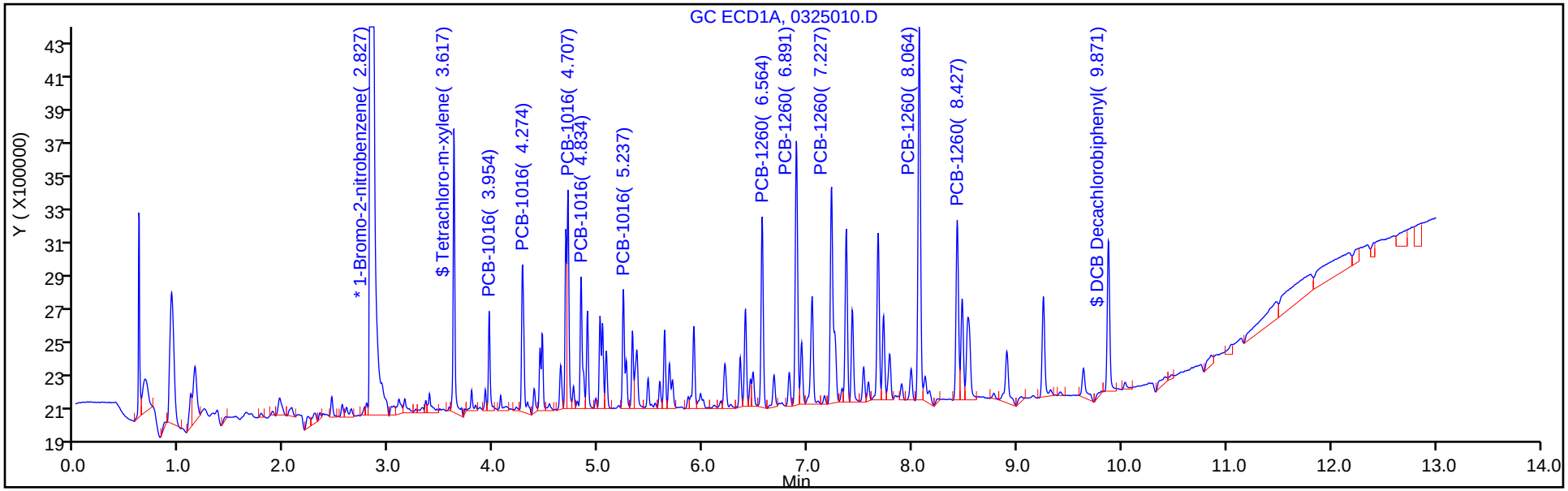
Report Date: 26-Mar-2024 08:01:21 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

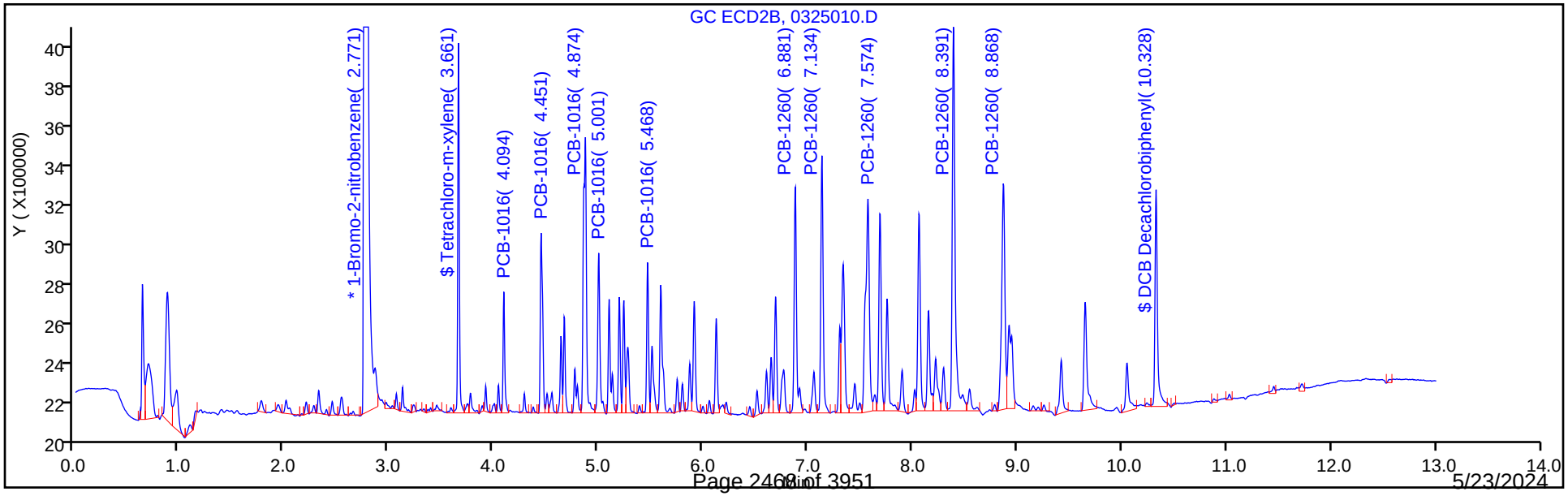
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325010.D

Injection Date:	25-Mar-2024 12:01:15	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	STD1			Worklist Smp#:	10
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
4:40:30 AM

Calibration / Tetrachloro-m-xylene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

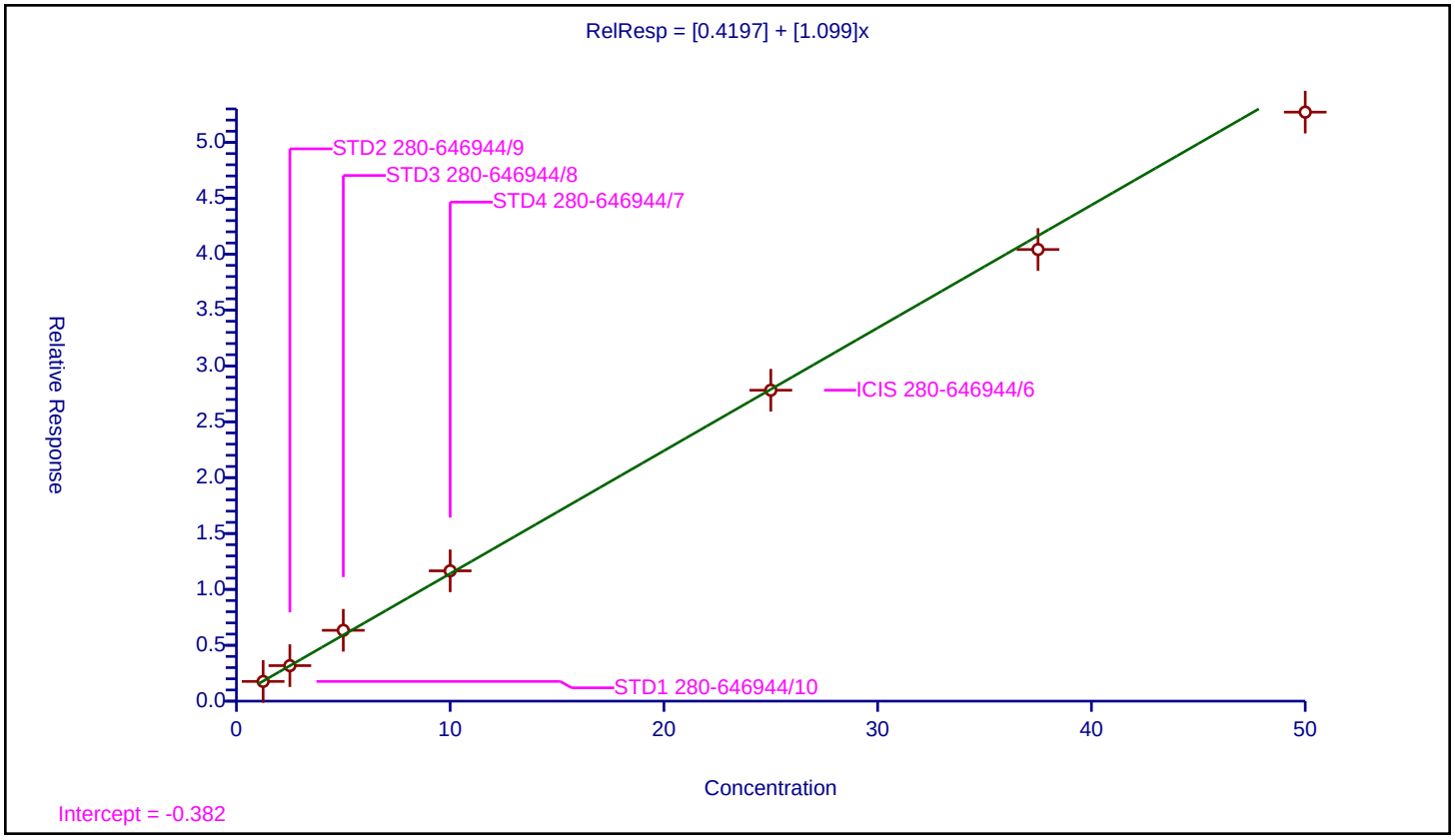
Curve Coefficients

Intercept:	0.4197
Slope:	1.099

Error Coefficients

Relative Standard Deviation:	4.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	1.25	1.764595	100.0	105352147.0	1.411676	Y
2	STD2 280-646944/9	2.5	3.177149	100.0	107069309.0	1.270859	Y
3	STD3 280-646944/8	5.0	6.338333	100.0	106395746.0	1.267667	Y
4	STD4 280-646944/7	10.0	11.661404	100.0	105595070.0	1.16614	Y
5	ICIS 280-646944/6	25.0	27.825525	100.0	103331114.0	1.113021	Y
6	STD6 280-646944/5	37.5	40.41766	100.0	105098999.0	1.077804	Y
7	STD7 280-646944/4	50.0	52.710547	100.0	102706844.0	1.054211	Y



5/23/2024
4:40:30 AM

Calibration / PCB-1016 Peak 1

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

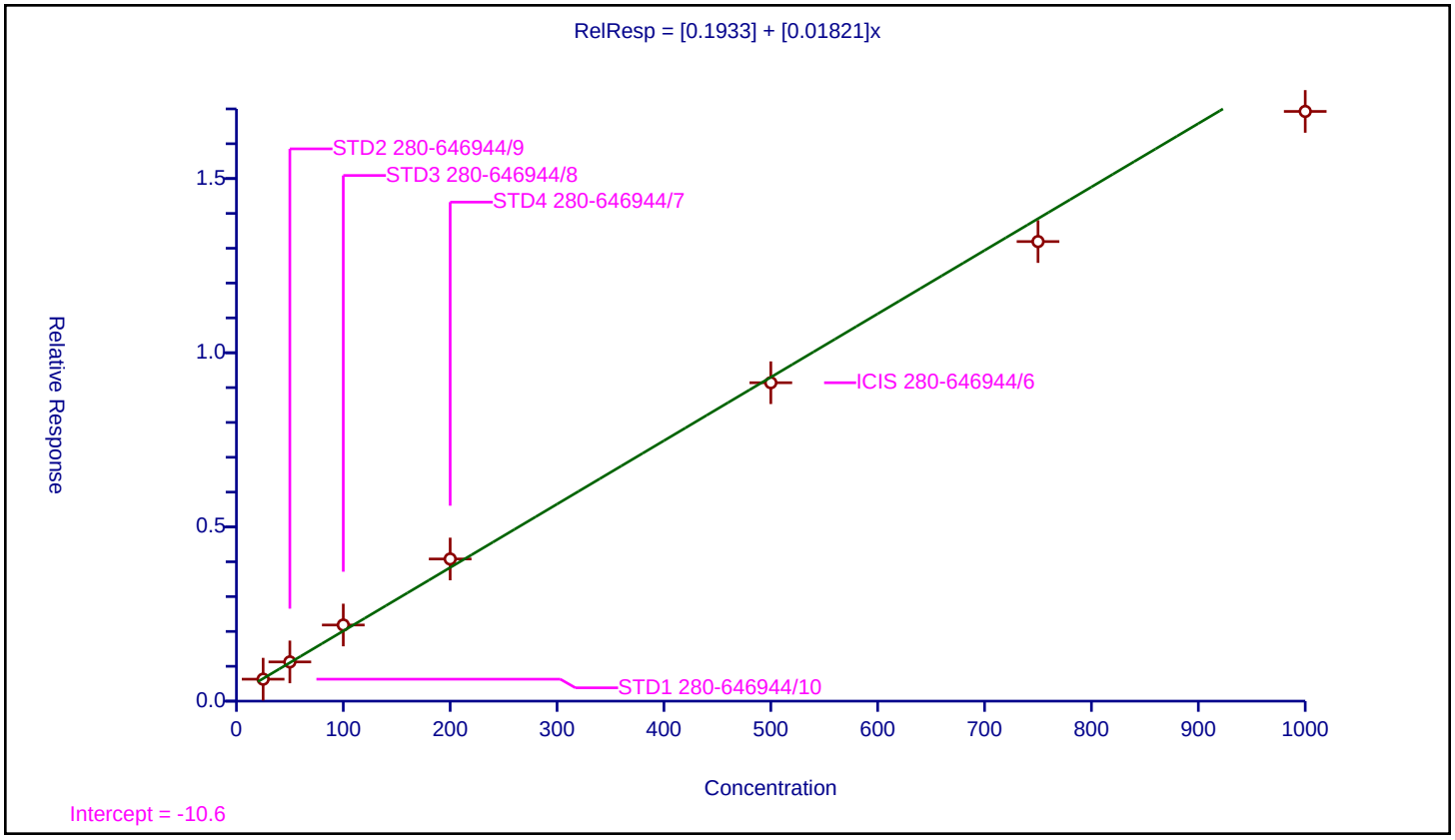
Curve Coefficients

Intercept:	0.1933
Slope:	0.01821

Error Coefficients

Relative Standard Deviation:	7.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	25.0	0.630417	100.0	105352147.0	0.025217	Y
2	STD2 280-646944/9	50.0	1.125884	100.0	107069309.0	0.022518	Y
3	STD3 280-646944/8	100.0	2.185507	100.0	106395746.0	0.021855	Y
4	STD4 280-646944/7	200.0	4.08029	100.0	105595070.0	0.020401	Y
5	ICIS 280-646944/6	500.0	9.140288	100.0	103331114.0	0.018281	Y
6	STD6 280-646944/5	750.0	13.19213	100.0	105098999.0	0.01759	Y
7	STD7 280-646944/4	1000.0	16.927469	100.0	102706844.0	0.016927	Y



5/23/2024
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Calibration / PCB-1016 Peak 2

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

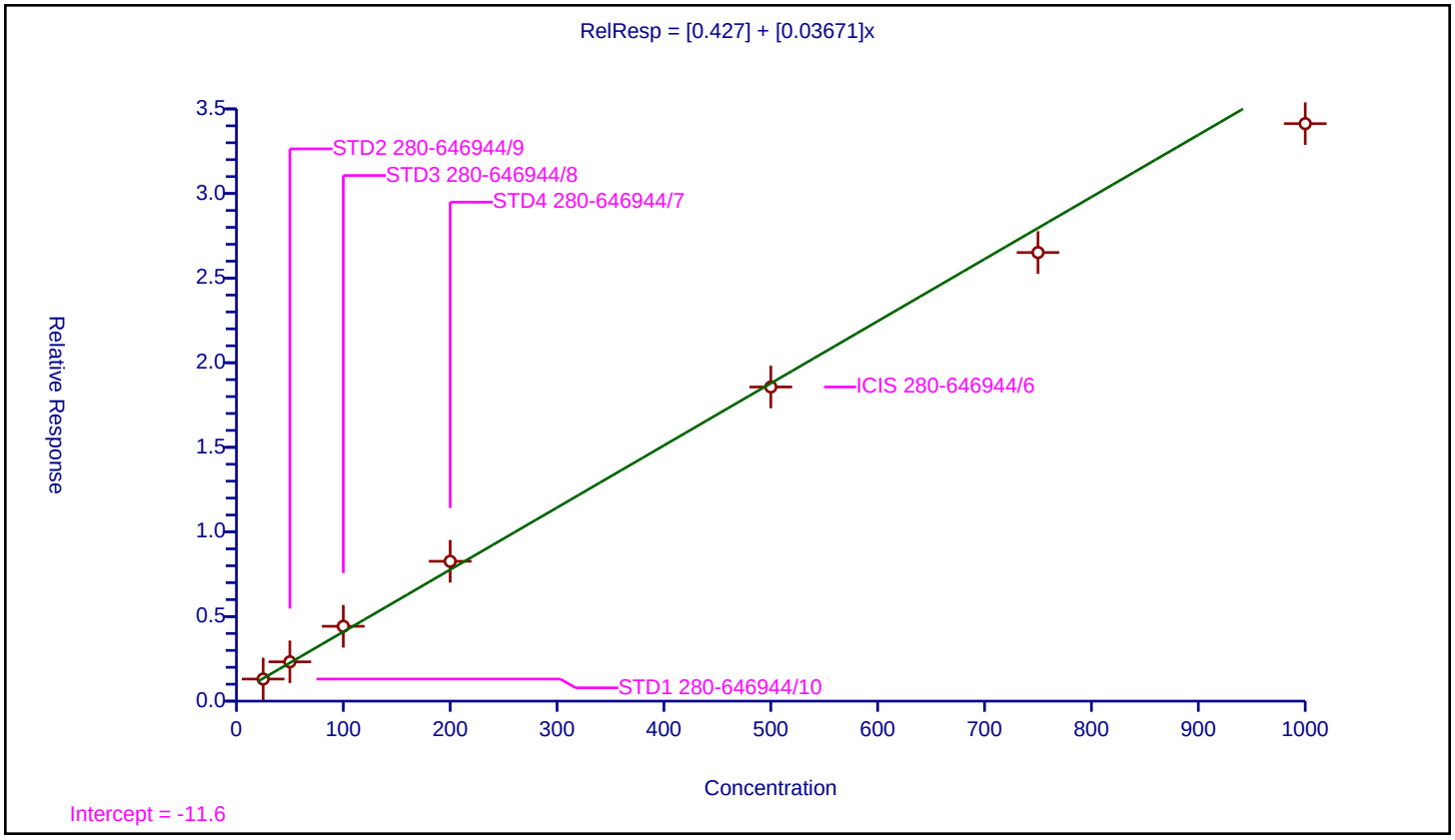
Curve Coefficients

Intercept:	0.427
Slope:	0.03671

Error Coefficients

Relative Standard Deviation:	7.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	25.0	1.305717	100.0	105352147.0	0.052229	Y
2	STD2 280-646944/9	50.0	2.322261	100.0	107069309.0	0.046445	Y
3	STD3 280-646944/8	100.0	4.423323	100.0	106395746.0	0.044233	Y
4	STD4 280-646944/7	200.0	8.263678	100.0	105595070.0	0.041318	Y
5	ICIS 280-646944/6	500.0	18.566487	100.0	103331114.0	0.037133	Y
6	STD6 280-646944/5	750.0	26.512052	100.0	105098999.0	0.035349	Y
7	STD7 280-646944/4	1000.0	34.128916	100.0	102706844.0	0.034129	Y



5/23/2024
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Calibration / PCB-1016 Peak 3

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

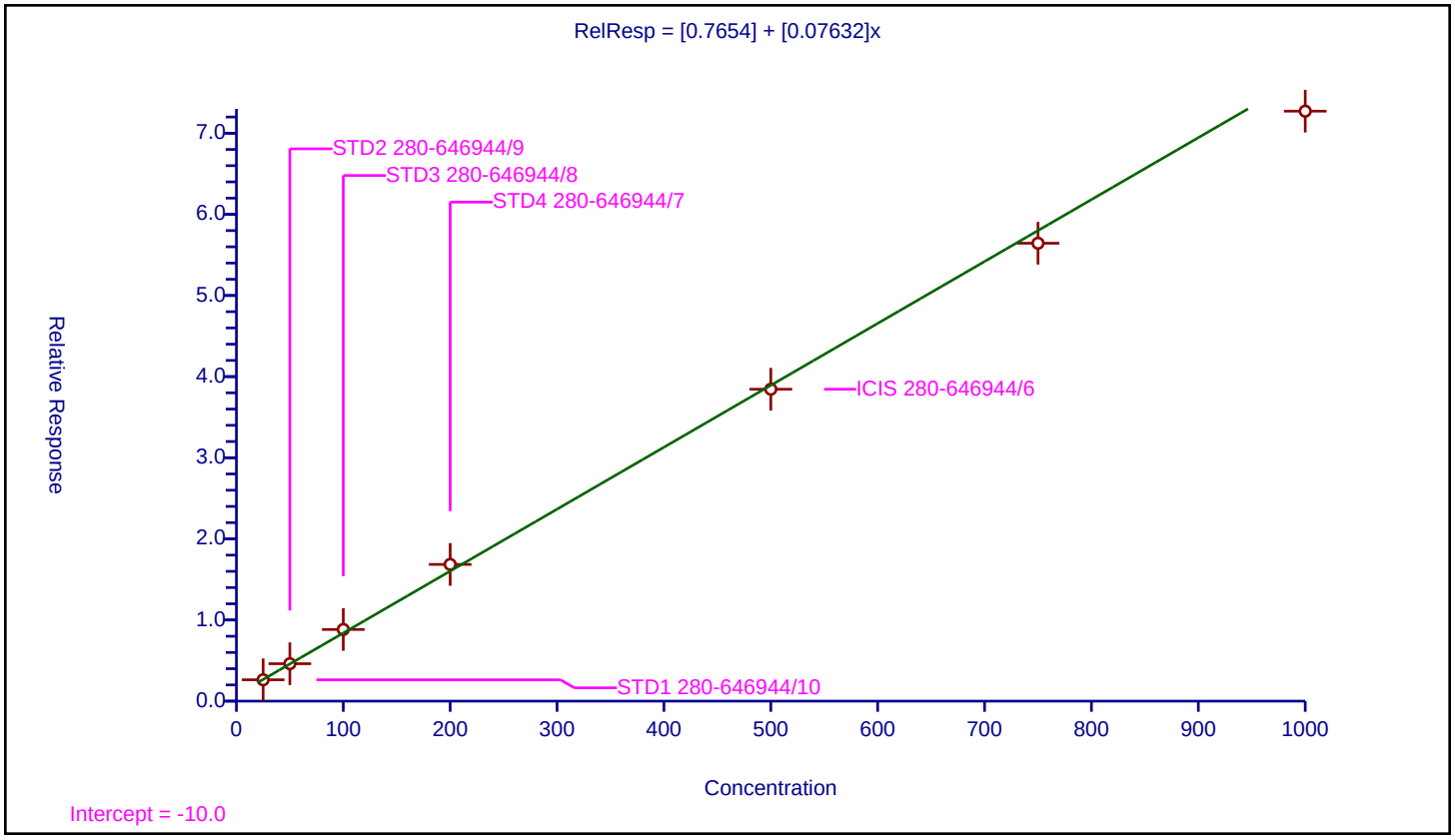
Curve Coefficients

Intercept:	0.7654
Slope:	0.07632

Error Coefficients

Relative Standard Deviation:	4.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	25.0	2.631147	100.0	105352147.0	0.105246	Y
2	STD2 280-646944/9	50.0	4.612568	100.0	107069309.0	0.092251	Y
3	STD3 280-646944/8	100.0	8.834035	100.0	106395746.0	0.08834	Y
4	STD4 280-646944/7	200.0	16.851594	100.0	105595070.0	0.084258	Y
5	ICIS 280-646944/6	500.0	38.447879	100.0	103331114.0	0.076896	Y
6	STD6 280-646944/5	750.0	56.441933	100.0	105098999.0	0.075256	Y
7	STD7 280-646944/4	1000.0	72.721445	100.0	102706844.0	0.072721	Y



Calibration / PCB-1016 Peak 4

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

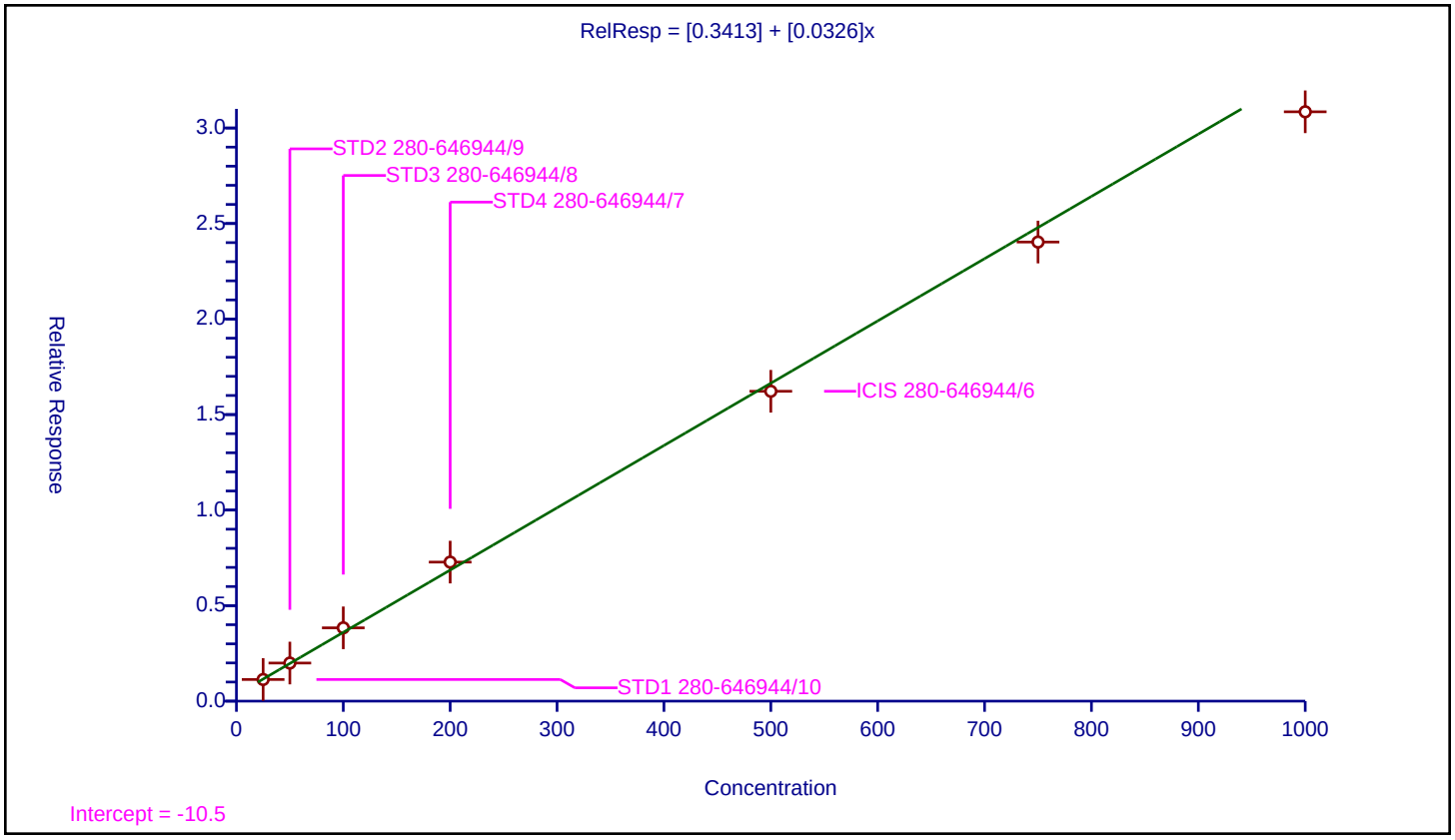
Curve Coefficients

Intercept:	0.3413
Slope:	0.0326

Error Coefficients

Relative Standard Deviation:	5.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	25.0	1.132572	100.0	105352147.0	0.045303	Y
2	STD2 280-646944/9	50.0	1.993611	100.0	107069309.0	0.039872	Y
3	STD3 280-646944/8	100.0	3.836869	100.0	106395746.0	0.038369	Y
4	STD4 280-646944/7	200.0	7.278283	100.0	105595070.0	0.036391	Y
5	ICIS 280-646944/6	500.0	16.219558	100.0	103331114.0	0.032439	Y
6	STD6 280-646944/5	750.0	24.030613	100.0	105098999.0	0.032041	Y
7	STD7 280-646944/4	1000.0	30.848196	100.0	102706844.0	0.030848	Y



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Calibration / PCB-1016 Peak 5

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

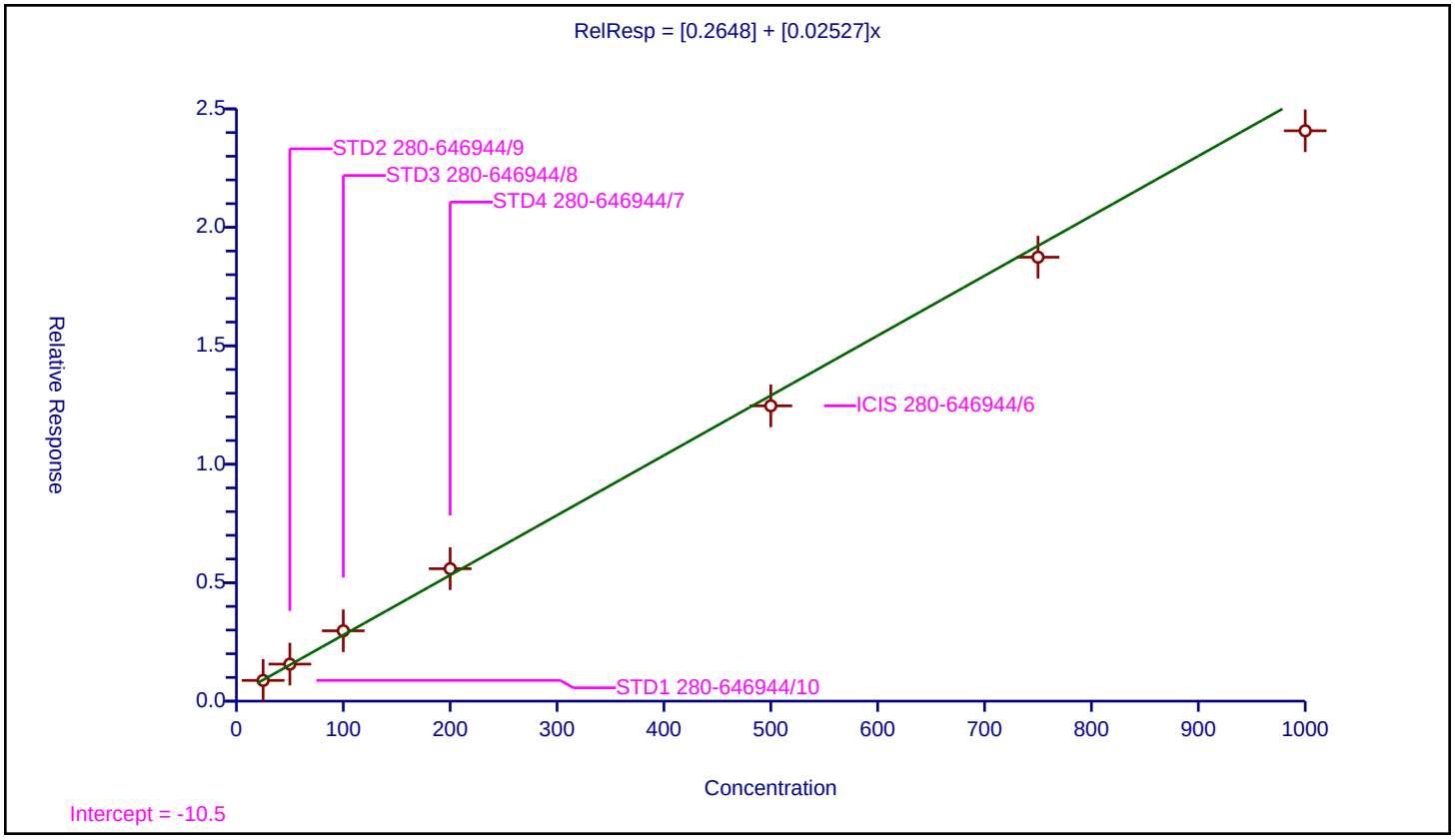
Curve Coefficients

Intercept:	0.2648
Slope:	0.02527

Error Coefficients

Relative Standard Deviation:	5.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	25.0	0.87503	100.0	105352147.0	0.035001	Y
2	STD2 280-646944/9	50.0	1.56332	100.0	107069309.0	0.031266	Y
3	STD3 280-646944/8	100.0	2.969815	100.0	106395746.0	0.029698	Y
4	STD4 280-646944/7	200.0	5.590213	100.0	105595070.0	0.027951	Y
5	ICIS 280-646944/6	500.0	12.465632	100.0	103331114.0	0.024931	Y
6	STD6 280-646944/5	750.0	18.739887	100.0	105098999.0	0.024987	Y
7	STD7 280-646944/4	1000.0	24.076158	100.0	102706844.0	0.024076	Y



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Calibration / PCB-1260 Peak 1

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

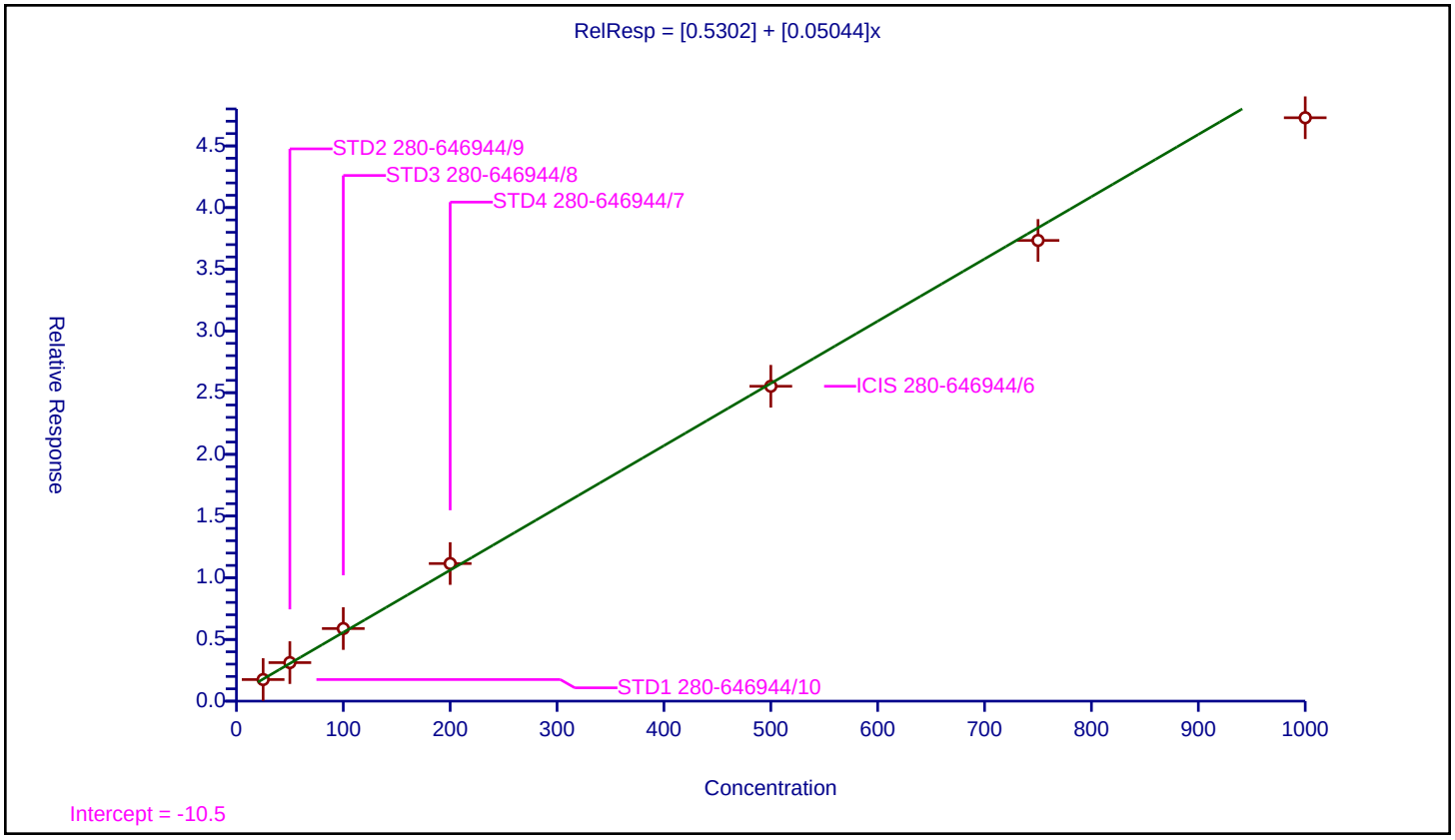
Curve Coefficients

Intercept:	0.5302
Slope:	0.05044

Error Coefficients

Relative Standard Deviation:	5.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	25.0	1.750002	100.0	105352147.0	0.07	Y
2	STD2 280-646944/9	50.0	3.122706	100.0	107069309.0	0.062454	Y
3	STD3 280-646944/8	100.0	5.88224	100.0	106395746.0	0.058822	Y
4	STD4 280-646944/7	200.0	11.151388	100.0	105595070.0	0.055757	Y
5	ICIS 280-646944/6	500.0	25.52104	100.0	103331114.0	0.051042	Y
6	STD6 280-646944/5	750.0	37.339049	100.0	105098999.0	0.049785	Y
7	STD7 280-646944/4	1000.0	47.284055	100.0	102706844.0	0.047284	Y



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Calibration / PCB-1260 Peak 2

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

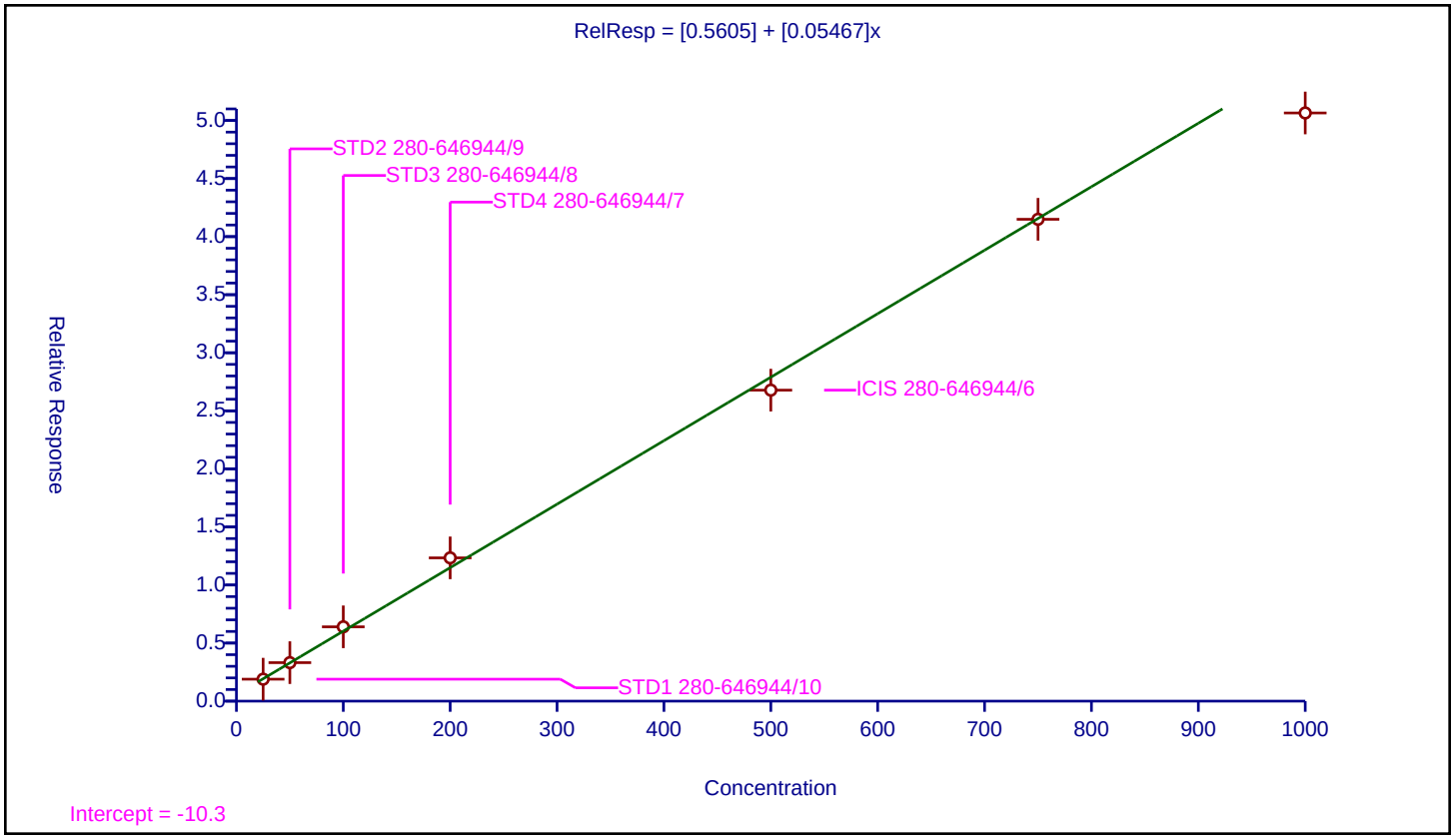
Curve Coefficients

Intercept:	0.5605
Slope:	0.05467

Error Coefficients

Relative Standard Deviation:	6.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	25.0	1.891538	100.0	105352147.0	0.075662	Y
2	STD2 280-646944/9	50.0	3.31443	100.0	107069309.0	0.066289	Y
3	STD3 280-646944/8	100.0	6.399229	100.0	106395746.0	0.063992	Y
4	STD4 280-646944/7	200.0	12.338211	100.0	105595070.0	0.061691	Y
5	ICIS 280-646944/6	500.0	26.779299	100.0	103331114.0	0.053559	Y
6	STD6 280-646944/5	750.0	41.492452	100.0	105098999.0	0.055323	Y
7	STD7 280-646944/4	1000.0	50.648809	100.0	102706844.0	0.050649	Y



Calibration / PCB-1260 Peak 3

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

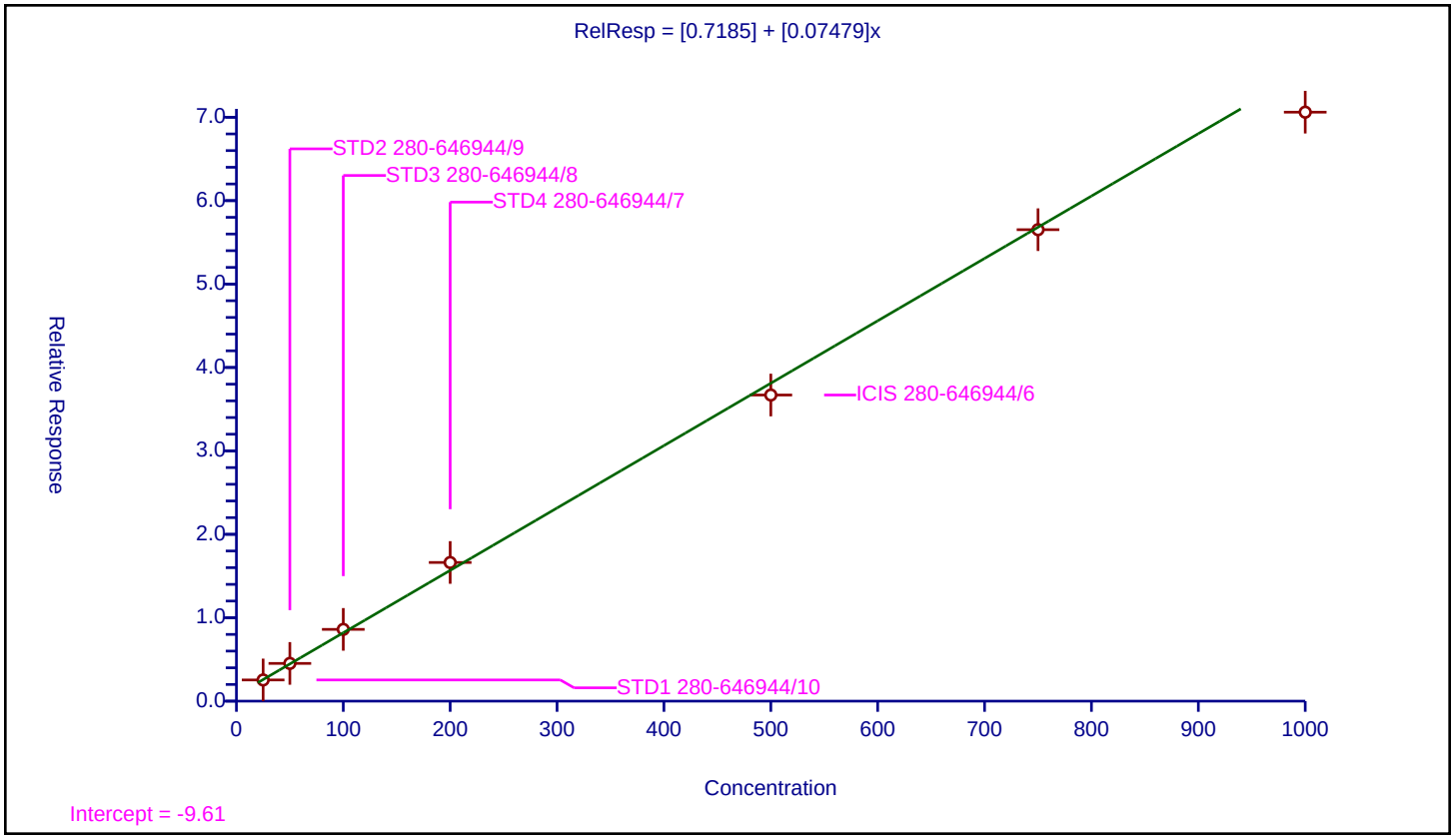
Curve Coefficients

Intercept:	0.7185
Slope:	0.07479

Error Coefficients

Relative Standard Deviation:	5.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	25.0	2.538591	100.0	105352147.0	0.101544	Y
2	STD2 280-646944/9	50.0	4.523858	100.0	107069309.0	0.090477	Y
3	STD3 280-646944/8	100.0	8.603808	100.0	106395746.0	0.086038	Y
4	STD4 280-646944/7	200.0	16.622472	100.0	105595070.0	0.083112	Y
5	ICIS 280-646944/6	500.0	36.698681	100.0	103331114.0	0.073397	Y
6	STD6 280-646944/5	750.0	56.520025	100.0	105098999.0	0.07536	Y
7	STD7 280-646944/4	1000.0	70.60645	100.0	102706844.0	0.070606	Y



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Calibration / PCB-1260 Peak 4

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

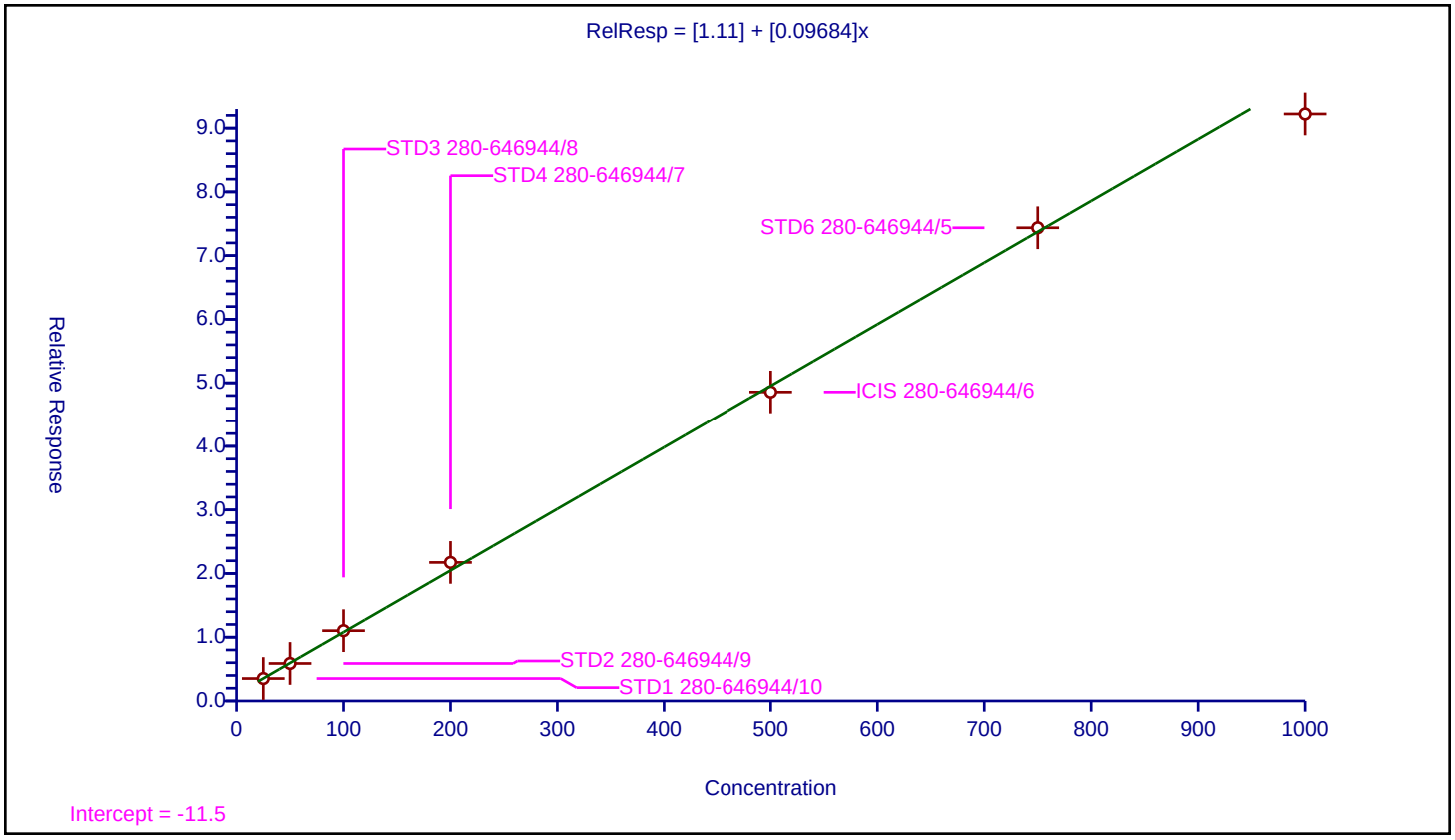
Curve Coefficients

Intercept:	1.11
Slope:	0.09684

Error Coefficients

Relative Standard Deviation:	4.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	25.0	3.518576	100.0	105352147.0	0.140743	Y
2	STD2 280-646944/9	50.0	5.883464	100.0	107069309.0	0.117669	Y
3	STD3 280-646944/8	100.0	11.028637	100.0	106395746.0	0.110286	Y
4	STD4 280-646944/7	200.0	21.738164	100.0	105595070.0	0.108691	Y
5	ICIS 280-646944/6	500.0	48.567602	100.0	103331114.0	0.097135	Y
6	STD6 280-646944/5	750.0	74.3773	100.0	105098999.0	0.09917	Y
7	STD7 280-646944/4	1000.0	92.223184	100.0	102706844.0	0.092223	Y



5/23/2024
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Calibration / PCB-1260 Peak 5

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

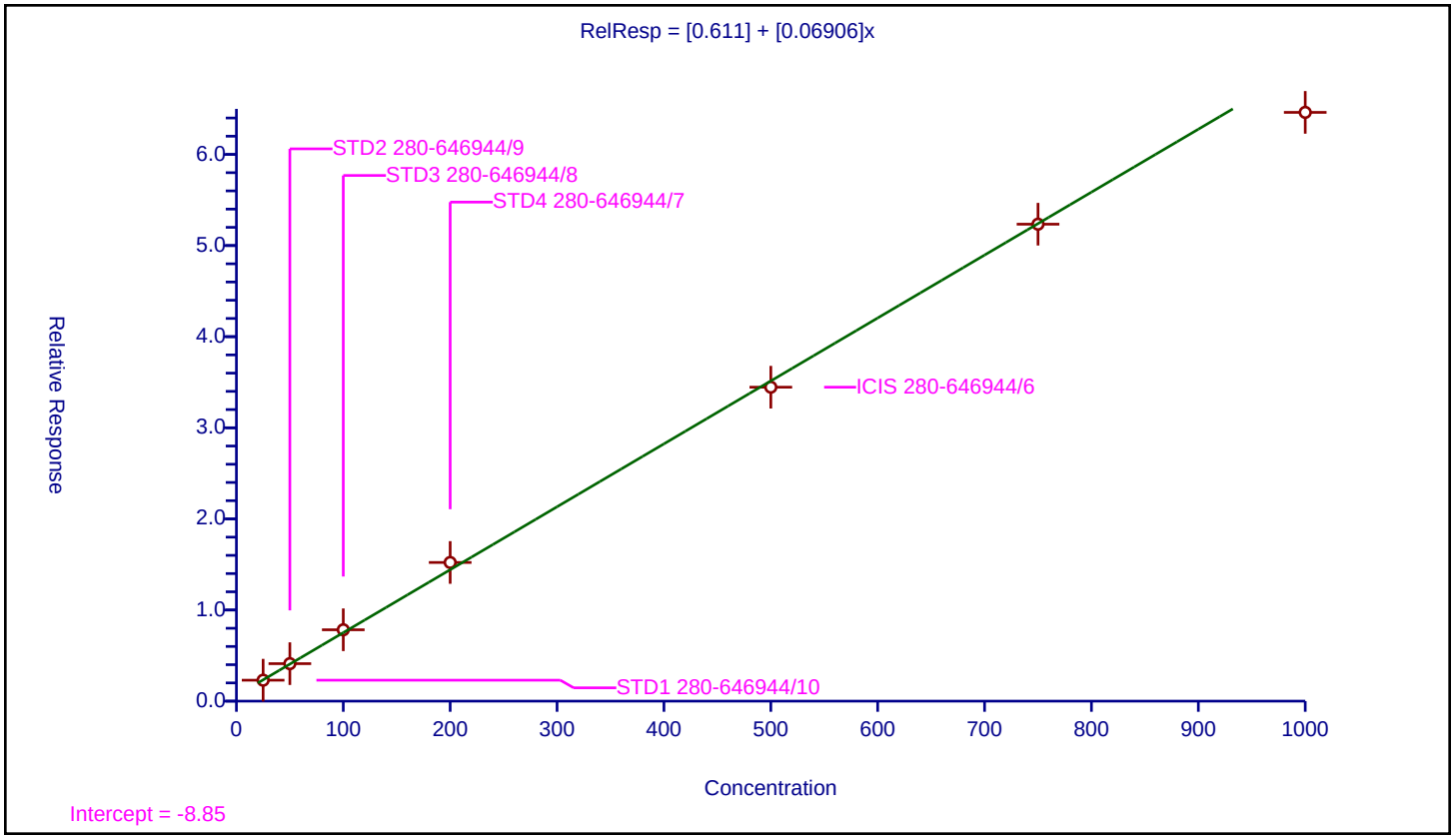
Curve Coefficients

Intercept:	0.611
Slope:	0.06906

Error Coefficients

Relative Standard Deviation:	4.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	25.0	2.298251	100.0	105352147.0	0.09193	Y
2	STD2 280-646944/9	50.0	4.113577	100.0	107069309.0	0.082272	Y
3	STD3 280-646944/8	100.0	7.831192	100.0	106395746.0	0.078312	Y
4	STD4 280-646944/7	200.0	15.218042	100.0	105595070.0	0.07609	Y
5	ICIS 280-646944/6	500.0	34.457346	100.0	103331114.0	0.068915	Y
6	STD6 280-646944/5	750.0	52.345124	100.0	105098999.0	0.069793	Y
7	STD7 280-646944/4	1000.0	64.616796	100.0	102706844.0	0.064617	Y



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Calibration / DCB Decachlorobiphenyl

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

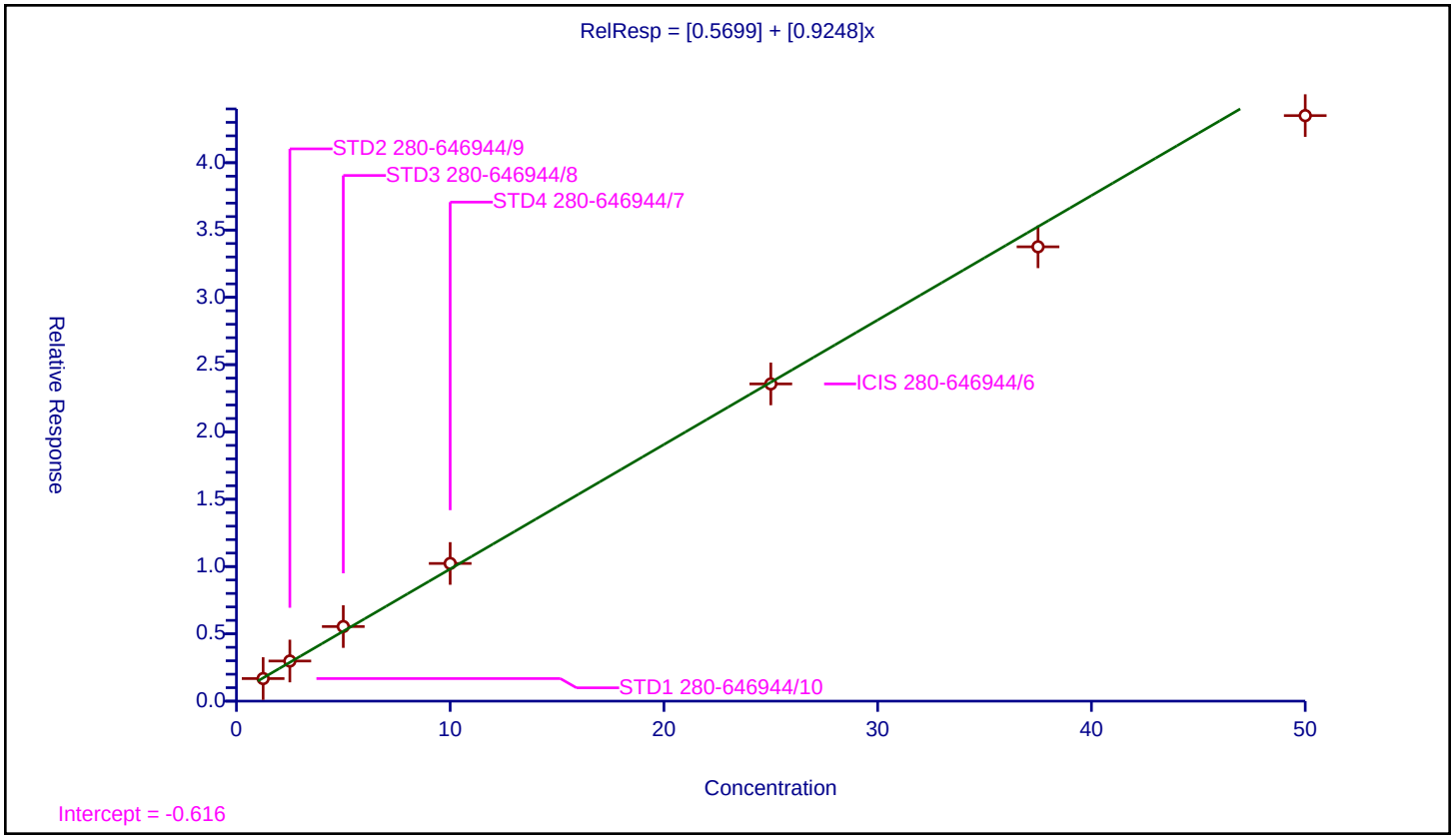
Curve Coefficients

Intercept:	0.5699
Slope:	0.9248

Error Coefficients

Relative Standard Deviation:	6.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1 280-646944/10	1.25	1.677173	100.0	105352147.0	1.341739	Y
2	STD2 280-646944/9	2.5	2.980407	100.0	107069309.0	1.192163	Y
3	STD3 280-646944/8	5.0	5.542377	100.0	106395746.0	1.108475	Y
4	STD4 280-646944/7	10.0	10.228047	100.0	105595070.0	1.022805	Y
5	ICIS 280-646944/6	25.0	23.567062	100.0	103331114.0	0.942682	Y
6	STD6 280-646944/5	37.5	33.753818	100.0	105098999.0	0.900102	Y
7	STD7 280-646944/4	50.0	43.501127	100.0	102706844.0	0.870023	Y



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FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653123

SDG No.:

Instrument ID: SGC_J GC Column: CLP1 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 10:56 Calibration End Date: 05/13/2024 10:56 Calibration ID: 93321

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD4268 280-653123/5	0513005.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
PCB-1242 Peak 1	0.0154					Ave		0.0154						20.0			
PCB-1242 Peak 2	0.0307					Ave		0.0307						20.0			
PCB-1242 Peak 3	0.0265					Ave		0.0265						20.0			
PCB-1242 Peak 4	0.0281					Ave		0.0281						20.0			
PCB-1242 Peak 5	0.0224					Ave		0.0224						20.0			
PCB-1268 Peak 1	0.1536					Ave		0.1536						20.0			
PCB-1268 Peak 2	0.1653					Ave		0.1653						20.0			
PCB-1268 Peak 3	0.1338					Ave		0.1338						20.0			
PCB-1268 Peak 4	0.0614					Ave		0.0614						20.0			
PCB-1268 Peak 5	0.4001					Ave		0.4001						20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 653123

SDG No.:

Instrument ID: SGC_J | GC Column: CLP1 | ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 10:56 | Calibration End Date: 05/13/2024 10:56 | Calibration ID: 93321

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD4268 280-653123/5	0513005.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1					LVL 1				
PCB-1242 Peak 1	BNB	Ave	7517634					500				
PCB-1242 Peak 2	BNB	Ave	15028175					500				
PCB-1242 Peak 3	BNB	Ave	12980586					500				
PCB-1242 Peak 4	BNB	Ave	13727493					500				
PCB-1242 Peak 5	BNB	Ave	10962680					500				
PCB-1268 Peak 1	BNB	Ave	75143629					500				
PCB-1268 Peak 2	BNB	Ave	80834397					500				
PCB-1268 Peak 3	BNB	Ave	65430433					500				
PCB-1268 Peak 4	BNB	Ave	30028070					500				
PCB-1268 Peak 5	BNB	Ave	195700023					500				

Curve Type Legend:
Ave = Average ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513005.D
Lims ID: STD4268
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 13-May-2024 10:56:09 ALS Bottle#: 4 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD4268
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub5

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:52:24 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 13-May-2024 14:31:48

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.831	2.831	0.000	97814524	100.0	100.0	
2	2.764	2.764	0.000	107509635	100.0	100.0	
						RPD = 0.00	
10 PCB-1242							
1	3.961	3.961	0.000	7517634	500.0	500.0	
1	4.277	4.277	0.000	15028175	500.0	500.0	
1	4.694	4.694	0.000	12980586	500.0	500.0	
1	4.837	4.837	0.000	13727493	500.0	500.0	
1	5.681	5.681	0.000	10962680	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	4.091	4.091	0.000	7661202	500.0	500.0	
2	4.447	4.447	0.000	15347371	500.0	500.0	
2	4.871	4.871	0.000	31382759	500.0	500.0	
2	4.997	4.997	0.000	13452249	500.0	500.0	
2	5.867	5.867	0.000	10310948	500.0	500.0	
		Average of Peak Amounts =				500.0	
						RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
13 PCB-1268							
1	8.481	8.481	0.000	75143629	500.0	500.0	
1	8.531	8.531	0.000	80834397	500.0	500.0	
1	8.781	8.781	0.000	65430433	500.0	500.0	
1	9.254	9.254	0.000	30028070	500.0	500.0	
1	9.637	9.637	0.000	195700023	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	8.854	8.854	0.000	61832757	500.0	500.0	
2	8.917	8.917	0.000	67921824	500.0	500.0	
2	9.251	9.251	0.000	52104887	500.0	500.0	
2	9.644	9.644	0.000	25201894	500.0	500.0	
2	10.044	10.044	0.000	154129848	500.0	500.0	
		Average of Peak Amounts =				500.0	
						RPD = 0.00	

QC Flag Legend

Processing Flags

Reagents:

AR_4268_L7_00031	Amount Added: 100.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

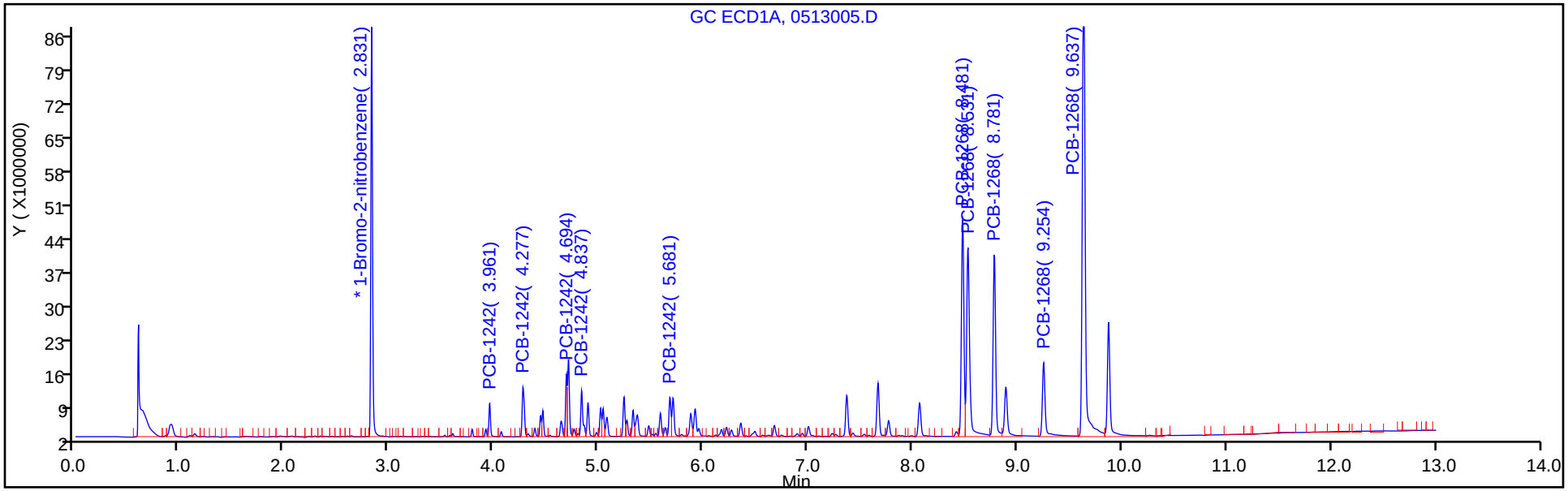
Report Date: 14-May-2024 12:52:25 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

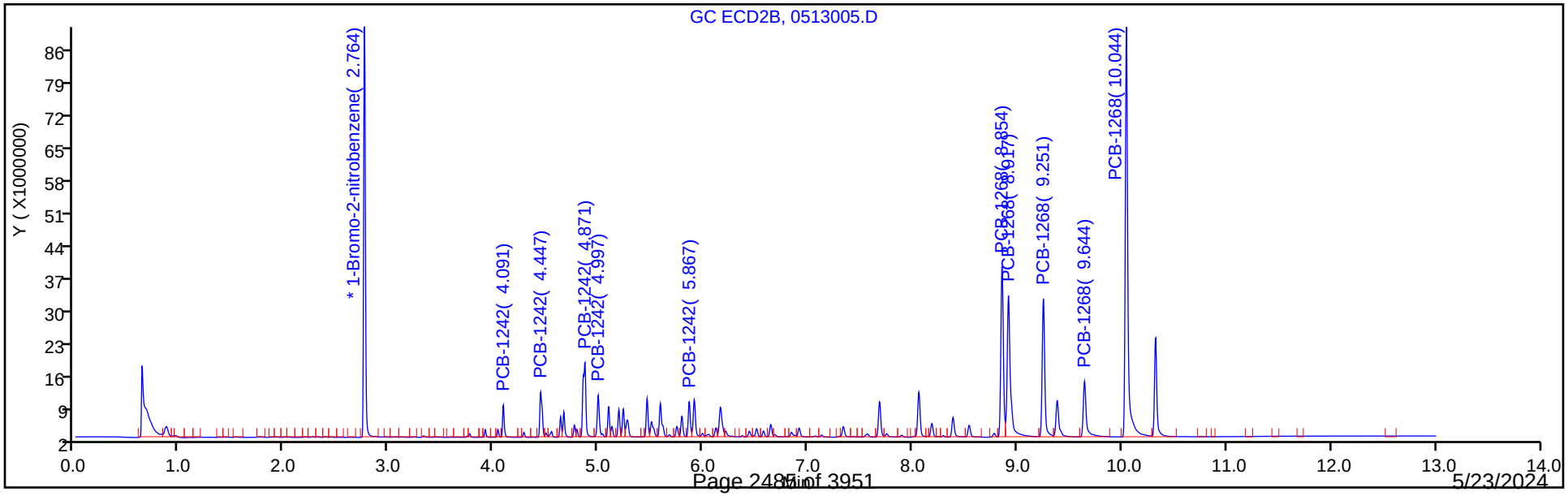
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513005.D

Injection Date:	13-May-2024 10:56:09	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	STD4268			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
4:40:30 AM

Calibration / PCB-1242 Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

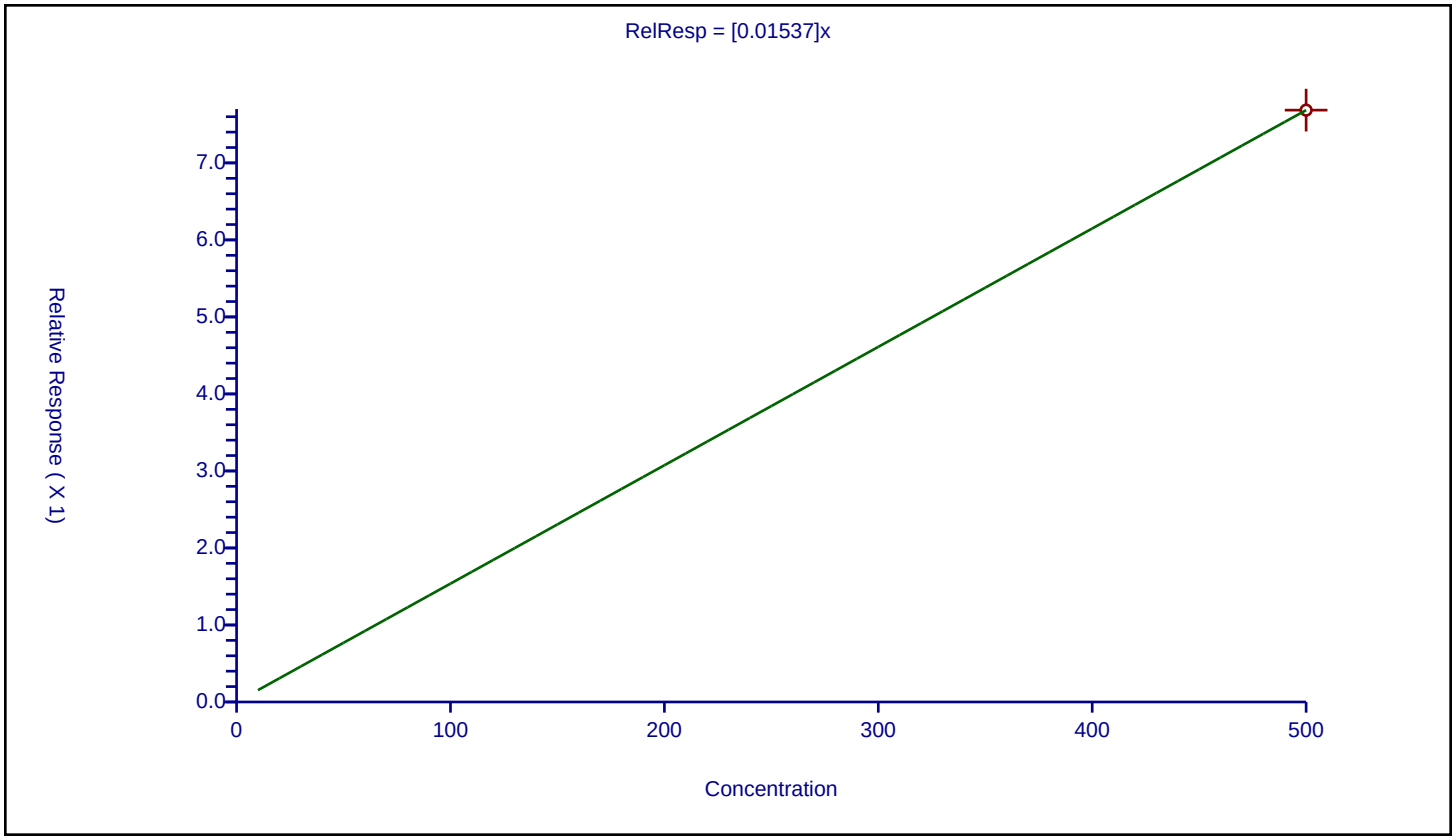
Curve Coefficients

Intercept:	0
Slope:	0.01537

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4268 280-653123/5	500.0	7.685601	100.0	97814524.0	0.015371	Y



Calibration / PCB-1242 Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

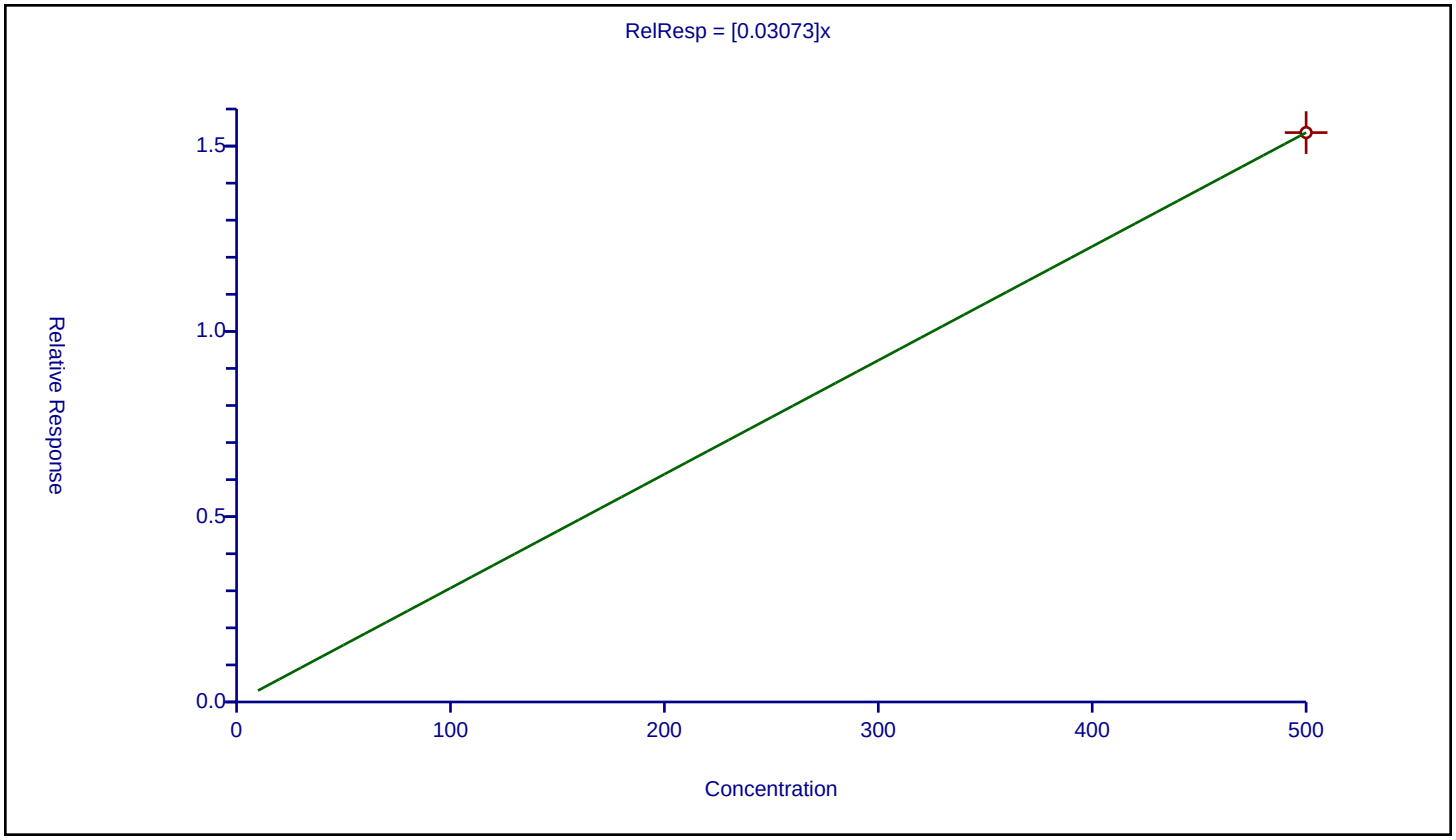
Curve Coefficients

Intercept:	0
Slope:	0.03073

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4268 280-653123/5	500.0	15.36395	100.0	97814524.0	0.030728	Y



Calibration / PCB-1242 Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

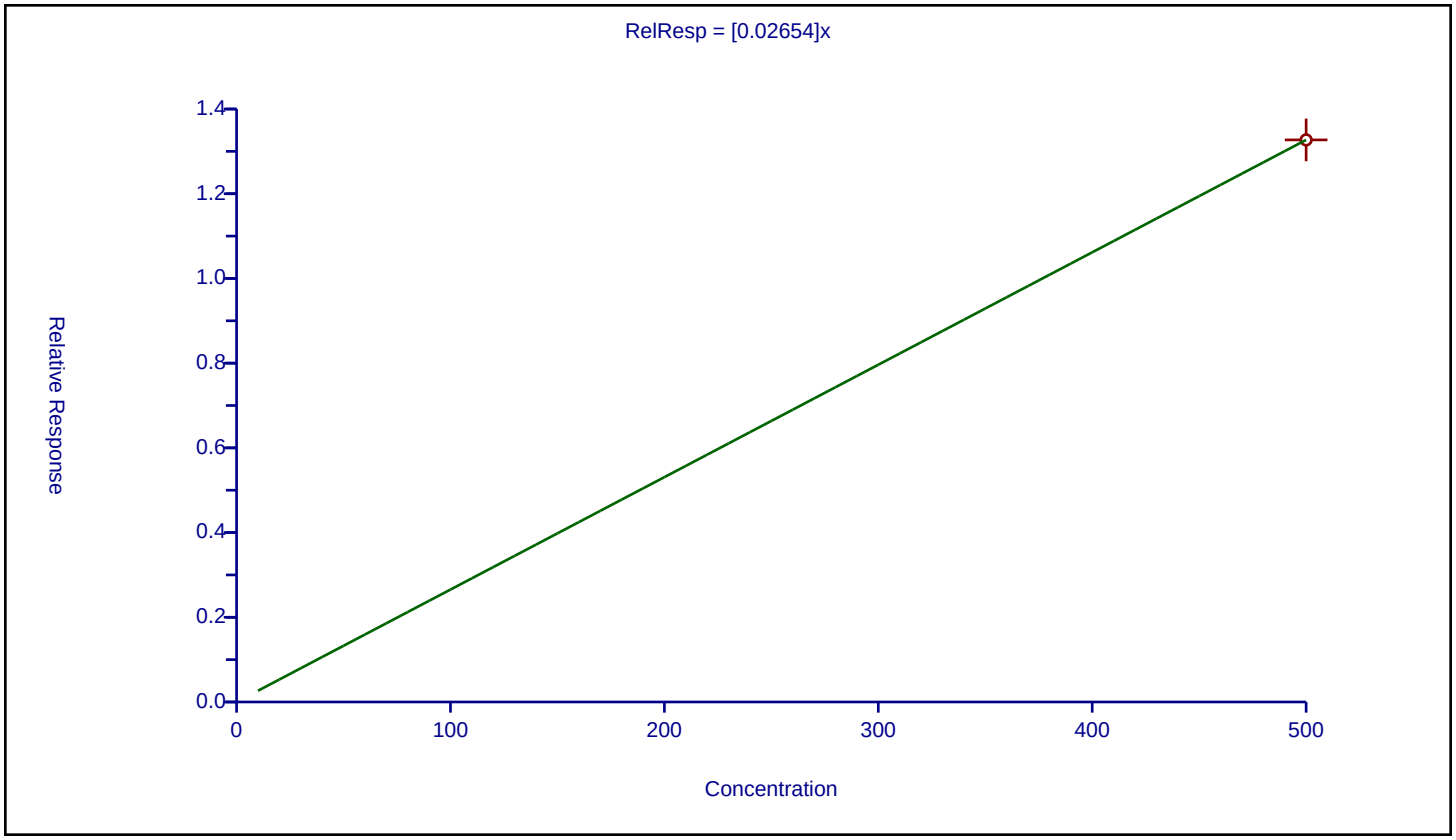
Curve Coefficients

Intercept:	0
Slope:	0.02654

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4268 280-653123/5	500.0	13.270612	100.0	97814524.0	0.026541	Y



Calibration / PCB-1242 Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

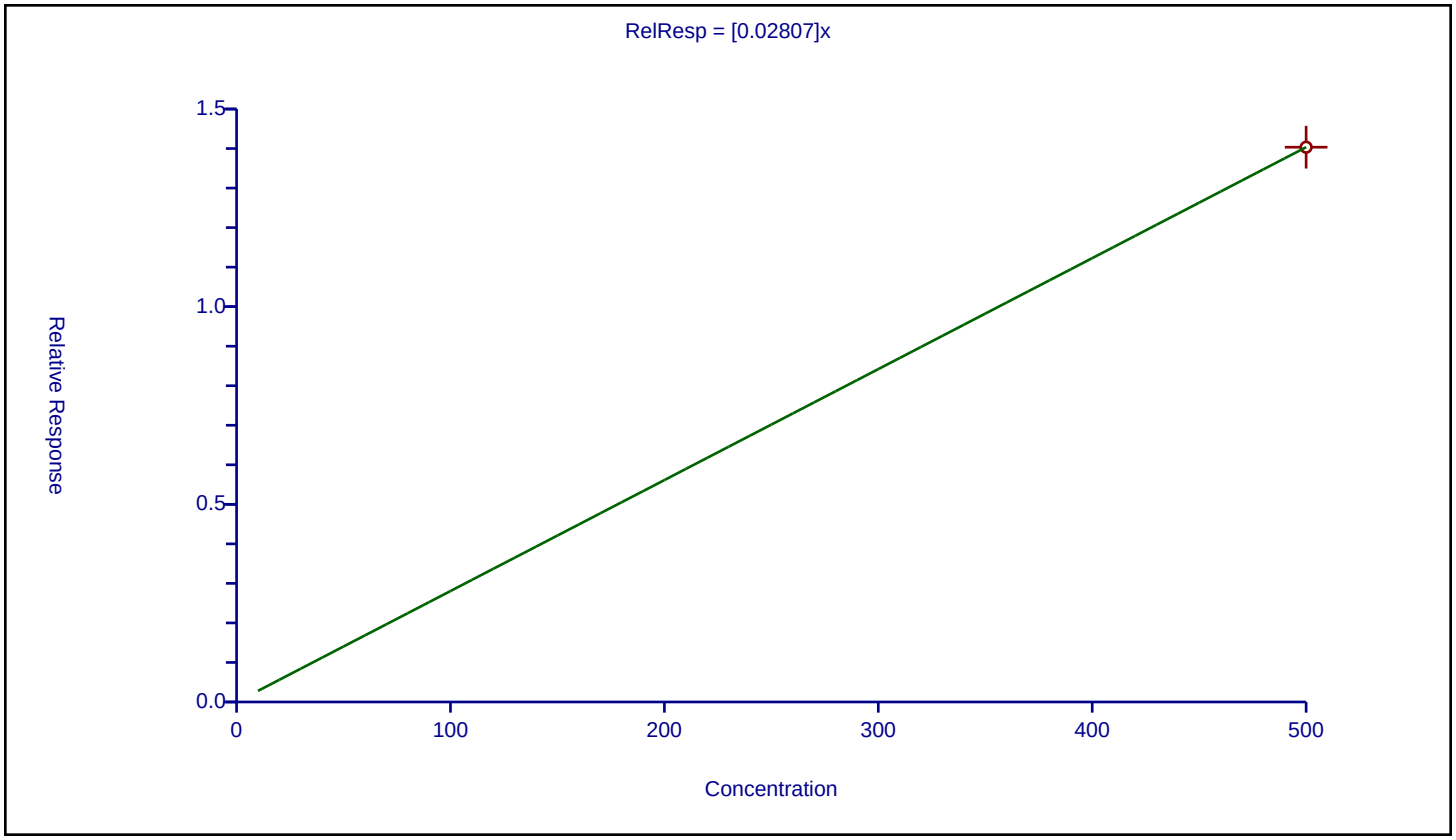
Curve Coefficients

Intercept:	0
Slope:	0.02807

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4268 280-653123/5	500.0	14.034207	100.0	97814524.0	0.028068	Y



Calibration / PCB-1242 Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

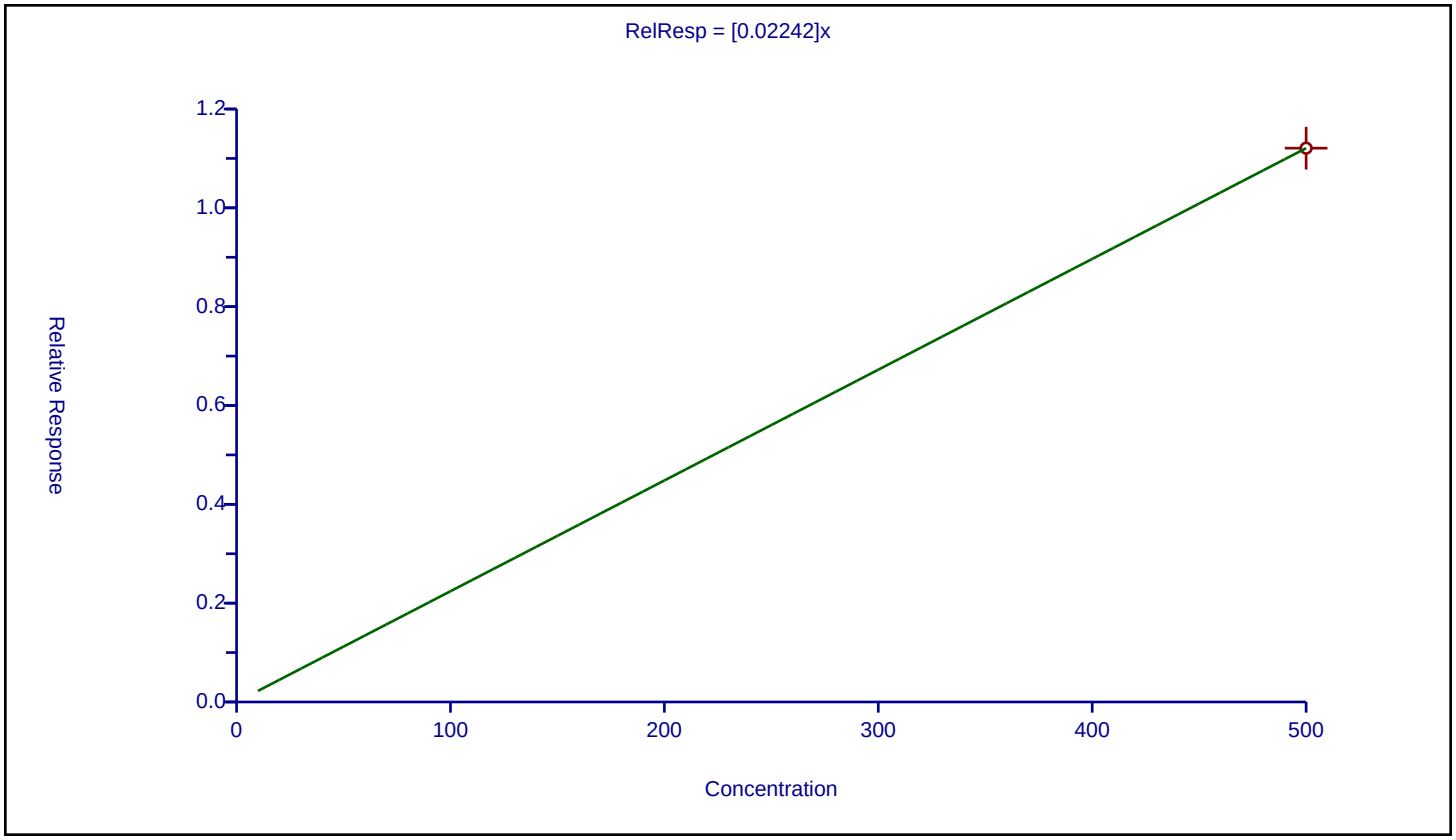
Curve Coefficients

Intercept:	0
Slope:	0.02242

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4268 280-653123/5	500.0	11.20762	100.0	97814524.0	0.022415	Y



Calibration / PCB-1268 Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

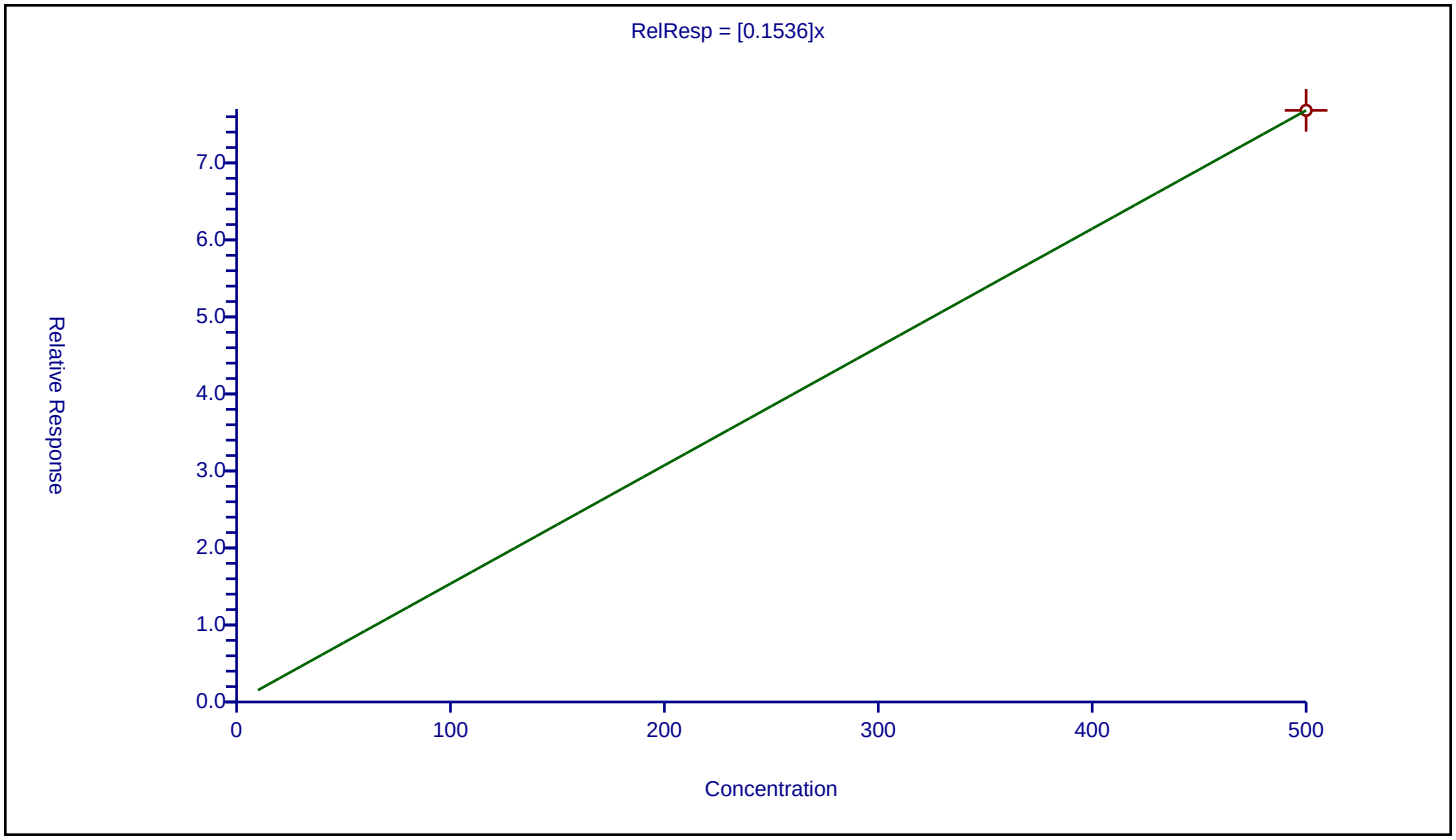
Curve Coefficients

Intercept:	0
Slope:	0.1536

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4268 280-653123/5	500.0	76.822568	100.0	97814524.0	0.153645	Y



Calibration / PCB-1268 Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

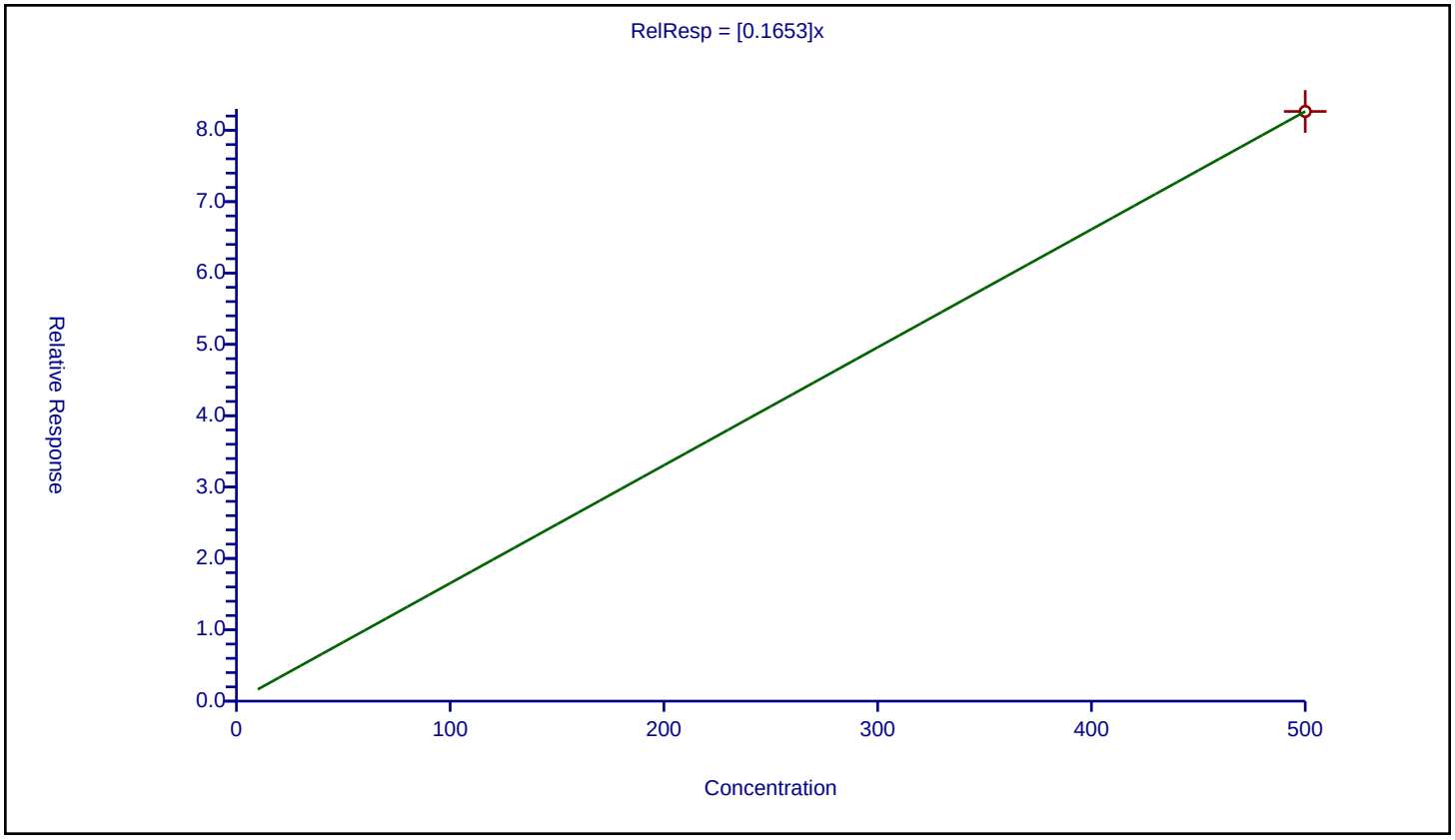
Curve Coefficients

Intercept:	0
Slope:	0.1653

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4268 280-653123/5	500.0	82.640485	100.0	97814524.0	0.165281	Y



Calibration / PCB-1268 Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

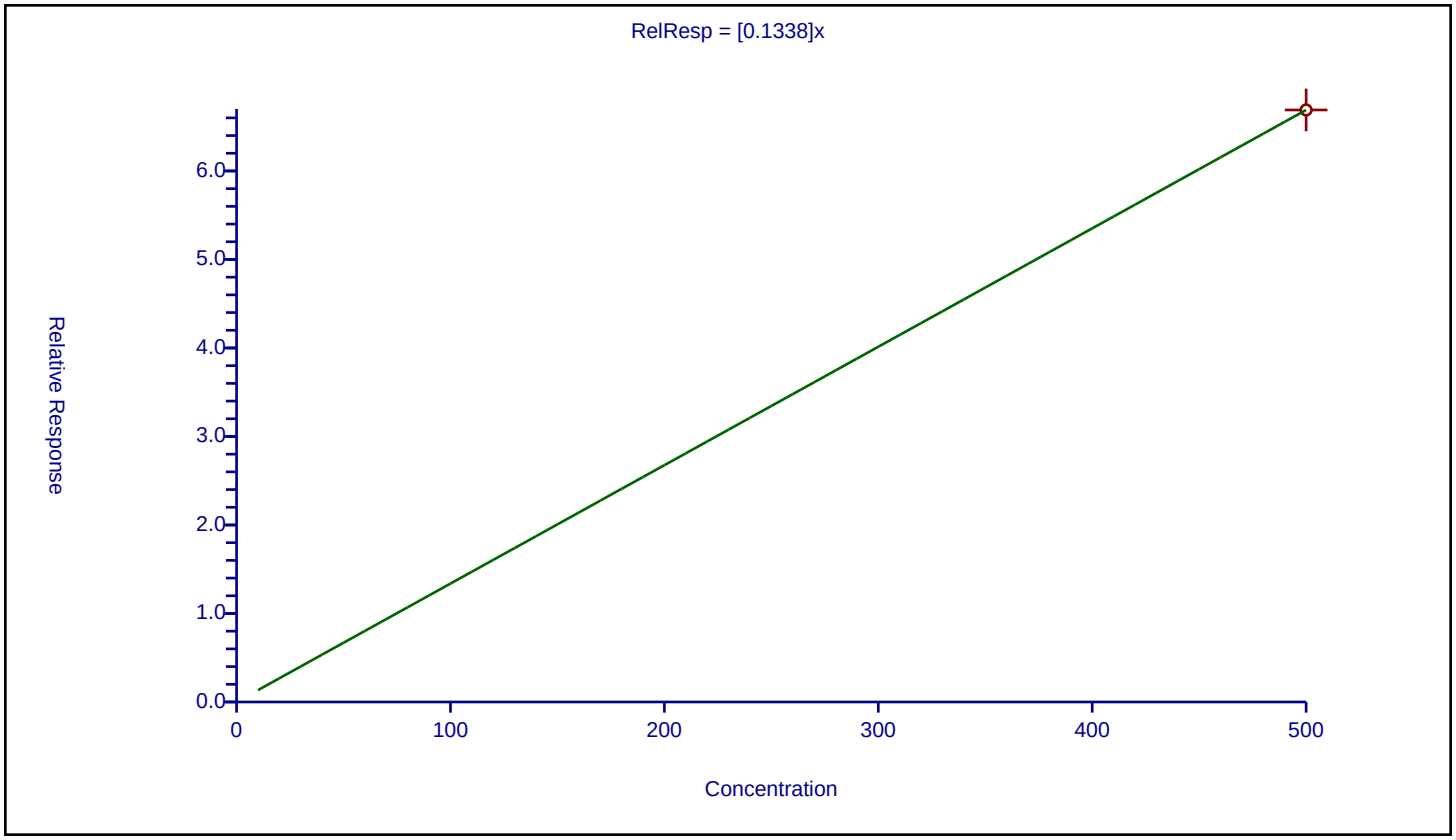
Curve Coefficients

Intercept:	0
Slope:	0.1338

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4268 280-653123/5	500.0	66.892349	100.0	97814524.0	0.133785	Y



Calibration / PCB-1268 Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

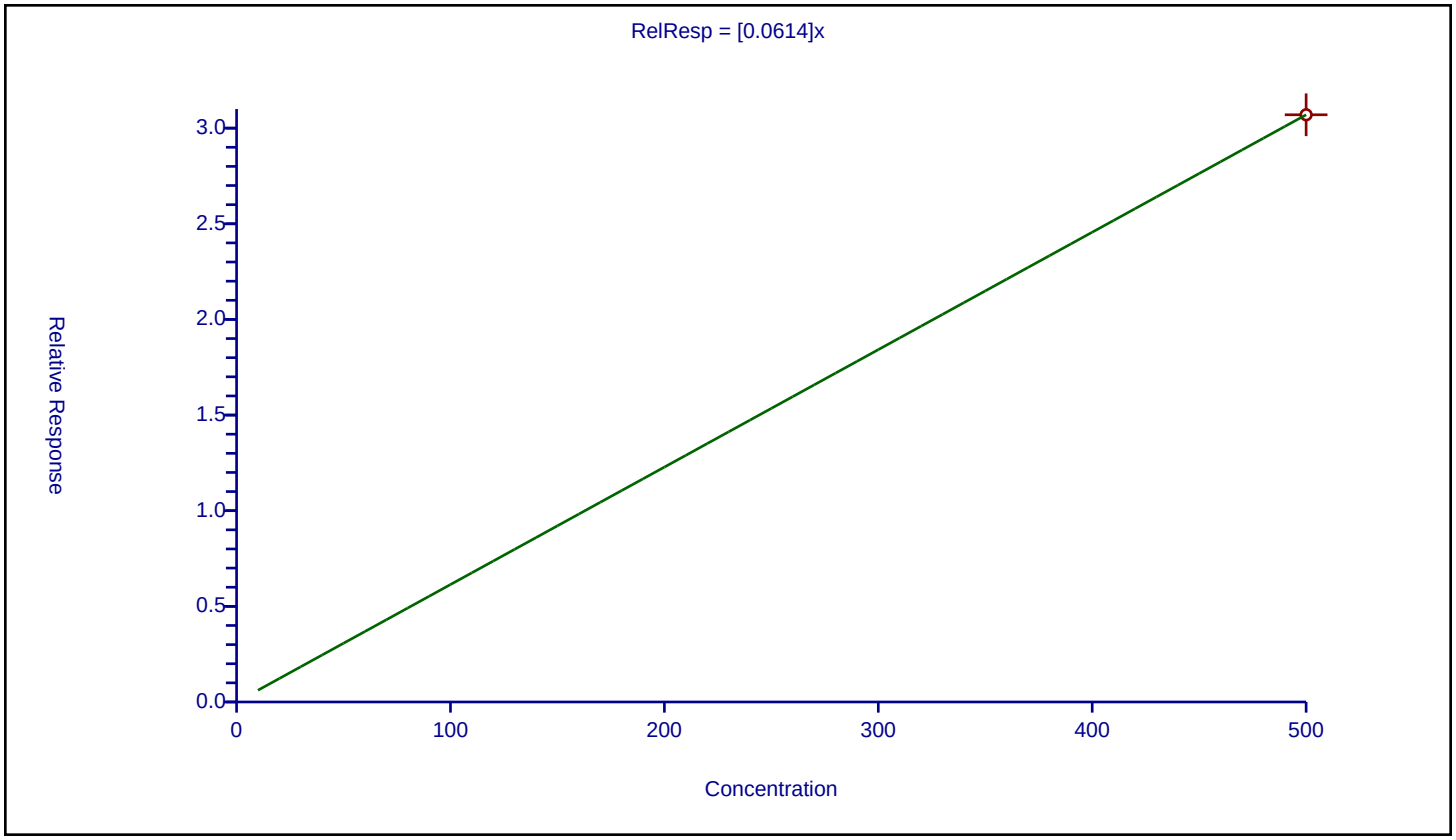
Curve Coefficients

Intercept:	0
Slope:	0.0614

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4268 280-653123/5	500.0	30.698989	100.0	97814524.0	0.061398	Y



Calibration / PCB-1268 Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

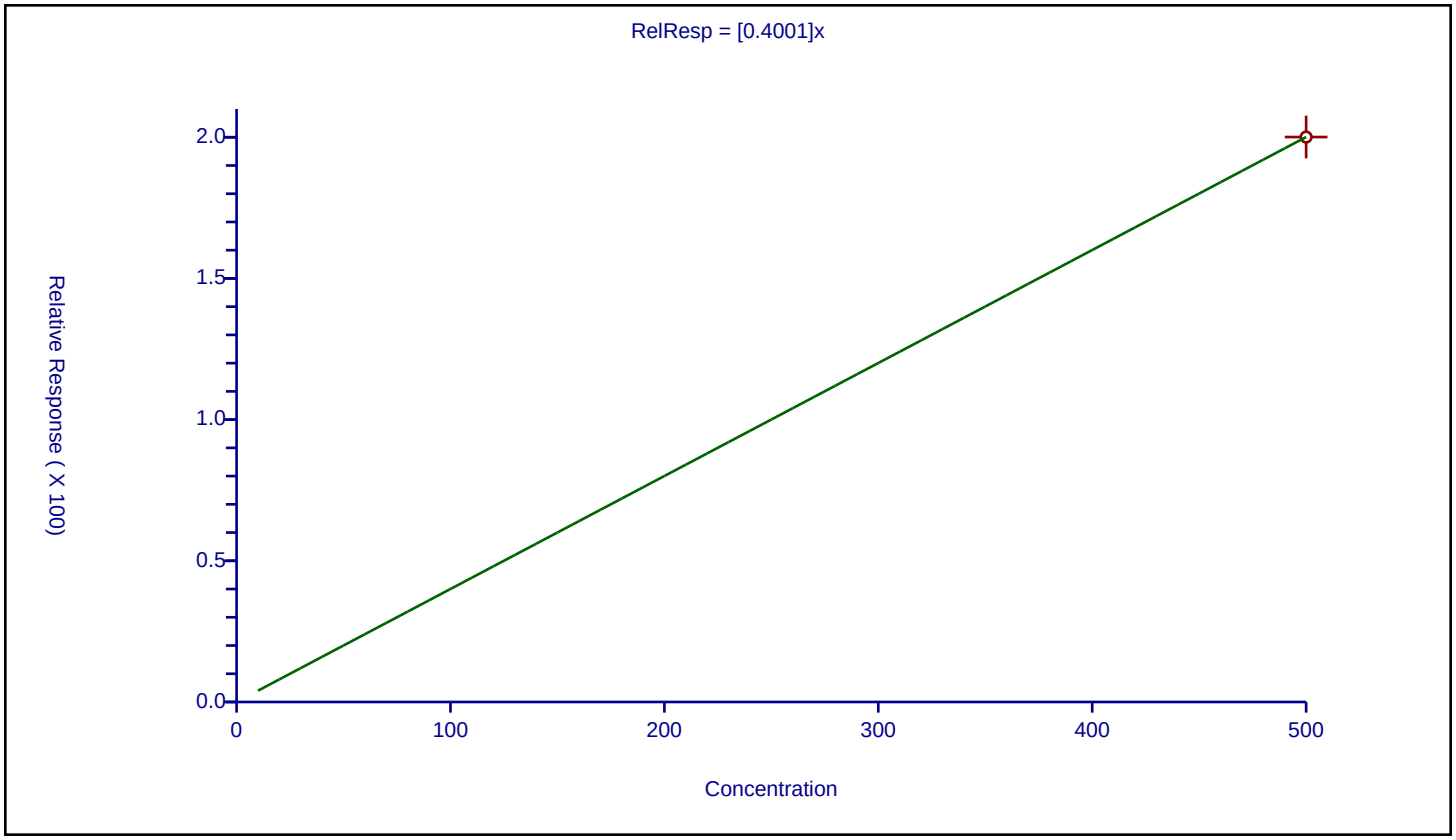
Curve Coefficients

Intercept:	0
Slope:	0.4001

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4268 280-653123/5	500.0	200.072561	100.0	97814524.0	0.400145	Y



FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653123

SDG No.:

Instrument ID: SGC_J GC Column: CLP2 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 10:56 Calibration End Date: 05/13/2024 10:56 Calibration ID: 93322

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD4268 280-653123/5	0513005.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
PCB-1242 Peak 1	0.0143					Ave		0.0143						20.0			
PCB-1242 Peak 2	0.0286					Ave		0.0286						20.0			
PCB-1242 Peak 3	0.0584					Ave		0.0584						20.0			
PCB-1242 Peak 4	0.0250					Ave		0.0250						20.0			
PCB-1242 Peak 5	0.0192					Ave		0.0192						20.0			
PCB-1268 Peak 1	0.1150					Ave		0.1150						20.0			
PCB-1268 Peak 2	0.1264					Ave		0.1264						20.0			
PCB-1268 Peak 3	0.0969					Ave		0.0969						20.0			
PCB-1268 Peak 4	0.0469					Ave		0.0469						20.0			
PCB-1268 Peak 5	0.2867					Ave		0.2867						20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 653123

SDG No.:

Instrument ID: SGC_J | GC Column: CLP2 | ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 10:56 | Calibration End Date: 05/13/2024 10:56 | Calibration ID: 93322

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD4268 280-653123/5	0513005.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1					LVL 1				
PCB-1242 Peak 1	BNB	Ave	7661202					500				
PCB-1242 Peak 2	BNB	Ave	15347371					500				
PCB-1242 Peak 3	BNB	Ave	31382759					500				
PCB-1242 Peak 4	BNB	Ave	13452249					500				
PCB-1242 Peak 5	BNB	Ave	10310948					500				
PCB-1268 Peak 1	BNB	Ave	61832757					500				
PCB-1268 Peak 2	BNB	Ave	67921824					500				
PCB-1268 Peak 3	BNB	Ave	52104887					500				
PCB-1268 Peak 4	BNB	Ave	25201894					500				
PCB-1268 Peak 5	BNB	Ave	154129848					500				

Curve Type Legend:
Ave = Average ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513005.D
Lims ID: STD4268
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 13-May-2024 10:56:09 ALS Bottle#: 4 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD4268
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub5

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:52:24 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 13-May-2024 14:31:48

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.831	2.831	0.000	97814524	100.0	100.0	
2	2.764	2.764	0.000	107509635	100.0	100.0	
						RPD = 0.00	
10 PCB-1242							
1	3.961	3.961	0.000	7517634	500.0	500.0	
1	4.277	4.277	0.000	15028175	500.0	500.0	
1	4.694	4.694	0.000	12980586	500.0	500.0	
1	4.837	4.837	0.000	13727493	500.0	500.0	
1	5.681	5.681	0.000	10962680	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	4.091	4.091	0.000	7661202	500.0	500.0	
2	4.447	4.447	0.000	15347371	500.0	500.0	
2	4.871	4.871	0.000	31382759	500.0	500.0	
2	4.997	4.997	0.000	13452249	500.0	500.0	
2	5.867	5.867	0.000	10310948	500.0	500.0	
		Average of Peak Amounts =				500.0	
						RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
13 PCB-1268							
1	8.481	8.481	0.000	75143629	500.0	500.0	
1	8.531	8.531	0.000	80834397	500.0	500.0	
1	8.781	8.781	0.000	65430433	500.0	500.0	
1	9.254	9.254	0.000	30028070	500.0	500.0	
1	9.637	9.637	0.000	195700023	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	8.854	8.854	0.000	61832757	500.0	500.0	
2	8.917	8.917	0.000	67921824	500.0	500.0	
2	9.251	9.251	0.000	52104887	500.0	500.0	
2	9.644	9.644	0.000	25201894	500.0	500.0	
2	10.044	10.044	0.000	154129848	500.0	500.0	
		Average of Peak Amounts =				500.0	
						RPD = 0.00	

QC Flag Legend

Processing Flags

Reagents:

AR_4268_L7_00031	Amount Added: 100.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

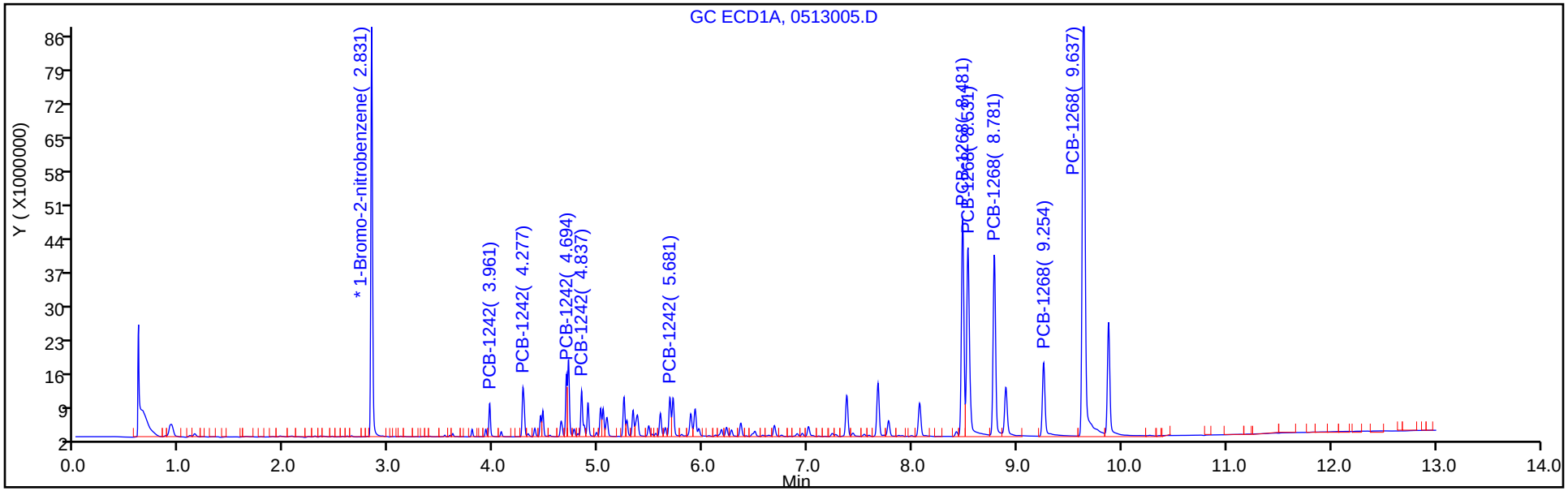
Report Date: 14-May-2024 12:52:25 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

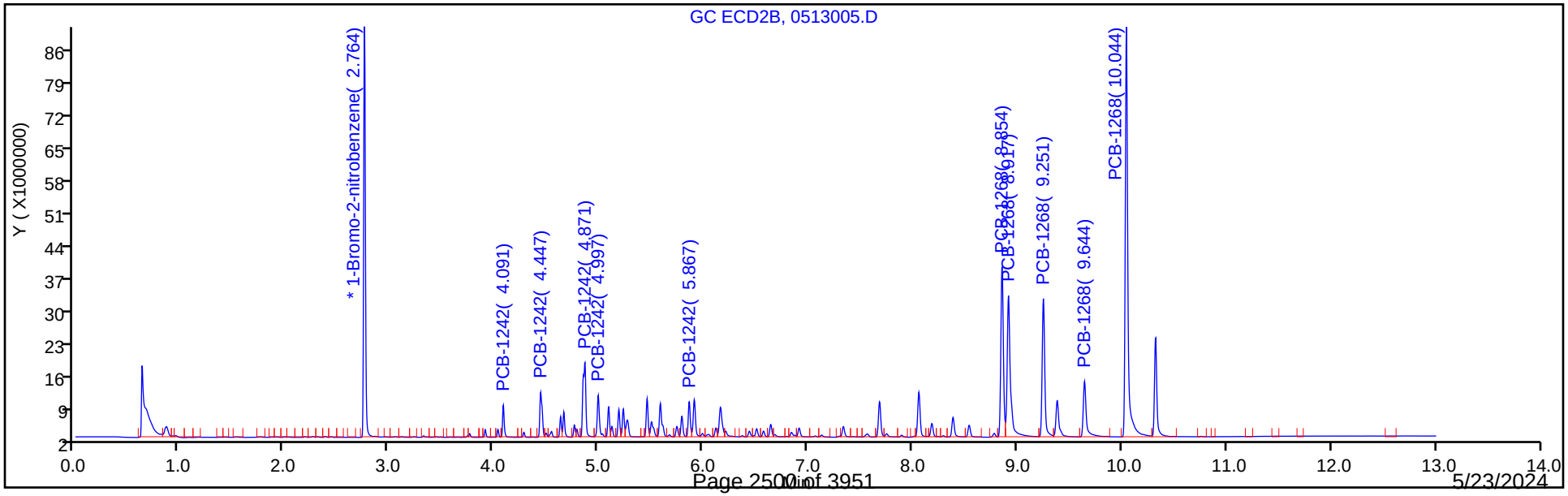
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513005.D

Injection Date:	13-May-2024 10:56:09	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	STD4268			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
4:40:30 AM

Calibration / PCB-1242 Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

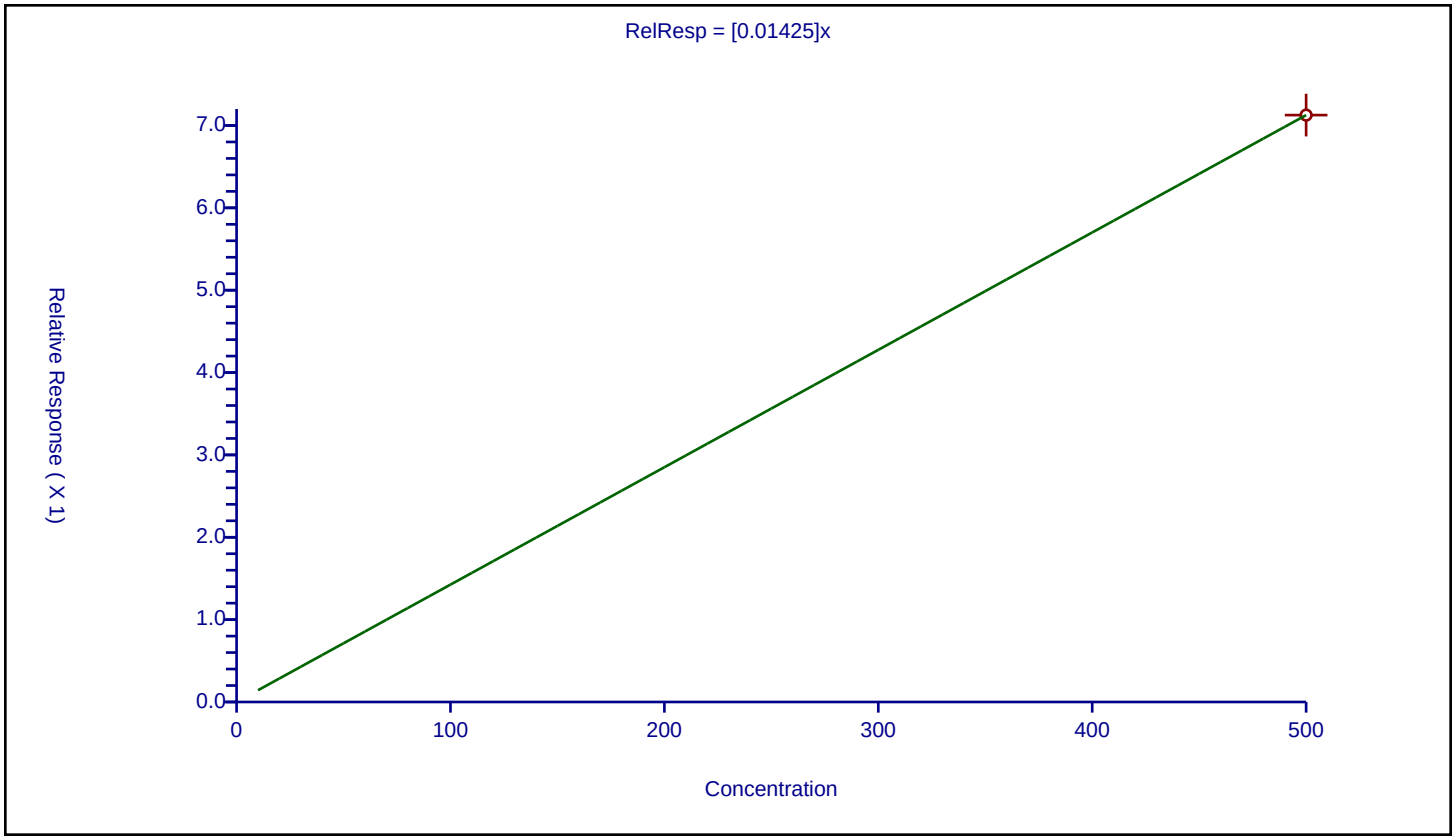
Curve Coefficients

Intercept:	0
Slope:	0.01425

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4268 280-653123/5	500.0	7.126061	100.0	107509635.0	0.014252	Y



Calibration / PCB-1242 Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

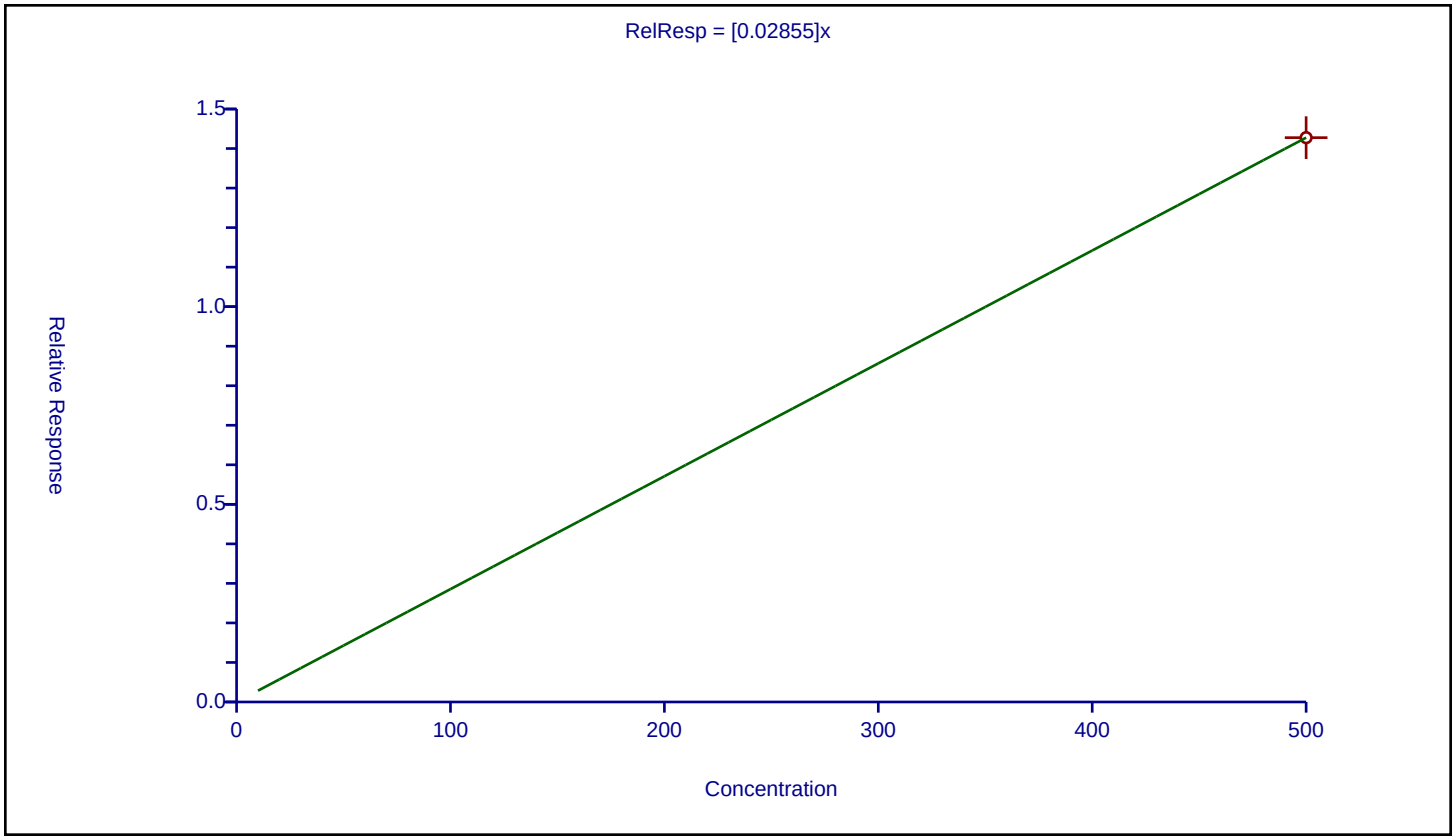
Curve Coefficients

Intercept:	0
Slope:	0.02855

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4268 280-653123/5	500.0	14.275345	100.0	107509635.0	0.028551	Y



Calibration / PCB-1242 Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

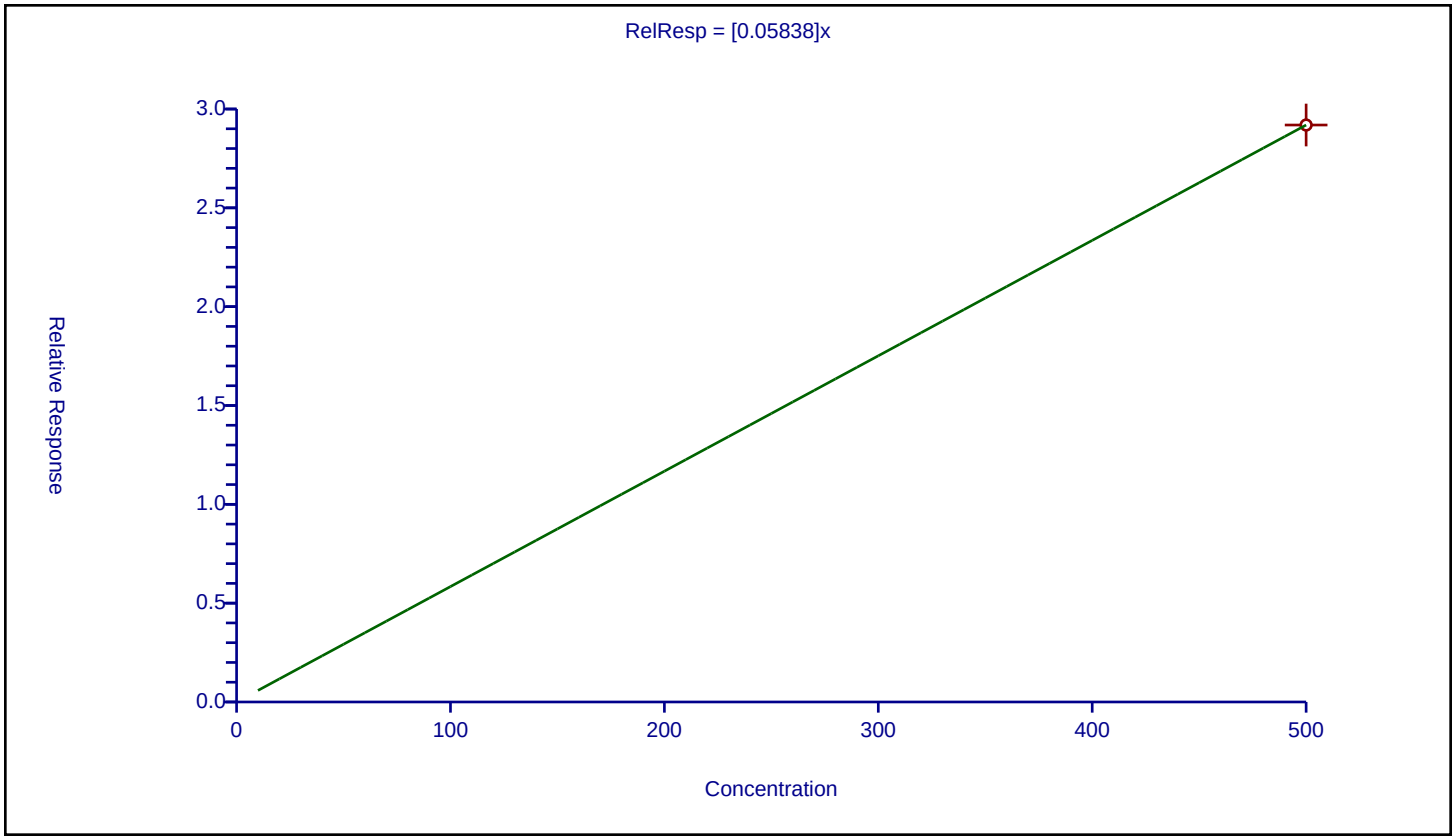
Curve Coefficients

Intercept:	0
Slope:	0.05838

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4268 280-653123/5	500.0	29.190648	100.0	107509635.0	0.058381	Y



Calibration / PCB-1242 Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

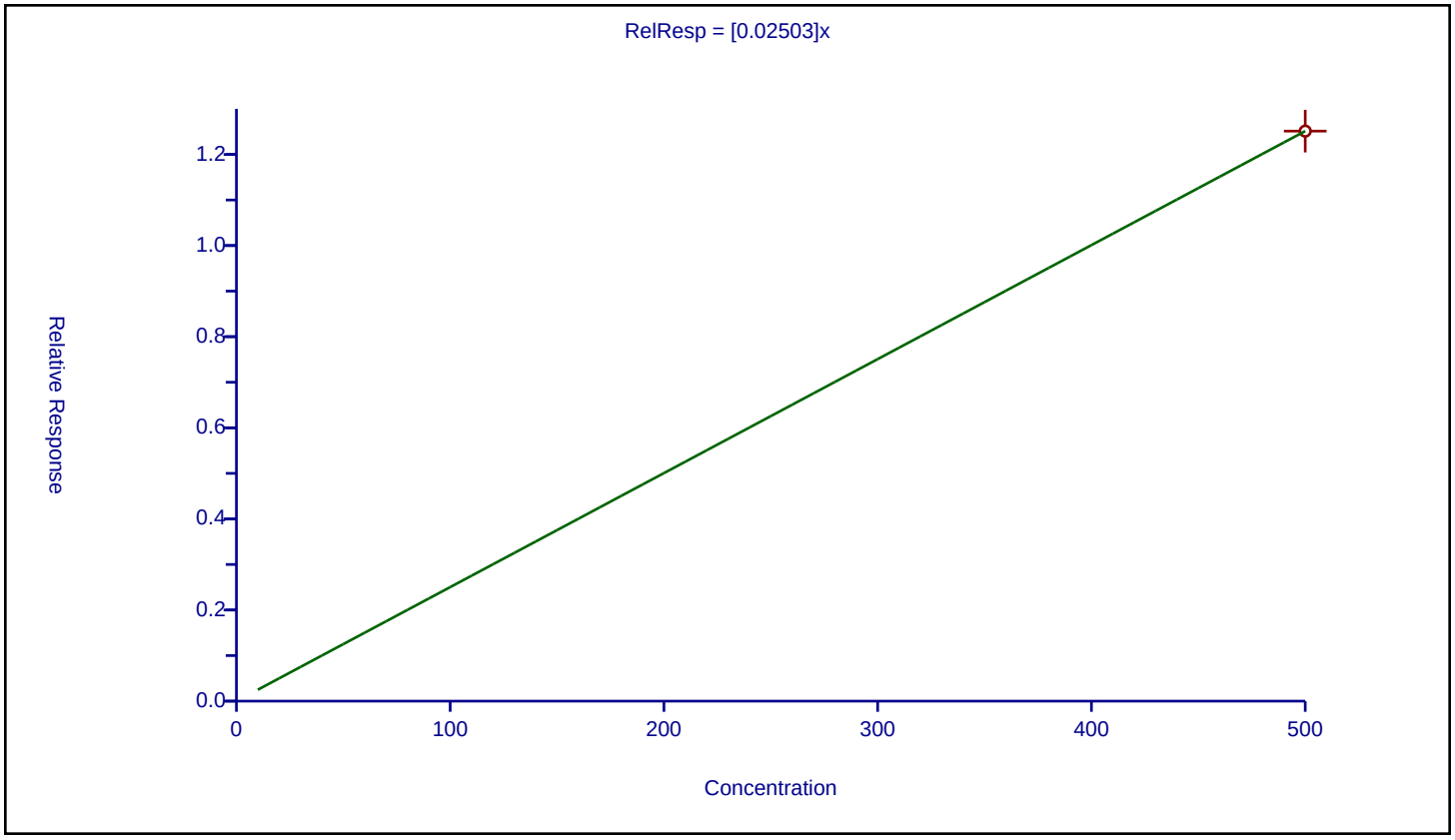
Curve Coefficients

Intercept:	0
Slope:	0.02503

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4268 280-653123/5	500.0	12.512599	100.0	107509635.0	0.025025	Y



Calibration / PCB-1242 Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

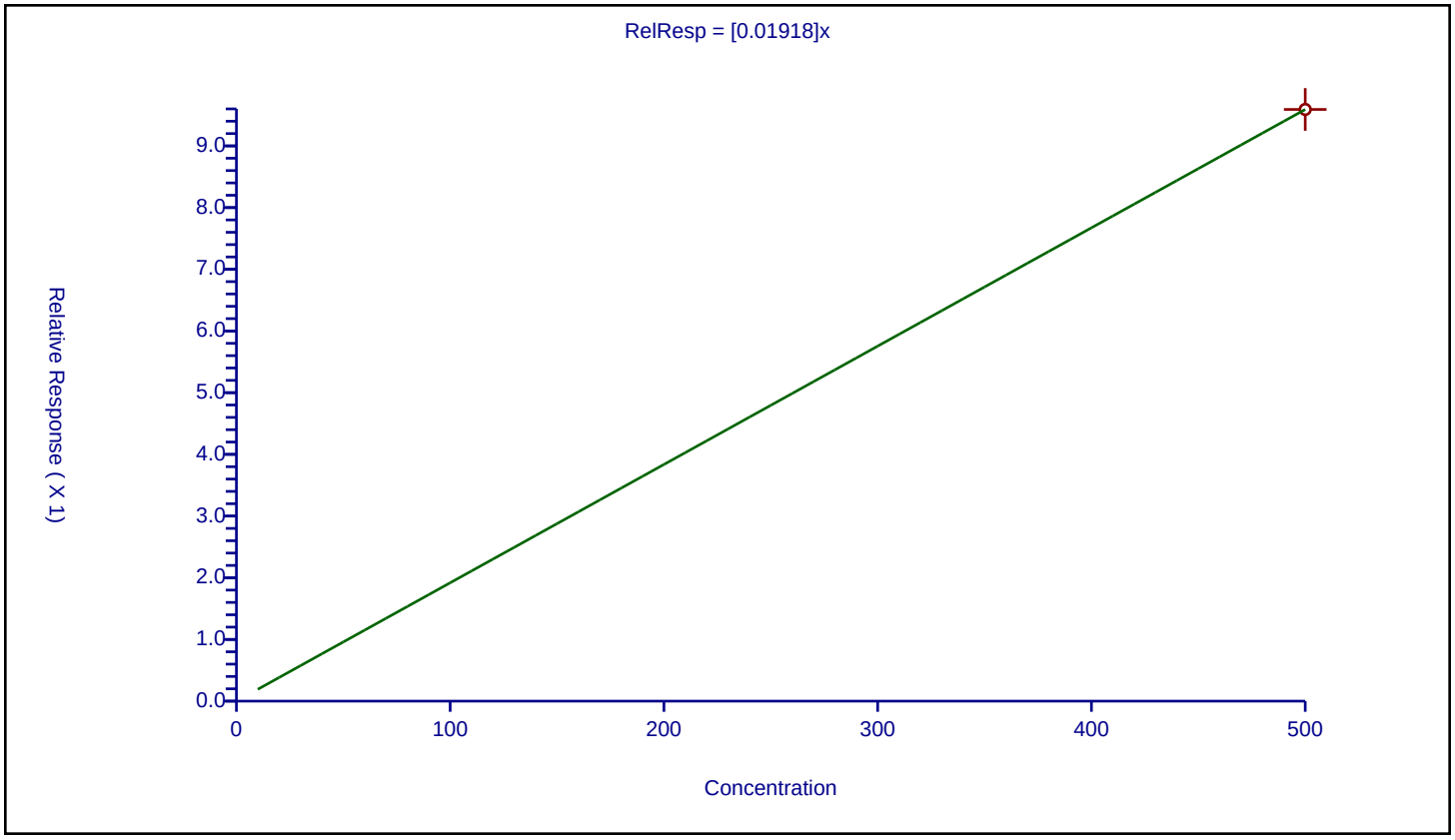
Curve Coefficients

Intercept:	0
Slope:	0.01918

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4268 280-653123/5	500.0	9.59072	100.0	107509635.0	0.019181	Y



Calibration / PCB-1268 Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

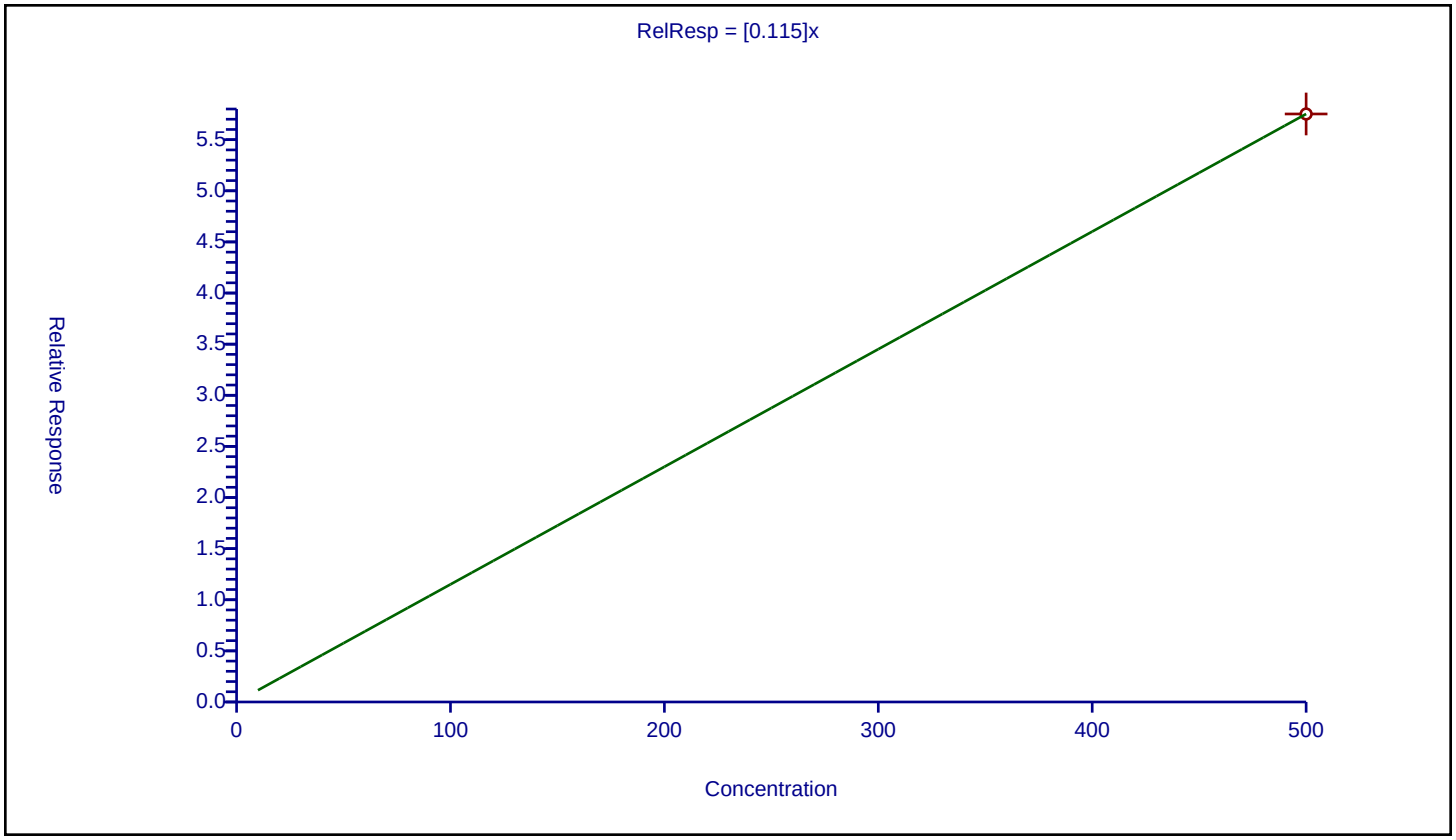
Curve Coefficients

Intercept:	0
Slope:	0.115

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4268 280-653123/5	500.0	57.513689	100.0	107509635.0	0.115027	Y



Calibration / PCB-1268 Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

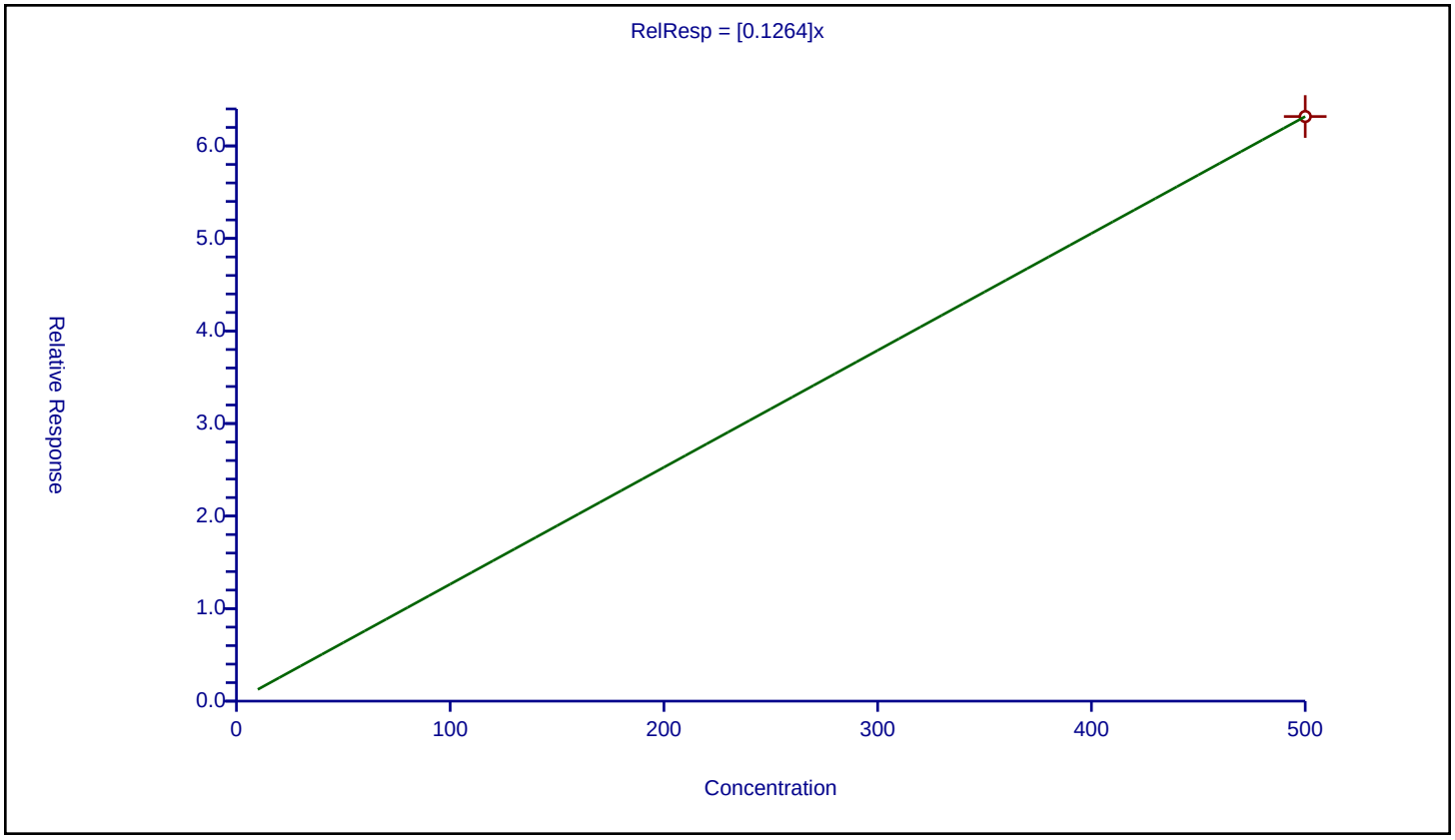
Curve Coefficients

Intercept:	0
Slope:	0.1264

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4268 280-653123/5	500.0	63.17743	100.0	107509635.0	0.126355	Y



Calibration / PCB-1268 Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

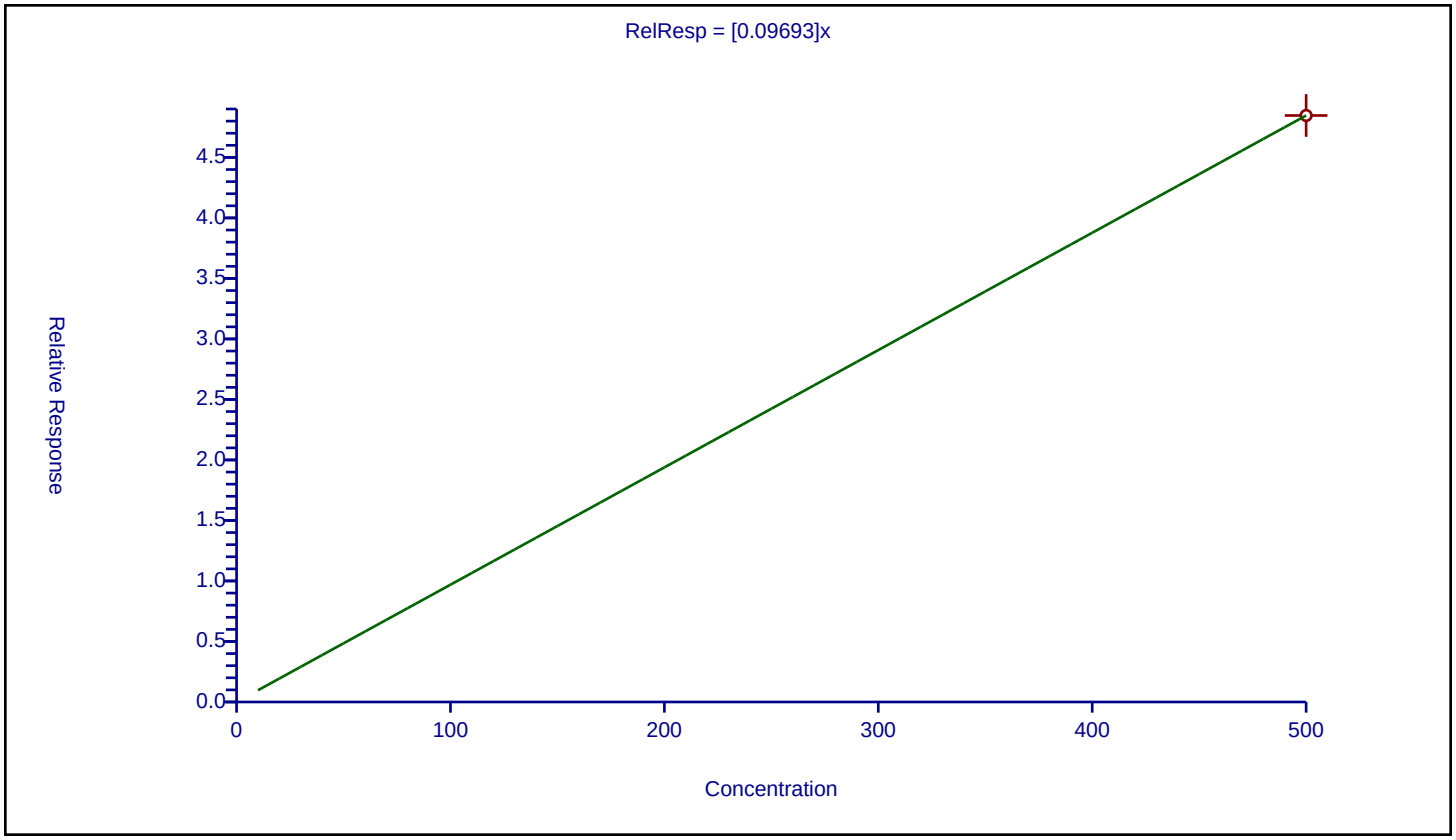
Curve Coefficients

Intercept:	0
Slope:	0.09693

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4268 280-653123/5	500.0	48.465318	100.0	107509635.0	0.096931	Y



Calibration / PCB-1268 Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

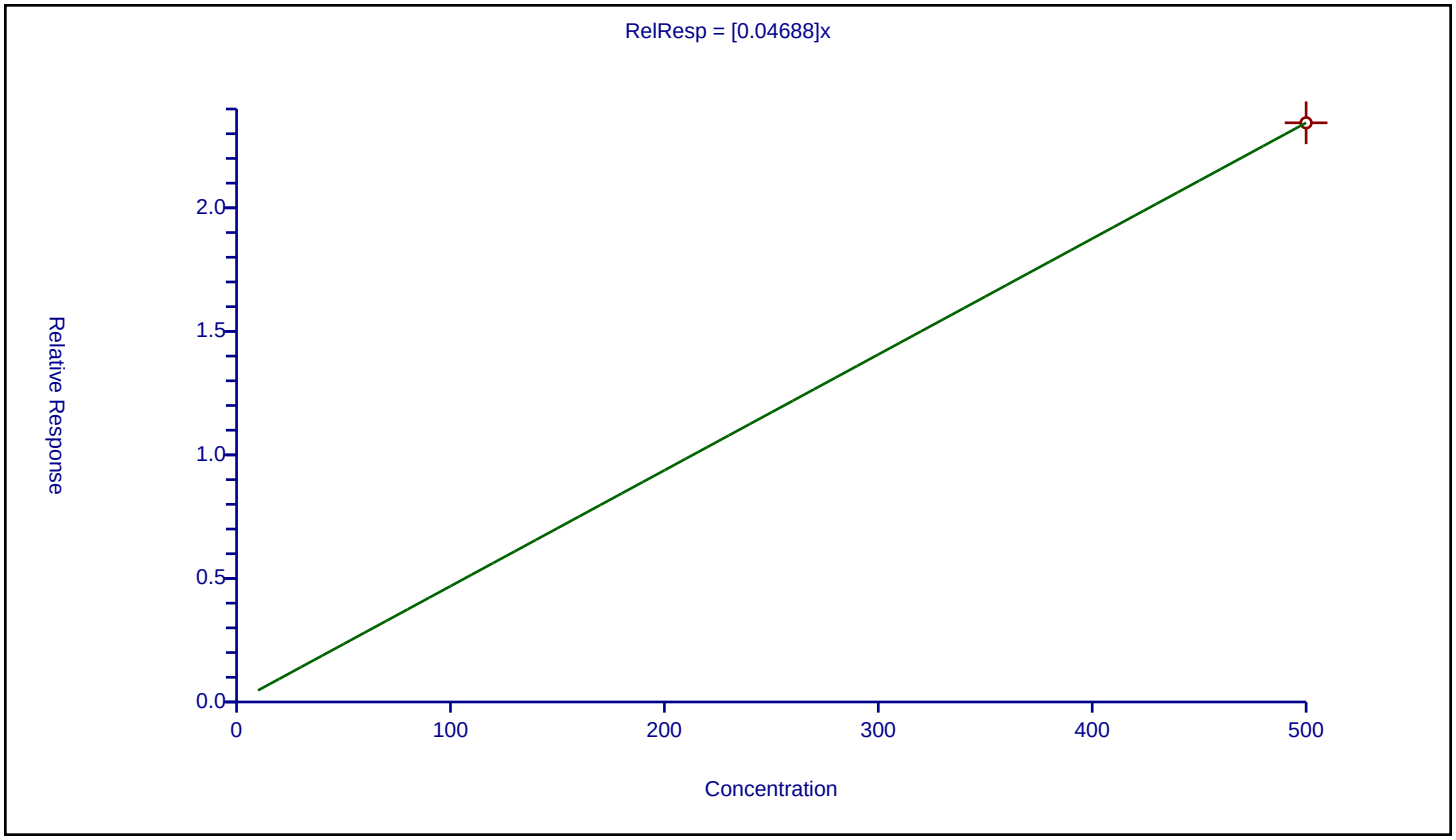
Curve Coefficients

Intercept:	0
Slope:	0.04688

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4268 280-653123/5	500.0	23.441521	100.0	107509635.0	0.046883	Y



Calibration / PCB-1268 Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

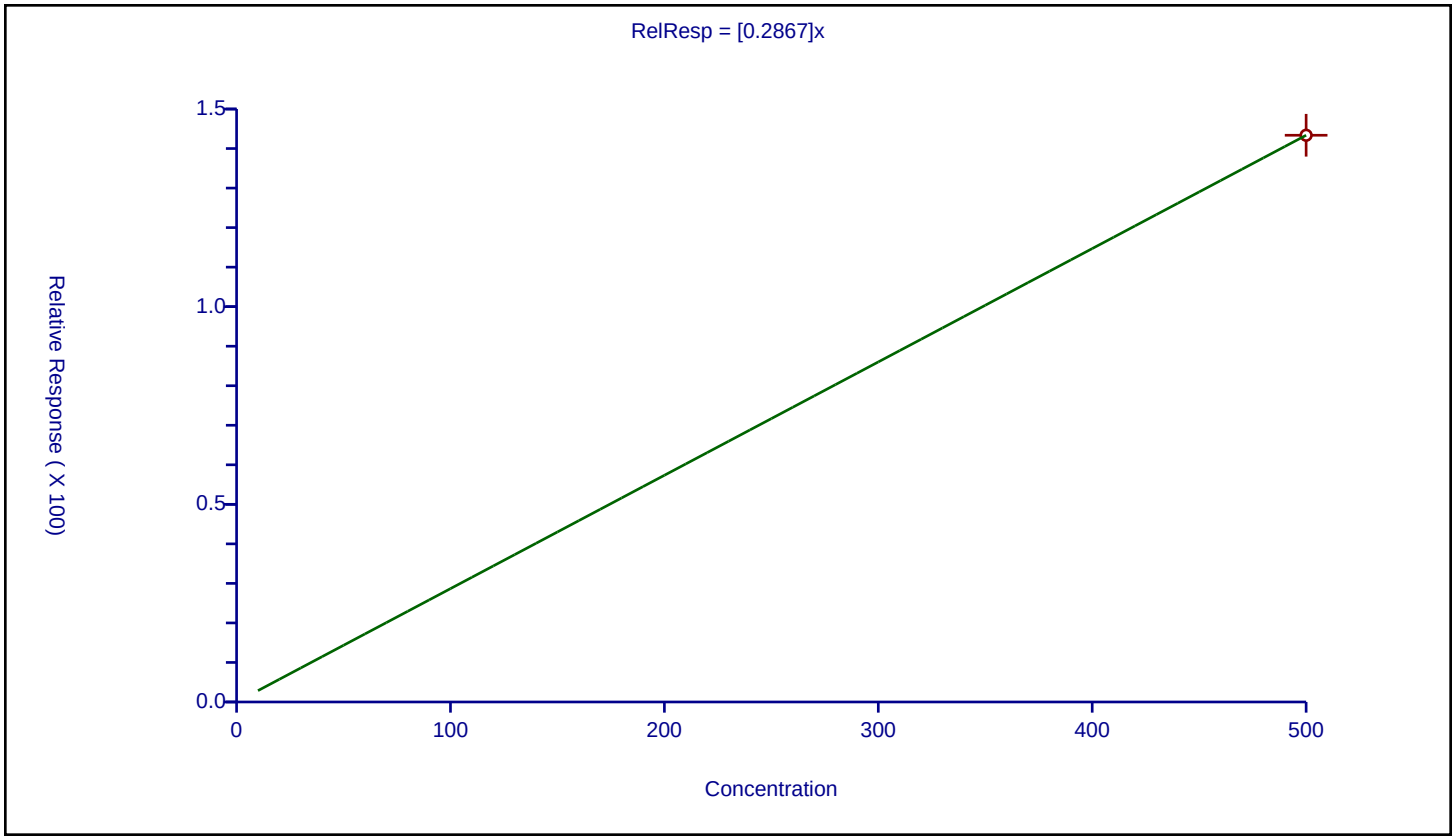
Curve Coefficients

Intercept:	0
Slope:	0.2867

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD4268 280-653123/5	500.0	143.363753	100.0	107509635.0	0.286728	Y



FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653123

SDG No.:

Instrument ID: SGC_J GC Column: CLP1 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 11:12 Calibration End Date: 05/13/2024 11:12 Calibration ID: 93327

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD2154 280-653123/6	0513006.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
PCB-1221 Peak 1	0.0127					Ave		0.0127						20.0			
PCB-1221 Peak 2	0.0078					Ave		0.0078						20.0			
PCB-1221 Peak 3	0.0279					Ave		0.0279						20.0			
PCB-1254 Peak 1	0.0362					Ave		0.0362						20.0			
PCB-1254 Peak 2	0.0514					Ave		0.0514						20.0			
PCB-1254 Peak 3	0.0639					Ave		0.0639						20.0			
PCB-1254 Peak 4	0.0512					Ave		0.0512						20.0			
PCB-1254 Peak 5	0.0711					Ave		0.0711						20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 653123

SDG No.:

Instrument ID: SGC_J | GC Column: CLP1 | ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 11:12 | Calibration End Date: 05/13/2024 11:12 | Calibration ID: 93327

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD2154 280-653123/6	0513006.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1					LVL 1				
PCB-1221 Peak 1	BNB	Ave	5971163					500				
PCB-1221 Peak 2	BNB	Ave	3666366					500				
PCB-1221 Peak 3	BNB	Ave	13116041					500				
PCB-1254 Peak 1	BNB	Ave	17017224					500				
PCB-1254 Peak 2	BNB	Ave	24169412					500				
PCB-1254 Peak 3	BNB	Ave	30045693					500				
PCB-1254 Peak 4	BNB	Ave	24095116					500				
PCB-1254 Peak 5	BNB	Ave	33462543					500				

Curve Type Legend:
Ave = Average ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513006.D
Lims ID: STD2154
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 13-May-2024 11:12:54 ALS Bottle#: 5 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD2154
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub3

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:52:27 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 13-May-2024 14:32:00

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.824	2.824	0.000	94096690	100.0	100.0	
2	2.767	2.767	0.000	103552410	100.0	100.0	
						RPD = 0.00	
3 PCB-1221							
1	3.784	3.784	0.000	5971163	500.0	500.0	
1	3.914	3.914	0.000	3666366	500.0	500.0	
1	3.950	3.950	0.000	13116041	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	3.917	3.917	0.000	6091736	500.0	500.0	
2	4.040	4.040	0.000	3960988	500.0	500.0	
2	4.090	4.090	0.000	13636116	500.0	500.0	
		Average of Peak Amounts =				500.0	
						RPD = 0.00	
9 PCB-1254							
1	5.674	5.674	0.000	17017224	500.0	500.0	
1	5.907	5.907	0.000	24169412	500.0	500.0	
1	6.350	6.350	0.000	30045693	500.0	500.0	
1	6.887	6.887	0.000	24095116	500.0	500.0	
1	7.224	7.224	0.000	33462543	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	5.907	5.907	0.000	20105357	500.0	500.0	
2	6.117	6.117	0.000	21394336	500.0	500.0	
2	6.644	6.644	0.000	30634119	500.0	500.0	
2	6.914	6.914	0.000	23206044	500.0	500.0	
2	7.567	7.567	0.000	33531342	500.0	500.0	
		Average of Peak Amounts =				500.0	
						RPD = 0.00	

QC Flag Legend

Processing Flags

Reagents:

AR_2154_L7_00035	Amount Added: 100.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

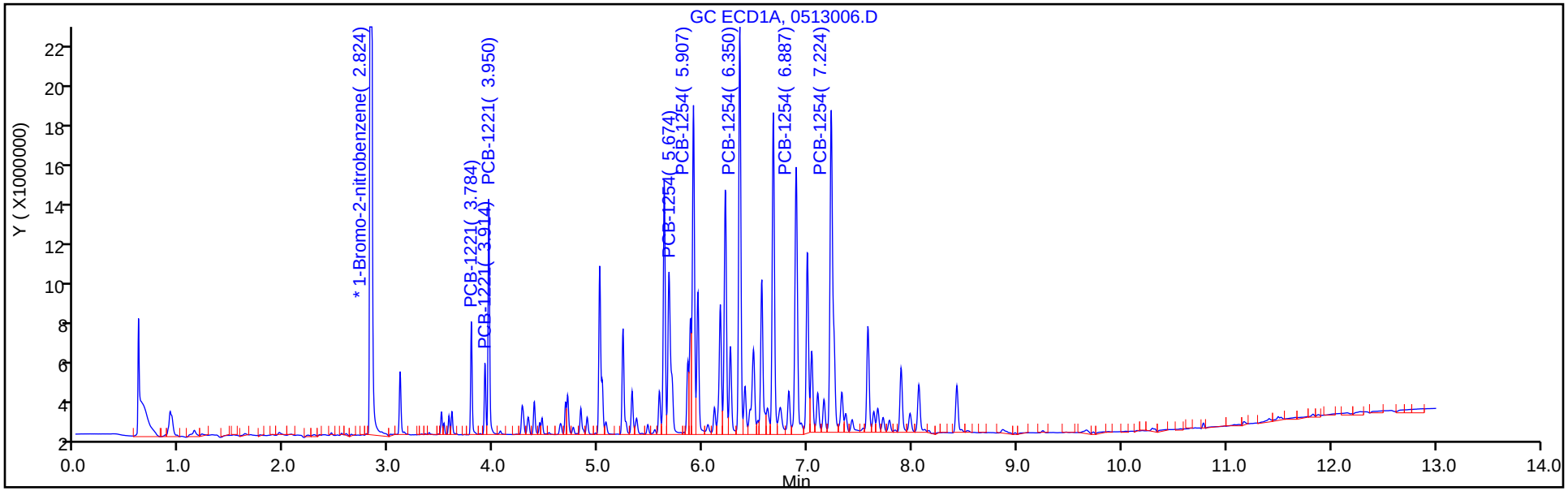
Report Date: 14-May-2024 12:52:28 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

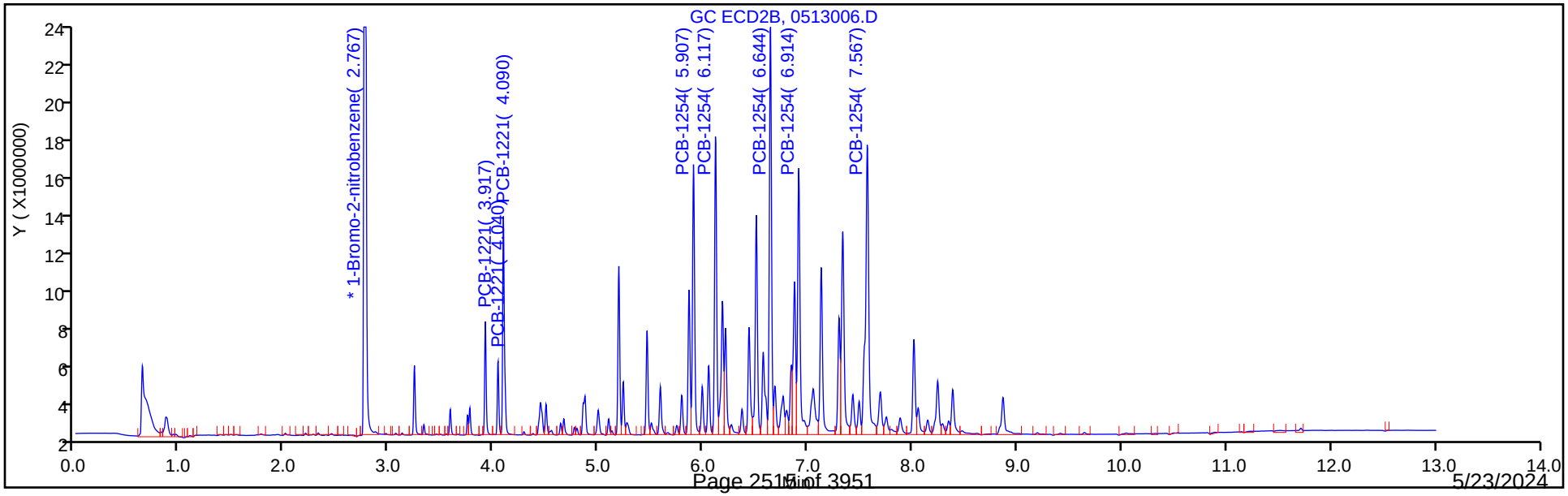
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513006.D

Injection Date:	13-May-2024 11:12:54	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	STD2154			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
4:40:30 AM

Calibration / PCB-1221 Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

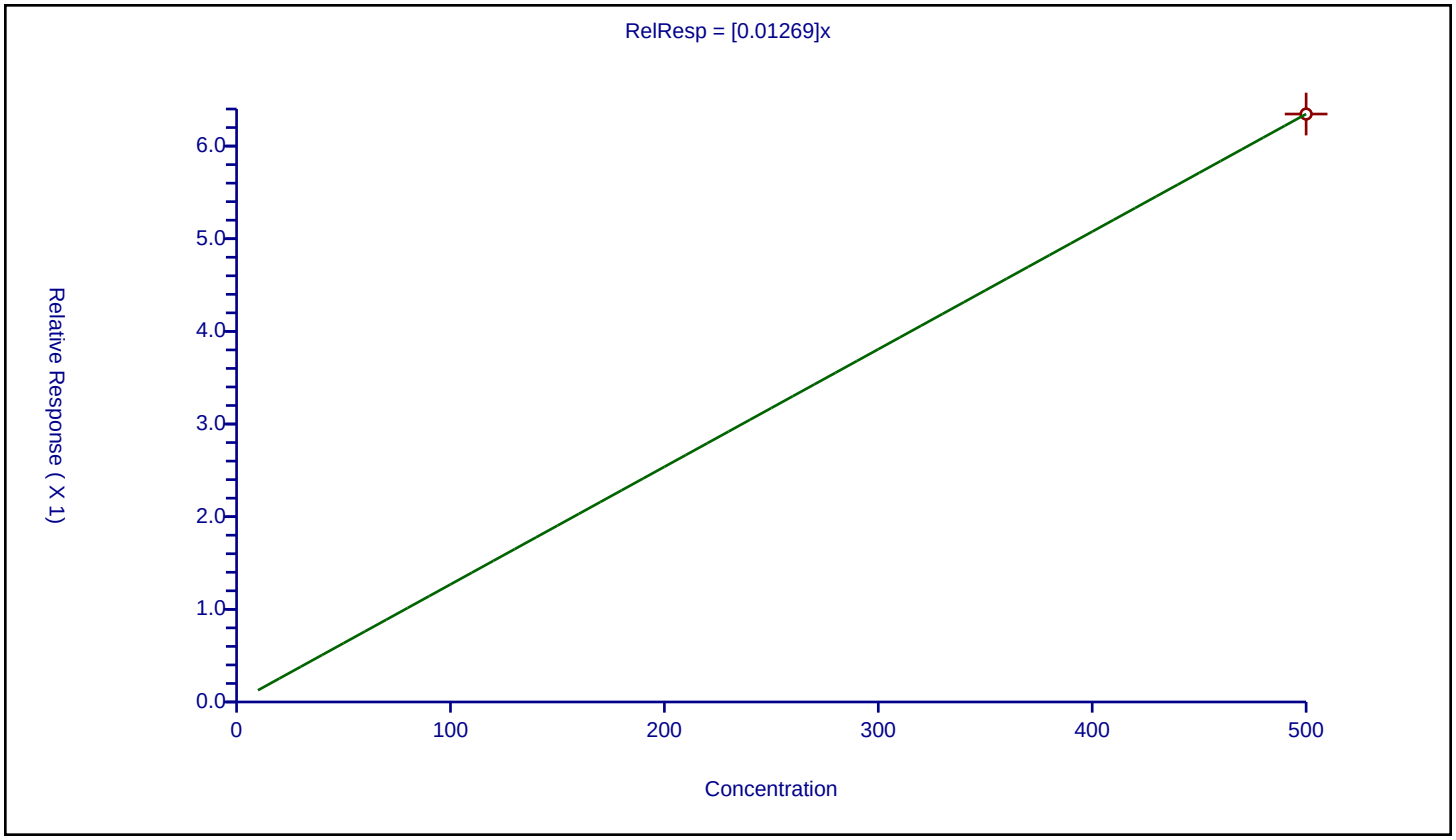
Curve Coefficients

Intercept:	0
Slope:	0.01269

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD2154 280-653123/6	500.0	6.345774	100.0	94096690.0	0.012692	Y



Calibration / PCB-1221 Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

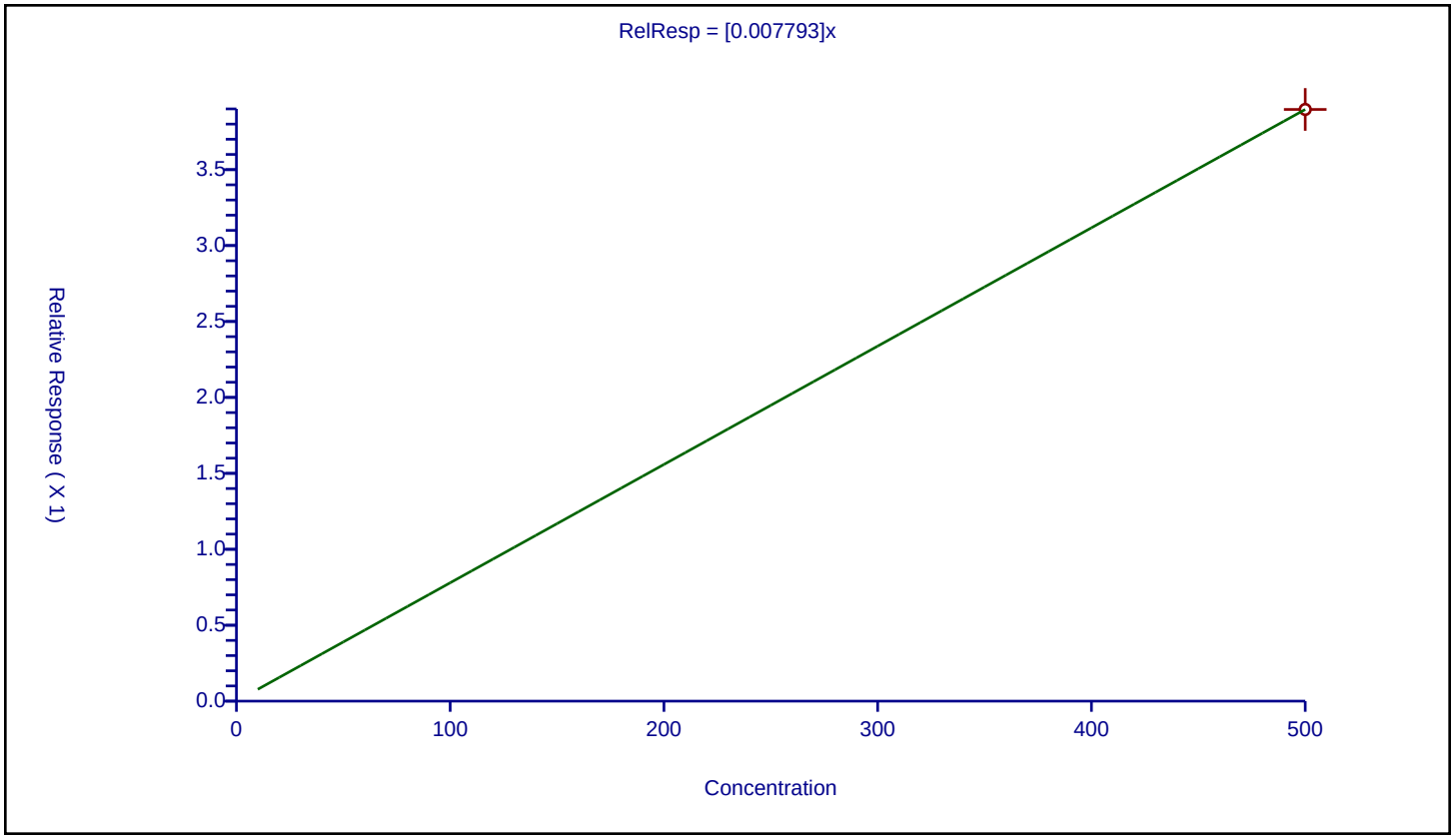
Curve Coefficients

Intercept:	0
Slope:	0.007793

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD2154 280-653123/6	500.0	3.896381	100.0	94096690.0	0.007793	Y



Calibration / PCB-1221 Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

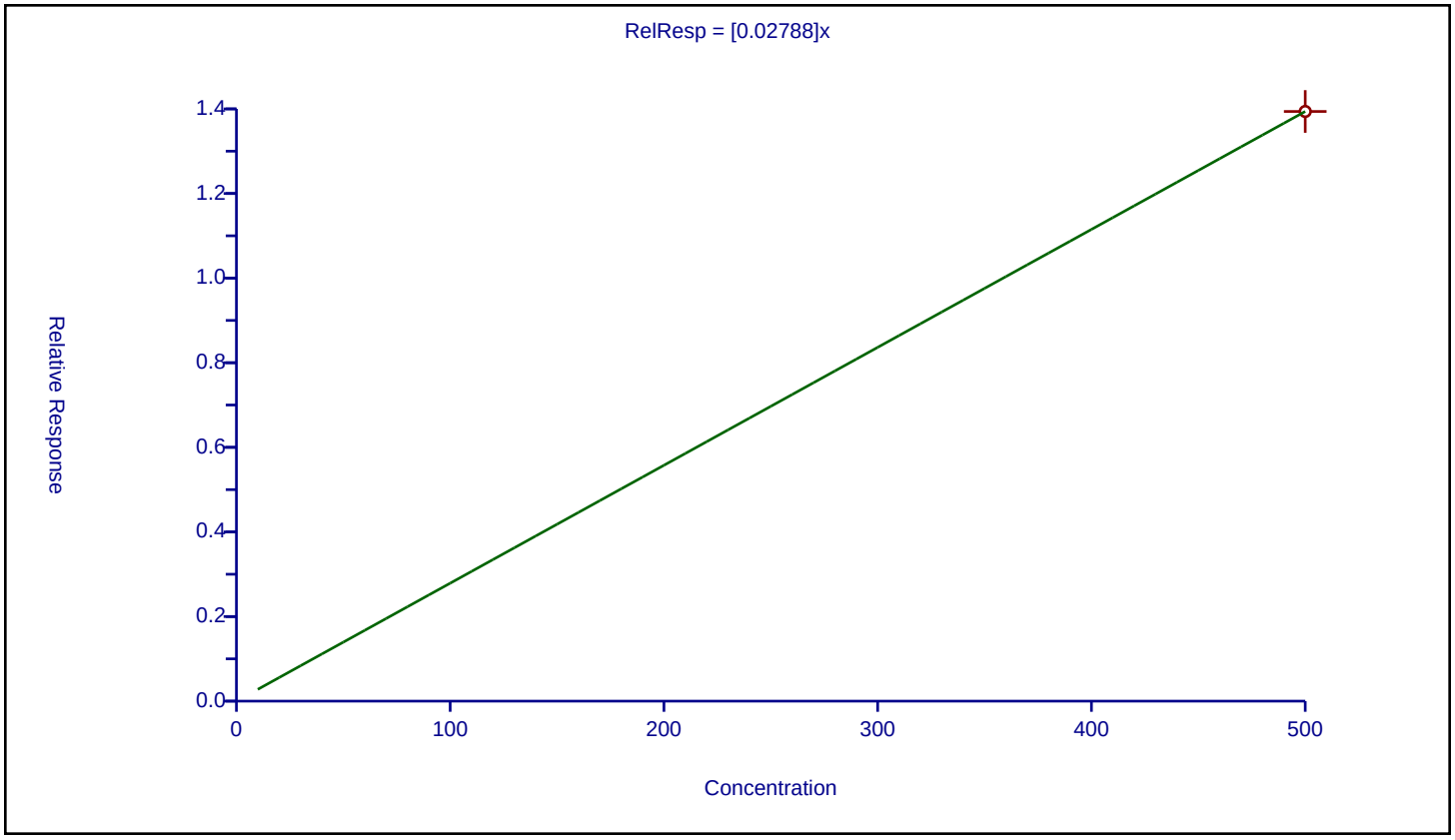
Curve Coefficients

Intercept:	0
Slope:	0.02788

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD2154 280-653123/6	500.0	13.938897	100.0	94096690.0	0.027878	Y



Calibration / PCB-1254 Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

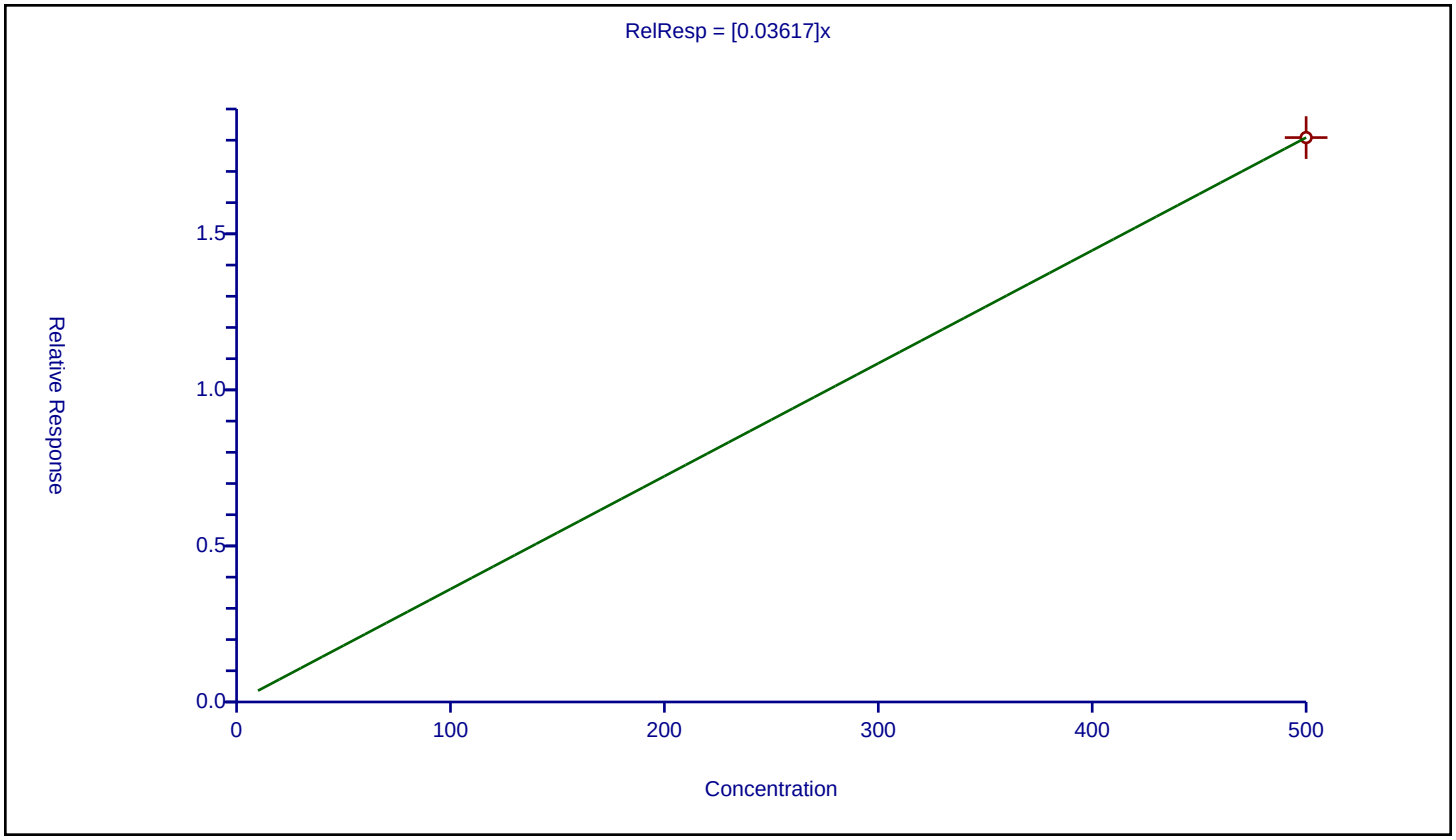
Curve Coefficients

Intercept:	0
Slope:	0.03617

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD2154 280-653123/6	500.0	18.084827	100.0	94096690.0	0.03617	Y



Calibration / PCB-1254 Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

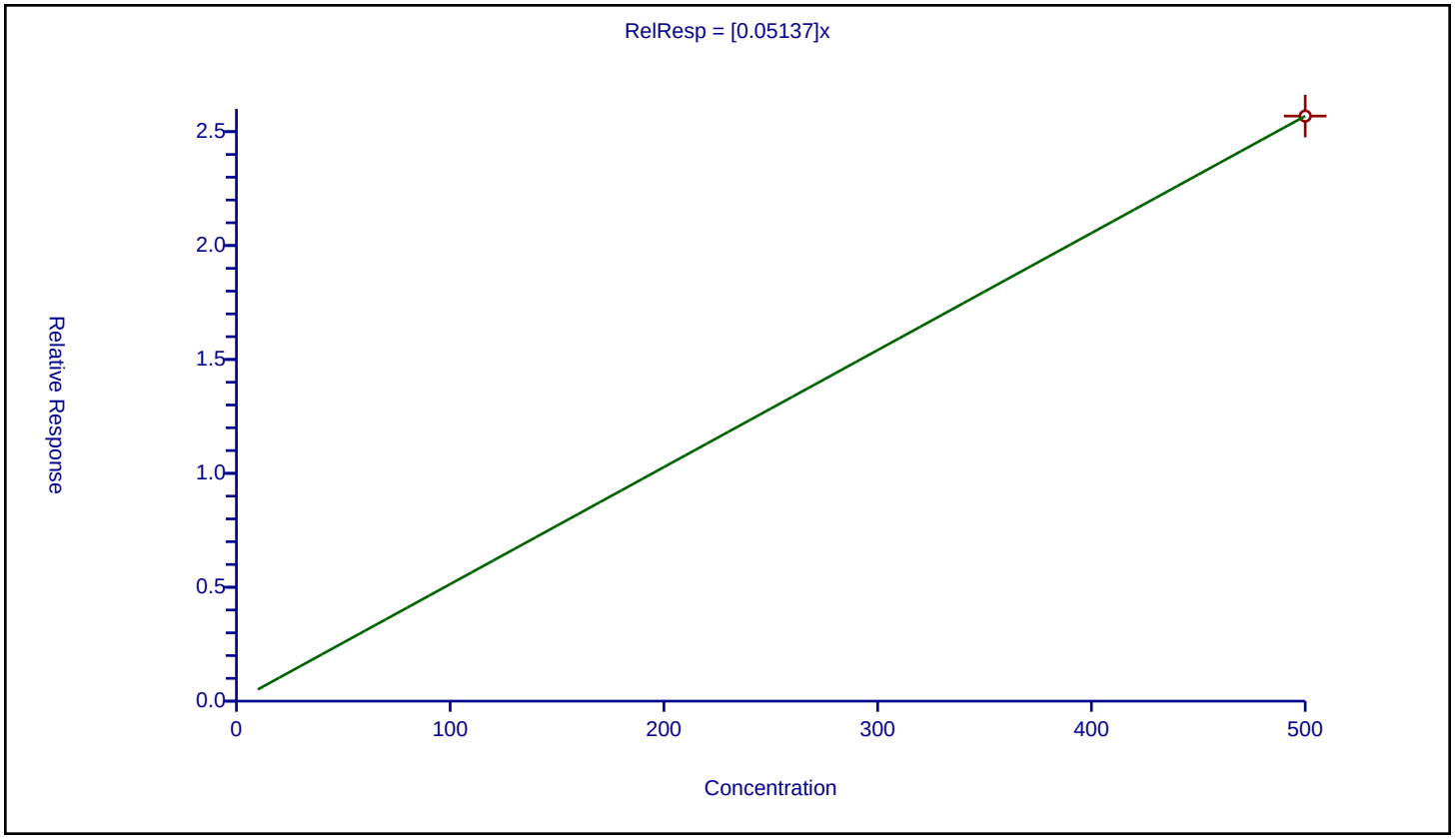
Curve Coefficients

Intercept:	0
Slope:	0.05137

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD2154 280-653123/6	500.0	25.68572	100.0	94096690.0	0.051371	Y



Calibration / PCB-1254 Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

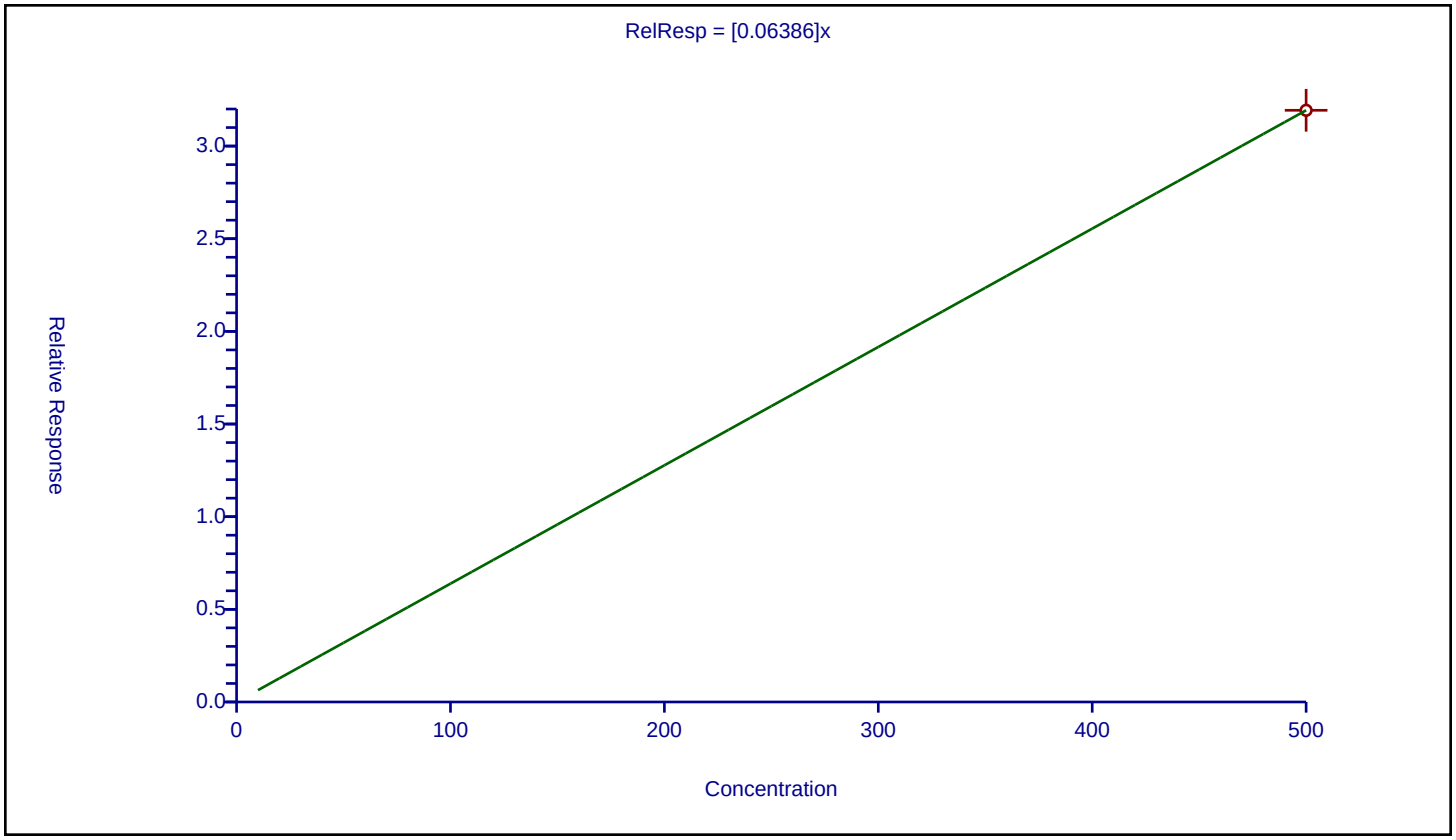
Curve Coefficients

Intercept:	0
Slope:	0.06386

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD2154 280-653123/6	500.0	31.930659	100.0	94096690.0	0.063861	Y



Calibration / PCB-1254 Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

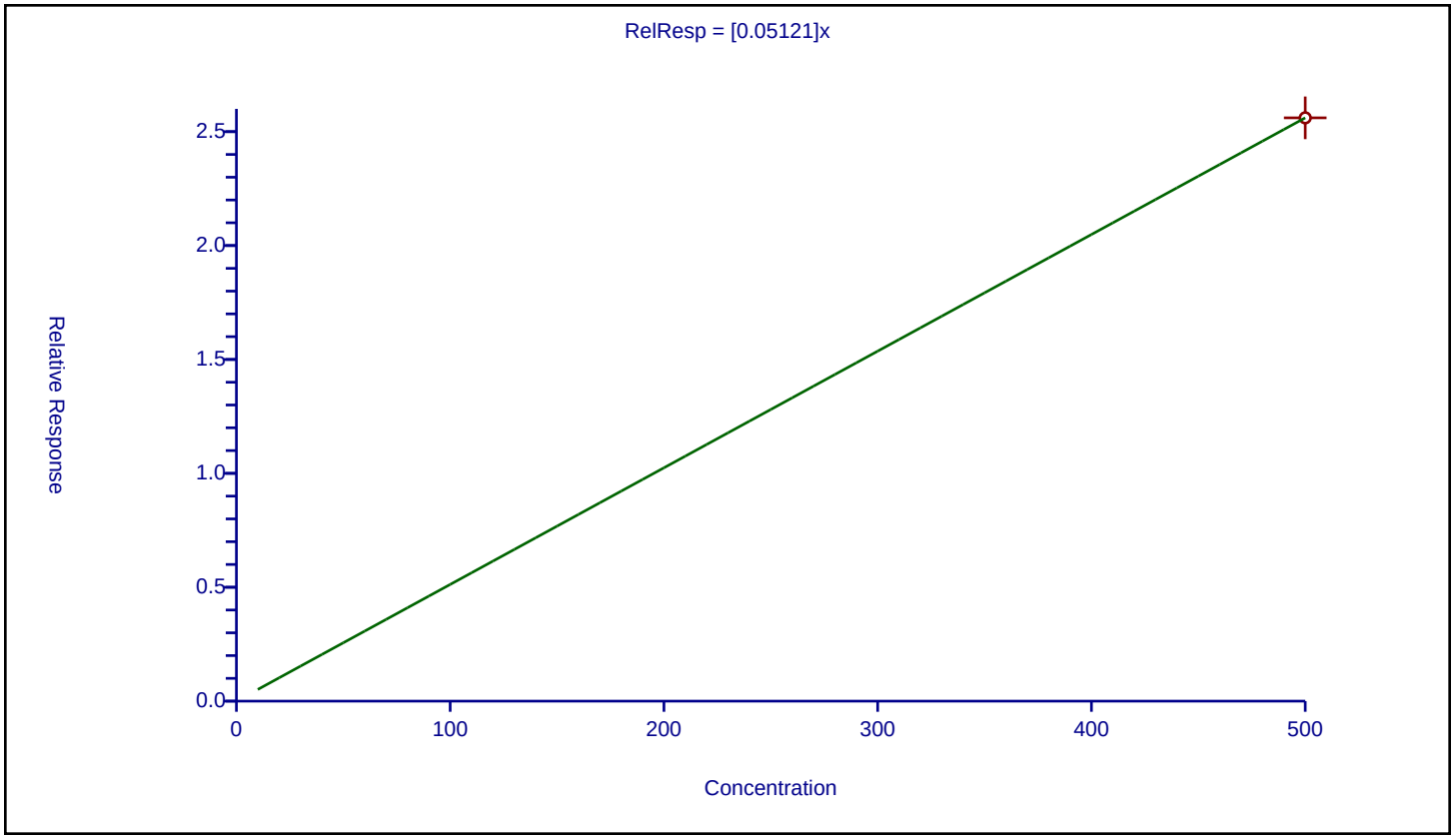
Curve Coefficients

Intercept:	0
Slope:	0.05121

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD2154 280-653123/6	500.0	25.606763	100.0	94096690.0	0.051214	Y



Calibration / PCB-1254 Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

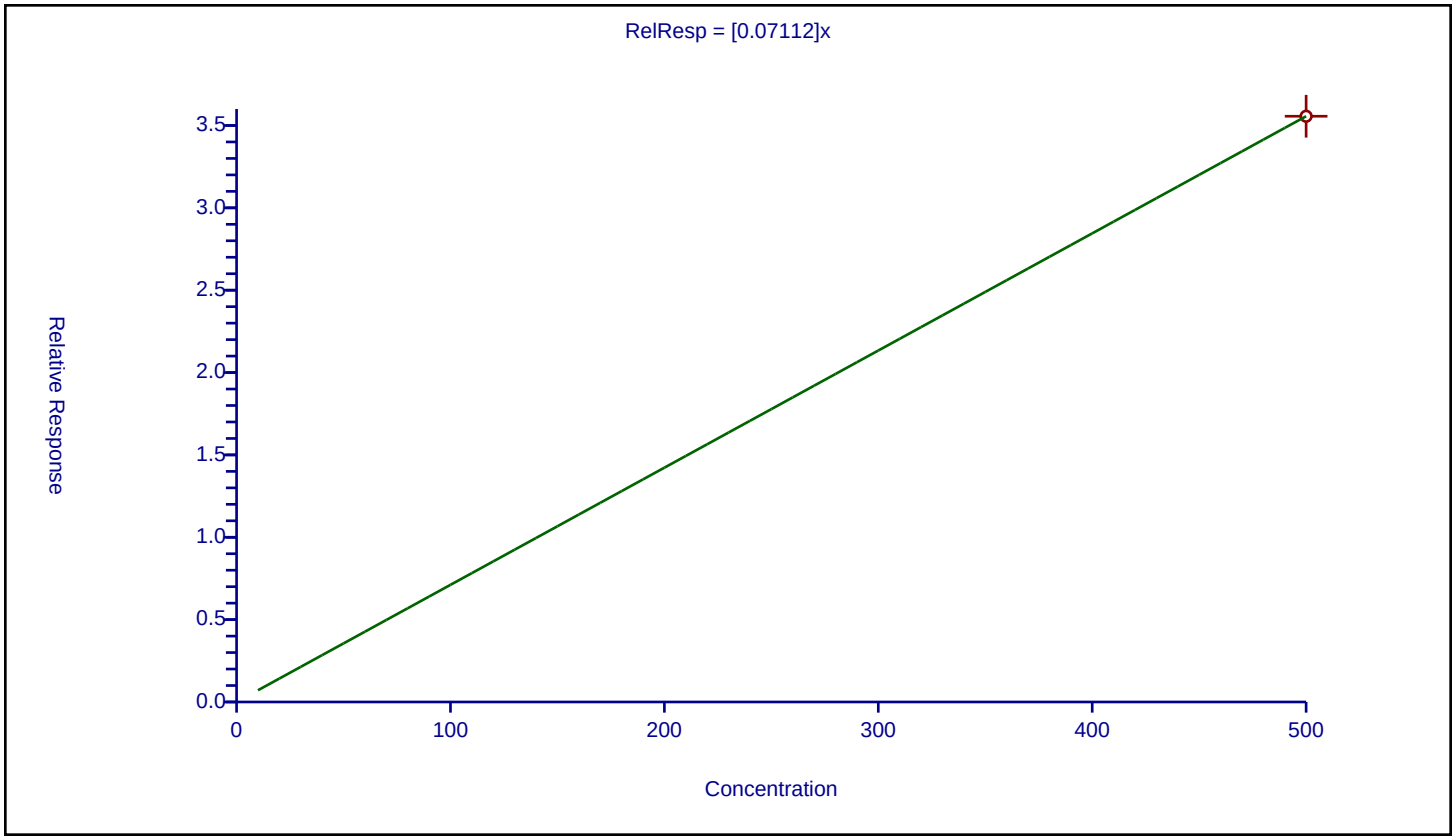
Curve Coefficients

Intercept:	0
Slope:	0.07112

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD2154 280-653123/6	500.0	35.56187	100.0	94096690.0	0.071124	Y



FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653123

SDG No.:

Instrument ID: SGC_J GC Column: CLP2 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 11:12 Calibration End Date: 05/13/2024 11:12 Calibration ID: 93328

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD2154 280-653123/6	0513006.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
PCB-1221 Peak 1	0.0118					Ave		0.0118						20.0			
PCB-1221 Peak 2	0.0077					Ave		0.0077						20.0			
PCB-1221 Peak 3	0.0263					Ave		0.0263						20.0			
PCB-1254 Peak 1	0.0388					Ave		0.0388						20.0			
PCB-1254 Peak 2	0.0413					Ave		0.0413						20.0			
PCB-1254 Peak 3	0.0592					Ave		0.0592						20.0			
PCB-1254 Peak 4	0.0448					Ave		0.0448						20.0			
PCB-1254 Peak 5	0.0648					Ave		0.0648						20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 653123

SDG No.:

Instrument ID: SGC_J | GC Column: CLP2 | ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 11:12 | Calibration End Date: 05/13/2024 11:12 | Calibration ID: 93328

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD2154 280-653123/6	0513006.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1					LVL 1				
PCB-1221 Peak 1	BNB	Ave	6091736					500				
PCB-1221 Peak 2	BNB	Ave	3960988					500				
PCB-1221 Peak 3	BNB	Ave	13636116					500				
PCB-1254 Peak 1	BNB	Ave	20105357					500				
PCB-1254 Peak 2	BNB	Ave	21394336					500				
PCB-1254 Peak 3	BNB	Ave	30634119					500				
PCB-1254 Peak 4	BNB	Ave	23206044					500				
PCB-1254 Peak 5	BNB	Ave	33531342					500				

Curve Type Legend:
Ave = Average ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513006.D
Lims ID: STD2154
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 13-May-2024 11:12:54 ALS Bottle#: 5 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD2154
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub3

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:52:27 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 13-May-2024 14:32:00

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.824	2.824	0.000	94096690	100.0	100.0	
2	2.767	2.767	0.000	103552410	100.0	100.0	
						RPD = 0.00	
3 PCB-1221							
1	3.784	3.784	0.000	5971163	500.0	500.0	
1	3.914	3.914	0.000	3666366	500.0	500.0	
1	3.950	3.950	0.000	13116041	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	3.917	3.917	0.000	6091736	500.0	500.0	
2	4.040	4.040	0.000	3960988	500.0	500.0	
2	4.090	4.090	0.000	13636116	500.0	500.0	
		Average of Peak Amounts =				500.0	
						RPD = 0.00	
9 PCB-1254							
1	5.674	5.674	0.000	17017224	500.0	500.0	
1	5.907	5.907	0.000	24169412	500.0	500.0	
1	6.350	6.350	0.000	30045693	500.0	500.0	
1	6.887	6.887	0.000	24095116	500.0	500.0	
1	7.224	7.224	0.000	33462543	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	5.907	5.907	0.000	20105357	500.0	500.0	
2	6.117	6.117	0.000	21394336	500.0	500.0	
2	6.644	6.644	0.000	30634119	500.0	500.0	
2	6.914	6.914	0.000	23206044	500.0	500.0	
2	7.567	7.567	0.000	33531342	500.0	500.0	
		Average of Peak Amounts =				500.0	
						RPD = 0.00	

QC Flag Legend

Processing Flags

Reagents:

AR_2154_L7_00035	Amount Added: 100.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

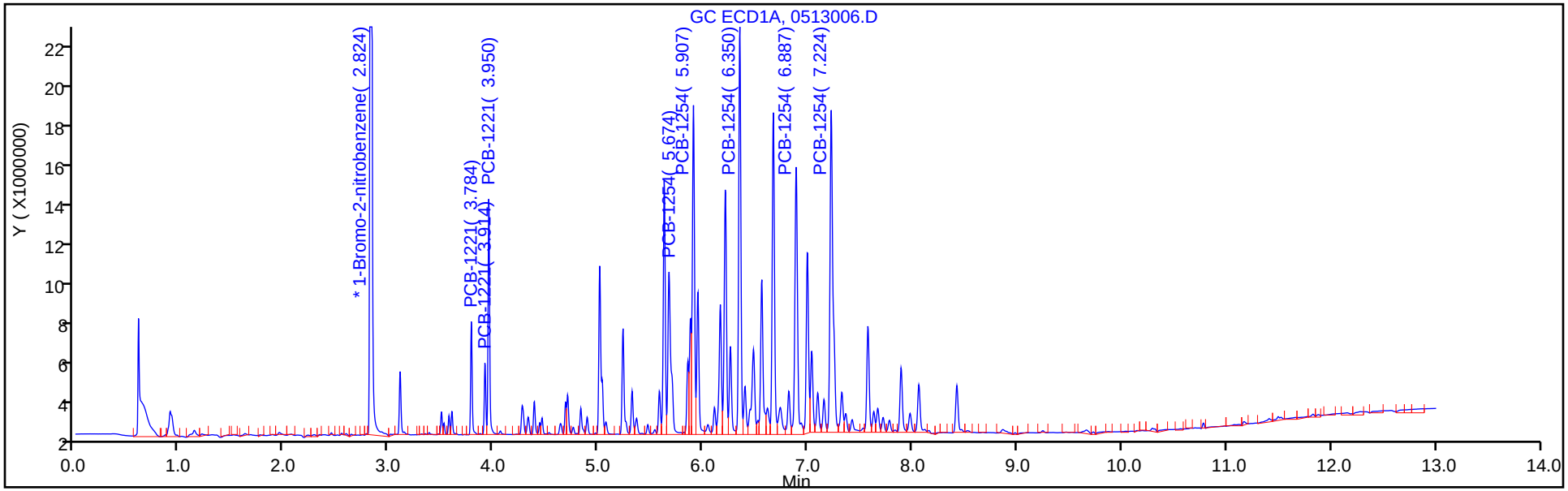
Report Date: 14-May-2024 12:52:28 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

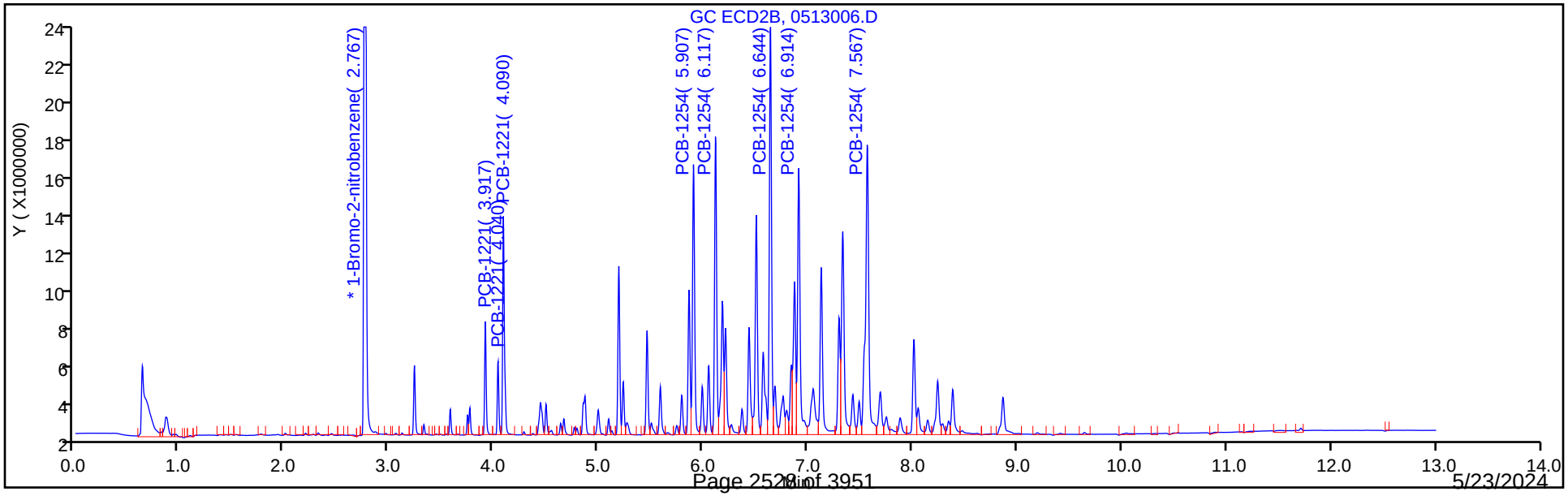
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513006.D

Injection Date:	13-May-2024 11:12:54	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	STD2154			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
4:40:30 AM

Calibration / PCB-1221 Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

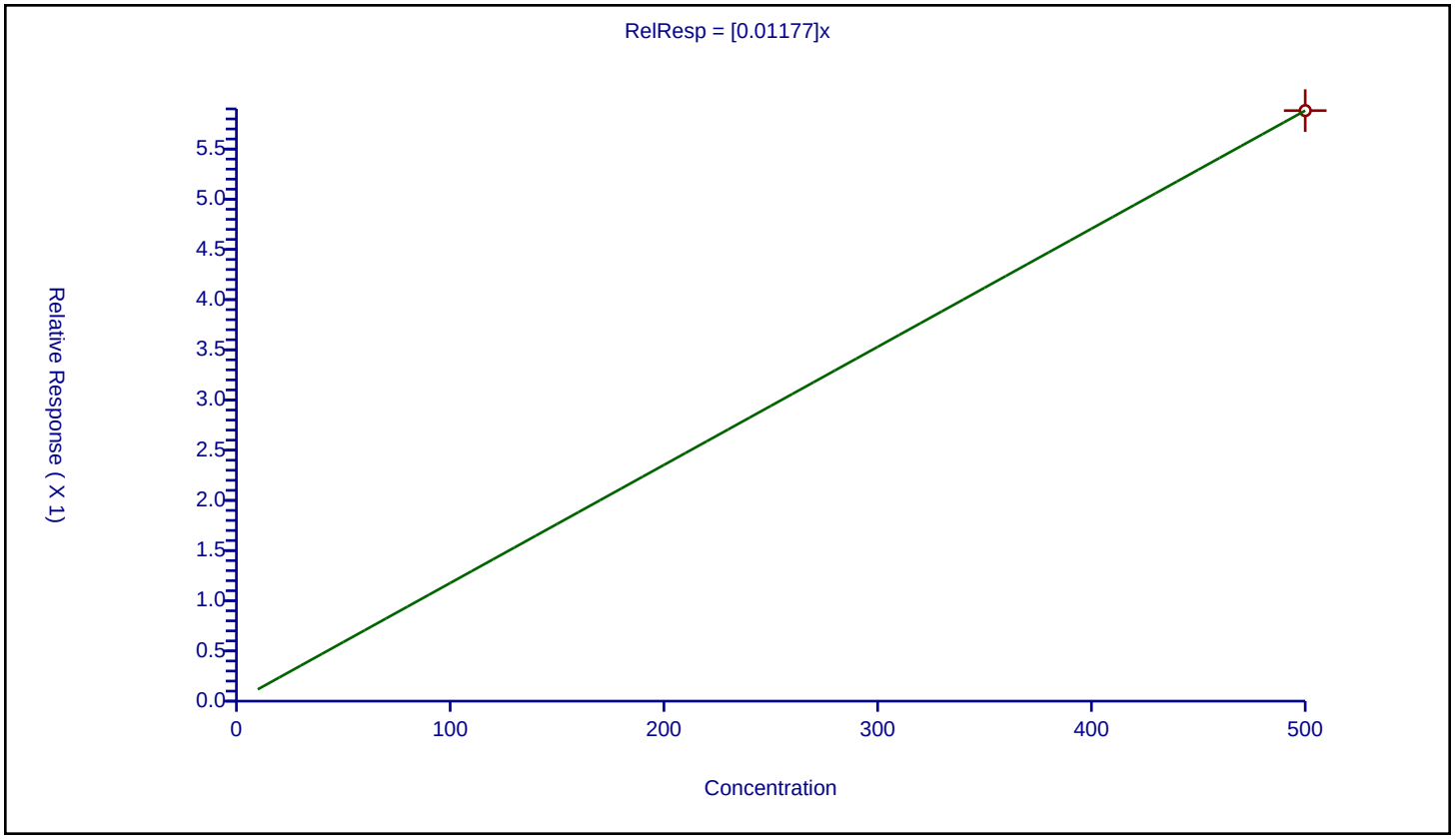
Curve Coefficients

Intercept:	0
Slope:	0.01177

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD2154 280-653123/6	500.0	5.882756	100.0	103552410.0	0.011766	Y



Calibration / PCB-1221 Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

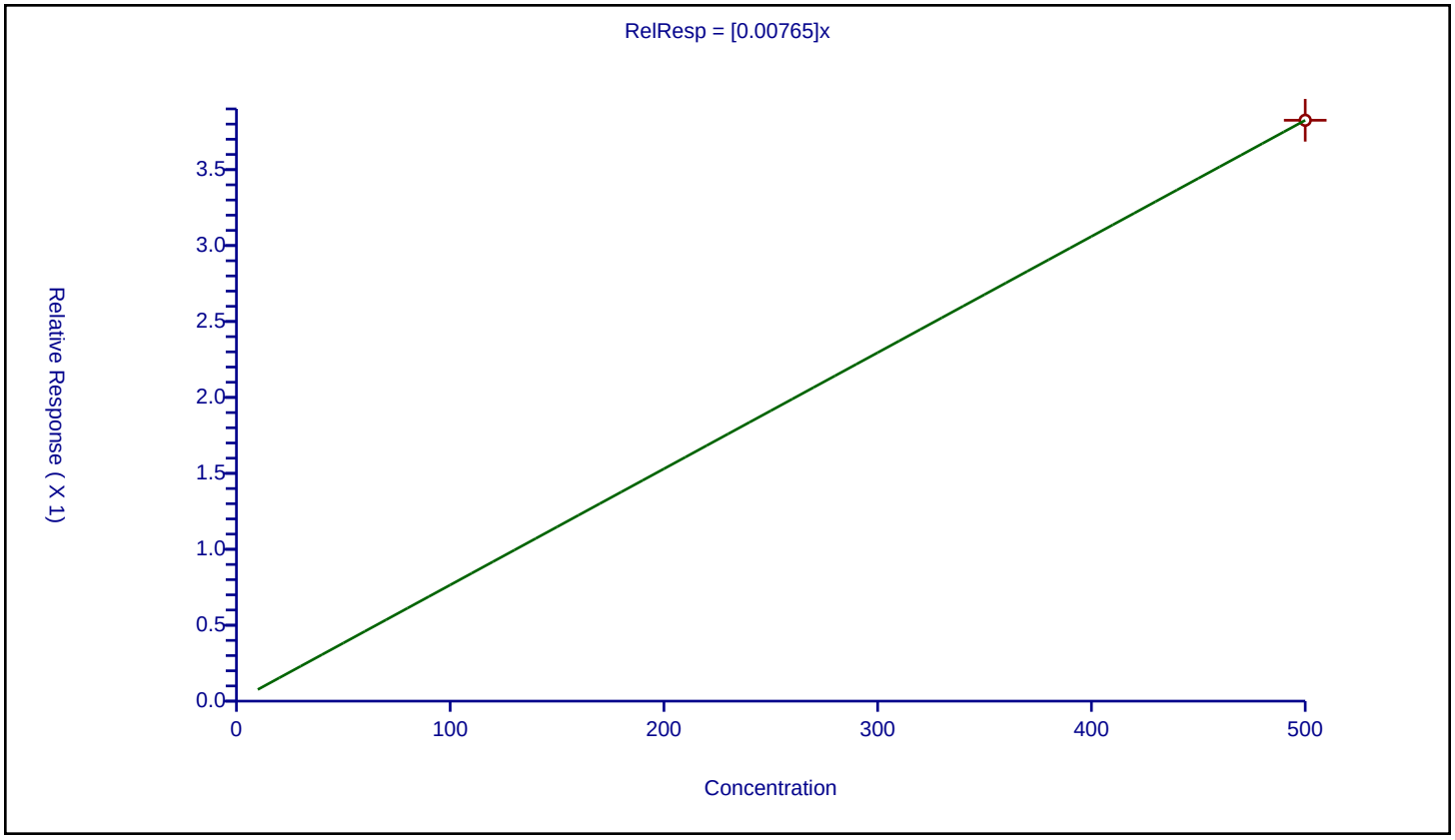
Curve Coefficients

Intercept:	0
Slope:	0.00765

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD2154 280-653123/6	500.0	3.825105	100.0	103552410.0	0.00765	Y



Calibration / PCB-1221 Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

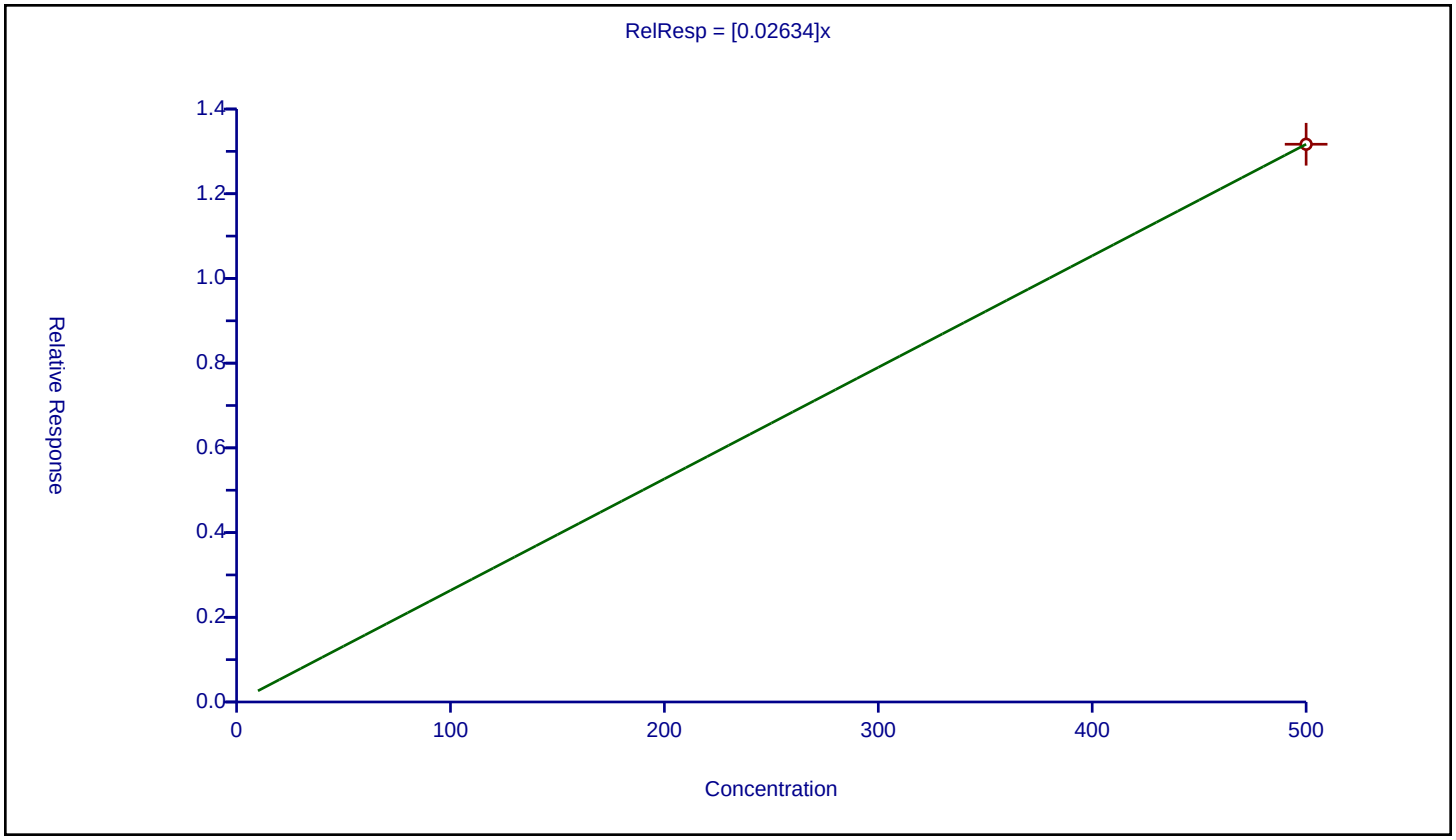
Curve Coefficients

Intercept:	0
Slope:	0.02634

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD2154 280-653123/6	500.0	13.168323	100.0	103552410.0	0.026337	Y



Calibration / PCB-1254 Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

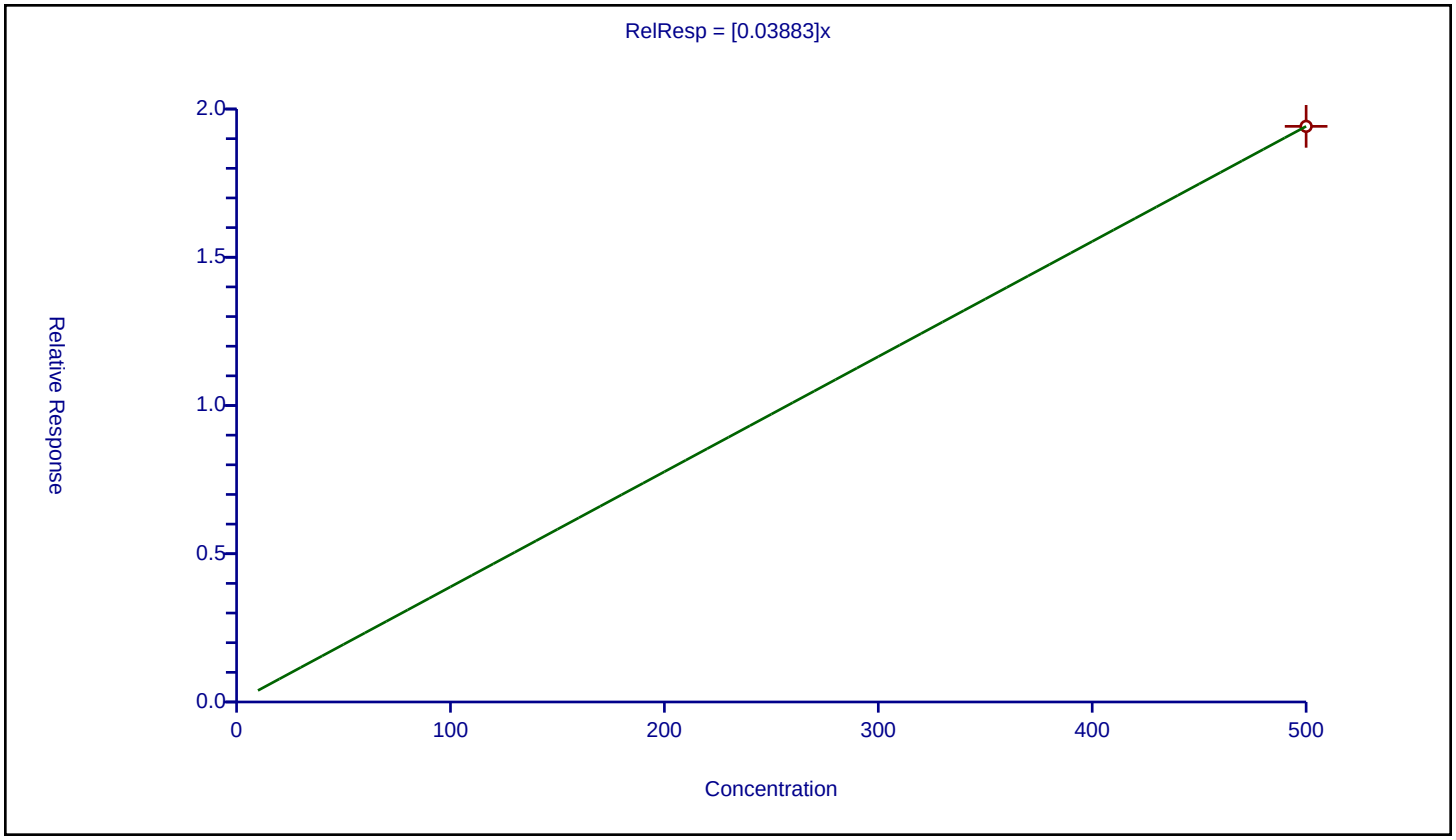
Curve Coefficients

Intercept:	0
Slope:	0.03883

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD2154 280-653123/6	500.0	19.415634	100.0	103552410.0	0.038831	Y



5/23/2024
4:40:30 AM

Calibration / PCB-1254 Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

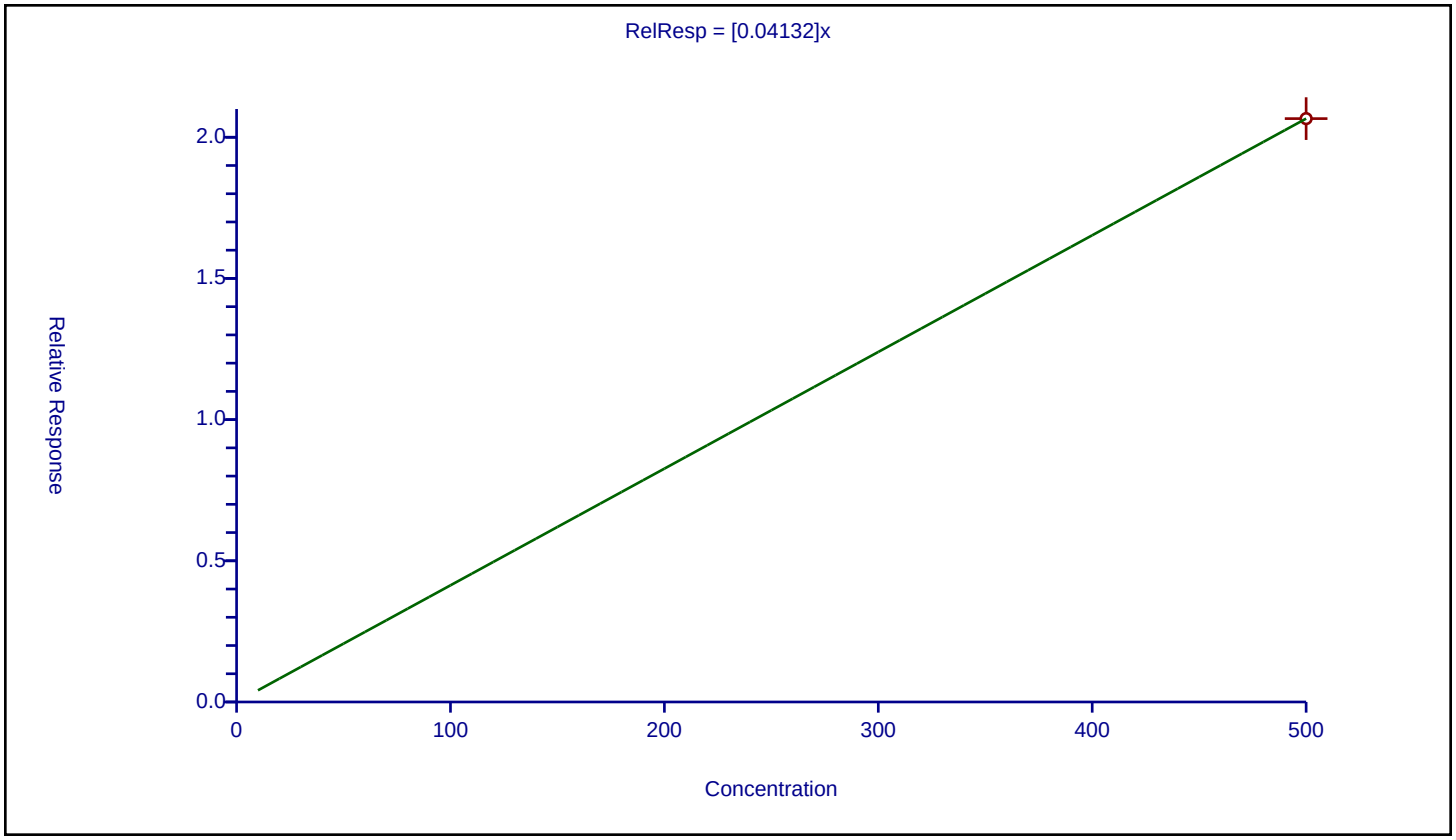
Curve Coefficients

Intercept:	0
Slope:	0.04132

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD2154 280-653123/6	500.0	20.660394	100.0	103552410.0	0.041321	Y



Calibration / PCB-1254 Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

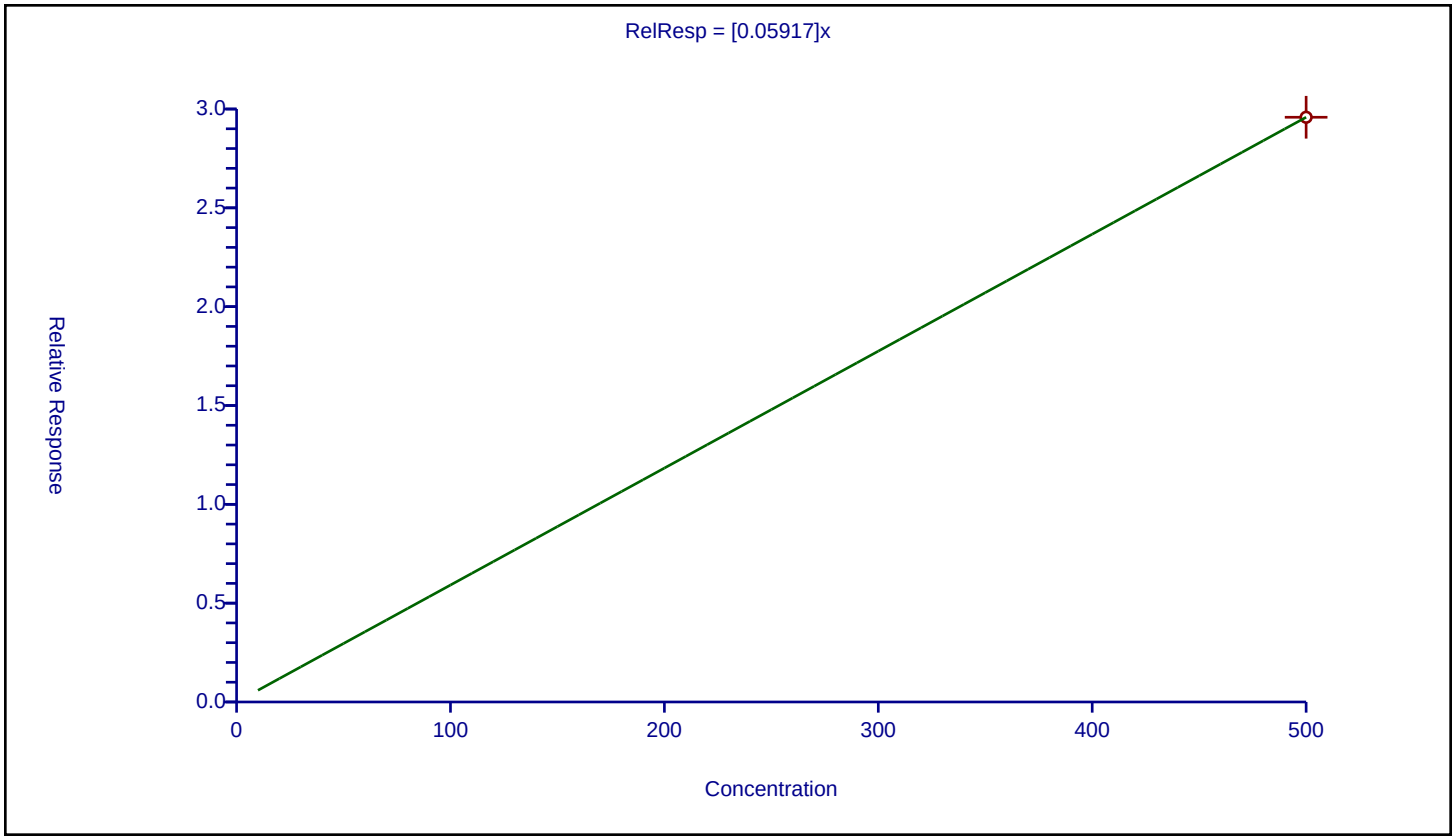
Curve Coefficients

Intercept:	0
Slope:	0.05917

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD2154 280-653123/6	500.0	29.583202	100.0	103552410.0	0.059166	Y



Calibration / PCB-1254 Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

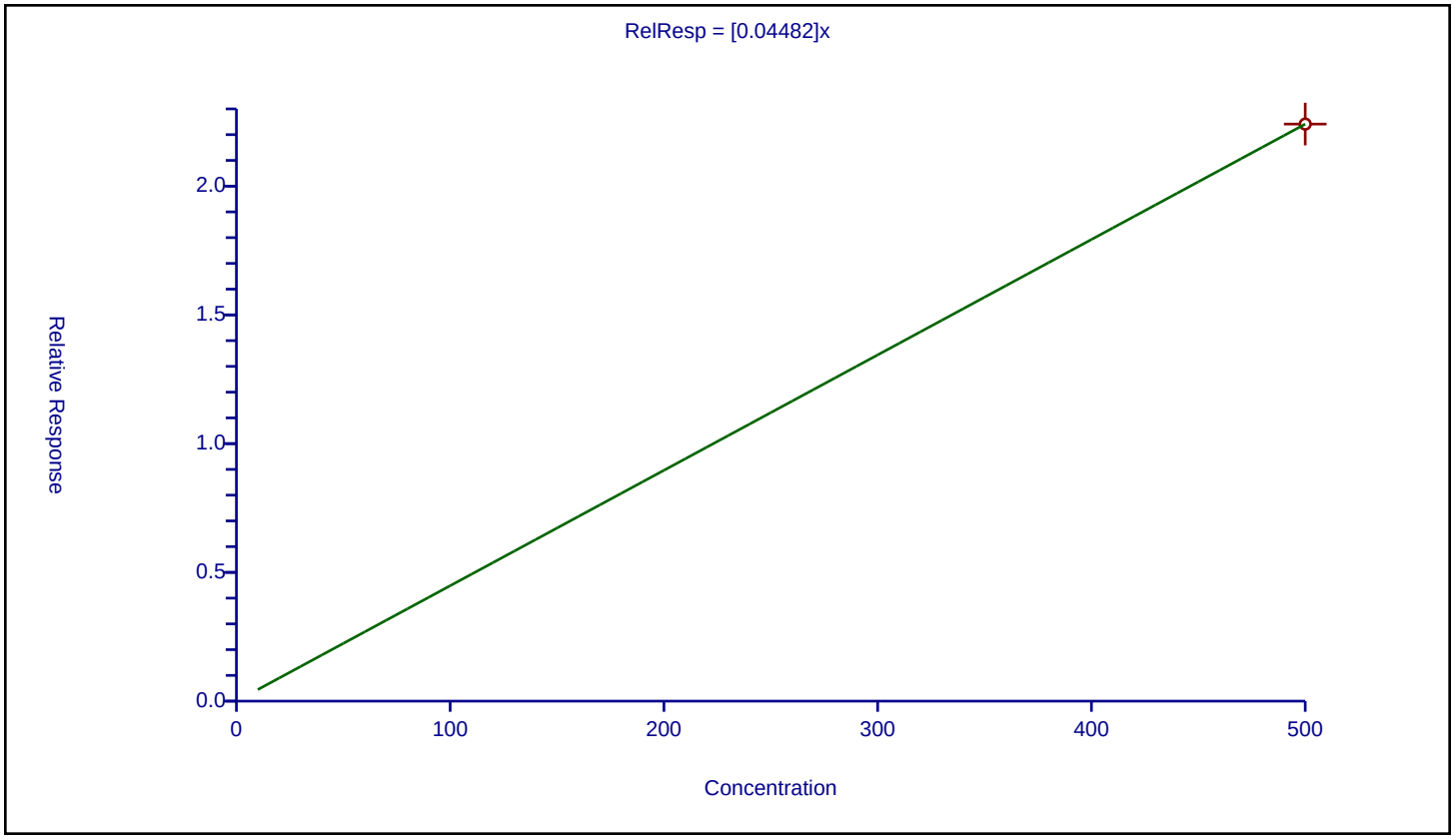
Curve Coefficients

Intercept:	0
Slope:	0.04482

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD2154 280-653123/6	500.0	22.409951	100.0	103552410.0	0.04482	Y



Calibration / PCB-1254 Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

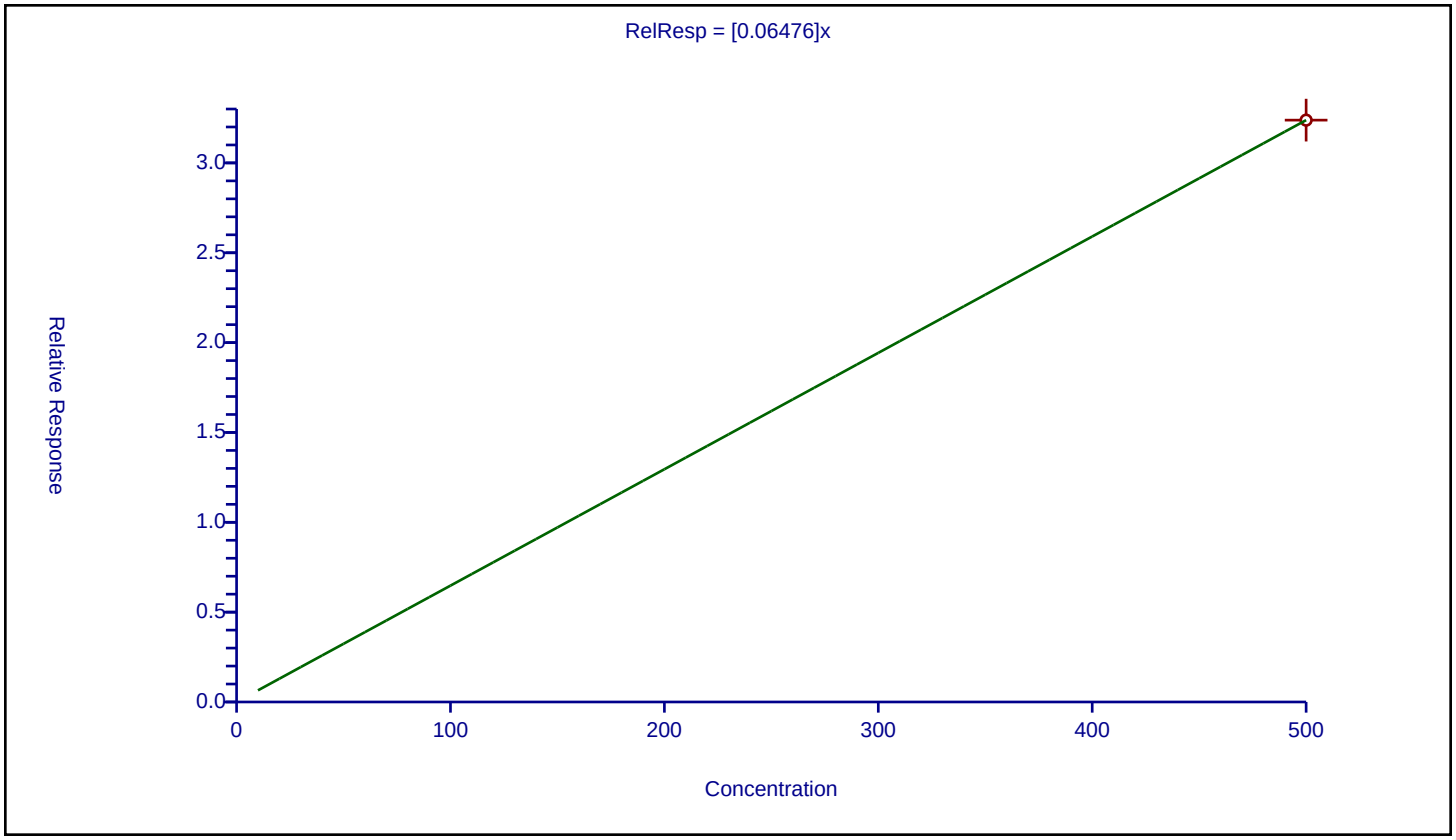
Curve Coefficients

Intercept:	0
Slope:	0.06476

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD2154 280-653123/6	500.0	32.381035	100.0	103552410.0	0.064762	Y



FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653123

SDG No.:

Instrument ID: SGC_J GC Column: CLP1 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 11:29 Calibration End Date: 05/13/2024 11:29 Calibration ID: 93333

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD3262 280-653123/7	0513007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
PCB-1232 Peak 1	0.0213					Ave		0.0213						20.0			
PCB-1232 Peak 2	0.0178					Ave		0.0178						20.0			
PCB-1232 Peak 3	0.0160					Ave		0.0160						20.0			
PCB-1232 Peak 4	0.0160					Ave		0.0160						20.0			
PCB-1232 Peak 5	0.0157					Ave		0.0157						20.0			
PCB-1262 Peak 1	0.0388					Ave		0.0388						20.0			
PCB-1262 Peak 2	0.0525					Ave		0.0525						20.0			
PCB-1262 Peak 3	0.0673					Ave		0.0673						20.0			
PCB-1262 Peak 4	0.1255					Ave		0.1255						20.0			
PCB-1262 Peak 5	0.0537					Ave		0.0537						20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 653123

SDG No.:

Instrument ID: SGC_J | GC Column: CLP1 | ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 11:29 | Calibration End Date: 05/13/2024 11:29 | Calibration ID: 93333

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD3262 280-653123/7	0513007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1					LVL 1				
PCB-1232 Peak 1	BNB	Ave	10497452					500				
PCB-1232 Peak 2	BNB	Ave	8764717					500				
PCB-1232 Peak 3	BNB	Ave	7852435					500				
PCB-1232 Peak 4	BNB	Ave	7882851					500				
PCB-1232 Peak 5	BNB	Ave	7722336					500				
PCB-1262 Peak 1	BNB	Ave	19055579					500				
PCB-1262 Peak 2	BNB	Ave	25829943					500				
PCB-1262 Peak 3	BNB	Ave	33105174					500				
PCB-1262 Peak 4	BNB	Ave	61703688					500				
PCB-1262 Peak 5	BNB	Ave	26413108					500				

Curve Type Legend:
Ave = Average ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513007.D
Lims ID: STD3262
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 13-May-2024 11:29:34 ALS Bottle#: 6 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD3262
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub4

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:52:30 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 13-May-2024 14:32:14

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.824	2.824	0.000	98342379	100.0	100.0	
2	2.767	2.767	0.000	107528195	100.0	100.0	
						RPD = 0.00	
7 PCB-1232							
1	3.950	3.950	0.000	10497452	500.0	500.0	
1	4.270	4.270	0.000	8764717	500.0	500.0	
1	4.683	4.683	0.000	7852435	500.0	500.0	
1	4.830	4.830	0.000	7882851	500.0	500.0	
1	5.233	5.233	0.000	7722336	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	4.090	4.090	0.000	10948799	500.0	500.0	
2	4.447	4.447	0.000	9563977	500.0	500.0	
2	4.870	4.870	0.000	18152403	500.0	500.0	
2	4.997	4.997	0.000	7918263	500.0	500.0	
2	5.913	5.913	0.000	8745256	500.0	500.0	
		Average of Peak Amounts =				500.0	
						RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
5 PCB-1262							
1	6.560	6.560	0.000	19055579	500.0	500.0	
1	6.887	6.887	0.000	25829943	500.0	500.0	
1	7.363	7.363	0.000	33105174	500.0	500.0	
1	8.060	8.060	0.000	61703688	500.0	500.0	
1	8.470	8.470	0.000	26413108	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	6.873	6.873	0.000	19833069	500.0	500.0	
2	7.683	7.683	0.000	27329422	500.0	500.0	
2	8.057	8.057	0.000	25930483	500.0	500.0	
2	8.383	8.383	0.000	51028118	500.0	500.0	
2	8.857	8.857	0.000	32055315	500.0	500.0	
		Average of Peak Amounts =				500.0	
						RPD = 0.00	

QC Flag Legend

Processing Flags

Reagents:

AR_3262_L7_00031	Amount Added: 100.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

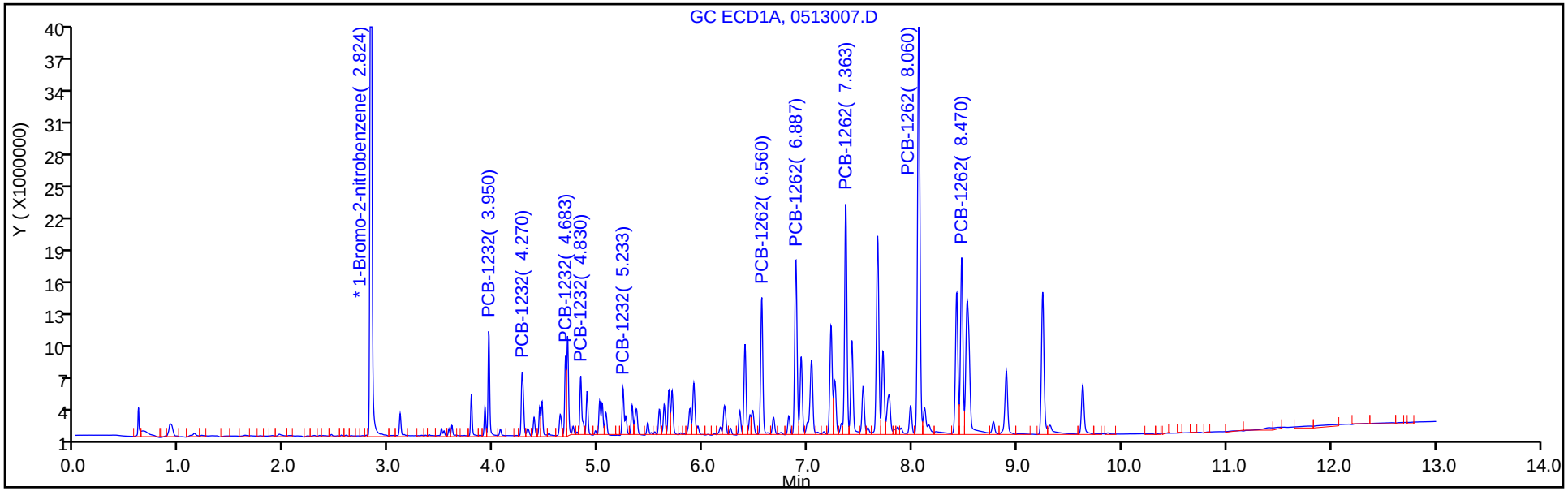
Report Date: 14-May-2024 12:52:30 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

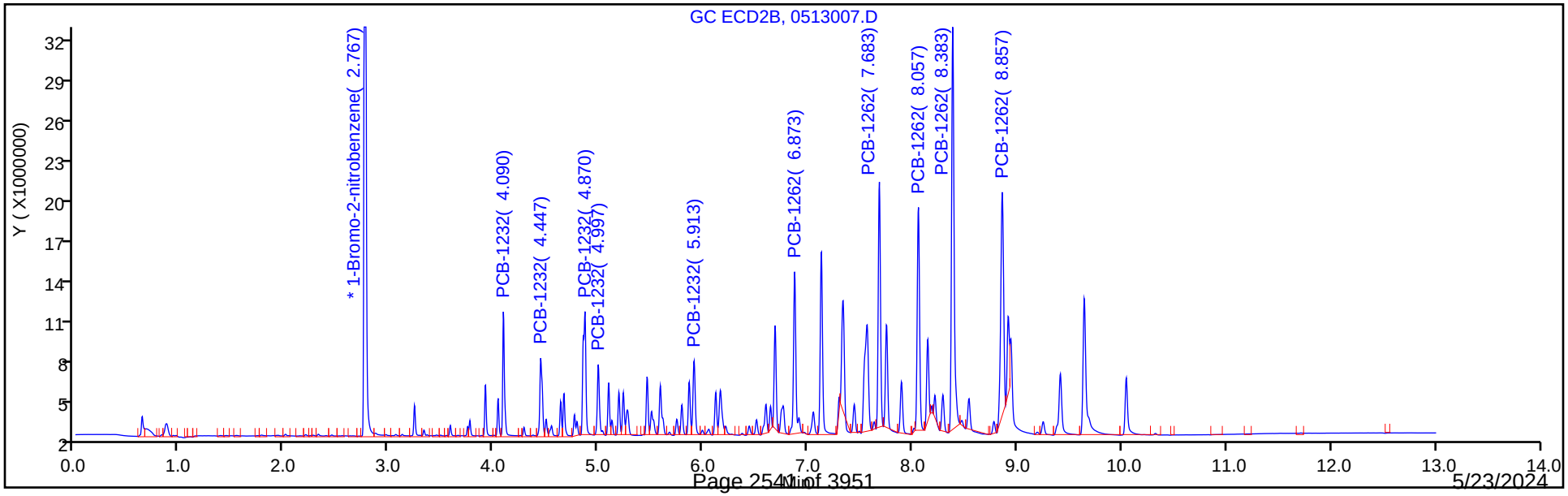
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513007.D

Injection Date:	13-May-2024 11:29:34	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	STD3262			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
4:40:30 AM

Calibration / PCB-1232 Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

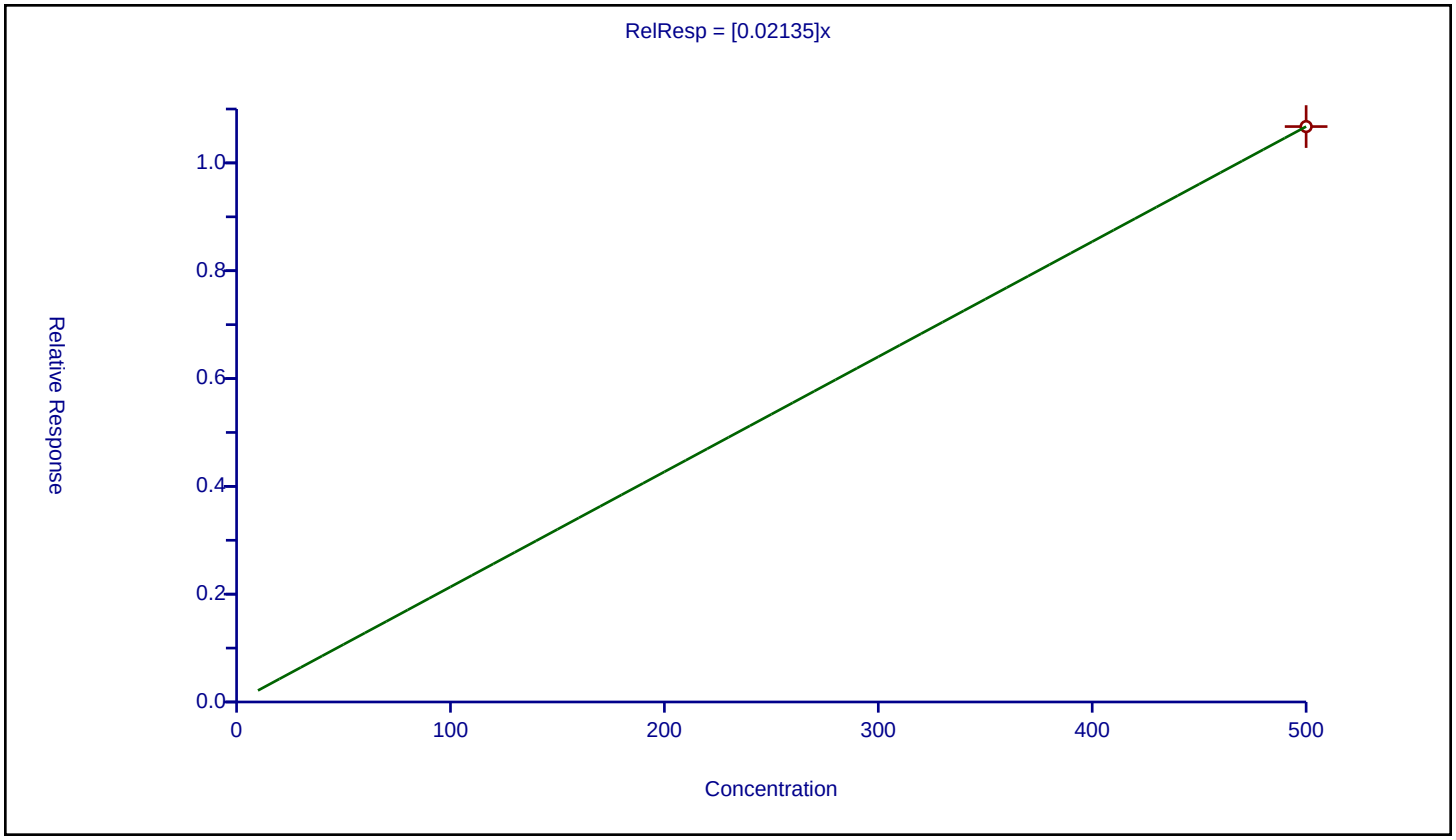
Curve Coefficients

Intercept:	0
Slope:	0.02135

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3262 280-653123/7	500.0	10.674393	100.0	98342379.0	0.021349	Y



Calibration / PCB-1232 Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

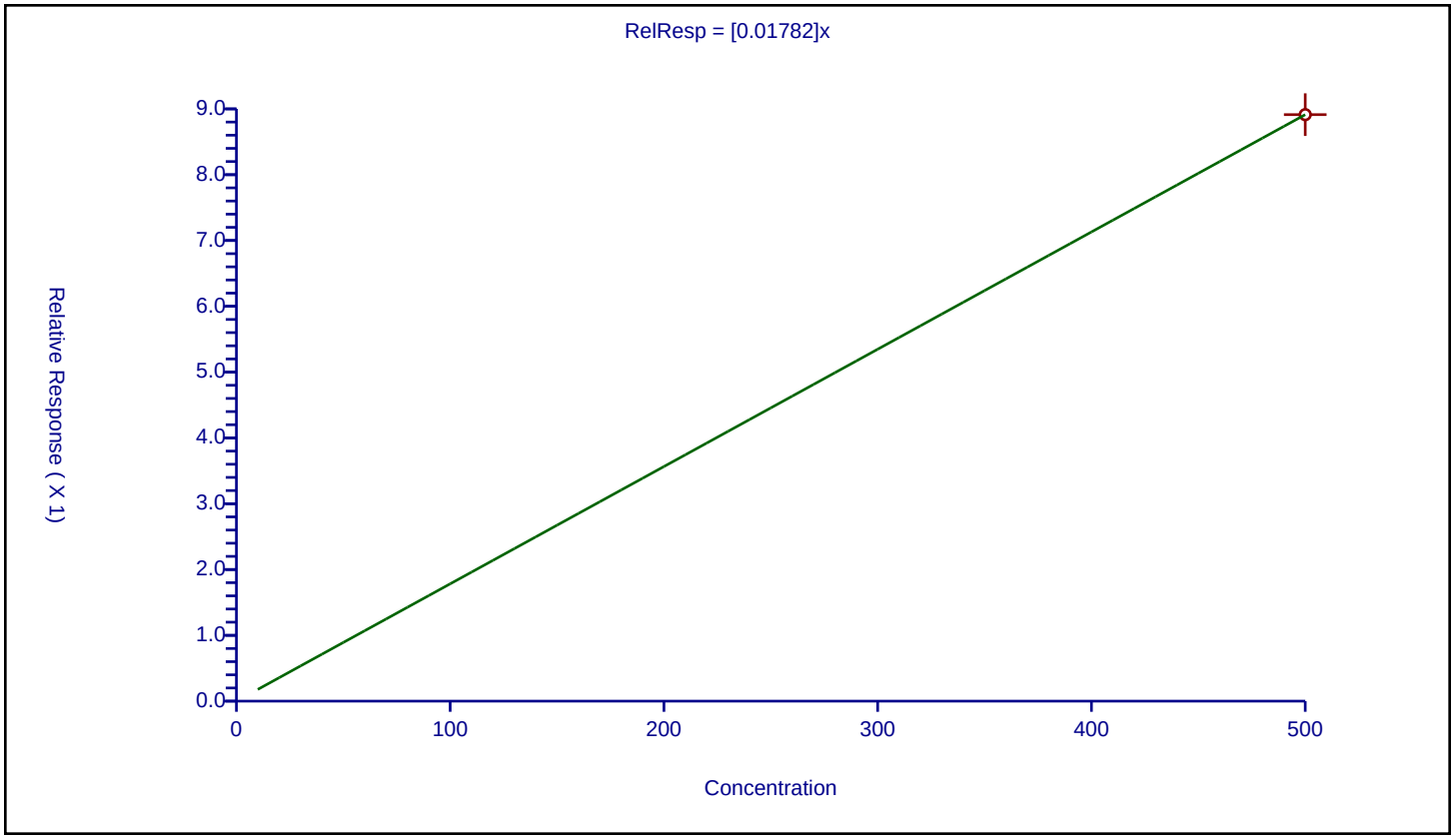
Curve Coefficients

Intercept:	0
Slope:	0.01782

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3262 280-653123/7	500.0	8.912452	100.0	98342379.0	0.017825	Y



Calibration / PCB-1232 Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

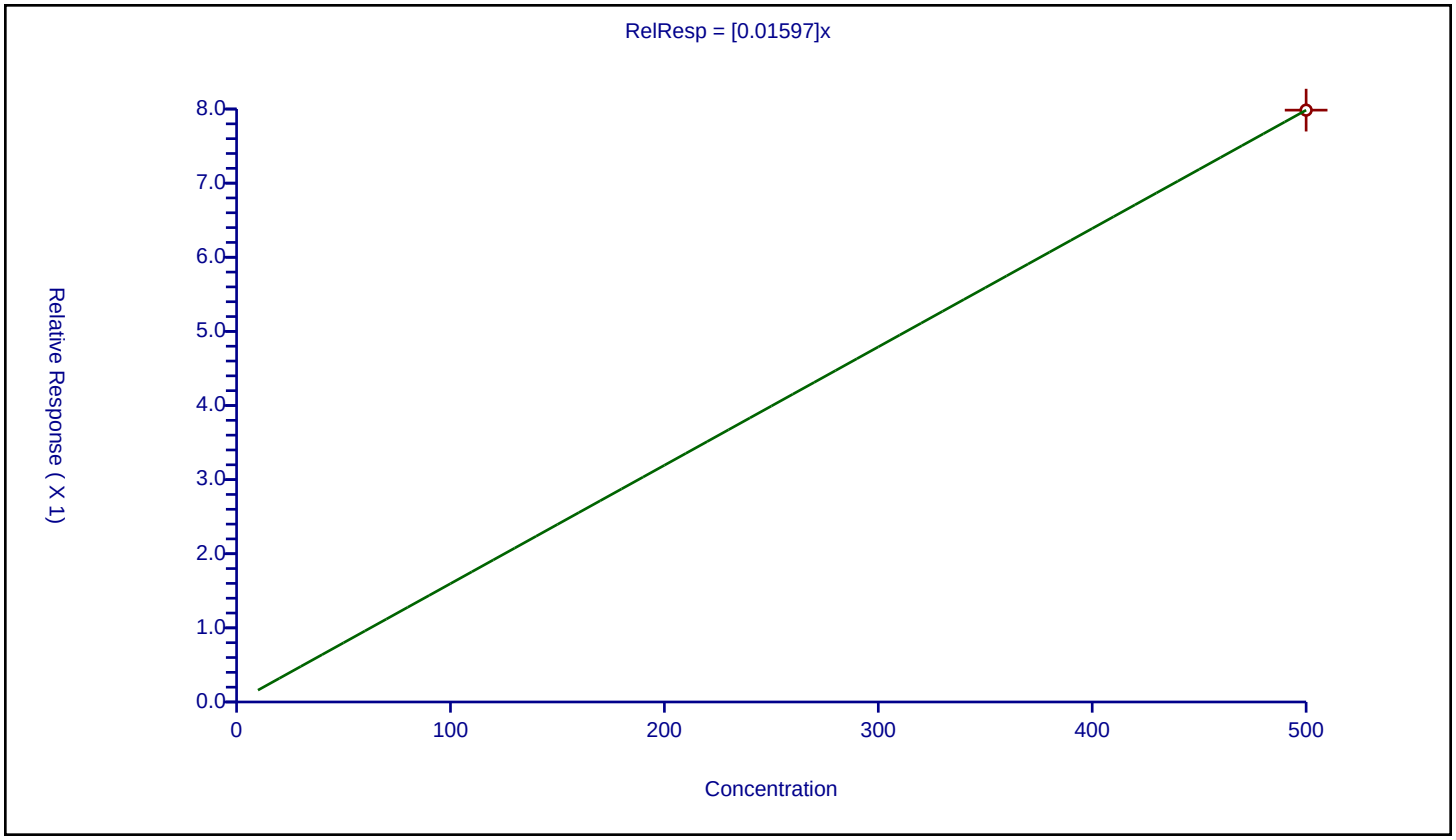
Curve Coefficients

Intercept:	0
Slope:	0.01597

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3262 280-653123/7	500.0	7.984793	100.0	98342379.0	0.01597	Y



Calibration / PCB-1232 Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

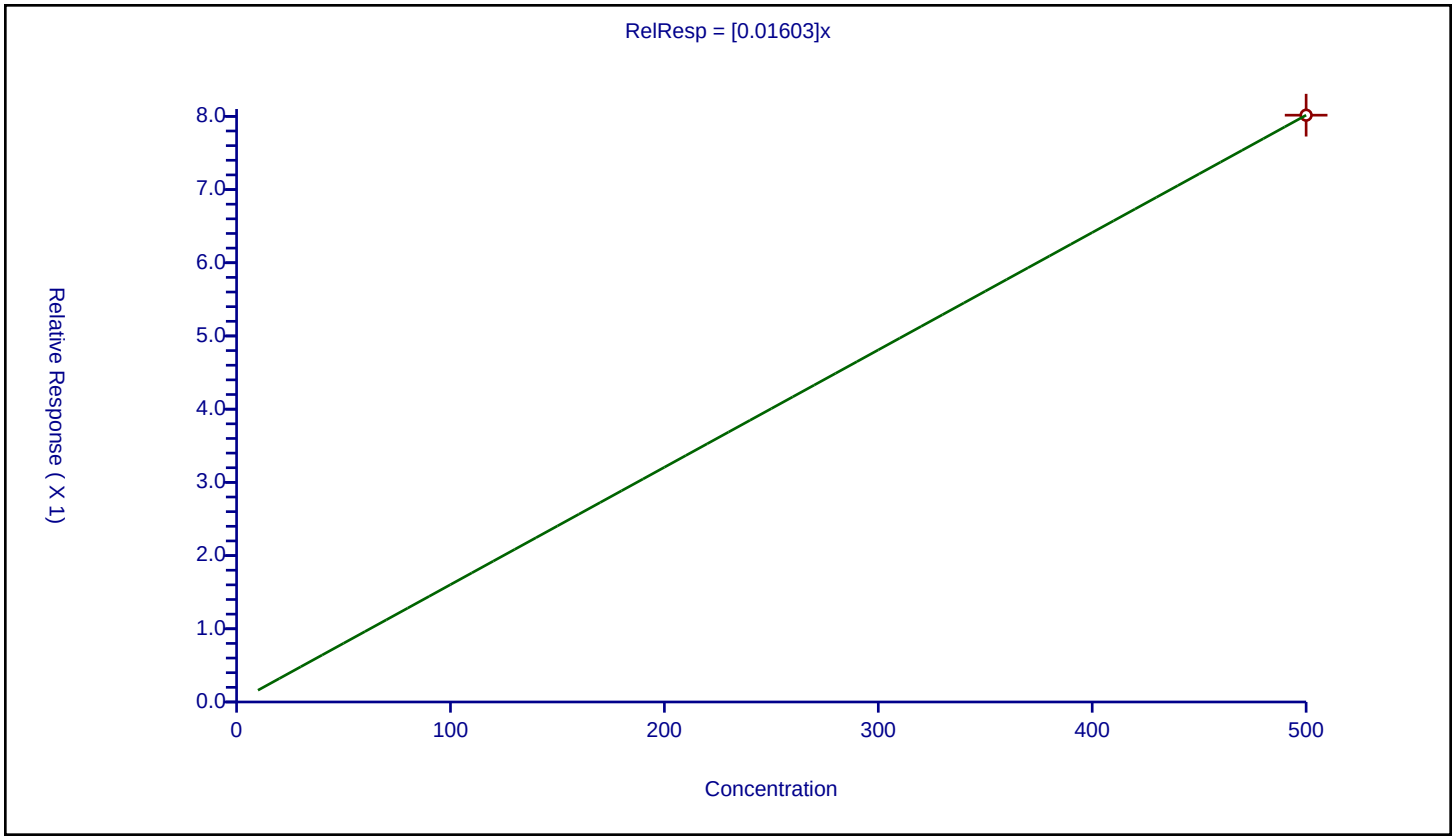
Curve Coefficients

Intercept:	0
Slope:	0.01603

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3262 280-653123/7	500.0	8.015721	100.0	98342379.0	0.016031	Y



Calibration / PCB-1232 Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

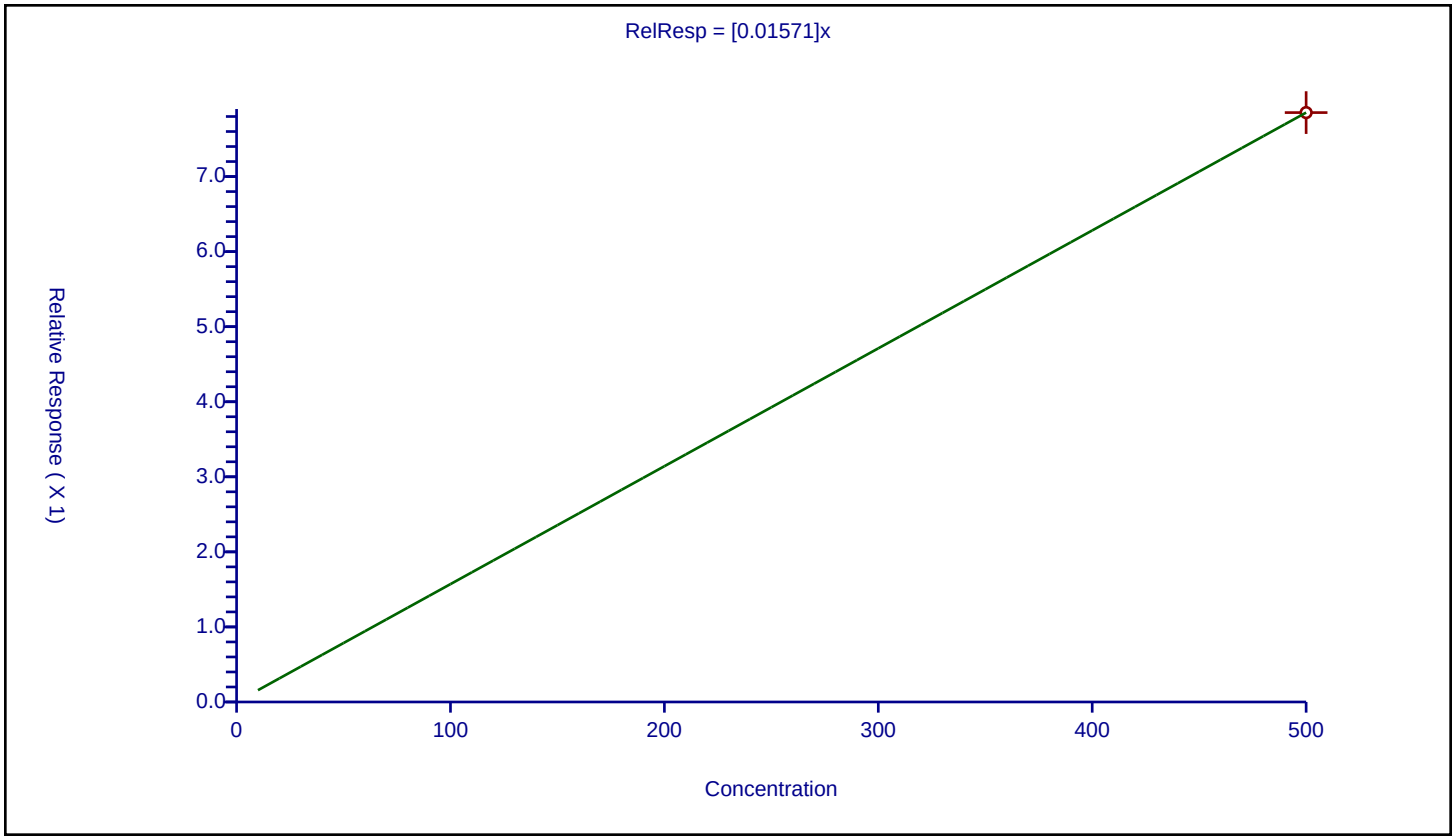
Curve Coefficients

Intercept:	0
Slope:	0.01571

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3262 280-653123/7	500.0	7.852501	100.0	98342379.0	0.015705	Y



Calibration / PCB-1262 Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

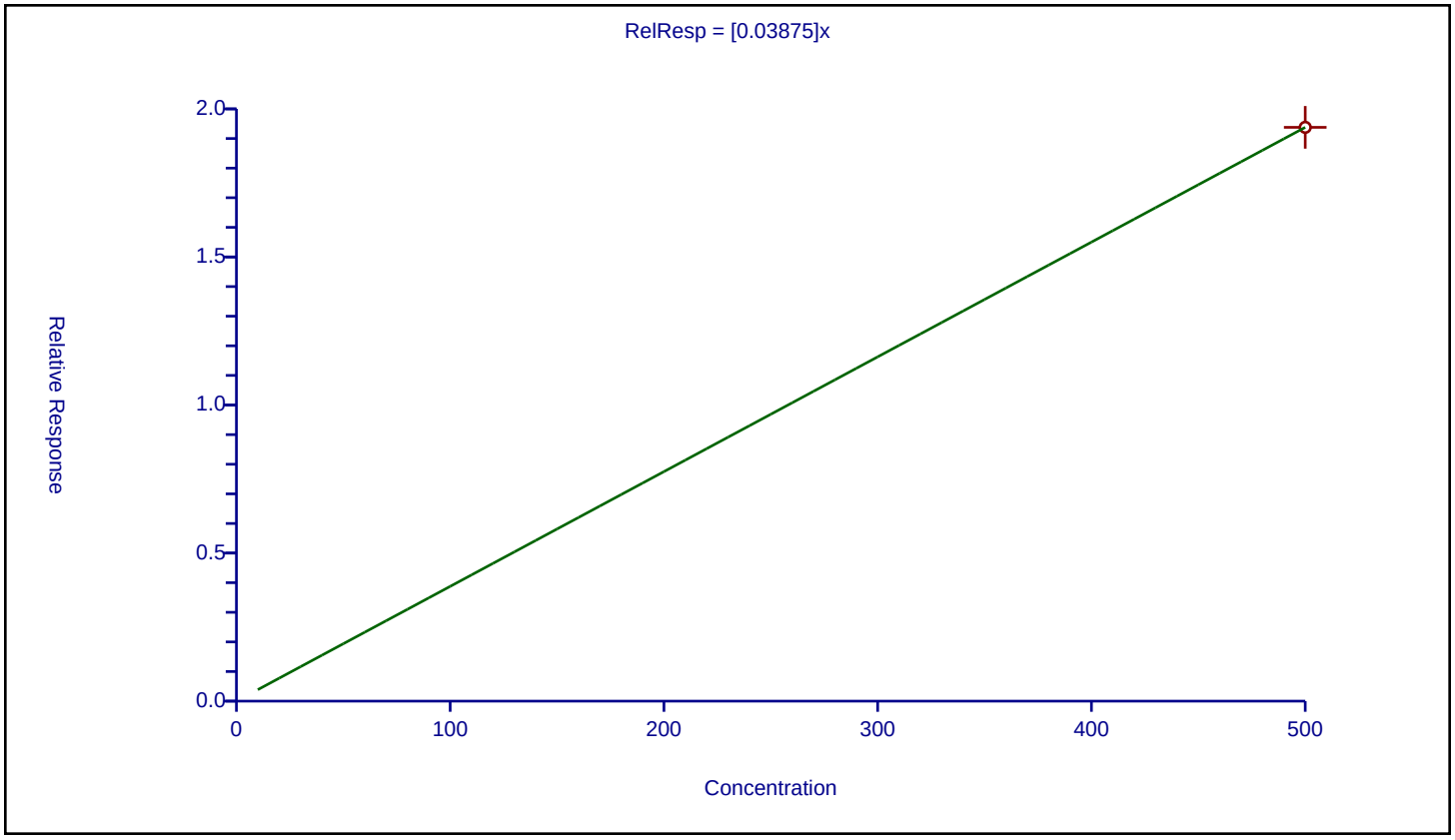
Curve Coefficients

Intercept:	0
Slope:	0.03875

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3262 280-653123/7	500.0	19.376772	100.0	98342379.0	0.038754	Y



Calibration / PCB-1262 Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

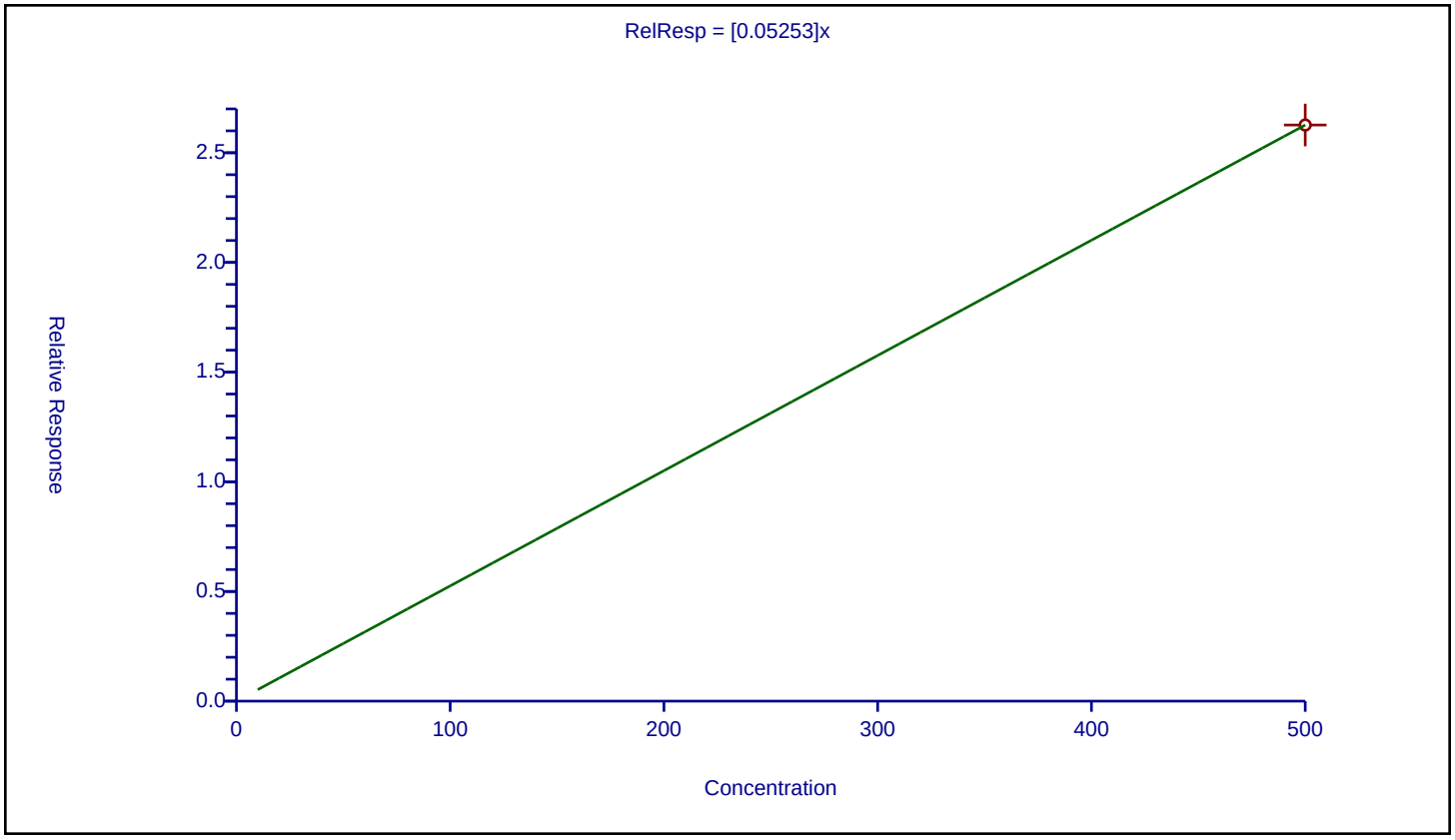
Curve Coefficients

Intercept:	0
Slope:	0.05253

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3262 280-653123/7	500.0	26.265323	100.0	98342379.0	0.052531	Y



Calibration / PCB-1262 Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

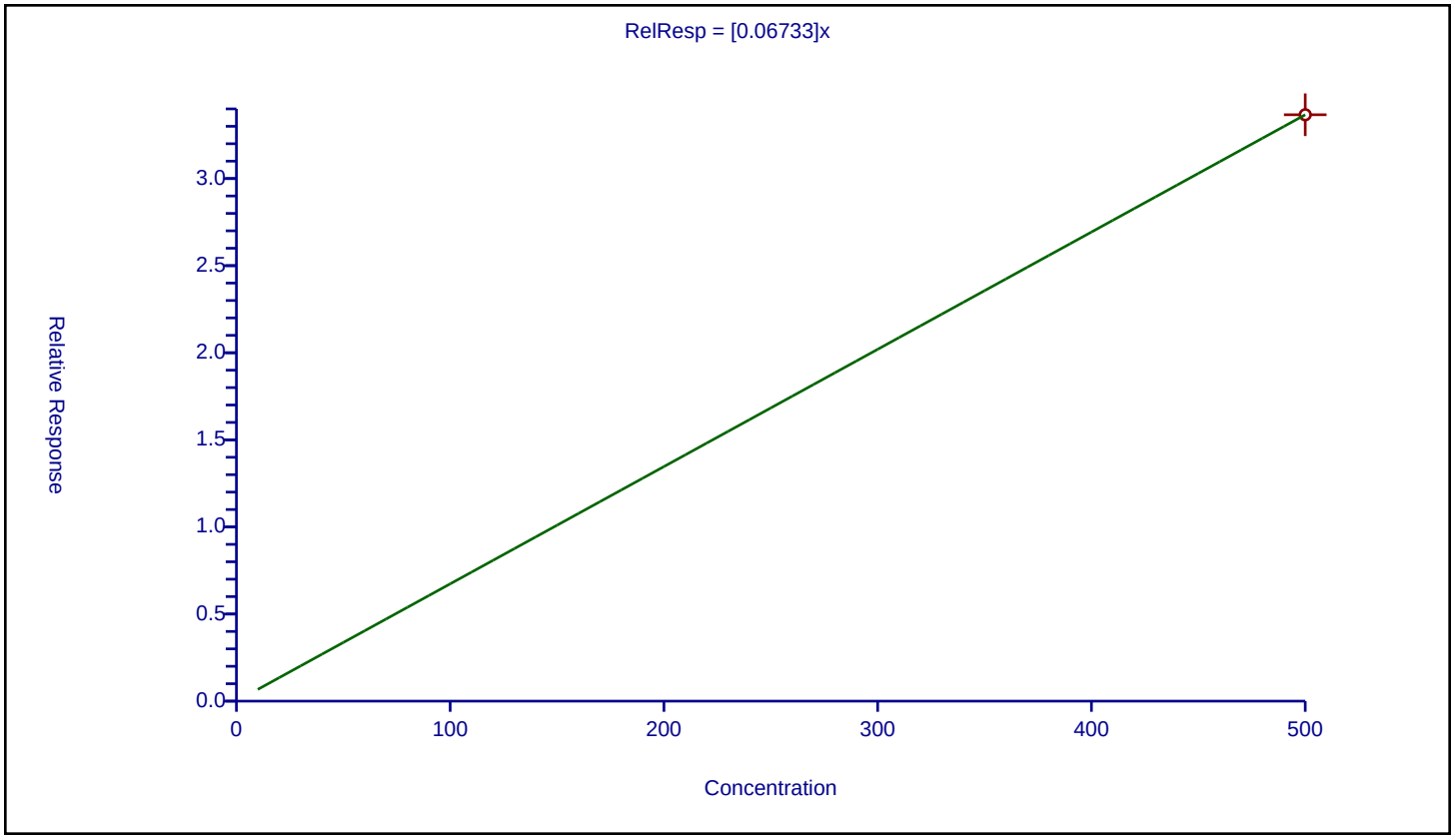
Curve Coefficients

Intercept:	0
Slope:	0.06733

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3262 280-653123/7	500.0	33.663182	100.0	98342379.0	0.067326	Y



Calibration / PCB-1262 Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

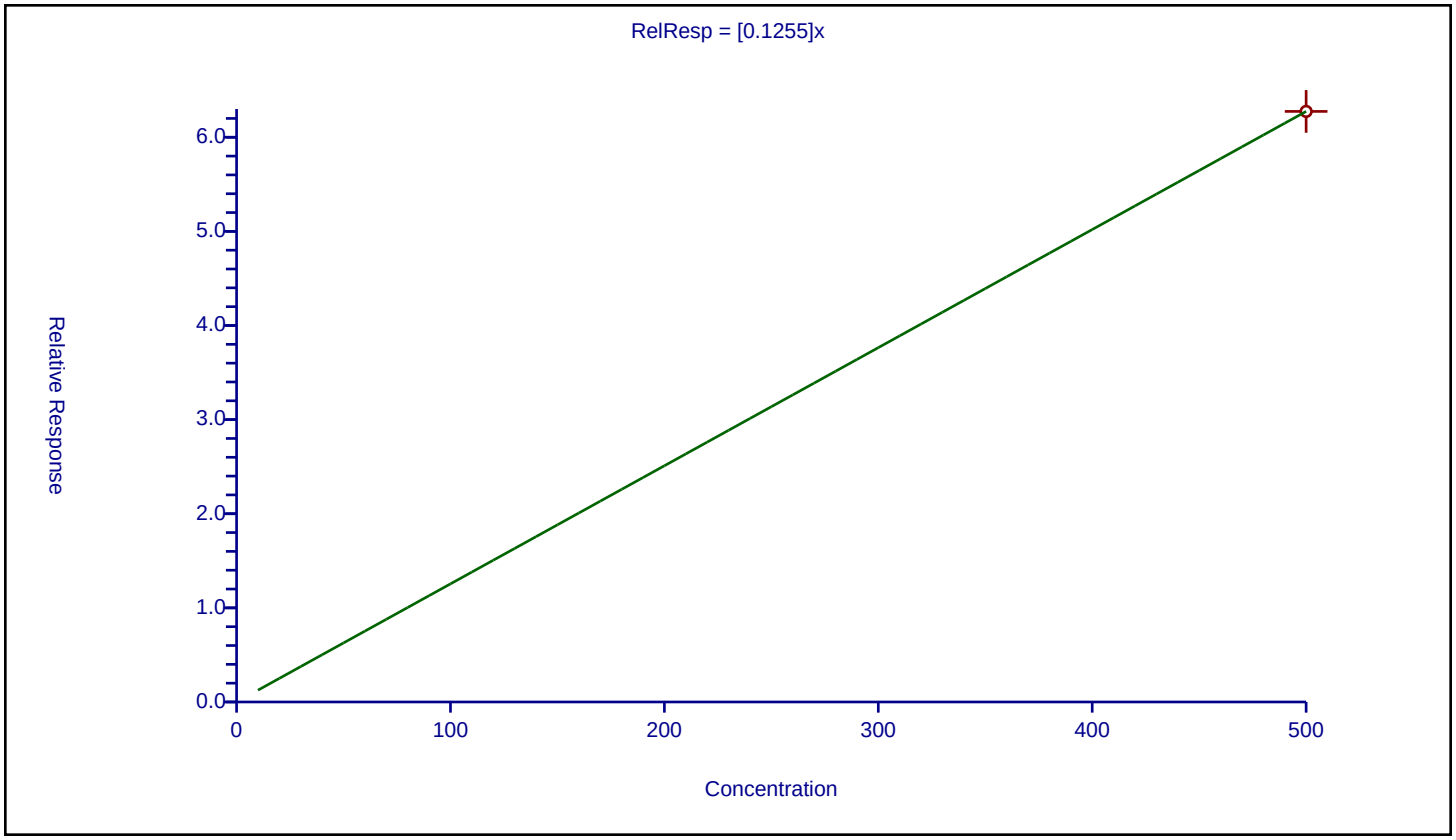
Curve Coefficients

Intercept:	0
Slope:	0.1255

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3262 280-653123/7	500.0	62.743741	100.0	98342379.0	0.125487	Y



Calibration / PCB-1262 Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

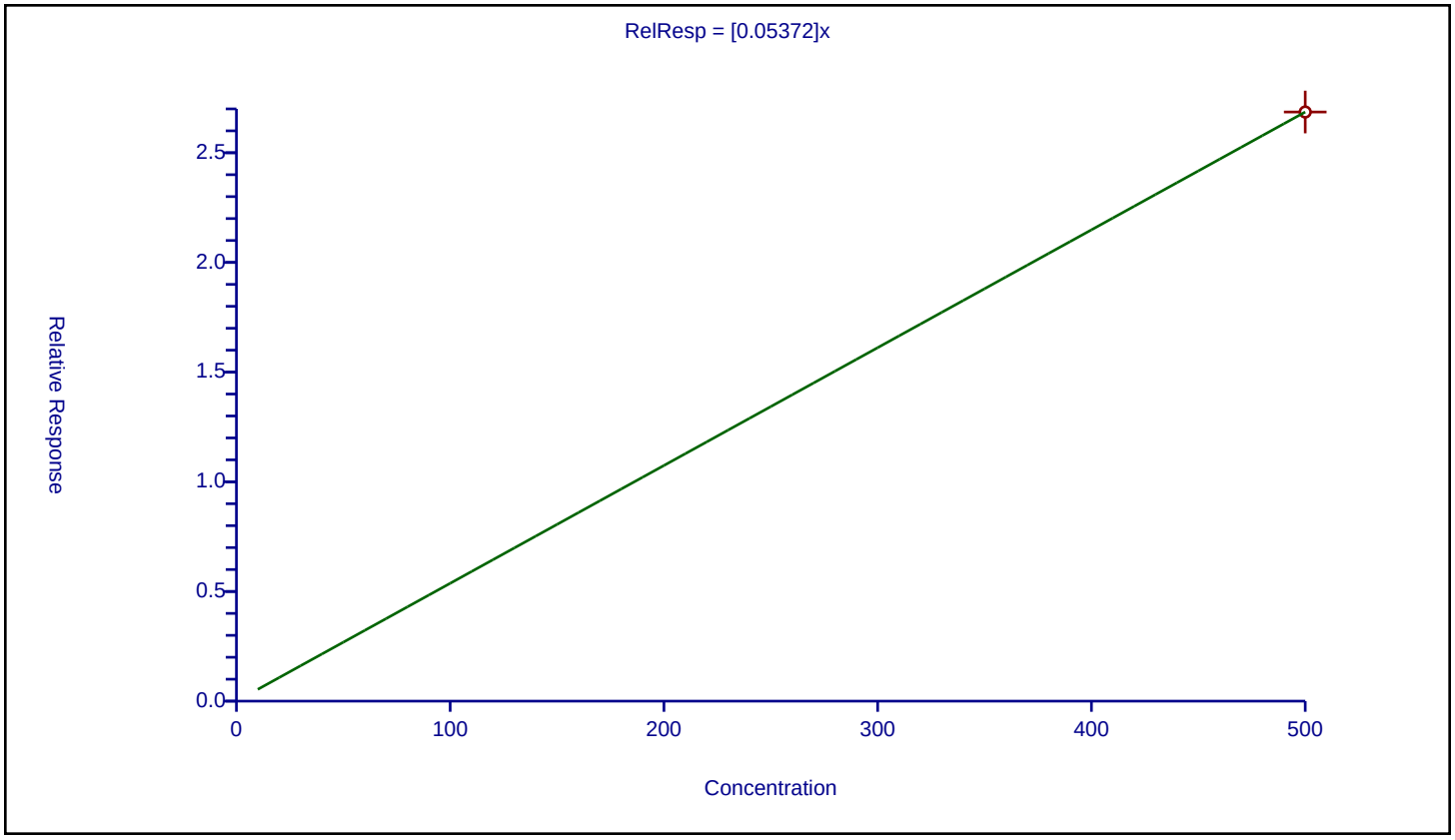
Curve Coefficients

Intercept:	0
Slope:	0.05372

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3262 280-653123/7	500.0	26.858317	100.0	98342379.0	0.053717	Y



FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653123

SDG No.:

Instrument ID: SGC_J GC Column: CLP2 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 11:29 Calibration End Date: 05/13/2024 11:29 Calibration ID: 93334

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD3262 280-653123/7	0513007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
PCB-1232 Peak 1	0.0204					Ave		0.0204						20.0			
PCB-1232 Peak 2	0.0178					Ave		0.0178						20.0			
PCB-1232 Peak 3	0.0338					Ave		0.0338						20.0			
PCB-1232 Peak 4	0.0147					Ave		0.0147						20.0			
PCB-1232 Peak 5	0.0163					Ave		0.0163						20.0			
PCB-1262 Peak 1	0.0369					Ave		0.0369						20.0			
PCB-1262 Peak 2	0.0508					Ave		0.0508						20.0			
PCB-1262 Peak 3	0.0482					Ave		0.0482						20.0			
PCB-1262 Peak 4	0.0949					Ave		0.0949						20.0			
PCB-1262 Peak 5	0.0596					Ave		0.0596						20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 653123

SDG No.:

Instrument ID: SGC_J | GC Column: CLP2 | ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 11:29 | Calibration End Date: 05/13/2024 11:29 | Calibration ID: 93334

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD3262 280-653123/7	0513007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1					LVL 1				
PCB-1232 Peak 1	BNB	Ave	10948799					500				
PCB-1232 Peak 2	BNB	Ave	9563977					500				
PCB-1232 Peak 3	BNB	Ave	18152403					500				
PCB-1232 Peak 4	BNB	Ave	7918263					500				
PCB-1232 Peak 5	BNB	Ave	8745256					500				
PCB-1262 Peak 1	BNB	Ave	19833069					500				
PCB-1262 Peak 2	BNB	Ave	27329422					500				
PCB-1262 Peak 3	BNB	Ave	25930483					500				
PCB-1262 Peak 4	BNB	Ave	51028118					500				
PCB-1262 Peak 5	BNB	Ave	32055315					500				

Curve Type Legend:
Ave = Average ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513007.D
Lims ID: STD3262
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 13-May-2024 11:29:34 ALS Bottle#: 6 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD3262
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub4

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:52:30 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 13-May-2024 14:32:14

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.824	2.824	0.000	98342379	100.0	100.0	
2	2.767	2.767	0.000	107528195	100.0	100.0	
						RPD = 0.00	
7 PCB-1232							
1	3.950	3.950	0.000	10497452	500.0	500.0	
1	4.270	4.270	0.000	8764717	500.0	500.0	
1	4.683	4.683	0.000	7852435	500.0	500.0	
1	4.830	4.830	0.000	7882851	500.0	500.0	
1	5.233	5.233	0.000	7722336	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	4.090	4.090	0.000	10948799	500.0	500.0	
2	4.447	4.447	0.000	9563977	500.0	500.0	
2	4.870	4.870	0.000	18152403	500.0	500.0	
2	4.997	4.997	0.000	7918263	500.0	500.0	
2	5.913	5.913	0.000	8745256	500.0	500.0	
		Average of Peak Amounts =				500.0	
						RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
5 PCB-1262							
1	6.560	6.560	0.000	19055579	500.0	500.0	
1	6.887	6.887	0.000	25829943	500.0	500.0	
1	7.363	7.363	0.000	33105174	500.0	500.0	
1	8.060	8.060	0.000	61703688	500.0	500.0	
1	8.470	8.470	0.000	26413108	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	6.873	6.873	0.000	19833069	500.0	500.0	
2	7.683	7.683	0.000	27329422	500.0	500.0	
2	8.057	8.057	0.000	25930483	500.0	500.0	
2	8.383	8.383	0.000	51028118	500.0	500.0	
2	8.857	8.857	0.000	32055315	500.0	500.0	
		Average of Peak Amounts =				500.0	
						RPD = 0.00	

QC Flag Legend

Processing Flags

Reagents:

AR_3262_L7_00031	Amount Added: 100.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

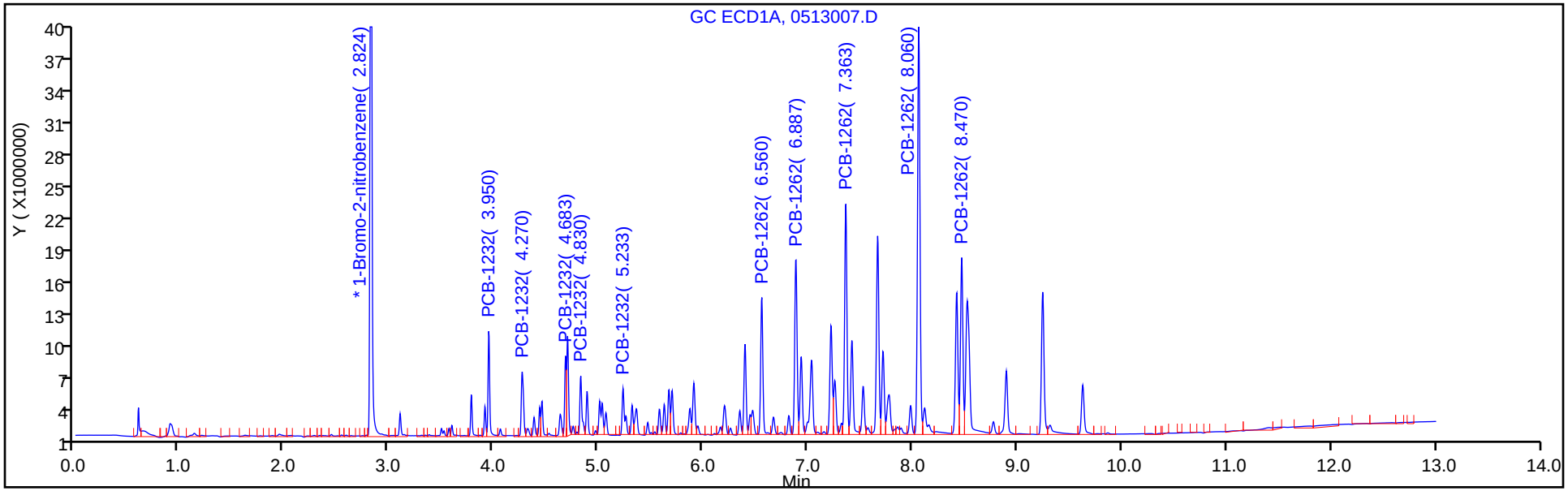
Report Date: 14-May-2024 12:52:30 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

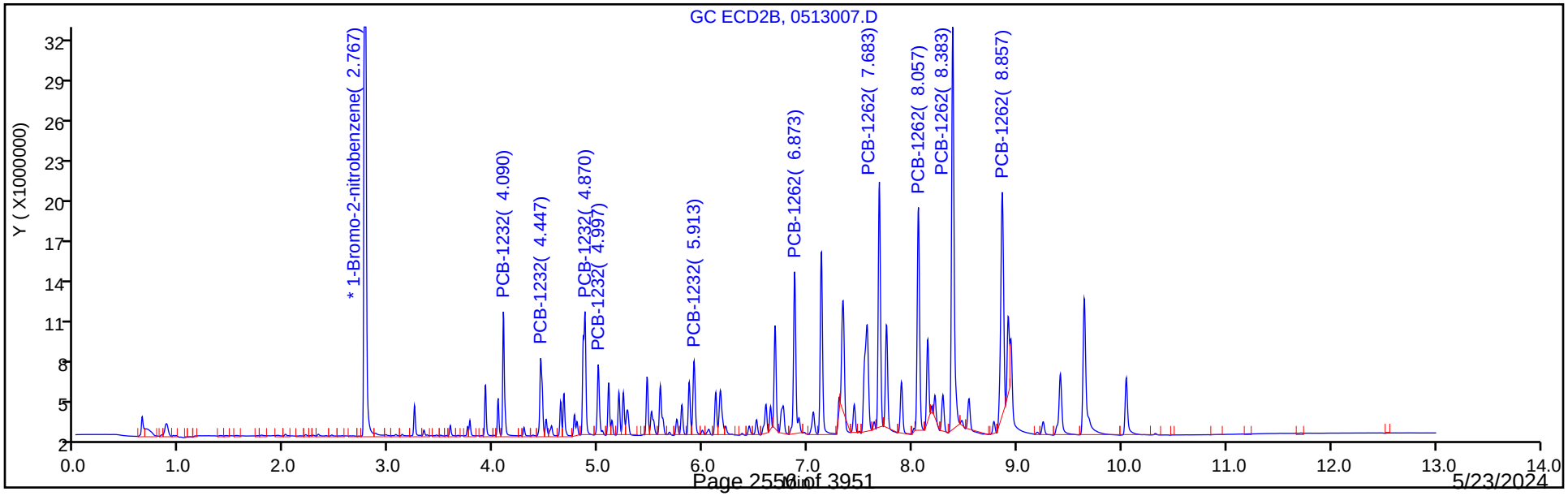
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513007.D

Injection Date:	13-May-2024 11:29:34	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	STD3262			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
4:40:30 AM

Calibration / PCB-1232 Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

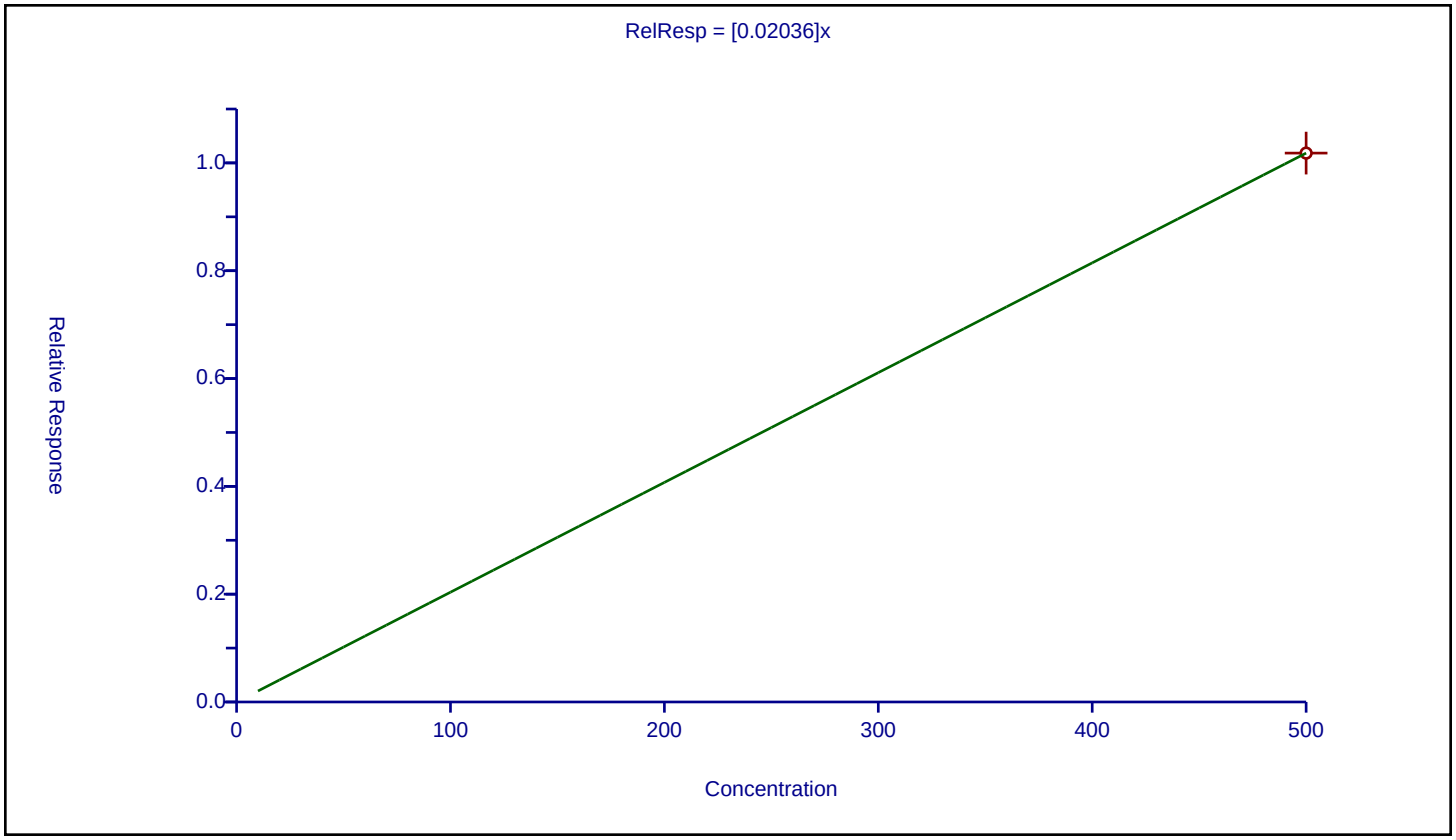
Curve Coefficients

Intercept:	0
Slope:	0.02036

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3262 280-653123/7	500.0	10.182259	100.0	107528195.0	0.020365	Y



Calibration / PCB-1232 Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

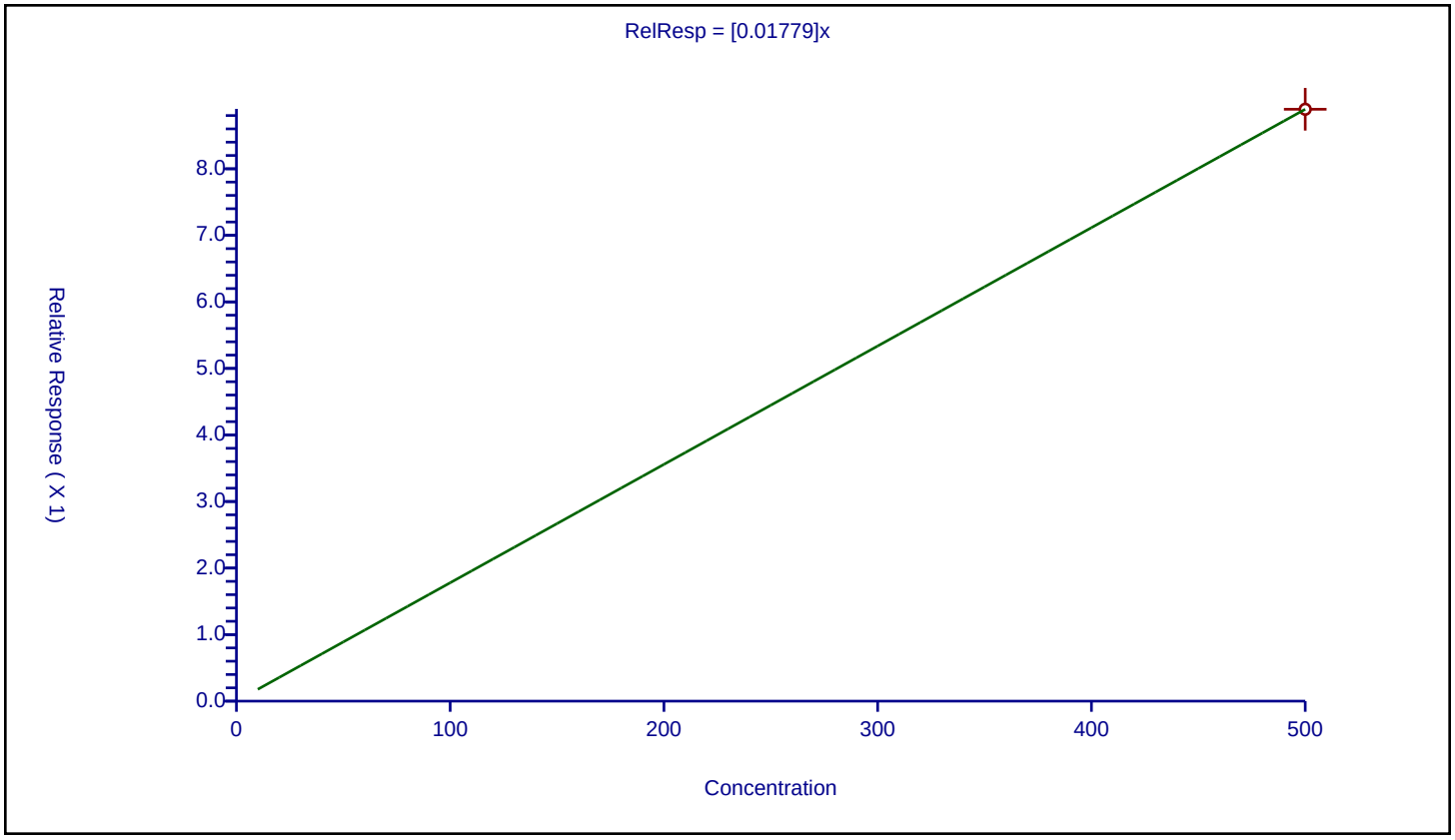
Curve Coefficients

Intercept:	0
Slope:	0.01779

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3262 280-653123/7	500.0	8.89439	100.0	107528195.0	0.017789	Y



Calibration / PCB-1232 Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

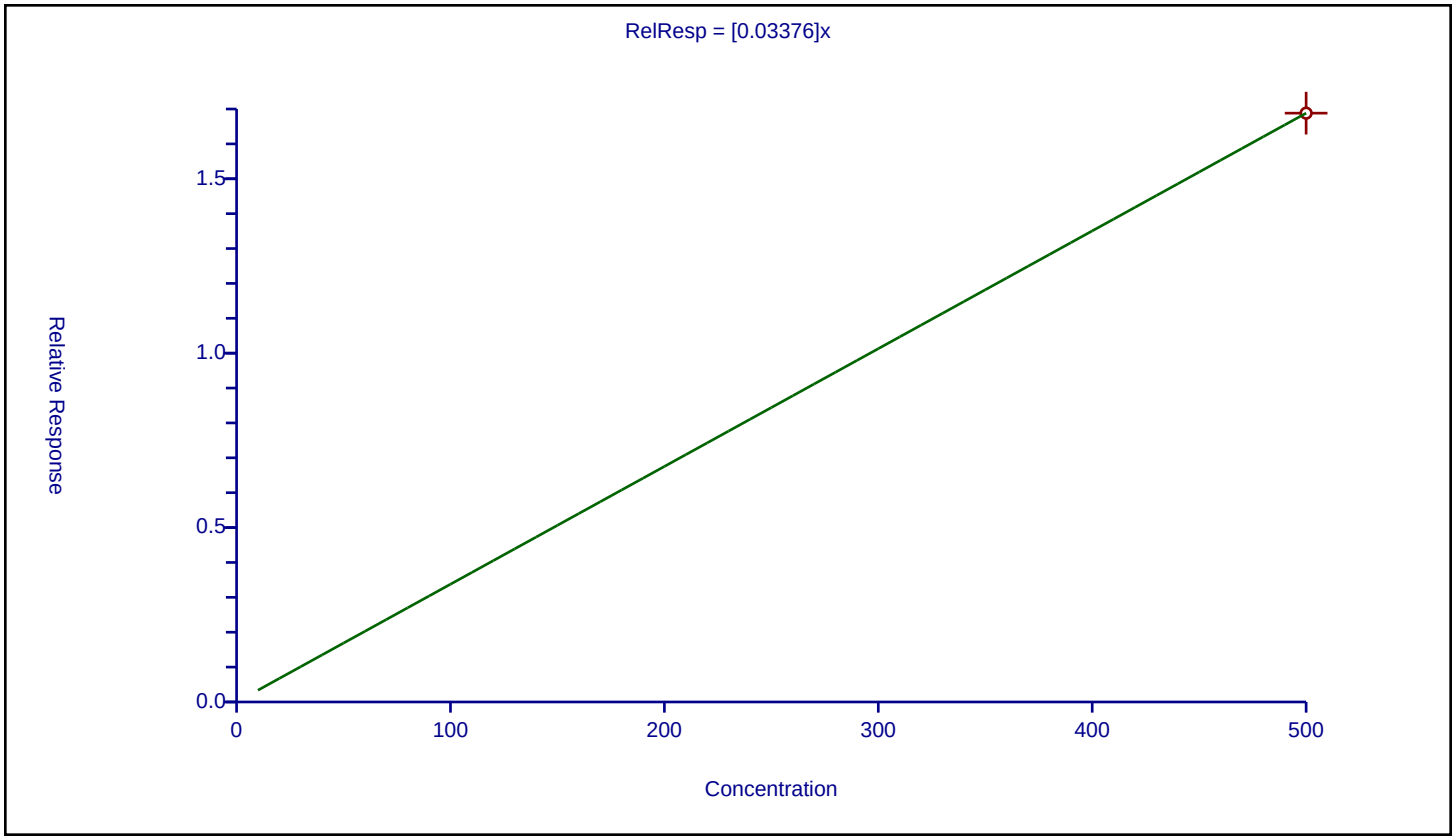
Curve Coefficients

Intercept:	0
Slope:	0.03376

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3262 280-653123/7	500.0	16.881529	100.0	107528195.0	0.033763	Y



Calibration / PCB-1232 Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

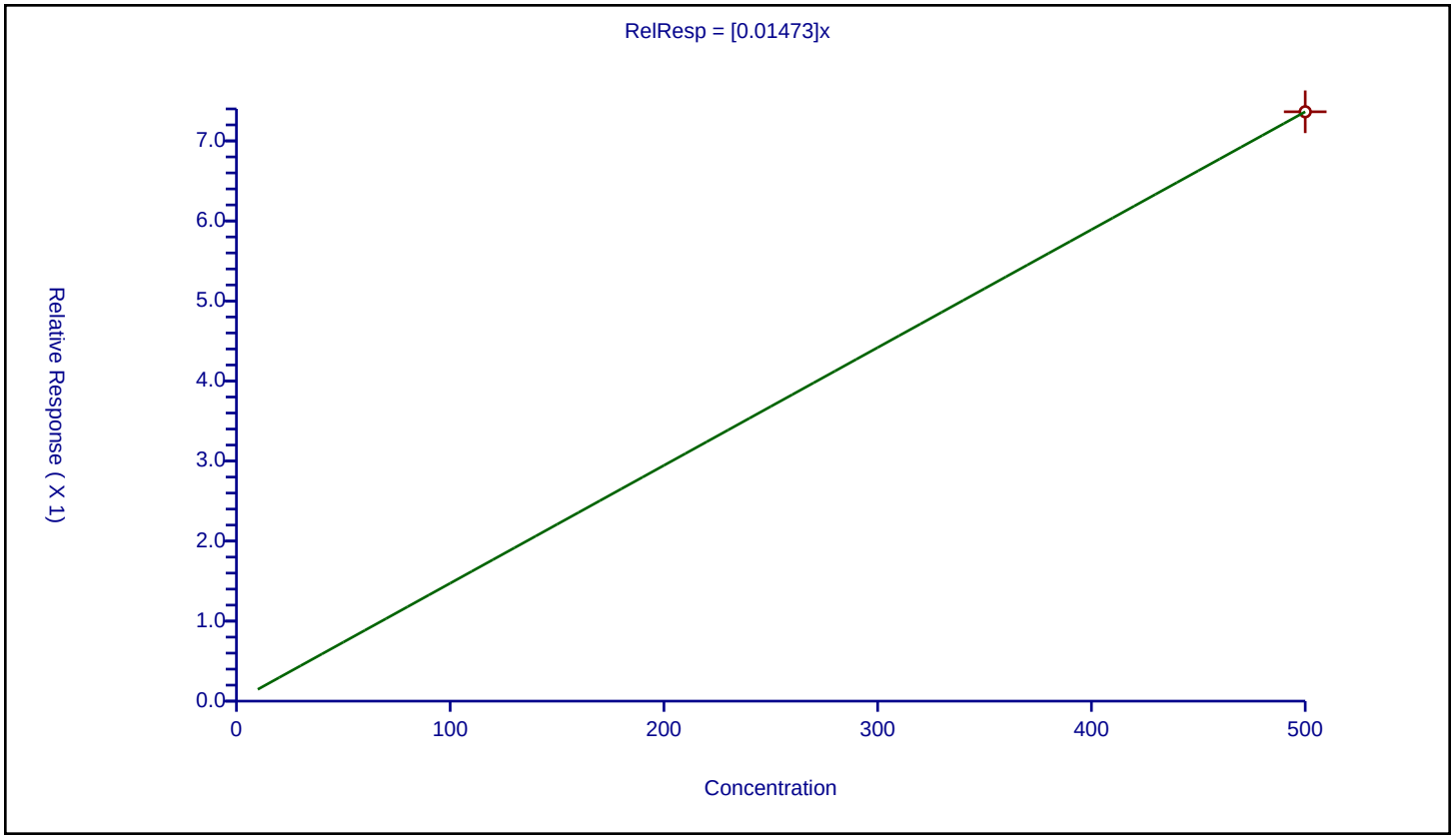
Curve Coefficients

Intercept:	0
Slope:	0.01473

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3262 280-653123/7	500.0	7.363895	100.0	107528195.0	0.014728	Y



Calibration / PCB-1232 Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

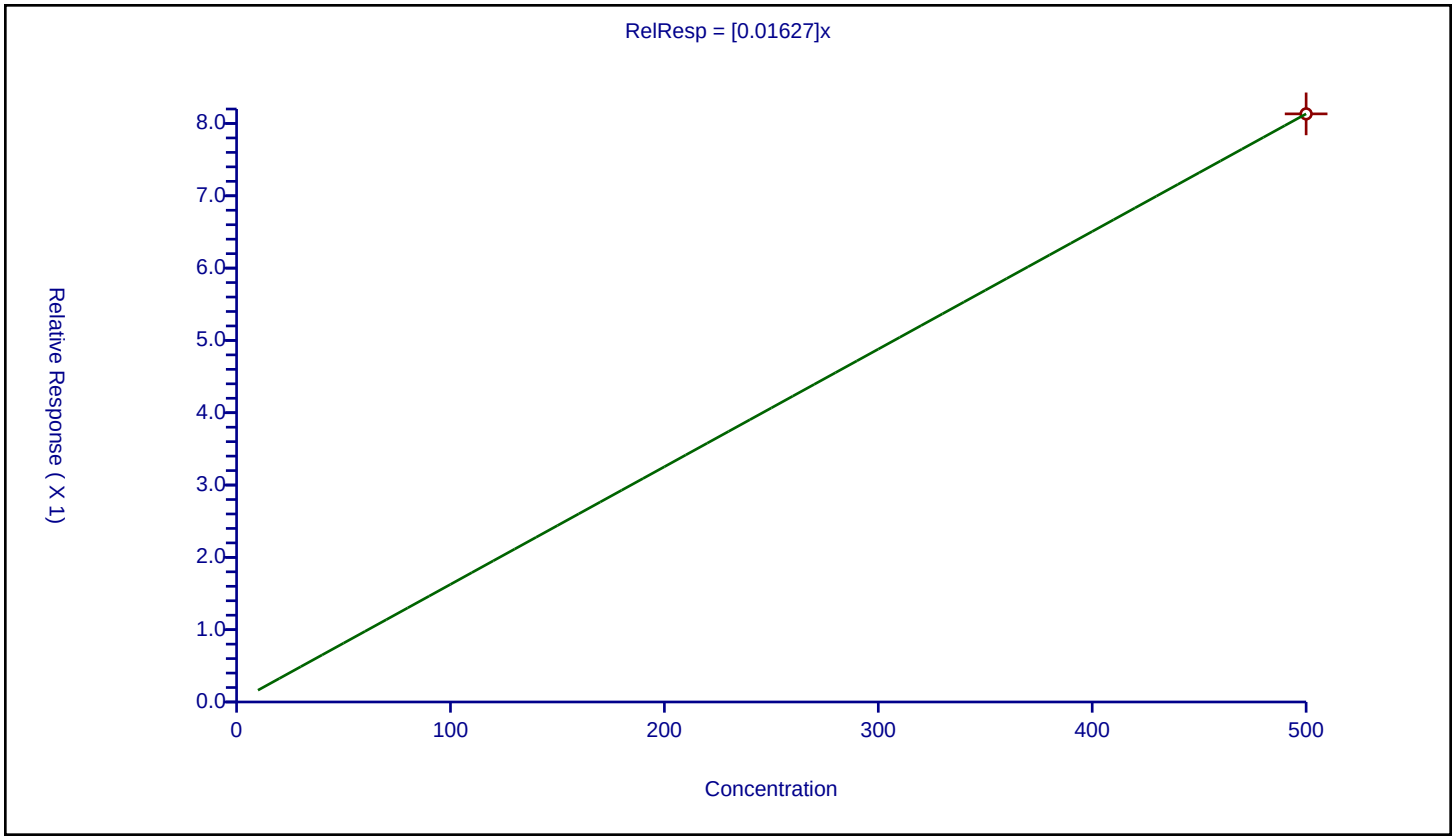
Curve Coefficients

Intercept:	0
Slope:	0.01627

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3262 280-653123/7	500.0	8.132989	100.0	107528195.0	0.016266	Y



Calibration / PCB-1262 Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

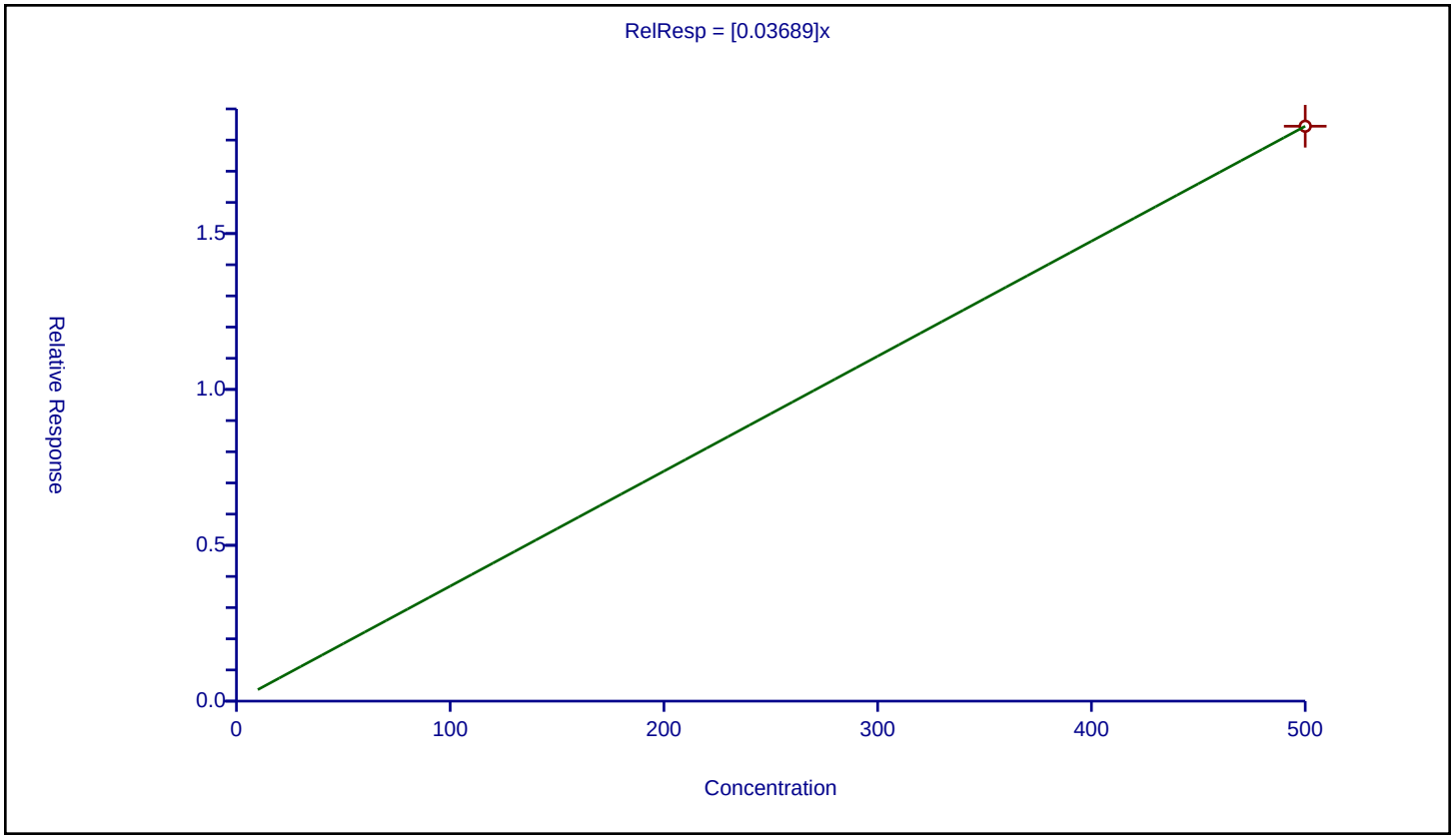
Curve Coefficients

Intercept:	0
Slope:	0.03689

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3262 280-653123/7	500.0	18.444529	100.0	107528195.0	0.036889	Y



Calibration / PCB-1262 Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

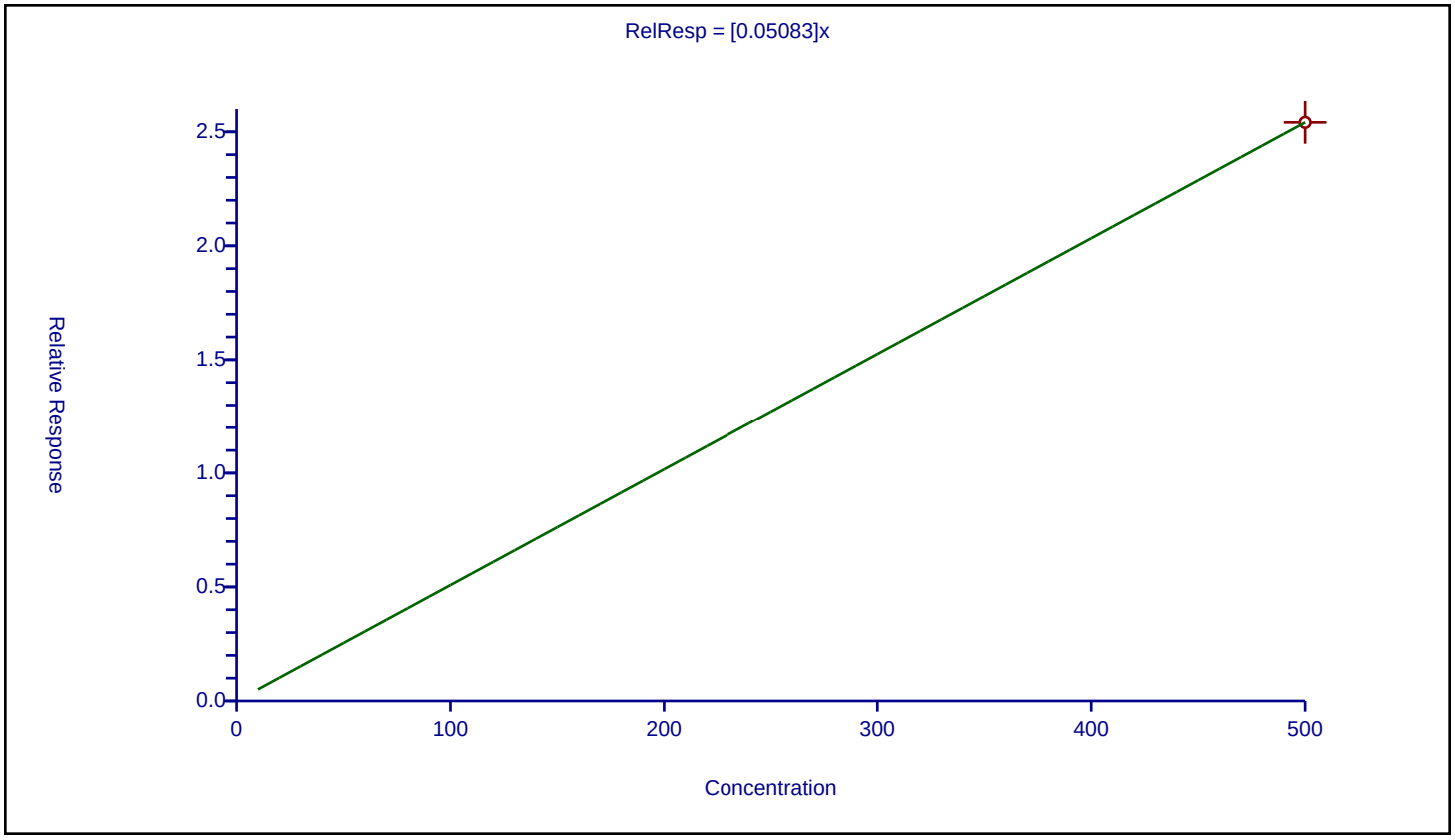
Curve Coefficients

Intercept:	0
Slope:	0.05083

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3262 280-653123/7	500.0	25.416052	100.0	107528195.0	0.050832	Y



Calibration / PCB-1262 Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

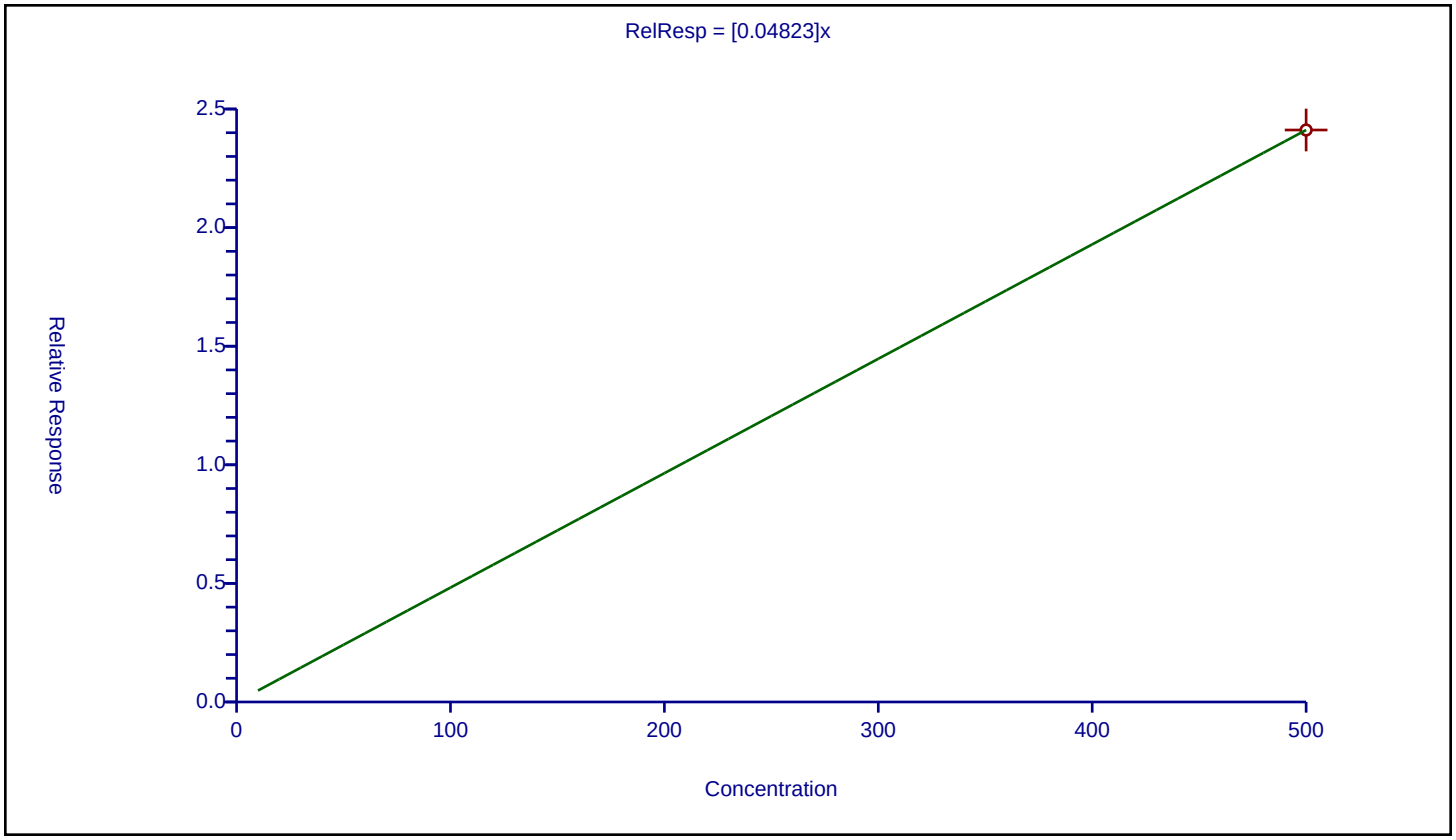
Curve Coefficients

Intercept:	0
Slope:	0.04823

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3262 280-653123/7	500.0	24.115055	100.0	107528195.0	0.04823	Y



Calibration / PCB-1262 Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

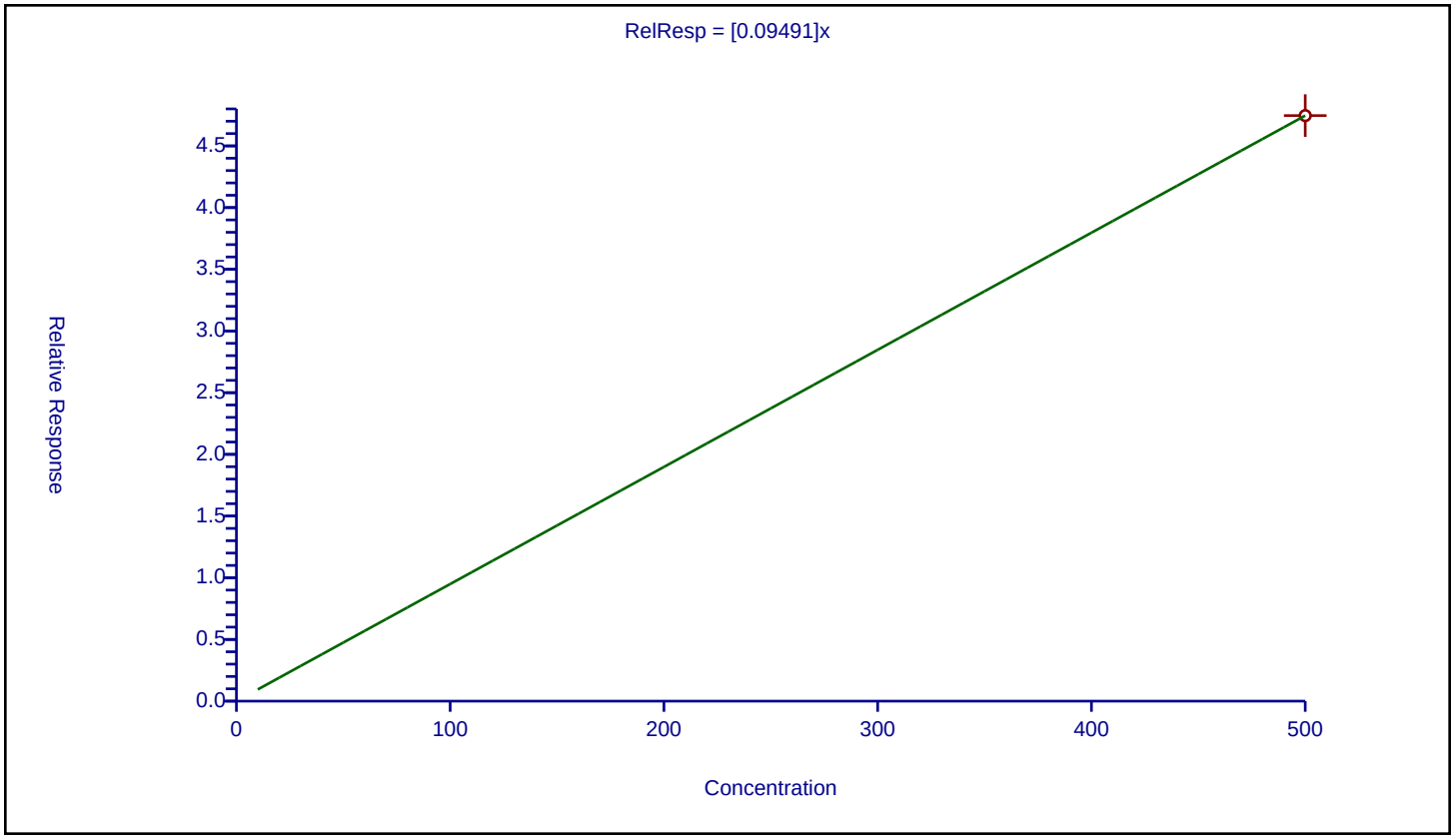
Curve Coefficients

Intercept:	0
Slope:	0.09491

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3262 280-653123/7	500.0	47.45557	100.0	107528195.0	0.094911	Y



Calibration / PCB-1262 Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

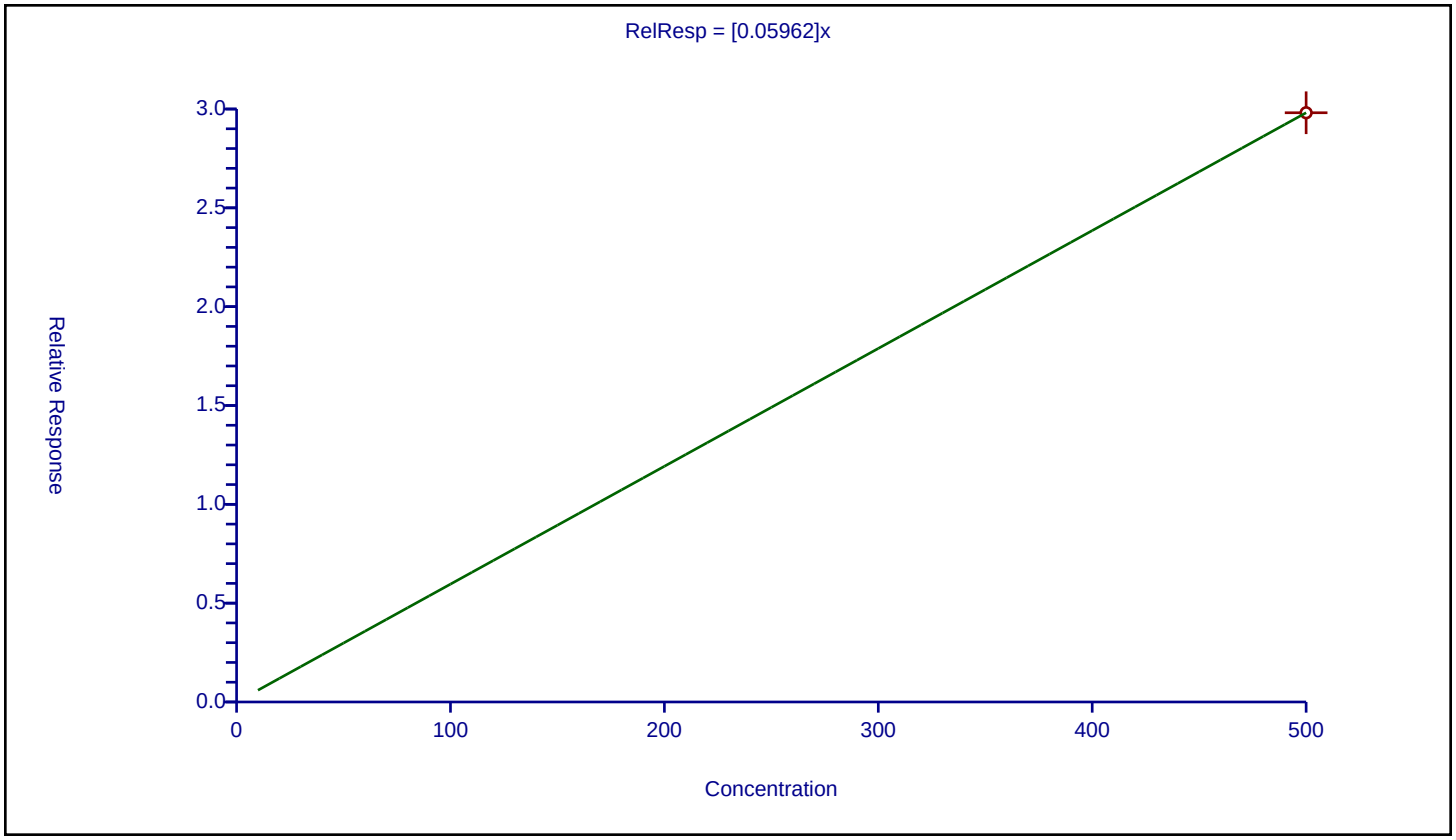
Curve Coefficients

Intercept:	0
Slope:	0.05962

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD3262 280-653123/7	500.0	29.811079	100.0	107528195.0	0.059622	Y



FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653123

SDG No.:

Instrument ID: SGC_J GC Column: CLP1 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 11:46 Calibration End Date: 05/13/2024 11:46 Calibration ID: 93339

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1248 280-653123/8	0513008.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
PCB-1248 Peak 1	0.0167					Ave		0.0167						20.0			
PCB-1248 Peak 2	0.0445					Ave		0.0445						20.0			
PCB-1248 Peak 3	0.0358					Ave		0.0358						20.0			
PCB-1248 Peak 4	0.0425					Ave		0.0425						20.0			
PCB-1248 Peak 5	0.0237					Ave		0.0237						20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 653123

SDG No.:

Instrument ID: SGC_J | GC Column: CLP1 | ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 11:46 | Calibration End Date: 05/13/2024 11:46 | Calibration ID: 93339

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1248 280-653123/8	0513008.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1					LVL 1				
PCB-1248 Peak 1	BNB	Ave	7496274					500				
PCB-1248 Peak 2	BNB	Ave	19939912					500				
PCB-1248 Peak 3	BNB	Ave	16018023					500				
PCB-1248 Peak 4	BNB	Ave	19025844					500				
PCB-1248 Peak 5	BNB	Ave	10587151					500				

Curve Type Legend:
Ave = Average ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D
Lims ID: STD1248
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 13-May-2024 11:46:10 ALS Bottle#: 7 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD1248
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub2

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:52:33 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 13-May-2024 14:32:26

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.823	2.823	0.000	89517669	100.0	100.0	
2	2.770	2.770	0.000	98179123	100.0	100.0	
						RPD = 0.00	
4 PCB-1248							a
1	4.270	4.270	0.000	7496274	500.0	500.0	
1	4.683	4.683	0.000	19939912	500.0	500.0	
1	5.233	5.233	0.000	16018023	500.0	500.0	
1	5.670	5.670	0.000	19025844	500.0	500.0	a
1	6.350	6.350	0.000	10587151	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	4.853	4.853	0.000	19464952	500.0	500.0	
2	5.463	5.463	0.000	15851226	500.0	500.0	
2	5.590	5.590	0.000	17884808	500.0	500.0	
2	5.863	5.863	0.000	17764084	500.0	500.0	
2	6.163	6.163	0.000	19845138	500.0	500.0	
		Average of Peak Amounts =				500.0	
						RPD = 0.00	
S 8 Polychlorinated biphenyls, Total							
1						500.0	
2						500.0	
						RPD = 0.00	

QC Flag Legend
Processing Flags

Review Flags
a - User Assigned ID

Reagents:

AR_1248_L7_00034	Amount Added: 100.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

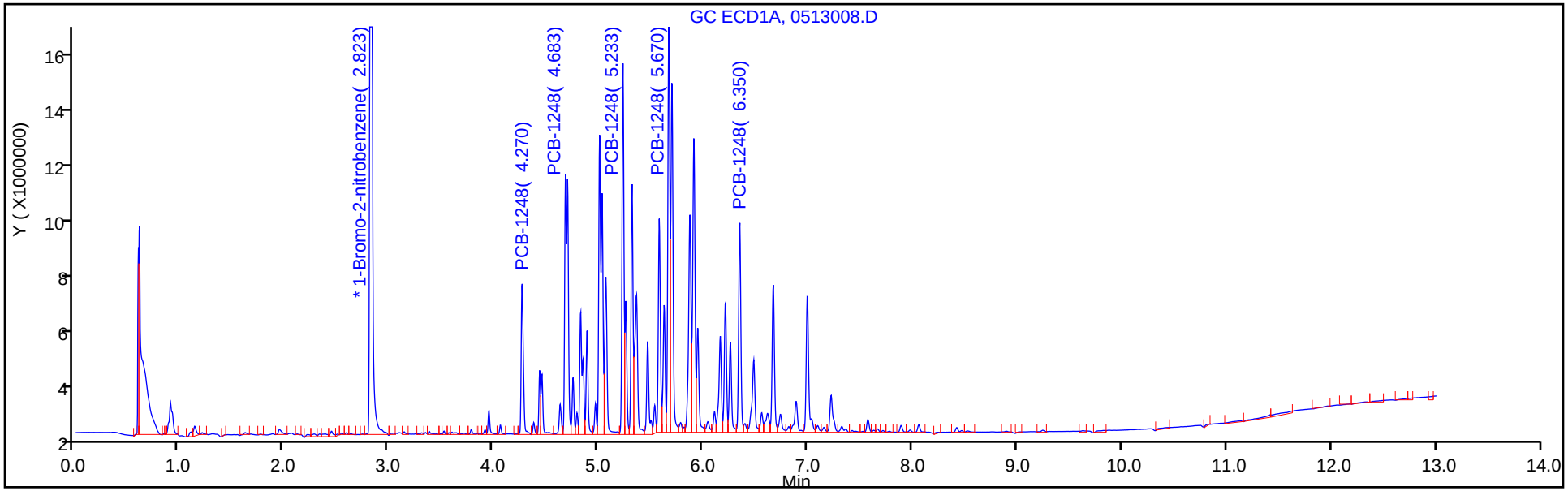
Report Date: 14-May-2024 12:52:34 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

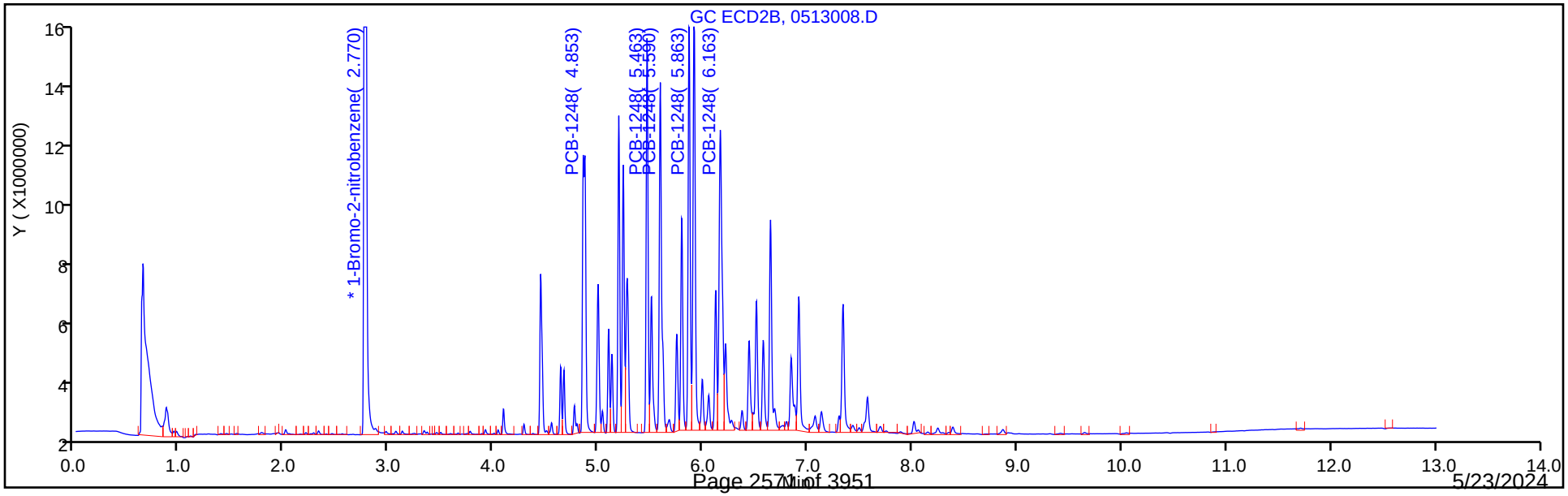
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Injection Date:	13-May-2024 11:46:10	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	STD1248			Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



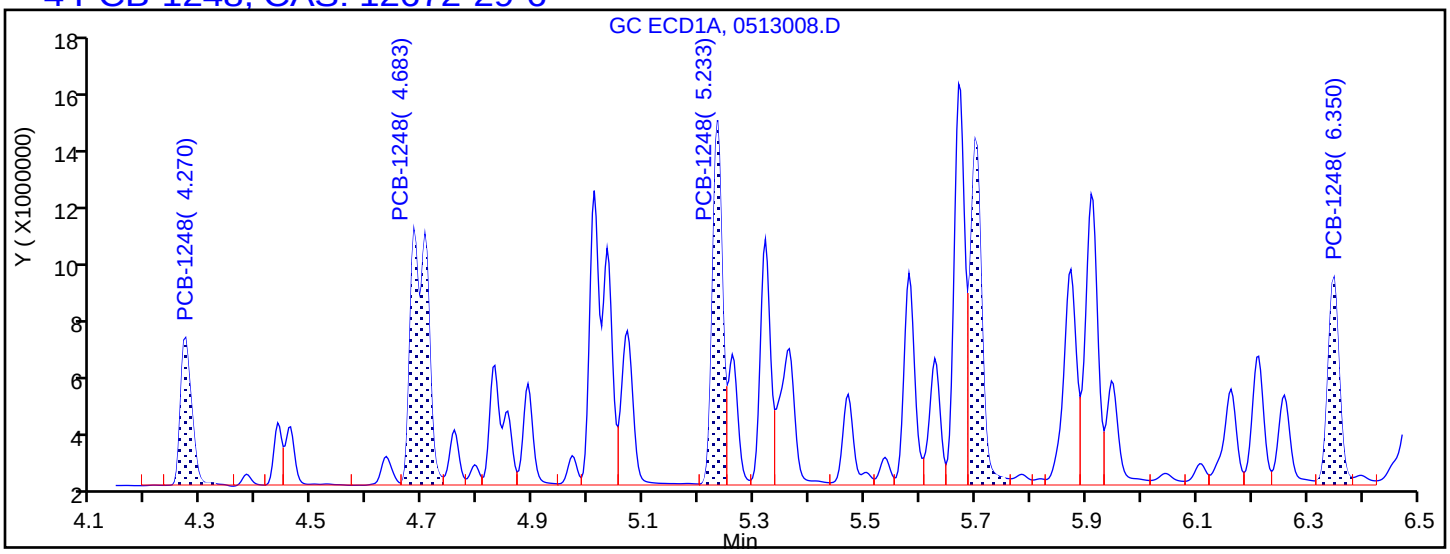
5/23/2024
4:40:30 AM

Report Date: 14-May-2024 12:52:34 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

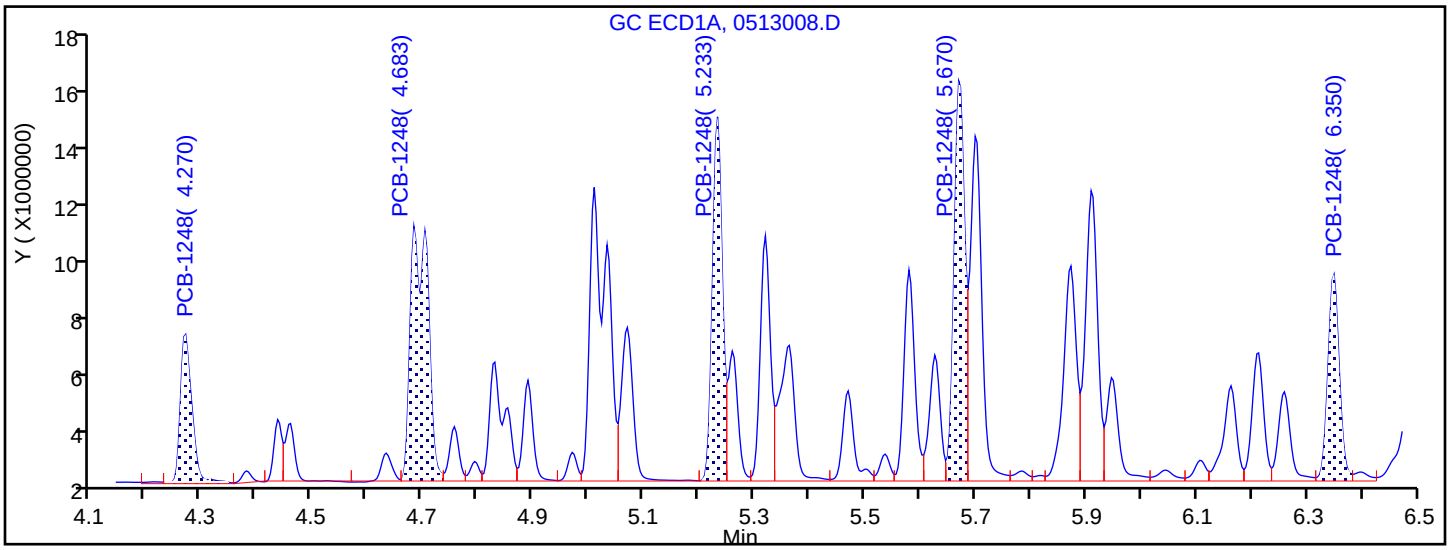
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D
Injection Date: 13-May-2024 11:46:10 Instrument ID: SGC_J
Lims ID: STD1248
Client ID:
Operator ID: SMP ALS Bottle#: 7 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP1 Pesticides Column 1 (0.32 mm) Detector GC ECD1A

4 PCB-1248, CAS: 12672-29-6



Processing Integration Results

4.270	Response = 7496274
4.683	Response = 19939912
5.233	Response = 16018023
5.700	Response = 17796480
6.350	Response = 10587151



Manual Integration Results

4.270	Response = 7496274	
4.683	Response = 19939912	
5.233	Response = 16018023	
5.670	Response = 19025844	M
6.350	Response = 10587151	

Reviewer: USP3, 14-May-2024 09:03:29 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Calibration / PCB-1248 Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

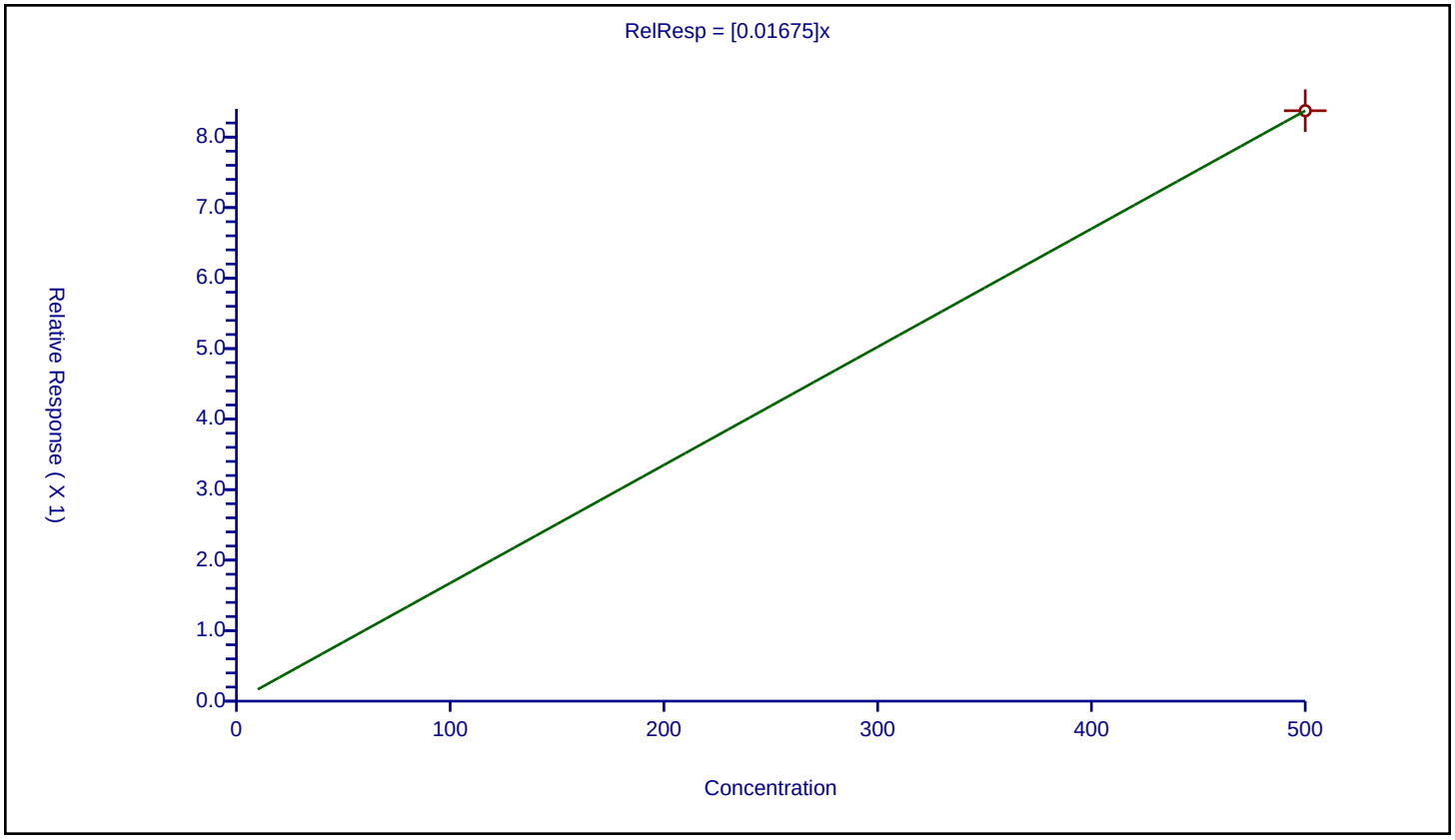
Curve Coefficients

Intercept:	0
Slope:	0.01675

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1248 280-653123/8	500.0	8.374072	100.0	89517669.0	0.016748	Y



Calibration / PCB-1248 Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

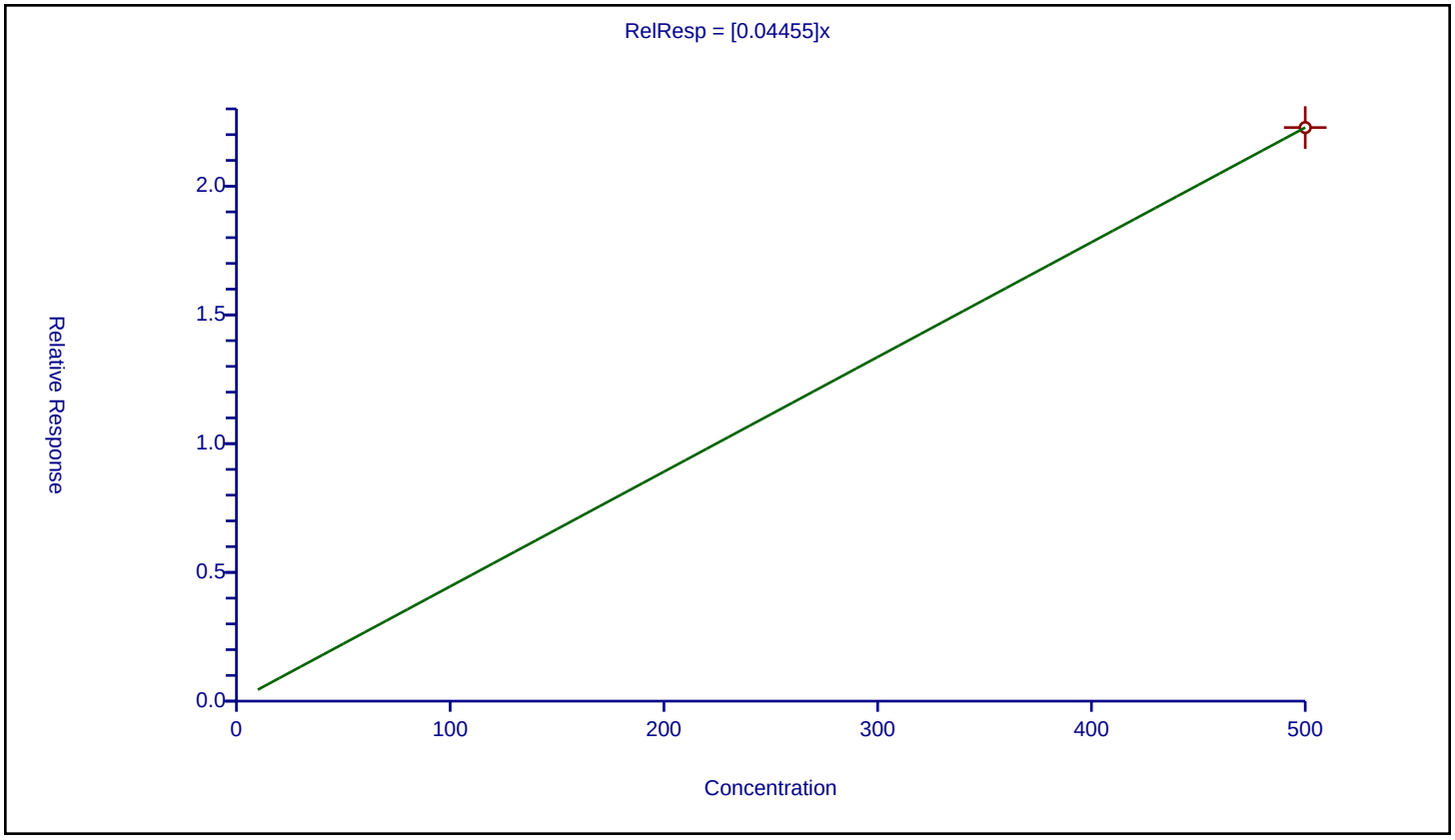
Curve Coefficients

Intercept:	0
Slope:	0.04455

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1248 280-653123/8	500.0	22.274834	100.0	89517669.0	0.04455	Y



Calibration / PCB-1248 Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

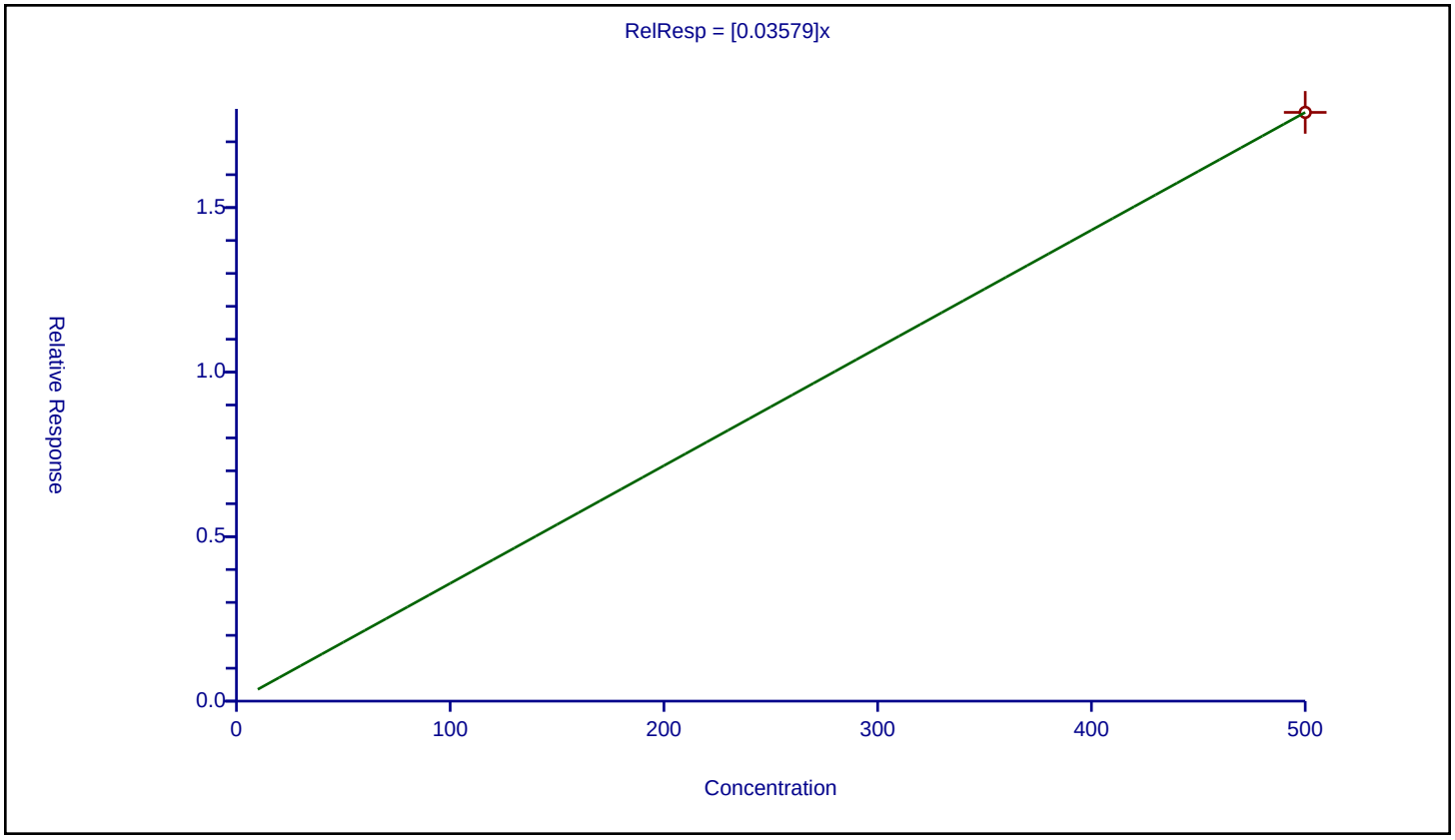
Curve Coefficients

Intercept:	0
Slope:	0.03579

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1248 280-653123/8	500.0	17.8937	100.0	89517669.0	0.035787	Y



Calibration / PCB-1248 Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

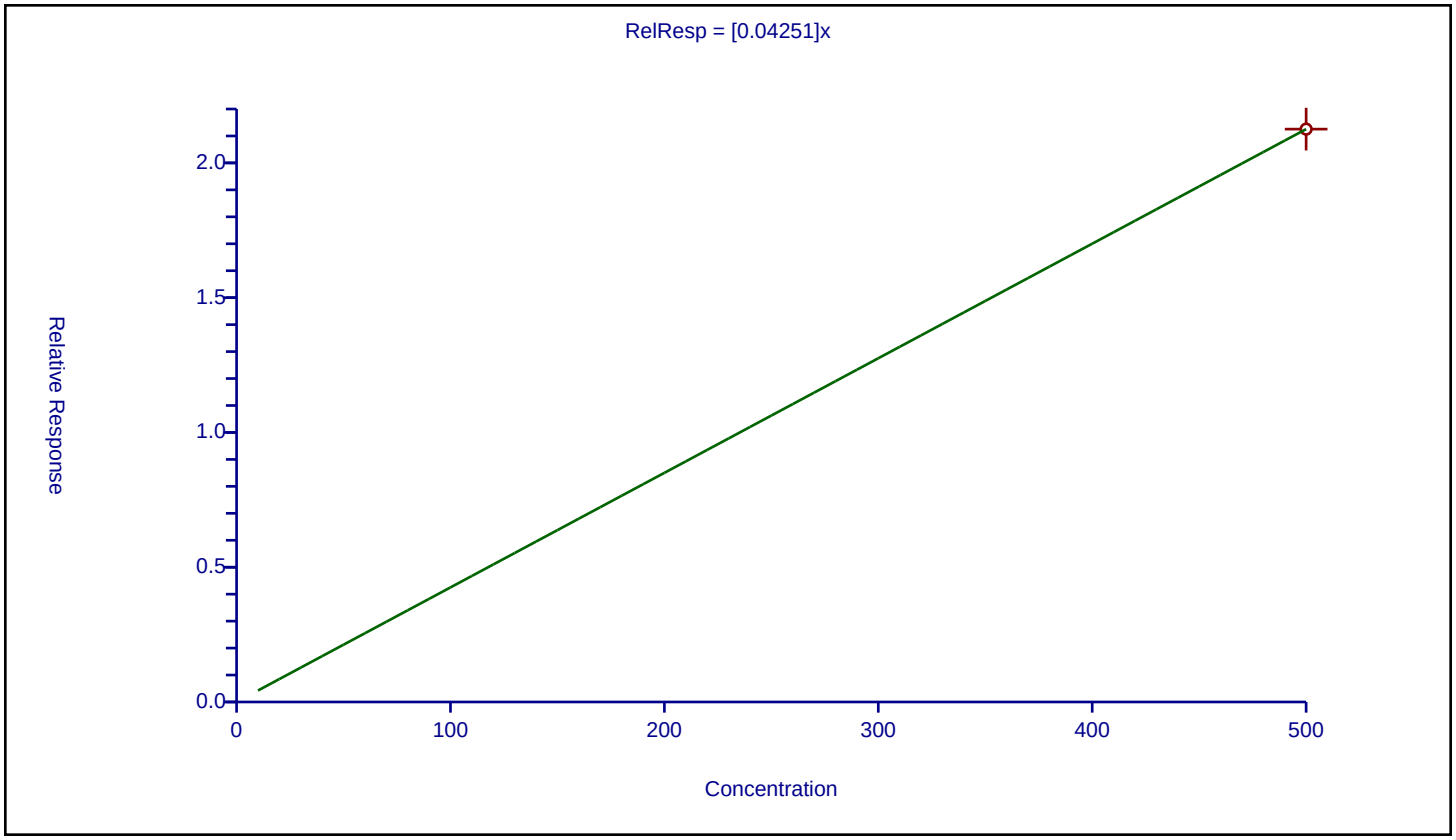
Curve Coefficients

Intercept:	0
Slope:	0.04251

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1248 280-653123/8	500.0	21.25373	100.0	89517669.0	0.042507	Y



Calibration / PCB-1248 Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

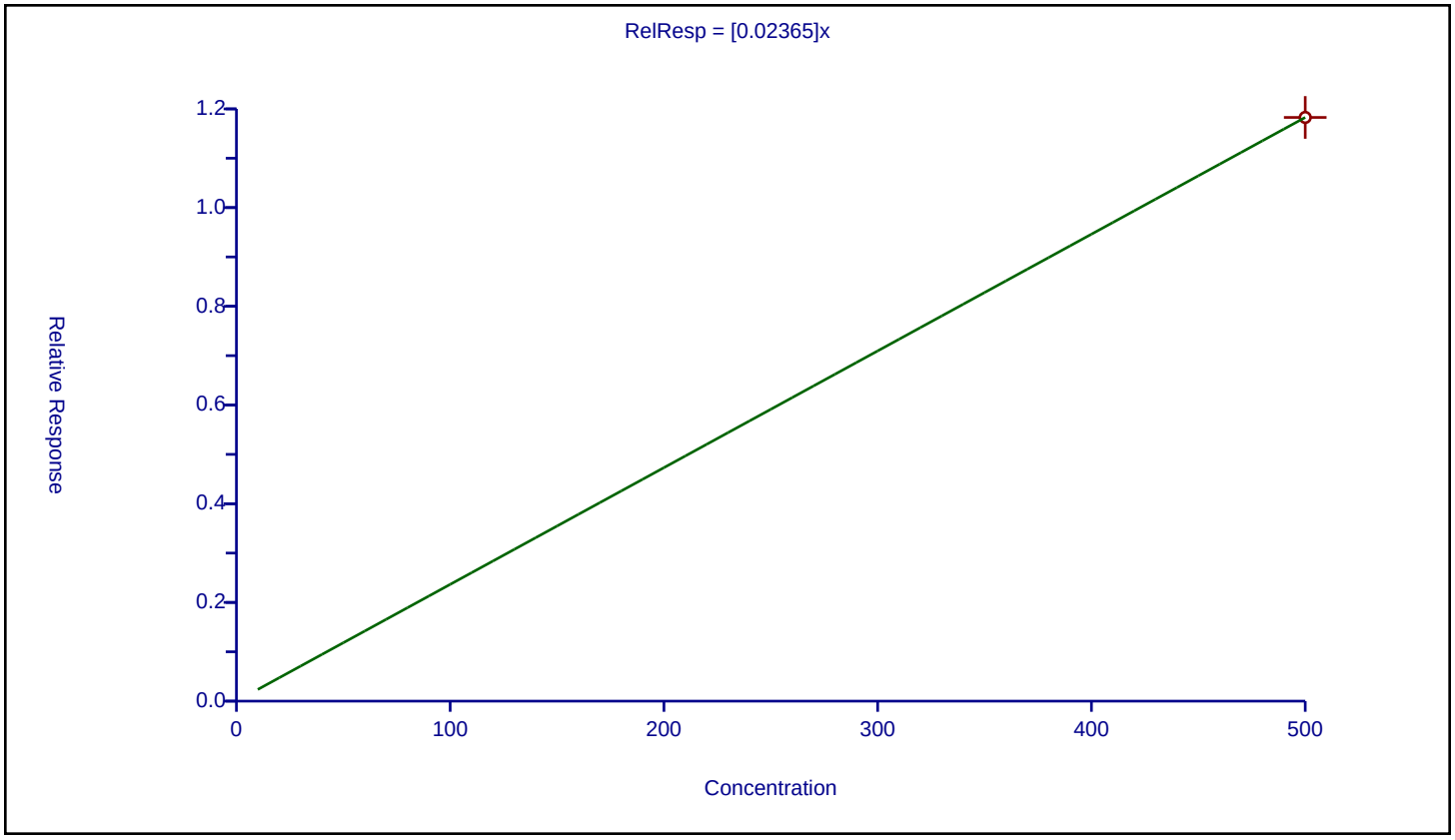
Curve Coefficients

Intercept:	0
Slope:	0.02365

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1248 280-653123/8	500.0	11.826884	100.0	89517669.0	0.023654	Y



FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 653123

SDG No.:

Instrument ID: SGC_J GC Column: CLP2 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 11:46 Calibration End Date: 05/13/2024 11:46 Calibration ID: 93340

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1248 280-653123/8	0513008.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
PCB-1248 Peak 1	0.0397					Ave		0.0397						20.0			
PCB-1248 Peak 2	0.0323					Ave		0.0323						20.0			
PCB-1248 Peak 3	0.0364					Ave		0.0364						20.0			
PCB-1248 Peak 4	0.0362					Ave		0.0362						20.0			
PCB-1248 Peak 5	0.0404					Ave		0.0404						20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 653123

SDG No.:

Instrument ID: SGC_J | GC Column: CLP2 | ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2024 11:46 | Calibration End Date: 05/13/2024 11:46 | Calibration ID: 93340

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1248 280-653123/8	0513008.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1					LVL 1				
PCB-1248 Peak 1	BNB	Ave	19464952					500				
PCB-1248 Peak 2	BNB	Ave	15851226					500				
PCB-1248 Peak 3	BNB	Ave	17884808					500				
PCB-1248 Peak 4	BNB	Ave	17764084					500				
PCB-1248 Peak 5	BNB	Ave	19845138					500				

Curve Type Legend:
Ave = Average ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D
Lims ID: STD1248
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 13-May-2024 11:46:10 ALS Bottle#: 7 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: STD1248
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub2

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:52:33 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 13-May-2024 14:32:26

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.823	2.823	0.000	89517669	100.0	100.0	
2	2.770	2.770	0.000	98179123	100.0	100.0	
						RPD = 0.00	
4 PCB-1248							a
1	4.270	4.270	0.000	7496274	500.0	500.0	
1	4.683	4.683	0.000	19939912	500.0	500.0	
1	5.233	5.233	0.000	16018023	500.0	500.0	
1	5.670	5.670	0.000	19025844	500.0	500.0	a
1	6.350	6.350	0.000	10587151	500.0	500.0	
		Average of Peak Amounts =				500.0	
2	4.853	4.853	0.000	19464952	500.0	500.0	
2	5.463	5.463	0.000	15851226	500.0	500.0	
2	5.590	5.590	0.000	17884808	500.0	500.0	
2	5.863	5.863	0.000	17764084	500.0	500.0	
2	6.163	6.163	0.000	19845138	500.0	500.0	
		Average of Peak Amounts =				500.0	
						RPD = 0.00	
S 8 Polychlorinated biphenyls, Total							
1						500.0	
2						500.0	
						RPD = 0.00	

QC Flag Legend
Processing Flags

Review Flags
a - User Assigned ID

Reagents:

AR_1248_L7_00034	Amount Added: 100.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

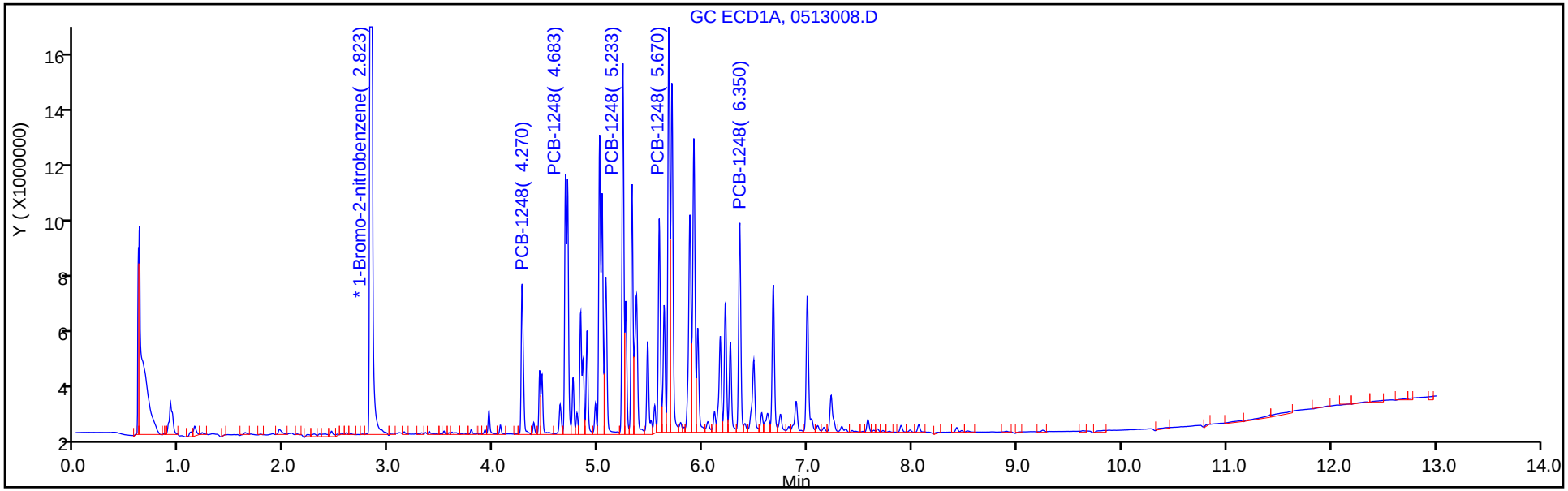
Report Date: 14-May-2024 12:52:34 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

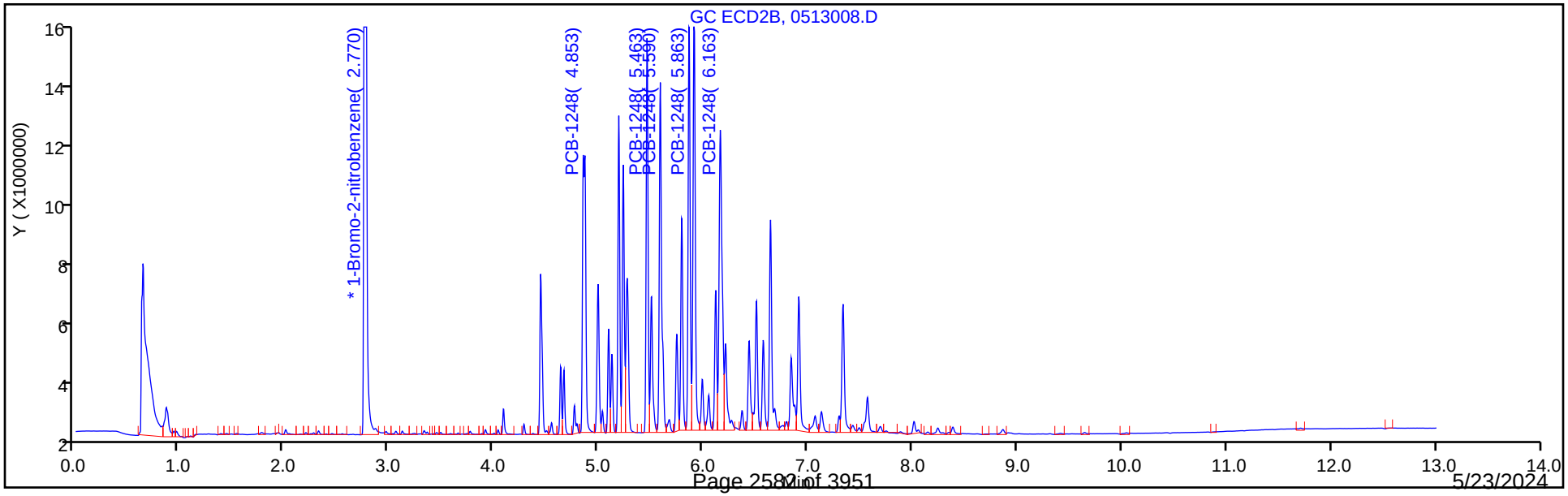
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Injection Date:	13-May-2024 11:46:10	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	STD1248			Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
4:40:30 AM

Calibration / PCB-1248 Peak 1

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

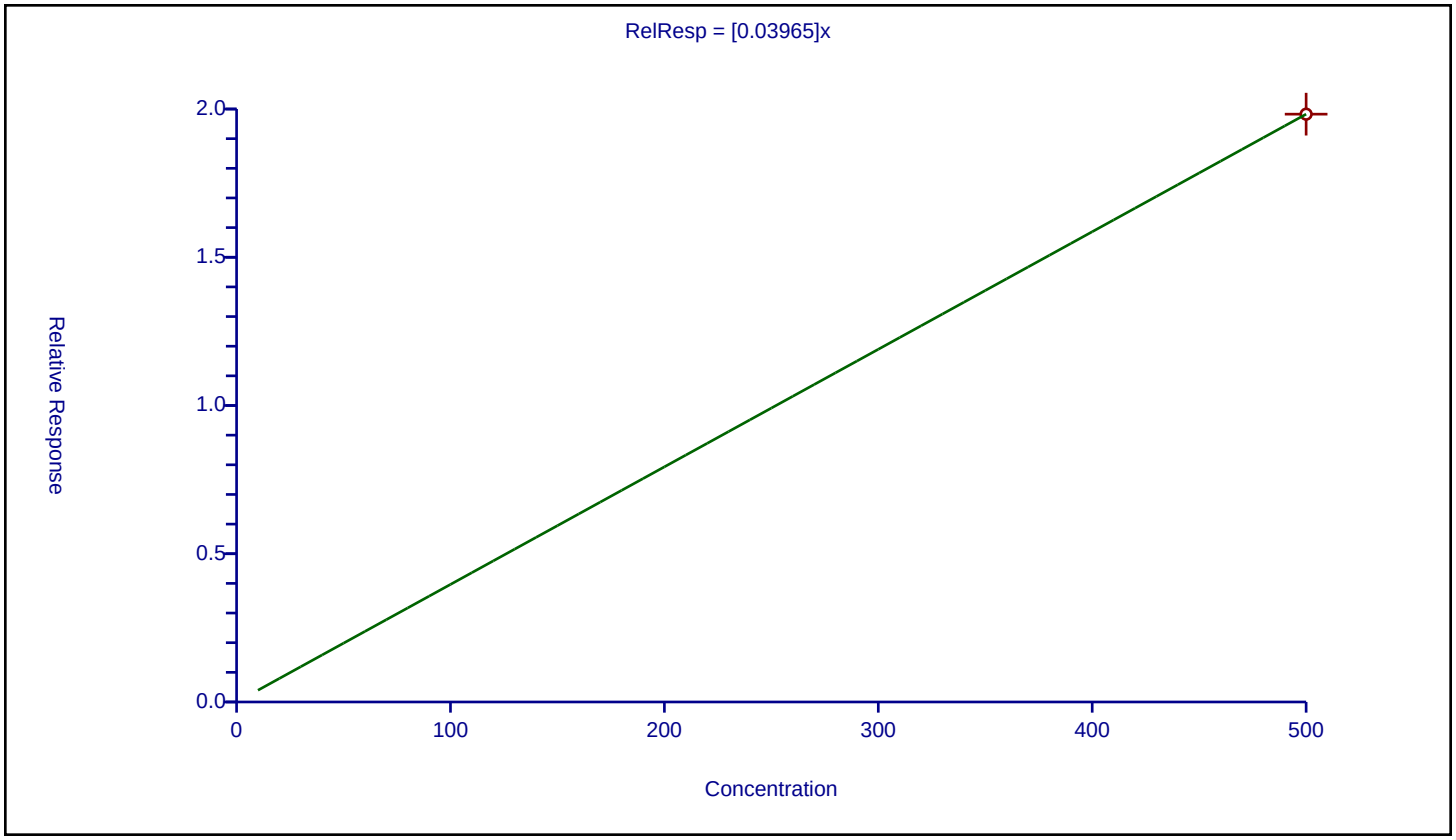
Curve Coefficients

Intercept:	0
Slope:	0.03965

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1248 280-653123/8	500.0	19.825958	100.0	98179123.0	0.039652	Y



Calibration / PCB-1248 Peak 2

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

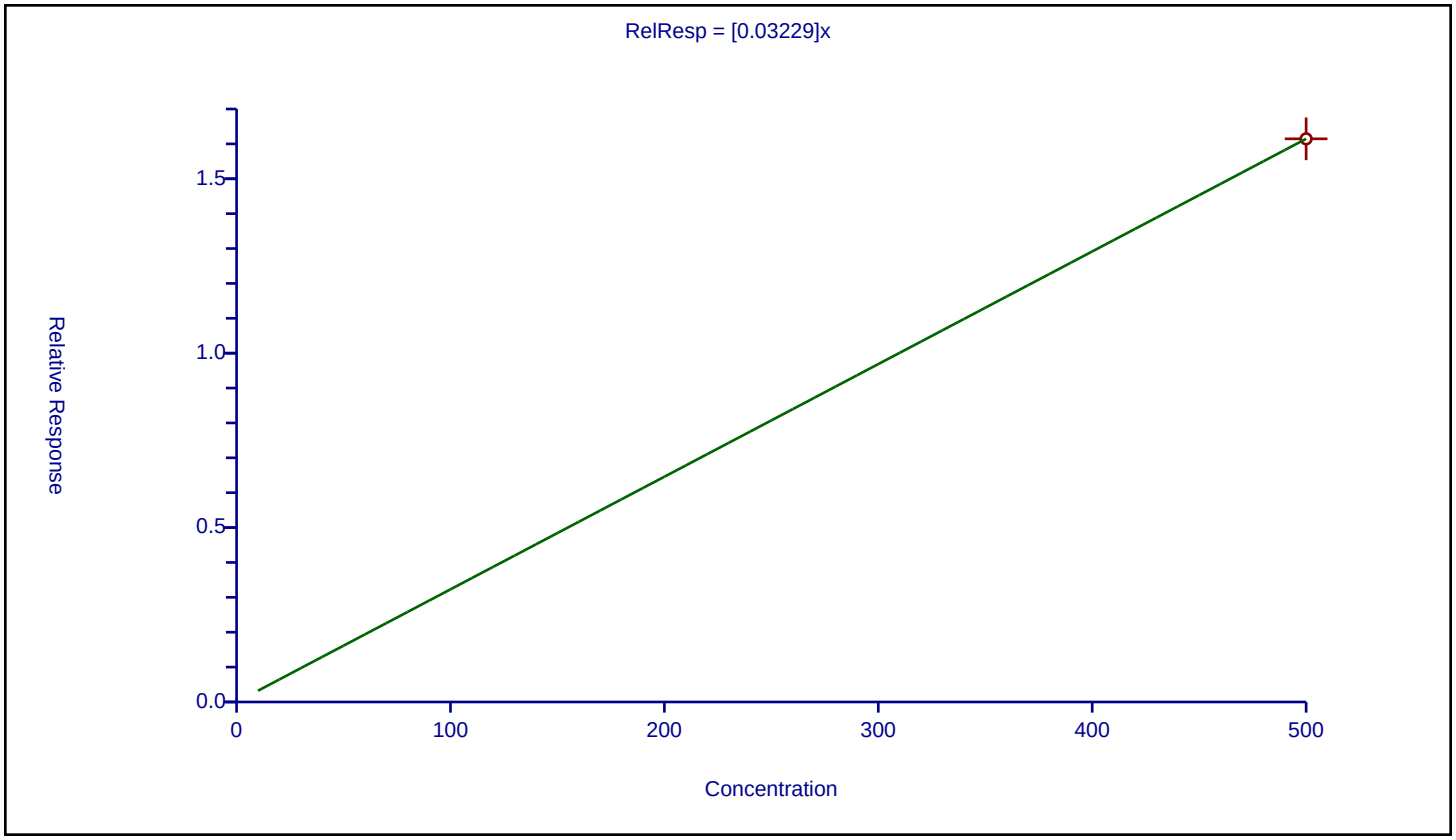
Curve Coefficients

Intercept:	0
Slope:	0.03229

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1248 280-653123/8	500.0	16.14521	100.0	98179123.0	0.03229	Y



Calibration / PCB-1248 Peak 3

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

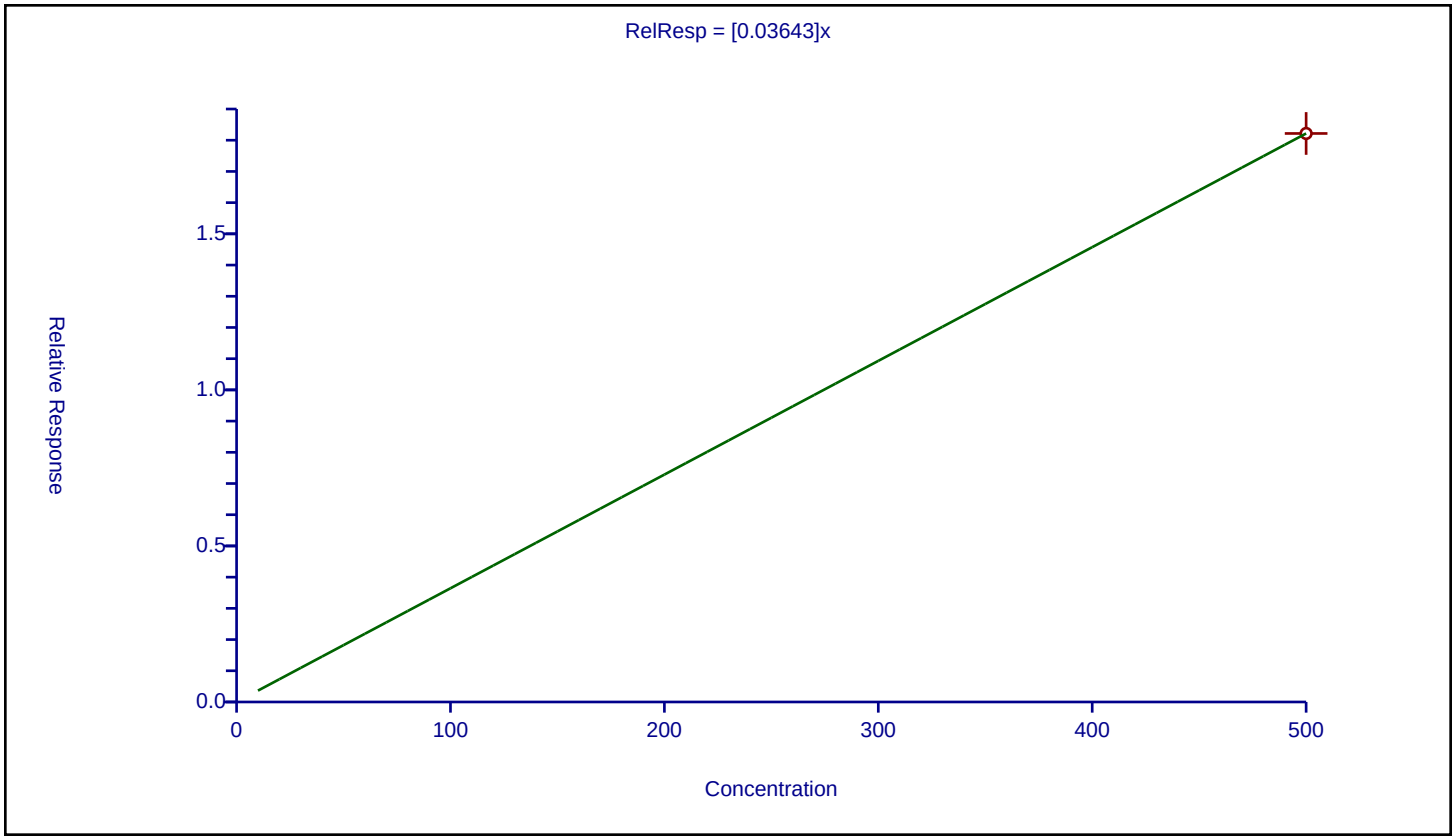
Curve Coefficients

Intercept:	0
Slope:	0.03643

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1248 280-653123/8	500.0	18.216508	100.0	98179123.0	0.036433	Y



Calibration / PCB-1248 Peak 4

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

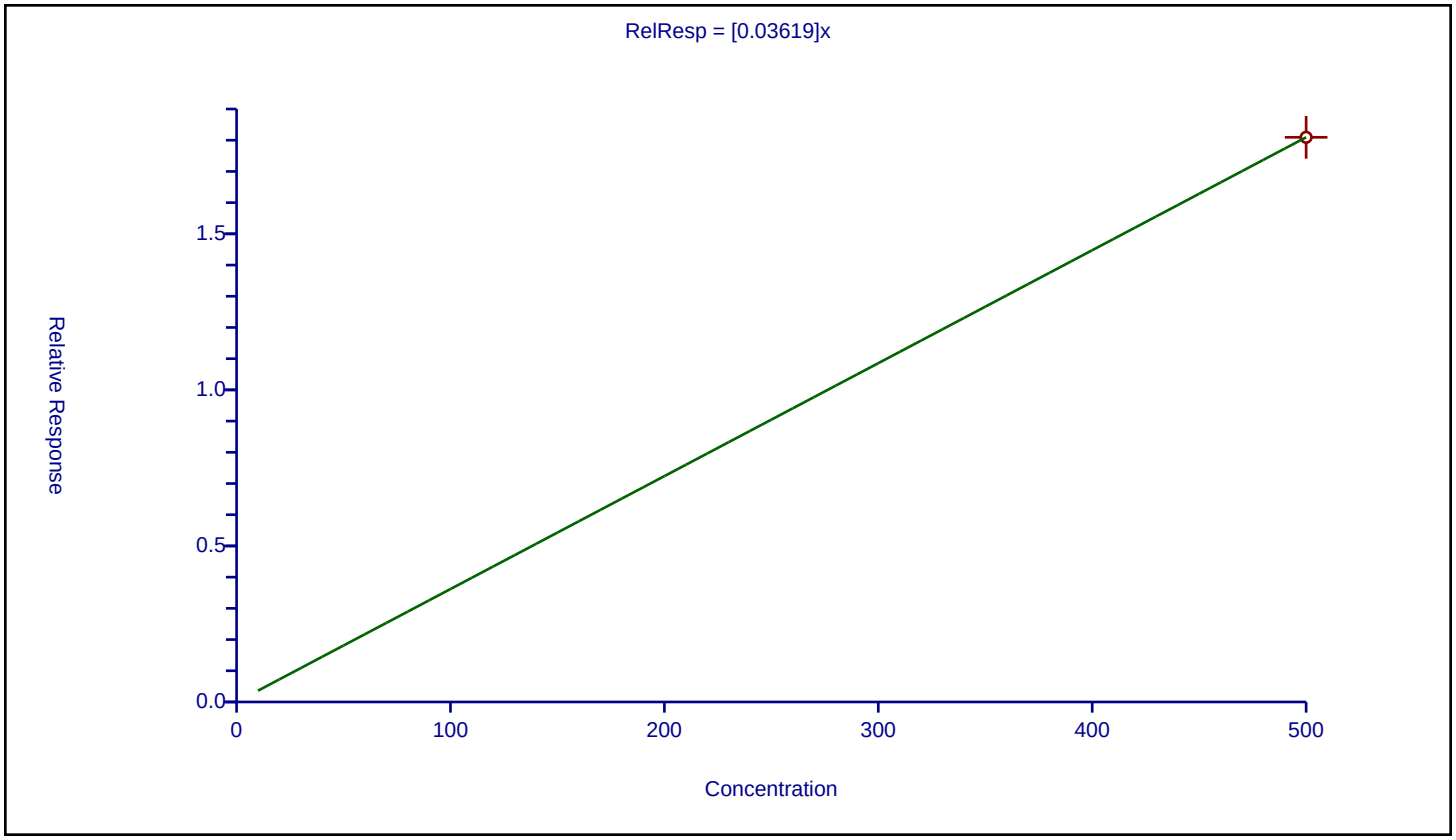
Curve Coefficients

Intercept:	0
Slope:	0.03619

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1248 280-653123/8	500.0	18.093545	100.0	98179123.0	0.036187	Y



Calibration / PCB-1248 Peak 5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

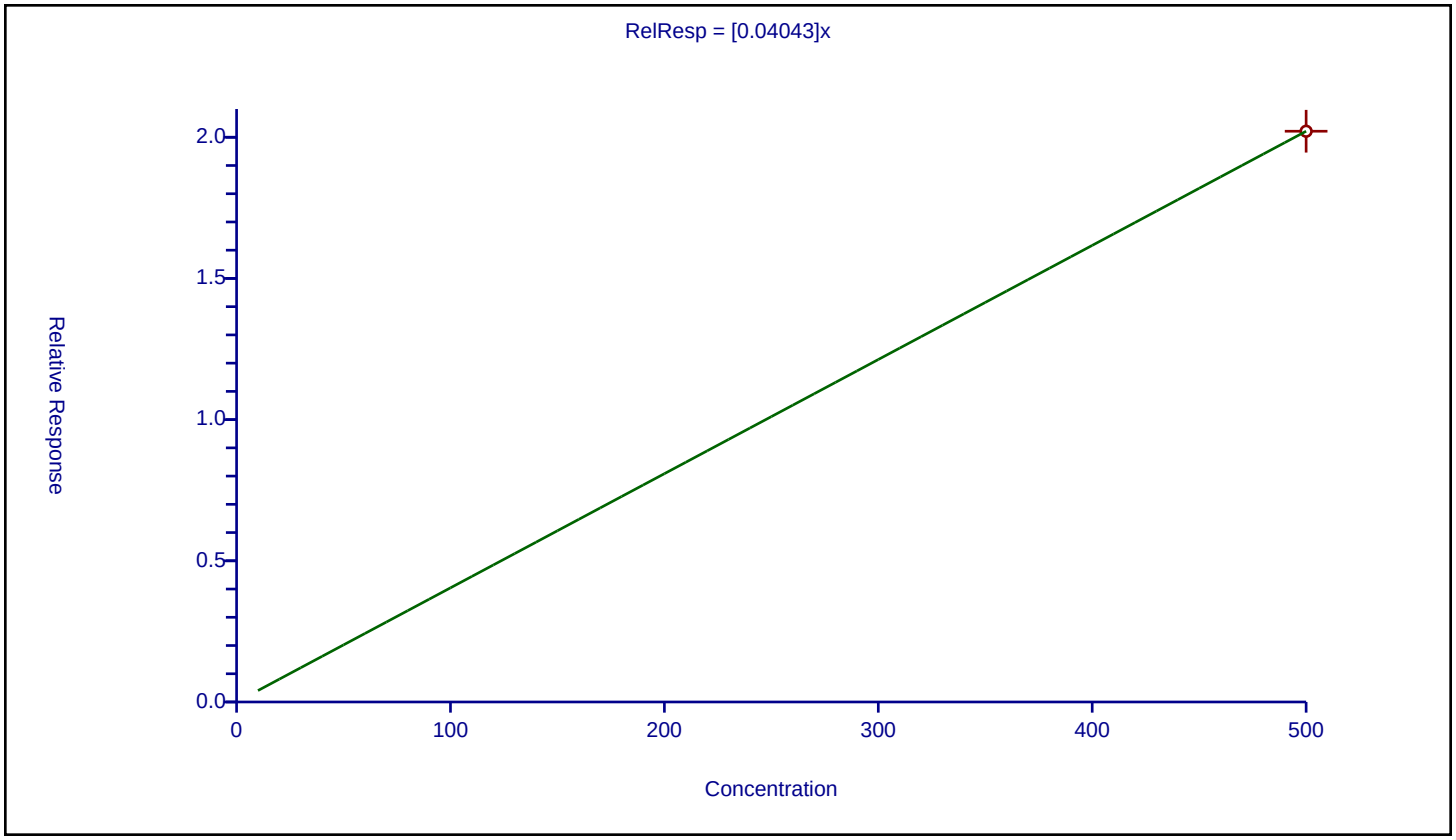
Curve Coefficients

Intercept:	0
Slope:	0.04043

Error Coefficients

Relative Standard Deviation:	0.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD1248 280-653123/8	500.0	20.213195	100.0	98179123.0	0.040426	Y



FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICV 280-646944/11 Calibration Date: 03/25/2024 12:17

Instrument ID: SGC_J Calib Start Date: 03/25/2024 10:20

GC Column: CLP1 ID: 0.32(mm) Calib End Date: 03/25/2024 12:01

Lab File ID: 0325011.D Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin2		0.0210		255	250	1.8	20.0
PCB-1016 Peak 2	Lin2		0.0405		251	250	0.4	20.0
PCB-1016 Peak 3	Lin2		0.0520		253	250	1.2	20.0
PCB-1016 Peak 4	Lin2		0.0369		251	250	0.3	20.0
PCB-1016 Peak 5	Lin2		0.0394		252	250	0.8	20.0
PCB-1260 Peak 1	Lin2		0.0542		264	250	5.7	20.0
PCB-1260 Peak 2	Lin2		0.0822		259	250	3.5	20.0
PCB-1260 Peak 3	Lin2		0.0903		252	250	0.8	20.0
PCB-1260 Peak 4	Lin2		0.1244		260	250	4.0	20.0
PCB-1260 Peak 5	Lin2		0.0632		265	250	5.9	20.0
Tetrachloro-m-xylene	Lin2		1.228		12.6	12.5	0.4	20.0
DCB Decachlorobiphenyl	Lin2		1.130		12.4	12.5	-0.5	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICV 280-646944/11 Calibration Date: 03/25/2024 12:17

Instrument ID: SGC_J Calib Start Date: 03/25/2024 10:20

GC Column: CLP1 ID: 0.32(mm) Calib End Date: 03/25/2024 12:01

Lab File ID: 0325011.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	3.96	3.93	3.98
PCB-1016 Peak 2	4.27	4.25	4.30
PCB-1016 Peak 3	4.71	4.68	4.73
PCB-1016 Peak 4	4.83	4.81	4.86
PCB-1016 Peak 5	5.24	5.21	5.26
PCB-1260 Peak 1	6.56	6.54	6.59
PCB-1260 Peak 2	6.89	6.86	6.91
PCB-1260 Peak 3	7.23	7.20	7.25
PCB-1260 Peak 4	8.07	8.04	8.09
PCB-1260 Peak 5	8.43	8.40	8.45
Tetrachloro-m-xylene	3.62	3.59	3.64
DCB Decachlorobiphenyl	9.87	9.85	9.90

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325011.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 25-Mar-2024 12:17:57 ALS Bottle#: 10 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV
Operator ID: SMP Instrument ID: SGC_J
Sublist:

Method: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 26-Mar-2024 08:02:52 Calib Date: 25-Mar-2024 13:41:25
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325017.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1643

First Level Reviewer: USP3 Date: 25-Mar-2024 12:52:13

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.829	2.826	0.003	93917251	100.0	100.0	
2	2.769	2.770	-0.001	105670663	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.619	3.618	0.001	14411291	12.5	12.6	
2	3.662	3.662	0.000	14873761	12.5	12.4	
						RPD = 1.05	
1 PCB-1016							M
1	3.955	3.955	0.000	4939416	250.0	254.5	
1	4.272	4.271	0.001	9501110	250.0	251.0	
1	4.709	4.705	0.004	12206526	250.0	253.1	
1	4.832	4.831	0.001	8660180	250.0	250.7	
1	5.239	5.235	0.004	9251546	250.0	252.0	M
		Average of Peak Amounts =				252.3	
2	4.096	4.095	0.001	5099286	250.0	254.4	
2	4.449	4.452	-0.003	10238614	250.0	252.3	
2	4.872	4.872	0.000	20896515	250.0	249.1	
2	5.002	4.998	0.004	9057098	250.0	252.5	
2	5.469	5.468	0.001	6856162	250.0	246.3	
		Average of Peak Amounts =				250.9	
						RPD = 0.54	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							
1	6.562	6.561	0.001	12729091	250.0	264.3	
1	6.889	6.888	0.001	19296085	250.0	258.9	
1	7.225	7.225	0.000	21207934	250.0	252.0	
1	8.065	8.065	0.000	29200706	250.0	260.1	
1	8.429	8.428	0.001	14840382	250.0	264.7	
		Average of Peak Amounts =				260.0	
2	6.879	6.878	0.001	13567746	250.0	244.0	
2	7.136	7.135	0.001	15916809	250.0	265.3	
2	7.572	7.575	-0.003	20473219	250.0	249.4	
2	8.392	8.392	0.000	27783231	250.0	260.0	
2	8.869	8.868	0.001	19064132	250.0	252.4	
		Average of Peak Amounts =				254.2	
						RPD = 2.24	
$ 15 DCB Decachlorobiphenyl							
1	9.872	9.871	0.001	13268586	12.5	12.4	
2	10.326	10.328	-0.002	12994404	12.5	12.7	
						RPD = 1.95	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

AR_1660_ICV_00029	Amount Added: 50.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

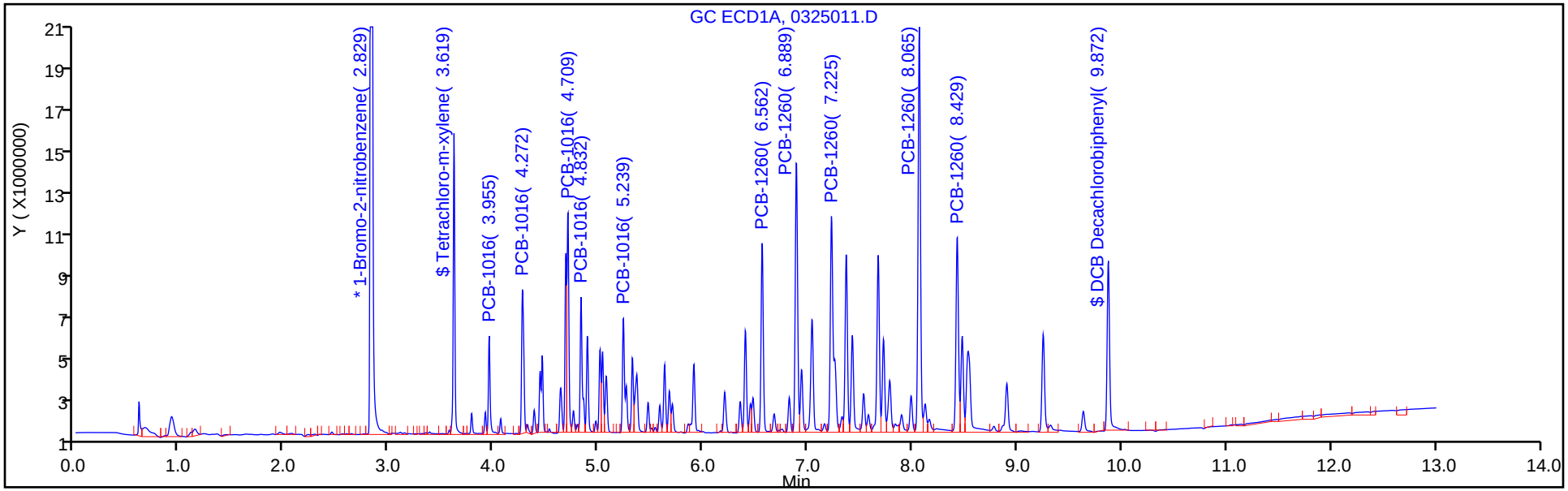
Report Date: 26-Mar-2024 08:03:18 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

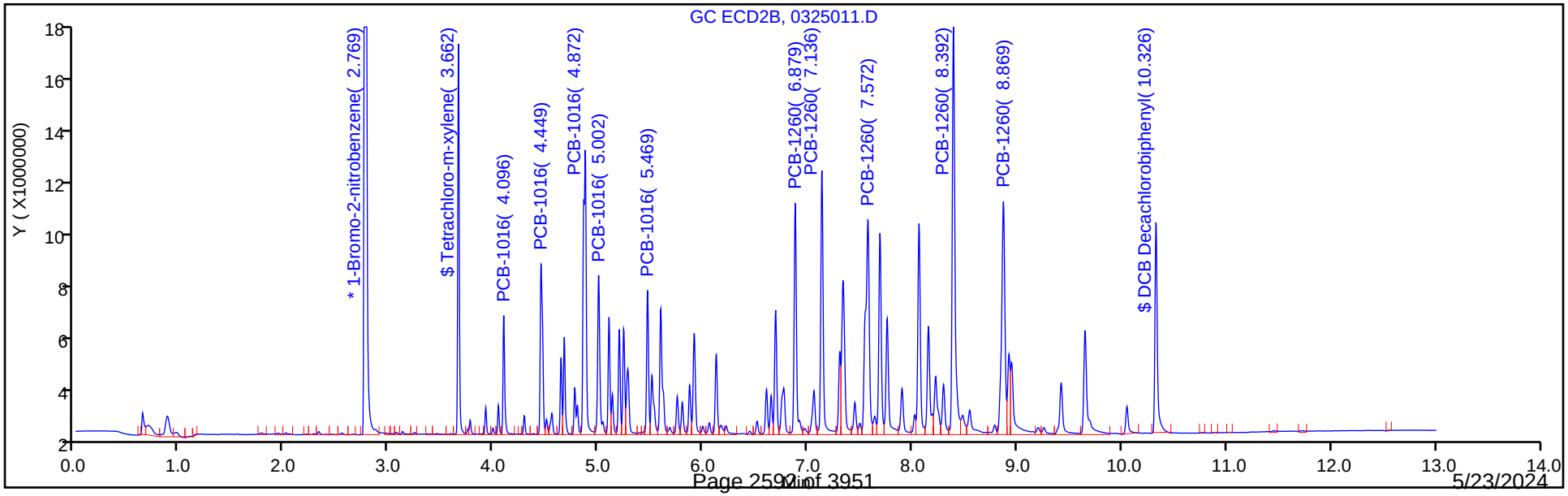
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325011.D

Injection Date:	25-Mar-2024 12:17:57	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	ICV			Worklist Smp#:	11
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



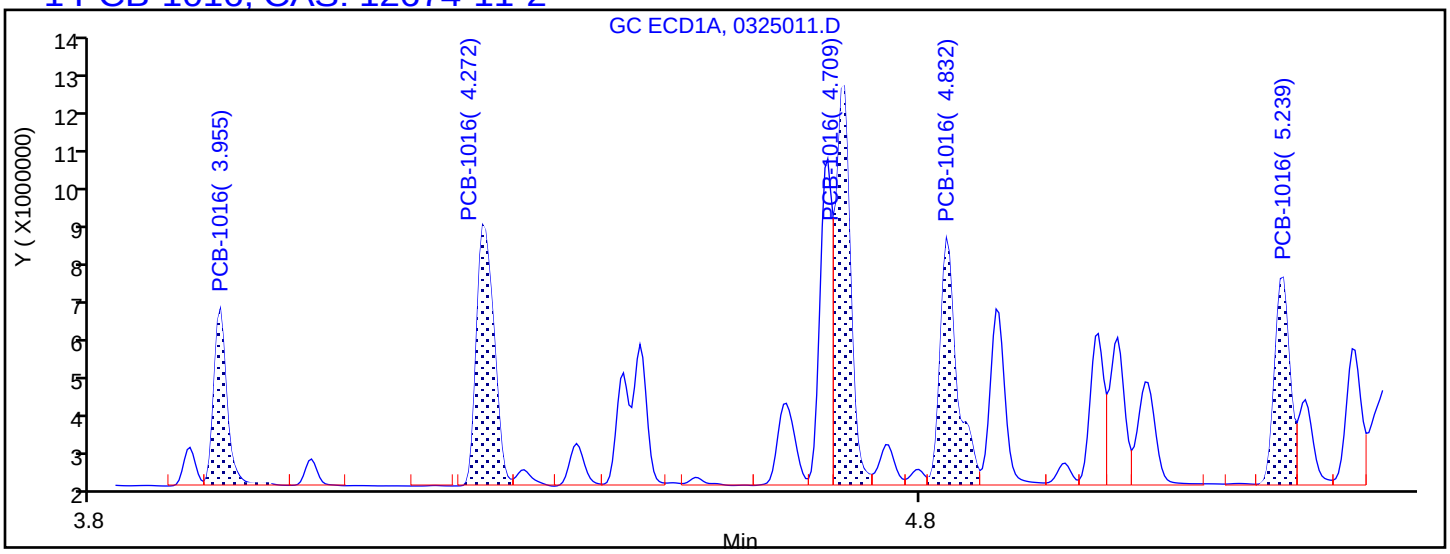
5/23/2024
4:40:30 AM

Report Date: 26-Mar-2024 08:03:19 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

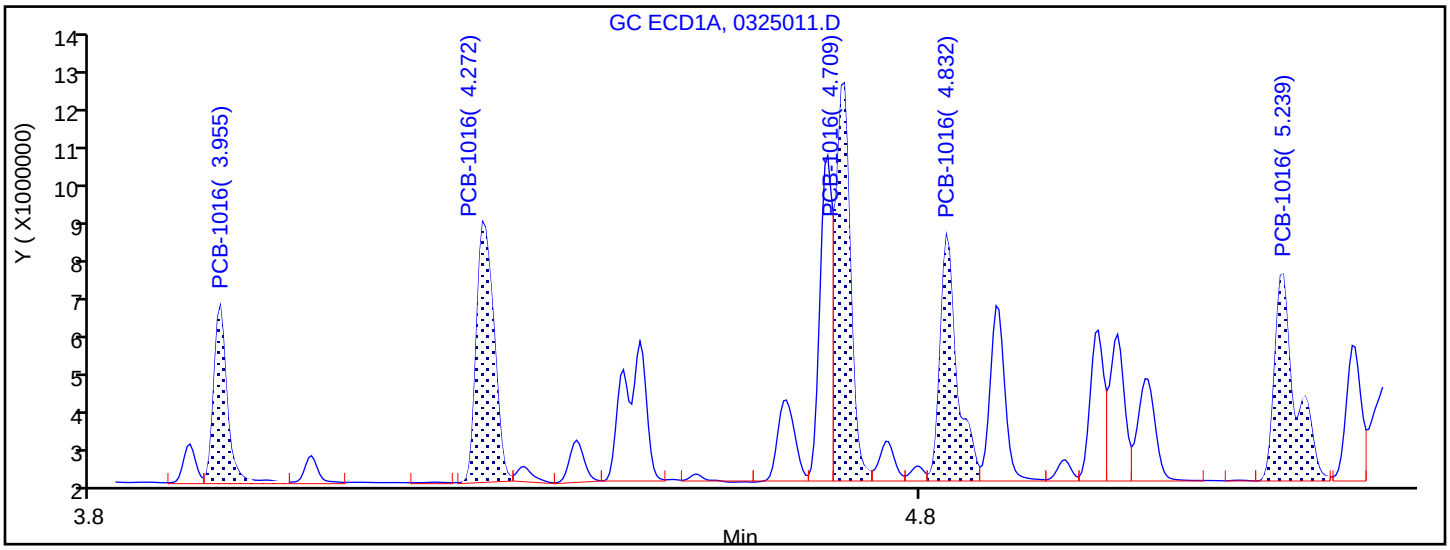
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325011.D
Injection Date: 25-Mar-2024 12:17:57 Instrument ID: SGC_J
Lims ID: ICV
Client ID:
Operator ID: SMP ALS Bottle#: 10 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP1 Pesticides Column 1 (0.32 mm) Detector GC ECD1A

1 PCB-1016, CAS: 12674-11-2



Processing Integration Results

3.955	Response = 4939416
4.272	Response = 9501110
4.709	Response = 12206526
4.832	Response = 8660180
5.239	Response = 6612030



Manual Integration Results

3.955	Response = 4939416	
4.272	Response = 9501110	
4.709	Response = 12206526	
4.832	Response = 8660180	
5.239	Response = 9251546	M

Reviewer: USP3, 25-Mar-2024 12:48:23 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Split Peak

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICV 280-646944/11 Calibration Date: 03/25/2024 12:17

Instrument ID: SGC_J Calib Start Date: 03/25/2024 10:20

GC Column: CLP2 ID: 0.32(mm) Calib End Date: 03/25/2024 12:01

Lab File ID: 0325011.D Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin2		0.0193		254	250	1.8	20.0
PCB-1016 Peak 2	Lin2		0.0388		252	250	0.9	20.0
PCB-1016 Peak 3	Lin2		0.0791		249	250	-0.4	20.0
PCB-1016 Peak 4	Lin2		0.0343		252	250	1.0	20.0
PCB-1016 Peak 5	Lin2		0.0260		246	250	-1.5	20.0
PCB-1260 Peak 1	Lin2		0.0514		244	250	-2.4	20.0
PCB-1260 Peak 2	Lin2		0.0603		265	250	6.1	20.0
PCB-1260 Peak 3	Lin2		0.0775		249	250	-0.2	20.0
PCB-1260 Peak 4	Lin2		0.1052		260	250	4.0	20.0
PCB-1260 Peak 5	Lin2		0.0722		252	250	0.9	20.0
Tetrachloro-m-xylene	Lin2		1.126		12.4	12.5	-0.6	20.0
DCB Decachlorobiphenyl	Lin2		0.9838		12.7	12.5	1.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICV 280-646944/11 Calibration Date: 03/25/2024 12:17

Instrument ID: SGC_J Calib Start Date: 03/25/2024 10:20

GC Column: CLP2 ID: 0.32(mm) Calib End Date: 03/25/2024 12:01

Lab File ID: 0325011.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	4.10	4.07	4.12
PCB-1016 Peak 2	4.45	4.43	4.48
PCB-1016 Peak 3	4.87	4.85	4.90
PCB-1016 Peak 4	5.00	4.97	5.02
PCB-1016 Peak 5	5.47	5.44	5.49
PCB-1260 Peak 1	6.88	6.85	6.90
PCB-1260 Peak 2	7.14	7.11	7.16
PCB-1260 Peak 3	7.57	7.55	7.60
PCB-1260 Peak 4	8.39	8.37	8.42
PCB-1260 Peak 5	8.87	8.84	8.89
Tetrachloro-m-xylene	3.66	3.64	3.69
DCB Decachlorobiphenyl	10.33	10.30	10.35

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325011.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 25-Mar-2024 12:17:57 ALS Bottle#: 10 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV
Operator ID: SMP Instrument ID: SGC_J
Sublist:

Method: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 26-Mar-2024 08:02:52 Calib Date: 25-Mar-2024 13:41:25
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325017.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1643

First Level Reviewer: USP3 Date: 25-Mar-2024 12:52:13

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.829	2.826	0.003	93917251	100.0	100.0	
2	2.769	2.770	-0.001	105670663	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.619	3.618	0.001	14411291	12.5	12.6	
2	3.662	3.662	0.000	14873761	12.5	12.4	
						RPD = 1.05	
1 PCB-1016							M
1	3.955	3.955	0.000	4939416	250.0	254.5	
1	4.272	4.271	0.001	9501110	250.0	251.0	
1	4.709	4.705	0.004	12206526	250.0	253.1	
1	4.832	4.831	0.001	8660180	250.0	250.7	
1	5.239	5.235	0.004	9251546	250.0	252.0	M
		Average of Peak Amounts =				252.3	
2	4.096	4.095	0.001	5099286	250.0	254.4	
2	4.449	4.452	-0.003	10238614	250.0	252.3	
2	4.872	4.872	0.000	20896515	250.0	249.1	
2	5.002	4.998	0.004	9057098	250.0	252.5	
2	5.469	5.468	0.001	6856162	250.0	246.3	
		Average of Peak Amounts =				250.9	
						RPD = 0.54	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							
1	6.562	6.561	0.001	12729091	250.0	264.3	
1	6.889	6.888	0.001	19296085	250.0	258.9	
1	7.225	7.225	0.000	21207934	250.0	252.0	
1	8.065	8.065	0.000	29200706	250.0	260.1	
1	8.429	8.428	0.001	14840382	250.0	264.7	
		Average of Peak Amounts =				260.0	
2	6.879	6.878	0.001	13567746	250.0	244.0	
2	7.136	7.135	0.001	15916809	250.0	265.3	
2	7.572	7.575	-0.003	20473219	250.0	249.4	
2	8.392	8.392	0.000	27783231	250.0	260.0	
2	8.869	8.868	0.001	19064132	250.0	252.4	
		Average of Peak Amounts =				254.2	
						RPD = 2.24	
$ 15 DCB Decachlorobiphenyl							
1	9.872	9.871	0.001	13268586	12.5	12.4	
2	10.326	10.328	-0.002	12994404	12.5	12.7	
						RPD = 1.95	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

AR_1660_ICV_00029	Amount Added: 50.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

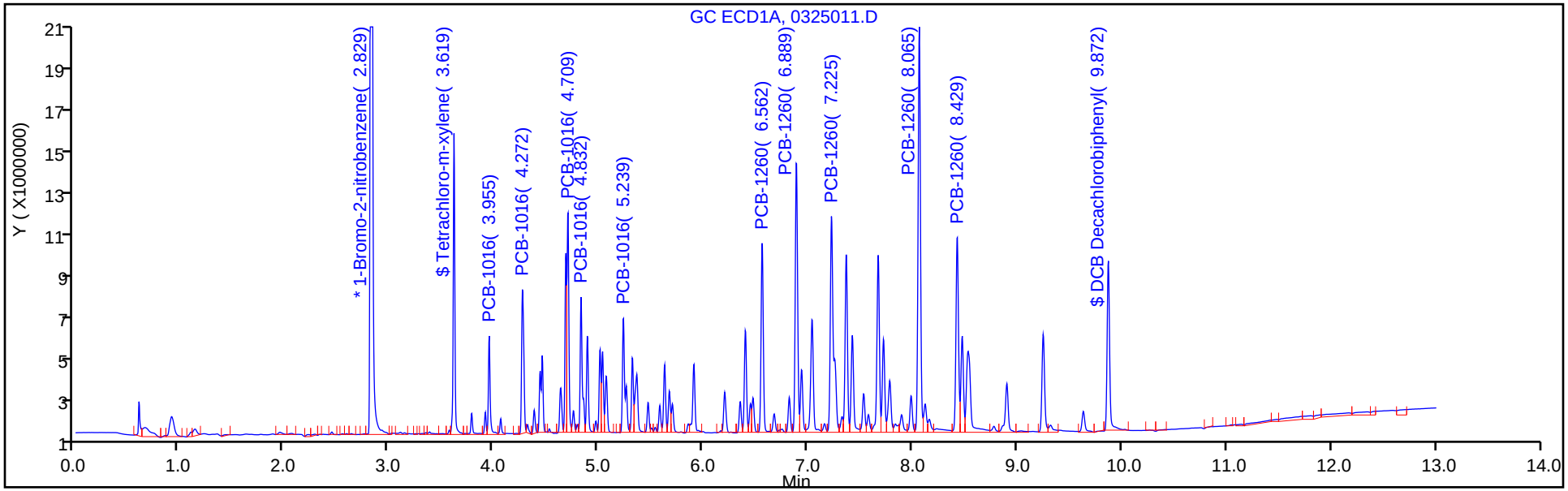
Report Date: 26-Mar-2024 08:03:19 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

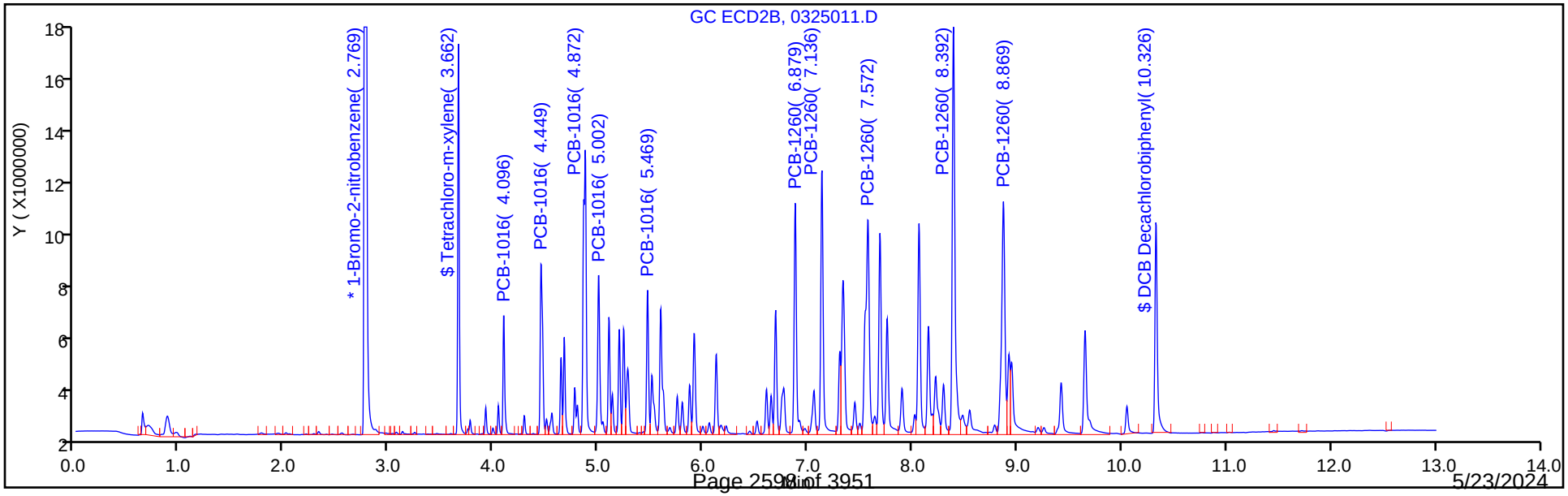
Data File: \\chromfs\Denver\ChromData\SGC_J\20240325-131479.b\0325011.D

Injection Date:	25-Mar-2024 12:17:57	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	ICV			Worklist Smp#:	11
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
4:40:30 AM

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVIS 280-653123/4 Calibration Date: 05/13/2024 10:35

Instrument ID: SGC_J Calib Start Date: 03/25/2024 10:20

GC Column: CLP1 ID: 0.32(mm) Calib End Date: 03/25/2024 12:01

Lab File ID: 0513004.D Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin2		0.0183		452	500	-9.6	20.0
PCB-1016 Peak 2	Lin2		0.0356		453	500	-9.4	20.0
PCB-1016 Peak 3	Lin2		0.0468		462	500	-7.5	20.0
PCB-1016 Peak 4	Lin2		0.0315		439	500	-12.3	20.0
PCB-1016 Peak 5	Lin2		0.0326		425	500	-15.0	20.0
PCB-1260 Peak 1	Lin2		0.0484		481	500	-3.7	20.0
PCB-1260 Peak 2	Lin2		0.0734		471	500	-5.8	20.0
PCB-1260 Peak 3	Lin2		0.0813		461	500	-7.7	20.0
PCB-1260 Peak 4	Lin2		0.1138		483	500	-3.4	20.0
PCB-1260 Peak 5	Lin2		0.0581		493	500	-1.3	20.0
Tetrachloro-m-xylene	Lin2		1.102		23.0	25.0	-7.9	20.0
DCB Decachlorobiphenyl	Lin2		1.104		24.4	25.0	-2.3	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVIS 280-653123/4 Calibration Date: 05/13/2024 10:35

Instrument ID: SGC_J Calib Start Date: 03/25/2024 10:20

GC Column: CLP1 ID: 0.32(mm) Calib End Date: 03/25/2024 12:01

Lab File ID: 0513004.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	3.95	3.93	3.98
PCB-1016 Peak 2	4.27	4.25	4.30
PCB-1016 Peak 3	4.71	4.68	4.73
PCB-1016 Peak 4	4.83	4.80	4.85
PCB-1016 Peak 5	5.24	5.21	5.26
PCB-1260 Peak 1	6.56	6.53	6.58
PCB-1260 Peak 2	6.89	6.86	6.91
PCB-1260 Peak 3	7.22	7.20	7.25
PCB-1260 Peak 4	8.06	8.03	8.08
PCB-1260 Peak 5	8.42	8.40	8.45
Tetrachloro-m-xylene	3.62	3.59	3.64
DCB Decachlorobiphenyl	9.87	9.84	9.89

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513004.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 13-May-2024 10:35:43 ALS Bottle#: 3 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub1

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:56:06 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 13-May-2024 12:44:22

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.825	2.825	0.000	94250210	100.0	100.0	
2	2.769	2.769	0.000	101845043	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.615	3.615	0.000	25974120	25.0	23.0	
2	3.659	3.659	0.000	25676978	25.0	22.6	
						RPD = 2.10	
1 PCB-1016							
1	3.952	3.952	0.000	8612218	500.0	451.8	
1	4.272	4.272	0.000	16769384	500.0	453.2	
1	4.705	4.705	0.000	22044225	500.0	462.4	
1	4.829	4.829	0.000	14839034	500.0	438.6	
1	5.235	5.235	0.000	15376048	500.0	424.9	
		Average of Peak Amounts =				446.2	
2	4.092	4.092	0.000	8436770	500.0	444.3	
2	4.449	4.449	0.000	17051245	500.0	444.5	
2	4.869	4.869	0.000	34960277	500.0	439.7	
2	4.995	4.995	0.000	14860420	500.0	437.1	
2	5.462	5.462	0.000	11142541	500.0	422.4	
		Average of Peak Amounts =				437.6	
						RPD = 1.93	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							
1	6.559	6.559	0.000	22818577	500.0	481.3	
1	6.885	6.885	0.000	34579004	500.0	470.8	
1	7.222	7.222	0.000	38316834	500.0	461.4	
1	8.059	8.059	0.000	53651187	500.0	483.2	
1	8.422	8.422	0.000	27376990	500.0	493.5	
		Average of Peak Amounts =				478.0	
2	6.872	6.872	0.000	22449554	500.0	426.5	
2	7.129	7.129	0.000	25580999	500.0	449.2	
2	7.565	7.565	0.000	33483487	500.0	430.0	
2	8.382	8.382	0.000	45185776	500.0	446.7	
2	8.862	8.862	0.000	28941858	500.0	402.6	
		Average of Peak Amounts =				431.0	
						RPD = 10.35	
$ 15 DCB Decachlorobiphenyl							
1	9.865	9.865	0.000	26004353	25.0	24.4	
2	10.319	10.319	0.000	22634837	25.0	23.4	
						RPD = 4.24	

QC Flag Legend

Processing Flags

Reagents:

AR_1660_ICV_00029	Amount Added: 100.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

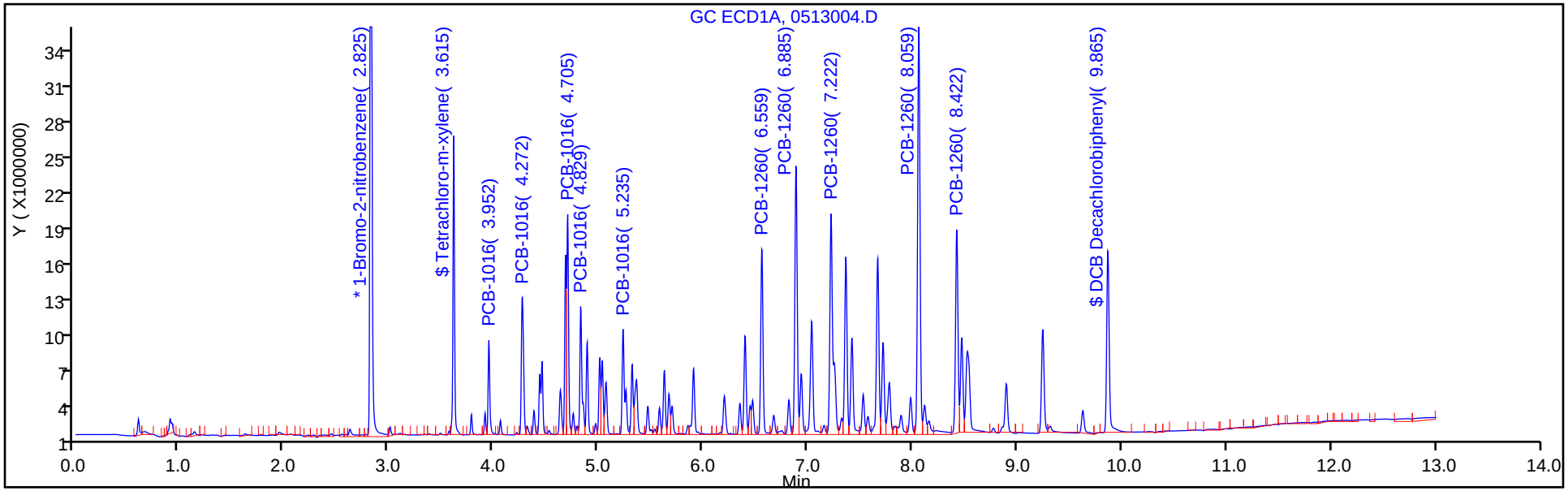
Report Date: 14-May-2024 12:56:07 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

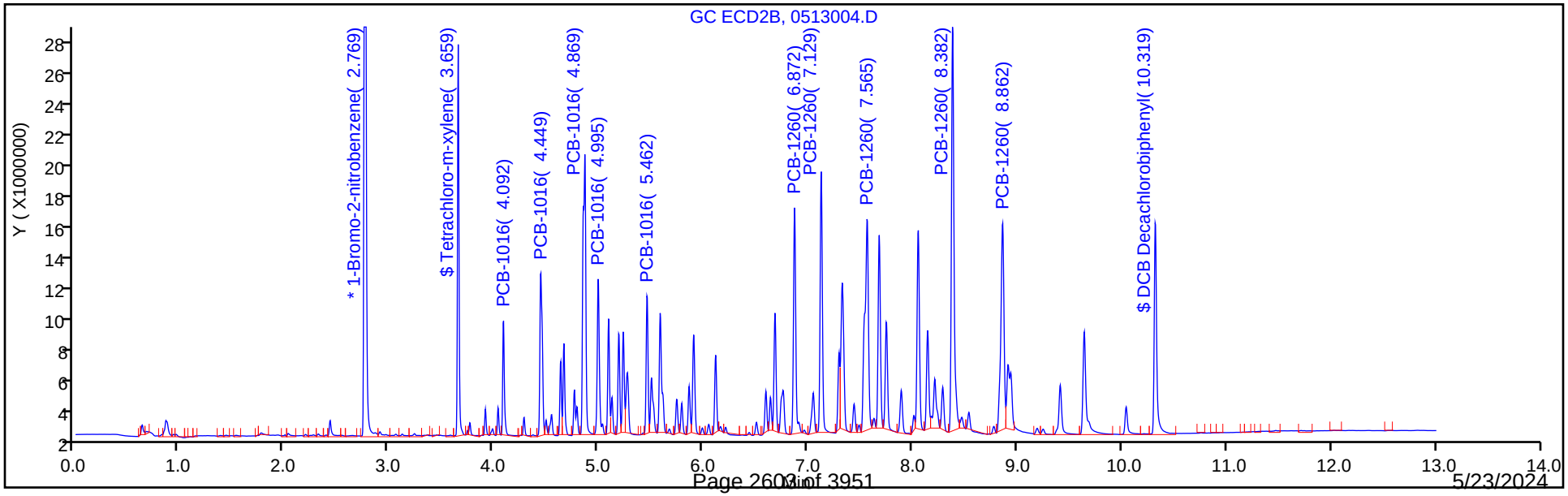
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513004.D

Injection Date:	13-May-2024 10:35:43	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	CCVIS			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
4:40:30 AM

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVIS 280-653123/4 Calibration Date: 05/13/2024 10:35

Instrument ID: SGC_J Calib Start Date: 03/25/2024 10:20

GC Column: CLP2 ID: 0.32(mm) Calib End Date: 03/25/2024 12:01

Lab File ID: 0513004.D Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin2		0.0166		444	500	-11.1	20.0
PCB-1016 Peak 2	Lin2		0.0335		444	500	-11.1	20.0
PCB-1016 Peak 3	Lin2		0.0687		440	500	-12.1	20.0
PCB-1016 Peak 4	Lin2		0.0292		437	500	-12.6	20.0
PCB-1016 Peak 5	Lin2		0.0219		422	500	-15.5	20.0
PCB-1260 Peak 1	Lin2		0.0441		426	500	-14.7	20.0
PCB-1260 Peak 2	Lin2		0.0502		449	500	-10.2	20.0
PCB-1260 Peak 3	Lin2		0.0658		430	500	-14.0	20.0
PCB-1260 Peak 4	Lin2		0.0887		447	500	-10.7	20.0
PCB-1260 Peak 5	Lin2		0.0568		403	500	-19.5	20.0
Tetrachloro-m-xylene	Lin2		1.008		22.6	25.0	-9.8	20.0
DCB Decachlorobiphenyl	Lin2		0.8890		23.4	25.0	-6.3	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCVIS 280-653123/4 Calibration Date: 05/13/2024 10:35

Instrument ID: SGC_J Calib Start Date: 03/25/2024 10:20

GC Column: CLP2 ID: 0.32(mm) Calib End Date: 03/25/2024 12:01

Lab File ID: 0513004.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	4.09	4.07	4.12
PCB-1016 Peak 2	4.45	4.42	4.47
PCB-1016 Peak 3	4.87	4.84	4.89
PCB-1016 Peak 4	5.00	4.97	5.02
PCB-1016 Peak 5	5.46	5.44	5.49
PCB-1260 Peak 1	6.87	6.85	6.90
PCB-1260 Peak 2	7.13	7.10	7.15
PCB-1260 Peak 3	7.57	7.54	7.59
PCB-1260 Peak 4	8.38	8.36	8.41
PCB-1260 Peak 5	8.86	8.84	8.89
Tetrachloro-m-xylene	3.66	3.63	3.68
DCB Decachlorobiphenyl	10.32	10.29	10.34

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513004.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 13-May-2024 10:35:43 ALS Bottle#: 3 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub1

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:56:06 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 13-May-2024 12:44:22

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.825	2.825	0.000	94250210	100.0	100.0	
2	2.769	2.769	0.000	101845043	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.615	3.615	0.000	25974120	25.0	23.0	
2	3.659	3.659	0.000	25676978	25.0	22.6	
						RPD = 2.10	
1 PCB-1016							
1	3.952	3.952	0.000	8612218	500.0	451.8	
1	4.272	4.272	0.000	16769384	500.0	453.2	
1	4.705	4.705	0.000	22044225	500.0	462.4	
1	4.829	4.829	0.000	14839034	500.0	438.6	
1	5.235	5.235	0.000	15376048	500.0	424.9	
		Average of Peak Amounts =				446.2	
2	4.092	4.092	0.000	8436770	500.0	444.3	
2	4.449	4.449	0.000	17051245	500.0	444.5	
2	4.869	4.869	0.000	34960277	500.0	439.7	
2	4.995	4.995	0.000	14860420	500.0	437.1	
2	5.462	5.462	0.000	11142541	500.0	422.4	
		Average of Peak Amounts =				437.6	
						RPD = 1.93	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							
1	6.559	6.559	0.000	22818577	500.0	481.3	
1	6.885	6.885	0.000	34579004	500.0	470.8	
1	7.222	7.222	0.000	38316834	500.0	461.4	
1	8.059	8.059	0.000	53651187	500.0	483.2	
1	8.422	8.422	0.000	27376990	500.0	493.5	
		Average of Peak Amounts =				478.0	
2	6.872	6.872	0.000	22449554	500.0	426.5	
2	7.129	7.129	0.000	25580999	500.0	449.2	
2	7.565	7.565	0.000	33483487	500.0	430.0	
2	8.382	8.382	0.000	45185776	500.0	446.7	
2	8.862	8.862	0.000	28941858	500.0	402.6	
		Average of Peak Amounts =				431.0	
						RPD = 10.35	
$ 15 DCB Decachlorobiphenyl							
1	9.865	9.865	0.000	26004353	25.0	24.4	
2	10.319	10.319	0.000	22634837	25.0	23.4	
						RPD = 4.24	

QC Flag Legend

Processing Flags

Reagents:

AR_1660_ICV_00029	Amount Added: 100.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

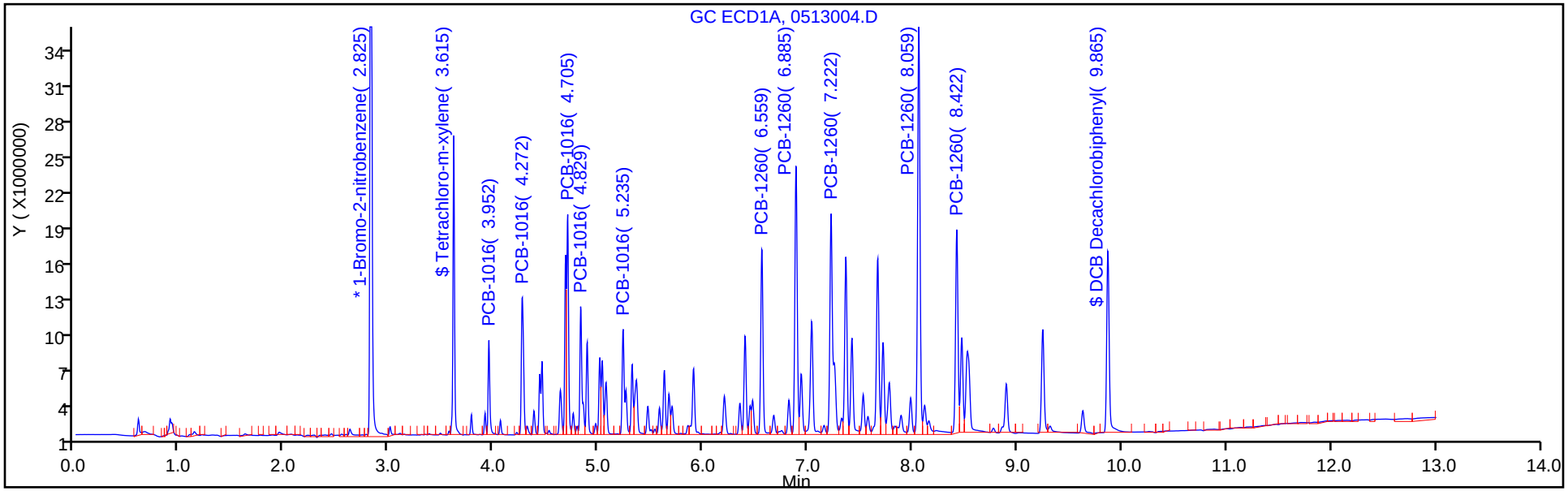
Report Date: 14-May-2024 12:56:08 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

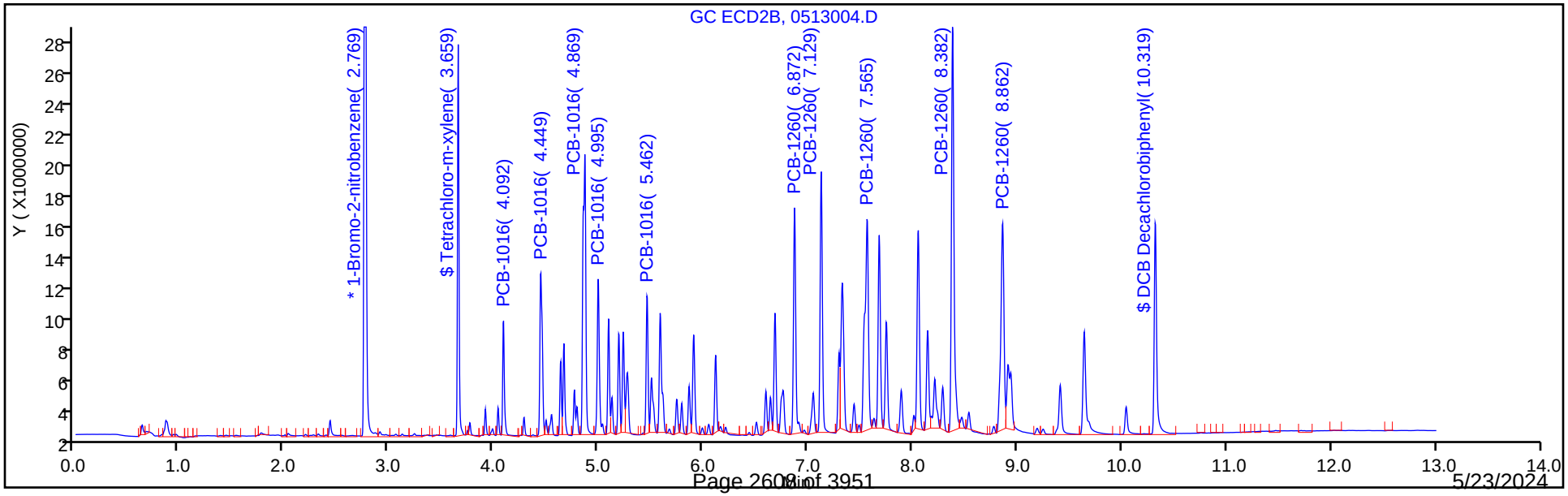
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513004.D

Injection Date:	13-May-2024 10:35:43	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	CCVIS			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
4:40:30 AM

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653123/31 Calibration Date: 05/13/2024 18:10

Instrument ID: SGC_J Calib Start Date: 03/25/2024 10:20

GC Column: CLP1 ID: 0.32(mm) Calib End Date: 03/25/2024 12:01

Lab File ID: 0513031.D Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin2		0.0187		463	500	-7.3	20.0
PCB-1016 Peak 2	Lin2		0.0361		460	500	-8.1	20.0
PCB-1016 Peak 3	Lin2		0.0487		482	500	-3.7	20.0
PCB-1016 Peak 4	Lin2		0.0334		466	500	-6.8	20.0
PCB-1016 Peak 5	Lin2		0.0351		458	500	-8.4	20.0
PCB-1260 Peak 1	Lin2		0.0489		486	500	-2.7	20.0
PCB-1260 Peak 2	Lin2		0.0752		483	500	-3.5	20.0
PCB-1260 Peak 3	Lin2		0.0833		473	500	-5.4	20.0
PCB-1260 Peak 4	Lin2		0.1158		492	500	-1.6	20.0
PCB-1260 Peak 5	Lin2		0.0591		502	500	0.4	20.0
Tetrachloro-m-xylene	Lin2		1.129		23.6	25.0	-5.6	20.0
DCB Decachlorobiphenyl	Lin2		1.120		24.8	25.0	-0.8	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653123/31 Calibration Date: 05/13/2024 18:10

Instrument ID: SGC_J Calib Start Date: 03/25/2024 10:20

GC Column: CLP1 ID: 0.32(mm) Calib End Date: 03/25/2024 12:01

Lab File ID: 0513031.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	3.95	3.93	3.98
PCB-1016 Peak 2	4.27	4.25	4.30
PCB-1016 Peak 3	4.71	4.68	4.73
PCB-1016 Peak 4	4.83	4.80	4.85
PCB-1016 Peak 5	5.24	5.21	5.26
PCB-1260 Peak 1	6.56	6.53	6.58
PCB-1260 Peak 2	6.89	6.86	6.91
PCB-1260 Peak 3	7.22	7.20	7.25
PCB-1260 Peak 4	8.06	8.03	8.08
PCB-1260 Peak 5	8.43	8.40	8.45
Tetrachloro-m-xylene	3.62	3.59	3.64
DCB Decachlorobiphenyl	9.87	9.84	9.89

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513031.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 13-May-2024 18:10:18 ALS Bottle#: 30 Worklist Smp#: 31
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub1

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:55:25 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 14-May-2024 09:19:10

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.825	2.824	0.001	105505779	100.0	100.0	
2	2.768	2.767	0.001	115051479	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.615	3.615	0.000	29786960	25.0	23.6	
2	3.658	3.659	-0.001	29197398	25.0	22.7	
						RPD = 3.91	
1 PCB-1016							
1	3.952	3.952	0.000	9882401	500.0	463.4	
1	4.272	4.272	0.000	19033997	500.0	459.7	
1	4.705	4.705	0.000	25683130	500.0	481.6	
1	4.828	4.829	-0.001	17611161	500.0	465.9	
1	5.235	5.235	0.000	18520536	500.0	458.0	
		Average of Peak Amounts =				465.7	
2	4.092	4.092	0.000	9564388	500.0	446.0	
2	4.448	4.449	-0.001	18877871	500.0	435.4	
2	4.868	4.869	-0.001	40454290	500.0	450.7	
2	4.998	4.995	0.003	17247503	500.0	449.4	
2	5.465	5.462	0.003	13136553	500.0	441.3	
		Average of Peak Amounts =				444.5	
						RPD = 4.66	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							
1	6.558	6.559	-0.001	25810571	500.0	486.4	
1	6.885	6.885	0.000	39667780	500.0	482.7	
1	7.222	7.222	0.000	43959498	500.0	473.1	
1	8.062	8.059	0.003	61098858	500.0	491.8	
1	8.425	8.422	0.003	31182898	500.0	502.2	
		Average of Peak Amounts =				487.3	
2	6.875	6.872	0.003	25775856	500.0	433.7	
2	7.128	7.129	-0.001	30467797	500.0	474.1	
2	7.568	7.565	0.003	39792147	500.0	452.8	
2	8.385	8.382	0.003	54408974	500.0	476.9	
2	8.862	8.862	0.000	37869432	500.0	467.7	
		Average of Peak Amounts =				461.0	
						RPD = 5.53	
$ 15 DCB Decachlorobiphenyl							
1	9.868	9.865	0.003	29538925	25.0	24.8	
2	10.322	10.319	0.003	25149062	25.0	23.0	
						RPD = 7.41	
S 8 Polychlorinated biphenyls, Total							
1						953.0	
2						905.6	
						RPD = 5.10	

QC Flag Legend

Processing Flags

Reagents:

AR_1660_ICV_00029	Amount Added: 100.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

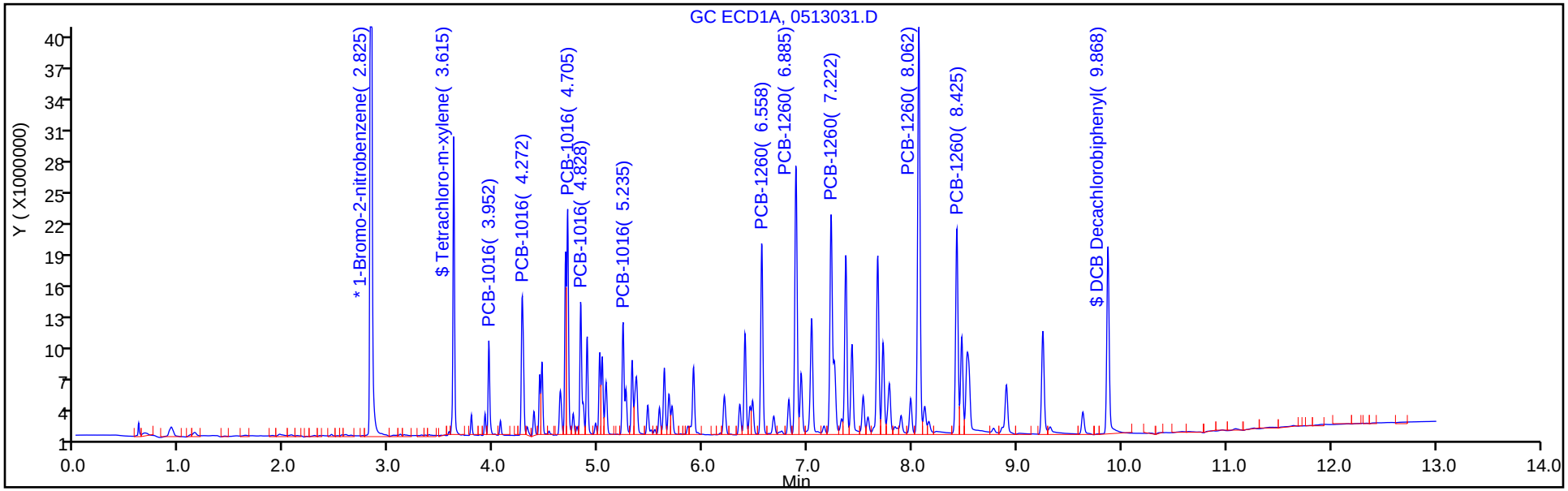
Report Date: 14-May-2024 12:55:25 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

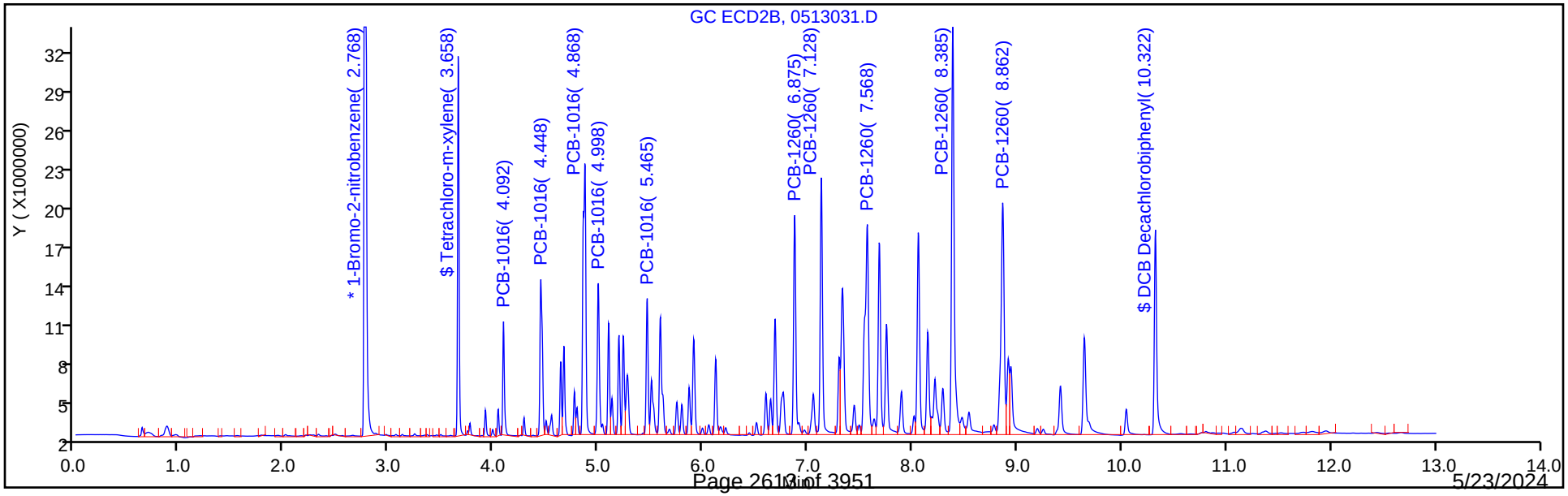
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513031.D

Injection Date:	13-May-2024 18:10:18	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	CCV			Worklist Smp#:	31
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	30
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
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FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653123/31 | Calibration Date: 05/13/2024 18:10

Instrument ID: SGC_J | Calib Start Date: 03/25/2024 10:20

GC Column: CLP2 ID: 0.32(mm) | Calib End Date: 03/25/2024 12:01

Lab File ID: 0513031.D | Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin2		0.0166		446	500	-10.8	20.0
PCB-1016 Peak 2	Lin2		0.0328		435	500	-12.9	20.0
PCB-1016 Peak 3	Lin2		0.0703		451	500	-9.9	20.0
PCB-1016 Peak 4	Lin2		0.0300		449	500	-10.1	20.0
PCB-1016 Peak 5	Lin2		0.0228		441	500	-11.7	20.0
PCB-1260 Peak 1	Lin2		0.0448		434	500	-13.3	20.0
PCB-1260 Peak 2	Lin2		0.0530		474	500	-5.2	20.0
PCB-1260 Peak 3	Lin2		0.0692		453	500	-9.4	20.0
PCB-1260 Peak 4	Lin2		0.0946		477	500	-4.6	20.0
PCB-1260 Peak 5	Lin2		0.0658		468	500	-6.5	20.0
Tetrachloro-m-xylene	Lin2		1.015		22.7	25.0	-9.2	20.0
DCB Decachlorobiphenyl	Lin2		0.8744		23.0	25.0	-7.9	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653123/31 Calibration Date: 05/13/2024 18:10

Instrument ID: SGC_J Calib Start Date: 03/25/2024 10:20

GC Column: CLP2 ID: 0.32(mm) Calib End Date: 03/25/2024 12:01

Lab File ID: 0513031.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	4.09	4.07	4.12
PCB-1016 Peak 2	4.45	4.42	4.47
PCB-1016 Peak 3	4.87	4.84	4.89
PCB-1016 Peak 4	5.00	4.97	5.02
PCB-1016 Peak 5	5.47	5.44	5.49
PCB-1260 Peak 1	6.88	6.85	6.90
PCB-1260 Peak 2	7.13	7.10	7.15
PCB-1260 Peak 3	7.57	7.54	7.59
PCB-1260 Peak 4	8.39	8.36	8.41
PCB-1260 Peak 5	8.86	8.84	8.89
Tetrachloro-m-xylene	3.66	3.63	3.68
DCB Decachlorobiphenyl	10.32	10.29	10.34

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513031.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 13-May-2024 18:10:18 ALS Bottle#: 30 Worklist Smp#: 31
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub1

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:55:25 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 14-May-2024 09:19:10

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.825	2.824	0.001	105505779	100.0	100.0	
2	2.768	2.767	0.001	115051479	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.615	3.615	0.000	29786960	25.0	23.6	
2	3.658	3.659	-0.001	29197398	25.0	22.7	
						RPD = 3.91	
1 PCB-1016							
1	3.952	3.952	0.000	9882401	500.0	463.4	
1	4.272	4.272	0.000	19033997	500.0	459.7	
1	4.705	4.705	0.000	25683130	500.0	481.6	
1	4.828	4.829	-0.001	17611161	500.0	465.9	
1	5.235	5.235	0.000	18520536	500.0	458.0	
		Average of Peak Amounts =				465.7	
2	4.092	4.092	0.000	9564388	500.0	446.0	
2	4.448	4.449	-0.001	18877871	500.0	435.4	
2	4.868	4.869	-0.001	40454290	500.0	450.7	
2	4.998	4.995	0.003	17247503	500.0	449.4	
2	5.465	5.462	0.003	13136553	500.0	441.3	
		Average of Peak Amounts =				444.5	
						RPD = 4.66	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							
1	6.558	6.559	-0.001	25810571	500.0	486.4	
1	6.885	6.885	0.000	39667780	500.0	482.7	
1	7.222	7.222	0.000	43959498	500.0	473.1	
1	8.062	8.059	0.003	61098858	500.0	491.8	
1	8.425	8.422	0.003	31182898	500.0	502.2	
		Average of Peak Amounts =				487.3	
2	6.875	6.872	0.003	25775856	500.0	433.7	
2	7.128	7.129	-0.001	30467797	500.0	474.1	
2	7.568	7.565	0.003	39792147	500.0	452.8	
2	8.385	8.382	0.003	54408974	500.0	476.9	
2	8.862	8.862	0.000	37869432	500.0	467.7	
		Average of Peak Amounts =				461.0	
						RPD = 5.53	
$ 15 DCB Decachlorobiphenyl							
1	9.868	9.865	0.003	29538925	25.0	24.8	
2	10.322	10.319	0.003	25149062	25.0	23.0	
						RPD = 7.41	
S 8 Polychlorinated biphenyls, Total							
1						953.0	
2						905.6	
						RPD = 5.10	

QC Flag Legend

Processing Flags

Reagents:

AR_1660_ICV_00029	Amount Added: 100.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

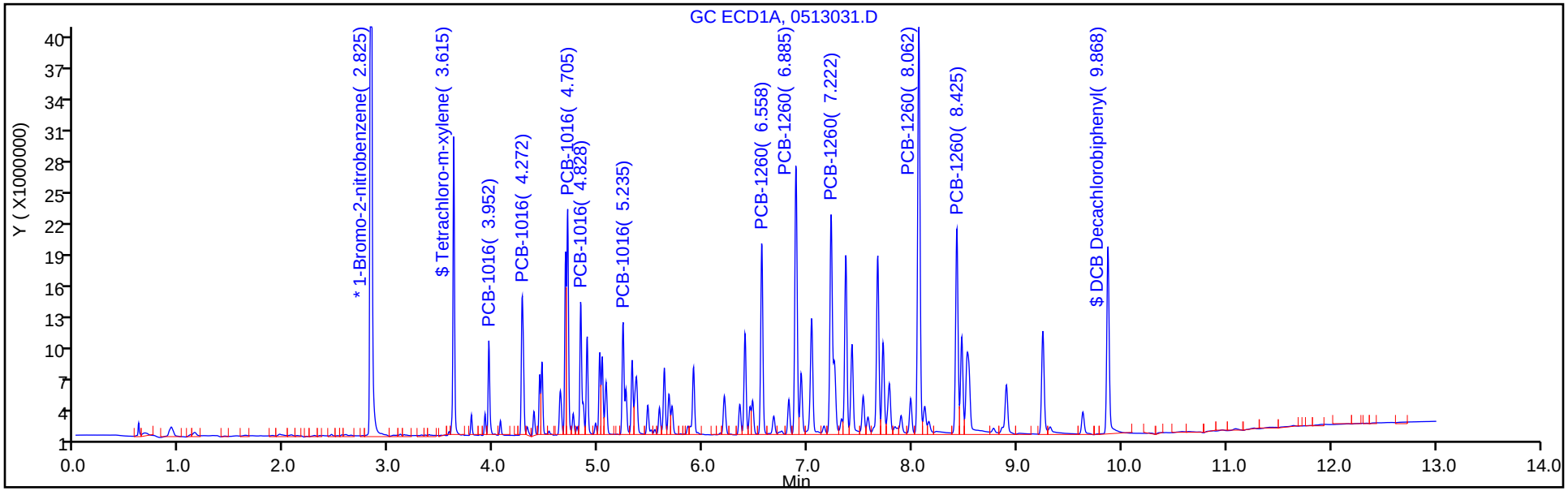
Report Date: 14-May-2024 12:55:26 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

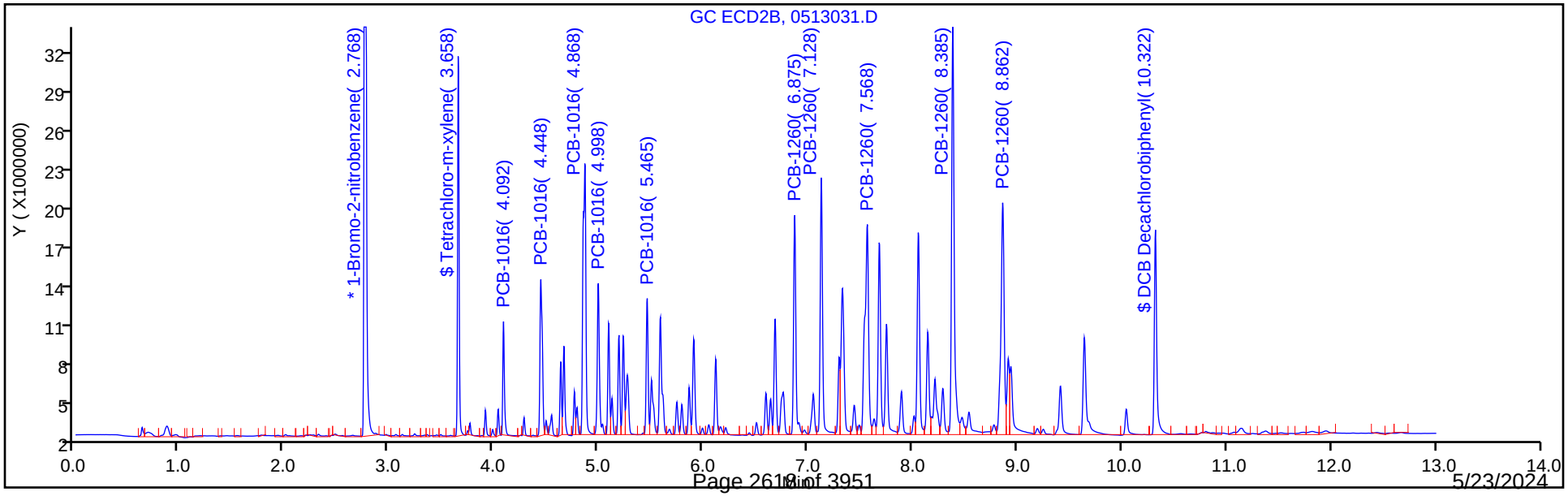
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513031.D

Injection Date:	13-May-2024 18:10:18	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	CCV			Worklist Smp#:	31
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	30
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
4:40:30 AM

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653123/40 Calibration Date: 05/13/2024 20:40

Instrument ID: SGC_J Calib Start Date: 03/25/2024 10:20

GC Column: CLP1 ID: 0.32(mm) Calib End Date: 03/25/2024 12:01

Lab File ID: 0513040.D Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin2		0.0172		424	500	-15.3	20.0
PCB-1016 Peak 2	Lin2		0.0331		421	500	-15.8	20.0
PCB-1016 Peak 3	Lin2		0.0444		438	500	-12.3	20.0
PCB-1016 Peak 4	Lin2		0.0307		427	500	-14.5	20.0
PCB-1016 Peak 5	Lin2		0.0321		418	500	-16.5	20.0
PCB-1260 Peak 1	Lin2		0.0452		449	500	-10.2	20.0
PCB-1260 Peak 2	Lin2		0.0686		440	500	-12.1	20.0
PCB-1260 Peak 3	Lin2		0.0762		432	500	-13.7	20.0
PCB-1260 Peak 4	Lin2		0.1060		449	500	-10.1	20.0
PCB-1260 Peak 5	Lin2		0.0540		458	500	-8.4	20.0
Tetrachloro-m-xylene	Lin2		1.034		21.6	25.0	-13.7	20.0
DCB Decachlorobiphenyl	Lin2		1.028		22.7	25.0	-9.0	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653123/40 Calibration Date: 05/13/2024 20:40

Instrument ID: SGC_J Calib Start Date: 03/25/2024 10:20

GC Column: CLP1 ID: 0.32(mm) Calib End Date: 03/25/2024 12:01

Lab File ID: 0513040.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	3.95	3.93	3.98
PCB-1016 Peak 2	4.27	4.25	4.30
PCB-1016 Peak 3	4.71	4.68	4.73
PCB-1016 Peak 4	4.83	4.80	4.85
PCB-1016 Peak 5	5.24	5.21	5.26
PCB-1260 Peak 1	6.56	6.53	6.58
PCB-1260 Peak 2	6.89	6.86	6.91
PCB-1260 Peak 3	7.22	7.20	7.25
PCB-1260 Peak 4	8.06	8.03	8.08
PCB-1260 Peak 5	8.42	8.40	8.45
Tetrachloro-m-xylene	3.62	3.59	3.64
DCB Decachlorobiphenyl	9.87	9.84	9.89

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513040.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 13-May-2024 20:40:22 ALS Bottle#: 39 Worklist Smp#: 40
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub1

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:55:56 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 14-May-2024 07:58:43

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.825	2.824	0.001	111934509	100.0	100.0	
2	2.768	2.767	0.001	117364678	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.615	3.615	0.000	28942849	25.0	21.6	
2	3.658	3.659	-0.001	27452784	25.0	20.9	
						RPD = 3.18	
1 PCB-1016							M
1	3.951	3.952	-0.001	9607719	500.0	423.6	
1	4.268	4.272	-0.004	18546484	500.0	421.0	
1	4.705	4.705	0.000	24842134	500.0	438.3	
1	4.828	4.829	-0.001	17189932	500.0	427.4	
1	5.235	5.235	0.000	17963360	500.0	417.7	
		Average of Peak Amounts =				425.6	
2	4.091	4.092	-0.001	9004063	500.0	410.7	
2	4.448	4.449	-0.001	18337267	500.0	414.0	M
2	4.868	4.869	-0.001	37510665	500.0	408.7	
2	4.998	4.995	0.003	15823033	500.0	403.1	
2	5.465	5.462	0.003	12228310	500.0	401.8	M
		Average of Peak Amounts =				407.7	
						RPD = 4.31	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							M
1	6.558	6.559	-0.001	25319775	500.0	448.9	
1	6.885	6.885	0.000	38400501	500.0	439.5	
1	7.221	7.222	-0.001	42629150	500.0	431.6	
1	8.058	8.059	-0.001	59326745	500.0	449.3	
1	8.421	8.422	-0.001	30212777	500.0	458.0	
		Average of Peak Amounts =				445.5	
2	6.875	6.872	0.003	23812371	500.0	391.7	
2	7.128	7.129	-0.001	27225667	500.0	414.1	
2	7.568	7.565	0.003	34959574	500.0	388.7	
2	8.385	8.382	0.003	50550546	500.0	433.3	M
2	8.861	8.862	-0.001	35205722	500.0	425.5	M
		Average of Peak Amounts =				410.6	
						RPD = 8.13	
$ 15 DCB Decachlorobiphenyl							
1	9.868	9.865	0.003	28765289	25.0	22.7	
2	10.321	10.319	0.002	24164361	25.0	21.6	
						RPD = 4.94	
S 8 Polychlorinated biphenyls, Total							
1						871.1	
2						818.3	
						RPD = 6.25	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

AR_1660_ICV_00029	Amount Added: 100.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

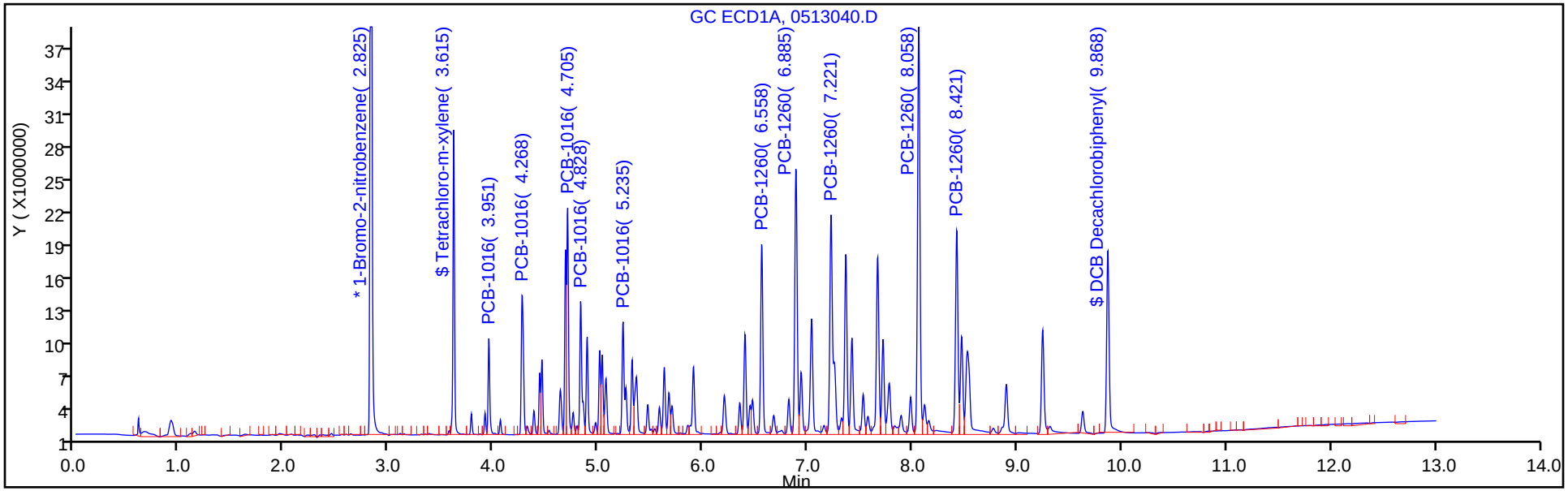
Report Date: 14-May-2024 12:55:57 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

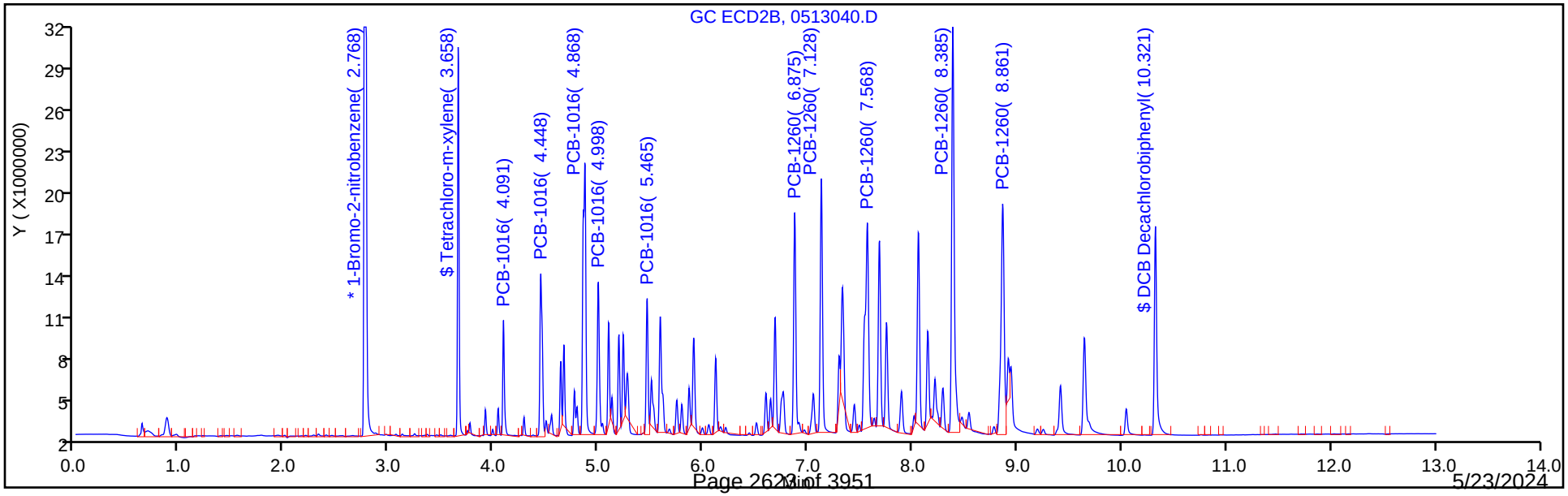
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513040.D

Injection Date:	13-May-2024 20:40:22	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	CCV			Worklist Smp#:	40
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	39
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
4:40:30 AM

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653123/40 Calibration Date: 05/13/2024 20:40

Instrument ID: SGC_J Calib Start Date: 03/25/2024 10:20

GC Column: CLP2 ID: 0.32(mm) Calib End Date: 03/25/2024 12:01

Lab File ID: 0513040.D Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin2		0.0153		411	500	-17.9	20.0
PCB-1016 Peak 2	Lin2		0.0312		414	500	-17.2	20.0
PCB-1016 Peak 3	Lin2		0.0639		409	500	-18.3	20.0
PCB-1016 Peak 4	Lin2		0.0270		403	500	-19.4	20.0
PCB-1016 Peak 5	Lin2		0.0208		402	500	-19.6	20.0
PCB-1260 Peak 1	Lin2		0.0406		392	500	-21.7*	20.0
PCB-1260 Peak 2	Lin2		0.0464		414	500	-17.2	20.0
PCB-1260 Peak 3	Lin2		0.0596		389	500	-22.3*	20.0
PCB-1260 Peak 4	Lin2		0.0861		433	500	-13.3	20.0
PCB-1260 Peak 5	Lin2		0.0600		425	500	-14.9	20.0
Tetrachloro-m-xylene	Lin2		0.9356		20.9	25.0	-16.4	20.0
DCB Decachlorobiphenyl	Lin2		0.8236		21.6	25.0	-13.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653123/40 Calibration Date: 05/13/2024 20:40

Instrument ID: SGC_J Calib Start Date: 03/25/2024 10:20

GC Column: CLP2 ID: 0.32(mm) Calib End Date: 03/25/2024 12:01

Lab File ID: 0513040.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	4.09	4.07	4.12
PCB-1016 Peak 2	4.45	4.42	4.47
PCB-1016 Peak 3	4.87	4.84	4.89
PCB-1016 Peak 4	5.00	4.97	5.02
PCB-1016 Peak 5	5.47	5.44	5.49
PCB-1260 Peak 1	6.88	6.85	6.90
PCB-1260 Peak 2	7.13	7.10	7.15
PCB-1260 Peak 3	7.57	7.54	7.59
PCB-1260 Peak 4	8.39	8.36	8.41
PCB-1260 Peak 5	8.86	8.84	8.89
Tetrachloro-m-xylene	3.66	3.63	3.68
DCB Decachlorobiphenyl	10.32	10.29	10.34

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513040.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 13-May-2024 20:40:22 ALS Bottle#: 39 Worklist Smp#: 40
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: SMP Instrument ID: SGC_J
Sublist: chrom-8082_J*sub1

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:55:56 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 14-May-2024 07:58:43

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.825	2.824	0.001	111934509	100.0	100.0	
2	2.768	2.767	0.001	117364678	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.615	3.615	0.000	28942849	25.0	21.6	
2	3.658	3.659	-0.001	27452784	25.0	20.9	
						RPD = 3.18	
1 PCB-1016							M
1	3.951	3.952	-0.001	9607719	500.0	423.6	
1	4.268	4.272	-0.004	18546484	500.0	421.0	
1	4.705	4.705	0.000	24842134	500.0	438.3	
1	4.828	4.829	-0.001	17189932	500.0	427.4	
1	5.235	5.235	0.000	17963360	500.0	417.7	
		Average of Peak Amounts =				425.6	
2	4.091	4.092	-0.001	9004063	500.0	410.7	
2	4.448	4.449	-0.001	18337267	500.0	414.0	M
2	4.868	4.869	-0.001	37510665	500.0	408.7	
2	4.998	4.995	0.003	15823033	500.0	403.1	
2	5.465	5.462	0.003	12228310	500.0	401.8	M
		Average of Peak Amounts =				407.7	
						RPD = 4.31	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							M
1	6.558	6.559	-0.001	25319775	500.0	448.9	
1	6.885	6.885	0.000	38400501	500.0	439.5	
1	7.221	7.222	-0.001	42629150	500.0	431.6	
1	8.058	8.059	-0.001	59326745	500.0	449.3	
1	8.421	8.422	-0.001	30212777	500.0	458.0	
		Average of Peak Amounts =				445.5	
2	6.875	6.872	0.003	23812371	500.0	391.7	
2	7.128	7.129	-0.001	27225667	500.0	414.1	
2	7.568	7.565	0.003	34959574	500.0	388.7	
2	8.385	8.382	0.003	50550546	500.0	433.3	M
2	8.861	8.862	-0.001	35205722	500.0	425.5	M
		Average of Peak Amounts =				410.6	
						RPD = 8.13	
$ 15 DCB Decachlorobiphenyl							
1	9.868	9.865	0.003	28765289	25.0	22.7	
2	10.321	10.319	0.002	24164361	25.0	21.6	
						RPD = 4.94	
S 8 Polychlorinated biphenyls, Total							
1						871.1	
2						818.3	
						RPD = 6.25	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

AR_1660_ICV_00029	Amount Added: 100.00	Units: uL	
BNB IS_00027	Amount Added: 20.00	Units: uL	Run Reagent

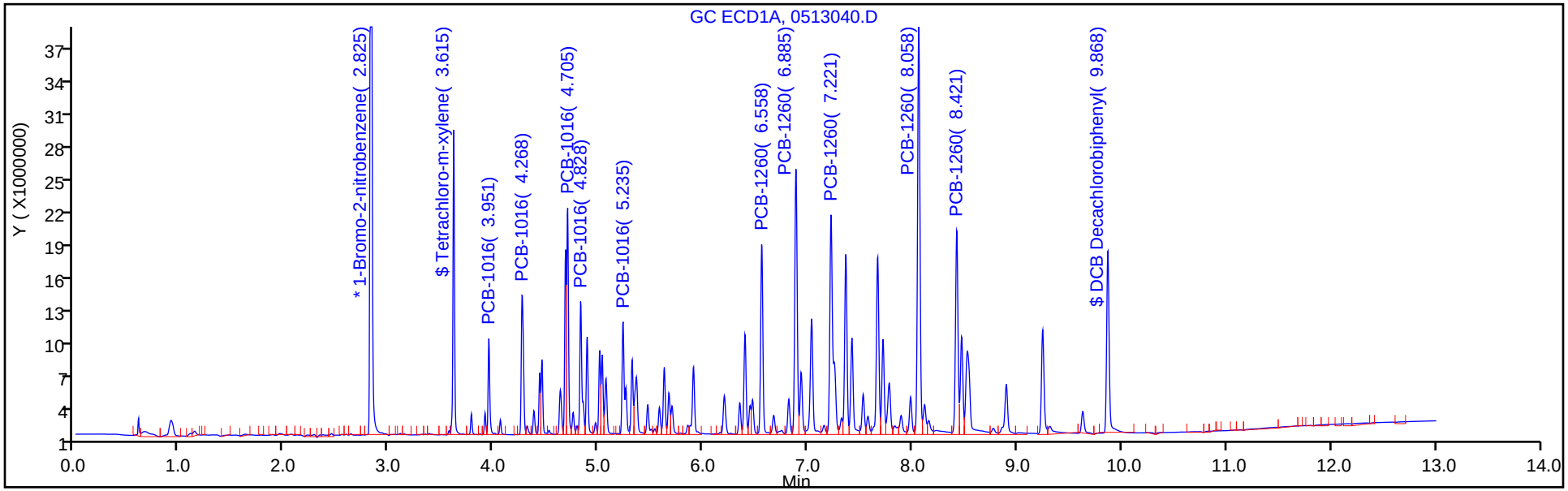
Report Date: 14-May-2024 12:55:58 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

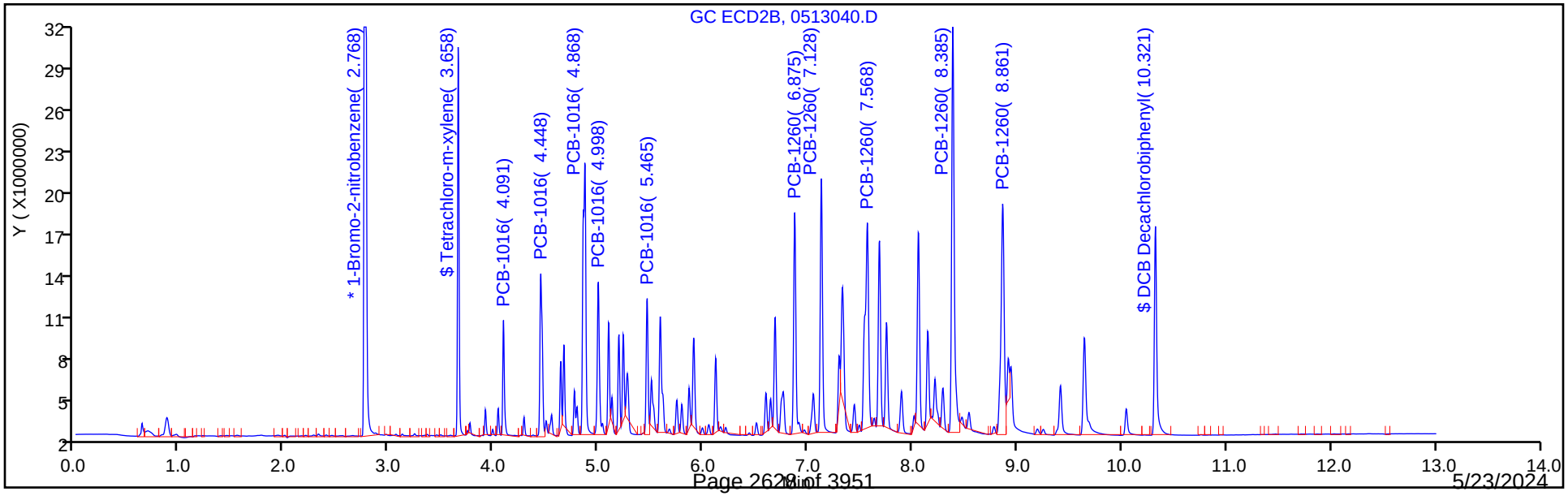
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513040.D

Injection Date:	13-May-2024 20:40:22	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	CCV			Worklist Smp#:	40
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	39
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



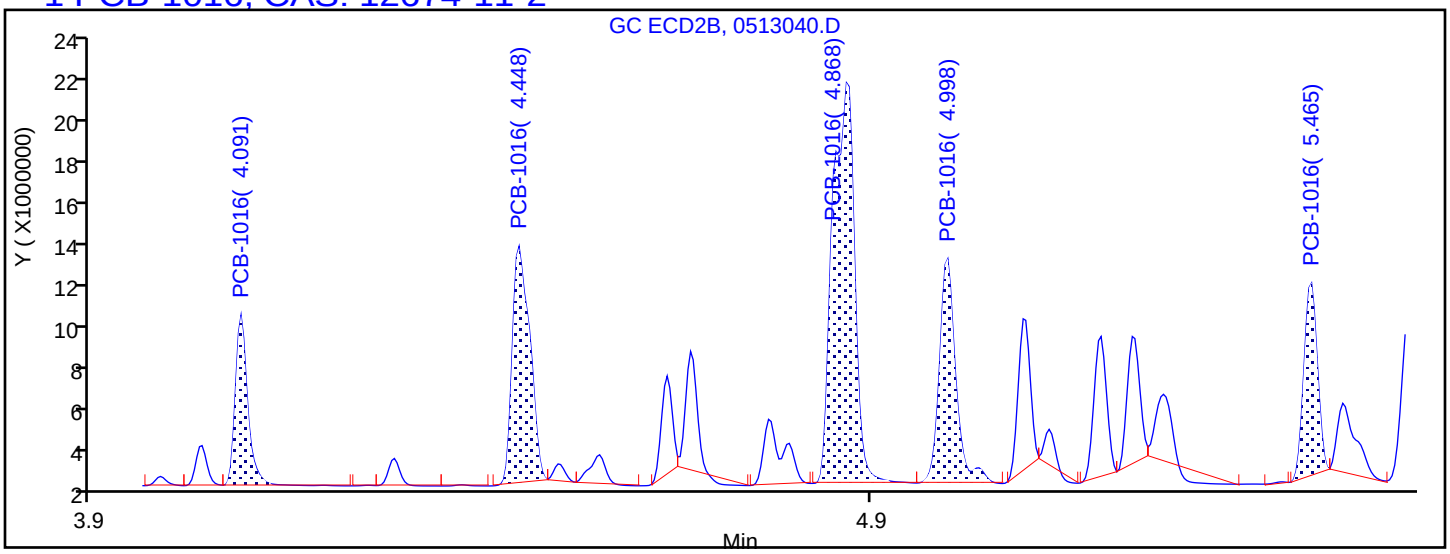
5/23/2024
4:40:30 AM

Report Date: 14-May-2024 12:55:58 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

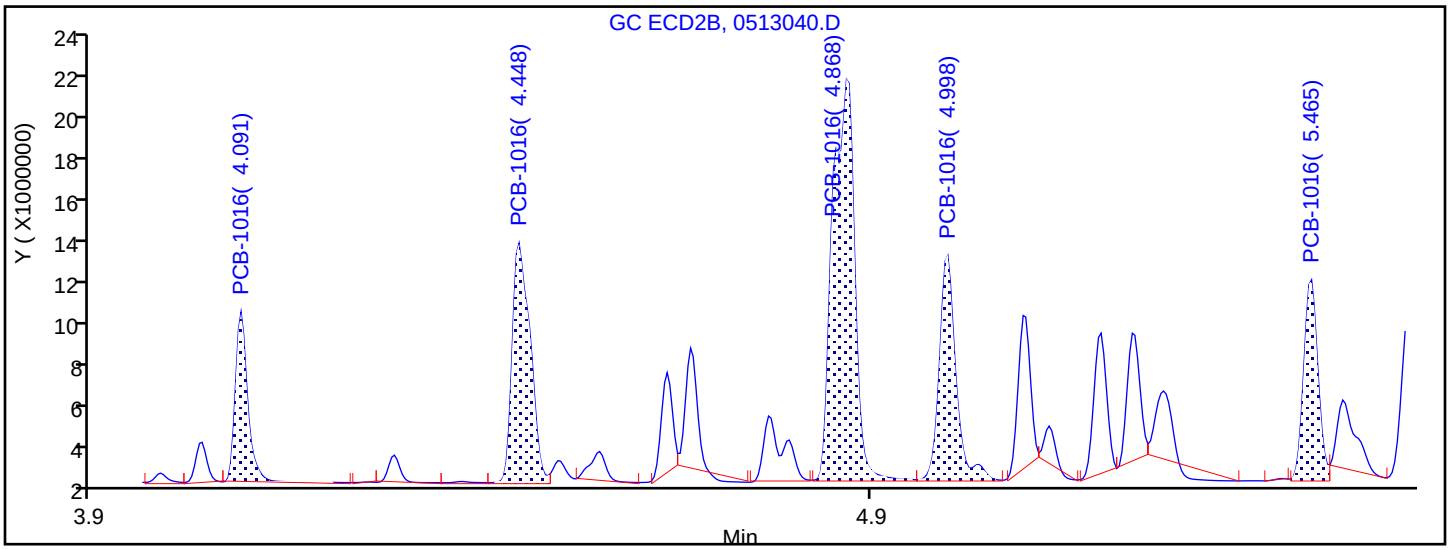
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513040.D
Injection Date: 13-May-2024 20:40:22 Instrument ID: SGC_J
Lims ID: CCV
Client ID:
Operator ID: SMP ALS Bottle#: 39 Worklist Smp#: 40
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP2 Pesticides Column 2 (0.32 mm) Detector GC ECD2B

1 PCB-1016, CAS: 12674-11-2



Processing Integration Results

4.091	Response = 9004063	
4.448	Response = 17581426	
4.868	Response = 37510665	
4.998	Response = 15823033	
5.465	Response = 11095642	



Manual Integration Results

4.091	Response = 9004063	
4.448	Response = 18337267	M
4.868	Response = 37510665	
4.998	Response = 15823033	
5.465	Response = 12228310	M

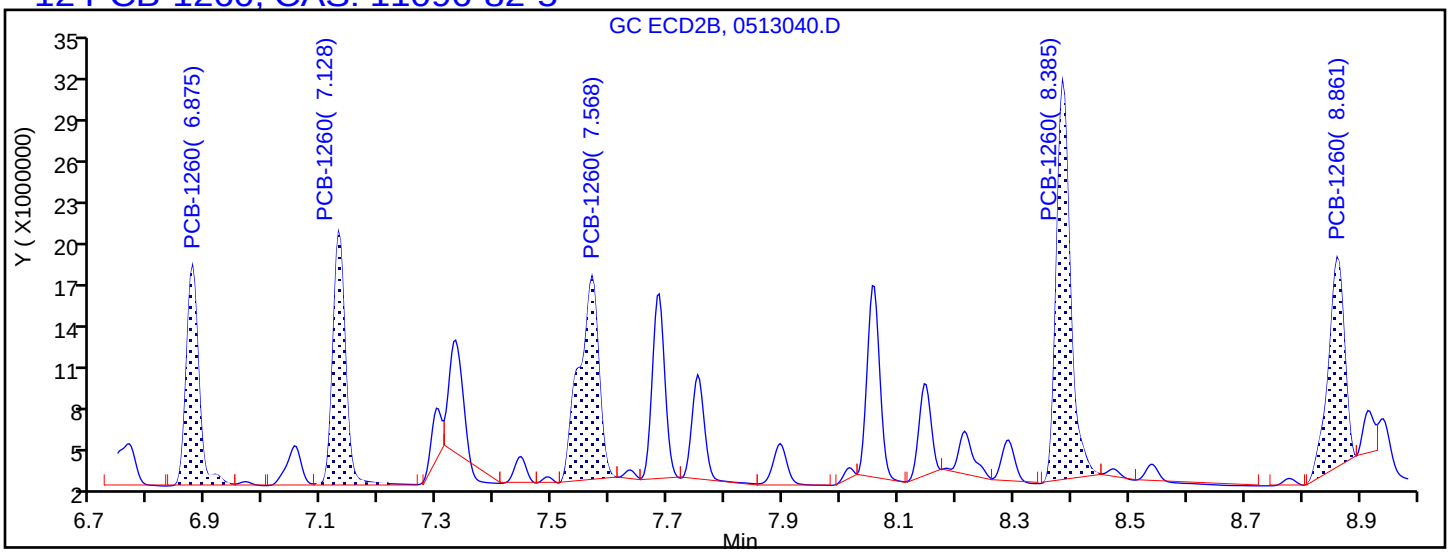
Reviewer: USP3, 14-May-2024 09:28:31 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Report Date: 14-May-2024 12:55:58 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

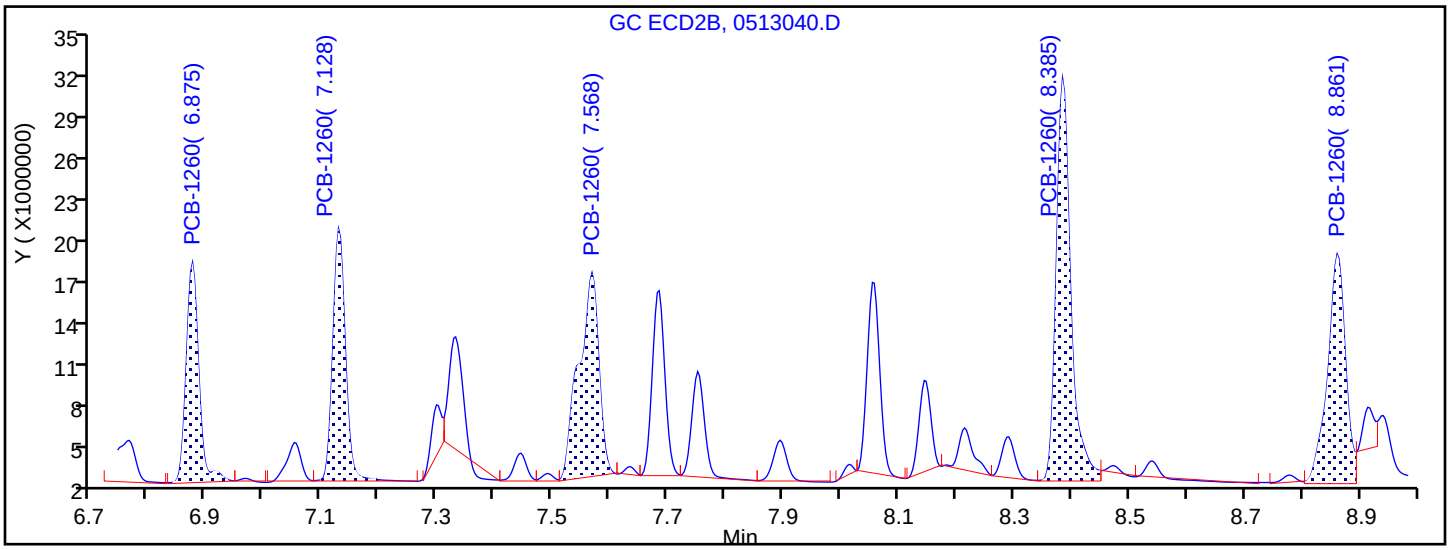
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513040.D
Injection Date: 13-May-2024 20:40:22 Instrument ID: SGC_J
Lims ID: CCV
Client ID:
Operator ID: SMP ALS Bottle#: 39 Worklist Smp#: 40
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP2 Pesticides Column 2 (0.32 mm) Detector GC ECD2B

12 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.875	Response = 23812371
7.128	Response = 27225667
7.568	Response = 34959574
8.385	Response = 48217594
8.861	Response = 29361548



Manual Integration Results

6.875	Response = 23812371	
7.128	Response = 27225667	
7.568	Response = 34959574	
8.385	Response = 50550546	M
8.861	Response = 35205722	M

Reviewer: USP3, 14-May-2024 09:29:09 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-652915/1-A

Matrix: Water | Lab File ID: 0513032.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 250(mL) | Date Analyzed: 05/13/2024 18:26

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP1 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653123 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
12674-11-2	PCB-1016	0.60	U	1.0	0.60	0.17
11104-28-2	PCB-1221	0.26	U	1.0	0.26	0.18
11141-16-5	PCB-1232	0.30	U	1.0	0.30	0.13
53469-21-9	PCB-1242	0.30	U	1.0	0.30	0.10
12672-29-6	PCB-1248	0.60	U	1.0	0.60	0.17
11097-69-1	PCB-1254	0.26	U	1.0	0.26	0.14
11096-82-5	PCB-1260	0.30	U	1.0	0.30	0.089

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	68	M	30-136
877-09-8	Tetrachloro-m-xylene	93		25-120

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513032.D
Lims ID: MB 280-652915/1-A
Client ID:
Sample Type: MB
Inject. Date: 13-May-2024 18:26:56 ALS Bottle#: 31 Worklist Smp#: 32
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-652915/1-A
Operator ID: SMP Instrument ID: SGC_J

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:55:25 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 14-May-2024 09:21:58

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.825	2.824	0.001	91401394	100.0	100.0	
2	2.768	2.767	0.001	96897212	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.615	3.615	0.000	10554408	10.0	9.30	
2	3.658	3.659	-0.001	8350313	10.0	7.46	
						RPD = 21.95	
3 PCB-1221							
1		3.784				ND	
1		3.914					
1		3.950					
2		3.917					
2		4.040					
2		4.090					
7 PCB-1232							
1		3.950				ND	
1		4.270					
1		4.683					
1		4.830					
1		5.233					
2		4.090					
2		4.447					
2		4.870					
2		4.997					
2		5.913					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
1 PCB-1016							
1		3.952				ND	
1		4.272					
1		4.705					
1		4.829					
1		5.235					
2		4.092					
2		4.449					
2		4.869					
2		4.995					
2		5.462					
10 PCB-1242							
1		3.961				ND	
1		4.277					
1		4.694					
1		4.837					
1		5.681					
2		4.091					
2		4.447					
2		4.871					
2		4.997					
2		5.867					
4 PCB-1248							
1		4.270				ND	
1		4.683					
1		5.233					
1		5.670					
1		6.350					
2		4.853					
2		5.463					
2		5.590					
2		5.863					
2		6.163					
9 PCB-1254							
1		5.674				ND	
1		5.907					
1		6.350					
1		6.887					
1		7.224					
2		5.907					
2		6.117					
2		6.644					
2		6.914					
2		7.567					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							
1		6.559				ND	
1		6.885					
1		7.222					
1		8.059					
1		8.422					
2		6.872					
2		7.129					
2		7.565					
2		8.382					
2		8.862					
5 PCB-1262							
1		6.560				ND	
1		6.887					
1		7.363					
1		8.060					
1		8.470					
2		6.873					
2		7.683					
2		8.057					
2		8.383					
2		8.857					
13 PCB-1268							
1		8.481				ND	
1		8.531					
1		8.781					
1		9.254					
1		9.637					
2		8.854					
2		8.917					
2		9.251					
2		9.644					
2		10.044					
$ 15 DCB Decachlorobiphenyl							M
1	9.868	9.865	0.003	7176359	10.0	6.84	M
2	10.322	10.319	0.003	6703873	10.0	6.86	
						RPD = 0.32	
S 8 Polychlorinated biphenyls, Total							
1		0.000				ND	
2		0.000					

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

BNB IS_00027 Amount Added: 20.00 Units: uL Run Reagent

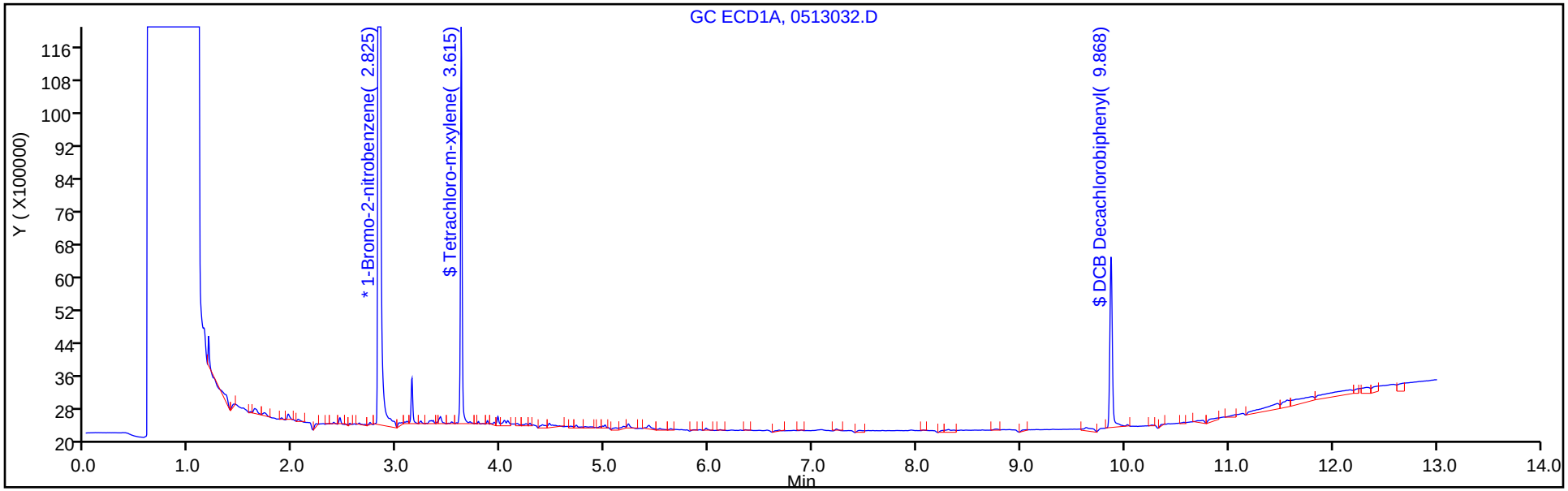
Report Date: 14-May-2024 12:55:32 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

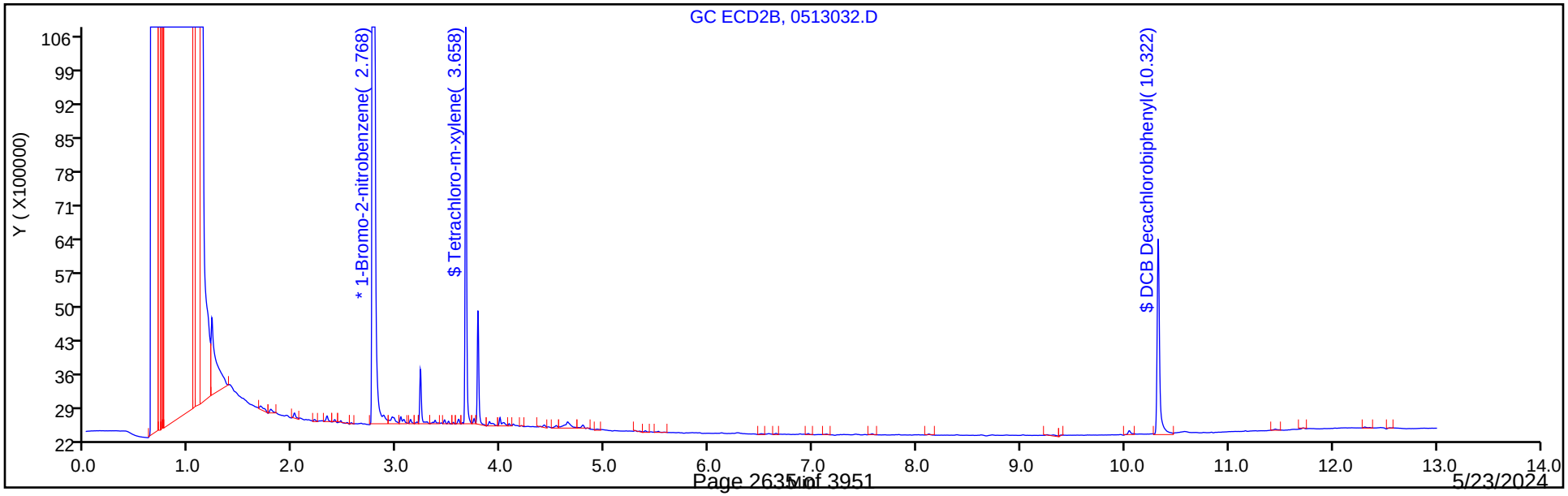
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513032.D

Injection Date:	13-May-2024 18:26:56	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	MB 280-652915/1-A			Worklist Smp#:	32
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	31
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513032.D				
Lims ID:	MB 280-652915/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	13-May-2024 18:26:56	ALS Bottle#:	31	Worklist Smp#:	32
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 280-652915/1-A				
Operator ID:	SMP	Instrument ID:	SGC_J		
Method:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m				
Limit Group:	GCSV - 8082A - IS				
Last Update:	14-May-2024 12:55:25	Calib Date:	13-May-2024 11:46:10		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D				
Column 1 :	CLP1 Pesticides Column 1 (0.32 mm)		Det: GC ECD1A		
Column 2 :	CLP2 Pesticides Column 2 (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1674				
First Level Reviewer:	USP3	Date:	14-May-2024 09:21:58		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 14 Tetrachloro-m-xylene	10.0	9.30	92.96
$ 15 DCB Decachlorobiphenyl	10.0	6.84	68.43

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 14 Tetrachloro-m-xylene	10.0	7.46	74.57
$ 15 DCB Decachlorobiphenyl	10.0	6.86	68.65

Manual Integration/User Assign Peak Report

Eurofins Denver

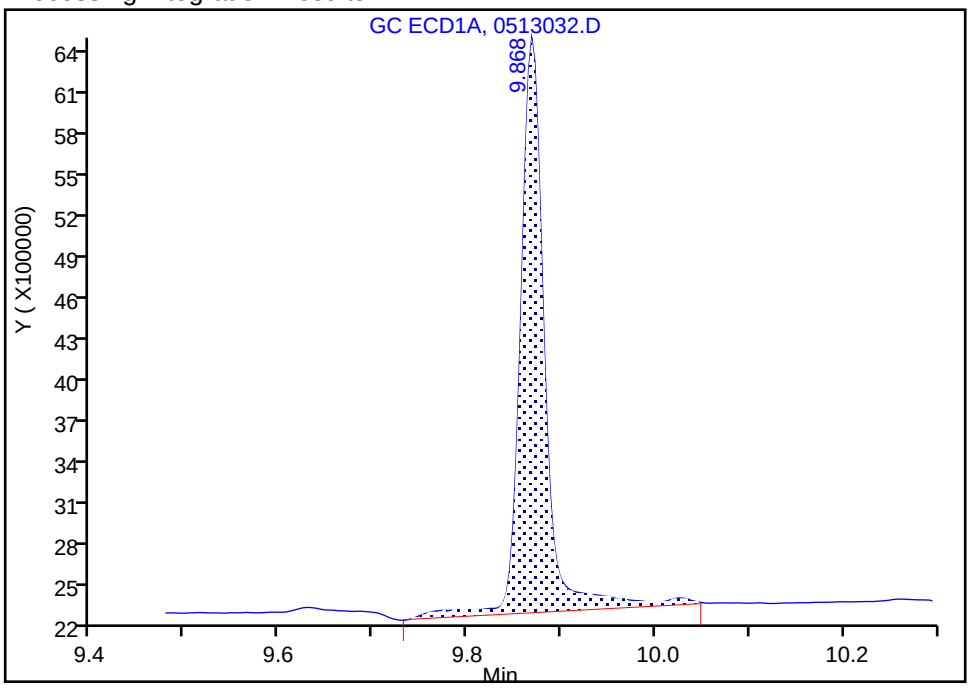
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513032.D
Injection Date: 13-May-2024 18:26:56 Instrument ID: SGC_J
Lims ID: MB 280-652915/1-A
Client ID:
Operator ID: SMP ALS Bottle#: 31 Worklist Smp#: 32
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP1 Pesticides Column 1 (0.32 mm) Detector GC ECD1A

$ 15 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 1

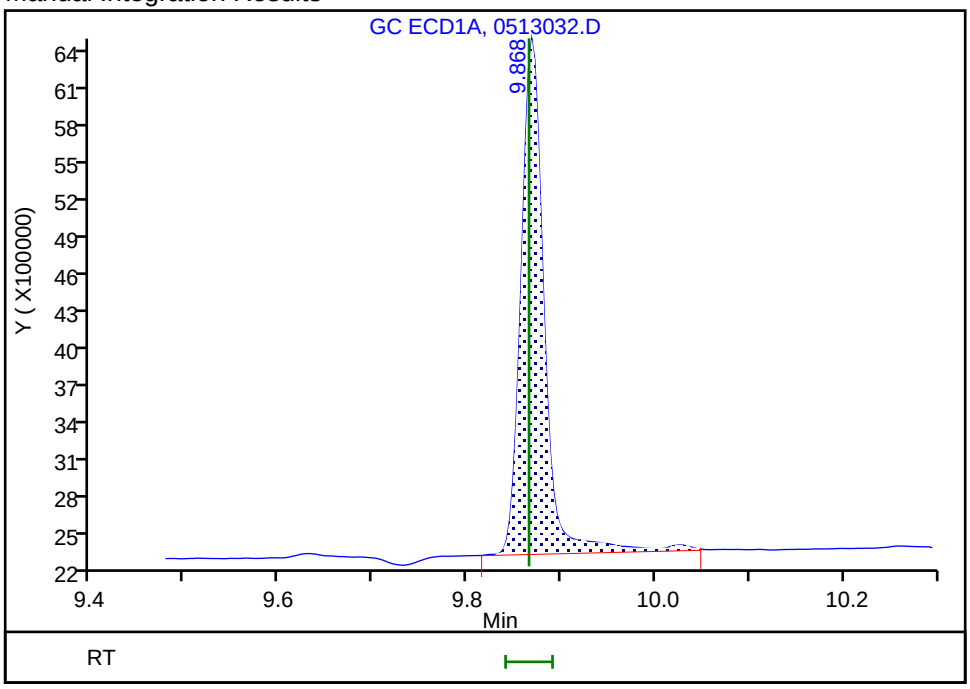
Processing Integration Results

RT: 9.87
Area: 7676668
Amount: 7.330728
Amount Units: ng/ml



Manual Integration Results

RT: 9.87
Area: 7176359
Amount: 6.843049
Amount Units: ng/ml



Reviewer: USP3, 14-May-2024 09:21:56 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-652915/4-A

Matrix: Water | Lab File ID: 0513033.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 250(mL) | Date Analyzed: 05/13/2024 18:43

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP1 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653123 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
12674-11-2	PCB-1016	2.15		1.0	0.60	0.17
11096-82-5	PCB-1260	2.23		1.0	0.30	0.089

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	81	M	30-136
877-09-8	Tetrachloro-m-xylene	81		25-120

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513033.D
Lims ID: LCS 280-652915/4-A
Client ID:
Sample Type: LCS
Inject. Date: 13-May-2024 18:43:36 ALS Bottle#: 32 Worklist Smp#: 33
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-652915/4-A
Operator ID: SMP Instrument ID: SGC_J

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:55:25 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 14-May-2024 09:22:54

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.826	2.824	0.002	90320968	100.0	100.0	
2	2.770	2.767	0.003	94145381	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.616	3.615	0.001	9201858	10.0	8.13	
2	3.660	3.659	0.001	5529349	10.0	4.96	
						RPD = 48.42	
1 PCB-1016							
1	3.953	3.952	0.001	2042695	100.0	102.0	
1	4.270	4.272	-0.002	4308111	100.0	110.2	
1	4.706	4.705	0.001	5017847	100.0	103.1	
1	4.830	4.829	0.001	3501917	100.0	96.8	
1	5.233	5.235	-0.002	4611765	100.0	125.1	
		Average of Peak Amounts =				107.5	
2	4.093	4.092	0.001	1913027	100.0	101.0	
2	4.450	4.449	0.001	3696383	100.0	95.3	
2	4.870	4.869	0.001	7756499	100.0	97.9	
2	4.996	4.995	0.001	3311479	100.0	97.4	
2	5.466	5.462	0.004	2621925	100.0	99.7	
		Average of Peak Amounts =				98.3	
						RPD = 8.94	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							
1	6.560	6.559	0.001	5295132	100.0	107.8	
1	6.886	6.885	0.001	8323998	100.0	110.1	
1	7.223	7.222	0.001	9550588	100.0	112.8	
1	8.060	8.059	0.001	12637154	100.0	112.3	
1	8.426	8.422	0.004	6392748	100.0	114.0	
		Average of Peak Amounts =				111.4	
2	6.876	6.872	0.004	4987444	100.0	94.5	
2	7.130	7.129	0.001	6129715	100.0	108.8	
2	7.570	7.565	0.005	8485604	100.0	110.9	
2	8.386	8.382	0.004	11039237	100.0	109.6	
2	8.863	8.862	0.001	7867331	100.0	112.1	
		Average of Peak Amounts =				107.2	
						RPD = 3.84	
$ 15 DCB Decachlorobiphenyl							M
1	9.866	9.865	0.001	8369039	10.0	8.10	M
2	10.323	10.319	0.004	7714342	10.0	8.24	
						RPD = 1.72	
19 1260 Res 1							
1	8.473	8.476	-0.003	3368616	NR	NR	
16 1260 Res 2							
1		8.479			ND	ND	
18 1260 Res 3							
1	8.526	8.533	-0.006	4469698	NR	NR	

QC Flag Legend

Processing Flags
- NR - Missing Quant Standard
- ND - Not Detected or Marked ND

Review Flags
- M - Manually Integrated

Reagents:

BNB IS_00027 Amount Added: 20.00 Units: uL Run Reagent

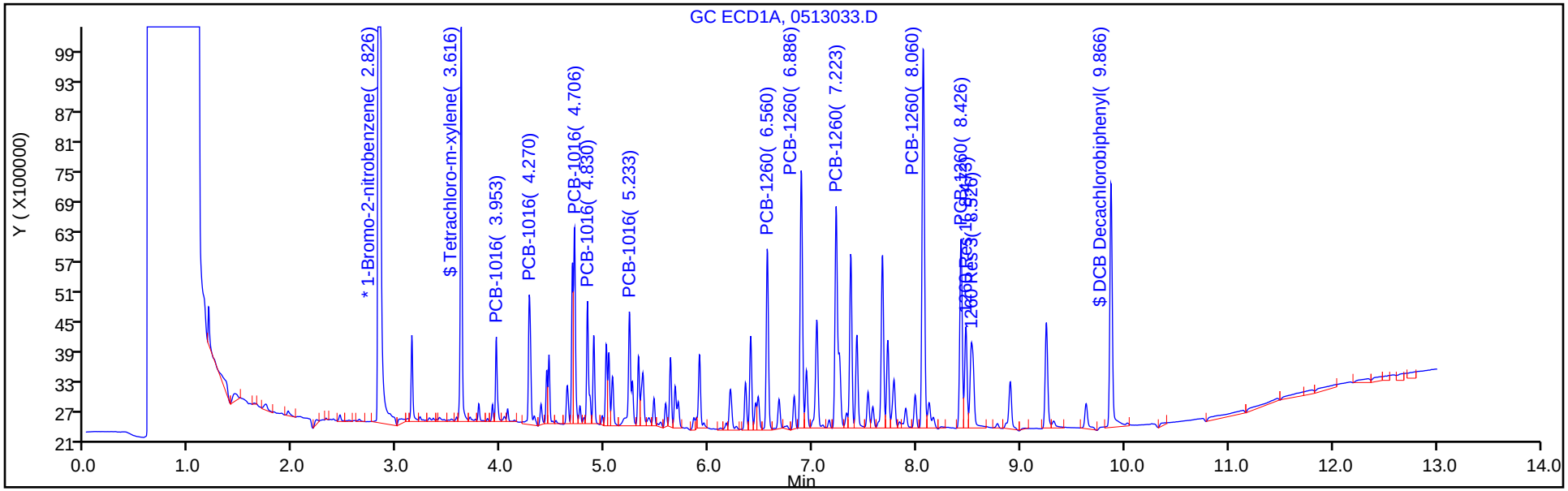
Report Date: 14-May-2024 12:55:34 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

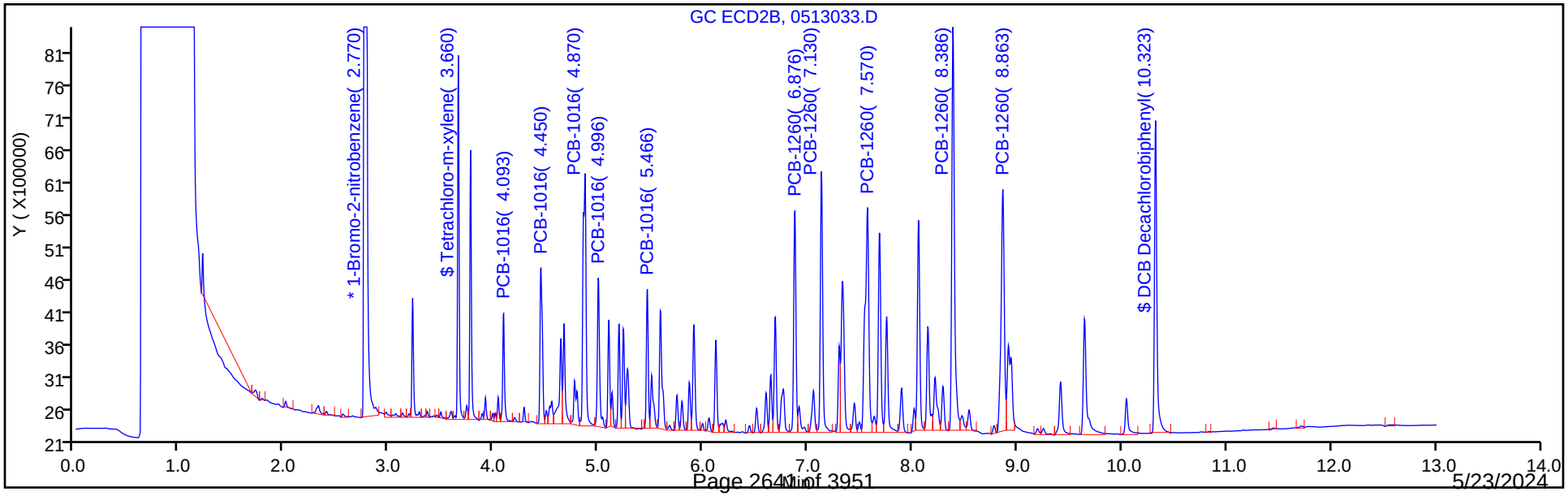
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513033.D

Injection Date:	13-May-2024 18:43:36	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	LCS 280-652915/4-A			Worklist Smp#:	33
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	32
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513033.D				
Lims ID:	LCS 280-652915/4-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	13-May-2024 18:43:36	ALS Bottle#:	32	Worklist Smp#:	33
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-652915/4-A				
Operator ID:	SMP	Instrument ID:	SGC_J		
Method:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m				
Limit Group:	GCSV - 8082A - IS				
Last Update:	14-May-2024 12:55:25	Calib Date:	13-May-2024 11:46:10		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D				
Column 1 :	CLP1 Pesticides Column 1 (0.32 mm)		Det: GC ECD1A		
Column 2 :	CLP2 Pesticides Column 2 (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1674				
First Level Reviewer: USP3		Date:	14-May-2024 09:22:54		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 14 Tetrachloro-m-xylene	10.0	8.13	81.30
$ 15 DCB Decachlorobiphenyl	10.0	8.10	81.03

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 14 Tetrachloro-m-xylene	10.0	4.96	49.61
$ 15 DCB Decachlorobiphenyl	10.0	8.24	82.44

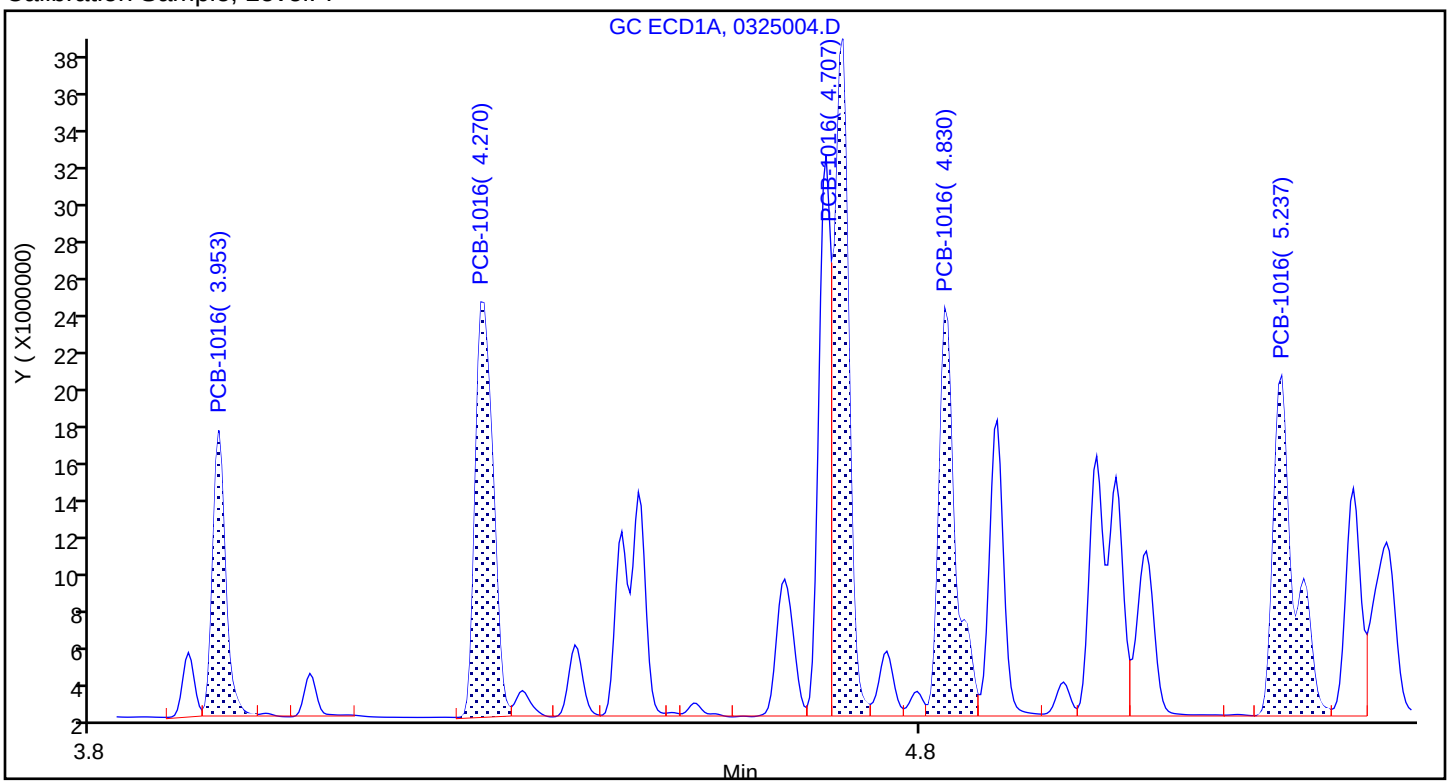
Report Date: 14-May-2024 12:55:34 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

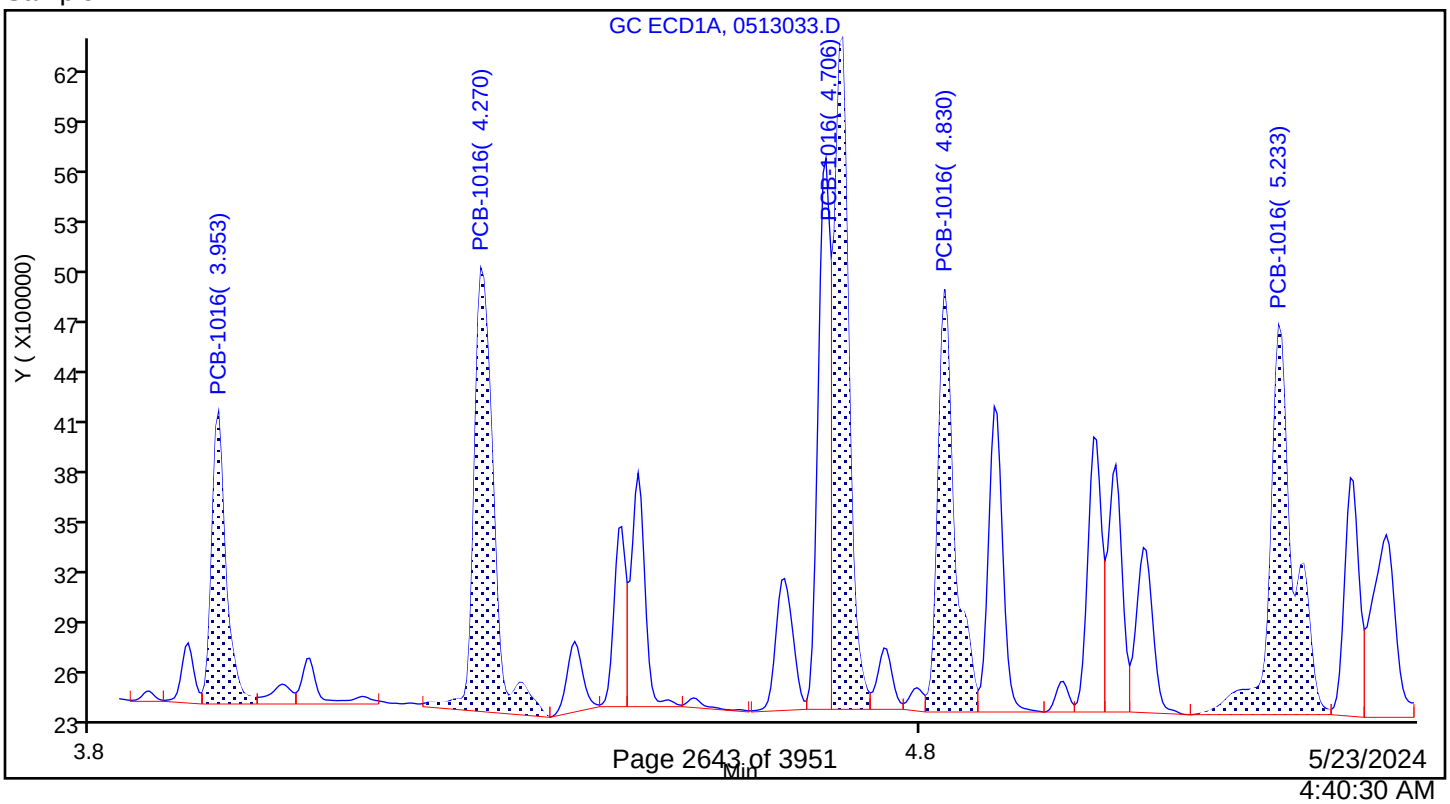
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513033.D
Injection Date: 13-May-2024 18:43:36 Instrument ID: SGC_J
Lims ID: LCS 280-652915/4-A
Client ID:
Operator ID: SMP ALS Bottle#: 32 Worklist Smp#: 33
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP1 Pesticides Column 1 (0.32 mm) Detector GC ECD1A

1 PCB-1016, CAS: 12674-11-2

Calibration Sample, Level: 7



Sample



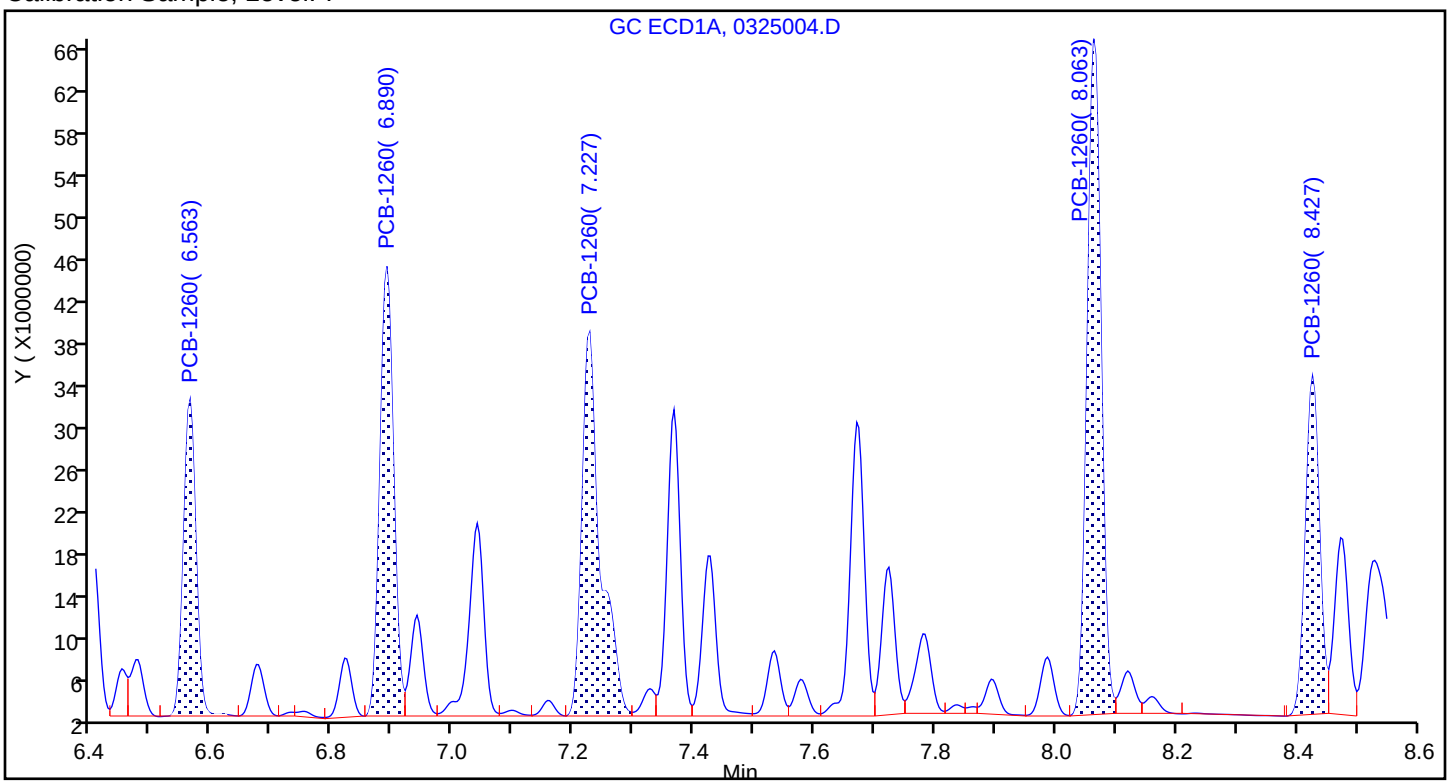
Report Date: 14-May-2024 12:55:35 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

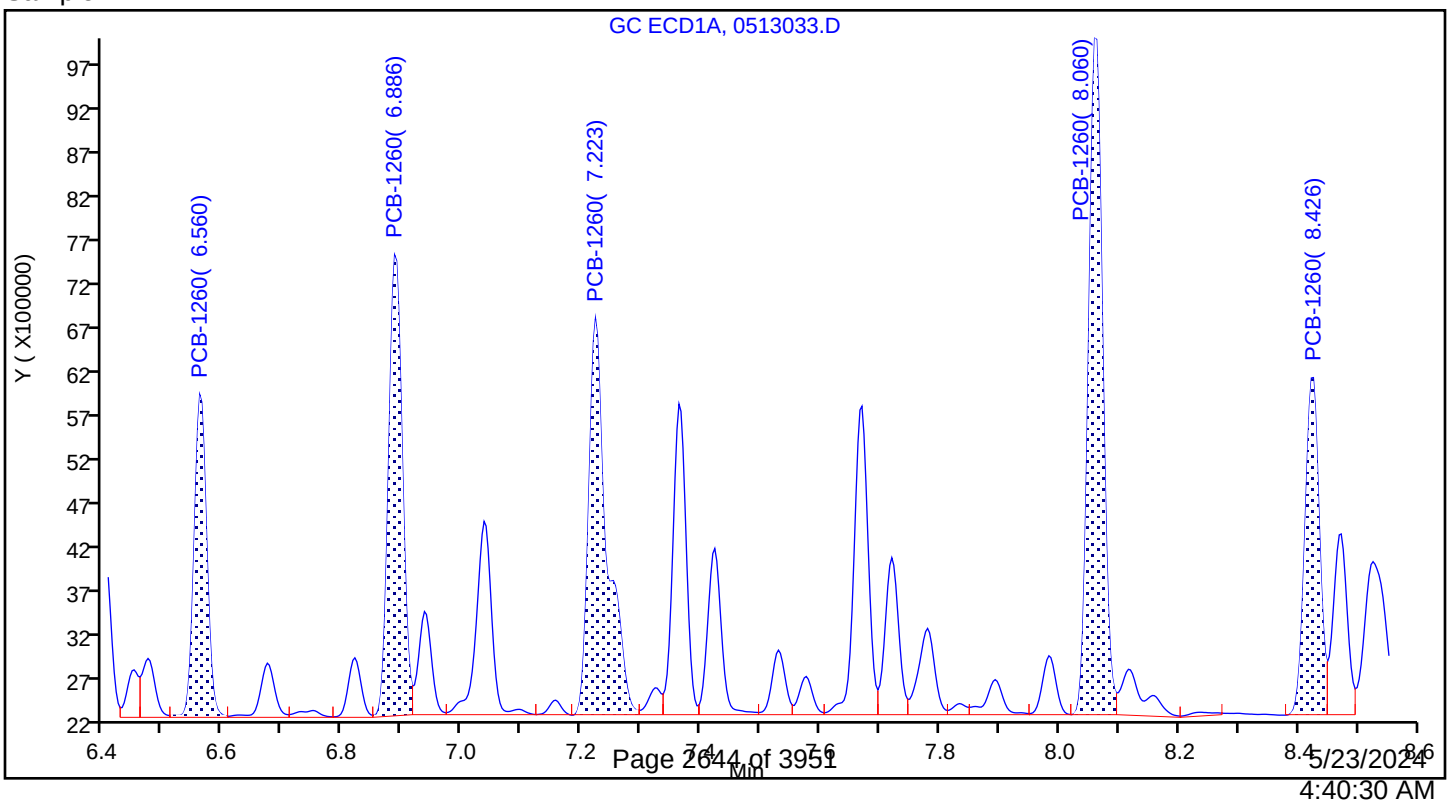
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513033.D
Injection Date: 13-May-2024 18:43:36 Instrument ID: SGC_J
Lims ID: LCS 280-652915/4-A
Client ID:
Operator ID: SMP ALS Bottle#: 32 Worklist Smp#: 33
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP1 Pesticides Column 1 (0.32 mm) Detector GC ECD1A

12 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 7



Sample



Eurofins Denver

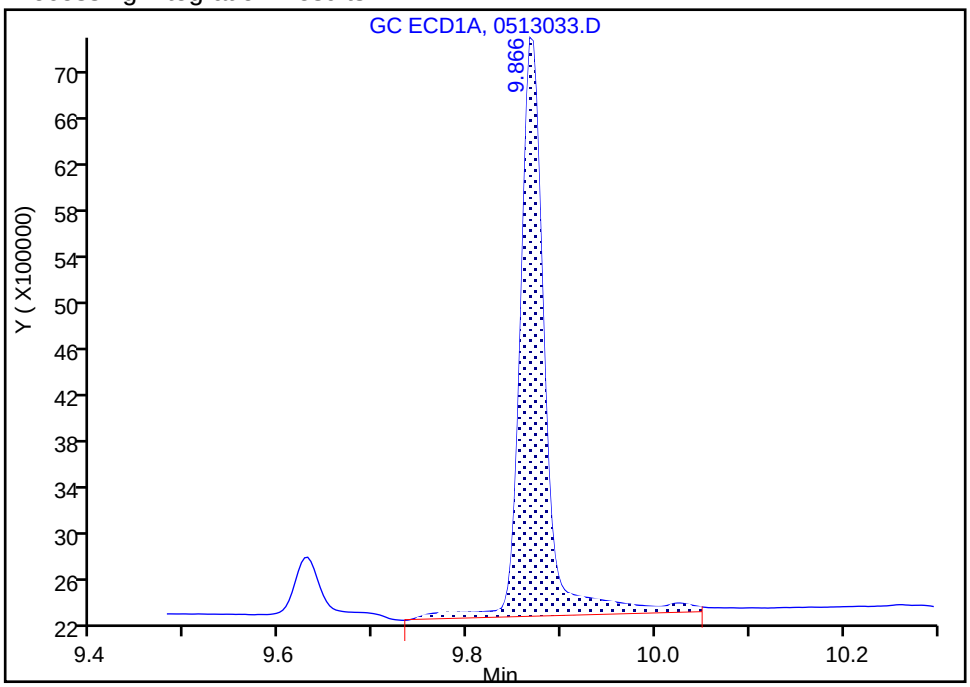
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513033.D
Injection Date: 13-May-2024 18:43:36 Instrument ID: SGC_J
Lims ID: LCS 280-652915/4-A
Client ID:
Operator ID: SMP ALS Bottle#: 32 Worklist Smp#: 33
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP1 Pesticides Column 1 (0.32 mm) Detector GC ECD1A

$ 15 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 1

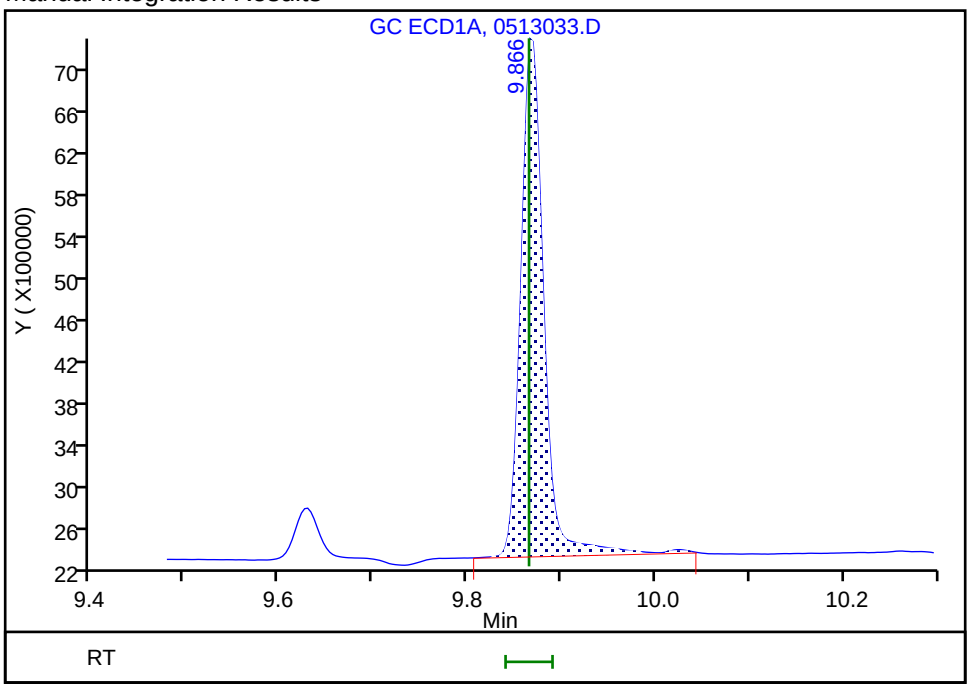
Processing Integration Results

RT: 9.87
Area: 9230098
Amount: 8.952567
Amount Units: ng/ml



Manual Integration Results

RT: 9.87
Area: 8369039
Amount: 8.103205
Amount Units: ng/ml



Reviewer: USP3, 14-May-2024 09:22:43 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-652915/5-A

Matrix: Water | Lab File ID: 0513034.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 250(mL) | Date Analyzed: 05/13/2024 19:00

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP1 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653123 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
12674-11-2	PCB-1016	2.29		1.0	0.60	0.17
11096-82-5	PCB-1260	2.39		1.0	0.30	0.089

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	72	M	30-136
877-09-8	Tetrachloro-m-xylene	90		25-120

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513034.D
Lims ID: LCSD 280-652915/5-A
Client ID:
Sample Type: LCSD
Inject. Date: 13-May-2024 19:00:21 ALS Bottle#: 33 Worklist Smp#: 34
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-652915/5-A
Operator ID: SMP Instrument ID: SGC_J

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:55:25 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 14-May-2024 09:23:58

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.826	2.824	0.002	85732617	100.0	100.0	
2	2.770	2.767	0.003	89475846	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.613	3.615	-0.002	9592416	10.0	8.99	
2	3.660	3.659	0.001	5638532	10.0	5.35	
						RPD = 50.74	
1 PCB-1016							M
1	3.953	3.952	0.001	2066150	100.0	109.6	
1	4.270	4.272	-0.002	4360130	100.0	118.5	
1	4.703	4.705	-0.002	5092987	100.0	110.9	
1	4.830	4.829	0.001	3649409	100.0	107.8	
1	5.233	5.235	-0.002	4397239	100.0	125.7	M
		Average of Peak Amounts =				114.5	
2	4.090	4.092	-0.002	1951295	100.0	109.2	
2	4.446	4.449	-0.003	3874811	100.0	106.3	
2	4.870	4.869	0.001	7936882	100.0	106.2	
2	4.996	4.995	0.001	3437914	100.0	107.4	
2	5.463	5.462	0.001	2754045	100.0	111.3	
		Average of Peak Amounts =				108.1	
						RPD = 5.77	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							
1	6.560	6.559	0.001	5361531	100.0	115.7	
1	6.886	6.885	0.001	8435935	100.0	118.3	
1	7.223	7.222	0.001	9671477	100.0	121.0	
1	8.060	8.059	0.001	12794619	100.0	120.4	
1	8.423	8.422	0.001	6425848	100.0	121.2	
		Average of Peak Amounts =				119.3	
2	6.873	6.872	0.001	5082361	100.0	102.1	
2	7.130	7.129	0.001	6247292	100.0	117.5	
2	7.570	7.565	0.005	8693193	100.0	120.3	
2	8.386	8.382	0.004	11307331	100.0	119.0	
2	8.863	8.862	0.001	7950930	100.0	119.8	
		Average of Peak Amounts =				115.7	
						RPD = 3.05	
$ 15 DCB Decachlorobiphenyl							M
1	9.870	9.865	0.005	7089487	10.0	7.22	M
2	10.320	10.319	0.001	6691990	10.0	7.47	
						RPD = 3.48	
19 1260 Res 1							
1	8.473	8.476	-0.003	3462923	NR	NR	
16 1260 Res 2							
1		8.479			ND	ND	
18 1260 Res 3							
1	8.526	8.533	-0.006	4330441	NR	NR	

QC Flag Legend

Processing Flags
- NR - Missing Quant Standard
- ND - Not Detected or Marked ND

Review Flags
- M - Manually Integrated

Reagents:

BNB IS_00027 Amount Added: 20.00 Units: uL Run Reagent

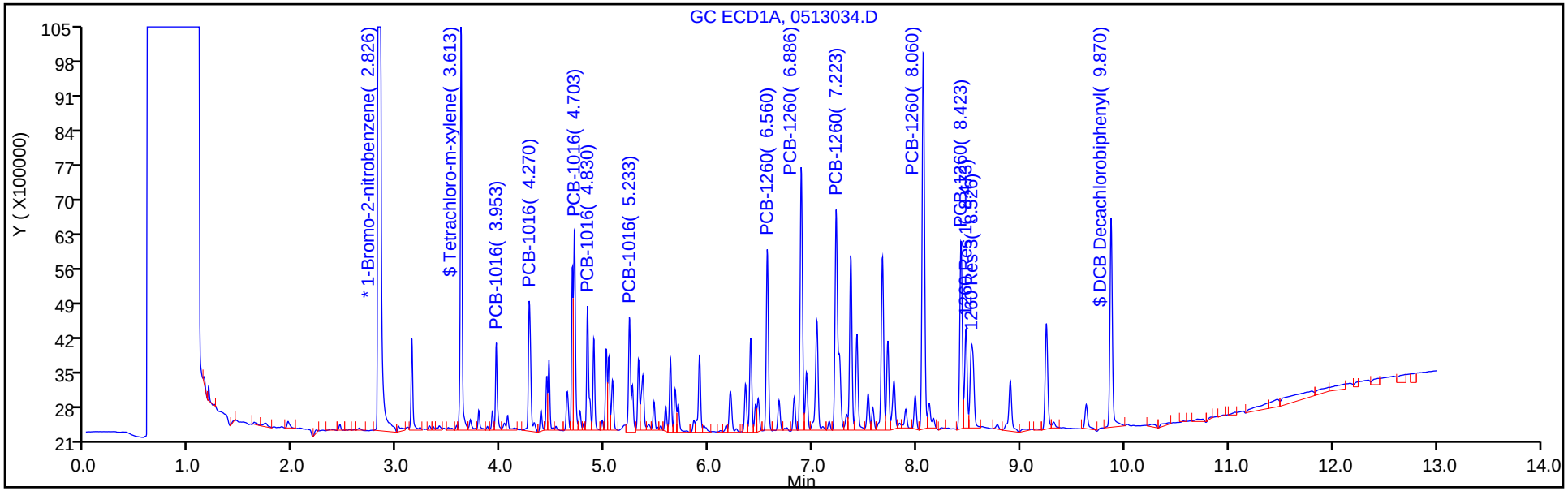
Report Date: 14-May-2024 12:55:38 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

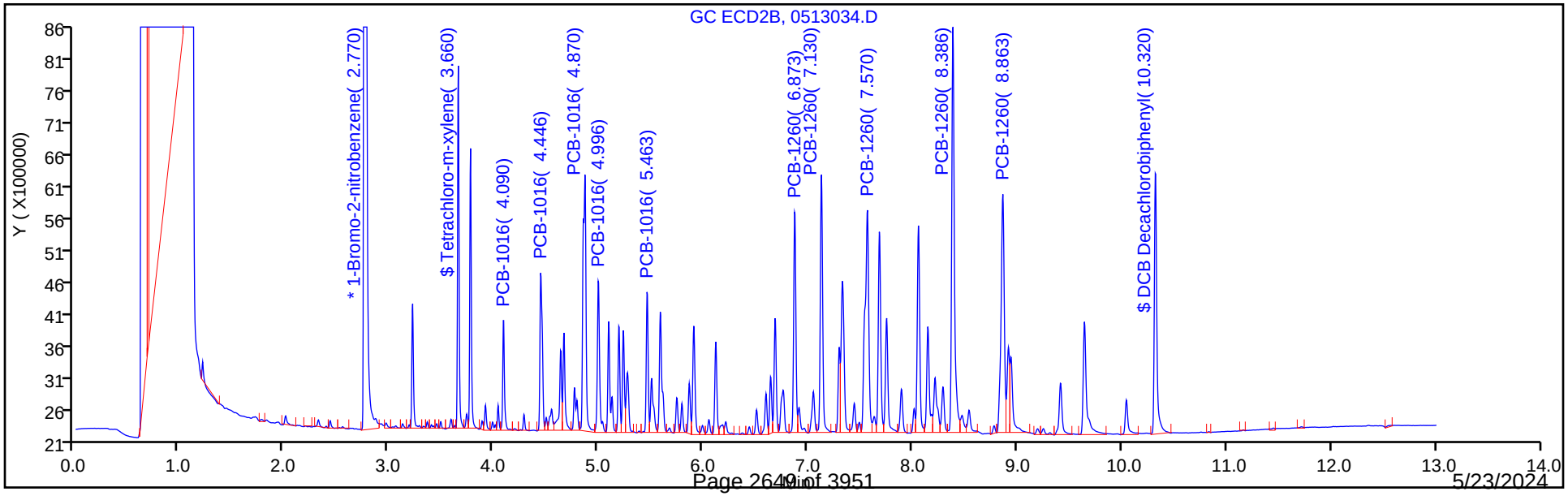
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513034.D

Injection Date:	13-May-2024 19:00:21	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	LCSD 280-652915/5-A			Worklist Smp#:	34
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	33
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513034.D				
Lims ID:	LCSD 280-652915/5-A				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	13-May-2024 19:00:21	ALS Bottle#:	33	Worklist Smp#:	34
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCSD 280-652915/5-A				
Operator ID:	SMP	Instrument ID:	SGC_J		
Method:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m				
Limit Group:	GCSV - 8082A - IS				
Last Update:	14-May-2024 12:55:25	Calib Date:	13-May-2024 11:46:10		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D				
Column 1 :	CLP1 Pesticides Column 1 (0.32 mm)		Det: GC ECD1A		
Column 2 :	CLP2 Pesticides Column 2 (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1674				
First Level Reviewer: USP3		Date:	14-May-2024 09:23:58		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 14 Tetrachloro-m-xylene	10.0	8.99	89.89
$ 15 DCB Decachlorobiphenyl	10.0	7.22	72.15

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 14 Tetrachloro-m-xylene	10.0	5.35	53.50
$ 15 DCB Decachlorobiphenyl	10.0	7.47	74.71

Report Date: 14-May-2024 12:55:38 Chrom Revision: 2.3 01-May-2024 15:52:26

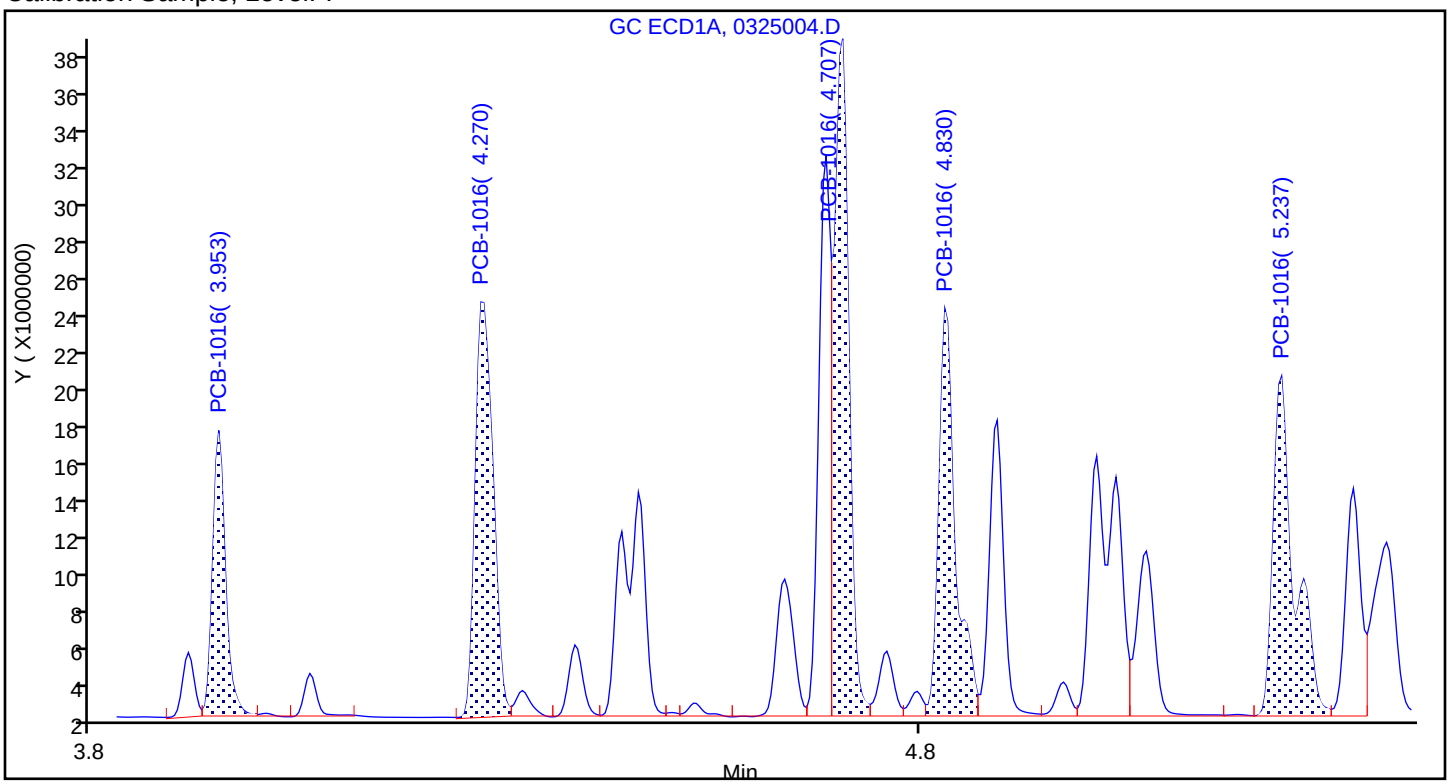
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513034.D

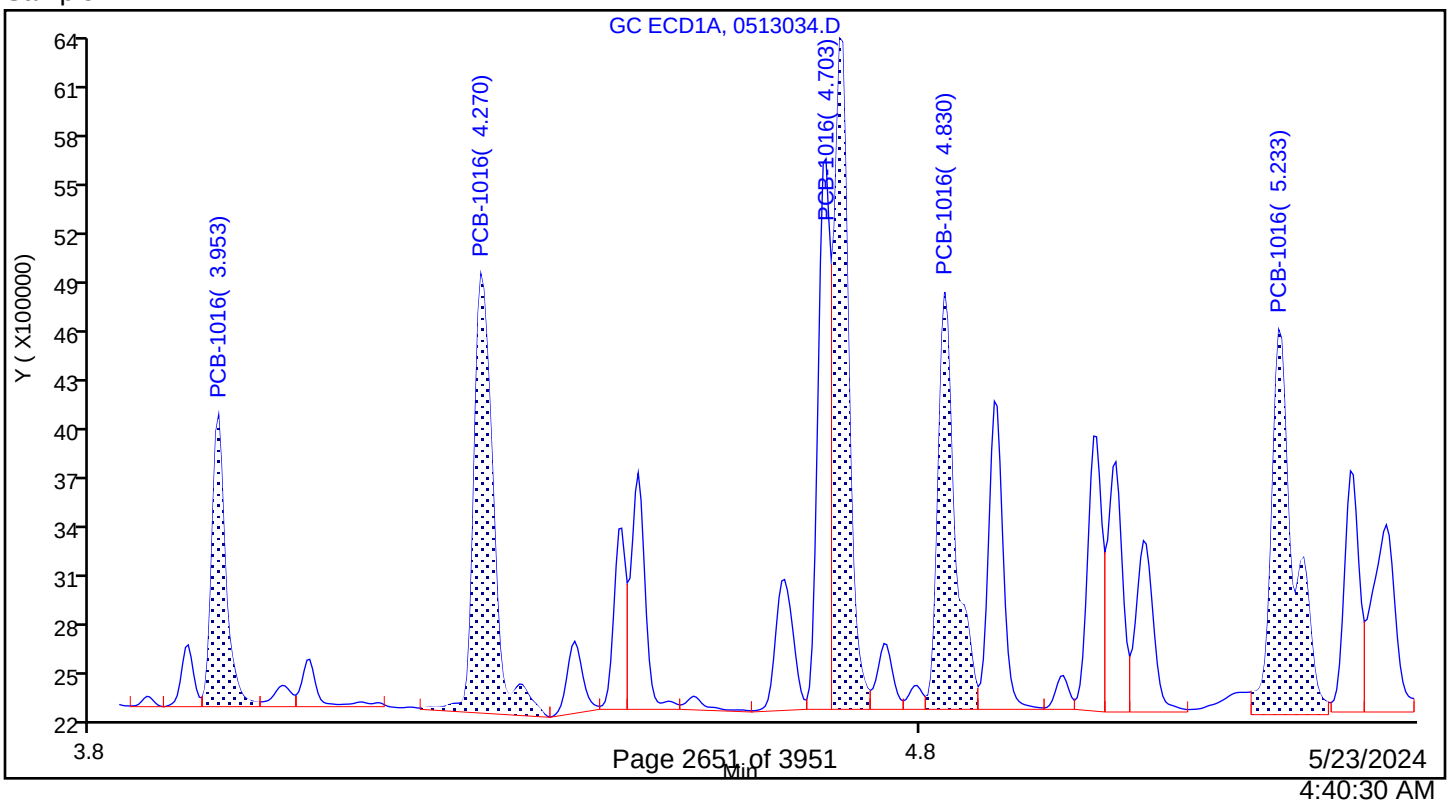
Injection Date:	13-May-2024 19:00:21	Instrument ID:	SGC_J		
Lims ID:	LCSD 280-652915/5-A				
Client ID:					
Operator ID:	SMP	ALS Bottle#:	33	Worklist Smp#:	34
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		
Column:	CLP1 Pesticides Column 1 (0.32 mm)	Detector	GC ECD1A		

1 PCB-1016, CAS: 12674-11-2

Calibration Sample, Level: 7



Sample



Report Date: 14-May-2024 12:55:39 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513034.D

Injection Date: 13-May-2024 19:00:21 Instrument ID: SGC_J

Lims ID: LCSD 280-652915/5-A

Client ID:

Operator ID: SMP ALS Bottle#: 33 Worklist Smp#: 34

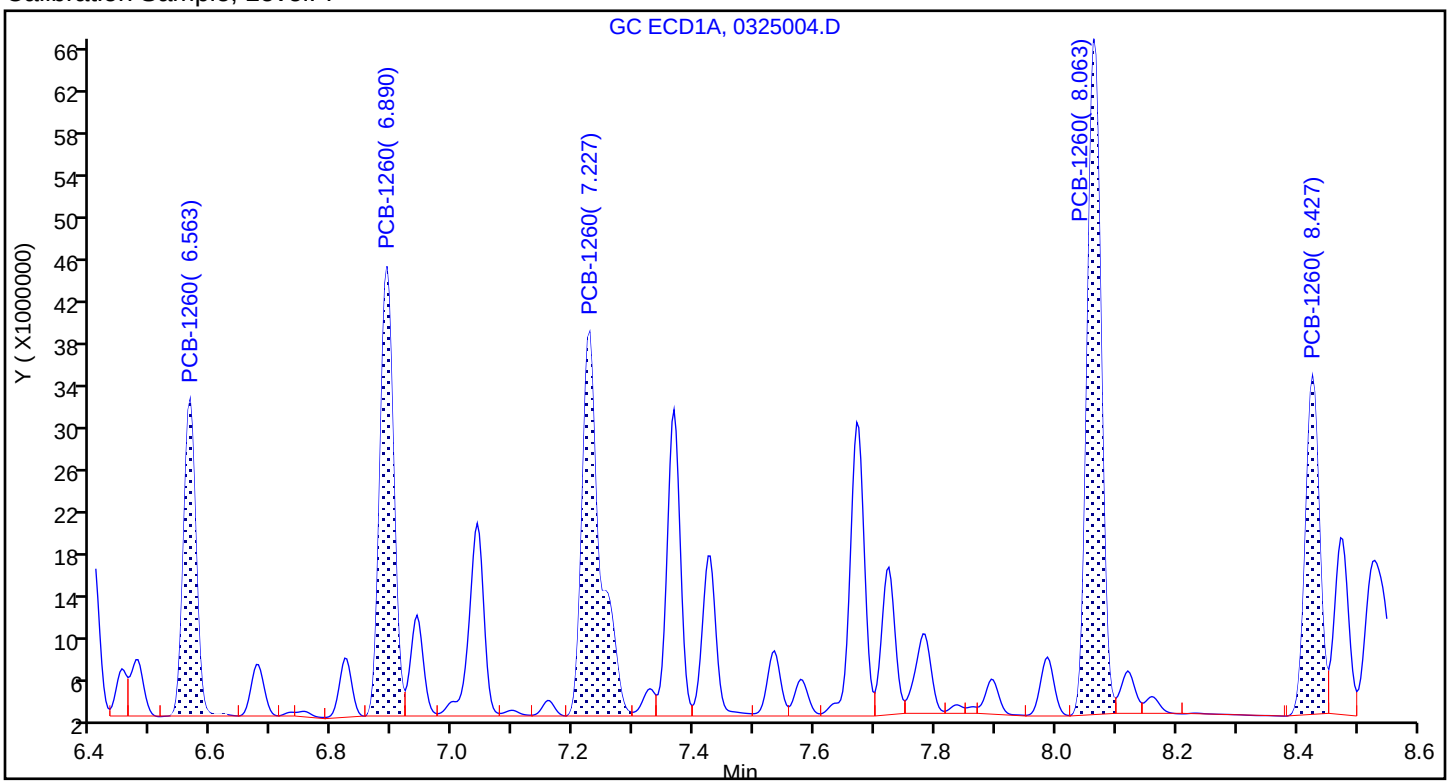
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8082_J Limit Group: GCSV - 8082A - IS

Column: CLP1 Pesticides Column 1 (0.32 mm) Detector GC ECD1A

12 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 7



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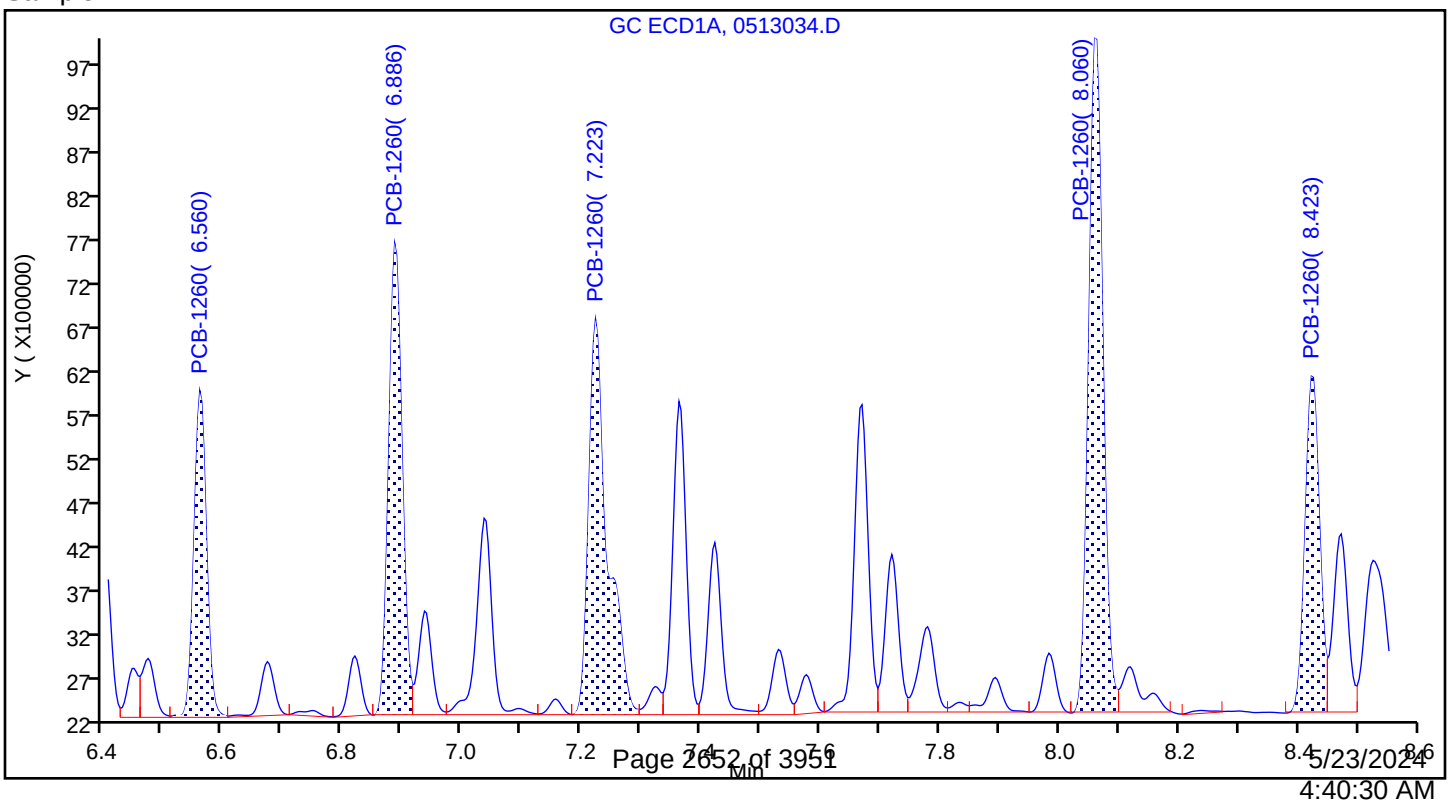


Manual Integration/User Assign Peak Report

Eurofins Denver

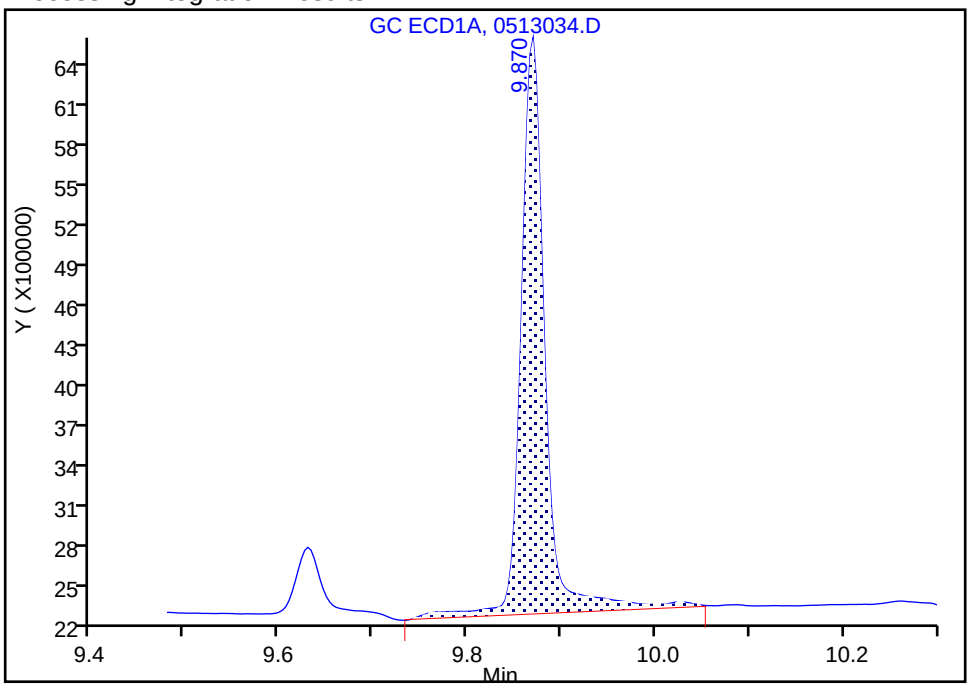
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513034.D
Injection Date: 13-May-2024 19:00:21 Instrument ID: SGC_J
Lims ID: LCSD 280-652915/5-A
Client ID:
Operator ID: SMP ALS Bottle#: 33 Worklist Smp#: 34
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP1 Pesticides Column 1 (0.32 mm) Detector GC ECD1A

$ 15 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 1

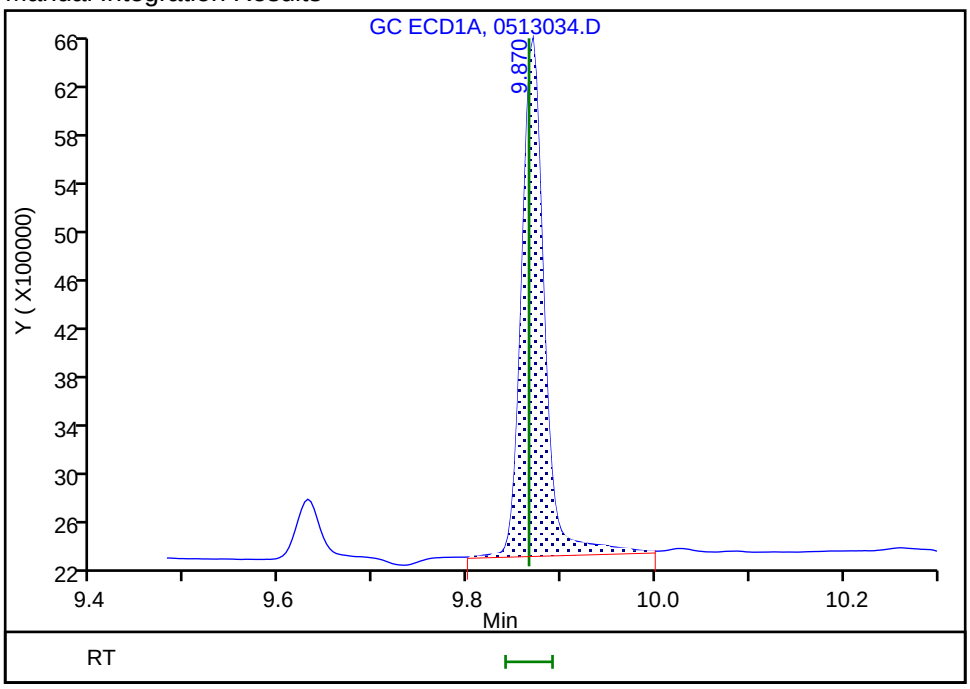
Processing Integration Results

RT: 9.87
Area: 7808937
Amount: 7.962963
Amount Units: ng/ml



Manual Integration Results

RT: 9.87
Area: 7089487
Amount: 7.215305
Amount Units: ng/ml



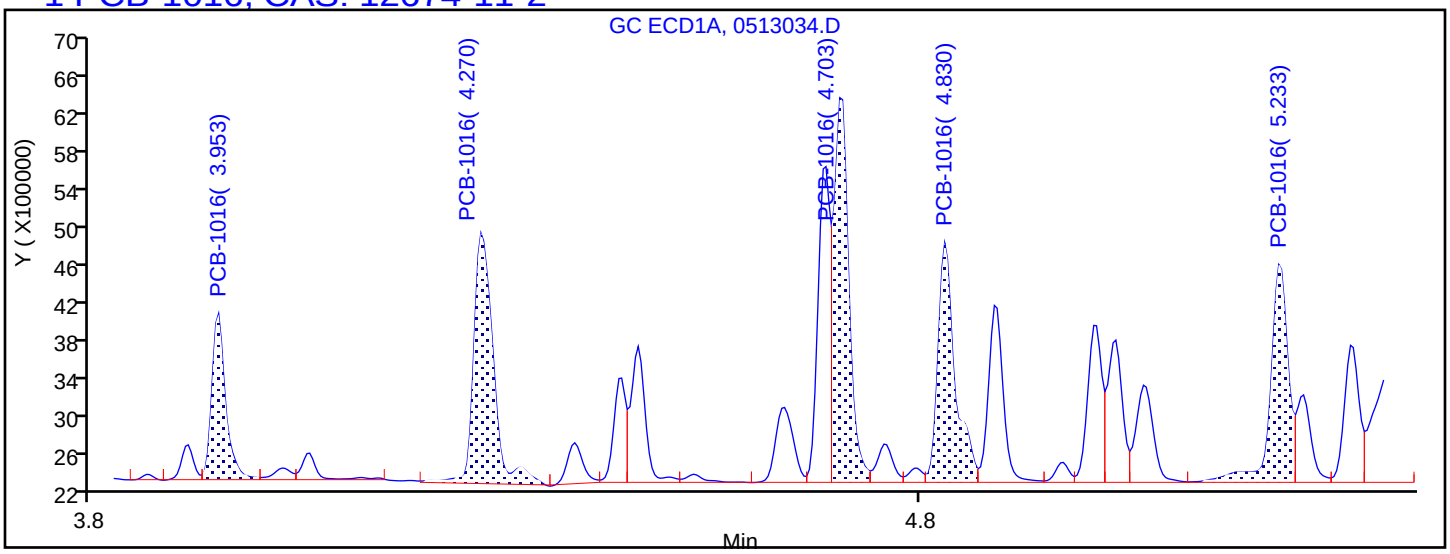
Reviewer: USP3, 14-May-2024 09:23:55 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Report Date: 14-May-2024 12:55:38 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

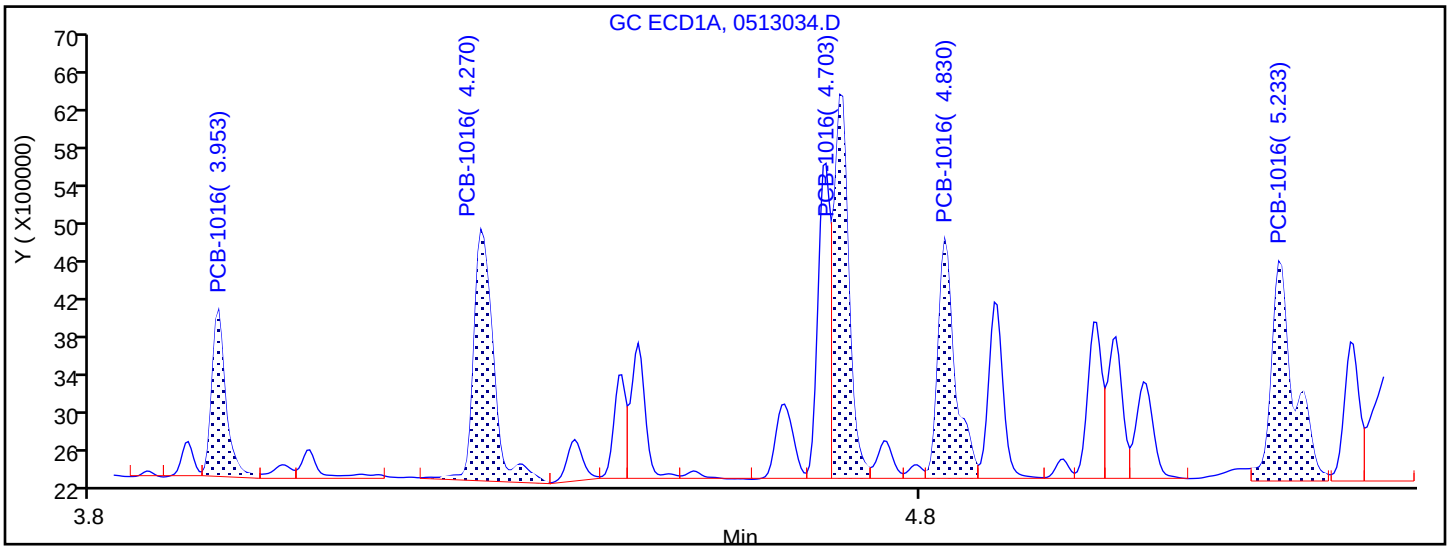
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513034.D
Injection Date: 13-May-2024 19:00:21 Instrument ID: SGC_J
Lims ID: LCSD 280-652915/5-A
Client ID:
Operator ID: SMP ALS Bottle#: 33 Worklist Smp#: 34
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP1 Pesticides Column 1 (0.32 mm) Detector GC ECD1A

1 PCB-1016, CAS: 12674-11-2



Processing Integration Results

3.953	Response = 2066150
4.270	Response = 4360130
4.703	Response = 5092987
4.830	Response = 3649409
5.233	Response = 3489978



Manual Integration Results

3.953	Response = 2066150	
4.270	Response = 4360130	
4.703	Response = 5092987	
4.830	Response = 3649409	
5.233	Response = 4397239	M

Reviewer: USP3, 14-May-2024 09:23:20 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Split Peak

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MS | Lab Sample ID: 280-191098-1 MS

Matrix: Water | Lab File ID: 0513036.D

Analysis Method: 8082A | Date Collected: 05/06/2024 10:16

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 247.4(mL) | Date Analyzed: 05/13/2024 19:33

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP1 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653123 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
12674-11-2	PCB-1016	2.36		1.0	0.61	0.17
11104-28-2	PCB-1221	0.26	U M	1.0	0.26	0.18
11141-16-5	PCB-1232	0.31	U M	1.0	0.31	0.13
53469-21-9	PCB-1242	0.31	U M	1.0	0.31	0.11
12672-29-6	PCB-1248	0.61	U M	1.0	0.61	0.17
11097-69-1	PCB-1254	0.26	U M	1.0	0.26	0.14
11096-82-5	PCB-1260	2.31		1.0	0.31	0.090

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	68		30-136
877-09-8	Tetrachloro-m-xylene	82		25-120

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513036.D
Lims ID: 280-191098-E-1-B MS
Client ID: DET-003-240401-GW
Sample Type: MS
Inject. Date: 13-May-2024 19:33:37 ALS Bottle#: 35 Worklist Smp#: 36
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-E-1-B MS
Operator ID: SMP Instrument ID: SGC_J

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:55:25 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 14-May-2024 09:24:51

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.826	2.824	0.002	83403641	100.0	100.0	
2	2.769	2.767	0.002	86640282	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.616	3.615	0.001	8543226	10.0	8.18	
2	3.659	3.659	0.000	6039204	10.0	5.96	
						RPD = 31.39	
3 PCB-1221							U
1		3.784				ND	
1		3.914					
1		3.950					
2		3.917					
2		4.040					
2		4.090					
7 PCB-1232							MU
1		3.950				ND	
1		4.270					
1		4.683					
1		4.830					
1		5.233					
2		4.090					
2		4.447					
2		4.870					
2		4.997					
2		5.913					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
1 PCB-1016							M
1	3.952	3.952	0.000	1977553	100.0	107.6	
1	4.269	4.272	-0.003	4134385	100.0	115.2	
1	4.706	4.705	0.001	5042748	100.0	113.0	
1	4.829	4.829	0.000	3478506	100.0	105.3	
1	5.236	5.235	0.001	4792217	100.0	142.2	M
		Average of Peak Amounts =				116.7	
2	4.092	4.092	0.000	1852271	100.0	106.8	
2	4.449	4.449	0.000	3698643	100.0	104.7	
2	4.872	4.869	0.003	7676621	100.0	106.1	
2	4.999	4.995	0.004	3290120	100.0	106.0	
2	5.466	5.462	0.004	2583654	100.0	107.5	
		Average of Peak Amounts =				106.2	
						RPD = 9.37	
10 PCB-1242							U
1		3.961				ND	
1		4.277					
1		4.694					
1		4.837					
1		5.681					
2		4.091					
2		4.447					
2		4.871					
2		4.997					
2		5.867					
4 PCB-1248							MU
1		4.270				ND	
1		4.683					
1		5.233					
1		5.670					
1		6.350					
2		4.853					
2		5.463					
2		5.590					
2		5.863					
2		6.163					
9 PCB-1254							U
1		5.674				ND	
1		5.907					
1		6.350					
1		6.887					
1		7.224					
2		5.907					
2		6.117					
2		6.644					
2		6.914					
2		7.567					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							
1	6.559	6.559	0.000	5127491	100.0	113.6	
1	6.886	6.885	0.001	8064953	100.0	116.1	
1	7.222	7.222	0.000	9123959	100.0	117.1	
1	8.062	8.059	0.003	11627088	100.0	111.9	
1	8.422	8.422	0.000	5863946	100.0	113.2	
		Average of Peak Amounts =				114.4	
2	6.876	6.872	0.004	4870291	100.0	100.9	
2	7.129	7.129	0.000	6008733	100.0	116.6	
2	7.569	7.565	0.004	8209769	100.0	117.1	
2	8.386	8.382	0.004	10255129	100.0	110.8	
2	8.862	8.862	0.000	7130823	100.0	110.3	
		Average of Peak Amounts =				111.1	
						RPD = 2.85	
5 PCB-1262							U
1		6.560				ND	
1		6.887					
1		7.363					
1		8.060					
1		8.470					
2		6.873					
2		7.683					
2		8.057					
2		8.383					
2		8.857					
13 PCB-1268							U
1		8.481				ND	
1		8.531					
1		8.781					
1		9.254					
1		9.637					
2		8.854					
2		8.917					
2		9.251					
2		9.644					
2		10.044					
$ 15 DCB Decachlorobiphenyl							
1	9.866	9.865	0.001	6514032	10.0	6.81	
2	10.322	10.319	0.003	5952596	10.0	6.81	
						RPD = 0.09	
S 8 Polychlorinated biphenyls, Total							
1						231.0	
2						217.4	
						RPD = 6.09	
19 1260 Res 1							
1	8.469	8.476	-0.007	2951102	NR	NR	
16 1260 Res 2							
1		8.479			ND	ND	
18 1260 Res 3							
1	8.526	8.533	-0.007	3770048	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

U - Marked Undetected

Reagents:

BNB IS_00027 Amount Added: 20.00 Units: uL Run Reagent

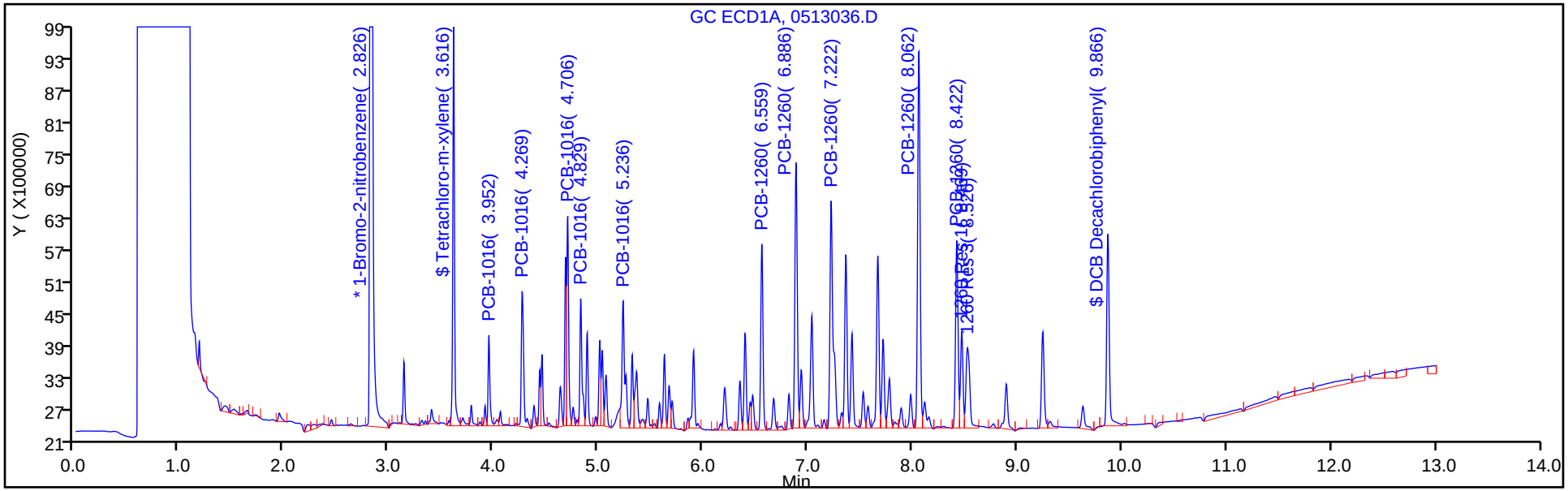
Report Date: 14-May-2024 12:55:45 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

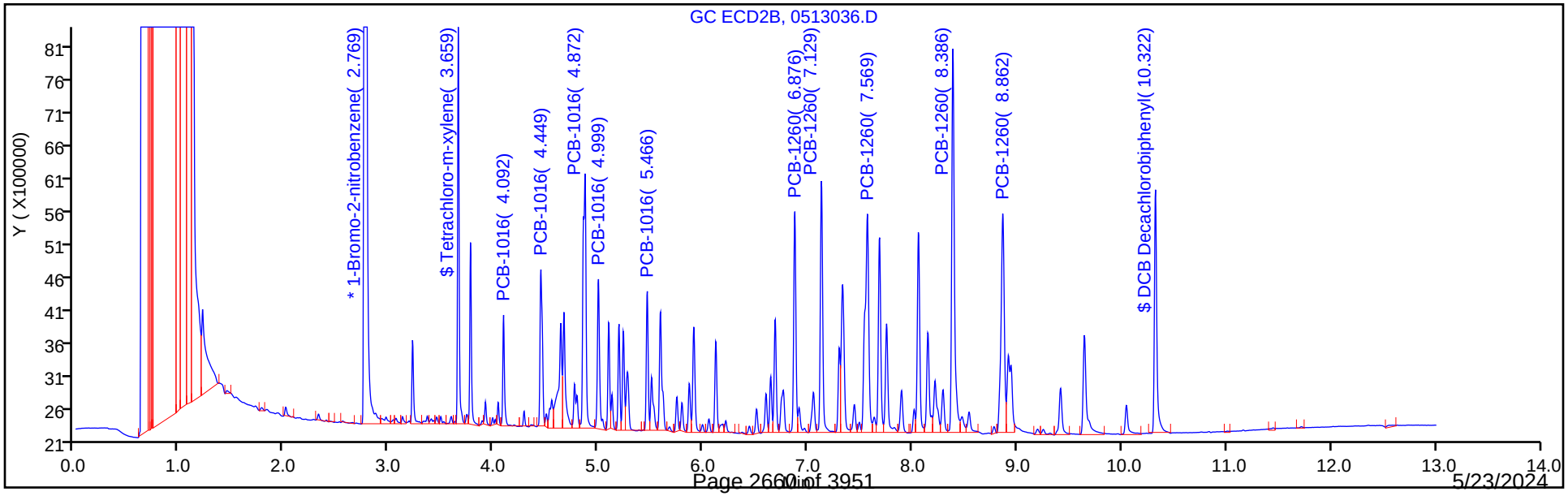
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513036.D

Injection Date:	13-May-2024 19:33:37	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	280-191098-E-1-B MS			Worklist Smp#:	36
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	35
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513036.D				
Lims ID:	280-191098-E-1-B MS				
Client ID:	DET-003-240401-GW				
Sample Type:	MS				
Inject. Date:	13-May-2024 19:33:37	ALS Bottle#:	35	Worklist Smp#:	36
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-E-1-B MS				
Operator ID:	SMP	Instrument ID:	SGC_J		
Method:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m				
Limit Group:	GCSV - 8082A - IS				
Last Update:	14-May-2024 12:55:25	Calib Date:	13-May-2024 11:46:10		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D				
Column 1 :	CLP1 Pesticides Column 1 (0.32 mm)		Det: GC ECD1A		
Column 2 :	CLP2 Pesticides Column 2 (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1674				
First Level Reviewer:	USP3	Date:	14-May-2024 09:24:51		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 14 Tetrachloro-m-xylene	10.0	8.18	81.78
$ 15 DCB Decachlorobiphenyl	10.0	6.81	68.06

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 14 Tetrachloro-m-xylene	10.0	5.96	59.59
$ 15 DCB Decachlorobiphenyl	10.0	6.81	68.13

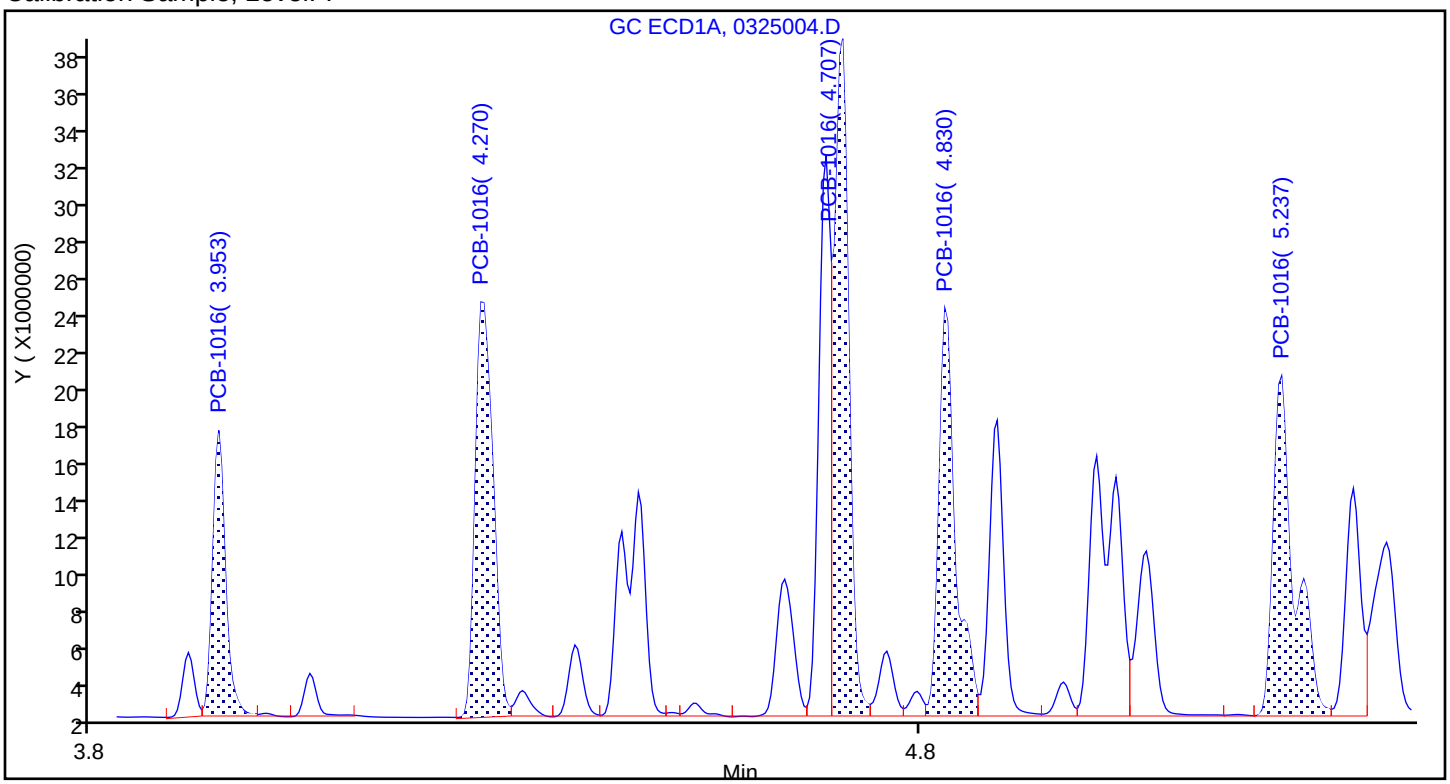
Report Date: 14-May-2024 12:55:45 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

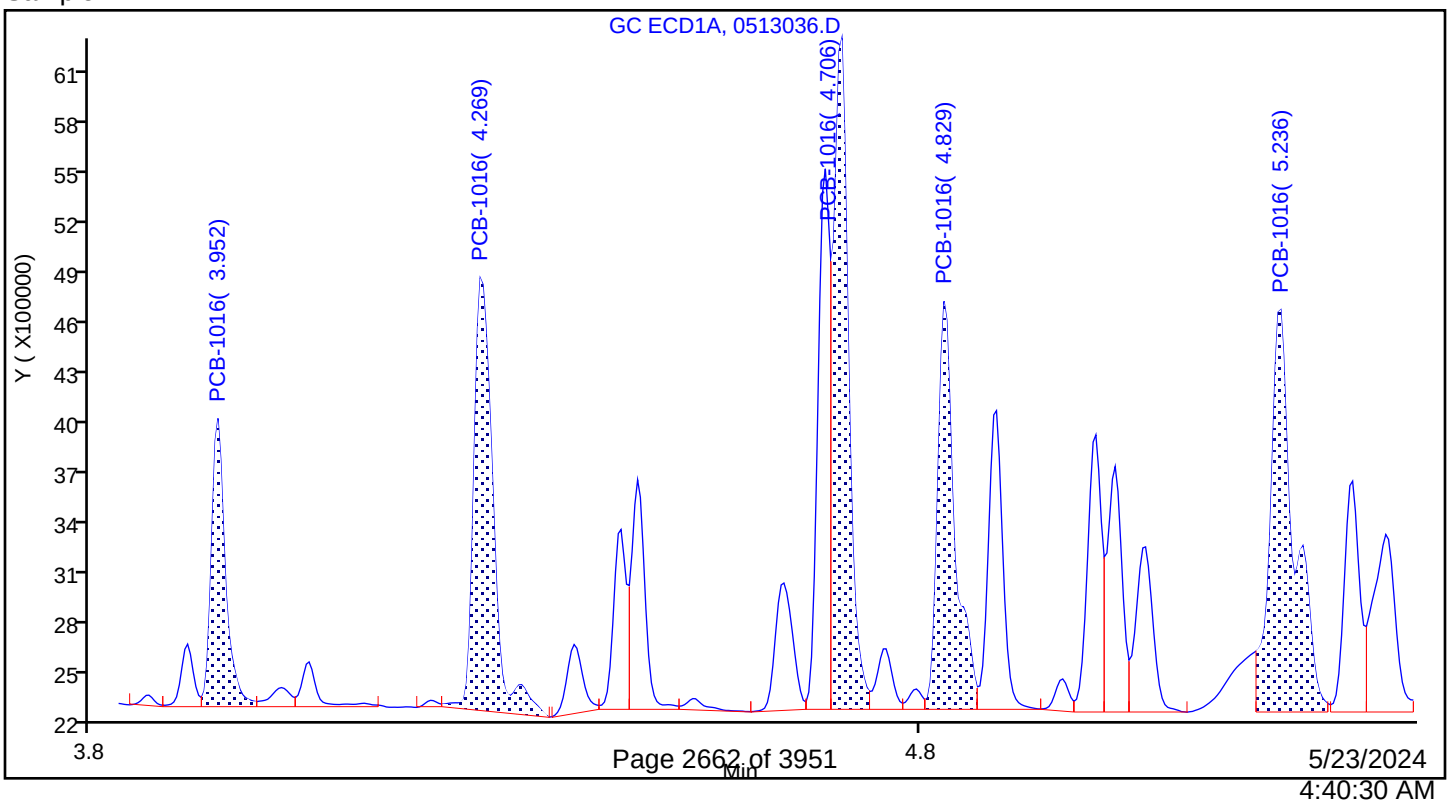
Data File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513036.D				
Injection Date:	13-May-2024 19:33:37	Instrument ID:	SGC_J		
Lims ID:	280-191098-E-1-B MS				
Client ID:	DET-003-240401-GW				
Operator ID:	SMP	ALS Bottle#:	35	Worklist Smp#:	36
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		
Column:	CLP1 Pesticides Column 1 (0.32 mm)	Detector	GC ECD1A		

1 PCB-1016, CAS: 12674-11-2

Calibration Sample, Level: 7



Sample



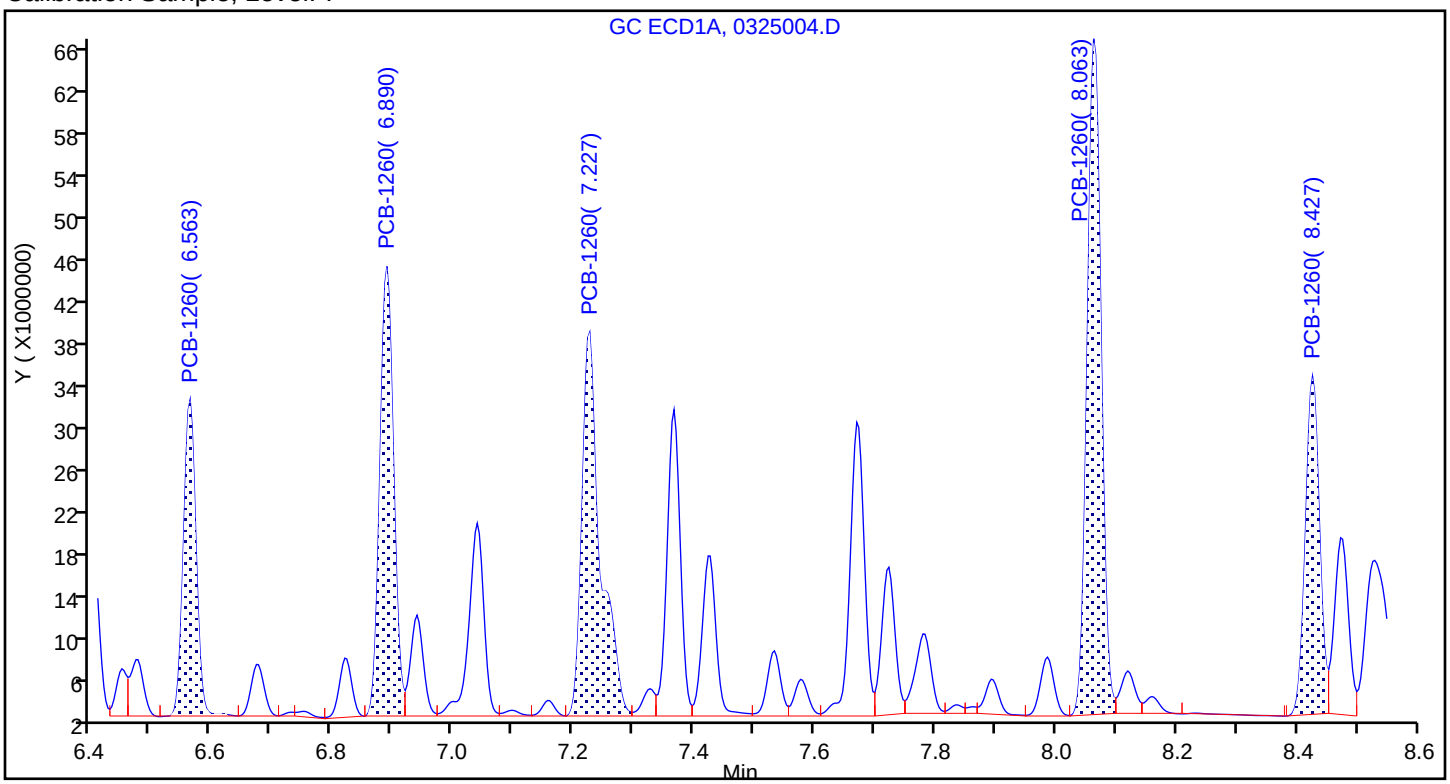
Report Date: 14-May-2024 12:55:45 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

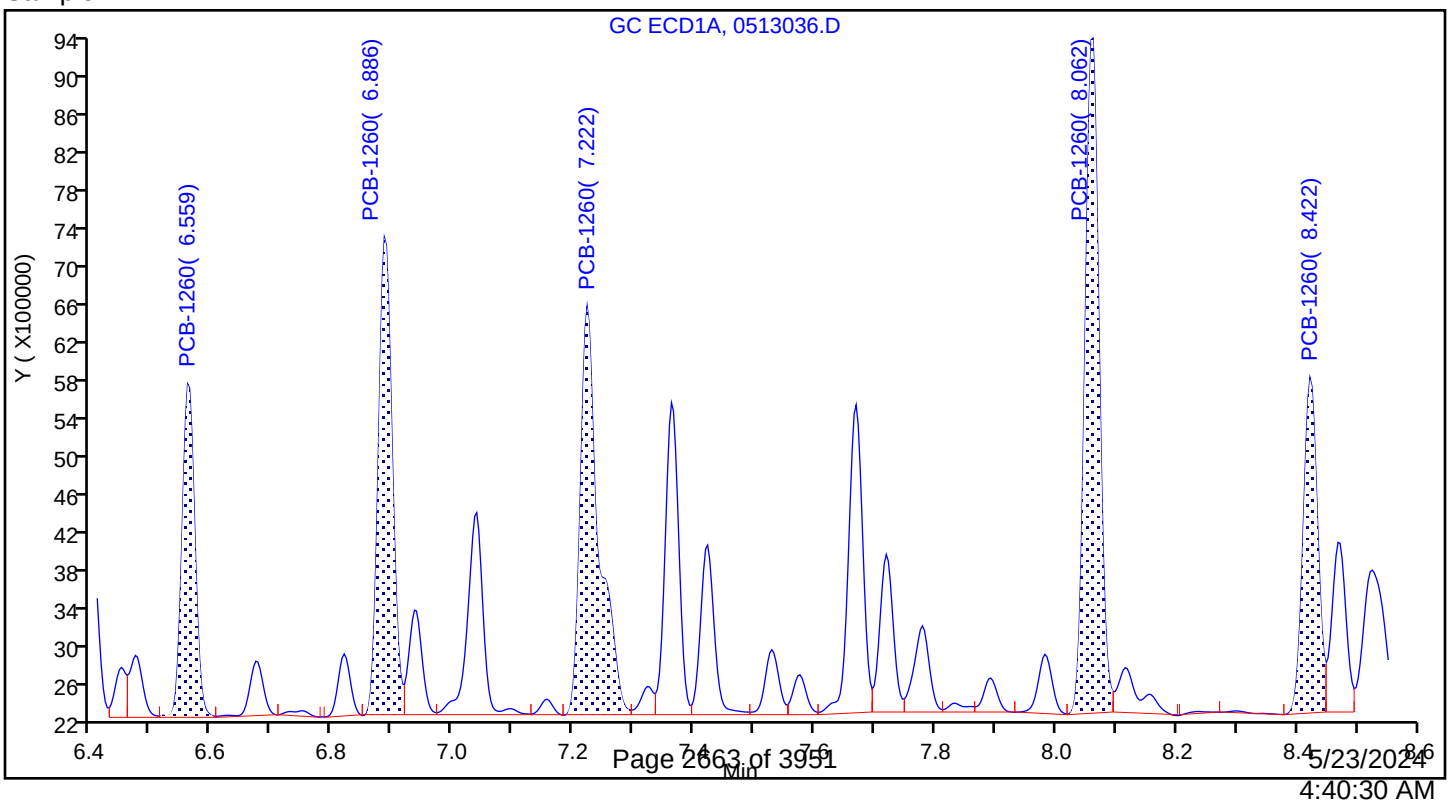
Data File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513036.D				
Injection Date:	13-May-2024 19:33:37	Instrument ID:	SGC_J		
Lims ID:	280-191098-E-1-B MS				
Client ID:	DET-003-240401-GW				
Operator ID:	SMP	ALS Bottle#:	35	Worklist Smp#:	36
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		
Column:	CLP1 Pesticides Column 1 (0.32 mm)	Detector	GC ECD1A		

12 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 7



Sample

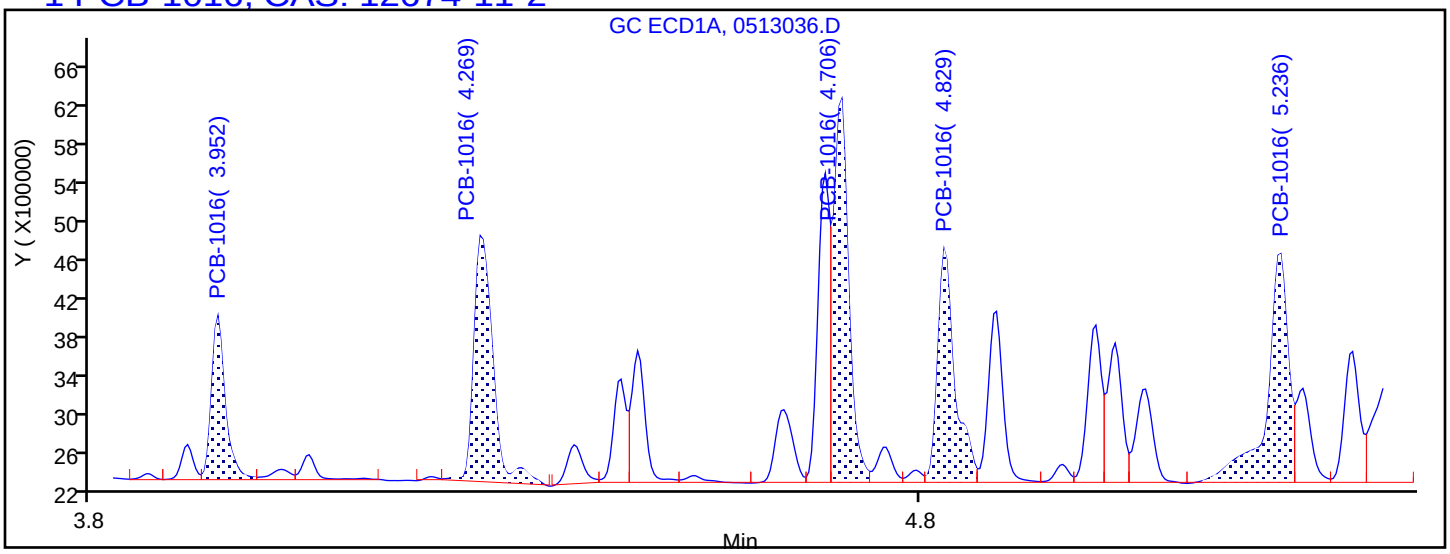


Report Date: 14-May-2024 12:55:45 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

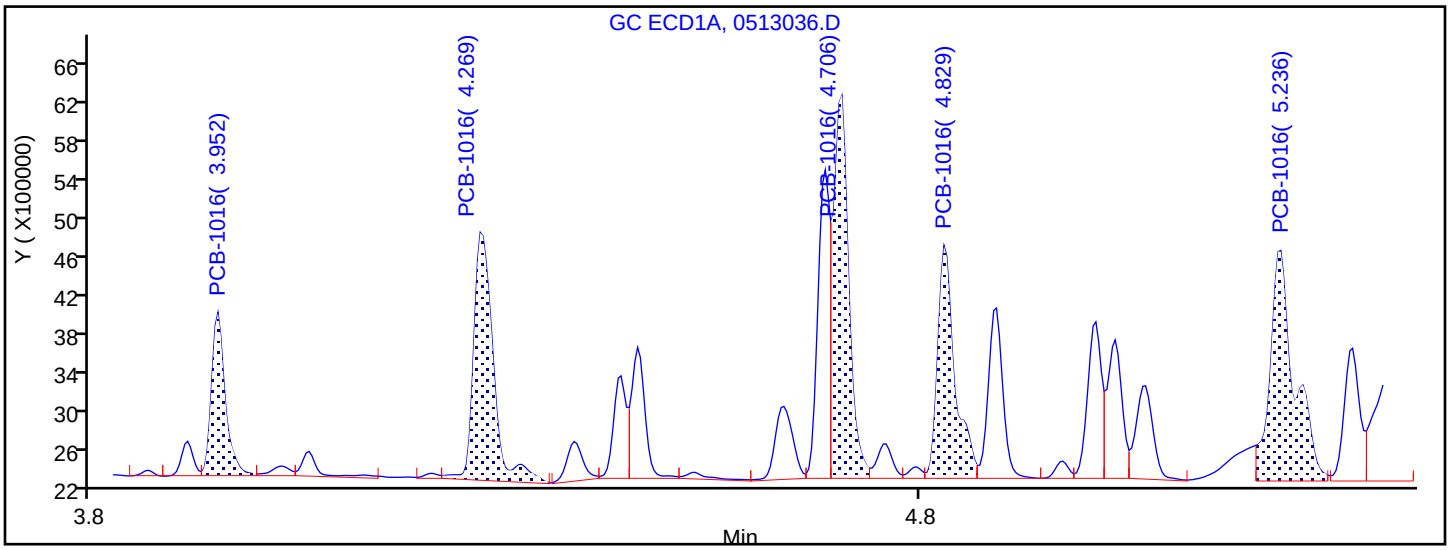
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513036.D
Injection Date: 13-May-2024 19:33:37 Instrument ID: SGC_J
Lims ID: 280-191098-E-1-B MS
Client ID: DET-003-240401-GW
Operator ID: SMP ALS Bottle#: 35 Worklist Smp#: 36
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP1 Pesticides Column 1 (0.32 mm) Detector GC ECD1A

1 PCB-1016, CAS: 12674-11-2



Processing Integration Results

3.952	Response = 1977553
4.269	Response = 4134385
4.706	Response = 5042748
4.829	Response = 3478506
5.236	Response = 4312939



Manual Integration Results

3.952	Response = 1977553	
4.269	Response = 4134385	
4.706	Response = 5042748	
4.829	Response = 3478506	
5.236	Response = 4792217	M

Reviewer: USP3, 14-May-2024 09:24:45 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Split Peak

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW MSD | Lab Sample ID: 280-191098-1 MSD

Matrix: Water | Lab File ID: 0513037.D

Analysis Method: 8082A | Date Collected: 05/06/2024 10:16

Extraction Method: 3510C | Date Extracted: 05/10/2024 11:46

Sample wt/vol: 247.7(mL) | Date Analyzed: 05/13/2024 19:50

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP1 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653123 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
12674-11-2	PCB-1016	2.56		1.0	0.61	0.17
11104-28-2	PCB-1221	0.26	U M	1.0	0.26	0.18
11141-16-5	PCB-1232	0.31	U M	1.0	0.31	0.13
53469-21-9	PCB-1242	0.31	U M	1.0	0.31	0.10
12672-29-6	PCB-1248	0.61	U M	1.0	0.61	0.17
11097-69-1	PCB-1254	0.26	U M	1.0	0.26	0.14
11096-82-5	PCB-1260	2.43		1.0	0.31	0.090

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	57	M	30-136
877-09-8	Tetrachloro-m-xylene	83		25-120

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513037.D
Lims ID: 280-191098-B-1-A MSD
Client ID: DET-003-240401-GW
Sample Type: MSD
Inject. Date: 13-May-2024 19:50:18 ALS Bottle#: 36 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-B-1-A MSD
Operator ID: SMP Instrument ID: SGC_J

Method: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m
Limit Group: GCSV - 8082A - IS
Last Update: 14-May-2024 12:55:25 Calib Date: 13-May-2024 11:46:10
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D

Column 1 : CLP1 Pesticides Column 1 (0.32 mm) Det: GC ECD1A
Column 2 : CLP2 Pesticides Column 2 (0.32 mm) Det: GC ECD2B
Process Host: CTX1674

First Level Reviewer: USP3 Date: 14-May-2024 09:27:09

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 17 1-Bromo-2-nitrobenzene							
1	2.827	2.824	0.003	81217923	100.0	100.0	
2	2.771	2.767	0.004	84112684	100.0	100.0	
						RPD = 0.00	
$ 14 Tetrachloro-m-xylene							
1	3.614	3.615	-0.001	8430052	10.0	8.29	
2	3.661	3.659	0.002	6294749	10.0	6.43	
						RPD = 25.39	
3 PCB-1221							U
1		3.784				ND	
1		3.914					
1		3.950					
2		3.917					
2		4.040					
2		4.090					
7 PCB-1232							U
1		3.950				ND	
1		4.270					
1		4.683					
1		4.830					
1		5.233					
2		4.090					
2		4.447					
2		4.870					
2		4.997					
2		5.913					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
1 PCB-1016							
1	3.951	3.952	-0.001	2082332	100.0	117.4	
1	4.271	4.272	-0.001	4341870	100.0	125.4	
1	4.704	4.705	-0.001	5108727	100.0	117.9	
1	4.831	4.829	0.002	3635113	100.0	114.1	
1	5.234	5.235	-0.001	5155365	100.0	158.3	
		Average of Peak Amounts =				126.6	
2	4.091	4.092	-0.001	2017307	100.0	121.1	
2	4.447	4.449	-0.002	3805189	100.0	111.6	
2	4.871	4.869	0.002	7804111	100.0	111.5	
2	4.997	4.995	0.002	3371397	100.0	112.5	
2	5.464	5.462	0.002	2658488	100.0	114.6	
		Average of Peak Amounts =				114.3	
						RPD = 10.26	
10 PCB-1242							U
1		3.961				ND	
1		4.277					
1		4.694					
1		4.837					
1		5.681					
2		4.091					
2		4.447					
2		4.871					
2		4.997					
2		5.867					
4 PCB-1248							U
1		4.270				ND	
1		4.683					
1		5.233					
1		5.670					
1		6.350					
2		4.853					
2		5.463					
2		5.590					
2		5.863					
2		6.163					
9 PCB-1254							U
1		5.674				ND	
1		5.907					
1		6.350					
1		6.887					
1		7.224					
2		5.907					
2		6.117					
2		6.644					
2		6.914					
2		7.567					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
12 PCB-1260							
1	6.561	6.559	0.002	5252690	100.0	120.1	
1	6.887	6.885	0.002	8230970	100.0	122.2	
1	7.224	7.222	0.002	9346671	100.0	123.7	
1	8.061	8.059	0.002	11857037	100.0	117.6	
1	8.424	8.422	0.002	6007092	100.0	119.5	
		Average of Peak Amounts =				120.6	
2	6.874	6.872	0.002	4959123	100.0	106.4	
2	7.131	7.129	0.002	6119386	100.0	122.8	
2	7.567	7.565	0.002	8383667	100.0	123.7	
2	8.387	8.382	0.005	10384790	100.0	116.0	
2	8.864	8.862	0.002	7162436	100.0	114.4	
		Average of Peak Amounts =				116.7	
						RPD = 3.31	
5 PCB-1262							U
1		6.560				ND	
1		6.887					
1		7.363					
1		8.060					
1		8.470					
2		6.873					
2		7.683					
2		8.057					
2		8.383					
2		8.857					
13 PCB-1268							U
1		8.481				ND	
1		8.531					
1		8.781					
1		9.254					
1		9.637					
2		8.854					
2		8.917					
2		9.251					
2		9.644					
2		10.044					
$ 15 DCB Decachlorobiphenyl							M
1	9.867	9.865	0.002	5368676	10.0	5.74	M
2	10.321	10.319	0.002	5197800	10.0	6.07	
						RPD = 5.57	
S 8 Polychlorinated biphenyls, Total							
1						247.2	
2						230.9	
						RPD = 6.81	
19 1260 Res 1							
1	8.471	8.476	-0.005	2955451	NR	NR	
16 1260 Res 2							
1		8.479			ND	ND	
18 1260 Res 3							
1	8.527	8.533	-0.005	3808019	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

U - Marked Undetected

Reagents:

BNB IS_00027 Amount Added: 20.00 Units: uL Run Reagent

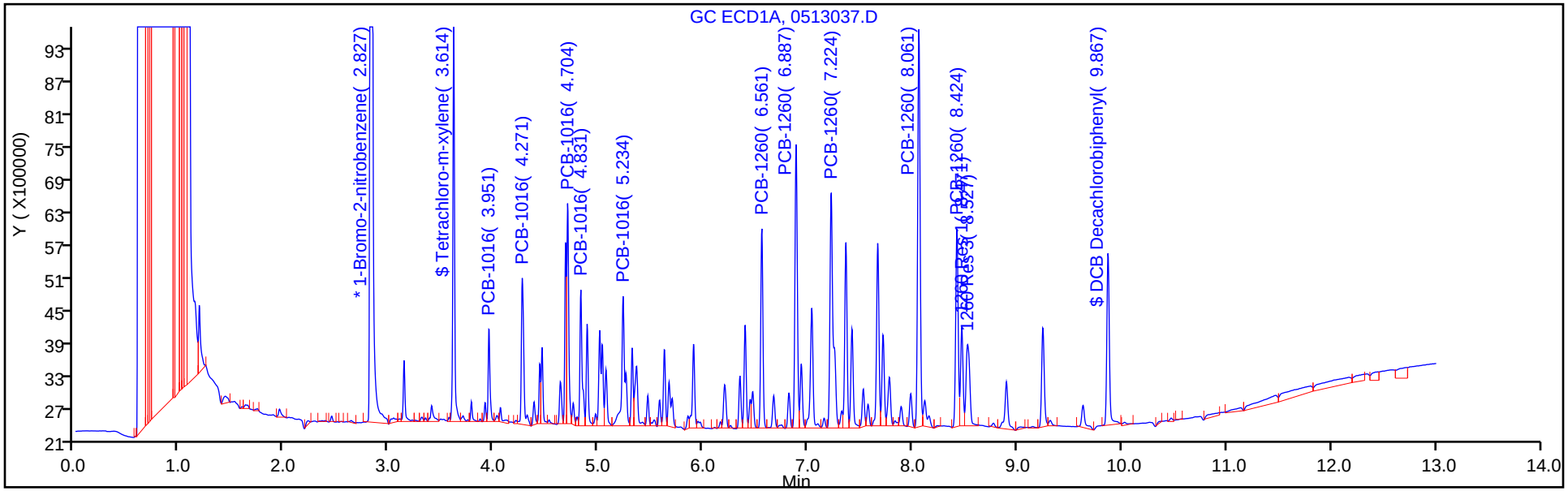
Report Date: 14-May-2024 12:55:49 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

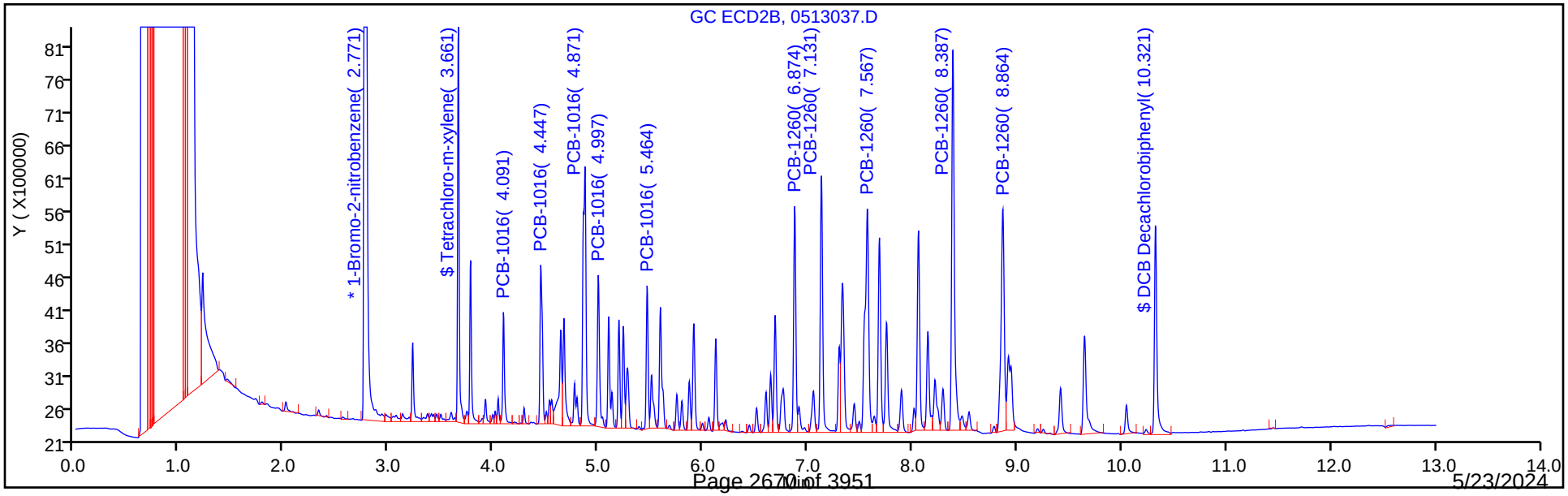
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513037.D

Injection Date:	13-May-2024 19:50:18	Instrument ID:	SGC_J	Operator ID:	SMP
Lims ID:	280-191098-B-1-A MSD			Worklist Smp#:	37
Client ID:	DET-003-240401-GW				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	36
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		

Column: CLP1 Pesticides Column 1 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: CLP2 Pesticides Column 2 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513037.D				
Lims ID:	280-191098-B-1-A MSD				
Client ID:	DET-003-240401-GW				
Sample Type:	MSD				
Inject. Date:	13-May-2024 19:50:18	ALS Bottle#:	36	Worklist Smp#:	37
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-B-1-A MSD				
Operator ID:	SMP	Instrument ID:	SGC_J		
Method:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\8082_J.m				
Limit Group:	GCSV - 8082A - IS				
Last Update:	14-May-2024 12:55:25	Calib Date:	13-May-2024 11:46:10		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513008.D				
Column 1 :	CLP1 Pesticides Column 1 (0.32 mm)		Det: GC ECD1A		
Column 2 :	CLP2 Pesticides Column 2 (0.32 mm)		Det: GC ECD2B		
Process Host:	CTX1674				
First Level Reviewer:	USP3	Date:	14-May-2024 09:27:09		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 14 Tetrachloro-m-xylene	10.0	8.29	82.95
$ 15 DCB Decachlorobiphenyl	10.0	5.74	57.37

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 14 Tetrachloro-m-xylene	10.0	6.43	64.26
$ 15 DCB Decachlorobiphenyl	10.0	6.07	60.66

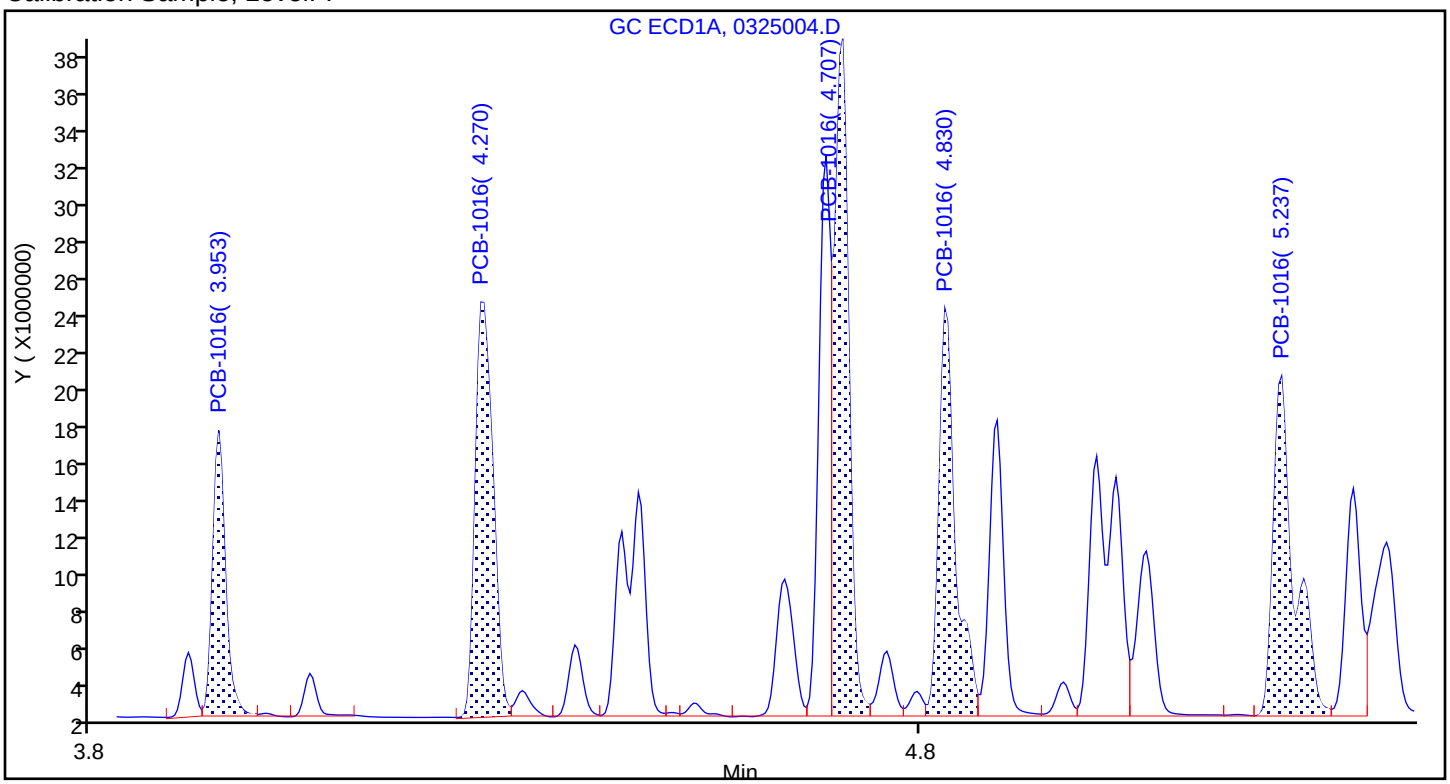
Report Date: 14-May-2024 12:55:50 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

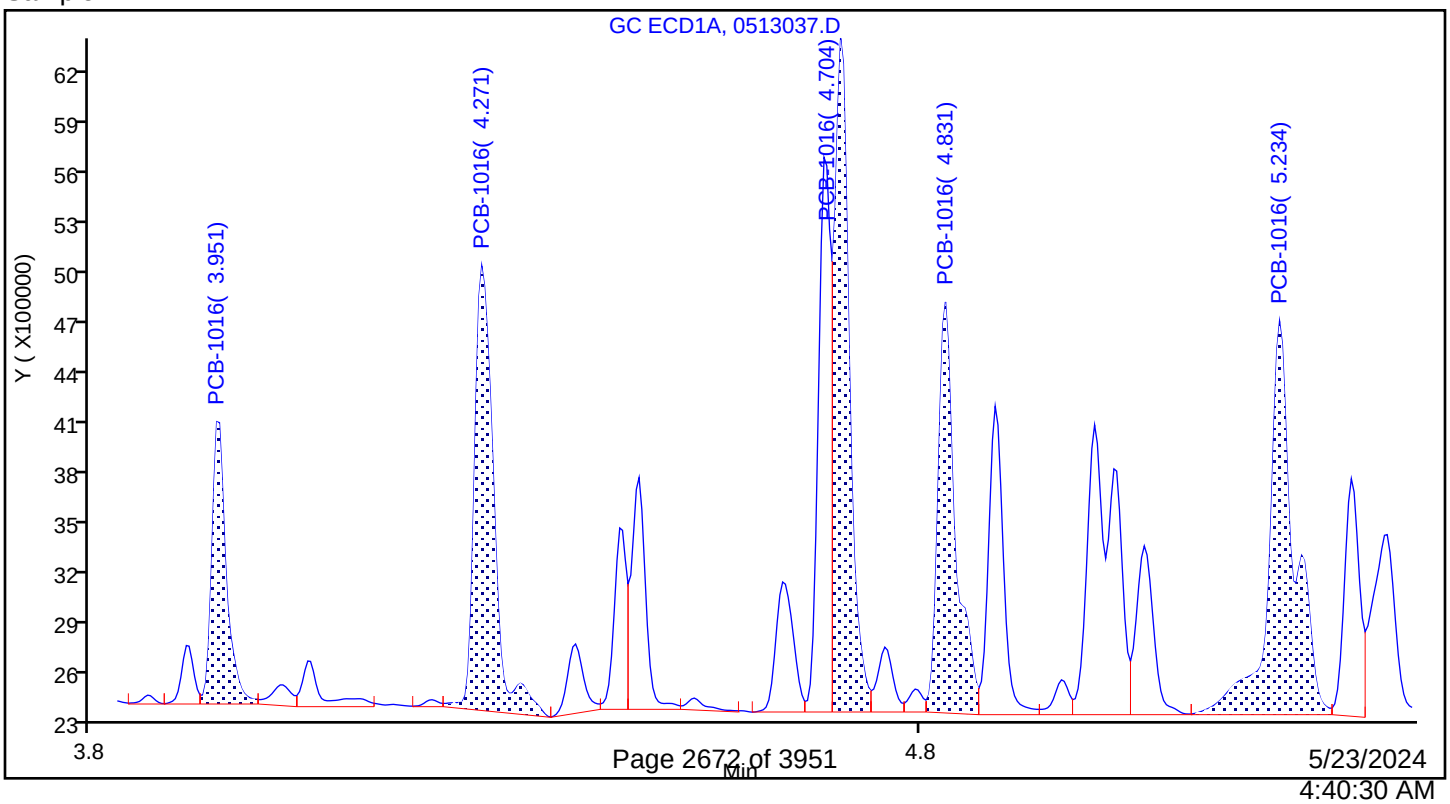
Data File: \\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513037.D
Injection Date: 13-May-2024 19:50:18 Instrument ID: SGC_J
Lims ID: 280-191098-B-1-A MSD
Client ID: DET-003-240401-GW
Operator ID: SMP ALS Bottle#: 36 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8082_J Limit Group: GCSV - 8082A - IS
Column: CLP1 Pesticides Column 1 (0.32 mm) Detector GC ECD1A

1 PCB-1016, CAS: 12674-11-2

Calibration Sample, Level: 7



Sample



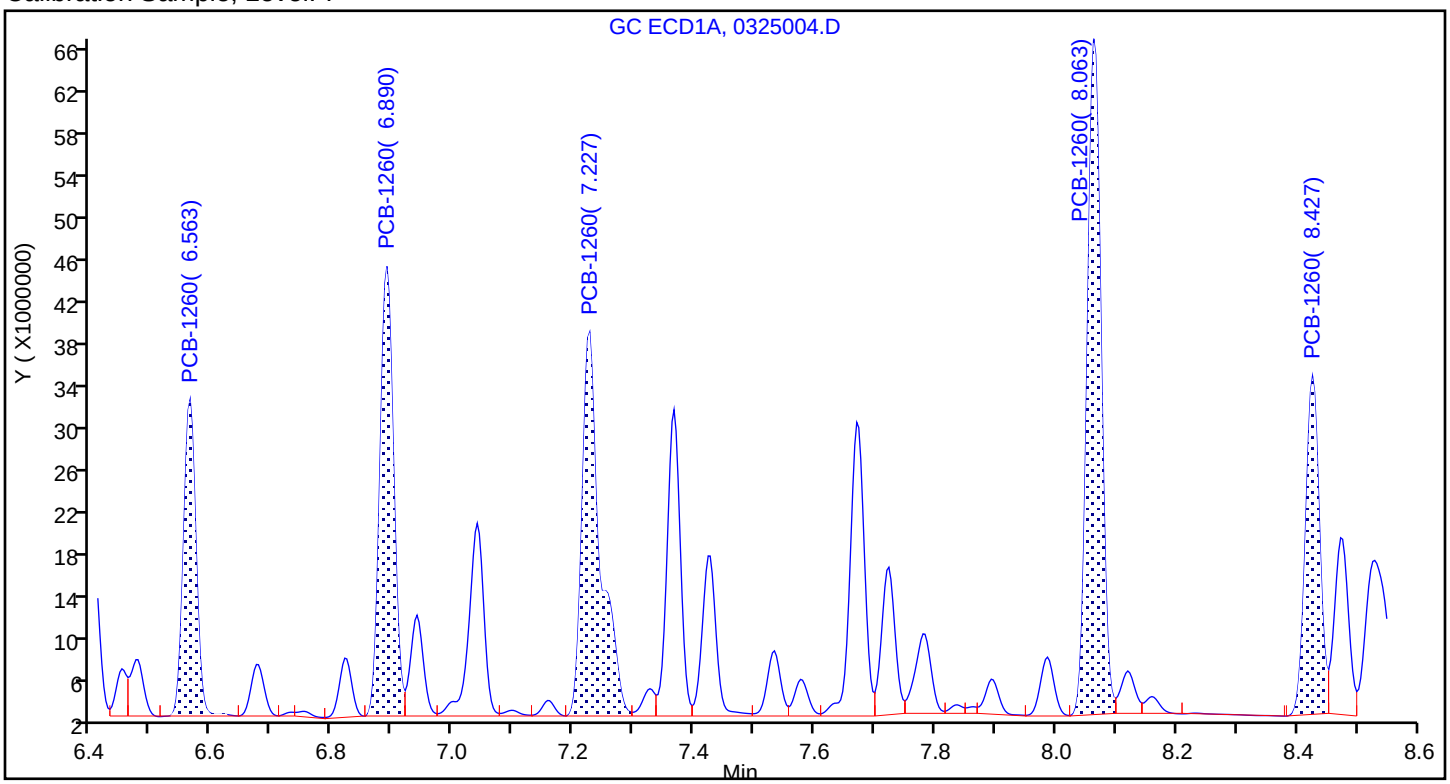
Report Date: 14-May-2024 12:55:50 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

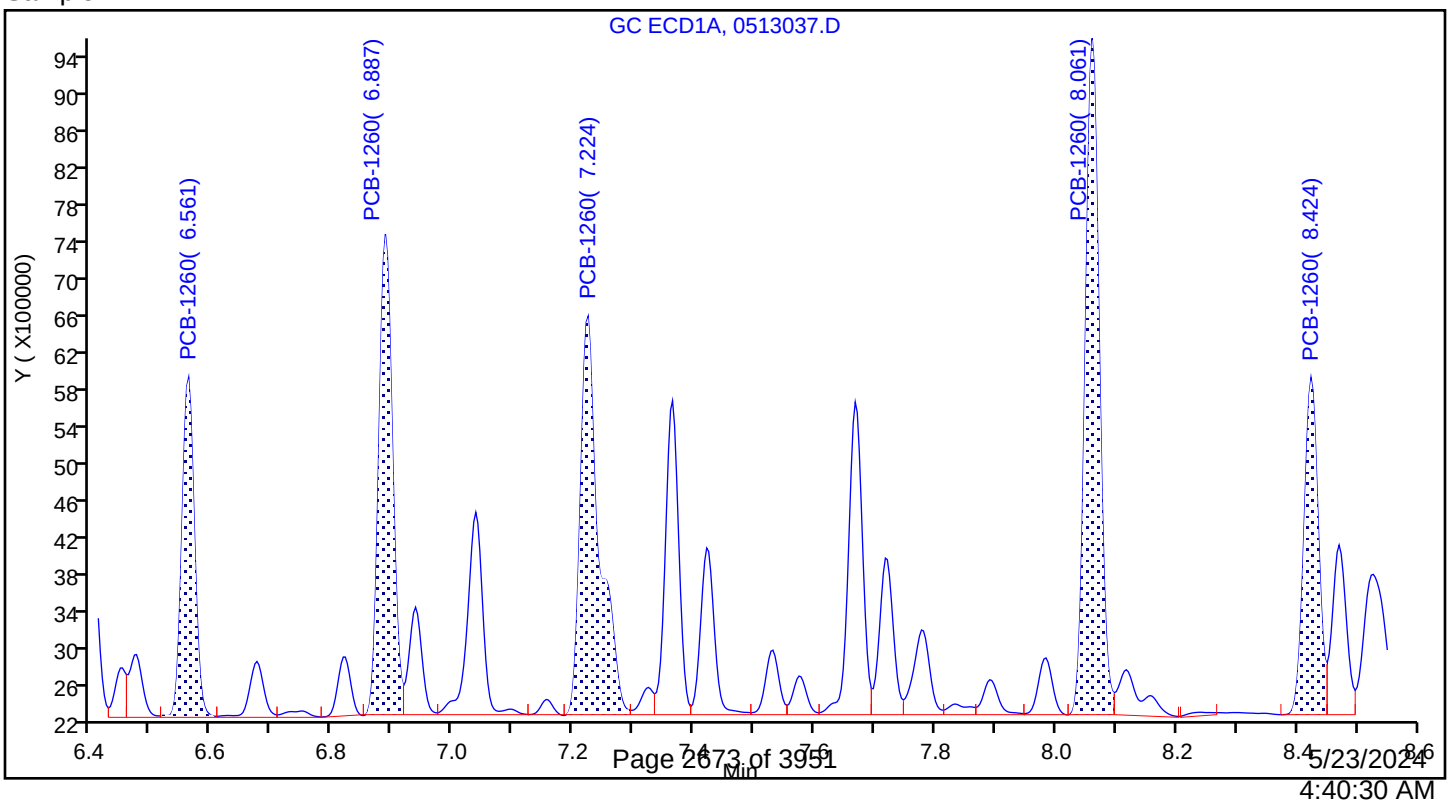
Data File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513037.D				
Injection Date:	13-May-2024 19:50:18	Instrument ID:	SGC_J		
Lims ID:	280-191098-B-1-A MSD				
Client ID:	DET-003-240401-GW				
Operator ID:	SMP	ALS Bottle#:	36	Worklist Smp#:	37
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		
Column:	CLP1 Pesticides Column 1 (0.32 mm)	Detector	GC ECD1A		

12 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 7



Sample



Manual Integration/User Assign Peak Report

Eurofins Denver

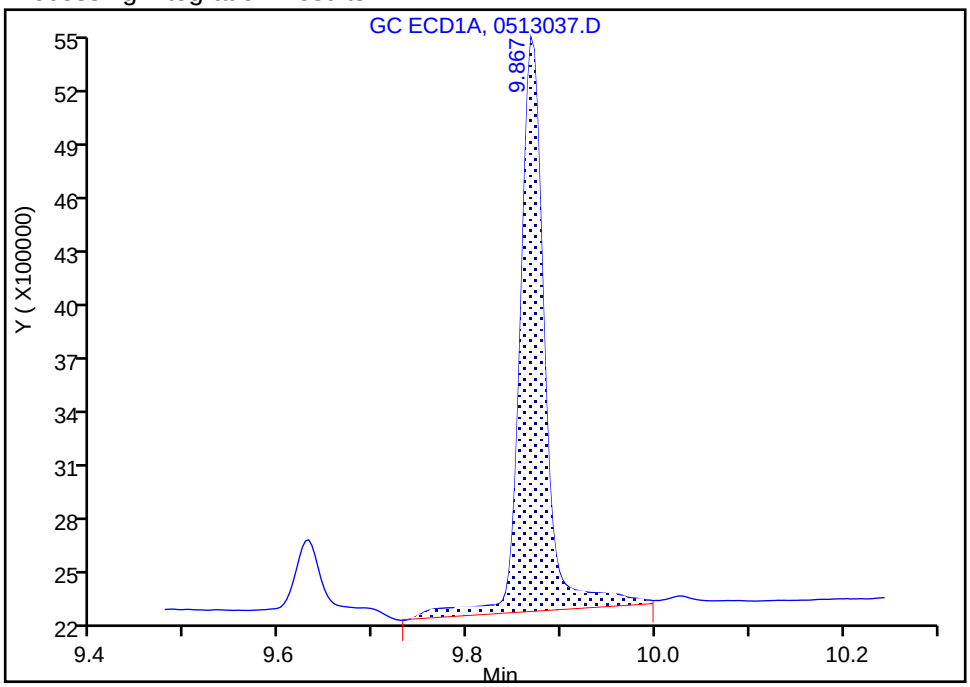
Data File:	\\chromfs\Denver\ChromData\SGC_J\20240513-133311.b\0513037.D				
Injection Date:	13-May-2024 19:50:18	Instrument ID:	SGC_J		
Lims ID:	280-191098-B-1-A MSD				
Client ID:	DET-003-240401-GW				
Operator ID:	SMP	ALS Bottle#:	36	Worklist Smp#:	37
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8082_J	Limit Group:	GCSV - 8082A - IS		
Column:	CLP1 Pesticides Column 1 (0.32 mm)	Detector	GC ECD1A		

$ 15 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 1

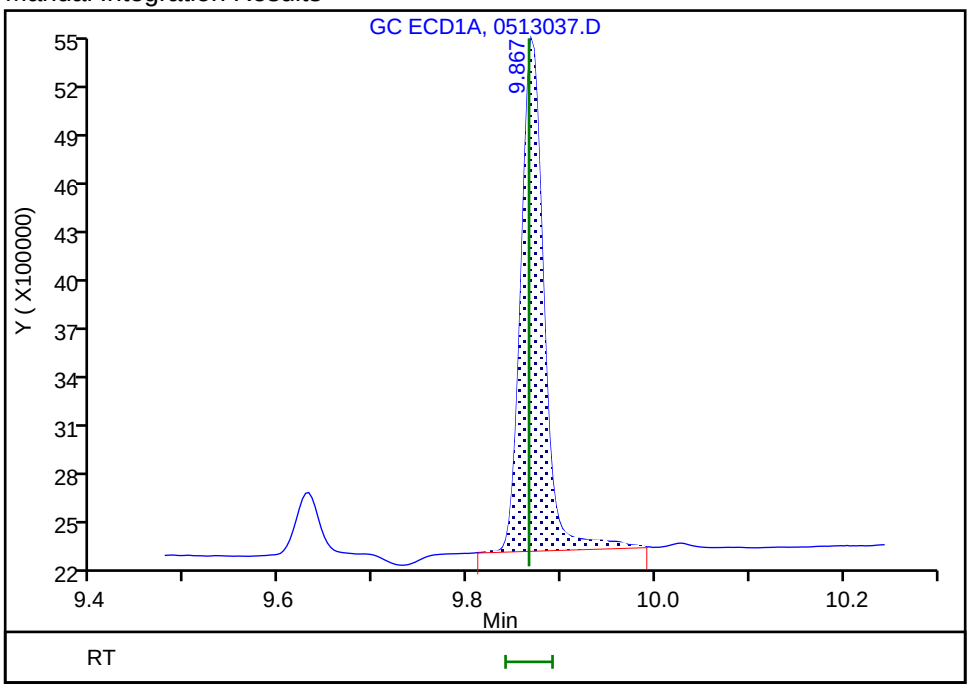
Processing Integration Results

RT: 9.87
Area: 5898167
Amount: 6.317994
Amount Units: ng/ml



Manual Integration Results

RT: 9.87
Area: 5368676
Amount: 5.737156
Amount Units: ng/ml



Reviewer: USP3, 14-May-2024 09:26:28 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

PCBS ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_J Start Date: 03/25/2024 10:20

Analysis Batch Number: 646944 End Date: 03/26/2024 03:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD7 280-646944/4 IC		03/25/2024 10:20	1	0325004.D	CLP1 0.32(mm)
STD7 280-646944/4 IC		03/25/2024 10:20	1	0325004.D	CLP2 0.32(mm)
STD6 280-646944/5 IC		03/25/2024 10:37	1	0325005.D	CLP1 0.32(mm)
STD6 280-646944/5 IC		03/25/2024 10:37	1	0325005.D	CLP2 0.32(mm)
ICIS 280-646944/6		03/25/2024 10:54	1	0325006.D	CLP1 0.32(mm)
ICIS 280-646944/6		03/25/2024 10:54	1	0325006.D	CLP2 0.32(mm)
STD4 280-646944/7 IC		03/25/2024 11:11	1	0325007.D	CLP1 0.32(mm)
STD4 280-646944/7 IC		03/25/2024 11:11	1	0325007.D	CLP2 0.32(mm)
STD3 280-646944/8 IC		03/25/2024 11:27	1	0325008.D	CLP1 0.32(mm)
STD3 280-646944/8 IC		03/25/2024 11:27	1	0325008.D	CLP2 0.32(mm)
STD2 280-646944/9 IC		03/25/2024 11:44	1	0325009.D	CLP1 0.32(mm)
STD2 280-646944/9 IC		03/25/2024 11:44	1	0325009.D	CLP2 0.32(mm)
STD1 280-646944/10 IC		03/25/2024 12:01	1	0325010.D	CLP1 0.32(mm)
STD1 280-646944/10 IC		03/25/2024 12:01	1	0325010.D	CLP2 0.32(mm)
ICV 280-646944/11		03/25/2024 12:17	1	0325011.D	CLP1 0.32(mm)
ICV 280-646944/11		03/25/2024 12:17	1	0325011.D	CLP2 0.32(mm)
STD4268 280-646944/14 IC		03/25/2024 12:51	1		CLP1 0.32(mm)
STD4268 280-646944/14 IC		03/25/2024 12:51	1		CLP2 0.32(mm)
STD2154 280-646944/15 IC		03/25/2024 13:08	1		CLP1 0.32(mm)
STD2154 280-646944/15 IC		03/25/2024 13:08	1		CLP2 0.32(mm)
STD3262 280-646944/16 IC		03/25/2024 13:24	1		CLP1 0.32(mm)
STD3262 280-646944/16 IC		03/25/2024 13:24	1		CLP2 0.32(mm)
STD1248 280-646944/17 IC		03/25/2024 13:41	1		CLP1 0.32(mm)
STD1248 280-646944/17 IC		03/25/2024 13:41	1		CLP2 0.32(mm)
ZZZZZ		03/25/2024 13:58	1		CLP1 0.32(mm)
ZZZZZ		03/25/2024 13:58	1		CLP2 0.32(mm)
ZZZZZ		03/25/2024 14:14	1		CLP1 0.32(mm)
ZZZZZ		03/25/2024 14:14	1		CLP2 0.32(mm)
ZZZZZ		03/25/2024 14:31	1		CLP1 0.32(mm)
ZZZZZ		03/25/2024 14:31	1		CLP2 0.32(mm)
ZZZZZ		03/25/2024 14:48	1		CLP1 0.32(mm)
ZZZZZ		03/25/2024 14:48	1		CLP2 0.32(mm)
CCV 280-646944/31		03/25/2024 17:35	1		CLP1 0.32(mm)
CCV 280-646944/31		03/25/2024 17:35	1		CLP2 0.32(mm)
CCV 280-646944/40		03/25/2024 20:06	1		CLP1 0.32(mm)
CCV 280-646944/40		03/25/2024 20:06	1		CLP2 0.32(mm)
ZZZZZ		03/25/2024 20:22	1		CLP1 0.32(mm)
ZZZZZ		03/25/2024 20:22	1		CLP2 0.32(mm)
ZZZZZ		03/25/2024 20:39	1		CLP1 0.32(mm)
ZZZZZ		03/25/2024 20:39	1		CLP2 0.32(mm)
ZZZZZ		03/25/2024 20:56	1		CLP1 0.32(mm)

8082A

PCBS ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_J Start Date: 03/25/2024 10:20

Analysis Batch Number: 646944 End Date: 03/26/2024 03:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		03/25/2024 20:56	1		CLP2 0.32(mm)
ZZZZZ		03/25/2024 21:12	1		CLP1 0.32(mm)
ZZZZZ		03/25/2024 21:12	1		CLP2 0.32(mm)
ZZZZZ		03/25/2024 21:29	1		CLP1 0.32(mm)
ZZZZZ		03/25/2024 21:29	1		CLP2 0.32(mm)
ZZZZZ		03/25/2024 21:46	1		CLP1 0.32(mm)
ZZZZZ		03/25/2024 21:46	1		CLP2 0.32(mm)
ZZZZZ		03/25/2024 22:03	1		CLP1 0.32(mm)
ZZZZZ		03/25/2024 22:03	1		CLP2 0.32(mm)
ZZZZZ		03/25/2024 22:19	1		CLP1 0.32(mm)
ZZZZZ		03/25/2024 22:19	1		CLP2 0.32(mm)
ZZZZZ		03/25/2024 22:36	1		CLP1 0.32(mm)
ZZZZZ		03/25/2024 22:36	1		CLP2 0.32(mm)
ZZZZZ		03/25/2024 22:53	1		CLP1 0.32(mm)
ZZZZZ		03/25/2024 22:53	1		CLP2 0.32(mm)
CCV 280-646944/51		03/25/2024 23:10	1		CLP1 0.32(mm)
CCV 280-646944/51		03/25/2024 23:10	1		CLP2 0.32(mm)
ZZZZZ		03/25/2024 23:26	1		CLP1 0.32(mm)
ZZZZZ		03/25/2024 23:26	1		CLP2 0.32(mm)
ZZZZZ		03/25/2024 23:43	1		CLP1 0.32(mm)
ZZZZZ		03/25/2024 23:43	1		CLP2 0.32(mm)
ZZZZZ		03/26/2024 00:00	1		CLP1 0.32(mm)
ZZZZZ		03/26/2024 00:00	1		CLP2 0.32(mm)
ZZZZZ		03/26/2024 00:16	1		CLP1 0.32(mm)
ZZZZZ		03/26/2024 00:16	1		CLP2 0.32(mm)
ZZZZZ		03/26/2024 00:33	1		CLP1 0.32(mm)
ZZZZZ		03/26/2024 00:33	1		CLP2 0.32(mm)
ZZZZZ		03/26/2024 00:50	1		CLP1 0.32(mm)
ZZZZZ		03/26/2024 00:50	1		CLP2 0.32(mm)
CCV 280-646944/58		03/26/2024 01:07	1		CLP1 0.32(mm)
CCV 280-646944/58		03/26/2024 01:07	1		CLP2 0.32(mm)
ZZZZZ		03/26/2024 01:23	1		CLP1 0.32(mm)
ZZZZZ		03/26/2024 01:23	1		CLP2 0.32(mm)
ZZZZZ		03/26/2024 01:40	1		CLP1 0.32(mm)
ZZZZZ		03/26/2024 01:40	1		CLP2 0.32(mm)
ZZZZZ		03/26/2024 01:57	10		CLP1 0.32(mm)
ZZZZZ		03/26/2024 01:57	10		CLP2 0.32(mm)
ZZZZZ		03/26/2024 02:14	4		CLP1 0.32(mm)
ZZZZZ		03/26/2024 02:14	4		CLP2 0.32(mm)
ZZZZZ		03/26/2024 02:30	10		CLP1 0.32(mm)
ZZZZZ		03/26/2024 02:30	10		CLP2 0.32(mm)
ZZZZZ		03/26/2024 02:47	4		CLP1 0.32(mm)
ZZZZZ		03/26/2024 02:47	4		CLP2 0.32(mm)
ZZZZZ		03/26/2024 03:04	4		CLP1 0.32(mm)
ZZZZZ		03/26/2024 03:04	4		CLP2 0.32(mm)

8082A

PCBS ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_J Start Date: 03/25/2024 10:20

Analysis Batch Number: 646944 End Date: 03/26/2024 03:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-646944/66		03/26/2024 03:20	1		CLP1 0.32(mm)
CCV 280-646944/66		03/26/2024 03:20	1		CLP2 0.32(mm)

PCBS ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_J Start Date: 05/13/2024 10:35

Analysis Batch Number: 653123 End Date: 05/13/2024 20:40

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVIS 280-653123/4		05/13/2024 10:35	1	0513004.D	CLP1 0.32(mm)
CCVIS 280-653123/4		05/13/2024 10:35	1	0513004.D	CLP2 0.32(mm)
STD4268 280-653123/5 IC		05/13/2024 10:56	1	0513005.D	CLP1 0.32(mm)
STD4268 280-653123/5 IC		05/13/2024 10:56	1	0513005.D	CLP2 0.32(mm)
STD2154 280-653123/6 IC		05/13/2024 11:12	1	0513006.D	CLP1 0.32(mm)
STD2154 280-653123/6 IC		05/13/2024 11:12	1	0513006.D	CLP2 0.32(mm)
STD3262 280-653123/7 IC		05/13/2024 11:29	1	0513007.D	CLP1 0.32(mm)
STD3262 280-653123/7 IC		05/13/2024 11:29	1	0513007.D	CLP2 0.32(mm)
STD1248 280-653123/8 IC		05/13/2024 11:46	1	0513008.D	CLP1 0.32(mm)
STD1248 280-653123/8 IC		05/13/2024 11:46	1	0513008.D	CLP2 0.32(mm)
ZZZZZ		05/13/2024 12:02	1		CLP1 0.32(mm)
ZZZZZ		05/13/2024 12:02	1		CLP2 0.32(mm)
ZZZZZ		05/13/2024 12:19	1		CLP1 0.32(mm)
ZZZZZ		05/13/2024 12:19	1		CLP2 0.32(mm)
ZZZZZ		05/13/2024 12:36	1		CLP1 0.32(mm)
ZZZZZ		05/13/2024 12:36	1		CLP2 0.32(mm)
ZZZZZ		05/13/2024 12:52	1		CLP1 0.32(mm)
ZZZZZ		05/13/2024 12:52	1		CLP2 0.32(mm)
ZZZZZ		05/13/2024 13:09	1		CLP1 0.32(mm)
ZZZZZ		05/13/2024 13:09	1		CLP2 0.32(mm)
ZZZZZ		05/13/2024 13:26	1		CLP1 0.32(mm)
ZZZZZ		05/13/2024 13:26	1		CLP2 0.32(mm)
ZZZZZ		05/13/2024 13:43	1		CLP1 0.32(mm)
ZZZZZ		05/13/2024 13:43	1		CLP2 0.32(mm)
ZZZZZ		05/13/2024 13:59	1		CLP1 0.32(mm)
ZZZZZ		05/13/2024 13:59	1		CLP2 0.32(mm)
ZZZZZ		05/13/2024 14:16	1		CLP1 0.32(mm)
ZZZZZ		05/13/2024 14:16	1		CLP2 0.32(mm)
ZZZZZ		05/13/2024 14:33	1		CLP1 0.32(mm)
ZZZZZ		05/13/2024 14:33	1		CLP2 0.32(mm)
ZZZZZ		05/13/2024 14:49	1		CLP1 0.32(mm)
ZZZZZ		05/13/2024 14:49	1		CLP2 0.32(mm)
ZZZZZ		05/13/2024 15:06	1		CLP1 0.32(mm)
ZZZZZ		05/13/2024 15:06	1		CLP2 0.32(mm)
ZZZZZ		05/13/2024 15:23	1		CLP1 0.32(mm)
ZZZZZ		05/13/2024 15:23	1		CLP2 0.32(mm)
ZZZZZ		05/13/2024 15:40	1		CLP1 0.32(mm)
ZZZZZ		05/13/2024 15:40	1		CLP2 0.32(mm)
CCV 280-653123/23		05/13/2024 15:56	1		CLP1 0.32(mm)
CCV 280-653123/23		05/13/2024 15:56	1		CLP2 0.32(mm)
ZZZZZ		05/13/2024 16:13	1		CLP1 0.32(mm)

PCBS ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: SGC_J Start Date: 05/13/2024 10:35

Analysis Batch Number: 653123 End Date: 05/13/2024 20:40

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		05/13/2024 16:13	1		CLP2 0.32(mm)
ZZZZZ		05/13/2024 16:30	1		CLP1 0.32(mm)
ZZZZZ		05/13/2024 16:30	1		CLP2 0.32(mm)
ZZZZZ		05/13/2024 16:46	1		CLP1 0.32(mm)
ZZZZZ		05/13/2024 16:46	1		CLP2 0.32(mm)
ZZZZZ		05/13/2024 17:03	1		CLP1 0.32(mm)
ZZZZZ		05/13/2024 17:03	1		CLP2 0.32(mm)
ZZZZZ		05/13/2024 17:20	1		CLP1 0.32(mm)
ZZZZZ		05/13/2024 17:20	1		CLP2 0.32(mm)
ZZZZZ		05/13/2024 17:36	1		CLP1 0.32(mm)
ZZZZZ		05/13/2024 17:36	1		CLP2 0.32(mm)
ZZZZZ		05/13/2024 17:53	1		CLP1 0.32(mm)
ZZZZZ		05/13/2024 17:53	1		CLP2 0.32(mm)
CCV 280-653123/31		05/13/2024 18:10	1	0513031.D	CLP1 0.32(mm)
CCV 280-653123/31		05/13/2024 18:10	1	0513031.D	CLP2 0.32(mm)
MB 280-652915/1-A		05/13/2024 18:26	1	0513032.D	CLP1 0.32(mm)
MB 280-652915/1-A		05/13/2024 18:26	1	0513032.D	CLP2 0.32(mm)
LCS 280-652915/4-A		05/13/2024 18:43	1	0513033.D	CLP1 0.32(mm)
LCS 280-652915/4-A		05/13/2024 18:43	1	0513033.D	CLP2 0.32(mm)
LCSD 280-652915/5-A		05/13/2024 19:00	1	0513034.D	CLP1 0.32(mm)
LCSD 280-652915/5-A		05/13/2024 19:00	1	0513034.D	CLP2 0.32(mm)
280-191098-1	DET-003-240401-GW	05/13/2024 19:16	1	0513035.D	CLP1 0.32(mm)
280-191098-1	DET-003-240401-GW	05/13/2024 19:16	1	0513035.D	CLP2 0.32(mm)
280-191098-1 MS	DET-003-240401-GW MS	05/13/2024 19:33	1	0513036.D	CLP1 0.32(mm)
280-191098-1 MS	DET-003-240401-GW MS	05/13/2024 19:33	1	0513036.D	CLP2 0.32(mm)
280-191098-1 MSD	DET-003-240401-GW MSD	05/13/2024 19:50	1	0513037.D	CLP1 0.32(mm)
280-191098-1 MSD	DET-003-240401-GW MSD	05/13/2024 19:50	1	0513037.D	CLP2 0.32(mm)
280-191098-2	DET-003-240402-GW	05/13/2024 20:07	1	0513038.D	CLP1 0.32(mm)
280-191098-2	DET-003-240402-GW	05/13/2024 20:07	1	0513038.D	CLP2 0.32(mm)
280-191098-5	DET-004-240401-GW	05/13/2024 20:23	1	0513039.D	CLP1 0.32(mm)
280-191098-5	DET-004-240401-GW	05/13/2024 20:23	1	0513039.D	CLP2 0.32(mm)
CCV 280-653123/40		05/13/2024 20:40	1	0513040.D	CLP1 0.32(mm)
CCV 280-653123/40		05/13/2024 20:40	1	0513040.D	CLP2 0.32(mm)

PCBS BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 646944 Batch Start Date: 03/25/24 10:20 Batch Analyst: Polite, Sean

Batch Method: 8082A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	AR_1660_ICV 00029	AR_1660_L7 00046	BNB IS 00027		
STD7 280-646944/4 IC		8082A			1 mL		200 uL	20 uL		
STD6 280-646944/5 IC		8082A			1 mL		150 uL	20 uL		
ICIS 280-646944/6		8082A			1 mL		100 uL	20 uL		
STD4 280-646944/7 IC		8082A			1 mL		40 uL	20 uL		
STD3 280-646944/8 IC		8082A			1 mL		20 uL	20 uL		
STD2 280-646944/9 IC		8082A			1 mL		10 uL	20 uL		
STD1 280-646944/10 IC		8082A			1 mL		5 uL	20 uL		
ICV 280-646944/11		8082A			1 mL	50 uL		20 uL		

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PCBS BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 652915 Batch Start Date: 05/10/24 11:46 Batch Analyst: Najera, Diego

Batch Method: 3510C Batch End Date: 05/10/24 15:47

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	ReceivedpH	8081/82 Surr 00162
MB 280-652915/1		3510C, 8082A					250 mL	5 mL	5 SU	0.25 mL
LCS 280-652915/4		3510C, 8082A					250 mL	5 mL	5 SU	0.25 mL
LCSD 280-652915/5		3510C, 8082A					250 mL	5 mL	5 SU	0.25 mL
280-191098-D-1	DET-003-240401-GW	3510C, 8082A	Water	T	423.3 g	182.0 g	241.3 mL	5 mL	6 SU	0.25 mL
280-191098-E-1 MS	DET-003-240401-GW	3510C, 8082A	Water	T	425.6 g	178.2 g	247.4 mL	5 mL	6 SU	0.25 mL
280-191098-B-1 MSD	DET-003-240401-GW	3510C, 8082A	Water	T	427.2 g	179.5 g	247.7 mL	5 mL	6 SU	0.25 mL
280-191098-F-2	DET-003-240402-GW	3510C, 8082A	Water	T	423.4 g	178.9 g	244.5 mL	5 mL	6 SU	0.25 mL
280-191098-D-5	DET-004-240401-GW	3510C, 8082A	Water	T	415.5 g	177.7 g	237.8 mL	5 mL	6 SU	0.25 mL

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	8082 LCS 00071					
MB 280-652915/1		3510C, 8082A								
LCS 280-652915/4		3510C, 8082A			0.25 mL					
LCSD 280-652915/5		3510C, 8082A			0.25 mL					
280-191098-D-1	DET-003-240401-GW	3510C, 8082A	Water	T						
280-191098-E-1 MS	DET-003-240401-GW	3510C, 8082A	Water	T	0.25 mL					
280-191098-B-1 MSD	DET-003-240401-GW	3510C, 8082A	Water	T	0.25 mL					
280-191098-F-2	DET-003-240402-GW	3510C, 8082A	Water	T						
280-191098-D-5	DET-004-240401-GW	3510C, 8082A	Water	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PCBS BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 652915 Batch Start Date: 05/10/24 11:46 Batch Analyst: Najera, Diego

Batch Method: 3510C Batch End Date: 05/10/24 15:47

Batch Notes	
Method/Fraction	3510C_LVI/8081/8082
Balance ID	834419814
Balance is Level? (Y/N)	yes
pH Indicator ID	HC318548
Pipette/Syringe/Dispenser ID	Nexia
Analyst ID - Extraction	DN
Analyst ID - Spike Analyst	DN
Analyst ID - Spike Witness Analyst	REVIEWER:GS
Sufficient Volume for Batch QC	YES
NaCl ID	Baked_NaCl_00029
Prep Solvent ID	Mecl2_Cycl_00637
Prep Solvent Volume Used	90 mL
Glass Wool ID	Glass_Wool_OP_00005
Na2SO4 ID	Na2SO4_00151
Analyst ID - Concentration	DN
Equipment ID - Concentration 1	TV1 , TV3 , TV2 , UTME
Concentration 1 Uncorrected Temperature	40 , 40 , 40 , 40 Degrees C
Concentration 1 Corrected Temperature	39.7 , 39.8 , 39.9 , 39.2 Degrees C
Exchange Solvent ID	Hexane_Cycl_00087
Pipette Tip Lot ID	B10705329S
Batch Comment	DV-OP-0006/0007 ; TROLL @ 5.00 mL

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8330B_DOD5

Nitroaromatics and Nitramines (HPLC)

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): UltraCarb5u ID: 4.6 (mm) GC Column (2): Luna-phenyl 4.6 (mm)

Client Sample ID	Lab Sample ID	12DNB1 #	12DNB2 #
DET-003-240401-GW	280-191098-1	71 M Q	
DET-003-240401-GW RE	280-191098-1 RE	98 M	
LL1mw-081-240401-GW	280-191098-4	76 Q	
LL1mw-081-240401-GW	280-191098-4		75 Q
LL1mw-081-240401-GW RE	280-191098-4 RE	108 M	
LL1mw-081-240401-GW RE	280-191098-4 RE		101
DET-004-240401-GW	280-191098-5	66 M Q	
DET-004-240401-GW	280-191098-5		69 Q
DET-004-240401-GW RE	280-191098-5 RE	98 M	
DET-004-240401-GW RE	280-191098-5 RE		99
LL3mw-247-240401-GW	280-191098-7	43 Q	
LL3mw-247-240401-GW	280-191098-7		46 Q
LL3mw-247-240401-GW RE	280-191098-7 RE	94	
LL3mw-247-240401-GW RE	280-191098-7 RE		96
LL3mw-248-240401-GW	280-191098-8	71 M Q	
LL3mw-248-240401-GW	280-191098-8		74 Q
LL3mw-248-240401-GW RE	280-191098-8 RE	92	
LL3mw-248-240401-GW RE	280-191098-8 RE		94
	MB 280-652898/1-A	97 M	
	MB 280-653565/1-A	98	
	LCS 280-652898/2-A	90	
	LCS 280-653565/2-A	104	
	LCSD 280-652898/3-A	93	
	LCSD 280-653565/3-A	95	

	QC LIMITS
12DNB = 1,2-Dinitrobenzene	83-119

Column to be used to flag recovery values

FORM II 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05010029.D

Lab ID: LCS 280-652898/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.02	101	73-125	
1,3-Dinitrobenzene	2.00	1.79	90	78-120	
2,4,6-Trinitrotoluene	2.00	1.76	88	71-123	
2,4-Dinitrotoluene	2.00	1.67	84	78-120	
2,6-Dinitrotoluene	2.00	1.70	85	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.72	86	79-120	
2-Nitrotoluene	2.00	1.28	64	70-127	Q
3-Nitrotoluene	2.00	1.24	62	73-125	Q
4-Amino-2,6-dinitrotoluene	2.00	1.76	88	76-125	
4-Nitrotoluene	2.00	1.24	62	71-127	Q
HMX	2.00	1.77	89	65-135	M
Nitrobenzene	2.00	1.51	75	65-134	
Nitroglycerin	20.0	19.4	97	74-127	
PETN	20.0	20.1	101	73-127	
RDX	2.00	1.78	89	68-130	
Tetryl	2.00	1.74	87	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05170041.D

Lab ID: LCS 280-653565/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.12	106	73-125	
1,3-Dinitrobenzene	2.00	2.00	100	78-120	
2,4,6-Trinitrotoluene	2.00	1.95	98	71-123	
2,4-Dinitrotoluene	2.00	1.95	97	78-120	
2,6-Dinitrotoluene	2.00	1.93	97	77-127	
2-Amino-4,6-dinitrotoluene	2.00	2.00	100	79-120	
2-Nitrotoluene	2.00	1.63	81	70-127	
3-Nitrotoluene	2.00	1.62	81	73-125	
4-Amino-2,6-dinitrotoluene	2.00	2.02	101	76-125	
4-Nitrotoluene	2.00	1.60	80	71-127	
HMX	2.00	1.76	88	65-135	M
Nitrobenzene	2.00	1.81	91	65-134	
Nitroglycerin	20.0	20.4	102	74-127	
PETN	20.0	21.6	108	73-127	
RDX	2.00	1.91	96	68-130	
Tetryl	2.00	1.89	95	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05010030.D

Lab ID: LCSD 280-652898/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.05	102	2	20	73-125	
1,3-Dinitrobenzene	2.00	1.85	92	3	20	78-120	
2,4,6-Trinitrotoluene	2.00	1.81	91	3	20	71-123	
2,4-Dinitrotoluene	2.00	1.77	88	5	20	78-120	
2,6-Dinitrotoluene	2.00	1.78	89	5	20	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.81	91	5	20	79-120	
2-Nitrotoluene	2.00	1.40	70	8	20	70-127	
3-Nitrotoluene	2.00	1.31	65	5	20	73-125	Q
4-Amino-2,6-dinitrotoluene	2.00	1.86	93	5	20	76-125	
4-Nitrotoluene	2.00	1.33	67	7	20	71-127	Q
HMX	2.00	1.74	87	2	20	65-135	M
Nitrobenzene	2.00	1.63	81	8	20	65-134	
Nitroglycerin	20.0	19.6	98	1	20	74-127	
PETN	20.0	20.4	102	1	20	73-127	
RDX	2.00	1.78	89	0	20	68-130	
Tetryl	2.00	1.83	92	5	20	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05170042.D

Lab ID: LCSD 280-653565/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.12	106	0	20	73-125	
1,3-Dinitrobenzene	2.00	1.95	97	3	20	78-120	
2,4,6-Trinitrotoluene	2.00	1.91	95	2	20	71-123	
2,4-Dinitrotoluene	2.00	1.86	93	4	20	78-120	
2,6-Dinitrotoluene	2.00	1.89	94	2	20	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.88	94	6	20	79-120	
2-Nitrotoluene	2.00	1.49	75	9	20	70-127	
3-Nitrotoluene	2.00	1.47	73	10	20	73-125	
4-Amino-2,6-dinitrotoluene	2.00	1.94	97	4	20	76-125	
4-Nitrotoluene	2.00	1.46	73	9	20	71-127	
HMX	2.00	1.75	87	1	20	65-135	M
Nitrobenzene	2.00	1.73	87	5	20	65-134	
Nitroglycerin	20.0	20.4	102	0	20	74-127	
PETN	20.0	21.4	107	1	20	73-127	
RDX	2.00	1.90	95	1	20	68-130	
Tetryl	2.00	2.01	100	6	20	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: MB 280-652898/1-A

Matrix: Water Date Extracted: 05/10/2024 10:58

Lab File ID:(1) 05010028.D Lab File ID:(2)

Date Analyzed:(1) 05/11/2024 15:16 Date Analyzed:(2)

Instrument ID:(1) CHHPLC_X3 Instrument ID:(2) CHHPLC_X5

GC Column:(1) UltraCarb5uO ID: 4.6(mm) GC Column:(2) Luna-phenylh ID: 4.6(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 280-652898/2-A	05/11/2024 15:39	
	LCSD 280-652898/3-A	05/11/2024 16:02	
DET-003-240401-GW	280-191098-1	05/11/2024 16:25	
LL1mw-081-240401-GW	280-191098-4	05/11/2024 16:48	05/15/2024 01:14
DET-004-240401-GW	280-191098-5	05/11/2024 17:11	05/11/2024 20:57
LL3mw-247-240401-GW	280-191098-7	05/11/2024 17:34	05/11/2024 21:32
LL3mw-248-240401-GW	280-191098-8	05/11/2024 17:57	05/11/2024 22:07

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: MB 280-653565/1-A

Matrix: Water Date Extracted: 05/17/2024 13:10

Lab File ID:(1) 05170040.D Lab File ID:(2)

Date Analyzed:(1) 05/18/2024 02:06 Date Analyzed:(2)

Instrument ID:(1) CHHPLC_X3 Instrument ID:(2) CHHPLC_X5

GC Column:(1) UltraCarb5uO ID: 4.6(mm) GC Column:(2) Luna-phenylh ID: 4.6(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 280-653565/2-A	05/18/2024 02:29	
	LCSD 280-653565/3-A	05/18/2024 02:52	
DET-003-240401-GW RE	280-191098-1 RE	05/18/2024 03:15	
LL1mw-081-240401-GW RE	280-191098-4 RE	05/18/2024 03:38	05/17/2024 20:44
DET-004-240401-GW RE	280-191098-5 RE	05/18/2024 04:01	05/17/2024 21:19
LL3mw-247-240401-GW RE	280-191098-7 RE	05/18/2024 04:24	05/17/2024 21:54
LL3mw-248-240401-GW RE	280-191098-8 RE	05/18/2024 04:46	05/17/2024 22:29

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Client Sample ID: LL1mw-081-240401-GW RE Lab Sample ID: 280-191098-4 RE

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 05/18/2024 03:38 Date Analyzed (2): 05/17/2024 20:44

GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4-Amino-2,6-dinitrotoluene	1		11.02	10.94	11.14	0.28		29.3
	2		16.19	16.05	16.35	0.21		
2-Amino-4,6-dinitrotoluene	1		11.28	11.20	11.40	0.22		35.1
	2		17.03	16.92	17.22	0.31		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-004-240401-GW Lab Sample ID: 280-191098-5

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 05/11/2024 17:11 Date Analyzed (2): 05/11/2024 20:57

GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.61	6.46	6.76	1.3		9.1
	2		6.61	6.48	6.78	1.2		
RDX	1		7.63	7.48	7.78	1.7		1.2
	2		8.65	8.51	8.81	1.7		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-004-240401-GW RE Lab Sample ID: 280-191098-5 RE

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 05/18/2024 04:01 Date Analyzed (2): 05/17/2024 21:19

GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.61	6.47	6.77	1.4		3.9
	2		6.66	6.51	6.81	1.3		
RDX	1		7.62	7.48	7.78	2.0		5.7
	2		8.70	8.55	8.85	2.1		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Client Sample ID: LL3mw-248-240401-GW Lab Sample ID: 280-191098-8

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 05/11/2024 17:57 Date Analyzed (2): 05/11/2024 22:07

GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
RDX	1		7.65	7.48	7.78	1.6		147.3
	2		8.73	8.51	8.81	0.24		

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW | Lab Sample ID: 280-191098-1

Matrix: Water | Lab File ID: 05010031.D

Analysis Method: 8330B | Date Collected: 05/06/2024 10:16

Extraction Method: 3535 | Date Extracted: 05/10/2024 10:58

Sample wt/vol: 463.1(mL) | Date Analyzed: 05/11/2024 16:25

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653063 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.22	U Q	0.23	0.22	0.091
99-65-0	1,3-Dinitrobenzene	0.11	U M Q	0.12	0.11	0.040
118-96-7	2,4,6-Trinitrotoluene	0.11	U Q	0.12	0.11	0.049
121-14-2	2,4-Dinitrotoluene	0.086	U Q	0.11	0.086	0.030
606-20-2	2,6-Dinitrotoluene	0.086	U Q	0.11	0.086	0.043
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U Q	0.12	0.11	0.055
88-72-2	2-Nitrotoluene	0.22	U Q	0.23	0.22	0.092
99-08-1	3-Nitrotoluene	0.38	U Q	0.43	0.38	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U Q	0.16	0.13	0.062
99-99-0	4-Nitrotoluene	0.43	U Q	0.44	0.43	0.11
2691-41-0	HMX	0.22	U M Q	0.23	0.22	0.095
98-95-3	Nitrobenzene	0.22	U Q	0.23	0.22	0.098
55-63-0	Nitroglycerin	2.2	U Q	2.3	2.2	0.99
78-11-5	PETN	1.1	U Q	1.2	1.1	0.48
121-82-4	RDX	0.22	U Q	0.23	0.22	0.056
479-45-8	Tetryl	0.11	U Q	0.12	0.11	0.034

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	71	M Q	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\05010031.D
Lims ID: 280-191098-A-1-A
Client ID: DET-003-240401-GW
Sample Type: Client
Inject. Date: 11-May-2024 16:25:37 ALS Bottle#: 31 Worklist Smp#: 31
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-A-1-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 14-May-2024 14:09:25 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 14-May-2024 12:42:12

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	4 HMX	1		6.611			ND	U
	8 RDX	1		7.631			ND	
$	10 1,2-Dinitrobenzene	1	8.552	8.565	-0.013	18866	0.1426	M
	11 1,3,5-Trinitrobenzene	1		8.705			ND	
	12 1,3-Dinitrobenzene	1		9.318			ND	U
	13 Nitrobenzene	1		9.671			ND	
	15 Tetryl	1		9.991			ND	
	16 Nitroglycerin	2		10.458			ND	
	17 2,4,6-Trinitrotoluene	1		10.891			ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.064			ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.318			ND	
	20 2,6-Dinitrotoluene	1		11.464			ND	
	21 2,4-Dinitrotoluene	1		11.638			ND	
	22 o-Nitrotoluene	1		12.418			ND	7
	23 p-Nitrotoluene	1		12.831			ND	
	24 m-Nitrotoluene	1		13.371			ND	
	25 PETN	2		14.418			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

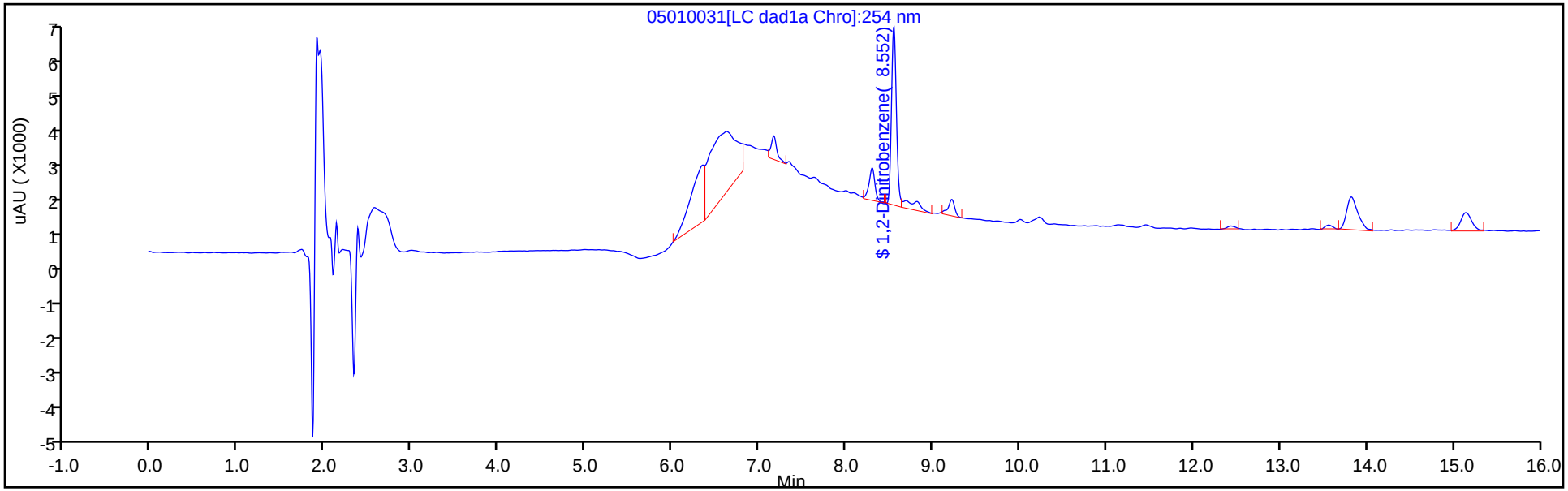
Report Date: 14-May-2024 14:09:29 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

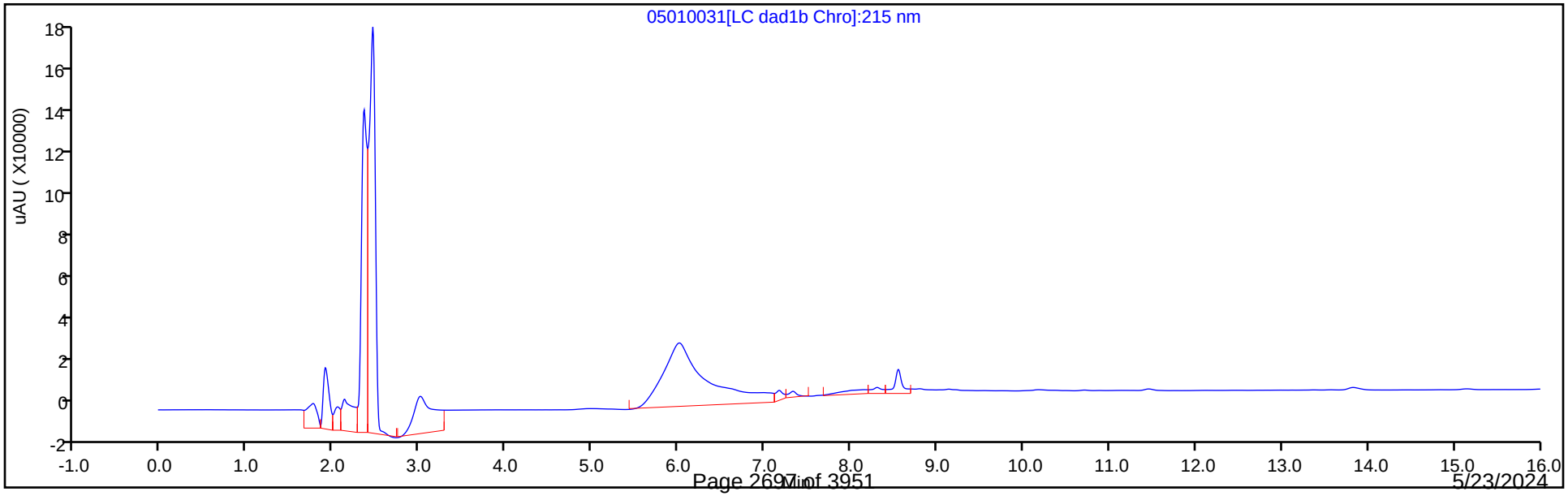
Data File: \\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010031.d

Injection Date:	11-May-2024 16:25:37	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191098-A-1-A	Lab Sample ID:	280-191098-1	Worklist Smp#:	31
Client ID:	DET-003-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	31
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\05010031.D				
Lims ID:	280-191098-A-1-A				
Client ID:	DET-003-240401-GW				
Sample Type:	Client				
Inject. Date:	11-May-2024 16:25:37	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-A-1-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	14-May-2024 14:09:25	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1620				

First Level Reviewer: LV5D Date: 14-May-2024 12:42:12

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1426	71.31

Manual Integration/User Assign Peak Report

Eurofins Denver

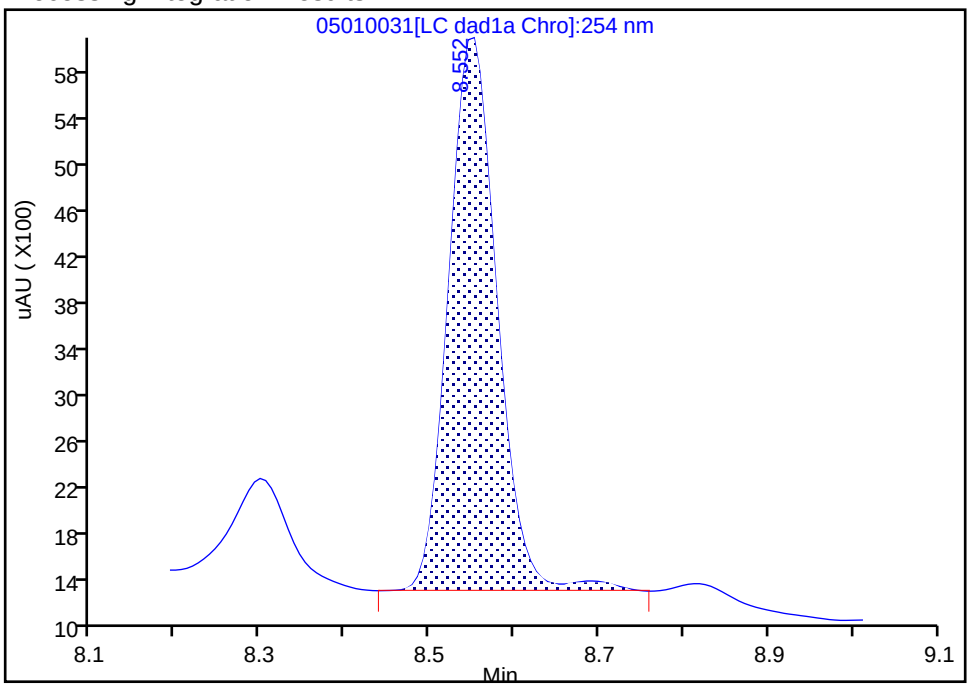
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010031.d				
Injection Date:	11-May-2024 16:25:37	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-A-1-A	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	JZ	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

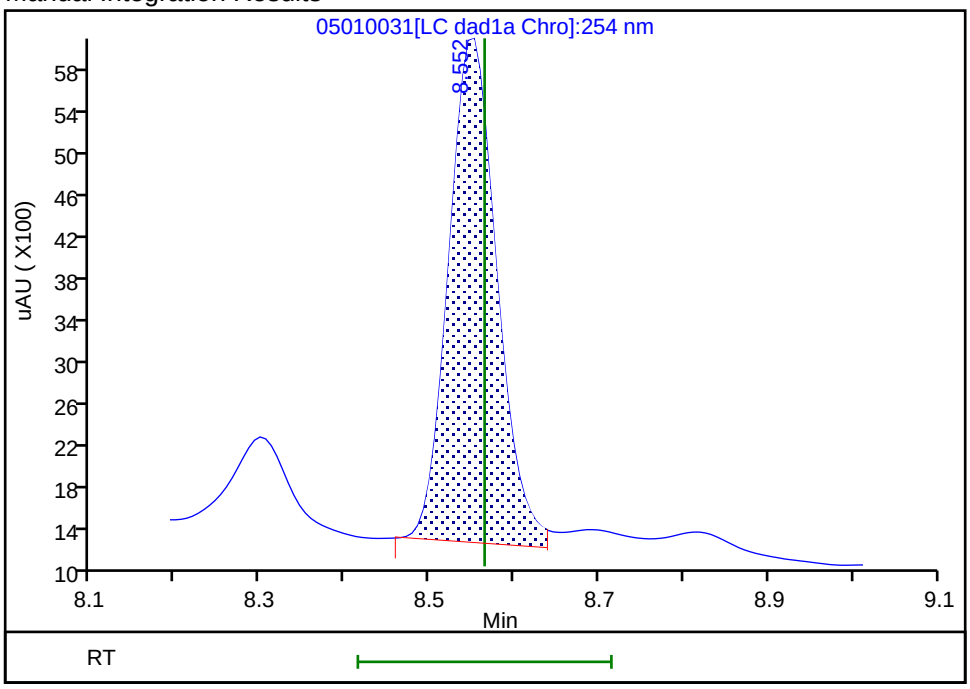
Processing Integration Results

RT: 8.55
Area: 18853
Amount: 0.142514
Amount Units: ug/mL



Manual Integration Results

RT: 8.55
Area: 18866
Amount: 0.142613
Amount Units: ug/mL



Reviewer: LV5D, 14-May-2024 12:42:06 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

User Disabled Compound Report

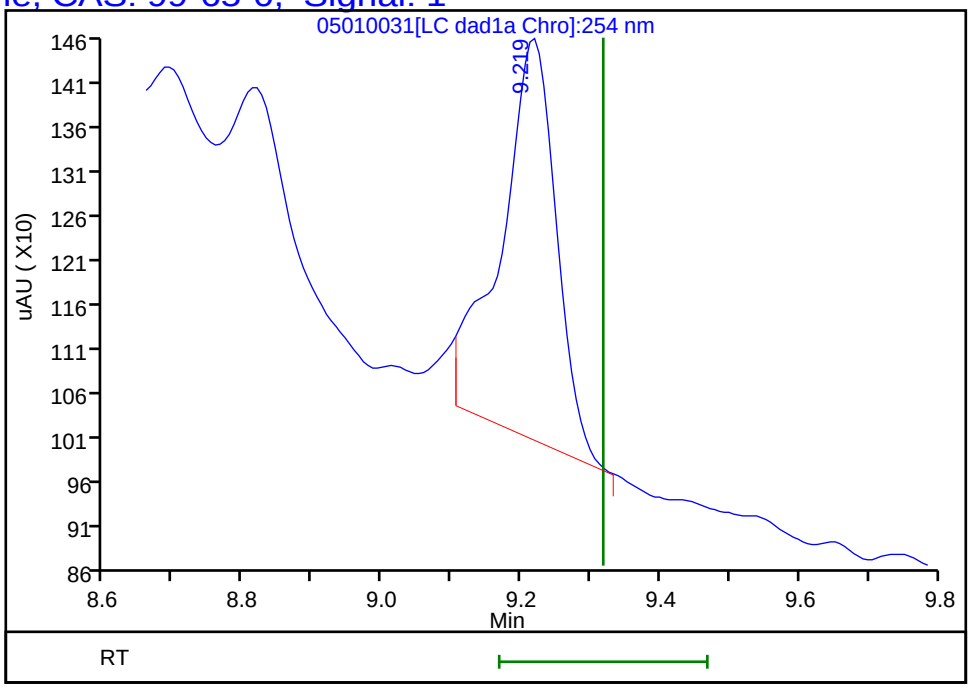
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010031.d
Injection Date: 11-May-2024 16:25:37 Instrument ID: CHHPLC_X3
Lims ID: 280-191098-A-1-A Lab Sample ID: 280-191098-1
Client ID: DET-003-240401-GW
Operator ID: JZ ALS Bottle#: 31 Worklist Smp#: 31
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 9.22
Response: 2467
Amount: 0.008239



Reviewer: LV5D, 14-May-2024 12:42:12
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

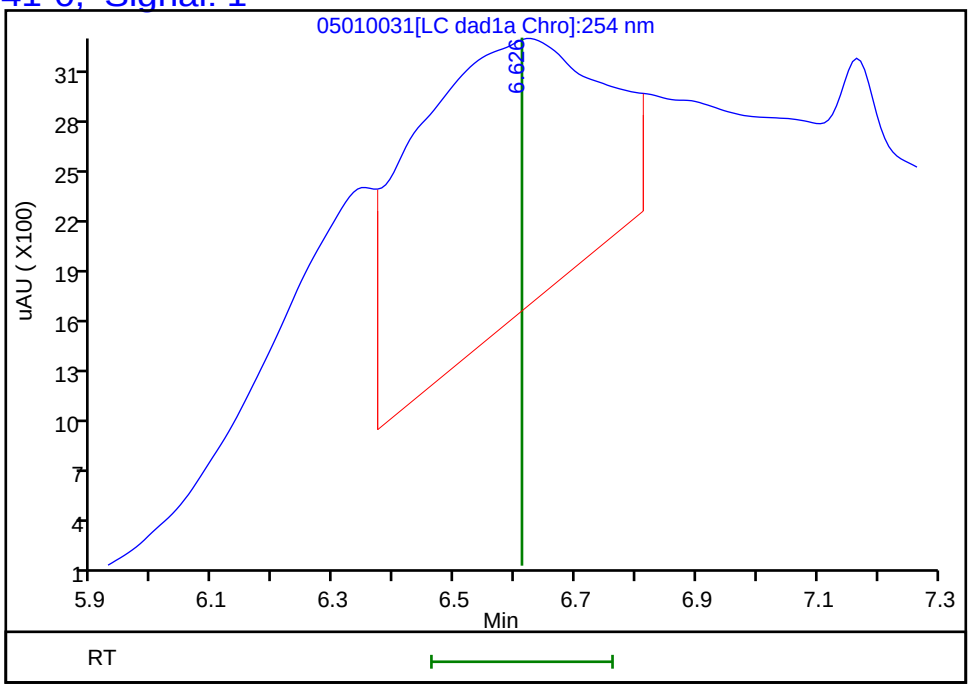
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010031.d
Injection Date: 11-May-2024 16:25:37 Instrument ID: CHHPLC_X3
Lims ID: 280-191098-A-1-A Lab Sample ID: 280-191098-1
Client ID: DET-003-240401-GW
Operator ID: JZ ALS Bottle#: 31 Worklist Smp#: 31
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.63
Response: 37356
Amount: 0.390983



Reviewer: LV5D, 14-May-2024 12:42:12
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-003-240401-GW RE | Lab Sample ID: 280-191098-1 RE

Matrix: Water | Lab File ID: 05170043.D

Analysis Method: 8330B | Date Collected: 05/06/2024 10:16

Extraction Method: 3535 | Date Extracted: 05/17/2024 13:10

Sample wt/vol: 490.9(mL) | Date Analyzed: 05/18/2024 03:15

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653871 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	*1,3,5-Trinitrobenzene*	*0.20*	*U H*	*0.21*	0.20	*0.086*
99-65-0	*1,3-Dinitrobenzene*	*0.10*	*U H*	*0.11*	0.10	*0.038*
118-96-7	*2,4,6-Trinitrotoluene*	*0.10*	*U H*	*0.11*	0.10	*0.046*
121-14-2	*2,4-Dinitrotoluene*	*0.081*	*U H*	*0.10*	0.081	*0.028*
606-20-2	*2,6-Dinitrotoluene*	*0.081*	*U H*	*0.10*	0.081	*0.041*
35572-78-2	*2-Amino-4,6-dinitrotoluene*	*0.10*	*U H*	*0.11*	0.10	*0.052*
88-72-2	*2-Nitrotoluene*	*0.20*	*U H*	*0.21*	0.20	*0.087*
99-08-1	*3-Nitrotoluene*	*0.36*	*U H*	*0.41*	0.36	*0.20*
19406-51-0	*4-Amino-2,6-dinitrotoluene*	*0.12*	*U H*	*0.15*	0.12	*0.059*
99-99-0	*4-Nitrotoluene*	*0.41*	*U H*	*0.42*	0.41	*0.10*
2691-41-0	*HMX*	*0.20*	*U M H*	*0.21*	0.20	*0.089*
98-95-3	*Nitrobenzene*	*0.20*	*U H*	*0.21*	0.20	*0.093*
55-63-0	*Nitroglycerin*	*2.0*	*U H*	*2.1*	2.0	*0.94*
78-11-5	*PETN*	*1.0*	*U H*	*1.1*	1.0	*0.46*
121-82-4	*RDX*	*0.20*	*U H*	*0.21*	0.20	*0.052*
479-45-8	*Tetryl*	*0.10*	*U H*	*0.11*	0.10	*0.032*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\05170043.D
Lims ID: 280-191098-B-1-B RE
Client ID: DET-003-240401-GW
Sample Type: Client
Inject. Date: 18-May-2024 03:15:11 ALS Bottle#: 43 Worklist Smp#: 43
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-B-1-B
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-May-2024 10:51:45 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1674

First Level Reviewer: LV5D Date: 18-May-2024 10:34:59

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	4 HMX	1		6.617			ND	U
	8 RDX	1		7.630			ND	
$	10 1,2-Dinitrobenzene	1	8.548	8.557	-0.009	25804	0.1953	M
	11 1,3,5-Trinitrobenzene	1		8.697			ND	
	12 1,3-Dinitrobenzene	1		9.310			ND	
	13 Nitrobenzene	1		9.670			ND	
	15 Tetryl	1		9.983			ND	
	16 Nitroglycerin	2		10.457			ND	
	17 2,4,6-Trinitrotoluene	1		10.883			ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.043			ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.297			ND	
	20 2,6-Dinitrotoluene	1		11.450			ND	
	21 2,4-Dinitrotoluene	1		11.623			ND	
	22 o-Nitrotoluene	1		12.410			ND	
	23 p-Nitrotoluene	1		12.823			ND	
	24 m-Nitrotoluene	1		13.370			ND	
	25 PETN	2		14.437			ND	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

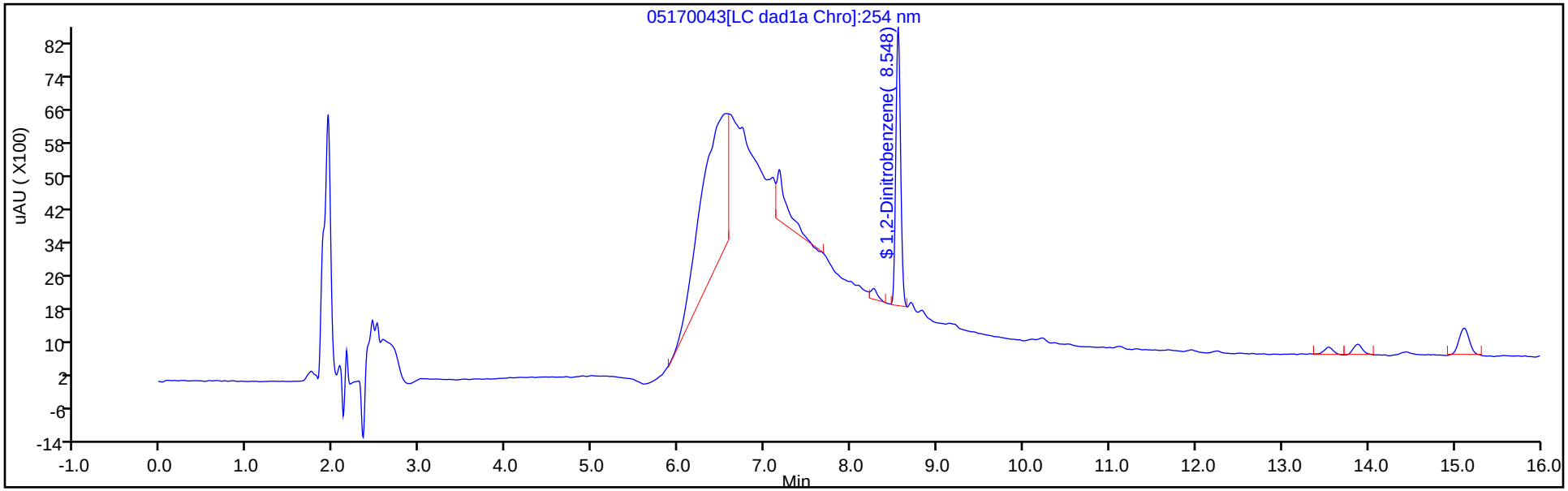
Report Date: 18-May-2024 10:51:48 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

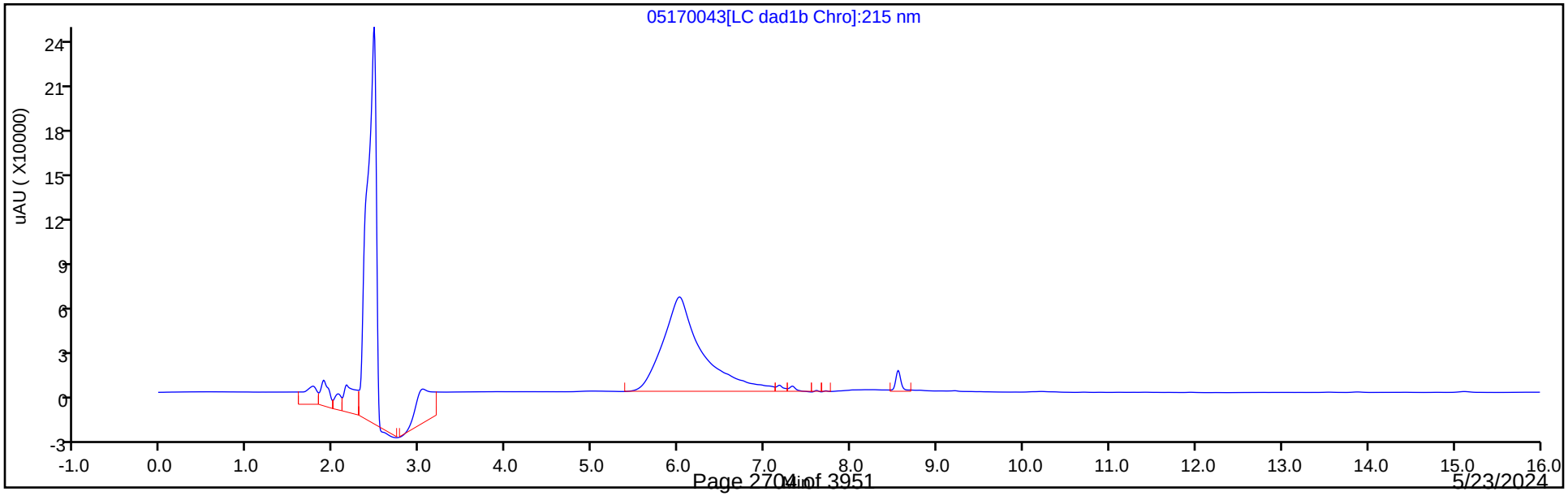
Data File: \\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170043.d

Injection Date:	18-May-2024 03:15:11	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191098-B-1-B RE	Lab Sample ID:	280-191098-1	Worklist Smp#:	43
Client ID:	DET-003-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	43
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\05170043.D				
Lims ID:	280-191098-B-1-B RE				
Client ID:	DET-003-240401-GW				
Sample Type:	Client				
Inject. Date:	18-May-2024 03:15:11	ALS Bottle#:	43	Worklist Smp#:	43
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-B-1-B				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	18-May-2024 10:51:45	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1674				

First Level Reviewer: LV5D Date: 18-May-2024 10:34:59

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1953	97.66

Manual Integration/User Assign Peak Report

Eurofins Denver

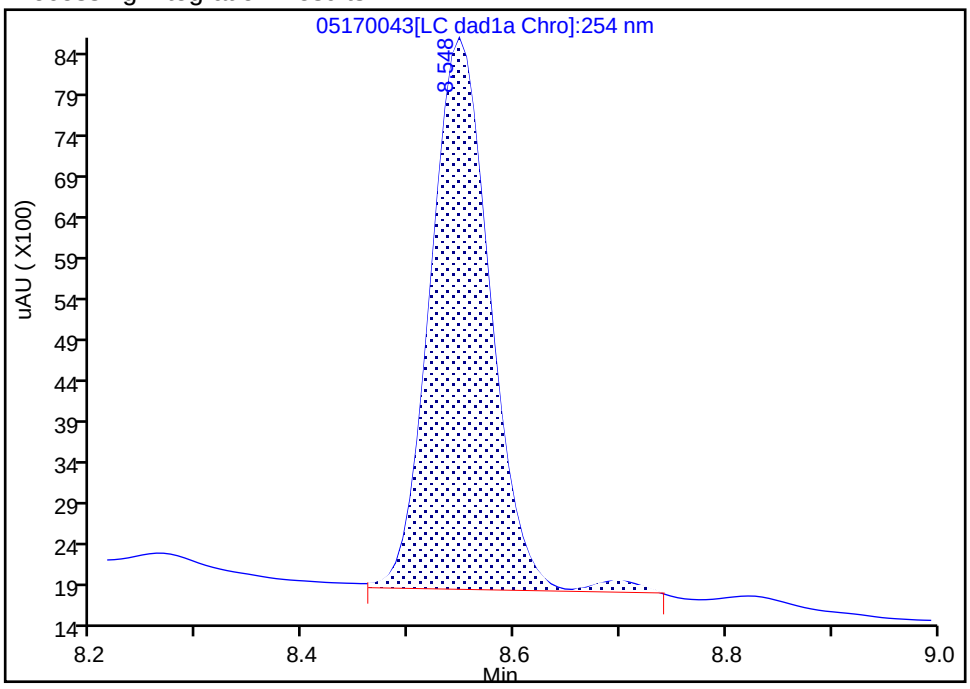
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170043.d				
Injection Date:	18-May-2024 03:15:11	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-B-1-B RE	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	JZ	ALS Bottle#:	43	Worklist Smp#:	43
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

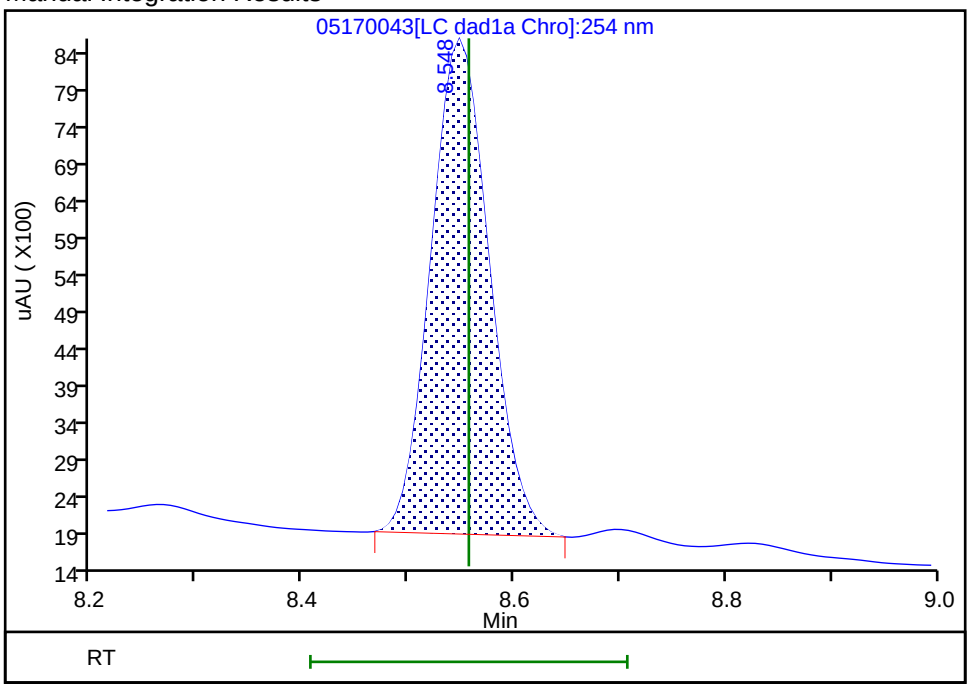
Processing Integration Results

RT: 8.55
Area: 26926
Amount: 0.203845
Amount Units: ug/mL



Manual Integration Results

RT: 8.55
Area: 25804
Amount: 0.195321
Amount Units: ug/mL



Reviewer: LV5D, 18-May-2024 10:34:58 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

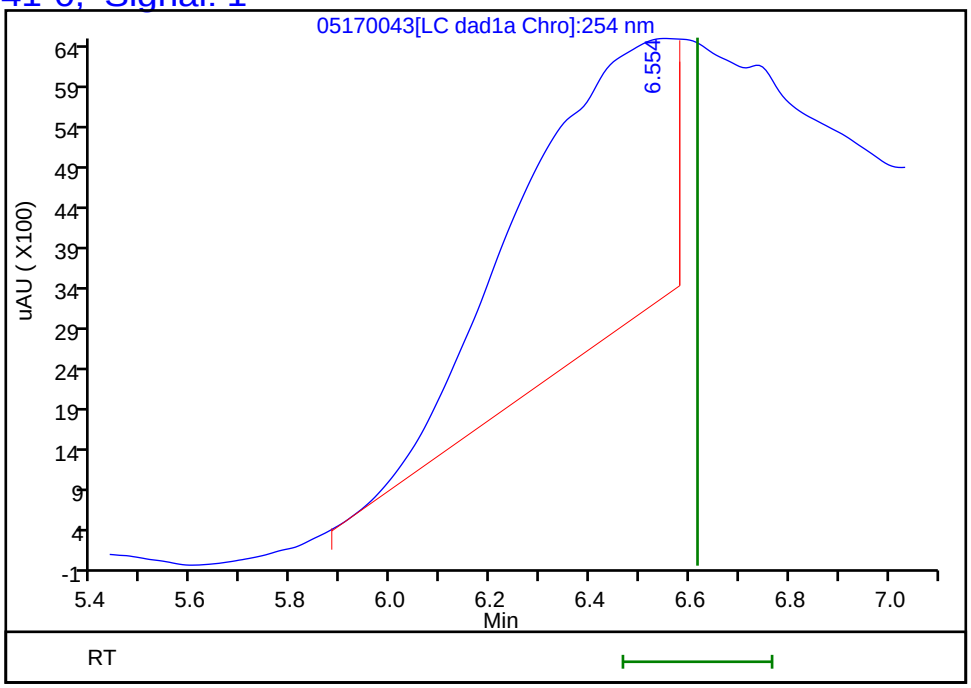
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170043.d				
Injection Date:	18-May-2024 03:15:11	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-B-1-B RE	Lab Sample ID:	280-191098-1		
Client ID:	DET-003-240401-GW				
Operator ID:	JZ	ALS Bottle#:	43	Worklist Smp#:	43
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.55
Response: 77208
Amount: 0.808091



Reviewer: LV5D, 18-May-2024 10:34:59
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: LL1mw-081-240401-GW | Lab Sample ID: 280-191098-4

Matrix: Water | Lab File ID: 05010032.D

Analysis Method: 8330B | Date Collected: 05/06/2024 10:21

Extraction Method: 3535 | Date Extracted: 05/10/2024 10:58

Sample wt/vol: 470.4(mL) | Date Analyzed: 05/11/2024 16:48

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653063 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-65-0	1,3-Dinitrobenzene	0.11	U Q M	0.12	0.11	0.039
606-20-2	2,6-Dinitrotoluene	0.085	U Q	0.11	0.085	0.043
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U Q	0.12	0.11	0.054
88-72-2	2-Nitrotoluene	0.21	U Q	0.22	0.21	0.091
99-08-1	3-Nitrotoluene	0.37	U Q	0.43	0.37	0.21
99-99-0	4-Nitrotoluene	0.43	U Q	0.44	0.43	0.11
2691-41-0	HMX	0.21	U Q M	0.22	0.21	0.093
98-95-3	Nitrobenzene	0.21	U Q	0.22	0.21	0.097
55-63-0	Nitroglycerin	2.1	U Q	2.2	2.1	0.98
78-11-5	PETN	1.1	U Q	1.2	1.1	0.48
479-45-8	Tetryl	0.11	U Q M	0.12	0.11	0.034

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	76	Q	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\05010032.D
Lims ID: 280-191098-A-4-A
Client ID: LL1mw-081-240401-GW
Sample Type: Client
Inject. Date: 11-May-2024 16:48:35 ALS Bottle#: 32 Worklist Smp#: 32
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-A-4-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 14-May-2024 14:09:25 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 14-May-2024 12:43:40

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.611			ND	U
8 RDX	1	7.646	7.631	0.015	10755	0.0971	
$ 10 1,2-Dinitrobenzene	1	8.553	8.565	-0.012	19986	0.1511	
11 1,3,5-Trinitrobenzene	1	8.706	8.705	0.001	1864	0.008364	M
12 1,3-Dinitrobenzene	1		9.318			ND	U
13 Nitrobenzene	1		9.671			ND	
15 Tetryl	1		9.991			ND	U
16 Nitroglycerin	2		10.458			ND	
17 2,4,6-Trinitrotoluene	1	10.866	10.891	-0.025	1138	0.005288	7M
18 4-Amino-2,6-dinitrotoluene	1	11.026	11.064	-0.038	2637	0.0176	M
19 2-Amino-4,6-dinitrotoluene	1		11.318			ND	
20 2,6-Dinitrotoluene	1		11.464			ND	
21 2,4-Dinitrotoluene	1	11.673	11.638	0.035	3979	0.0136	
22 o-Nitrotoluene	1		12.418			ND	7
23 p-Nitrotoluene	1		12.831			ND	7
24 m-Nitrotoluene	1		13.371			ND	
25 PETN	2		14.418			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

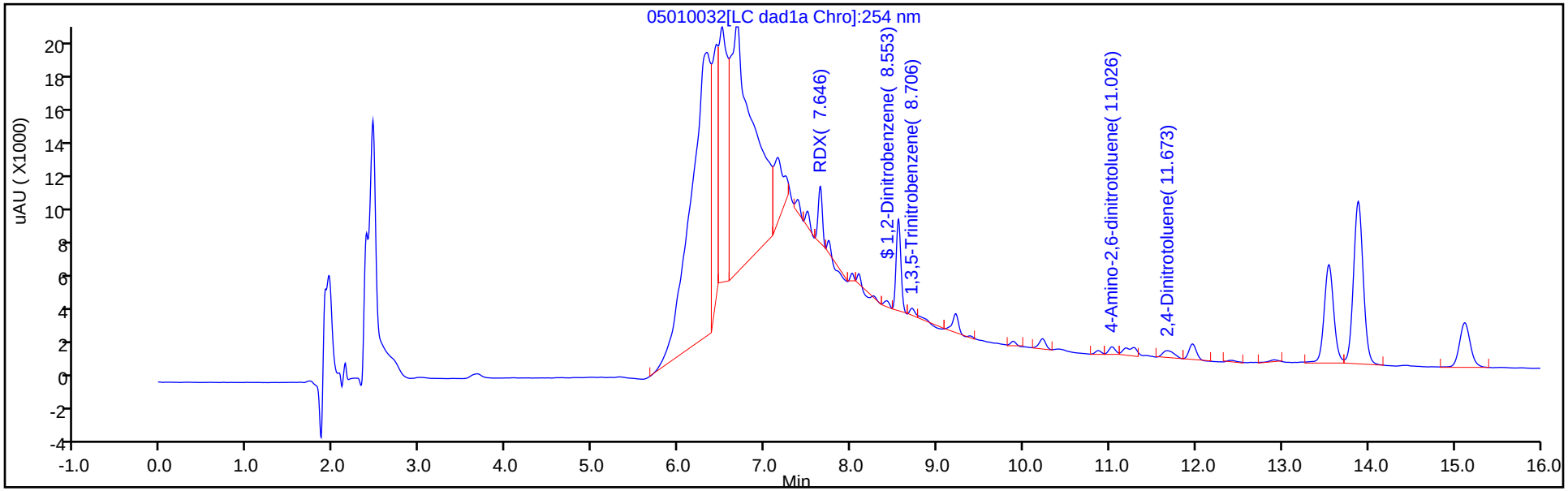
Report Date: 14-May-2024 14:09:30 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

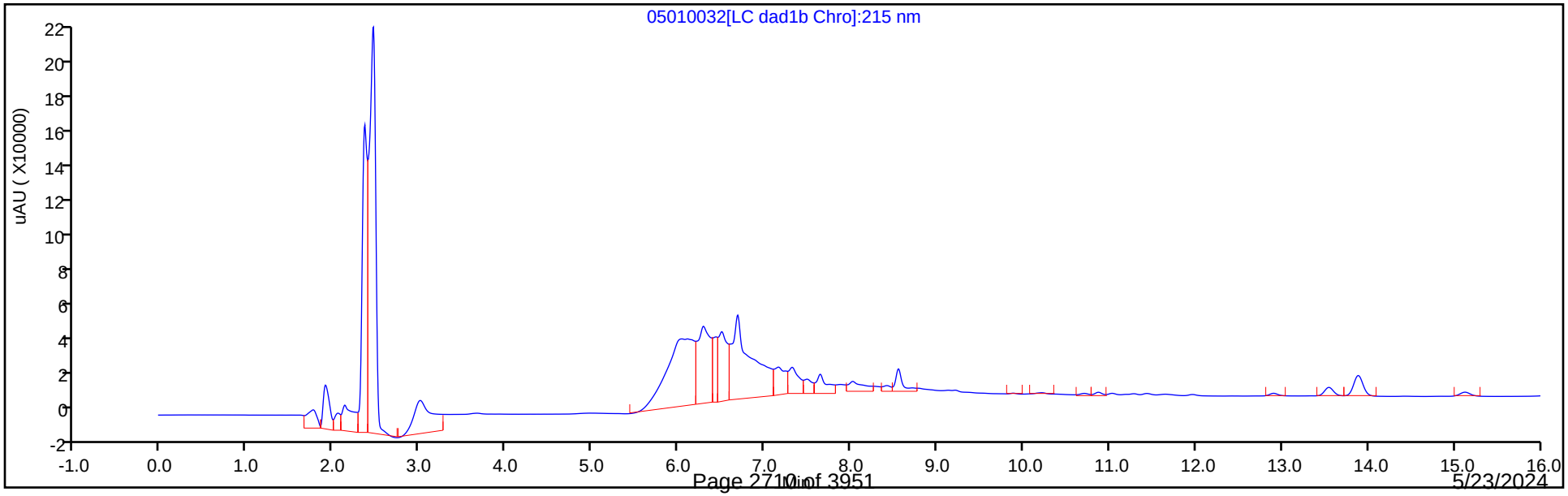
Data File: \\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010032.d

Injection Date:	11-May-2024 16:48:35	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191098-A-4-A	Lab Sample ID:	280-191098-4	Worklist Smp#:	32
Client ID:	LL1mw-081-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	32
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\05010032.D				
Lims ID:	280-191098-A-4-A				
Client ID:	LL1mw-081-240401-GW				
Sample Type:	Client				
Inject. Date:	11-May-2024 16:48:35	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-A-4-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	14-May-2024 14:09:25	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1620				

First Level Reviewer: LV5D Date: 14-May-2024 12:43:40

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1511	75.56

Manual Integration/User Assign Peak Report

Eurofins Denver

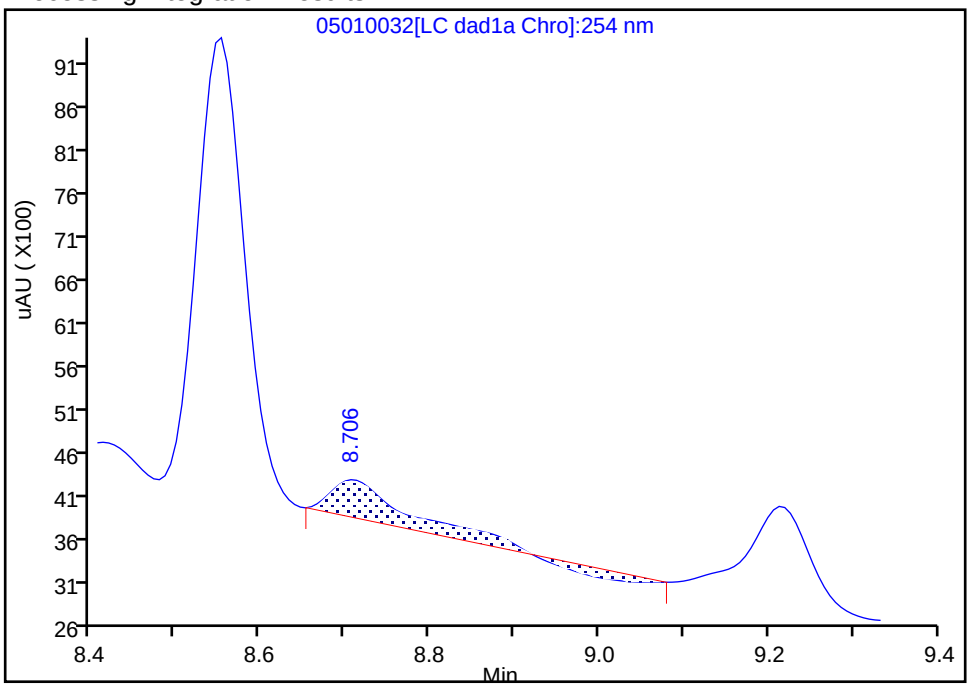
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010032.d				
Injection Date:	11-May-2024 16:48:35	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-A-4-A	Lab Sample ID:	280-191098-4		
Client ID:	LL1mw-081-240401-GW				
Operator ID:	JZ	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

11 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

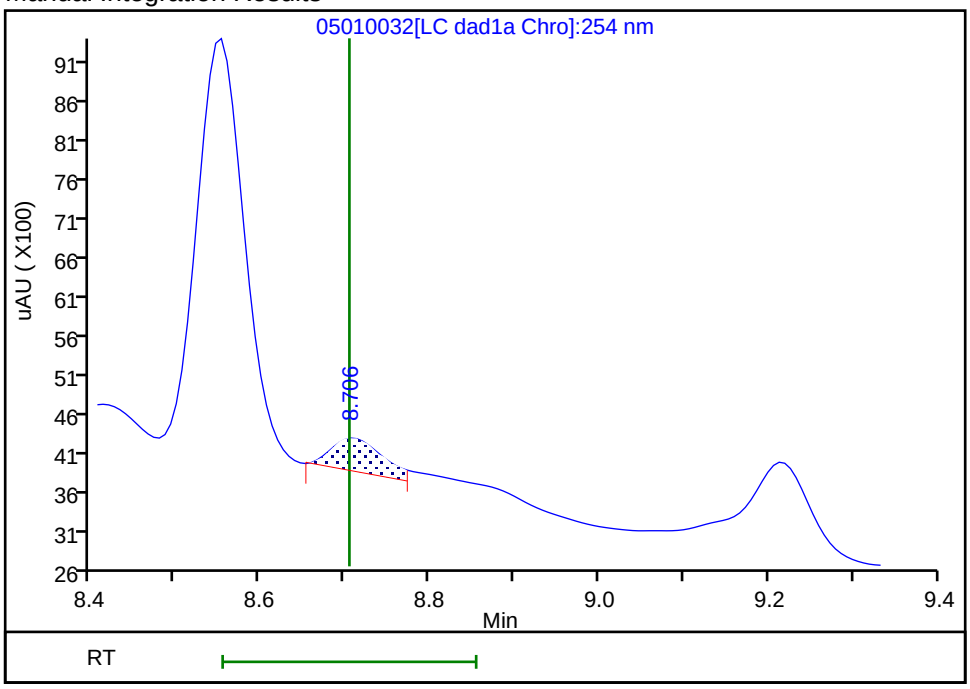
Processing Integration Results

RT: 8.71
Area: 3889
Amount: 0.017451
Amount Units: ug/mL



Manual Integration Results

RT: 8.71
Area: 1864
Amount: 0.008364
Amount Units: ug/mL



Reviewer: LV5D, 14-May-2024 12:43:20 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

User Disabled Compound Report

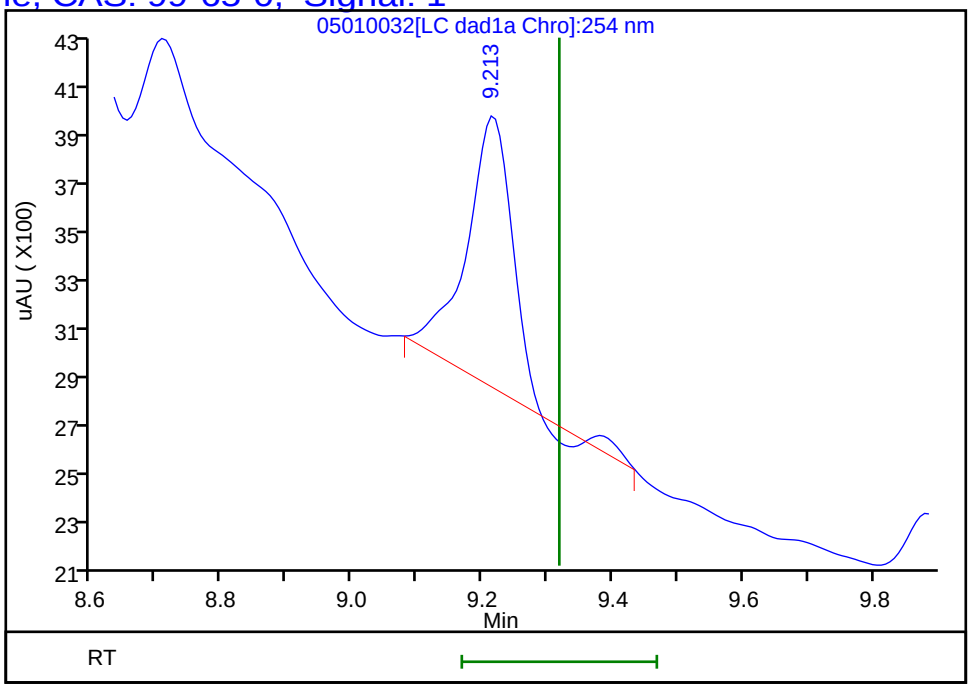
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010032.d

Injection Date:	11-May-2024 16:48:35	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-A-4-A	Lab Sample ID:	280-191098-4		
Client ID:	LL1mw-081-240401-GW				
Operator ID:	JZ	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 9.21
Response: 5866
Amount: 0.019590



Reviewer: LV5D, 14-May-2024 12:43:40
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

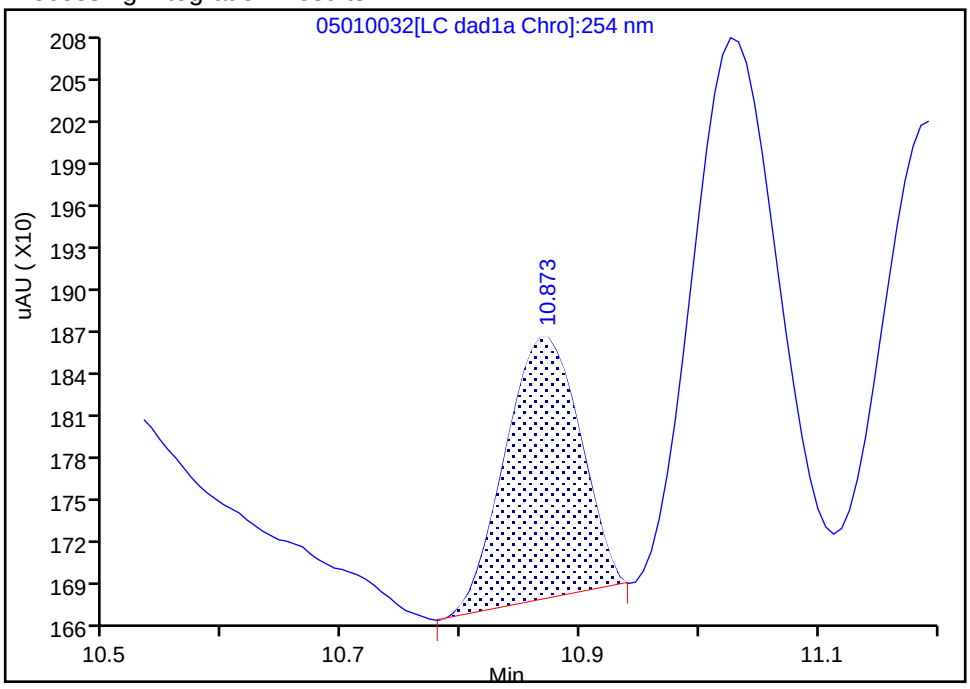
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010032.d				
Injection Date:	11-May-2024 16:48:35	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-A-4-A	Lab Sample ID:	280-191098-4		
Client ID:	LL1mw-081-240401-GW				
Operator ID:	JZ	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

17 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

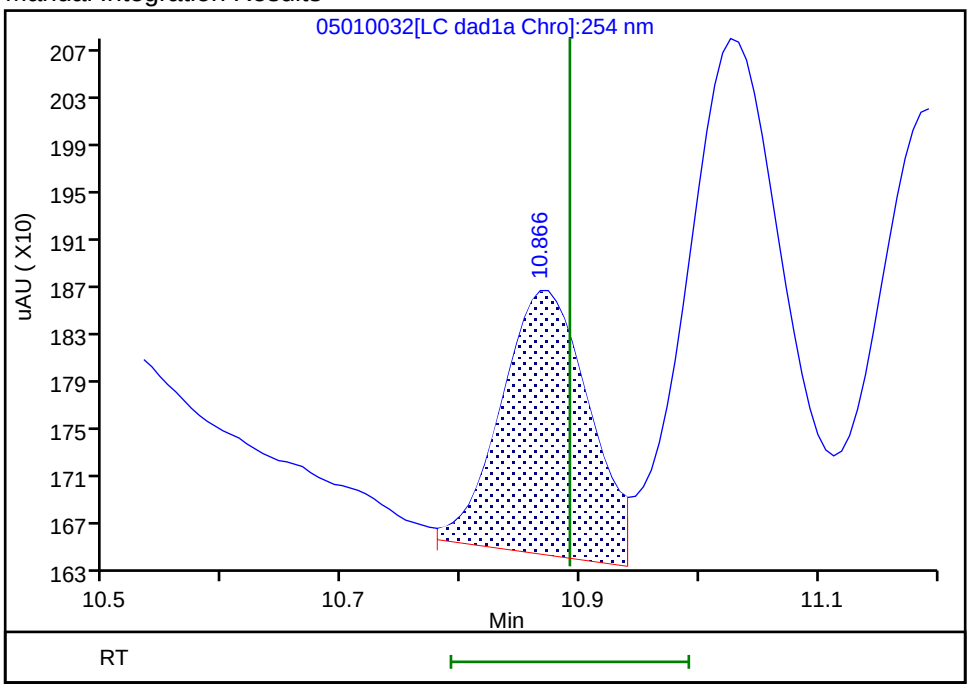
Processing Integration Results

RT: 10.87
Area: 816
Amount: 0.003792
Amount Units: ug/mL



Manual Integration Results

RT: 10.87
Area: 1138
Amount: 0.005288
Amount Units: ug/mL



Reviewer: LV5D, 14-May-2024 12:43:38 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

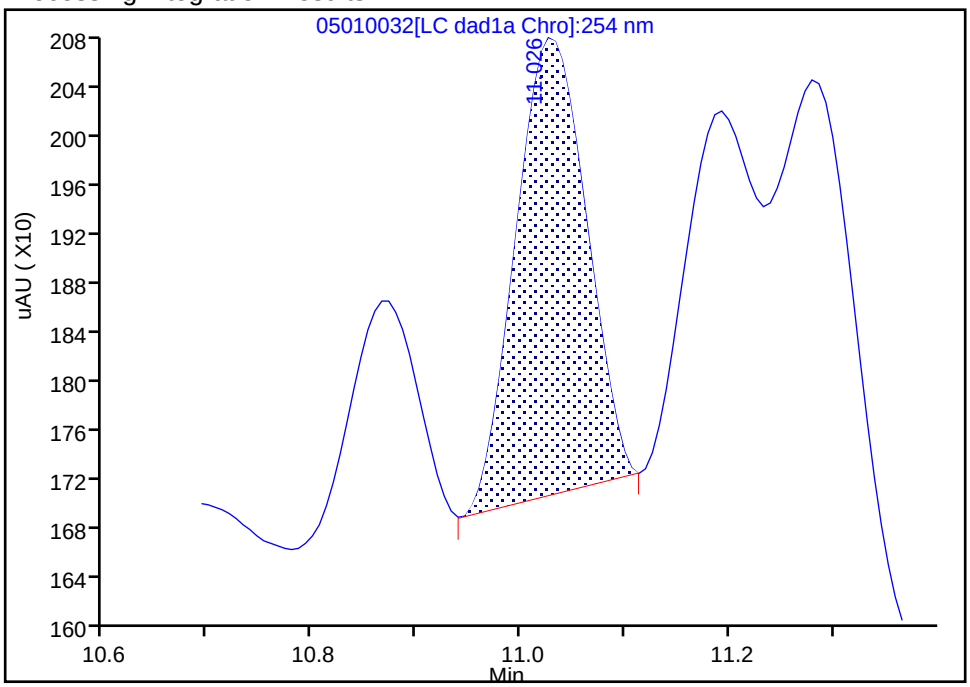
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010032.d				
Injection Date:	11-May-2024 16:48:35	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-A-4-A	Lab Sample ID:	280-191098-4		
Client ID:	LL1mw-081-240401-GW				
Operator ID:	JZ	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

18 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

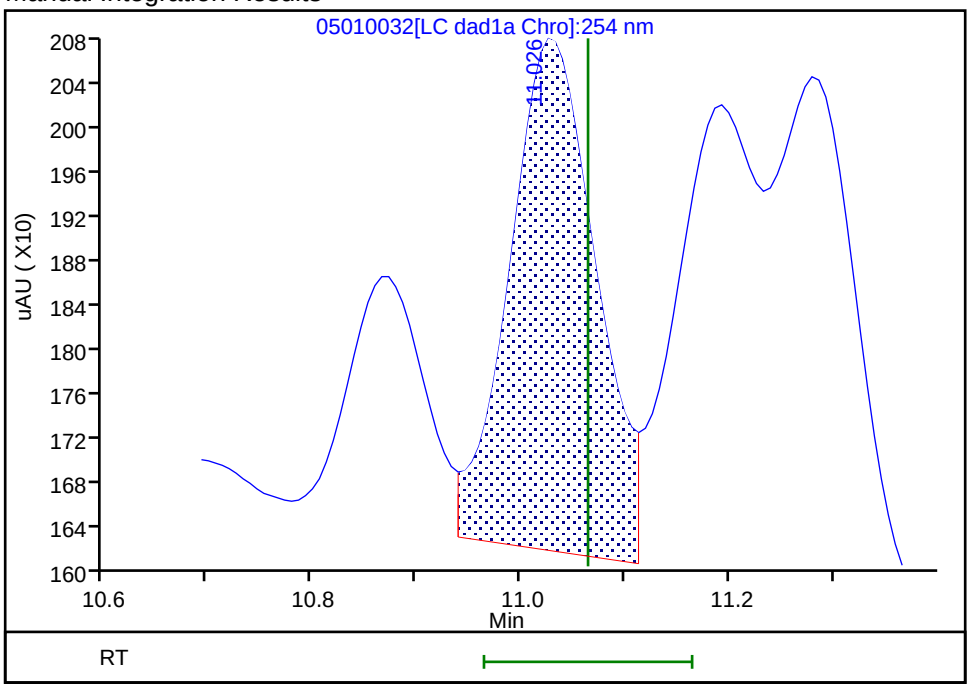
Processing Integration Results

RT: 11.03
Area: 1738
Amount: 0.011591
Amount Units: ug/mL



Manual Integration Results

RT: 11.03
Area: 2637
Amount: 0.017586
Amount Units: ug/mL



Reviewer: LV5D, 14-May-2024 12:43:38 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

User Disabled Compound Report

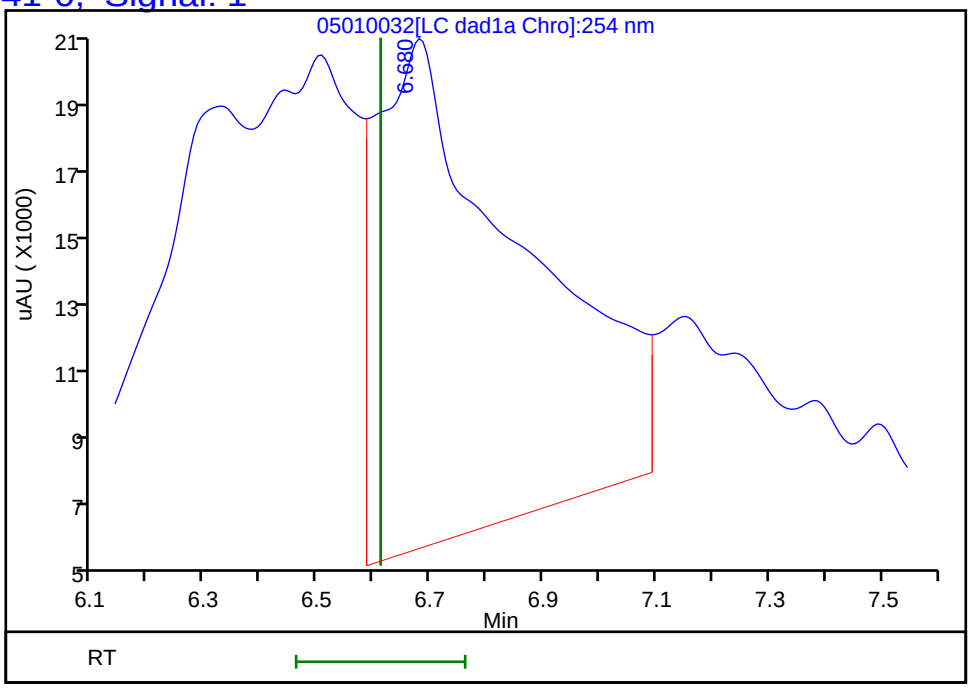
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010032.d
Injection Date: 11-May-2024 16:48:35 Instrument ID: CHHPLC_X3
Lims ID: 280-191098-A-4-A Lab Sample ID: 280-191098-4
Client ID: LL1mw-081-240401-GW
Operator ID: JZ ALS Bottle#: 32 Worklist Smp#: 32
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.68
Response: 259575
Amount: 2.716819



Reviewer: LV5D, 14-May-2024 12:43:40
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

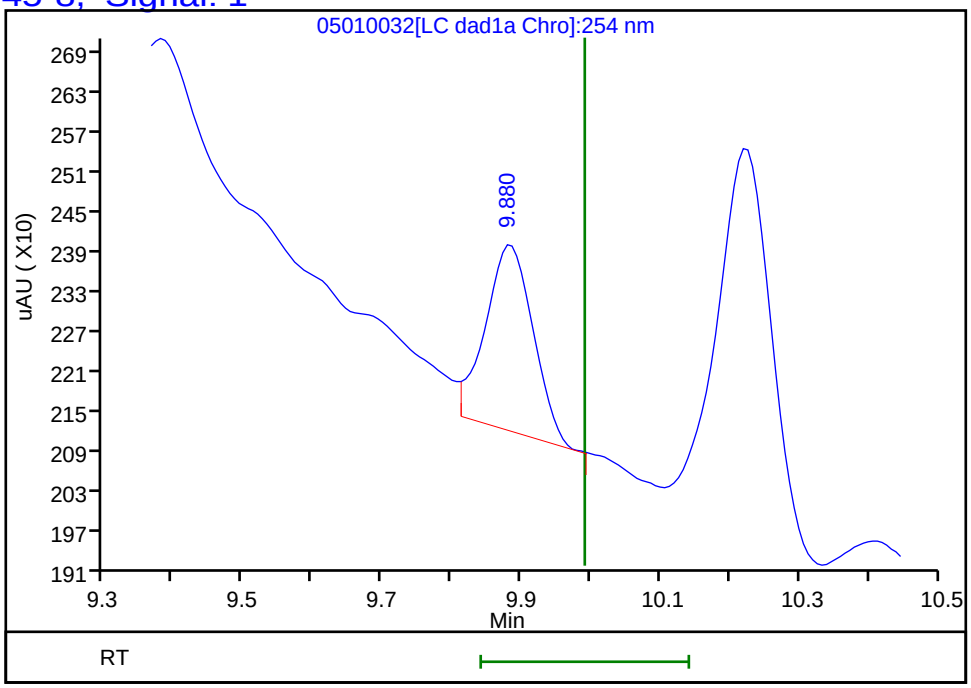
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010032.d
Injection Date: 11-May-2024 16:48:35 Instrument ID: CHHPLC_X3
Lims ID: 280-191098-A-4-A Lab Sample ID: 280-191098-4
Client ID: LL1mw-081-240401-GW
Operator ID: JZ ALS Bottle#: 32 Worklist Smp#: 32
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

15 Tetryl, CAS: 479-45-8, Signal: 1

RT: 9.88
Response: 1319
Amount: 0.007264



Reviewer: LV5D, 14-May-2024 12:43:40
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: LL1mw-081-240401-GW | Lab Sample ID: 280-191098-4

Matrix: Water | Lab File ID: 05140010.D

Analysis Method: 8330B | Date Collected: 05/06/2024 10:21

Extraction Method: 3535 | Date Extracted: 05/10/2024 10:58

Sample wt/vol: 470.4(mL) | Date Analyzed: 05/15/2024 01:14

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653380 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U Q	0.22	0.21	0.089
118-96-7	2,4,6-Trinitrotoluene	0.11	U Q	0.12	0.11	0.048
121-14-2	2,4-Dinitrotoluene	0.085	U Q	0.11	0.085	0.029
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U Q	0.16	0.13	0.061
121-82-4	RDX	0.21	U M Q	0.22	0.21	0.055

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	75	Q	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240514-133382.b\05140010.D
Lims ID: 280-191098-A-4-A
Client ID: LL1mw-081-240401-GW
Sample Type: Client
Inject. Date: 15-May-2024 01:14:50 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-A-4-A
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240514-133382.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2024 13:32:06 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1631

First Level Reviewer: LV5D Date: 15-May-2024 13:31:42

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 HMX	1	6.560	6.584	-0.024	2327	0.0121	M
8 RDX	1		8.604			ND	U
9 Nitrobenzene	1		11.264			ND	U
$ 10 1,2-Dinitrobenzene	1	12.227	12.237	-0.010	39447	0.1493	
12 1,3-Dinitrobenzene	1		14.424			ND	
13 Nitroglycerin	2		14.684			ND	
14 o-Nitrotoluene	1	15.333	15.351	-0.018	94962	0.3839	
16 p-Nitrotoluene	1		15.611			ND	
17 4-Amino-2,6-dinitrotoluene	1		16.044			ND	
18 m-Nitrotoluene	1		16.451			ND	
19 2-Amino-4,6-dinitrotoluene	1	16.893	16.897	-0.004	22374	0.0537	
20 1,3,5-Trinitrobenzene	1		17.357			ND	
21 2,6-Dinitrotoluene	1		18.324			ND	7
22 2,4-Dinitrotoluene	1		18.811			ND	
23 Tetryl	1		22.104			ND	
24 2,4,6-Trinitrotoluene	1		23.091			ND	
25 PETN	2		24.104			ND	U

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

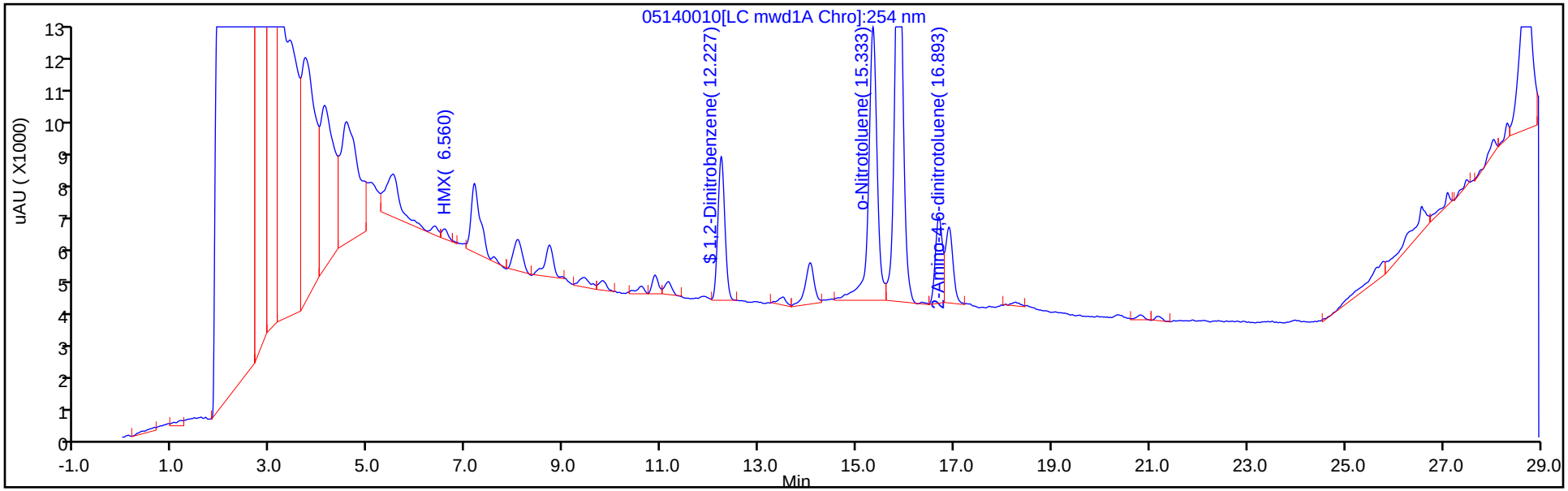
Report Date: 15-May-2024 13:32:10 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

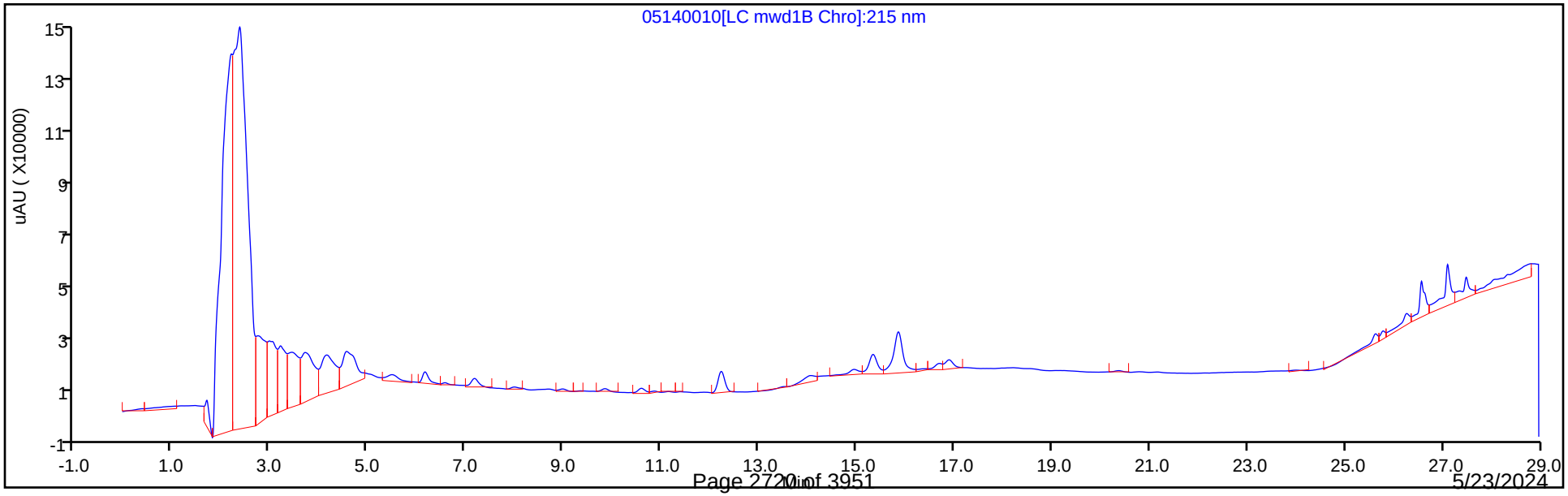
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240514-133382.b\05140010.D

Injection Date:	15-May-2024 01:14:50	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-191098-A-4-A	Lab Sample ID:	280-191098-4	Worklist Smp#:	10
Client ID:	LL1mw-081-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240514-133382.b\05140010.D				
Lims ID:	280-191098-A-4-A				
Client ID:	LL1mw-081-240401-GW				
Sample Type:	Client				
Inject. Date:	15-May-2024 01:14:50	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-A-4-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240514-133382.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	15-May-2024 13:32:06	Calib Date:	28-Mar-2024 05:53:05		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1631				

First Level Reviewer: LV5D Date: 15-May-2024 13:31:42

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1493	74.67

Manual Integration/User Assign Peak Report

Eurofins Denver

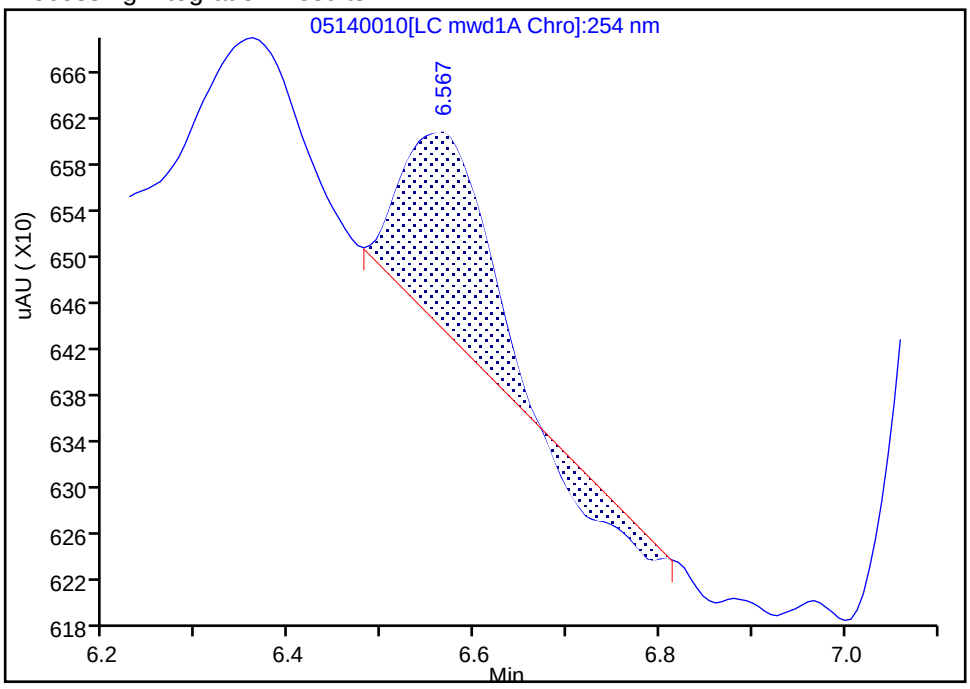
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240514-133382.b\05140010.D				
Injection Date:	15-May-2024 01:14:50	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191098-A-4-A	Lab Sample ID:	280-191098-4		
Client ID:	LL1mw-081-240401-GW				
Operator ID:	JZ	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

5 HMX, CAS: 2691-41-0

Signal: 1

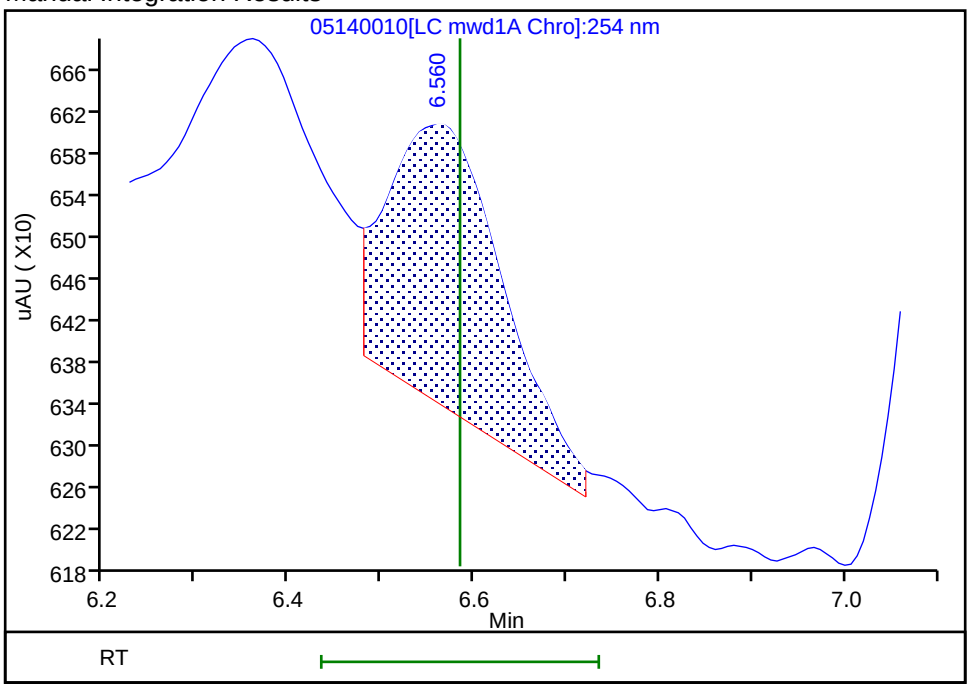
Processing Integration Results

RT: 6.57
Area: 1296
Amount: 0.006761
Amount Units: ug/ml



Manual Integration Results

RT: 6.56
Area: 2327
Amount: 0.012140
Amount Units: ug/ml



Reviewer: LV5D, 15-May-2024 13:28:49 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

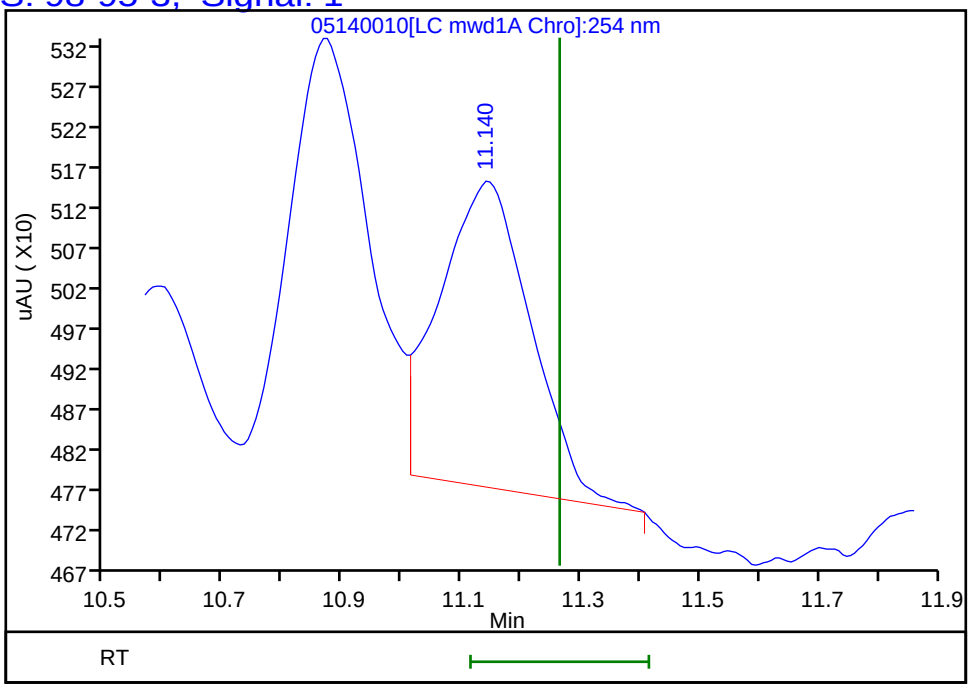
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240514-133382.b\05140010.D				
Injection Date:	15-May-2024 01:14:50	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191098-A-4-A	Lab Sample ID:	280-191098-4		
Client ID:	LL1mw-081-240401-GW				
Operator ID:	JZ	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

9 Nitrobenzene, CAS: 98-95-3, Signal: 1

RT: 11.14
Response: 4061
Amount: 0.010751



Reviewer: LV5D, 15-May-2024 13:31:42
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

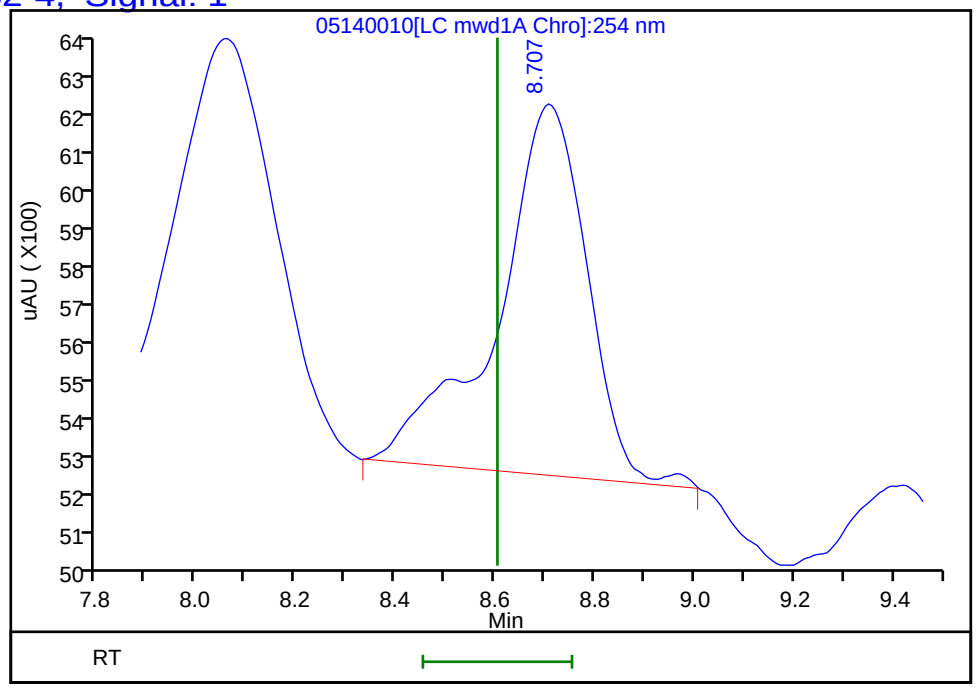
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240514-133382.b\05140010.D				
Injection Date:	15-May-2024 01:14:50	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191098-A-4-A	Lab Sample ID:	280-191098-4		
Client ID:	LL1mw-081-240401-GW				
Operator ID:	JZ	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

8 RDX, CAS: 121-82-4, Signal: 1

RT: 8.71
Response: 10978
Amount: 0.051397



Reviewer: LV5D, 15-May-2024 13:31:42
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: LL1mw-081-240401-GW RE | Lab Sample ID: 280-191098-4 RE

Matrix: Water | Lab File ID: 05170014.D

Analysis Method: 8330B | Date Collected: 05/06/2024 10:21

Extraction Method: 3535 | Date Extracted: 05/17/2024 13:10

Sample wt/vol: 450.3(mL) | Date Analyzed: 05/17/2024 20:44

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653873 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	*RDX*	*0.22*	*U M H*	*0.23*	0.22	*0.057*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	101		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170014.D
Lims ID: 280-191098-B-4-A RE
Client ID: LL1mw-081-240401-GW
Sample Type: Client
Inject. Date: 17-May-2024 20:44:43 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-B-4-A
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 18-May-2024 16:46:59 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1674

First Level Reviewer: LV5D Date: 18-May-2024 16:39:05

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	5 HMX	1	6.654	6.664	-0.010	1597	0.008331	M
	8 RDX	1		8.697			ND	U
	9 Nitrobenzene	1		11.364			ND	
$	10 1,2-Dinitrobenzene	1	12.347	12.351	-0.004	53358	0.2020	
	12 1,3-Dinitrobenzene	1		14.571			ND	
	13 Nitroglycerin	2		14.784			ND	U
	14 o-Nitrotoluene	1	15.447	15.477	-0.030	5247	0.0212	
	16 p-Nitrotoluene	1		15.737			ND	
	17 4-Amino-2,6-dinitrotoluene	1	16.194	16.197	-0.003	6041	0.0186	
	18 m-Nitrotoluene	1		16.591			ND	
	19 2-Amino-4,6-dinitrotoluene	1	17.034	17.071	-0.037	11985	0.0276	
	20 1,3,5-Trinitrobenzene	1		17.524			ND	
	21 2,6-Dinitrotoluene	1		18.491			ND	
	22 2,4-Dinitrotoluene	1		18.977			ND	
	23 Tetryl	1		22.277			ND	
	24 2,4,6-Trinitrotoluene	1		23.257			ND	
	25 PETN	2		24.191			ND	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

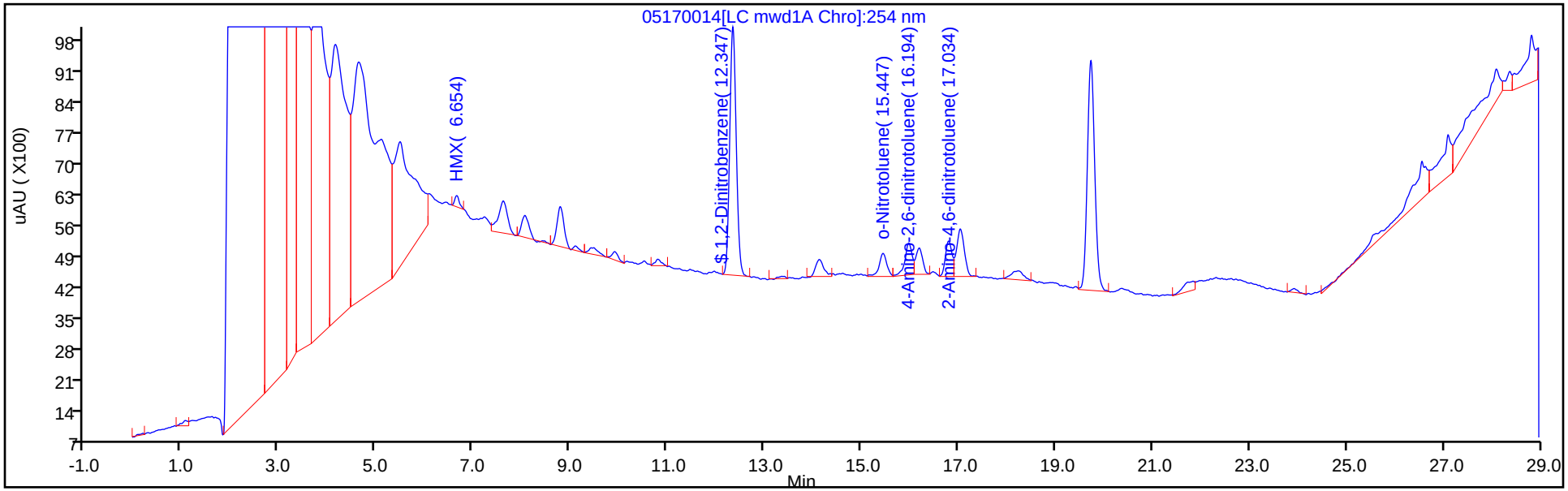
Report Date: 18-May-2024 16:47:00 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

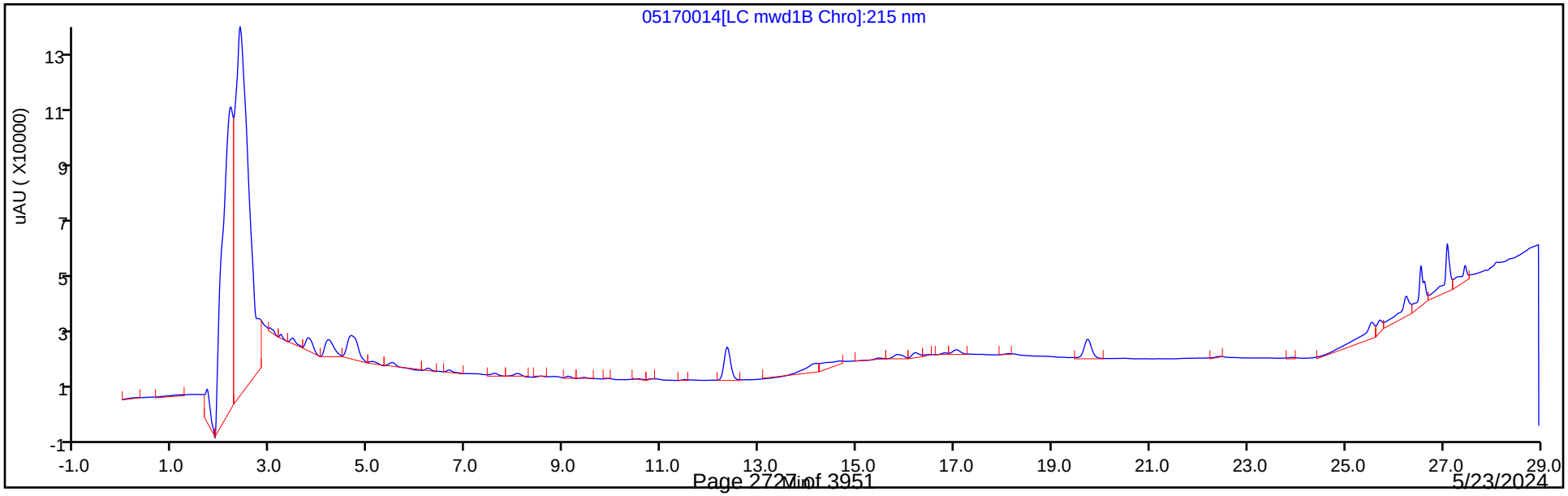
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170014.D

Injection Date:	17-May-2024 20:44:43	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-191098-B-4-A RE	Lab Sample ID:	280-191098-4	Worklist Smp#:	14
Client ID:	LL1mw-081-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170014.D				
Lims ID:	280-191098-B-4-A RE				
Client ID:	LL1mw-081-240401-GW				
Sample Type:	Client				
Inject. Date:	17-May-2024 20:44:43	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-B-4-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	18-May-2024 16:46:59	Calib Date:	28-Mar-2024 05:53:05		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1674				
First Level Reviewer: LV5D		Date:	18-May-2024 16:39:05		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2020	101.00

Manual Integration/User Assign Peak Report

Eurofins Denver

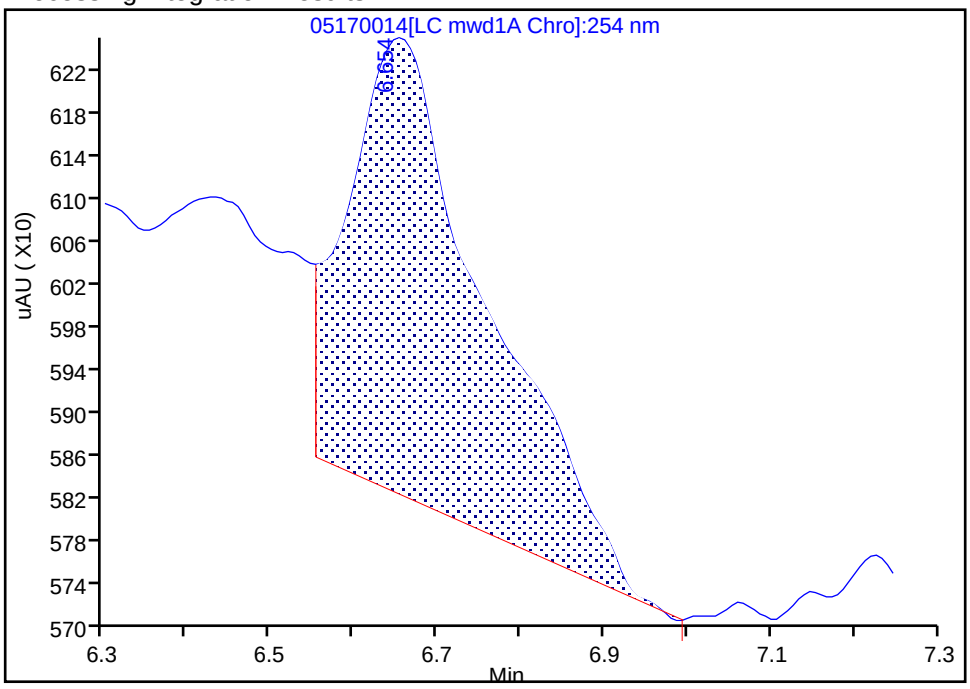
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170014.D				
Injection Date:	17-May-2024 20:44:43	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191098-B-4-A RE	Lab Sample ID:	280-191098-4		
Client ID:	LL1mw-081-240401-GW				
Operator ID:	JZ	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

5 HMX, CAS: 2691-41-0

Signal: 1

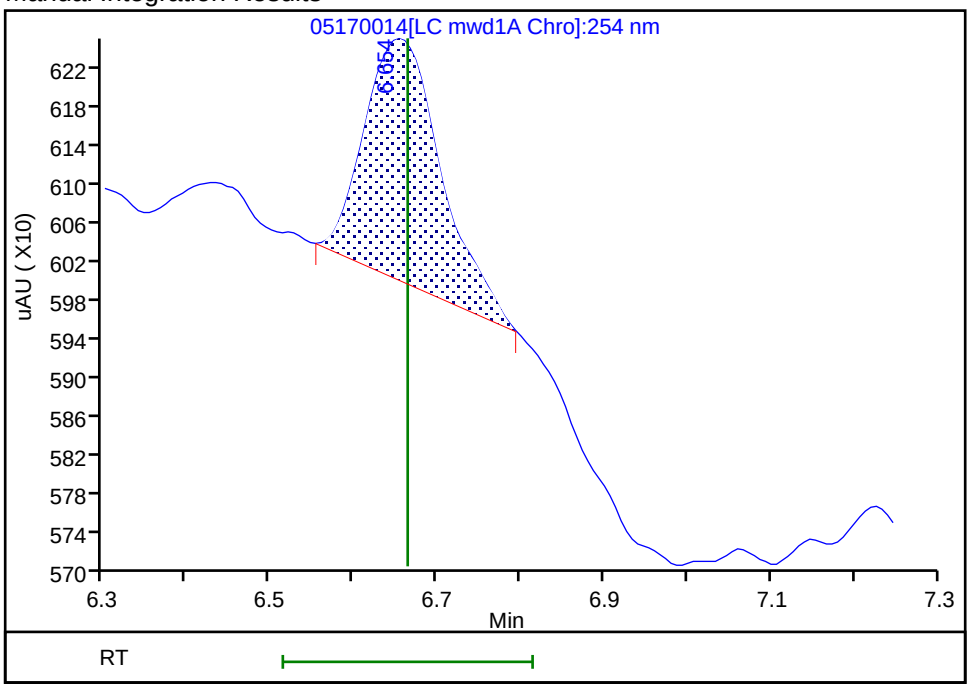
Processing Integration Results

RT: 6.65
Area: 5001
Amount: 0.026090
Amount Units: ug/ml



Manual Integration Results

RT: 6.65
Area: 1597
Amount: 0.008331
Amount Units: ug/ml



Reviewer: LV5D, 18-May-2024 16:38:57 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

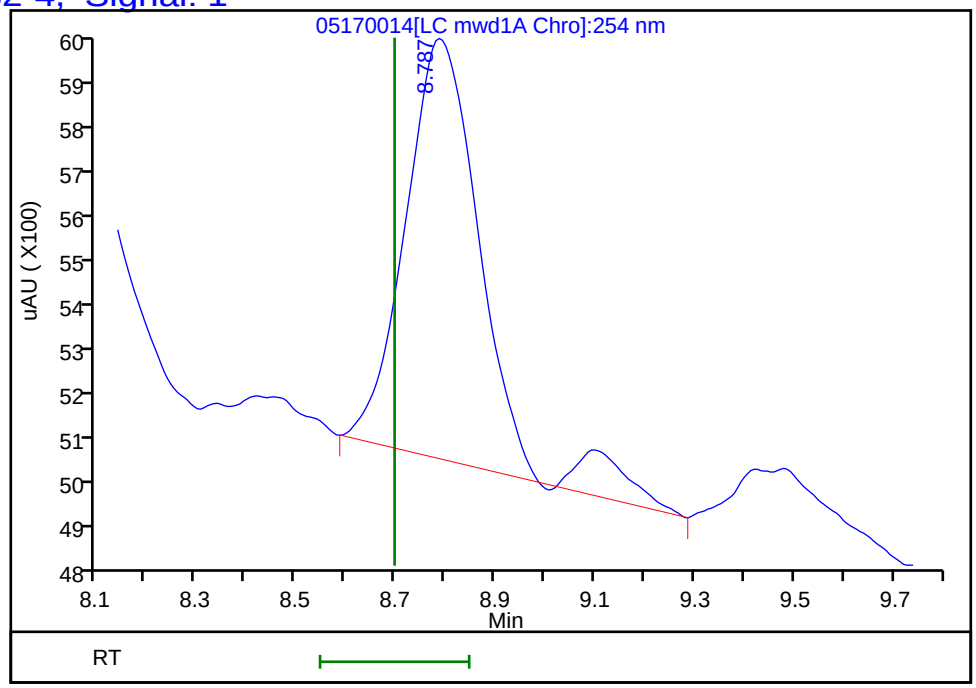
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170014.D				
Injection Date:	17-May-2024 20:44:43	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191098-B-4-A RE	Lab Sample ID:	280-191098-4		
Client ID:	LL1mw-081-240401-GW				
Operator ID:	JZ	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

8 RDX, CAS: 121-82-4, Signal: 1

RT: 8.79
Response: 10303
Amount: 0.048236



Reviewer: LV5D, 18-May-2024 16:39:05
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: LL1mw-081-240401-GW RE | Lab Sample ID: 280-191098-4 RE

Matrix: Water | Lab File ID: 05170044.D

Analysis Method: 8330B | Date Collected: 05/06/2024 10:21

Extraction Method: 3535 | Date Extracted: 05/17/2024 13:10

Sample wt/vol: 450.3(mL) | Date Analyzed: 05/18/2024 03:38

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653871 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	*1,3,5-Trinitrobenzene*	*0.22*	*U H*	*0.23*	0.22	*0.093*
99-65-0	*1,3-Dinitrobenzene*	*0.11*	*U M H*	*0.12*	0.11	*0.041*
118-96-7	*2,4,6-Trinitrotoluene*	*0.11*	*U H*	*0.12*	0.11	*0.050*
121-14-2	*2,4-Dinitrotoluene*	*0.089*	*U H*	*0.11*	0.089	*0.030*
606-20-2	*2,6-Dinitrotoluene*	*0.089*	*U H*	*0.11*	0.089	*0.045*
35572-78-2	*2-Amino-4,6-dinitrotoluene*	*0.22*	*H*	*0.12*	0.11	*0.056*
88-72-2	*2-Nitrotoluene*	*0.22*	*U H*	*0.23*	0.22	*0.095*
99-08-1	*3-Nitrotoluene*	*0.39*	*U H*	*0.44*	0.39	*0.22*
19406-51-0	*4-Amino-2,6-dinitrotoluene*	*0.28*	*H*	*0.17*	0.13	*0.064*
99-99-0	*4-Nitrotoluene*	*0.44*	*U H*	*0.46*	0.44	*0.11*
2691-41-0	*HMX*	*0.22*	*U M H*	*0.23*	0.22	*0.097*
98-95-3	*Nitrobenzene*	*0.22*	*U H*	*0.23*	0.22	*0.10*
55-63-0	*Nitroglycerin*	*2.2*	*U H*	*2.3*	2.2	*1.0*
78-11-5	*PETN*	*1.1*	*U H*	*1.2*	1.1	*0.50*
479-45-8	*Tetryl*	*0.11*	*U M H*	*0.12*	0.11	*0.035*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	108	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\05170044.D
Lims ID: 280-191098-B-4-A RE
Client ID: LL1mw-081-240401-GW
Sample Type: Client
Inject. Date: 18-May-2024 03:38:11 ALS Bottle#: 44 Worklist Smp#: 44
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-B-4-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-May-2024 10:51:45 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1674

First Level Reviewer: LV5D Date: 18-May-2024 10:35:23

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1	6.615	6.617	-0.002	432	0.004521	7M
8 RDX	1	7.628	7.630	-0.002	1290	0.0116	M
$ 10 1,2-Dinitrobenzene	1	8.548	8.557	-0.009	28611	0.2166	M
11 1,3,5-Trinitrobenzene	1		8.697			ND	7
12 1,3-Dinitrobenzene	1		9.310			ND	U
13 Nitrobenzene	1		9.670			ND	
15 Tetryl	1		9.983			ND	U
16 Nitroglycerin	2		10.457			ND	
17 2,4,6-Trinitrotoluene	1		10.883			ND	
18 4-Amino-2,6-dinitrotoluene	1	11.021	11.043	-0.022	3741	0.0249	
19 2-Amino-4,6-dinitrotoluene	1	11.275	11.297	-0.022	3876	0.0194	
20 2,6-Dinitrotoluene	1		11.450			ND	
21 2,4-Dinitrotoluene	1		11.623			ND	
22 o-Nitrotoluene	1		12.410			ND	
23 p-Nitrotoluene	1		12.823			ND	
24 m-Nitrotoluene	1		13.370			ND	
25 PETN	2		14.437			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

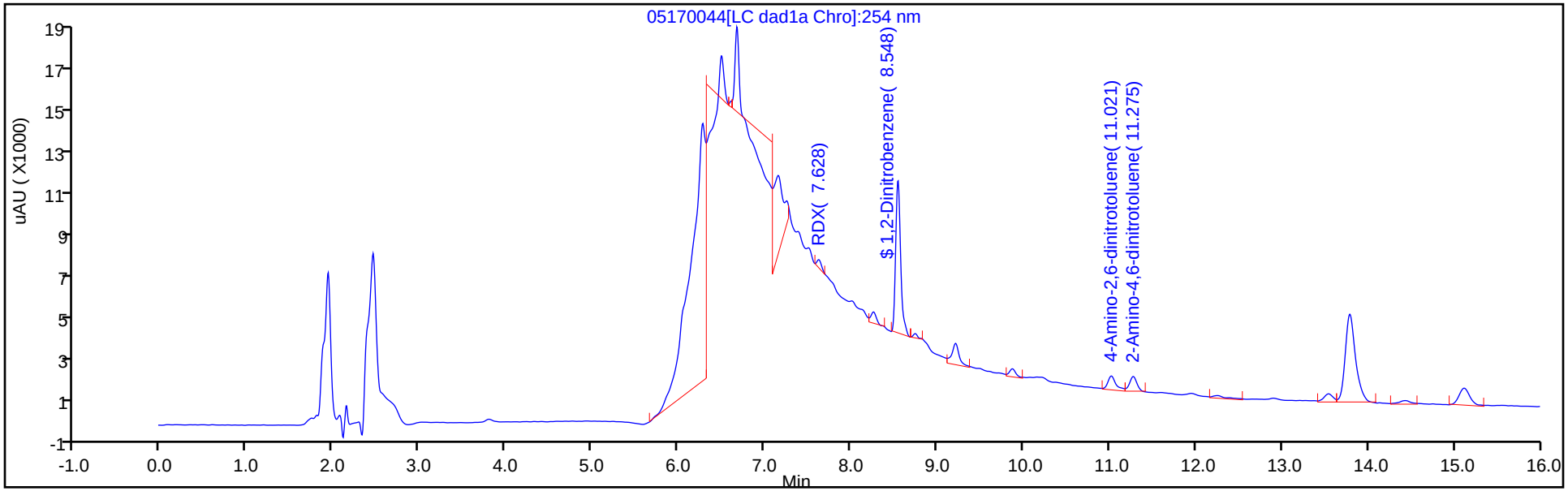
Report Date: 18-May-2024 10:51:48 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

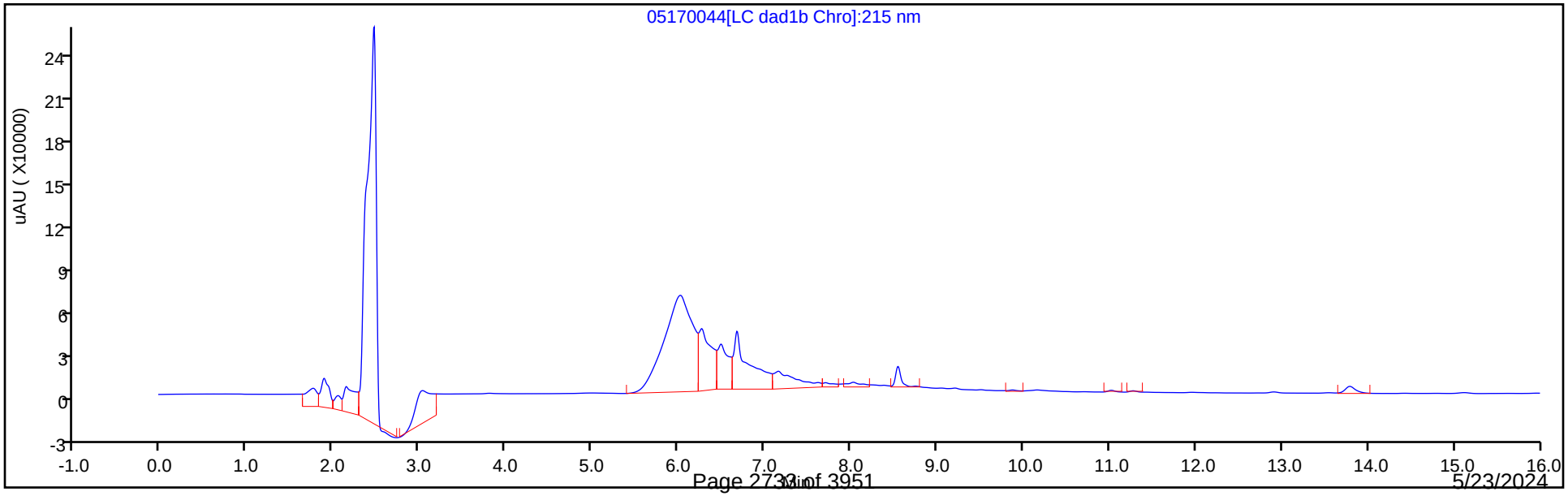
Data File: \\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170044.d

Injection Date:	18-May-2024 03:38:11	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191098-B-4-A RE	Lab Sample ID:	280-191098-4	Worklist Smp#:	44
Client ID:	LL1mw-081-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	44
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\05170044.D				
Lims ID:	280-191098-B-4-A RE				
Client ID:	LL1mw-081-240401-GW				
Sample Type:	Client				
Inject. Date:	18-May-2024 03:38:11	ALS Bottle#:	44	Worklist Smp#:	44
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-B-4-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	18-May-2024 10:51:45	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1674				

First Level Reviewer: LV5D Date: 18-May-2024 10:35:23

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2166	108.32

Manual Integration/User Assign Peak Report

Eurofins Denver

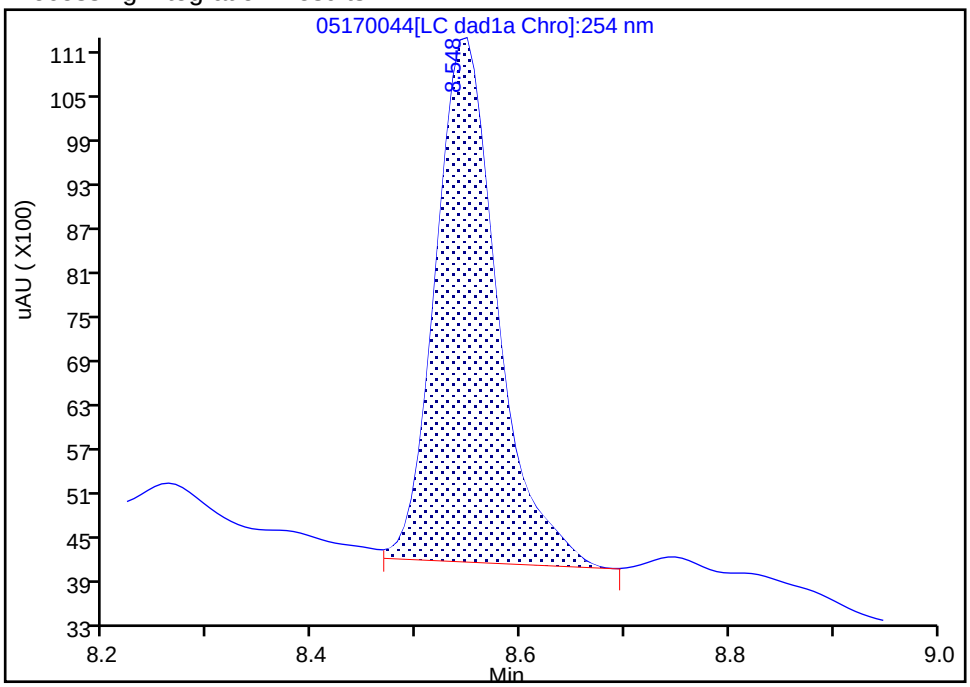
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170044.d				
Injection Date:	18-May-2024 03:38:11	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-B-4-A RE	Lab Sample ID:	280-191098-4		
Client ID:	LL1mw-081-240401-GW				
Operator ID:	JZ	ALS Bottle#:	44	Worklist Smp#:	44
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

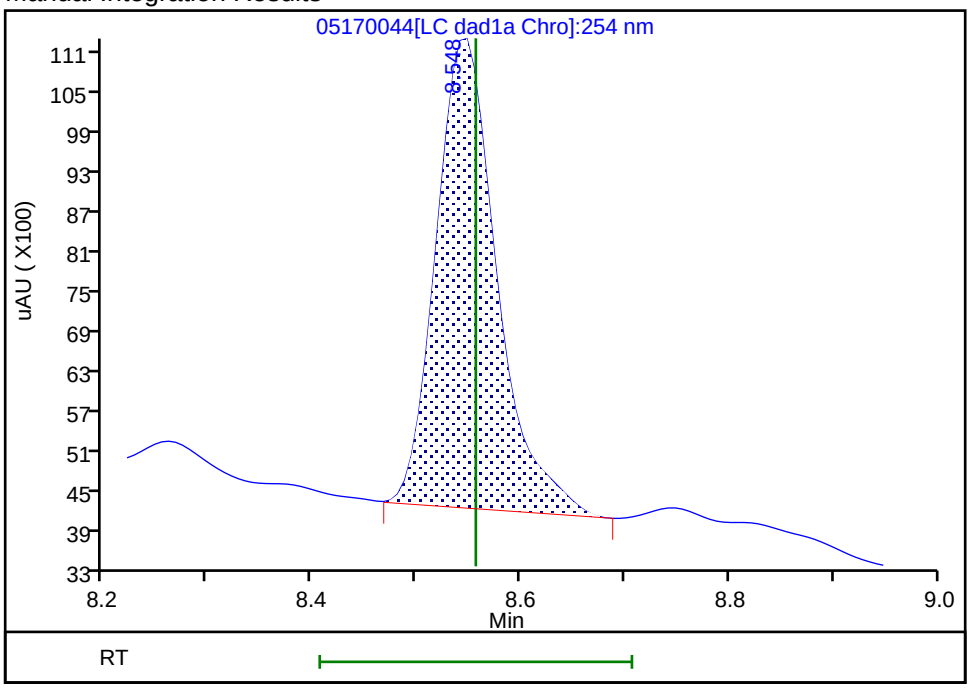
Processing Integration Results

RT: 8.55
Area: 29311
Amount: 0.221963
Amount Units: ug/mL



Manual Integration Results

RT: 8.55
Area: 28611
Amount: 0.216646
Amount Units: ug/mL



Reviewer: LV5D, 18-May-2024 10:35:01 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

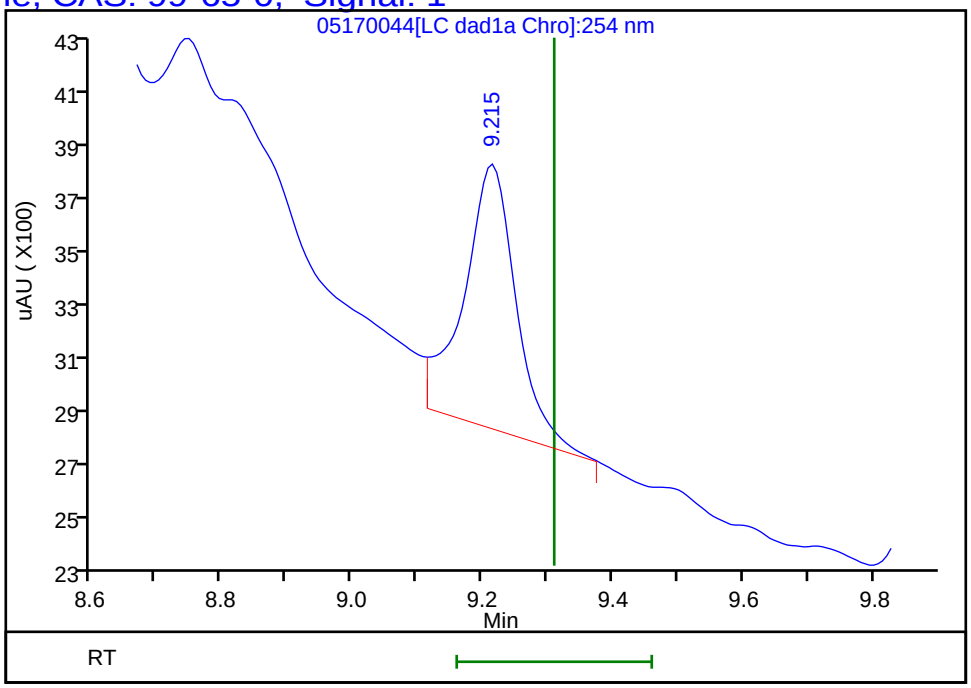
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170044.d
Injection Date: 18-May-2024 03:38:11 Instrument ID: CHHPLC_X3
Lims ID: 280-191098-B-4-A RE Lab Sample ID: 280-191098-4
Client ID: LL1mw-081-240401-GW
Operator ID: JZ ALS Bottle#: 44 Worklist Smp#: 44
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 9.21
Response: 5234
Amount: 0.017480



Reviewer: LV5D, 18-May-2024 10:35:23
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

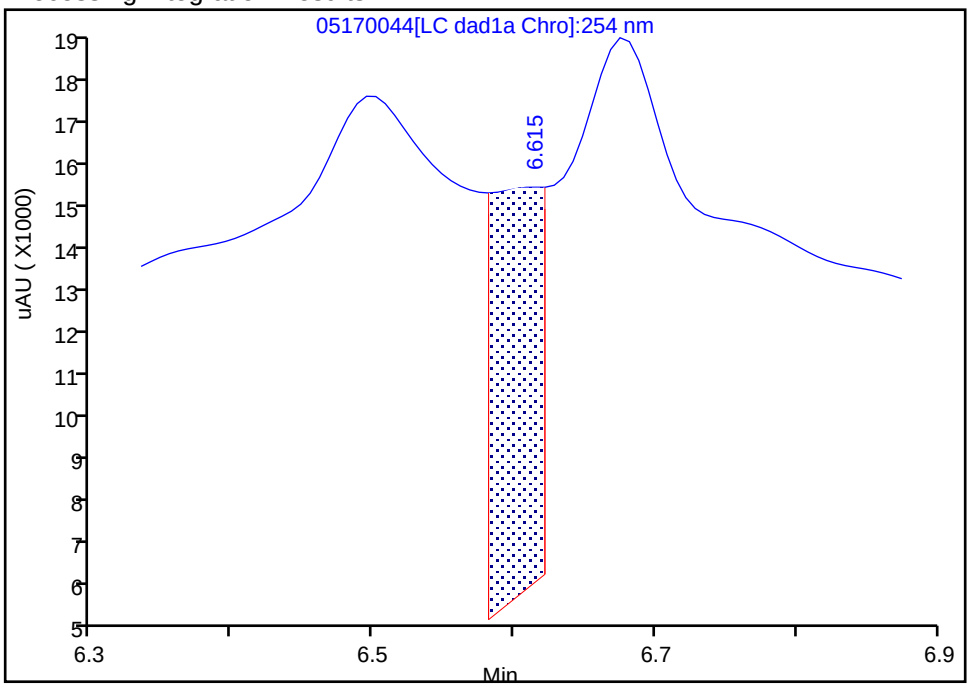
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170044.d				
Injection Date:	18-May-2024 03:38:11	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-B-4-A RE	Lab Sample ID:	280-191098-4		
Client ID:	LL1mw-081-240401-GW				
Operator ID:	JZ	ALS Bottle#:	44	Worklist Smp#:	44
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

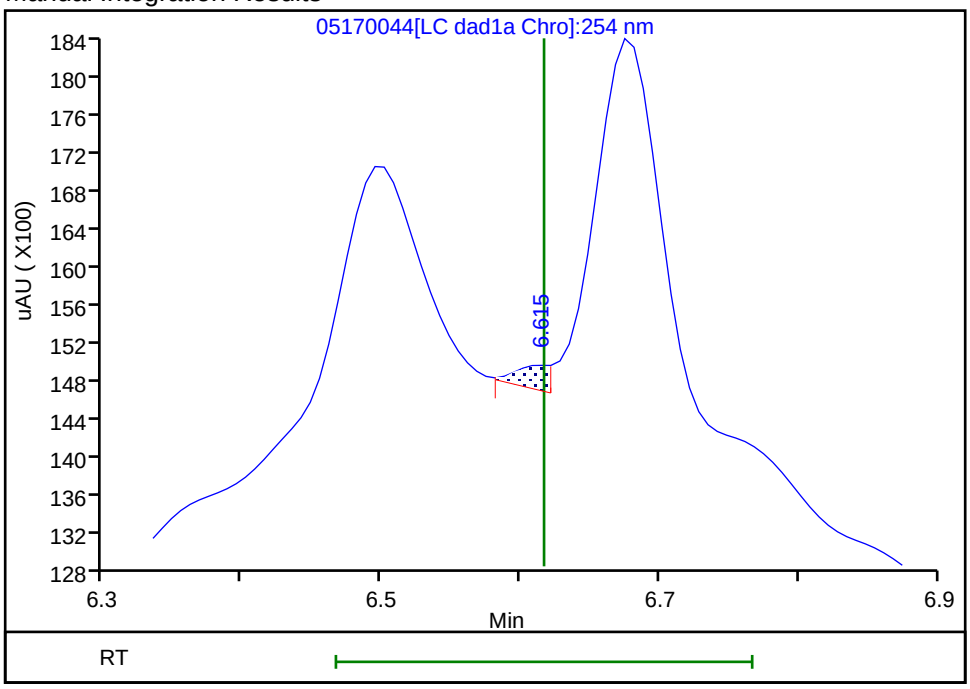
Processing Integration Results

RT: 6.61
Area: 22395
Amount: 0.234395
Amount Units: ug/mL



Manual Integration Results

RT: 6.61
Area: 432
Amount: 0.004521
Amount Units: ug/mL



Reviewer: LV5D, 18-May-2024 10:35:15 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

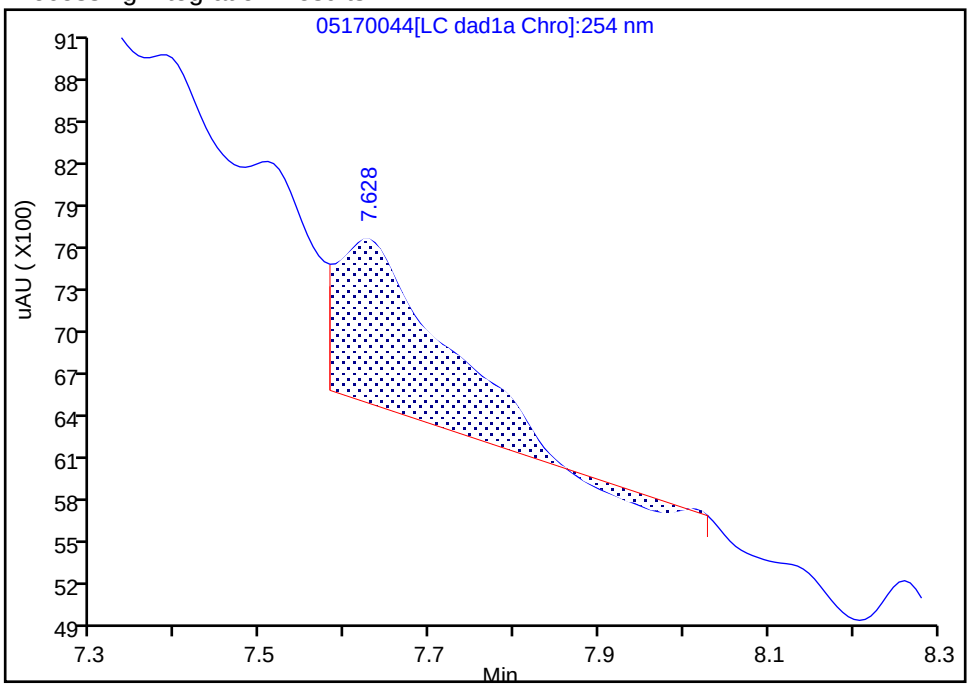
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170044.d				
Injection Date:	18-May-2024 03:38:11	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-B-4-A RE	Lab Sample ID:	280-191098-4		
Client ID:	LL1mw-081-240401-GW				
Operator ID:	JZ	ALS Bottle#:	44	Worklist Smp#:	44
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

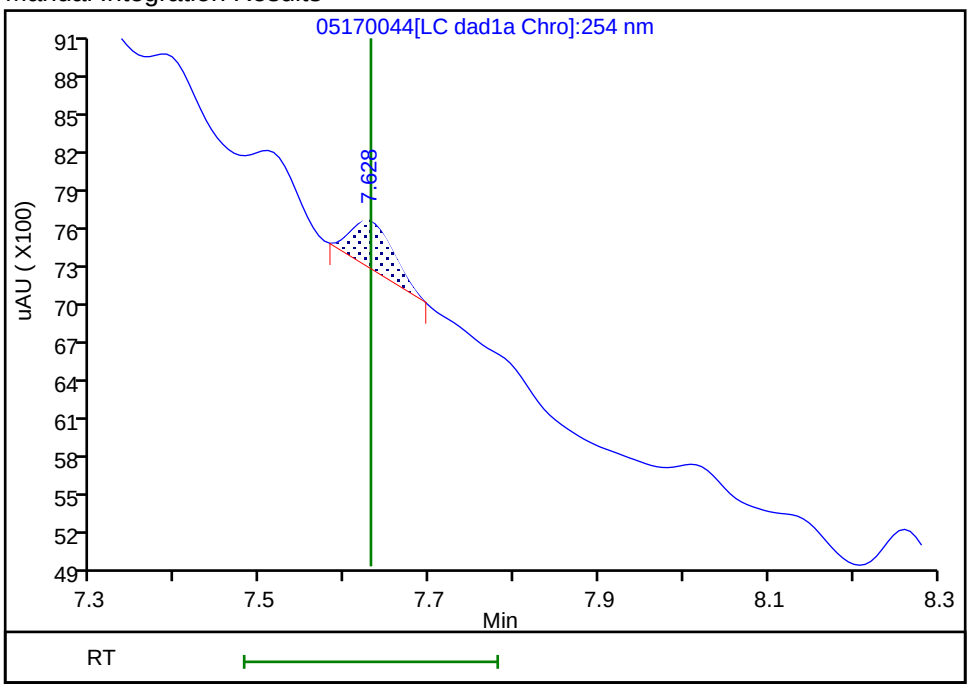
Processing Integration Results

RT: 7.63
Area: 10960
Amount: 0.098946
Amount Units: ug/mL



Manual Integration Results

RT: 7.63
Area: 1290
Amount: 0.011646
Amount Units: ug/mL



Reviewer: LV5D, 18-May-2024 10:35:07 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

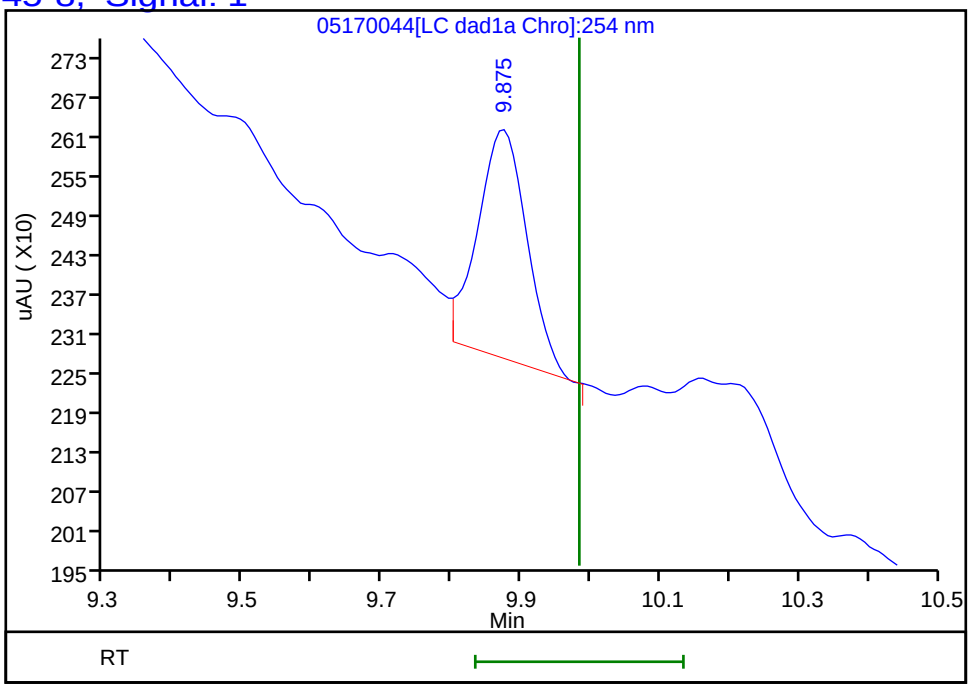
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170044.d				
Injection Date:	18-May-2024 03:38:11	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-B-4-A RE	Lab Sample ID:	280-191098-4		
Client ID:	LL1mw-081-240401-GW				
Operator ID:	JZ	ALS Bottle#:	44	Worklist Smp#:	44
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

15 Tetryl, CAS: 479-45-8, Signal: 1

RT: 9.87
Response: 1705
Amount: 0.009389



Reviewer: LV5D, 18-May-2024 10:35:23
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-004-240401-GW | Lab Sample ID: 280-191098-5

Matrix: Water | Lab File ID: 05010033.D

Analysis Method: 8330B | Date Collected: 05/06/2024 10:35

Extraction Method: 3535 | Date Extracted: 05/10/2024 10:58

Sample wt/vol: 455(mL) | Date Analyzed: 05/11/2024 17:11

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653063 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.22	U Q	0.23	0.22	0.092
99-65-0	1,3-Dinitrobenzene	0.11	U Q	0.12	0.11	0.041
118-96-7	2,4,6-Trinitrotoluene	0.11	U Q	0.12	0.11	0.049
121-14-2	2,4-Dinitrotoluene	0.088	U Q	0.11	0.088	0.030
606-20-2	2,6-Dinitrotoluene	0.088	U Q	0.11	0.088	0.044
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U Q	0.12	0.11	0.056
88-72-2	2-Nitrotoluene	0.22	U M Q	0.23	0.22	0.094
99-08-1	3-Nitrotoluene	0.38	U Q	0.44	0.38	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U Q	0.16	0.13	0.063
99-99-0	4-Nitrotoluene	0.44	U Q	0.45	0.44	0.11
2691-41-0	HMX	1.3	M Q	0.23	0.22	0.096
98-95-3	Nitrobenzene	0.22	U Q	0.23	0.22	0.10
55-63-0	Nitroglycerin	2.2	U Q	2.3	2.2	1.0
78-11-5	PETN	1.1	U Q	1.2	1.1	0.49
121-82-4	RDX	1.7	M Q	0.23	0.22	0.057
479-45-8	Tetryl	0.11	U Q	0.12	0.11	0.035

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	66	M Q	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\05010033.D
Lims ID: 280-191098-A-5-A
Client ID: DET-004-240401-GW
Sample Type: Client
Inject. Date: 11-May-2024 17:11:31 ALS Bottle#: 33 Worklist Smp#: 33
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-A-5-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 14-May-2024 14:09:25 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 14-May-2024 12:44:01

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1	6.612	6.611	0.001	11430	0.1196	M
8 RDX	1	7.625	7.631	-0.006	17318	0.1563	M
$ 10 1,2-Dinitrobenzene	1	8.552	8.565	-0.013	17542	0.1326	M
11 1,3,5-Trinitrobenzene	1		8.705			ND	
12 1,3-Dinitrobenzene	1		9.318			ND	
13 Nitrobenzene	1		9.671			ND	
15 Tetryl	1		9.991			ND	
16 Nitroglycerin	2		10.458			ND	
17 2,4,6-Trinitrotoluene	1		10.891			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.064			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.318			ND	
20 2,6-Dinitrotoluene	1		11.464			ND	
21 2,4-Dinitrotoluene	1		11.638			ND	
22 o-Nitrotoluene	1	12.425	12.418	0.007	768	0.005939	7M
23 p-Nitrotoluene	1		12.831			ND	
24 m-Nitrotoluene	1		13.371			ND	
25 PETN	2		14.418			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated

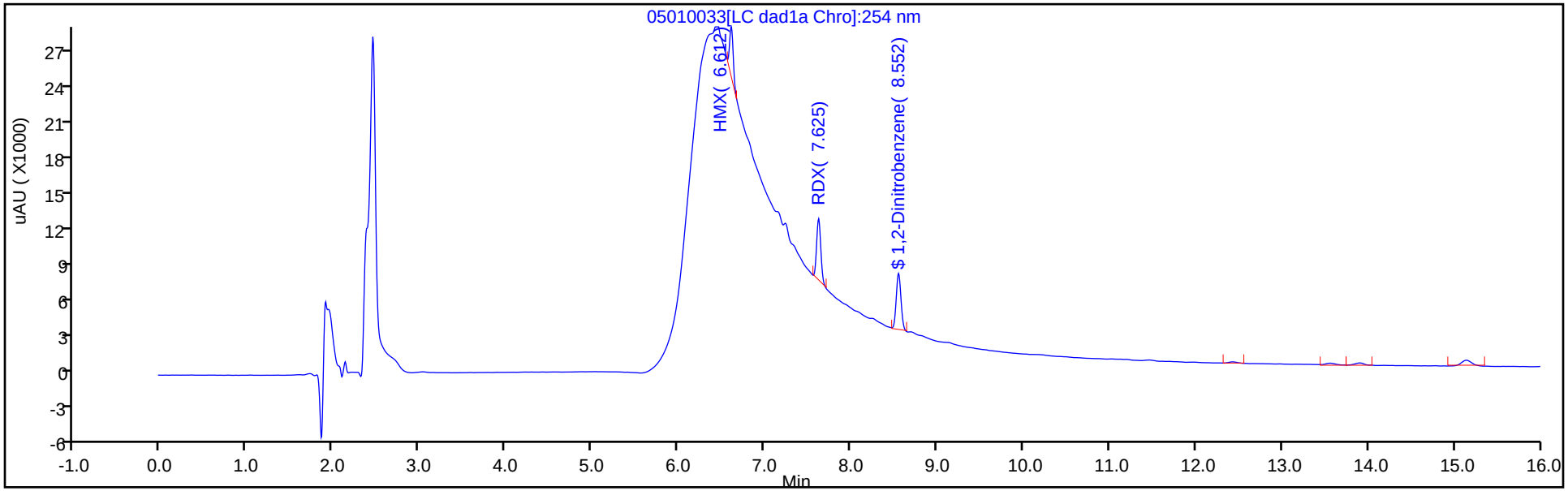
Report Date: 14-May-2024 14:09:31 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

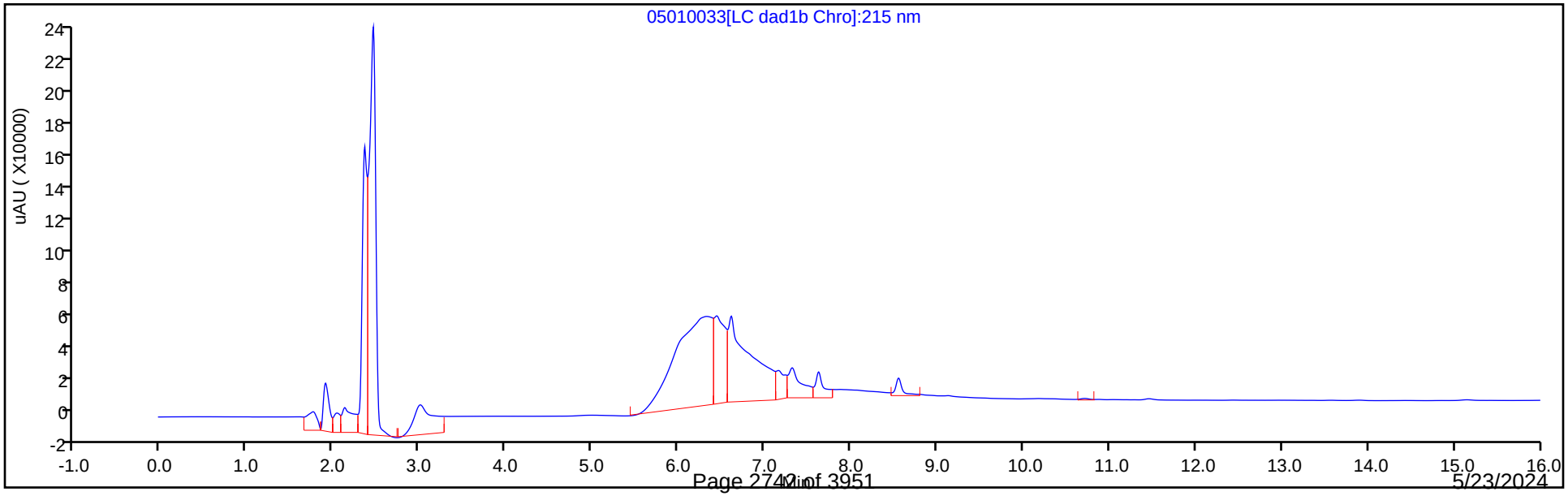
Data File: \\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010033.d

Injection Date:	11-May-2024 17:11:31	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191098-A-5-A	Lab Sample ID:	280-191098-5	Worklist Smp#:	33
Client ID:	DET-004-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	33
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\05010033.D				
Lims ID:	280-191098-A-5-A				
Client ID:	DET-004-240401-GW				
Sample Type:	Client				
Inject. Date:	11-May-2024 17:11:31	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-A-5-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	14-May-2024 14:09:25	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1620				

First Level Reviewer: LV5D Date: 14-May-2024 12:44:01

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1326	66.28

Eurofins Denver

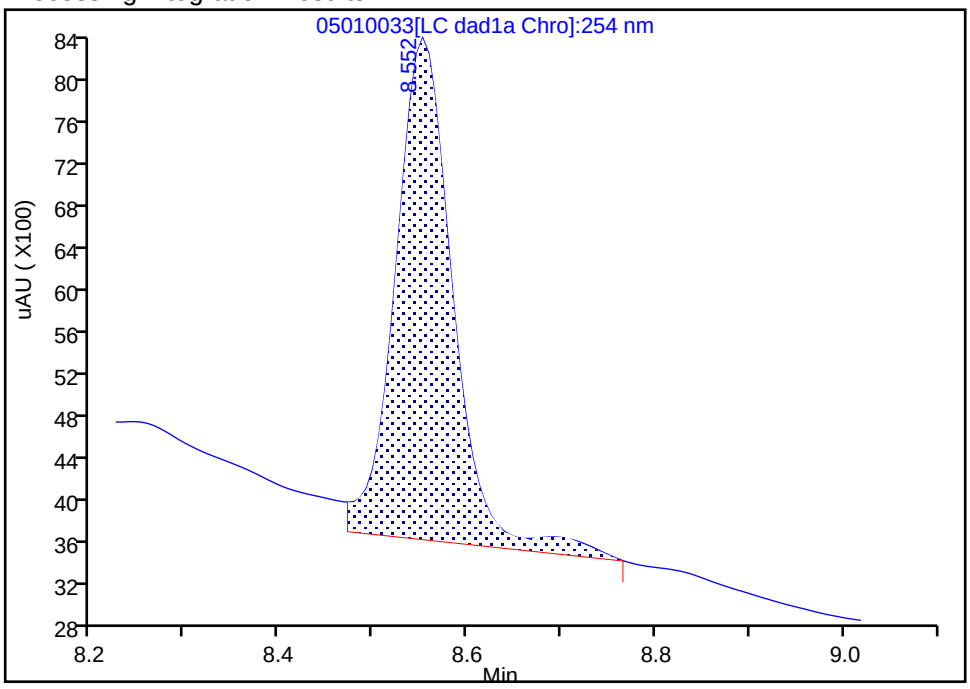
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010033.d				
Injection Date:	11-May-2024 17:11:31	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-A-5-A	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	JZ	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

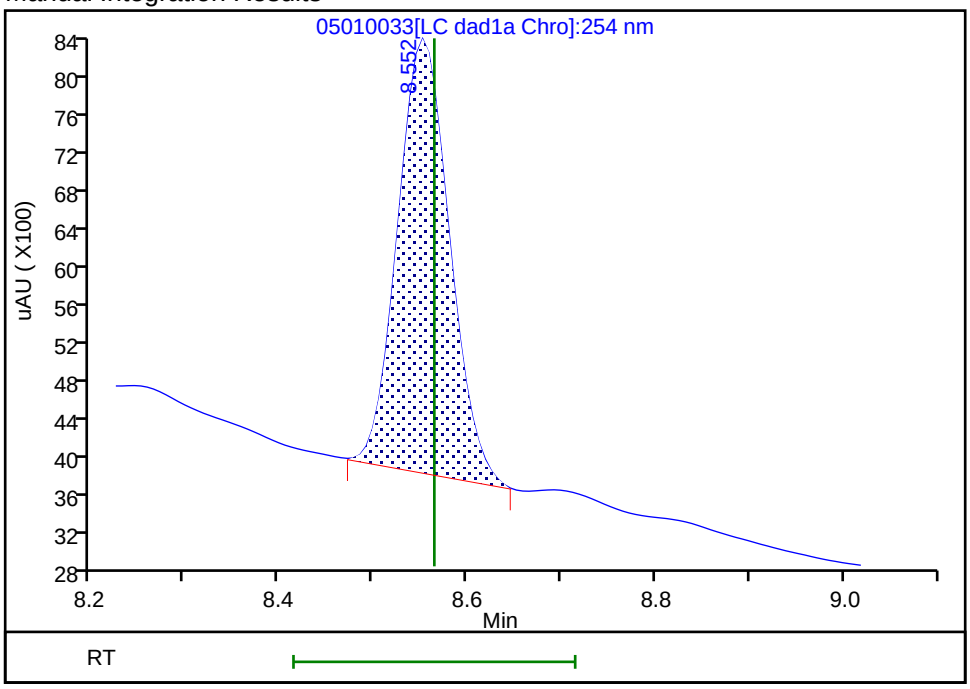
Processing Integration Results

RT: 8.55
Area: 20465
Amount: 0.154760
Amount Units: ug/mL



Manual Integration Results

RT: 8.55
Area: 17542
Amount: 0.132554
Amount Units: ug/mL



Reviewer: LV5D, 14-May-2024 12:43:59 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

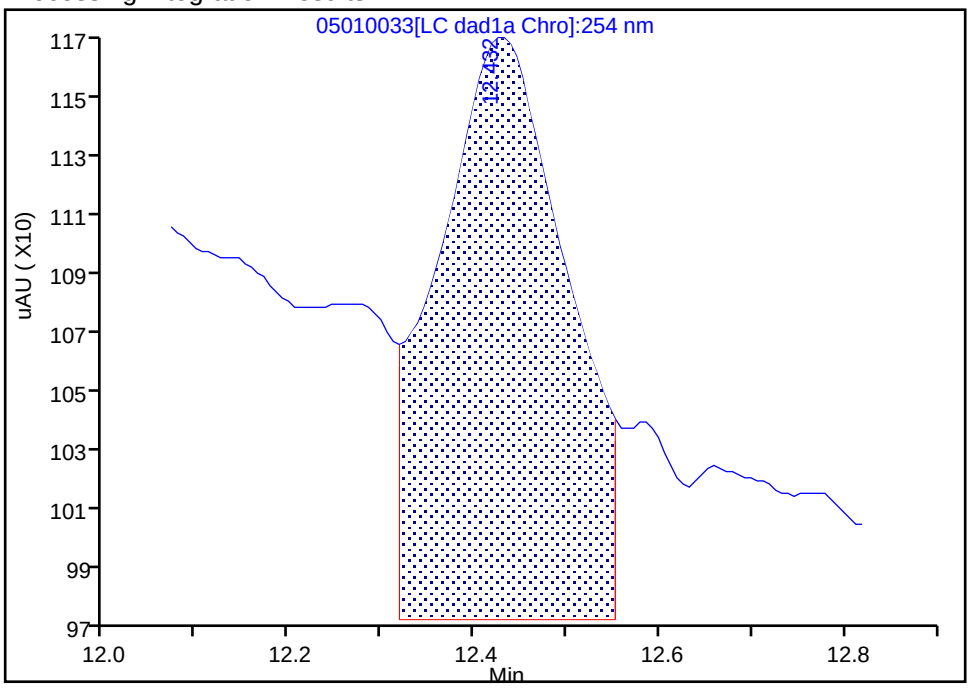
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010033.d				
Injection Date:	11-May-2024 17:11:31	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-A-5-A	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	JZ	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

22 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

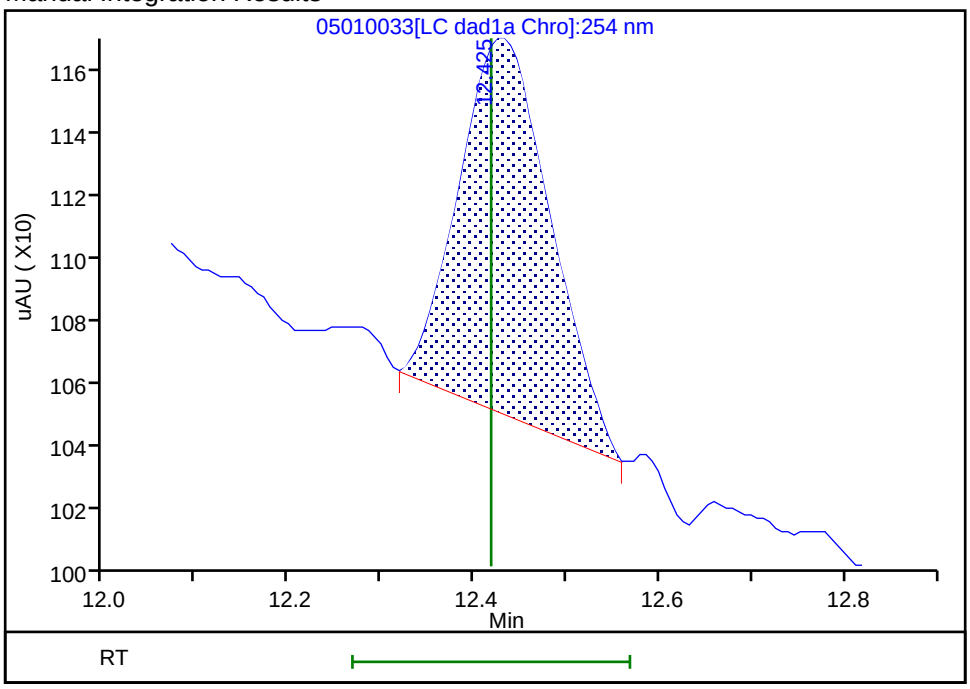
Processing Integration Results

RT: 12.43
Area: 1829
Amount: 0.014145
Amount Units: ug/mL



Manual Integration Results

RT: 12.43
Area: 768
Amount: 0.005939
Amount Units: ug/mL



Reviewer: LV5D, 14-May-2024 12:43:48 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

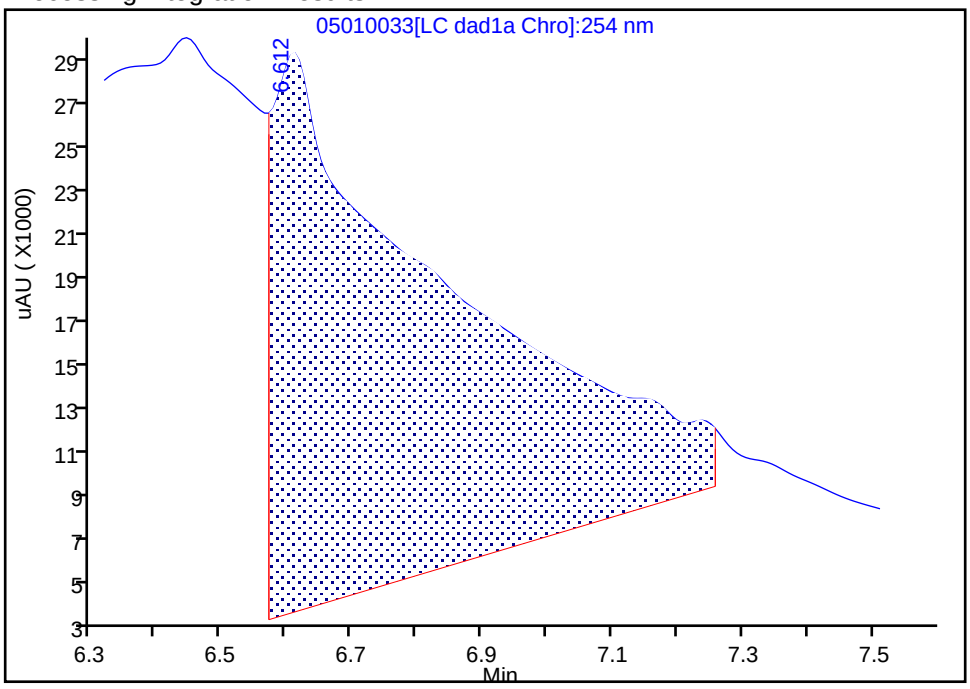
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010033.d				
Injection Date:	11-May-2024 17:11:31	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-A-5-A	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	JZ	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

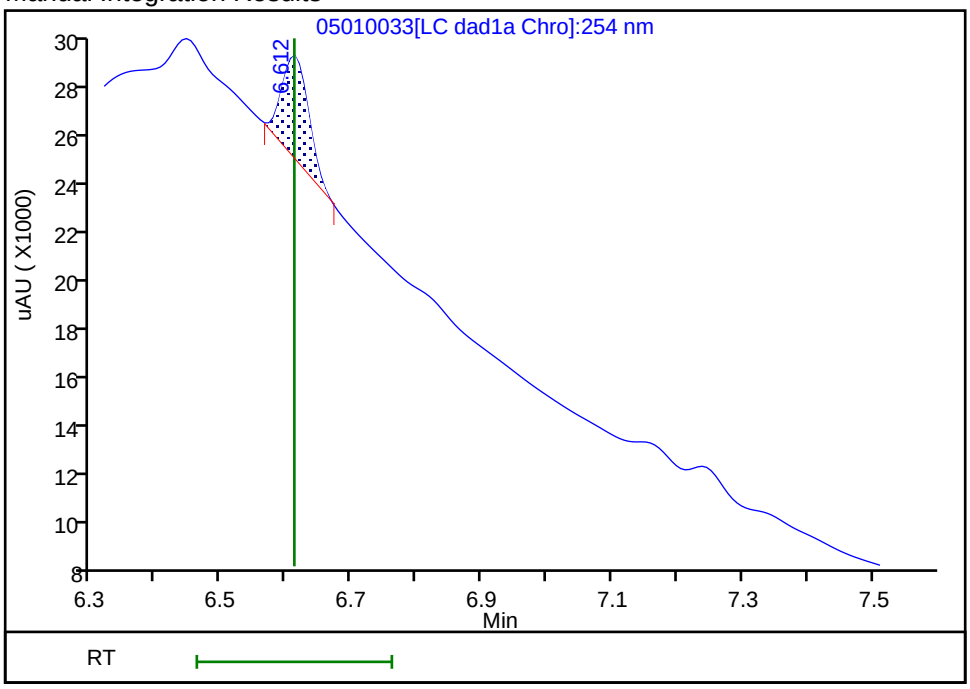
Processing Integration Results

RT: 6.61
Area: 457527
Amount: 4.788667
Amount Units: ug/mL



Manual Integration Results

RT: 6.61
Area: 11430
Amount: 0.119631
Amount Units: ug/mL



Reviewer: LV5D, 14-May-2024 12:43:53 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

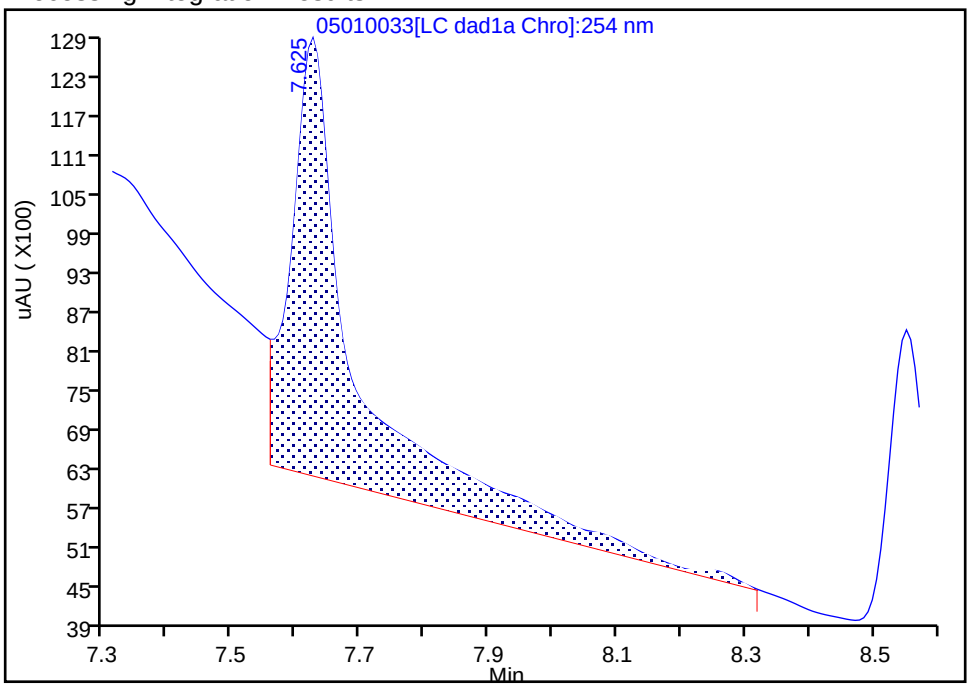
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010033.d				
Injection Date:	11-May-2024 17:11:31	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-A-5-A	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	JZ	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

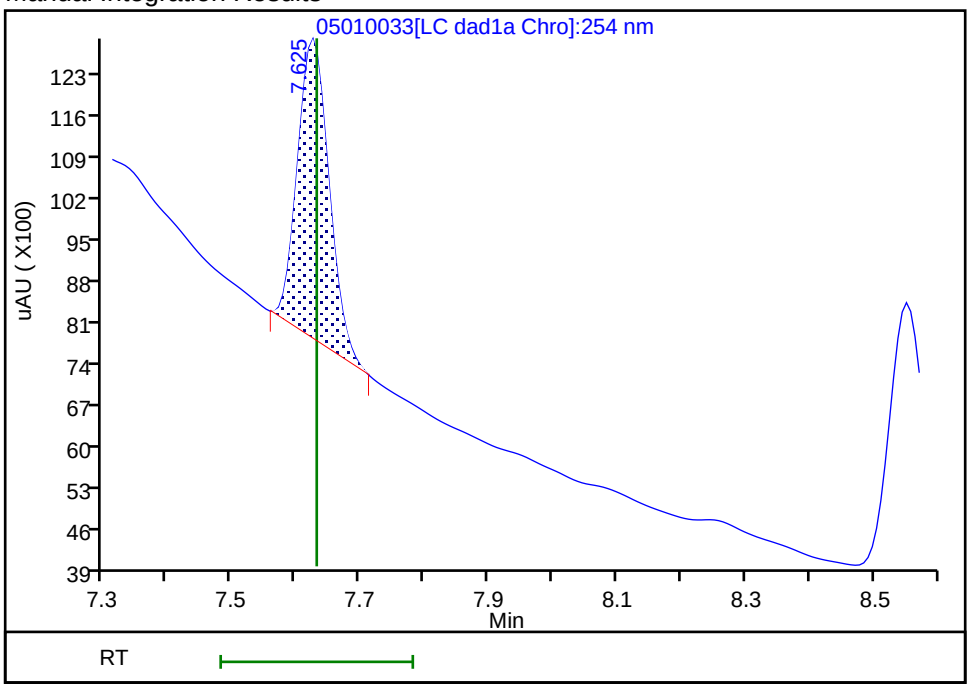
Processing Integration Results

RT: 7.63
Area: 46107
Amount: 0.416252
Amount Units: ug/mL



Manual Integration Results

RT: 7.63
Area: 17318
Amount: 0.156346
Amount Units: ug/mL



Reviewer: LV5D, 14-May-2024 12:43:56 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-004-240401-GW | Lab Sample ID: 280-191098-5

Matrix: Water | Lab File ID: 05110015.D

Analysis Method: 8330B | Date Collected: 05/06/2024 10:35

Extraction Method: 3535 | Date Extracted: 05/10/2024 10:58

Sample wt/vol: 455(mL) | Date Analyzed: 05/11/2024 20:57

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653069 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	69	Q	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110015.D
Lims ID: 280-191098-A-5-A
Client ID: DET-004-240401-GW
Sample Type: Client
Inject. Date: 11-May-2024 20:57:14 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-A-5-A
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-May-2024 18:12:14 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 14-May-2024 18:07:57

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	5 HMX	1	6.611	6.631	-0.020	20943	0.1093	M
	8 RDX	1	8.645	8.664	-0.019	32997	0.1545	M
	9 Nitrobenzene	1		11.317			ND	
$	10 1,2-Dinitrobenzene	1	12.298	12.311	-0.013	36607	0.1386	
	12 1,3-Dinitrobenzene	1		14.517			ND	
	13 Nitroglycerin	2		14.751			ND	
	14 o-Nitrotoluene	1		15.431			ND	7
	16 p-Nitrotoluene	1		15.691			ND	
	17 4-Amino-2,6-dinitrotoluene	1		16.144			ND	
	18 m-Nitrotoluene	1		16.544			ND	
	19 2-Amino-4,6-dinitrotoluene	1		17.017			ND	
	20 1,3,5-Trinitrobenzene	1		17.464			ND	
	21 2,6-Dinitrotoluene	1		18.424			ND	
	22 2,4-Dinitrotoluene	1		18.911			ND	
	23 Tetryl	1		22.211			ND	
	24 2,4,6-Trinitrotoluene	1		23.191			ND	
	25 PETN	2		24.164			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated

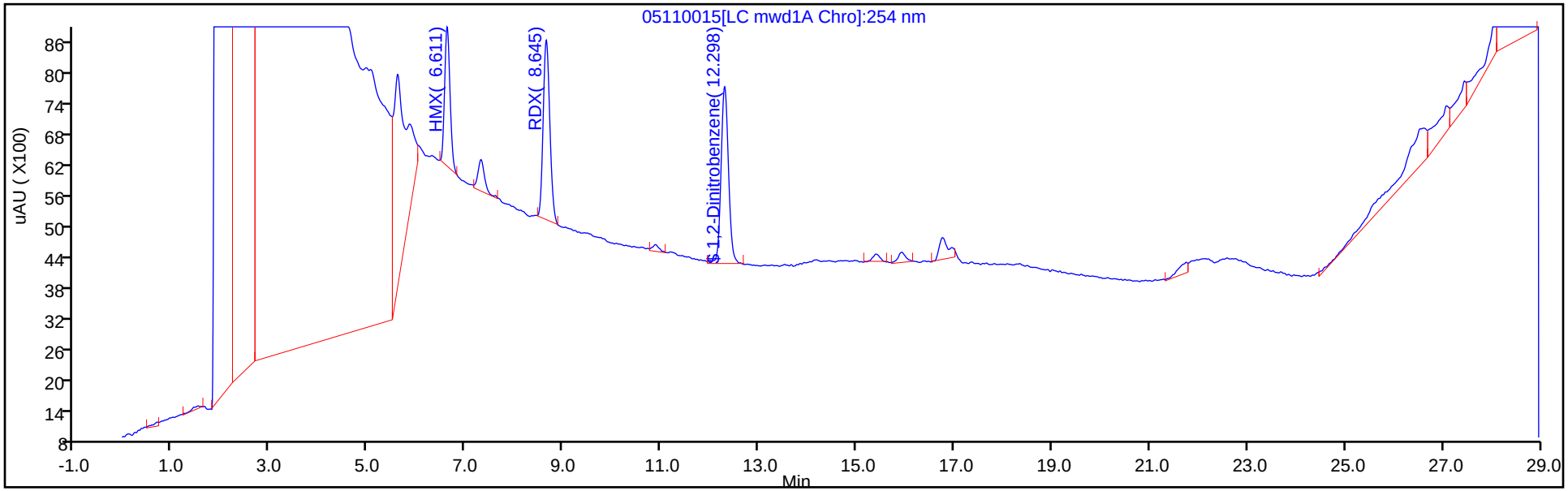
Report Date: 14-May-2024 18:12:31 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

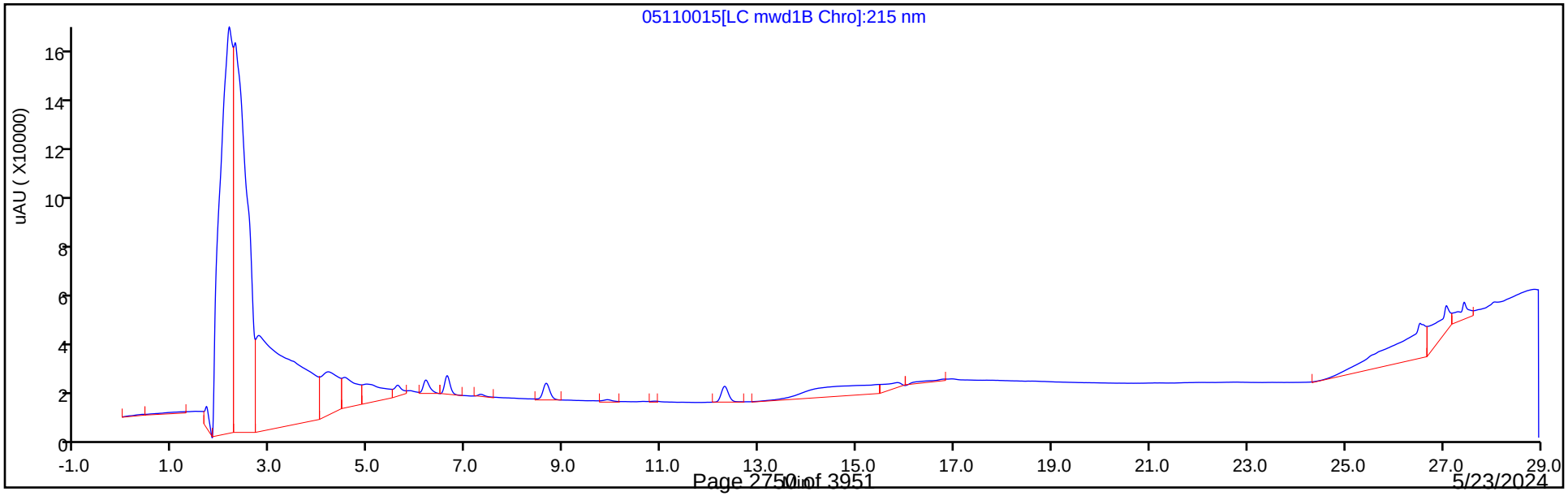
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110015.D

Injection Date:	11-May-2024 20:57:14	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-191098-A-5-A	Lab Sample ID:	280-191098-5	Worklist Smp#:	15
Client ID:	DET-004-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110015.D				
Lims ID:	280-191098-A-5-A				
Client ID:	DET-004-240401-GW				
Sample Type:	Client				
Inject. Date:	11-May-2024 20:57:14	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-A-5-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	14-May-2024 18:12:14	Calib Date:	28-Mar-2024 05:53:05		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1620				
First Level Reviewer: LV5D		Date:	14-May-2024 18:07:57		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1386	69.29

Manual Integration/User Assign Peak Report

Eurofins Denver

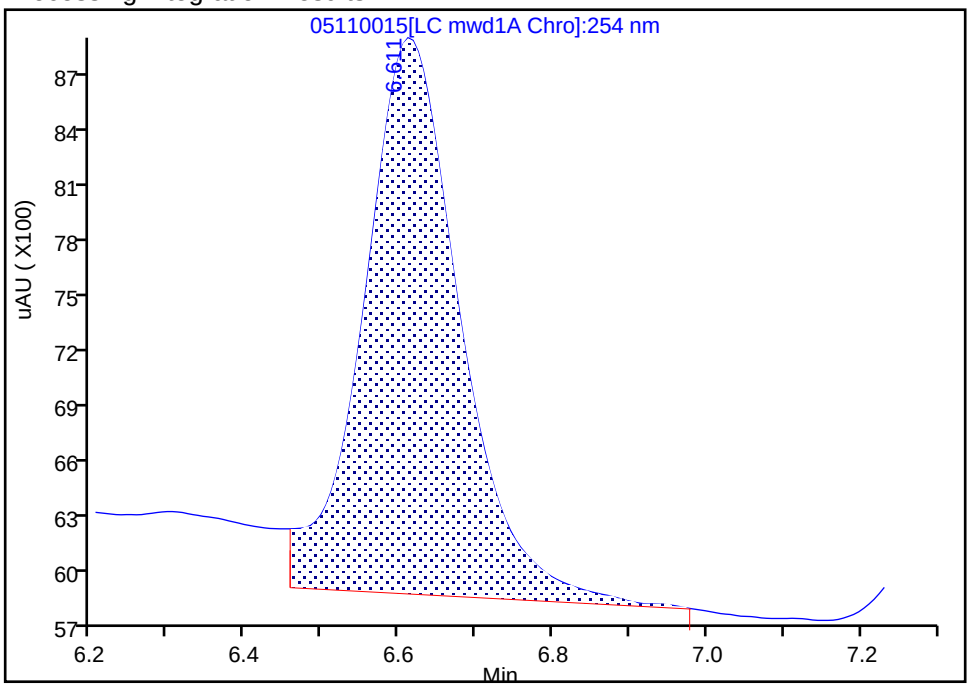
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110015.D				
Injection Date:	11-May-2024 20:57:14	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191098-A-5-A	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

5 HMX, CAS: 2691-41-0

Signal: 1

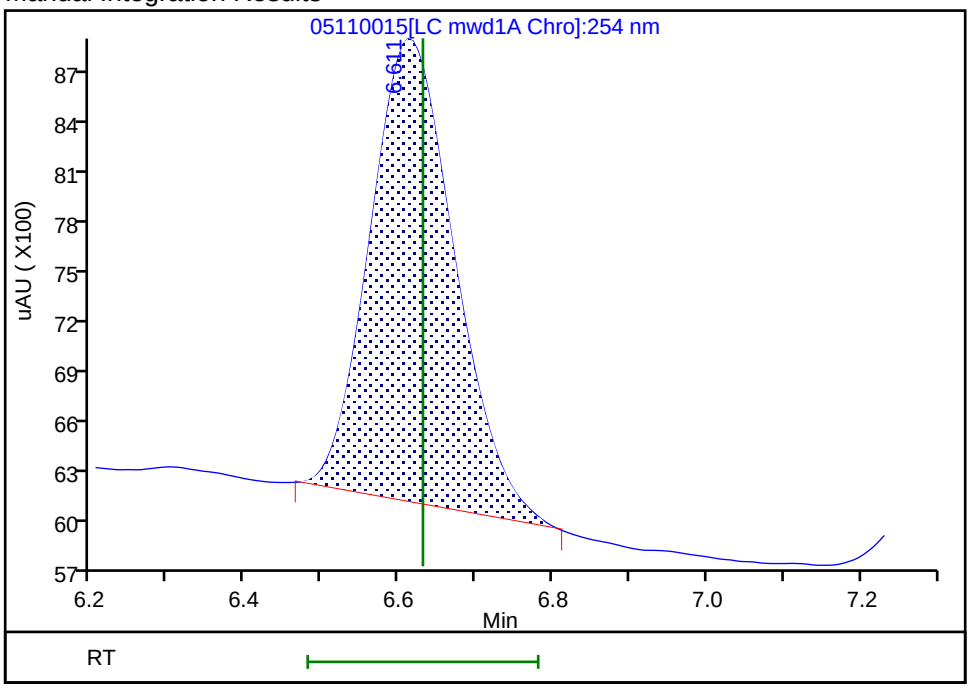
Processing Integration Results

RT: 6.61
Area: 25693
Amount: 0.134039
Amount Units: ug/ml



Manual Integration Results

RT: 6.61
Area: 20943
Amount: 0.109258
Amount Units: ug/ml



Reviewer: LV5D, 14-May-2024 18:07:50 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

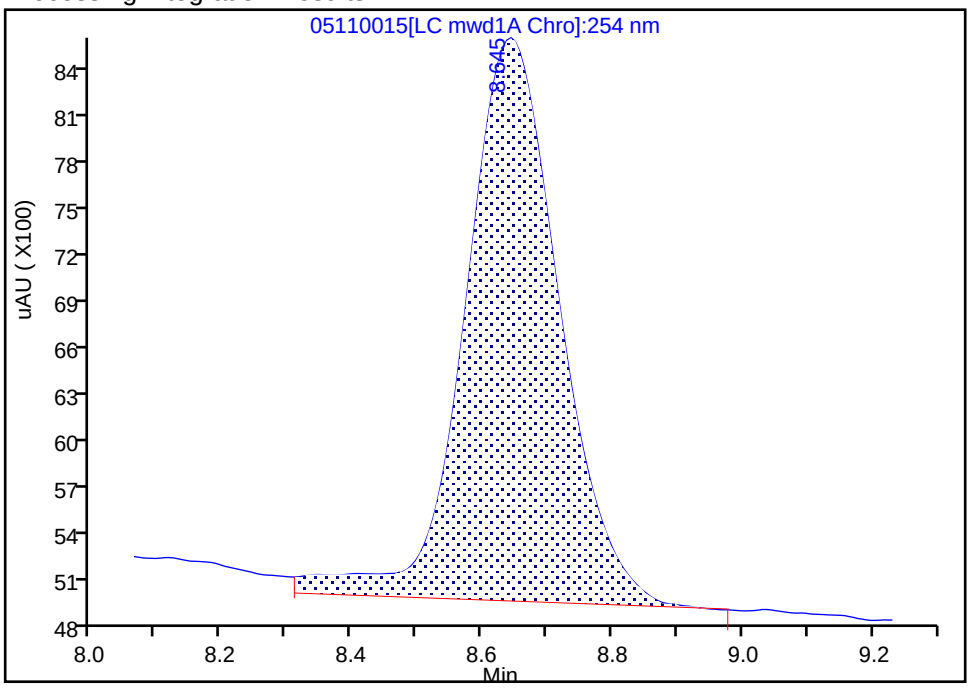
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110015.D				
Injection Date:	11-May-2024 20:57:14	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191098-A-5-A	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

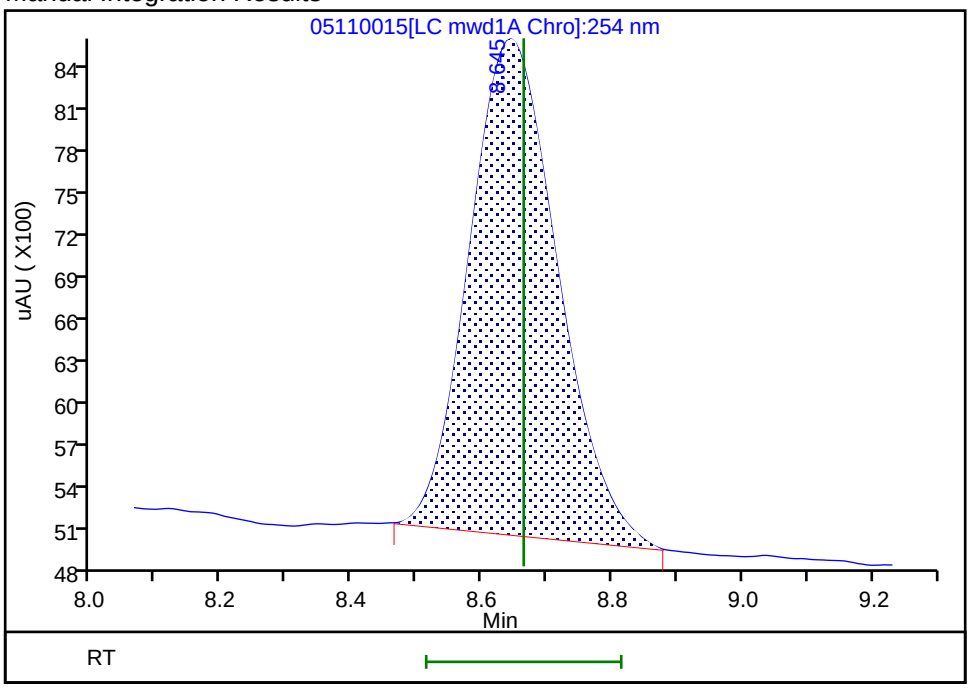
Processing Integration Results

RT: 8.64
Area: 36540
Amount: 0.171072
Amount Units: ug/ml



Manual Integration Results

RT: 8.64
Area: 32997
Amount: 0.154485
Amount Units: ug/ml



Reviewer: LV5D, 14-May-2024 18:07:54 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-004-240401-GW RE | Lab Sample ID: 280-191098-5 RE

Matrix: Water | Lab File ID: 05170015.D

Analysis Method: 8330B | Date Collected: 05/06/2024 10:35

Extraction Method: 3535 | Date Extracted: 05/17/2024 13:10

Sample wt/vol: 484.6(mL) | Date Analyzed: 05/17/2024 21:19

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653873 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	99		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170015.D
Lims ID: 280-191098-B-5-A RE
Client ID: DET-004-240401-GW
Sample Type: Client
Inject. Date: 17-May-2024 21:19:39 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-B-5-A
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 18-May-2024 16:46:59 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1674

First Level Reviewer: LV5D Date: 18-May-2024 16:39:15

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	5 HMX	1	6.662	6.664	-0.002	24842	0.1296	M
	8 RDX	1	8.696	8.697	-0.001	42989	0.2013	
	9 Nitrobenzene	1		11.364			ND	
$	10 1,2-Dinitrobenzene	1	12.349	12.351	-0.002	52402	0.1984	
	12 1,3-Dinitrobenzene	1		14.571			ND	
	13 Nitroglycerin	2		14.784			ND	U
	14 o-Nitrotoluene	1	15.436	15.477	-0.041	2670	0.0108	
	16 p-Nitrotoluene	1		15.737			ND	
	17 4-Amino-2,6-dinitrotoluene	1		16.197			ND	
	18 m-Nitrotoluene	1		16.591			ND	
	19 2-Amino-4,6-dinitrotoluene	1		17.071			ND	
	20 1,3,5-Trinitrobenzene	1		17.524			ND	
	21 2,6-Dinitrotoluene	1		18.491			ND	
	22 2,4-Dinitrotoluene	1		18.977			ND	
	23 Tetryl	1		22.277			ND	
	24 2,4,6-Trinitrotoluene	1		23.257			ND	
	25 PETN	2		24.191			ND	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

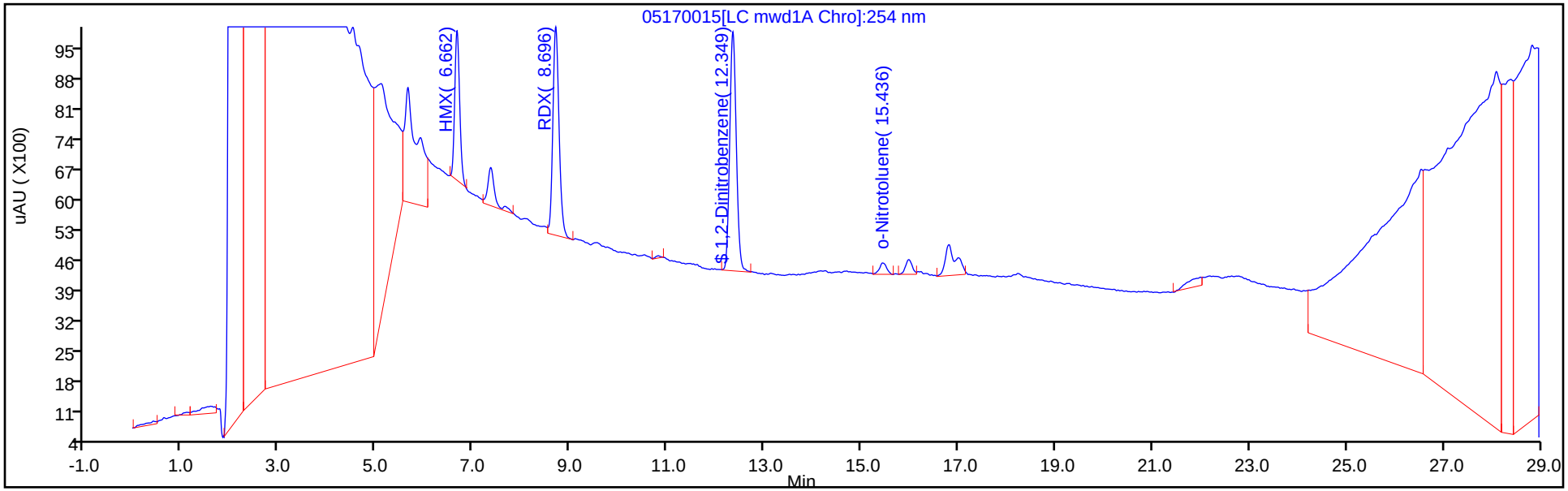
Report Date: 18-May-2024 16:47:00 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

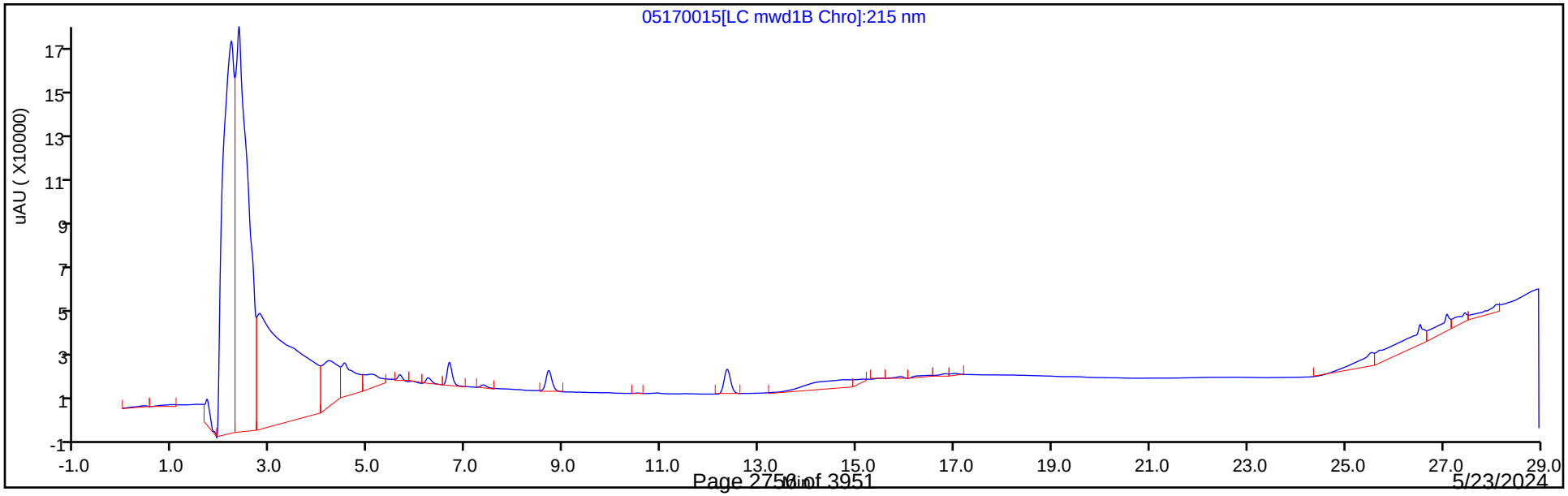
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170015.D

Injection Date:	17-May-2024 21:19:39	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-191098-B-5-A RE	Lab Sample ID:	280-191098-5	Worklist Smp#:	15
Client ID:	DET-004-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170015.D				
Lims ID:	280-191098-B-5-A RE				
Client ID:	DET-004-240401-GW				
Sample Type:	Client				
Inject. Date:	17-May-2024 21:19:39	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-B-5-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	18-May-2024 16:46:59	Calib Date:	28-Mar-2024 05:53:05		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1674				
First Level Reviewer: LV5D		Date:	18-May-2024 16:39:15		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1984	99.19

Manual Integration/User Assign Peak Report

Eurofins Denver

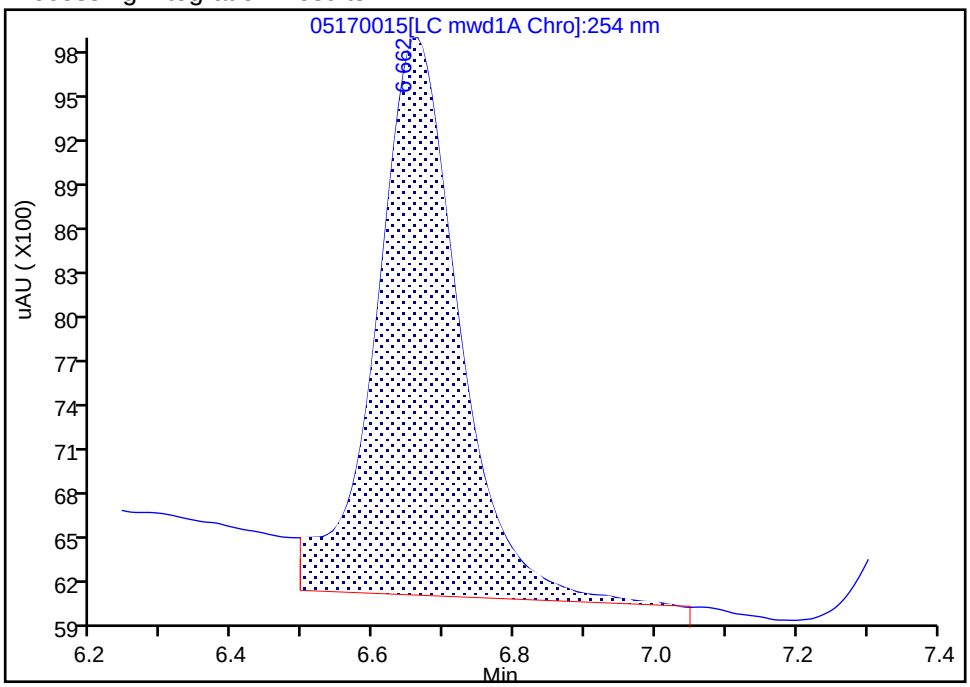
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170015.D				
Injection Date:	17-May-2024 21:19:39	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191098-B-5-A RE	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

5 HMX, CAS: 2691-41-0

Signal: 1

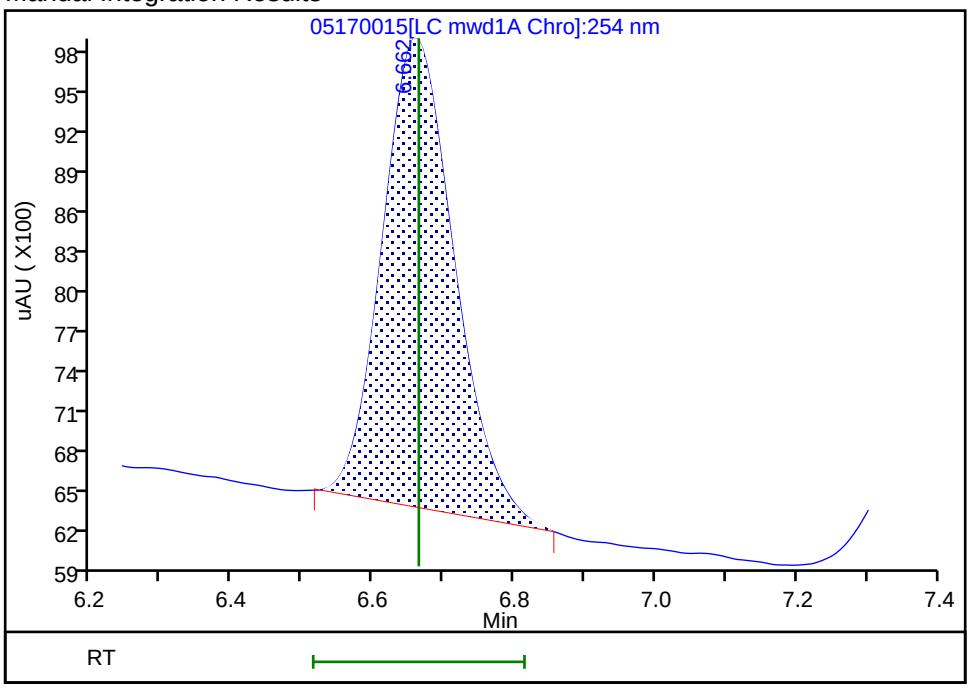
Processing Integration Results

RT: 6.66
Area: 30570
Amount: 0.159482
Amount Units: ug/ml



Manual Integration Results

RT: 6.66
Area: 24842
Amount: 0.129599
Amount Units: ug/ml



Reviewer: LV5D, 18-May-2024 16:39:14 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: DET-004-240401-GW RE | Lab Sample ID: 280-191098-5 RE

Matrix: Water | Lab File ID: 05170045.D

Analysis Method: 8330B | Date Collected: 05/06/2024 10:35

Extraction Method: 3535 | Date Extracted: 05/17/2024 13:10

Sample wt/vol: 484.6(mL) | Date Analyzed: 05/18/2024 04:01

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653871 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	*1,3,5-Trinitrobenzene*	*0.21*	*U H*	*0.22*	0.21	*0.087*
99-65-0	*1,3-Dinitrobenzene*	*0.10*	*U H*	*0.11*	0.10	*0.038*
118-96-7	*2,4,6-Trinitrotoluene*	*0.10*	*U H*	*0.11*	0.10	*0.046*
121-14-2	*2,4-Dinitrotoluene*	*0.083*	*U H*	*0.10*	0.083	*0.028*
606-20-2	*2,6-Dinitrotoluene*	*0.083*	*U H*	*0.10*	0.083	*0.041*
35572-78-2	*2-Amino-4,6-dinitrotoluene*	*0.10*	*U H*	*0.11*	0.10	*0.052*
88-72-2	*2-Nitrotoluene*	*0.21*	*U H*	*0.22*	0.21	*0.088*
99-08-1	*3-Nitrotoluene*	*0.36*	*U H*	*0.41*	0.36	*0.20*
19406-51-0	*4-Amino-2,6-dinitrotoluene*	*0.12*	*U H*	*0.15*	0.12	*0.060*
99-99-0	*4-Nitrotoluene*	*0.41*	*U H*	*0.42*	0.41	*0.10*
2691-41-0	*HMX*	*1.4*	*M H*	*0.22*	0.21	*0.090*
98-95-3	*Nitrobenzene*	*0.21*	*U H*	*0.22*	0.21	*0.094*
55-63-0	*Nitroglycerin*	*2.1*	*U H*	*2.2*	2.1	*0.95*
78-11-5	*PETN*	*1.0*	*U H*	*1.1*	1.0	*0.46*
121-82-4	*RDX*	*2.0*	*M H*	*0.22*	0.21	*0.053*
479-45-8	*Tetryl*	*0.10*	*U H*	*0.11*	0.10	*0.033*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\05170045.D
Lims ID: 280-191098-B-5-A RE
Client ID: DET-004-240401-GW
Sample Type: Client
Inject. Date: 18-May-2024 04:01:07 ALS Bottle#: 45 Worklist Smp#: 45
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-B-5-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-May-2024 10:51:45 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1674

First Level Reviewer: LV5D Date: 18-May-2024 10:36:15

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1	6.611	6.617	-0.006	12881	0.1348	M
8 RDX	1	7.617	7.630	-0.013	21049	0.1900	M
$ 10 1,2-Dinitrobenzene	1	8.537	8.557	-0.020	26009	0.1969	M
11 1,3,5-Trinitrobenzene	1		8.697			ND	
12 1,3-Dinitrobenzene	1		9.310			ND	
13 Nitrobenzene	1		9.670			ND	
15 Tetryl	1		9.983			ND	
16 Nitroglycerin	2		10.457			ND	
17 2,4,6-Trinitrotoluene	1		10.883			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.043			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.297			ND	
20 2,6-Dinitrotoluene	1		11.450			ND	
21 2,4-Dinitrotoluene	1		11.623			ND	
22 o-Nitrotoluene	1		12.410			ND	
23 p-Nitrotoluene	1		12.823			ND	
24 m-Nitrotoluene	1		13.370			ND	
25 PETN	2		14.437			ND	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

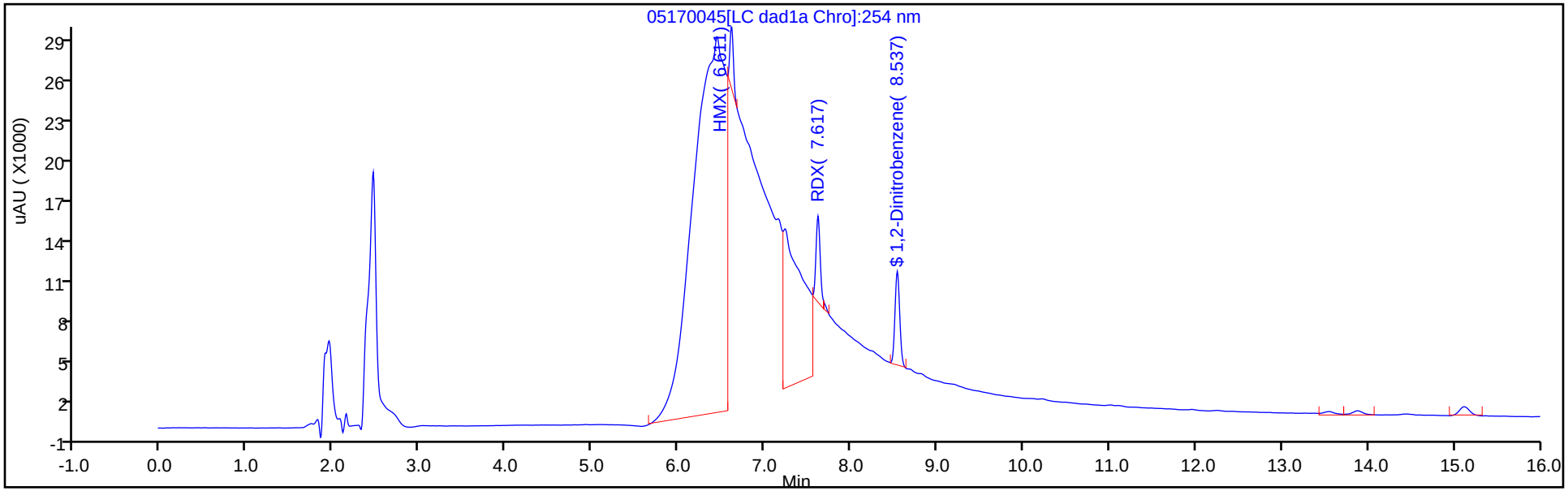
Report Date: 18-May-2024 10:51:49 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

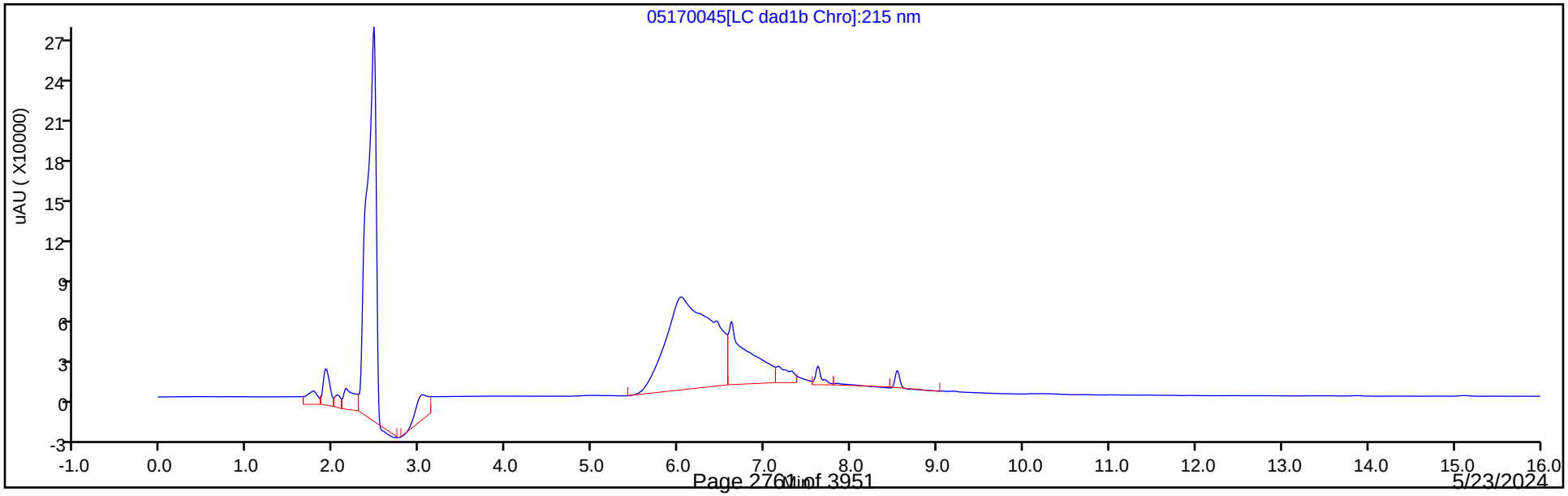
Data File: \\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170045.d

Injection Date:	18-May-2024 04:01:07	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191098-B-5-A RE	Lab Sample ID:	280-191098-5	Worklist Smp#:	45
Client ID:	DET-004-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	45
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\05170045.D				
Lims ID:	280-191098-B-5-A RE				
Client ID:	DET-004-240401-GW				
Sample Type:	Client				
Inject. Date:	18-May-2024 04:01:07	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-B-5-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	18-May-2024 10:51:45	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1674				

First Level Reviewer: LV5D Date: 18-May-2024 10:36:15

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1969	98.44

Manual Integration/User Assign Peak Report

Eurofins Denver

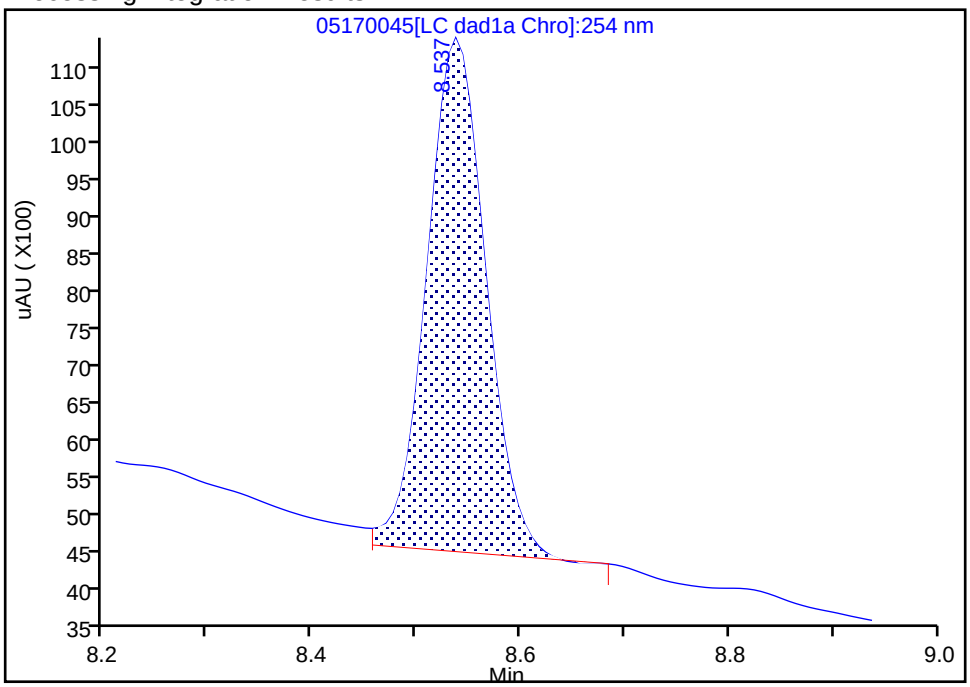
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170045.d				
Injection Date:	18-May-2024 04:01:07	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-B-5-A RE	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	JZ	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

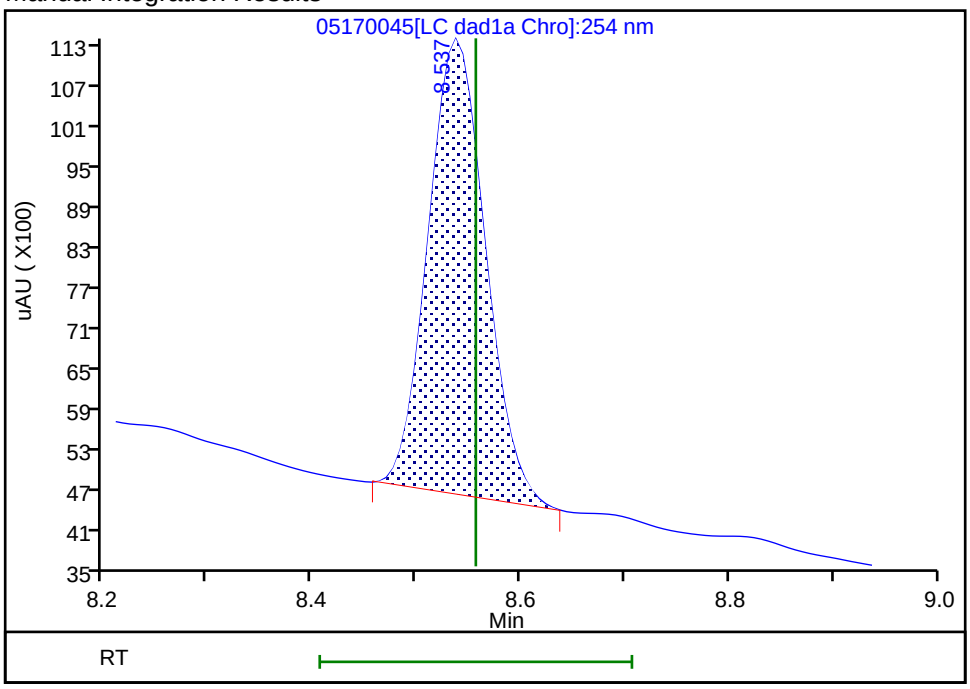
Processing Integration Results

RT: 8.54
Area: 27453
Amount: 0.207848
Amount Units: ug/mL



Manual Integration Results

RT: 8.54
Area: 26009
Amount: 0.196878
Amount Units: ug/mL



Reviewer: LV5D, 18-May-2024 10:36:10 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

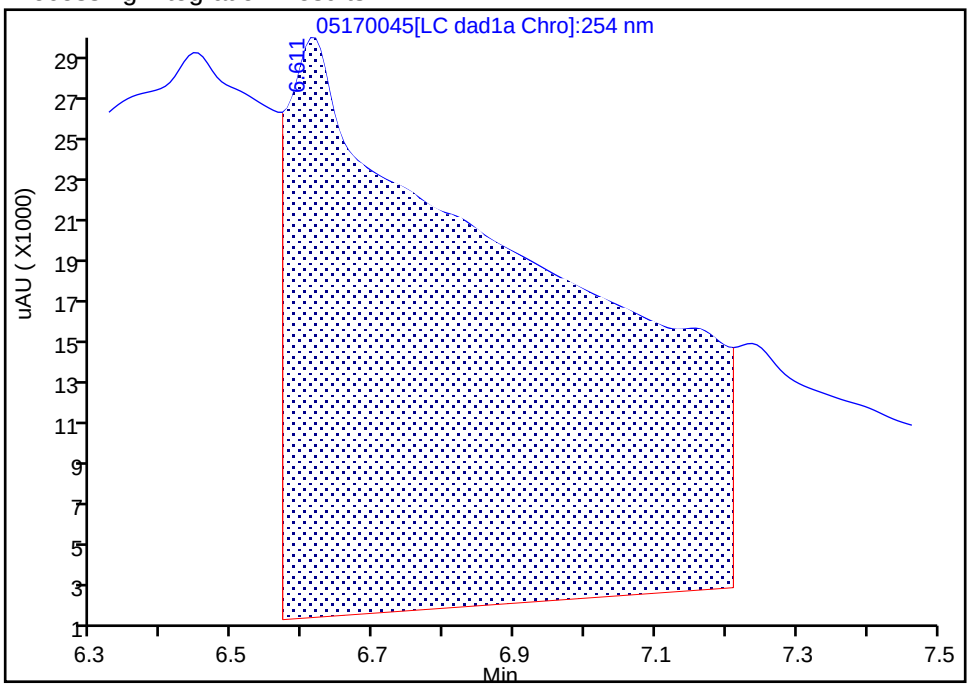
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170045.d				
Injection Date:	18-May-2024 04:01:07	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-B-5-A RE	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	JZ	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

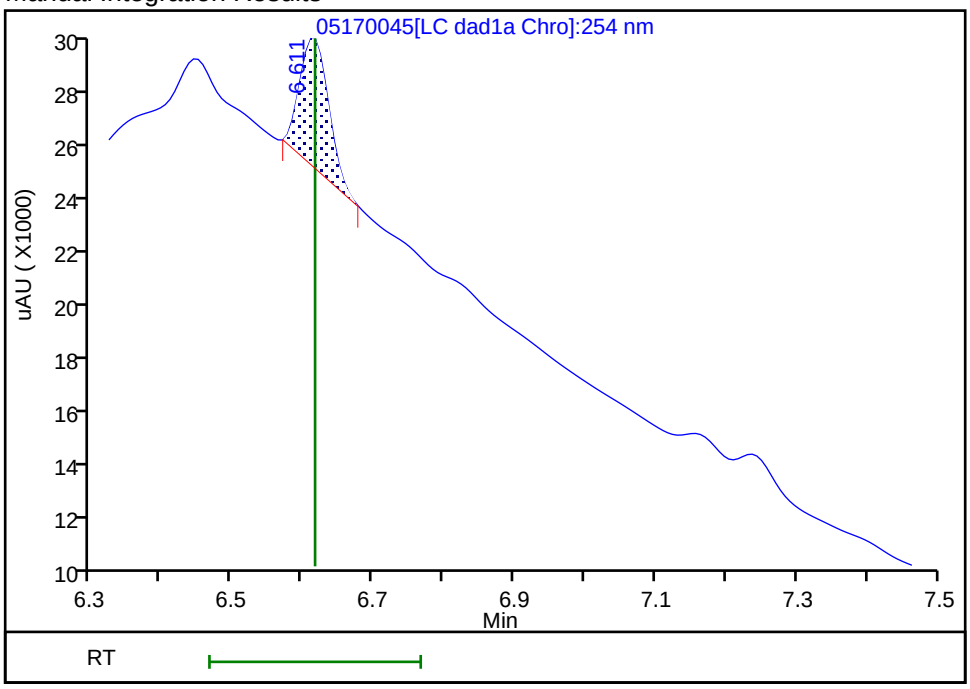
Processing Integration Results

RT: 6.61
Area: 676046
Amount: 7.075777
Amount Units: ug/mL



Manual Integration Results

RT: 6.61
Area: 12881
Amount: 0.134818
Amount Units: ug/mL



Reviewer: LV5D, 18-May-2024 10:36:02 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

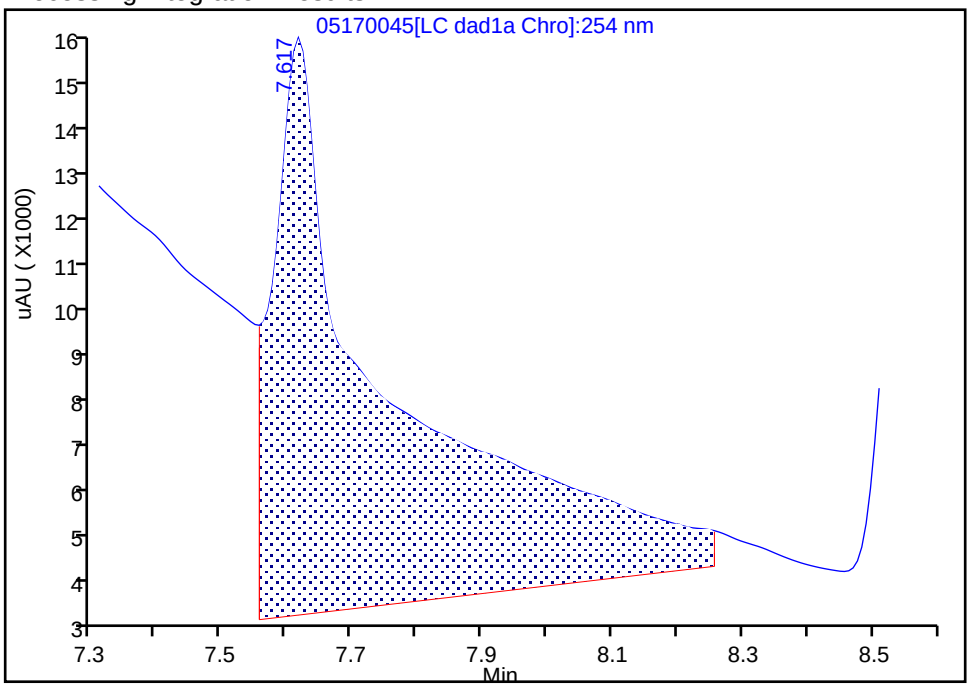
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170045.d				
Injection Date:	18-May-2024 04:01:07	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-B-5-A RE	Lab Sample ID:	280-191098-5		
Client ID:	DET-004-240401-GW				
Operator ID:	JZ	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

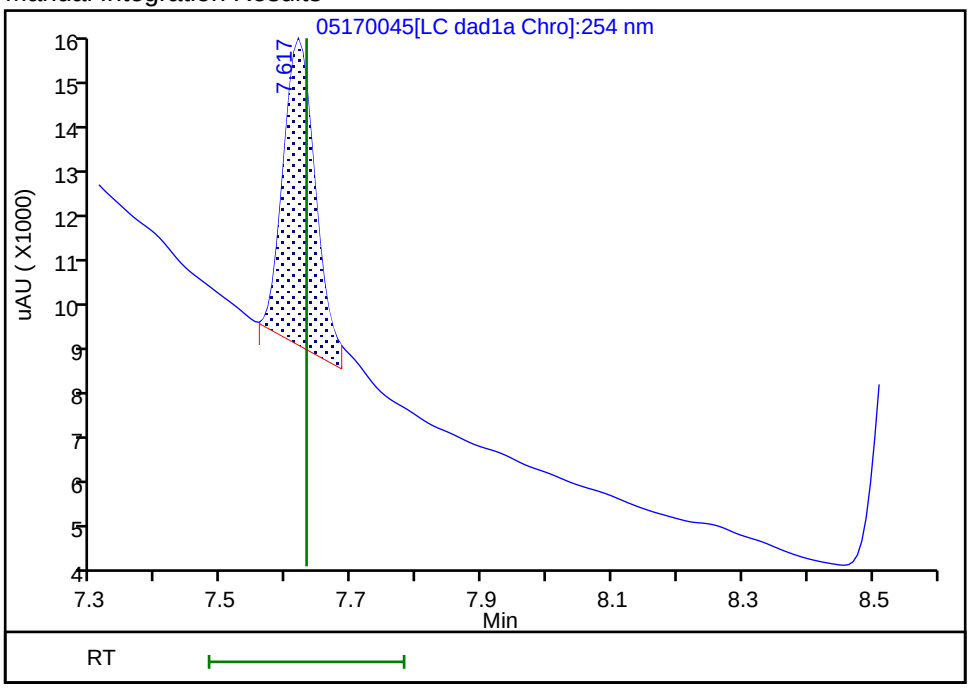
Processing Integration Results

RT: 7.62
Area: 146161
Amount: 1.319535
Amount Units: ug/mL



Manual Integration Results

RT: 7.62
Area: 21049
Amount: 0.190029
Amount Units: ug/mL



Reviewer: LV5D, 18-May-2024 10:36:14 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: LL3mw-247-240401-GW | Lab Sample ID: 280-191098-7

Matrix: Water | Lab File ID: 05010034.D

Analysis Method: 8330B | Date Collected: 05/06/2024 15:27

Extraction Method: 3535 | Date Extracted: 05/10/2024 10:58

Sample wt/vol: 451.3(mL) | Date Analyzed: 05/11/2024 17:34

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653063 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.22	U M Q	0.23	0.22	0.093
99-65-0	1,3-Dinitrobenzene	0.11	U Q	0.12	0.11	0.041
606-20-2	2,6-Dinitrotoluene	0.089	U Q	0.11	0.089	0.044
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U Q	0.12	0.11	0.056
88-72-2	2-Nitrotoluene	0.22	U Q	0.23	0.22	0.095
99-08-1	3-Nitrotoluene	0.39	U Q	0.44	0.39	0.22
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U Q	0.17	0.13	0.064
99-99-0	4-Nitrotoluene	0.44	U Q	0.45	0.44	0.11
2691-41-0	HMX	0.22	U M Q	0.23	0.22	0.097
98-95-3	Nitrobenzene	0.22	U Q	0.23	0.22	0.10
55-63-0	Nitroglycerin	2.2	U Q	2.3	2.2	1.0
78-11-5	PETN	1.1	U Q	1.2	1.1	0.50
479-45-8	Tetryl	0.11	U Q	0.12	0.11	0.035

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	43	Q	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\05010034.D
Lims ID: 280-191098-B-7-A
Client ID: LL3mw-247-240401-GW
Sample Type: Client
Inject. Date: 11-May-2024 17:34:29 ALS Bottle#: 34 Worklist Smp#: 34
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-B-7-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 14-May-2024 14:09:25 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 14-May-2024 12:47:21

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.611			ND	U
8 RDX	1	7.646	7.631	0.015	12696	0.1146	
$ 10 1,2-Dinitrobenzene	1	8.553	8.565	-0.012	11423	0.0861	
11 1,3,5-Trinitrobenzene	1	8.713	8.705	0.008	1747	0.007839	M
12 1,3-Dinitrobenzene	1		9.318			ND	7
13 Nitrobenzene	1		9.671			ND	
15 Tetryl	1		9.991			ND	
16 Nitroglycerin	2		10.458			ND	
17 2,4,6-Trinitrotoluene	1	10.873	10.891	-0.018	1318	0.006125	M
18 4-Amino-2,6-dinitrotoluene	1		11.064			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.318			ND	
20 2,6-Dinitrotoluene	1		11.464			ND	
21 2,4-Dinitrotoluene	1	11.666	11.638	0.028	4983	0.0171	
22 o-Nitrotoluene	1		12.418			ND	7
23 p-Nitrotoluene	1		12.831			ND	7
24 m-Nitrotoluene	1		13.371			ND	
25 PETN	2		14.418			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

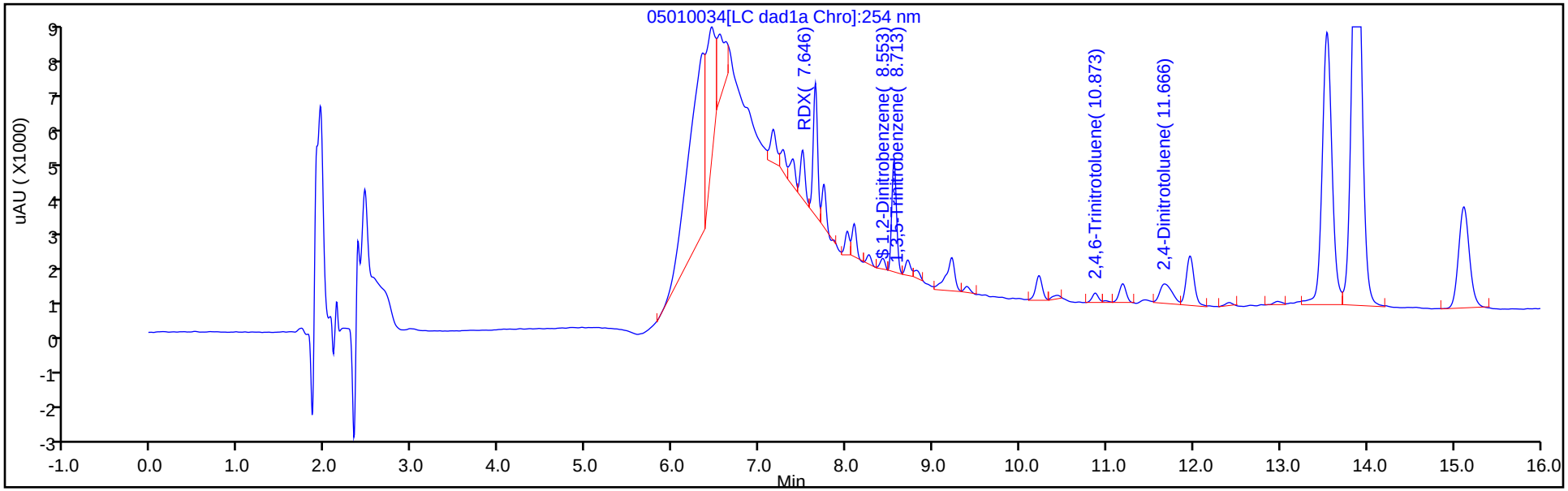
Report Date: 14-May-2024 14:09:32 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

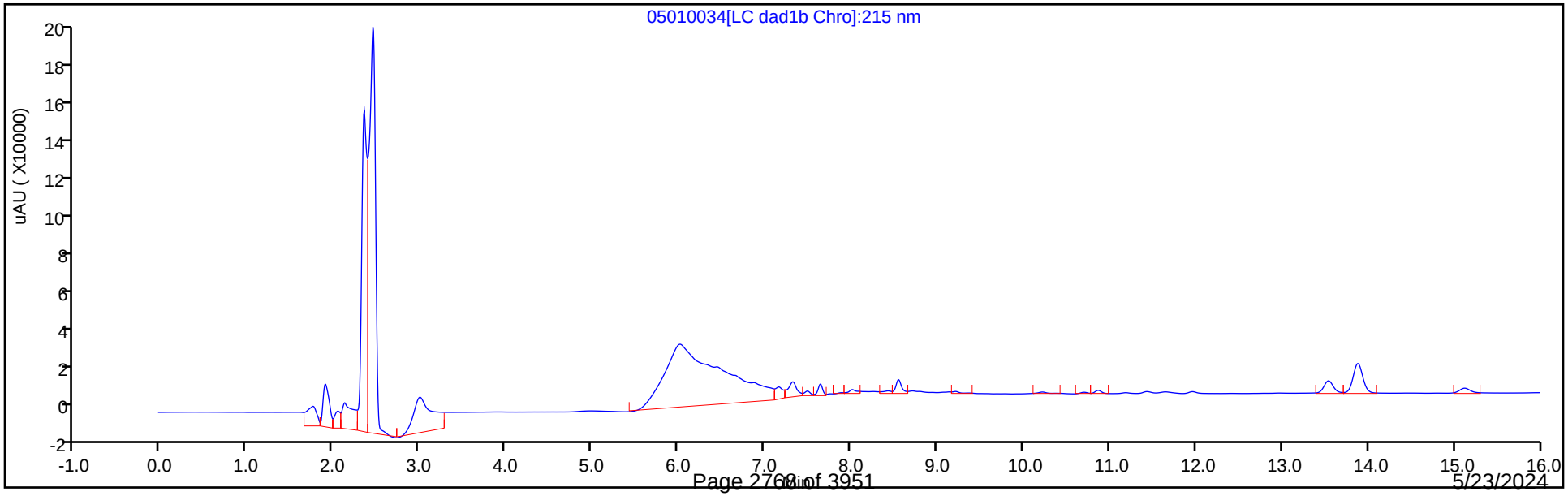
Data File: \\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010034.d

Injection Date:	11-May-2024 17:34:29	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191098-B-7-A	Lab Sample ID:	280-191098-7	Worklist Smp#:	34
Client ID:	LL3mw-247-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	34
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\05010034.D				
Lims ID:	280-191098-B-7-A				
Client ID:	LL3mw-247-240401-GW				
Sample Type:	Client				
Inject. Date:	11-May-2024 17:34:29	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-B-7-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	14-May-2024 14:09:25	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1620				

First Level Reviewer: LV5D Date: 14-May-2024 12:47:21

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.0861	43.03

Manual Integration/User Assign Peak Report

Eurofins Denver

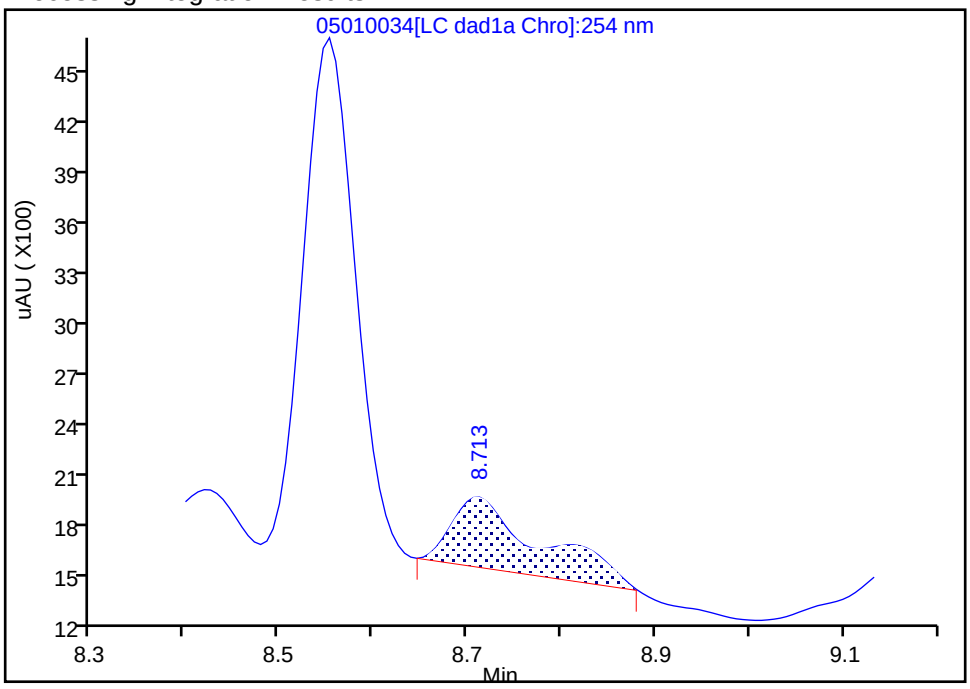
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010034.d				
Injection Date:	11-May-2024 17:34:29	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-B-7-A	Lab Sample ID:	280-191098-7		
Client ID:	LL3mw-247-240401-GW				
Operator ID:	JZ	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

11 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

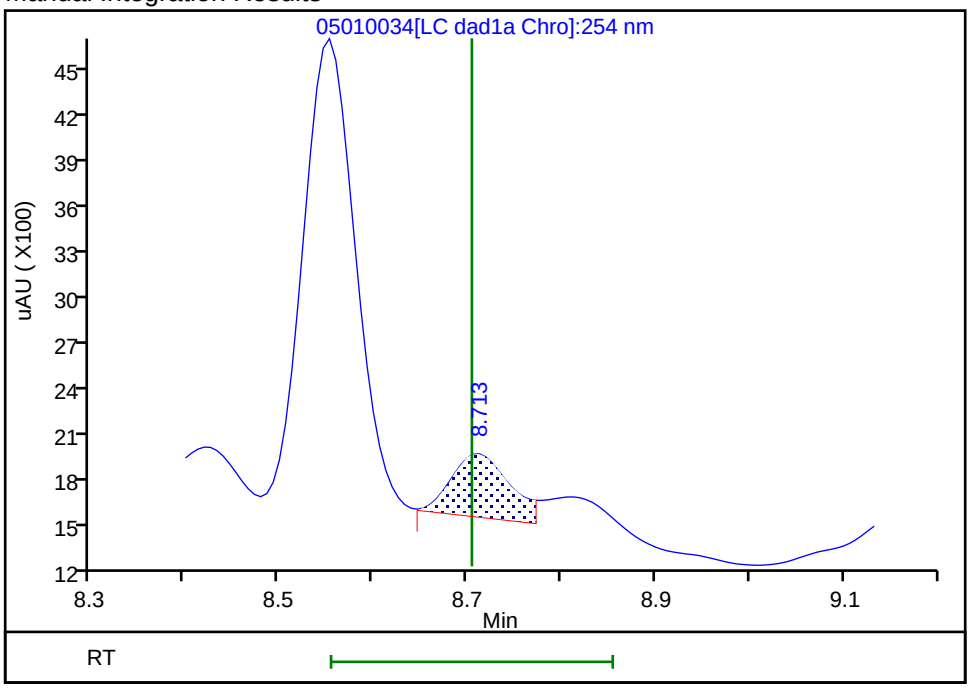
Processing Integration Results

RT: 8.71
Area: 2703
Amount: 0.012129
Amount Units: ug/mL



Manual Integration Results

RT: 8.71
Area: 1747
Amount: 0.007839
Amount Units: ug/mL



Reviewer: LV5D, 14-May-2024 12:47:13 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

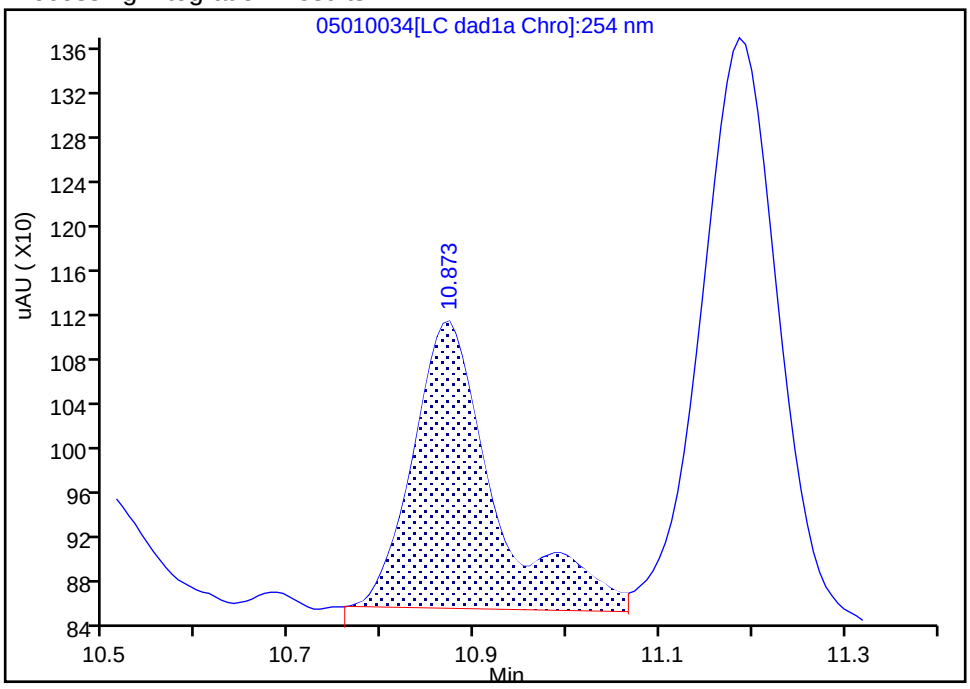
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010034.d				
Injection Date:	11-May-2024 17:34:29	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-B-7-A	Lab Sample ID:	280-191098-7		
Client ID:	LL3mw-247-240401-GW				
Operator ID:	JZ	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

17 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

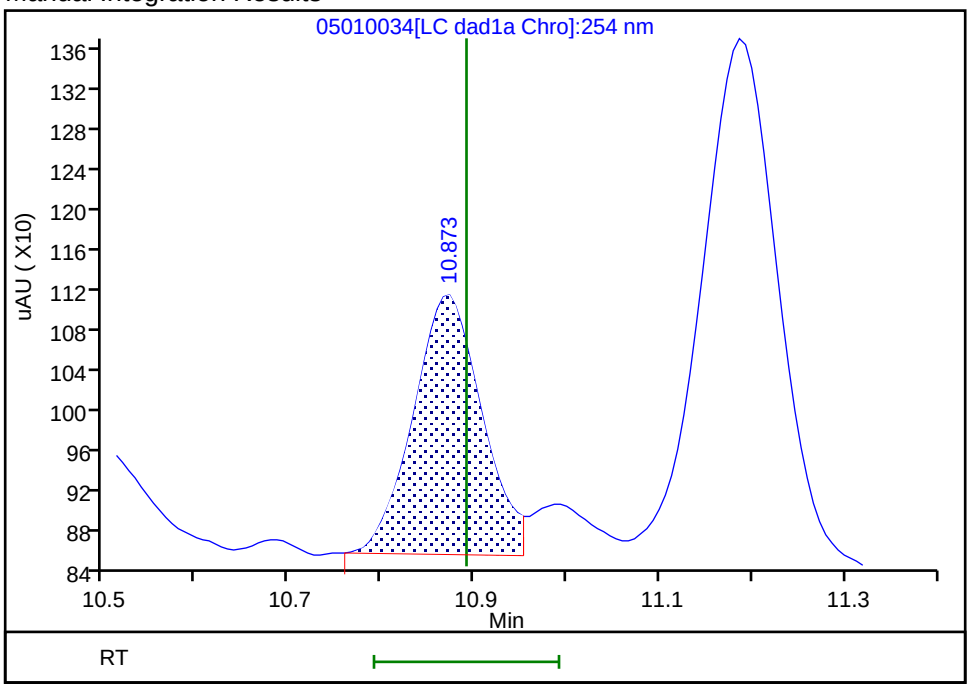
Processing Integration Results

RT: 10.87
Area: 1570
Amount: 0.007296
Amount Units: ug/mL



Manual Integration Results

RT: 10.87
Area: 1318
Amount: 0.006125
Amount Units: ug/mL



Reviewer: LV5D, 14-May-2024 12:47:20 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

User Disabled Compound Report

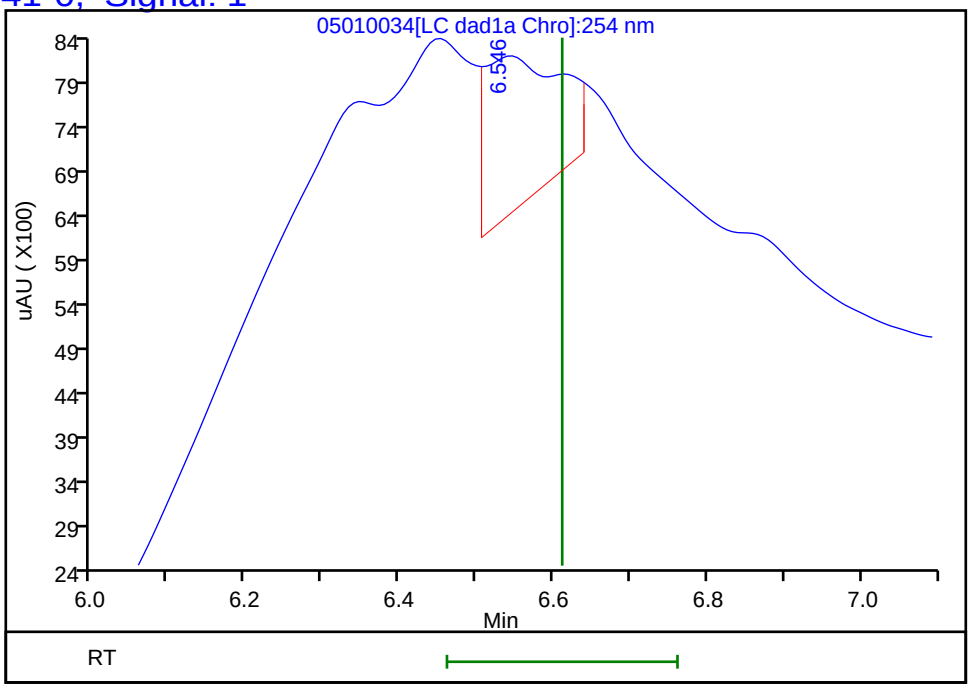
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010034.d

Injection Date:	11-May-2024 17:34:29	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-B-7-A	Lab Sample ID:	280-191098-7		
Client ID:	LL3mw-247-240401-GW				
Operator ID:	JZ	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.55
Response: 11217
Amount: 0.117402



Reviewer: LV5D, 14-May-2024 12:47:21
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: LL3mw-247-240401-GW | Lab Sample ID: 280-191098-7

Matrix: Water | Lab File ID: 05110016.D

Analysis Method: 8330B | Date Collected: 05/06/2024 15:27

Extraction Method: 3535 | Date Extracted: 05/10/2024 10:58

Sample wt/vol: 451.3(mL) | Date Analyzed: 05/11/2024 21:32

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653069 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
118-96-7	2,4,6-Trinitrotoluene	0.11	U Q	0.12	0.11	0.050
121-14-2	2,4-Dinitrotoluene	0.089	U Q	0.11	0.089	0.030
121-82-4	RDX	0.22	U M Q	0.23	0.22	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	46	*Q*	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110016.D
Lims ID: 280-191098-B-7-A
Client ID: LL3mw-247-240401-GW
Sample Type: Client
Inject. Date: 11-May-2024 21:32:09 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-B-7-A
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-May-2024 18:12:14 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 14-May-2024 18:08:11

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	5 HMX	1		6.631			ND	
	8 RDX	1		8.664			ND	U
	9 Nitrobenzene	1		11.317			ND	U
$	10 1,2-Dinitrobenzene	1	12.290	12.311	-0.021	24168	0.0915	
	12 1,3-Dinitrobenzene	1		14.517			ND	
	13 Nitroglycerin	2		14.751			ND	
	14 o-Nitrotoluene	1	15.403	15.431	-0.028	115036	0.4651	
	16 p-Nitrotoluene	1		15.691			ND	
	17 4-Amino-2,6-dinitrotoluene	1		16.144			ND	
	18 m-Nitrotoluene	1		16.544			ND	
	19 2-Amino-4,6-dinitrotoluene	1		17.017			ND	
	20 1,3,5-Trinitrobenzene	1		17.464			ND	
	21 2,6-Dinitrotoluene	1		18.424			ND	
	22 2,4-Dinitrotoluene	1		18.911			ND	
	23 Tetryl	1		22.211			ND	
	24 2,4,6-Trinitrotoluene	1		23.191			ND	
	25 PETN	2		24.164			ND	

QC Flag Legend

Processing Flags
Review Flags
U - Marked Undetected

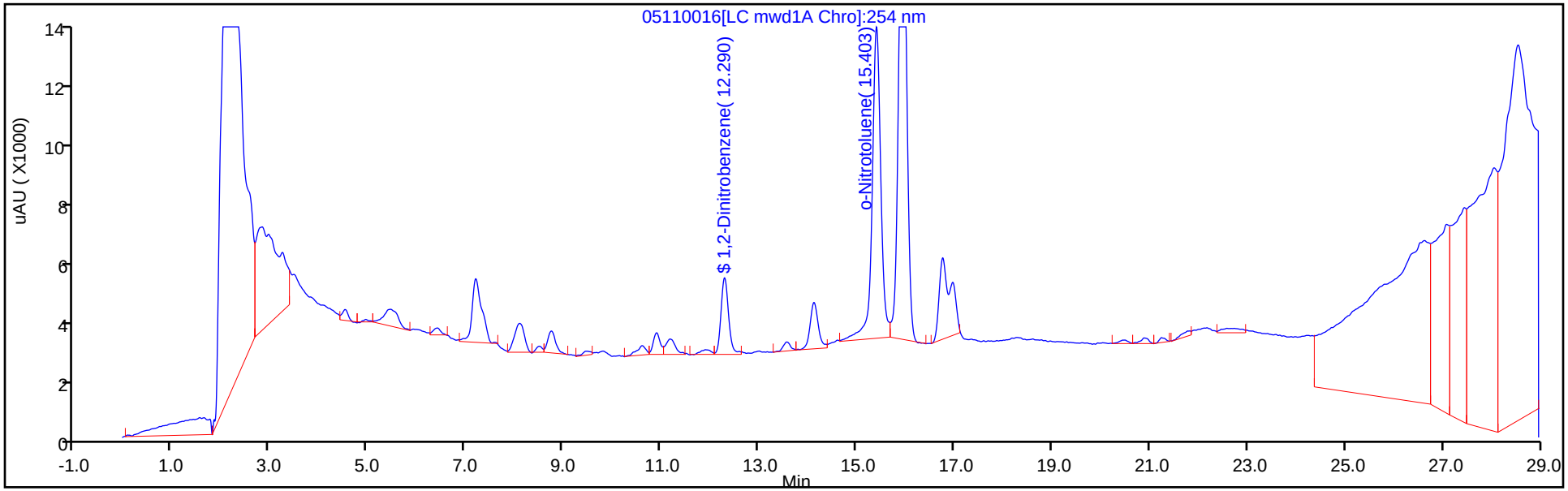
Report Date: 14-May-2024 18:12:32 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

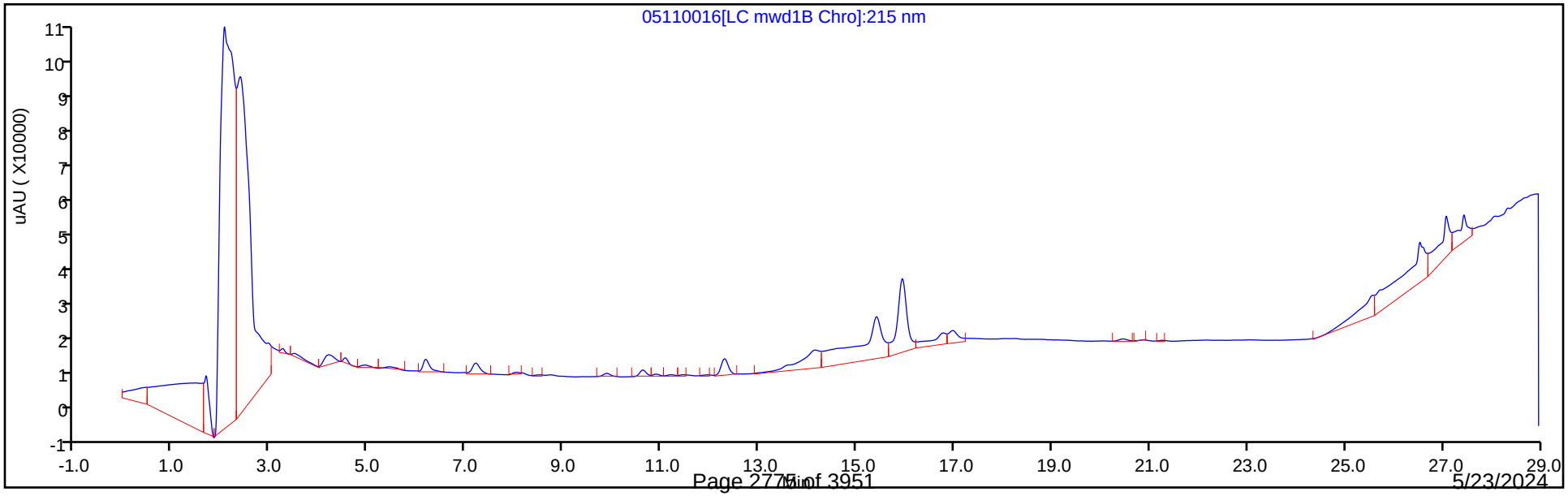
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110016.D

Injection Date:	11-May-2024 21:32:09	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-191098-B-7-A	Lab Sample ID:	280-191098-7	Worklist Smp#:	16
Client ID:	LL3mw-247-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110016.D				
Lims ID:	280-191098-B-7-A				
Client ID:	LL3mw-247-240401-GW				
Sample Type:	Client				
Inject. Date:	11-May-2024 21:32:09	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-B-7-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	14-May-2024 18:12:14	Calib Date:	28-Mar-2024 05:53:05		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1620				
First Level Reviewer: LV5D		Date:	14-May-2024 18:08:11		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.0915	45.75

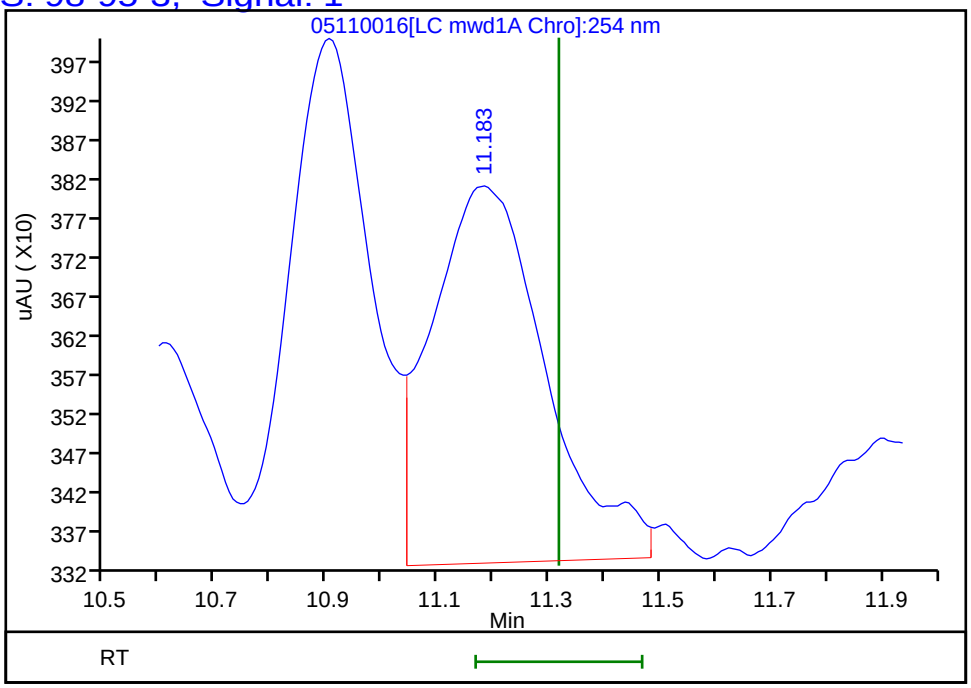
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110016.D				
Injection Date:	11-May-2024 21:32:09	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191098-B-7-A	Lab Sample ID:	280-191098-7		
Client ID:	LL3mw-247-240401-GW				
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

9 Nitrobenzene, CAS: 98-95-3, Signal: 1

RT: 11.18
Response: 6770
Amount: 0.017922



Reviewer: LV5D, 14-May-2024 18:08:11
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

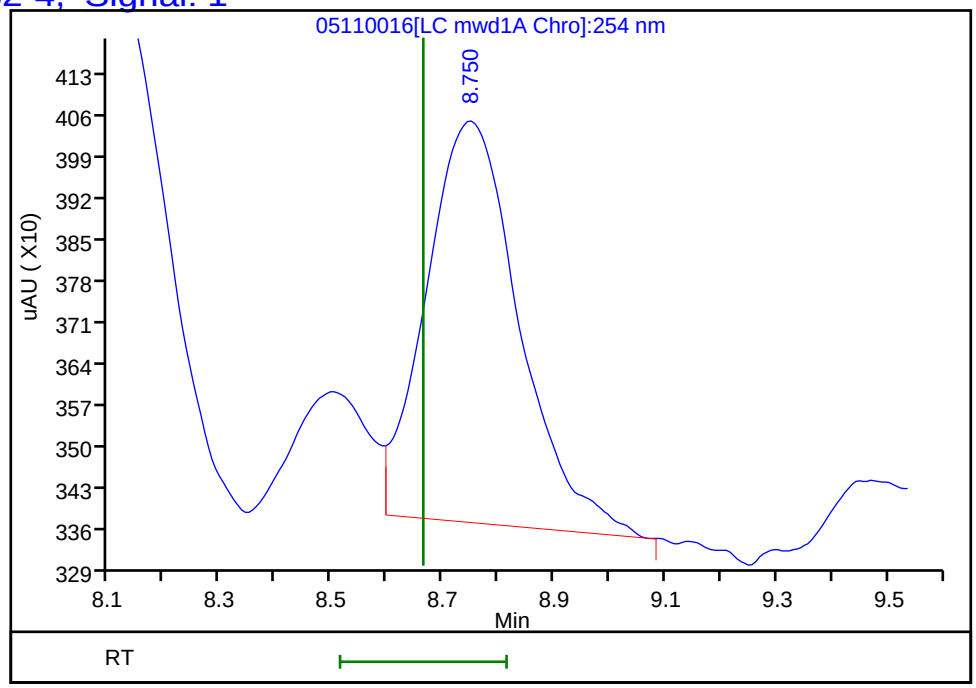
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110016.D

Injection Date:	11-May-2024 21:32:09	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191098-B-7-A	Lab Sample ID:	280-191098-7		
Client ID:	LL3mw-247-240401-GW				
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

8 RDX, CAS: 121-82-4, Signal: 1

RT: 8.75
Response: 7926
Amount: 0.037108



Reviewer: LV5D, 14-May-2024 18:08:11

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: LL3mw-247-240401-GW RE | Lab Sample ID: 280-191098-7 RE

Matrix: Water | Lab File ID: 05170016.D

Analysis Method: 8330B | Date Collected: 05/06/2024 15:27

Extraction Method: 3535 | Date Extracted: 05/17/2024 13:10

Sample wt/vol: 439.4(mL) | Date Analyzed: 05/17/2024 21:54

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653873 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	*1,3,5-Trinitrobenzene*	*0.23*	*U H*	*0.24*	0.23	*0.096*
121-82-4	*RDX*	*0.23*	*U M H*	*0.24*	0.23	*0.059*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	96		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170016.D
Lims ID: 280-191098-A-7-A RE
Client ID: LL3mw-247-240401-GW
Sample Type: Client
Inject. Date: 17-May-2024 21:54:37 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-A-7-A
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 18-May-2024 16:46:59 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1674

First Level Reviewer: LV5D Date: 18-May-2024 16:39:25

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	5 HMX	1		6.664			ND	
	8 RDX	1		8.697			ND	U
	9 Nitrobenzene	1		11.364			ND	U
$	10 1,2-Dinitrobenzene	1	12.350	12.351	-0.001	50950	0.1929	
	12 1,3-Dinitrobenzene	1		14.571			ND	
	13 Nitroglycerin	2		14.784			ND	U
	14 o-Nitrotoluene	1	15.450	15.477	-0.027	72618	0.2936	
	16 p-Nitrotoluene	1		15.737			ND	
	17 4-Amino-2,6-dinitrotoluene	1		16.197			ND	
	18 m-Nitrotoluene	1		16.591			ND	
	19 2-Amino-4,6-dinitrotoluene	1	17.004	17.071	-0.067	14733	0.0345	
	20 1,3,5-Trinitrobenzene	1		17.524			ND	
	21 2,6-Dinitrotoluene	1		18.491			ND	
	22 2,4-Dinitrotoluene	1		18.977			ND	
	23 Tetryl	1		22.277			ND	
	24 2,4,6-Trinitrotoluene	1		23.257			ND	
	25 PETN	2		24.191			ND	

QC Flag Legend

Processing Flags
Review Flags
U - Marked Undetected

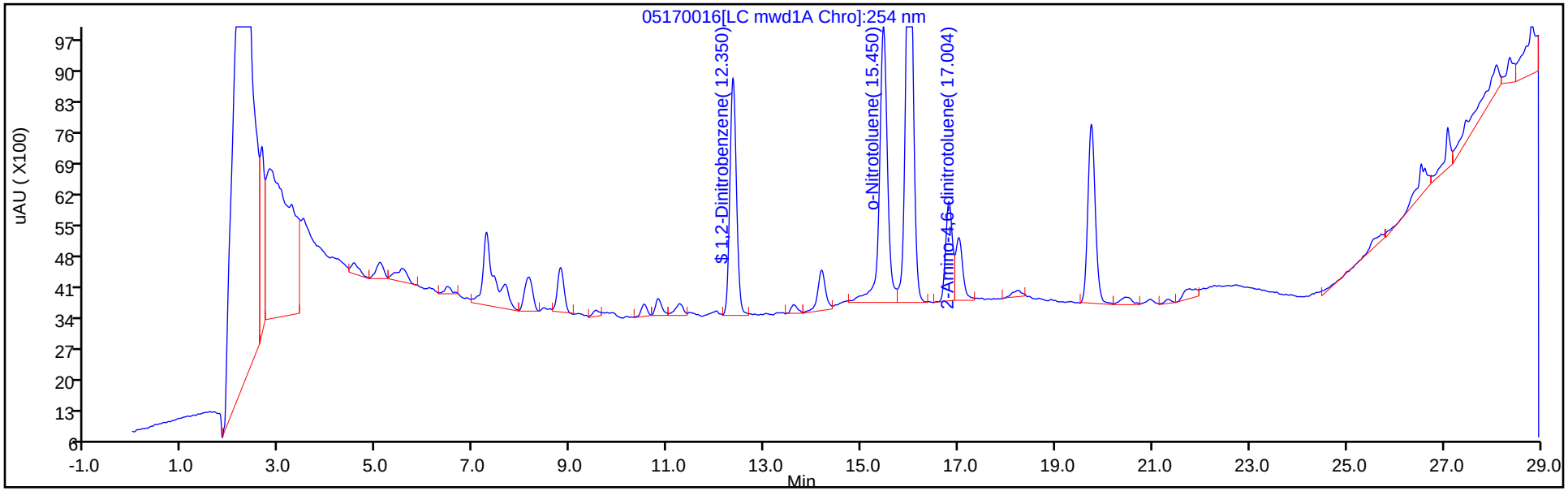
Report Date: 18-May-2024 16:47:01 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

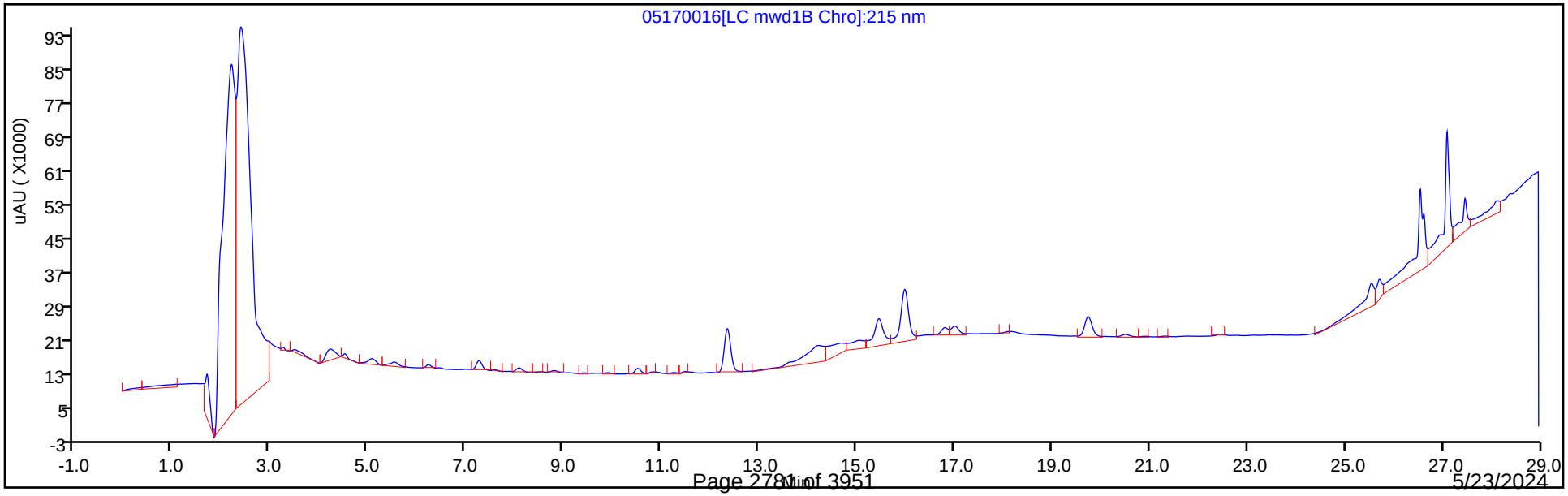
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170016.D

Injection Date:	17-May-2024 21:54:37	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-191098-A-7-A RE	Lab Sample ID:	280-191098-7	Worklist Smp#:	16
Client ID:	LL3mw-247-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170016.D				
Lims ID:	280-191098-A-7-A RE				
Client ID:	LL3mw-247-240401-GW				
Sample Type:	Client				
Inject. Date:	17-May-2024 21:54:37	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-A-7-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	18-May-2024 16:46:59	Calib Date:	28-Mar-2024 05:53:05		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1674				
First Level Reviewer: LV5D		Date:	18-May-2024 16:39:25		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1929	96.44

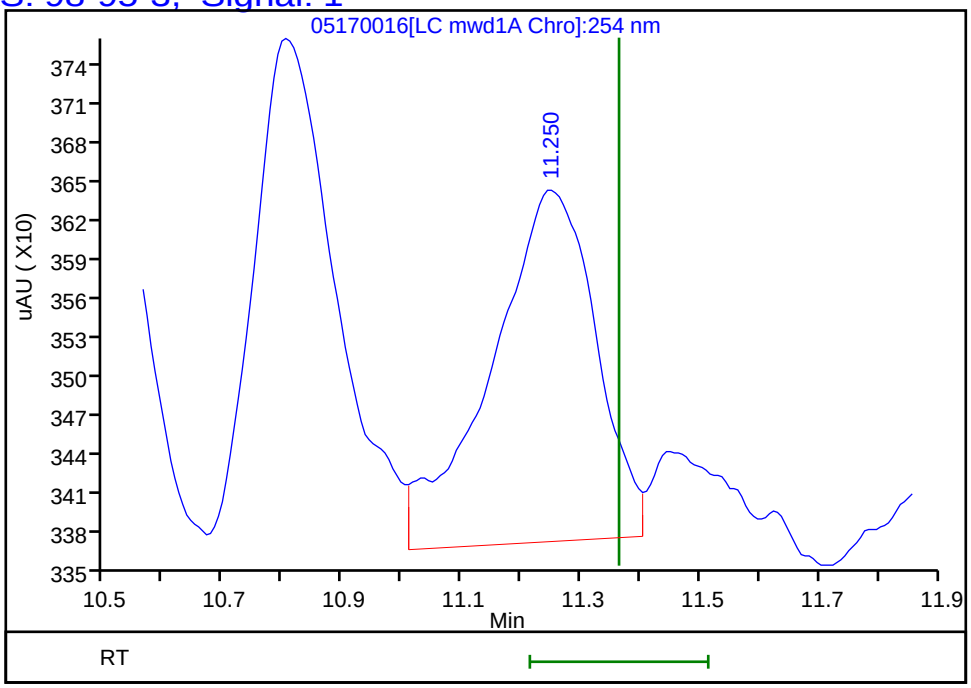
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170016.D				
Injection Date:	17-May-2024 21:54:37	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191098-A-7-A RE	Lab Sample ID:	280-191098-7		
Client ID:	LL3mw-247-240401-GW				
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

9 Nitrobenzene, CAS: 98-95-3, Signal: 1

RT: 11.25
Response: 3282
Amount: 0.008688



Reviewer: LV5D, 18-May-2024 16:39:25
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

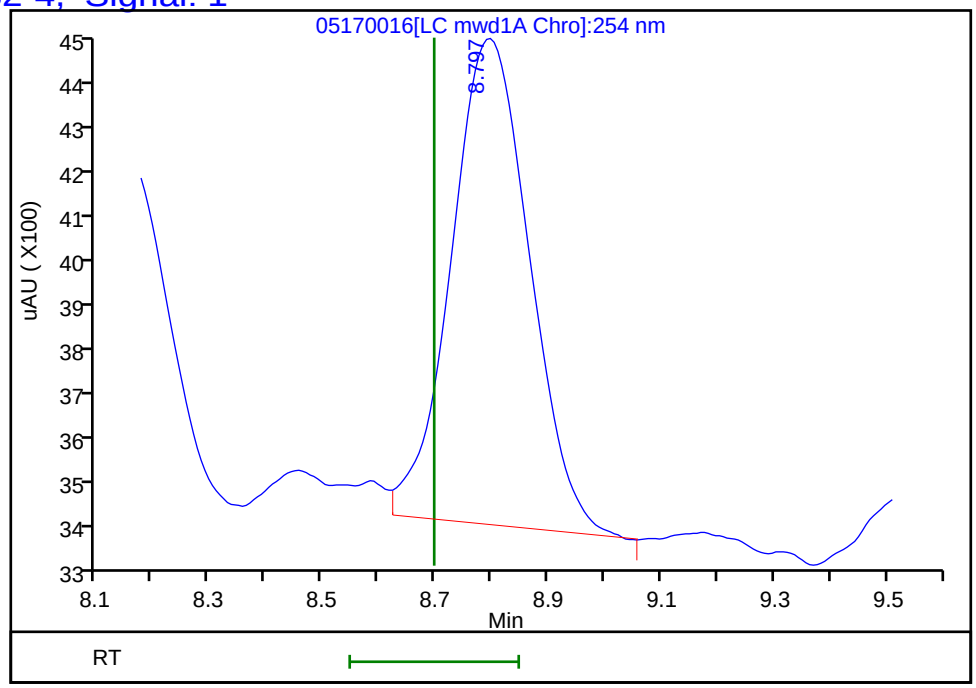
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170016.D				
Injection Date:	17-May-2024 21:54:37	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191098-A-7-A RE	Lab Sample ID:	280-191098-7		
Client ID:	LL3mw-247-240401-GW				
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

8 RDX, CAS: 121-82-4, Signal: 1

RT: 8.80
Response: 9942
Amount: 0.046546



Reviewer: LV5D, 18-May-2024 16:39:25
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: LL3mw-247-240401-GW RE | Lab Sample ID: 280-191098-7 RE

Matrix: Water | Lab File ID: 05170046.D

Analysis Method: 8330B | Date Collected: 05/06/2024 15:27

Extraction Method: 3535 | Date Extracted: 05/17/2024 13:10

Sample wt/vol: 439.4(mL) | Date Analyzed: 05/18/2024 04:24

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653871 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-65-0	*1,3-Dinitrobenzene*	*0.11*	*U M H*	*0.13*	0.11	*0.042*
118-96-7	*2,4,6-Trinitrotoluene*	*0.11*	*U H*	*0.13*	0.11	*0.051*
121-14-2	*2,4-Dinitrotoluene*	*0.091*	*U M H*	*0.11*	0.091	*0.031*
606-20-2	*2,6-Dinitrotoluene*	*0.091*	*U H*	*0.11*	0.091	*0.046*
35572-78-2	*2-Amino-4,6-dinitrotoluene*	*0.11*	*U H*	*0.13*	0.11	*0.058*
88-72-2	*2-Nitrotoluene*	*0.23*	*U M H*	*0.24*	0.23	*0.097*
99-08-1	*3-Nitrotoluene*	*0.40*	*U H*	*0.46*	0.40	*0.22*
19406-51-0	*4-Amino-2,6-dinitrotoluene*	*0.14*	*U H*	*0.17*	0.14	*0.066*
99-99-0	*4-Nitrotoluene*	*0.46*	*U H*	*0.47*	0.46	*0.11*
2691-41-0	*HMX*	*0.23*	*U M H*	*0.24*	0.23	*0.10*
98-95-3	*Nitrobenzene*	*0.23*	*U H*	*0.24*	0.23	*0.10*
55-63-0	*Nitroglycerin*	*2.3*	*U H*	*2.4*	2.3	*1.0*
78-11-5	*PETN*	*1.1*	*U H*	*1.3*	1.1	*0.51*
479-45-8	*Tetryl*	*0.11*	*U H*	*0.13*	0.11	*0.036*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	94		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\05170046.D
Lims ID: 280-191098-A-7-A RE
Client ID: LL3mw-247-240401-GW
Sample Type: Client
Inject. Date: 18-May-2024 04:24:03 ALS Bottle#: 46 Worklist Smp#: 46
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-A-7-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-May-2024 10:51:45 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1674

First Level Reviewer: LV5D Date: 18-May-2024 10:46:42

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1	6.612	6.617	-0.005	458	0.004794	7M
8 RDX	1	7.639	7.630	0.009	9102	0.0822	
$ 10 1,2-Dinitrobenzene	1	8.546	8.557	-0.011	24916	0.1886	
11 1,3,5-Trinitrobenzene	1	8.719	8.697	0.022	1953	0.008764	M
12 1,3-Dinitrobenzene	1		9.310			ND	U
13 Nitrobenzene	1		9.670			ND	
15 Tetryl	1		9.983			ND	
16 Nitroglycerin	2		10.457			ND	
17 2,4,6-Trinitrotoluene	1		10.883			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.043			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.297			ND	
20 2,6-Dinitrotoluene	1		11.450			ND	
21 2,4-Dinitrotoluene	1		11.623			ND	U
22 o-Nitrotoluene	1		12.410			ND	U
23 p-Nitrotoluene	1		12.823			ND	
24 m-Nitrotoluene	1		13.370			ND	
25 PETN	2		14.437			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

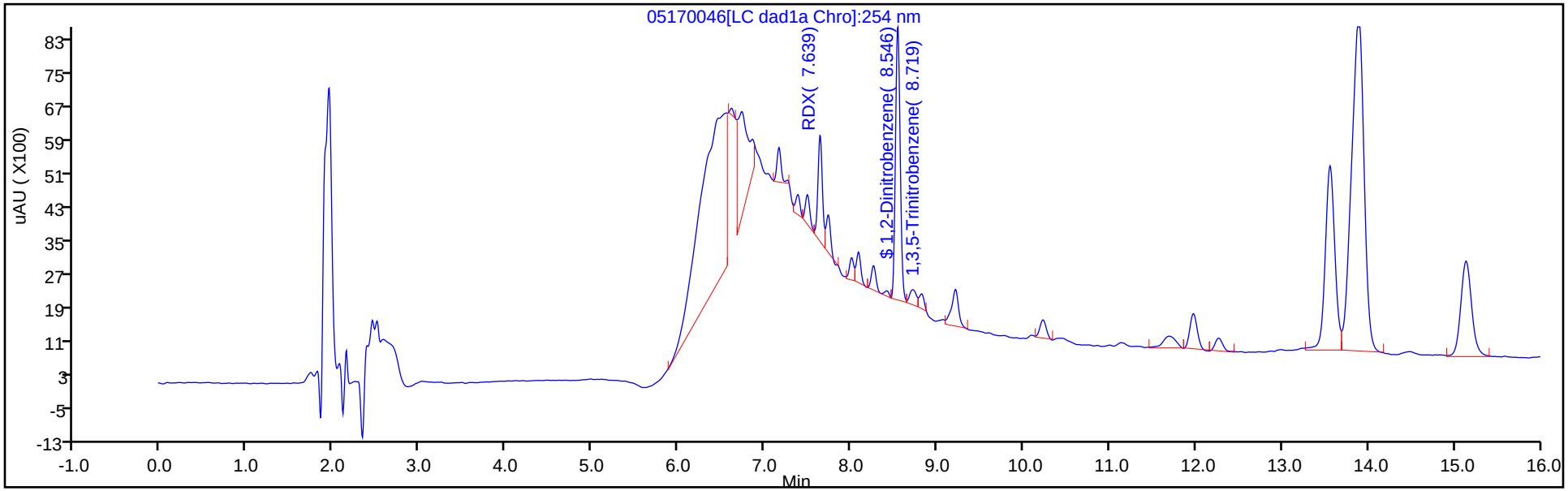
Report Date: 18-May-2024 10:51:50 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

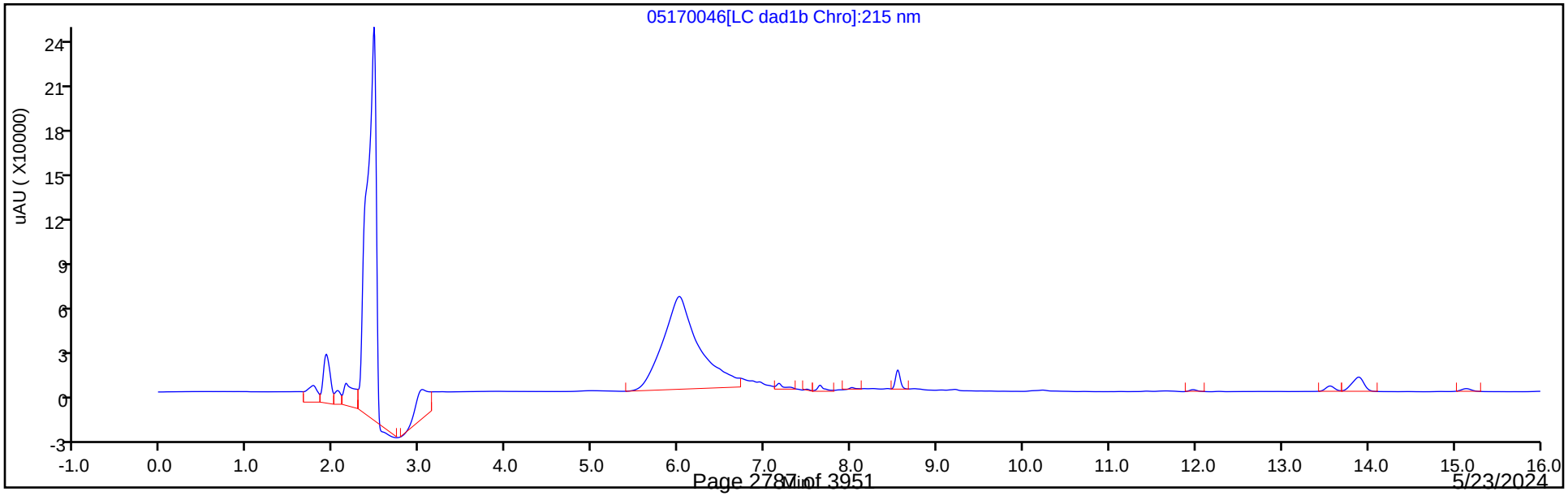
Data File: \\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170046.d

Injection Date:	18-May-2024 04:24:03	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191098-A-7-A RE	Lab Sample ID:	280-191098-7	Worklist Smp#:	46
Client ID:	LL3mw-247-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	46
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\05170046.D				
Lims ID:	280-191098-A-7-A RE				
Client ID:	LL3mw-247-240401-GW				
Sample Type:	Client				
Inject. Date:	18-May-2024 04:24:03	ALS Bottle#:	46	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-A-7-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	18-May-2024 10:51:45	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1674				

First Level Reviewer: LV5D Date: 18-May-2024 10:46:42

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1886	94.29

Manual Integration/User Assign Peak Report

Eurofins Denver

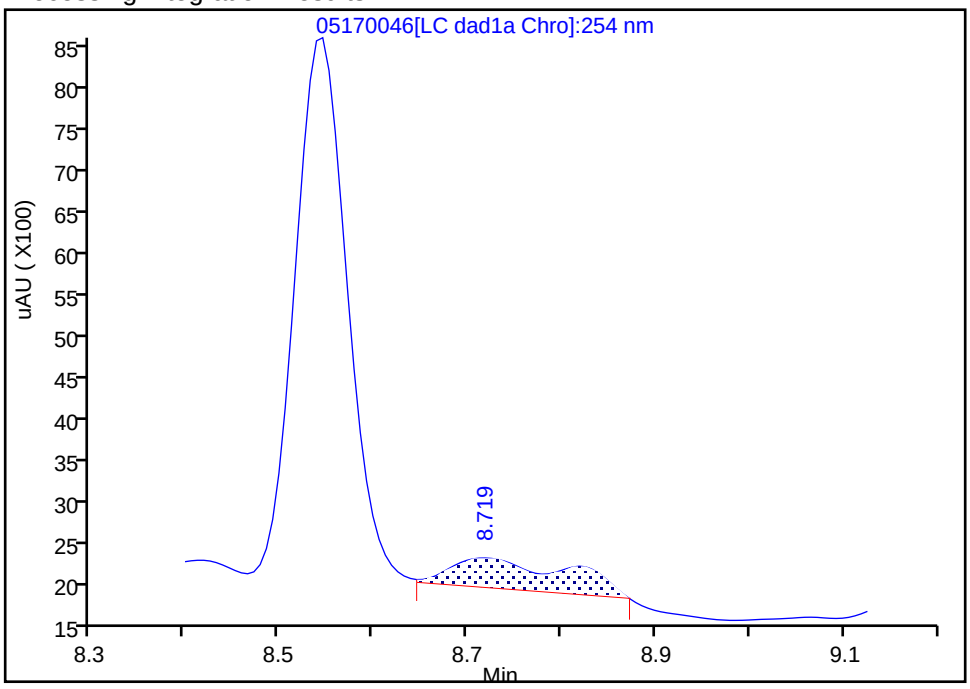
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170046.d				
Injection Date:	18-May-2024 04:24:03	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-A-7-A RE	Lab Sample ID:	280-191098-7		
Client ID:	LL3mw-247-240401-GW				
Operator ID:	JZ	ALS Bottle#:	46	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

11 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

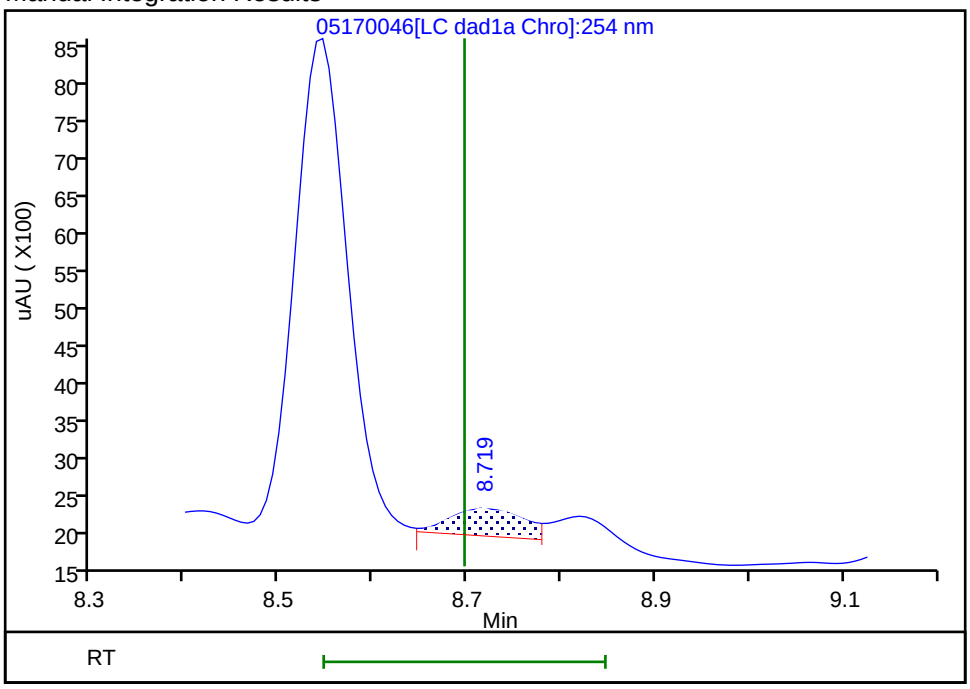
Processing Integration Results

RT: 8.72
Area: 3273
Amount: 0.014687
Amount Units: ug/mL



Manual Integration Results

RT: 8.72
Area: 1953
Amount: 0.008764
Amount Units: ug/mL



Reviewer: LV5D, 18-May-2024 10:46:41 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

User Disabled Compound Report

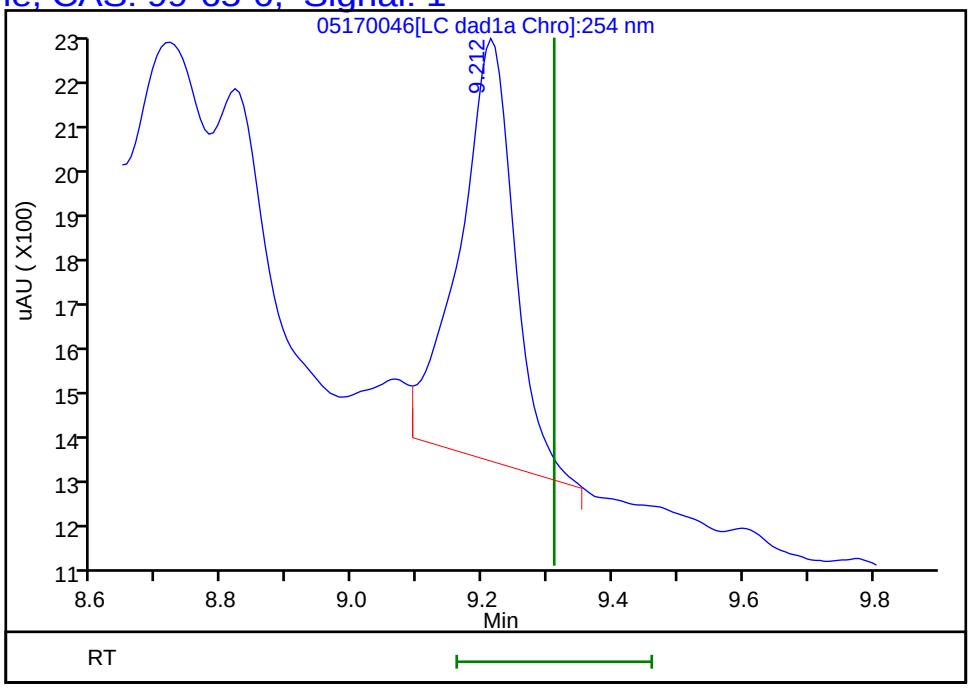
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170046.d
Injection Date: 18-May-2024 04:24:03 Instrument ID: CHHPLC_X3
Lims ID: 280-191098-A-7-A RE Lab Sample ID: 280-191098-7
Client ID: LL3mw-247-240401-GW
Operator ID: JZ ALS Bottle#: 46 Worklist Smp#: 46
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 9.21
Response: 5226
Amount: 0.017453



Reviewer: LV5D, 18-May-2024 10:46:42
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

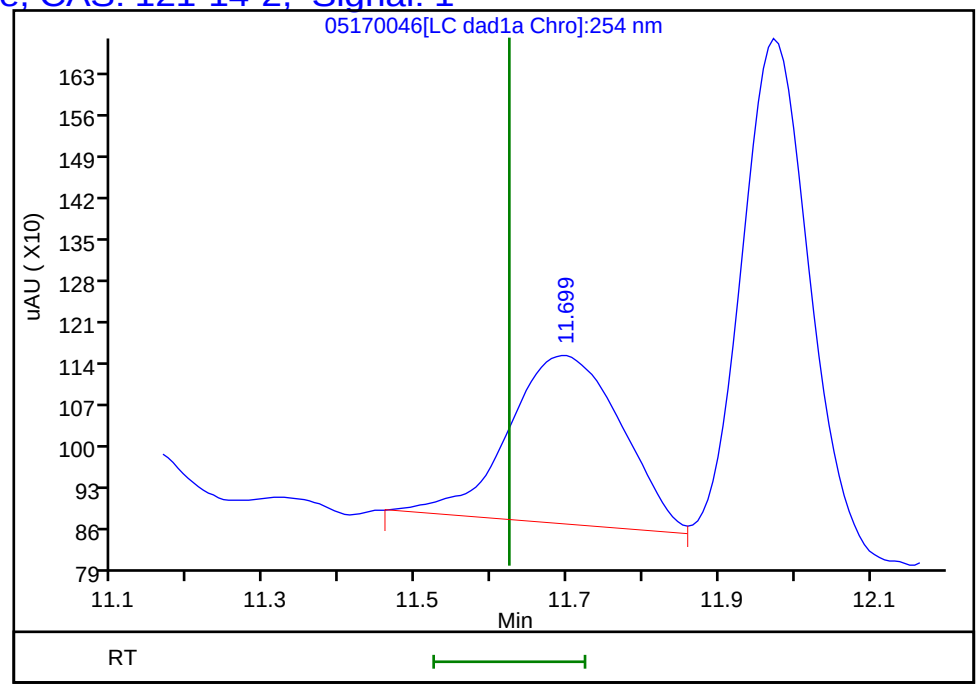
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170046.d				
Injection Date:	18-May-2024 04:24:03	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-A-7-A RE	Lab Sample ID:	280-191098-7		
Client ID:	LL3mw-247-240401-GW				
Operator ID:	JZ	ALS Bottle#:	46	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2, Signal: 1

RT: 11.70
Response: 2998
Amount: 0.010273



Reviewer: LV5D, 18-May-2024 10:46:42
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

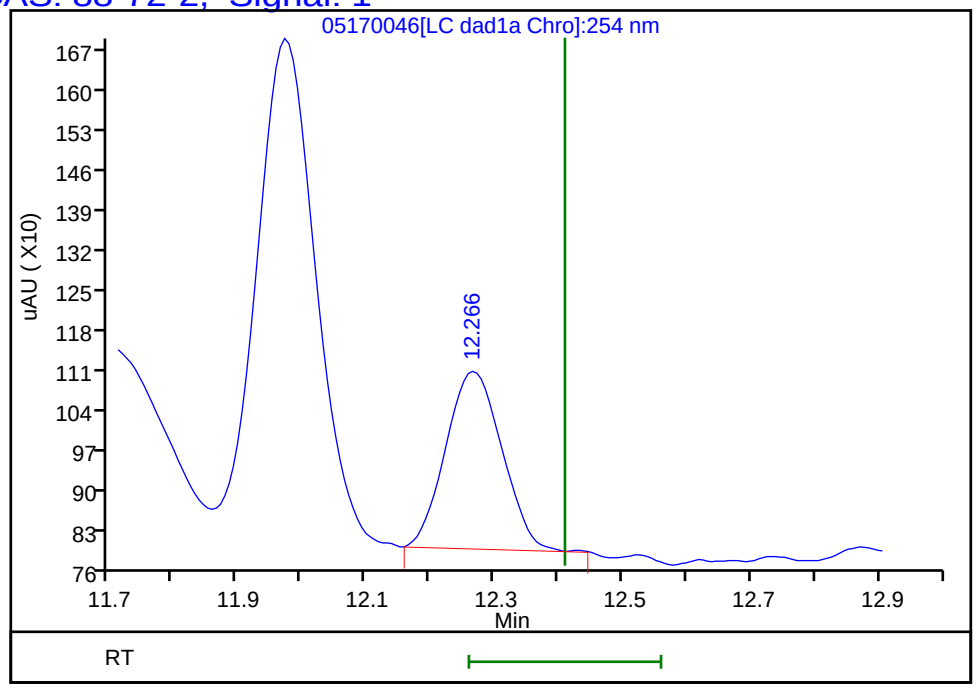
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170046.d				
Injection Date:	18-May-2024 04:24:03	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-A-7-A RE	Lab Sample ID:	280-191098-7		
Client ID:	LL3mw-247-240401-GW				
Operator ID:	JZ	ALS Bottle#:	46	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

22 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 12.27
Response: 1892
Amount: 0.014632



Reviewer: LV5D, 18-May-2024 10:46:42
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

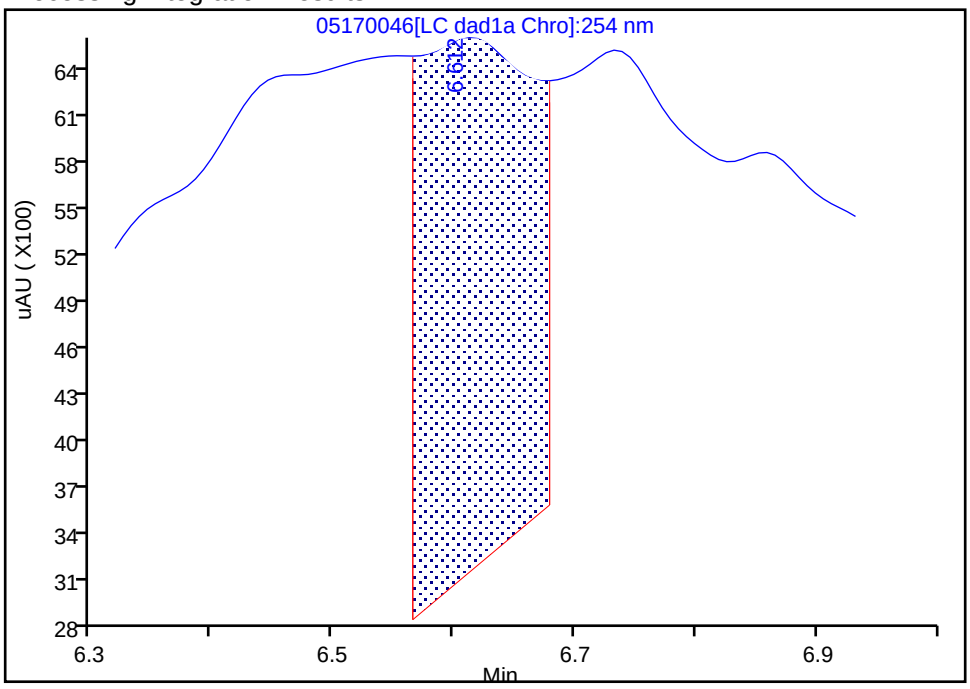
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170046.d				
Injection Date:	18-May-2024 04:24:03	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-A-7-A RE	Lab Sample ID:	280-191098-7		
Client ID:	LL3mw-247-240401-GW				
Operator ID:	JZ	ALS Bottle#:	46	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

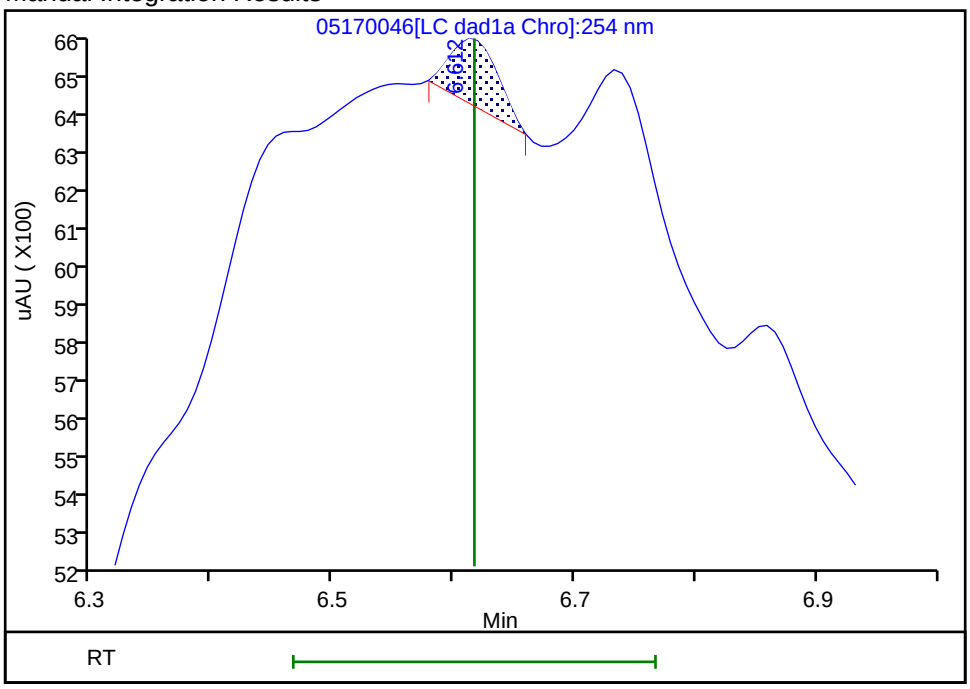
Processing Integration Results

RT: 6.61
Area: 22150
Amount: 0.231831
Amount Units: ug/mL



Manual Integration Results

RT: 6.61
Area: 458
Amount: 0.004794
Amount Units: ug/mL



Reviewer: LV5D, 18-May-2024 10:46:35 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: LL3mw-248-240401-GW | Lab Sample ID: 280-191098-8

Matrix: Water | Lab File ID: 05010035.D

Analysis Method: 8330B | Date Collected: 05/06/2024 16:07

Extraction Method: 3535 | Date Extracted: 05/10/2024 10:58

Sample wt/vol: 465.7(mL) | Date Analyzed: 05/11/2024 17:57

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653063 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-65-0	1,3-Dinitrobenzene	0.11	U Q	0.12	0.11	0.040
606-20-2	2,6-Dinitrotoluene	0.086	U Q	0.11	0.086	0.043
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U Q	0.12	0.11	0.054
88-72-2	2-Nitrotoluene	0.21	U Q	0.23	0.21	0.092
99-08-1	3-Nitrotoluene	0.38	U Q	0.43	0.38	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U Q	0.16	0.13	0.062
99-99-0	4-Nitrotoluene	0.43	U M Q	0.44	0.43	0.11
2691-41-0	HMX	0.21	U M Q	0.23	0.21	0.094
98-95-3	Nitrobenzene	0.21	U Q	0.23	0.21	0.098
55-63-0	Nitroglycerin	2.1	U Q	2.3	2.1	0.99
78-11-5	PETN	1.1	U Q	1.2	1.1	0.48
121-82-4	RDX	1.6	Q J1	0.23	0.21	0.055
479-45-8	Tetryl	0.11	U Q	0.12	0.11	0.034

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	71	M Q	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\05010035.D
Lims ID: 280-191098-A-8-A
Client ID: LL3mw-248-240401-GW
Sample Type: Client
Inject. Date: 11-May-2024 17:57:24 ALS Bottle#: 35 Worklist Smp#: 35
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-A-8-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 14-May-2024 14:09:25 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 14-May-2024 12:47:53

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	4 HMX	1		6.611			ND	U
	8 RDX	1	7.646	7.631	0.015	16085	0.1452	
$	10 1,2-Dinitrobenzene	1	8.553	8.565	-0.012	18819	0.1423	M
	11 1,3,5-Trinitrobenzene	1	8.706	8.705	0.001	2490	0.0112	M
	12 1,3-Dinitrobenzene	1		9.318			ND	7
	13 Nitrobenzene	1		9.671			ND	
	15 Tetryl	1		9.991			ND	
	16 Nitroglycerin	2		10.458			ND	
	17 2,4,6-Trinitrotoluene	1	10.873	10.891	-0.018	1449	0.006734	
	18 4-Amino-2,6-dinitrotoluene	1		11.064			ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.318			ND	
	20 2,6-Dinitrotoluene	1		11.464			ND	
	21 2,4-Dinitrotoluene	1	11.673	11.638	0.035	6992	0.0240	
	22 o-Nitrotoluene	1		12.418			ND	7
	23 p-Nitrotoluene	1		12.831			ND	U
	24 m-Nitrotoluene	1		13.371			ND	
	25 PETN	2		14.418			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

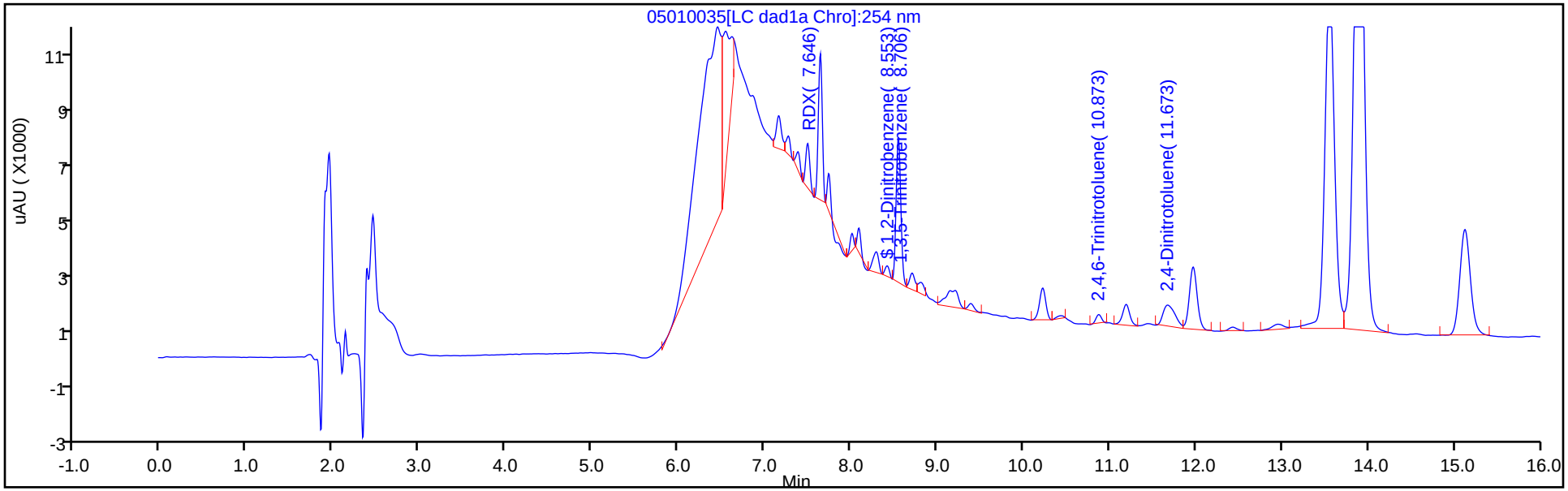
Report Date: 14-May-2024 14:09:33 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

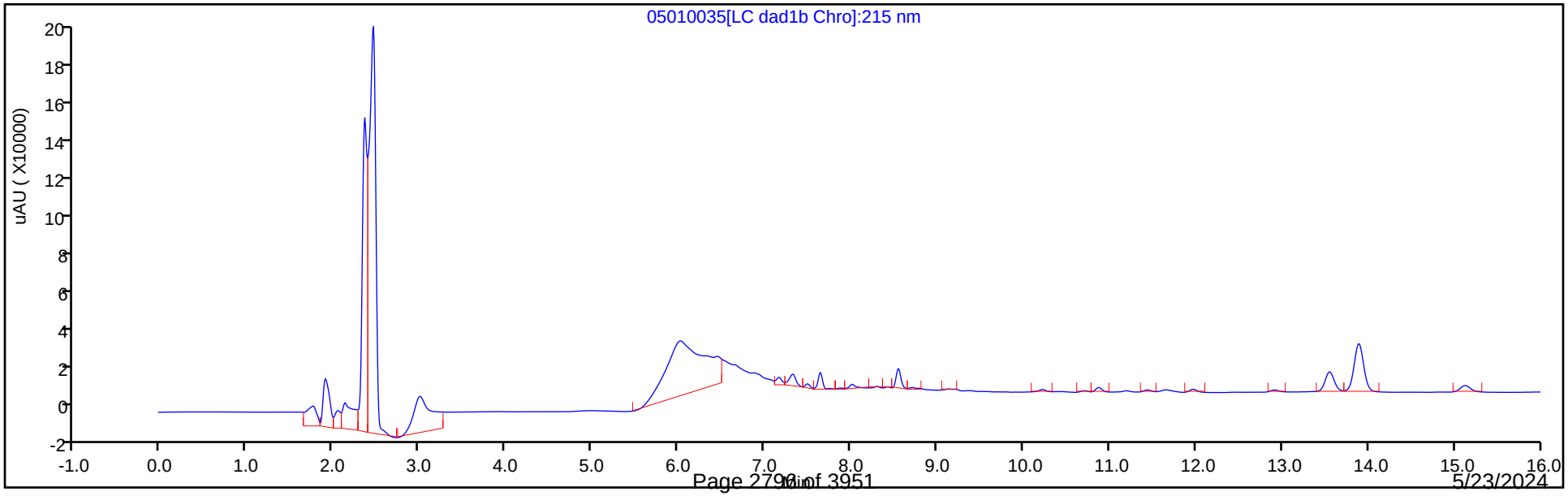
Data File: \\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010035.d

Injection Date:	11-May-2024 17:57:24	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191098-A-8-A	Lab Sample ID:	280-191098-8	Worklist Smp#:	35
Client ID:	LL3mw-248-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	35
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\05010035.D				
Lims ID:	280-191098-A-8-A				
Client ID:	LL3mw-248-240401-GW				
Sample Type:	Client				
Inject. Date:	11-May-2024 17:57:24	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-A-8-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	14-May-2024 14:09:25	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1620				

First Level Reviewer: LV5D Date: 14-May-2024 12:47:53

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1423	71.13

Manual Integration/User Assign Peak Report

Eurofins Denver

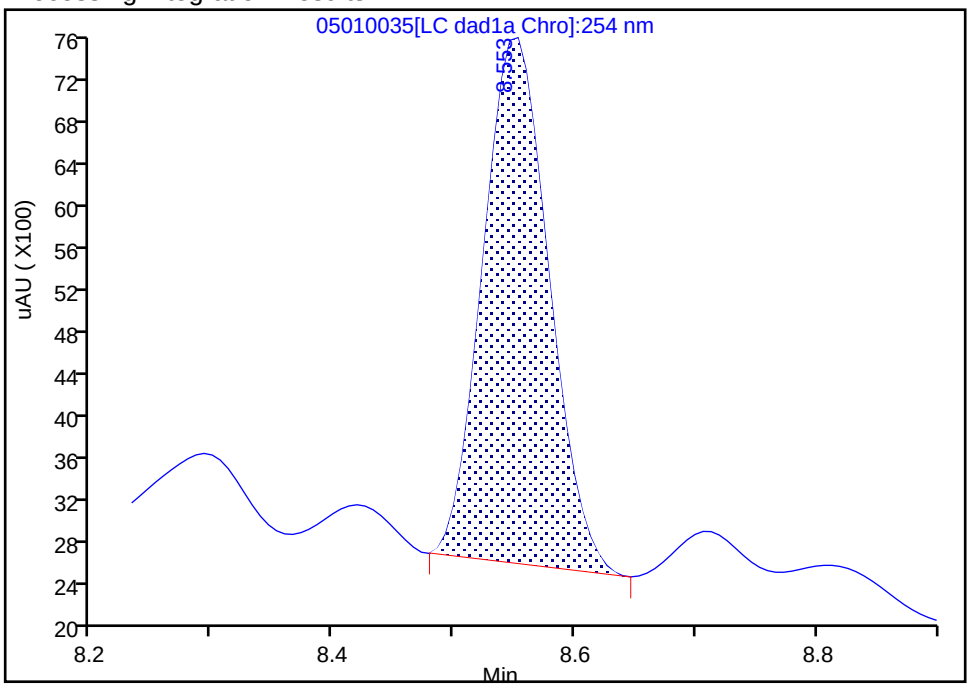
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010035.d				
Injection Date:	11-May-2024 17:57:24	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-A-8-A	Lab Sample ID:	280-191098-8		
Client ID:	LL3mw-248-240401-GW				
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

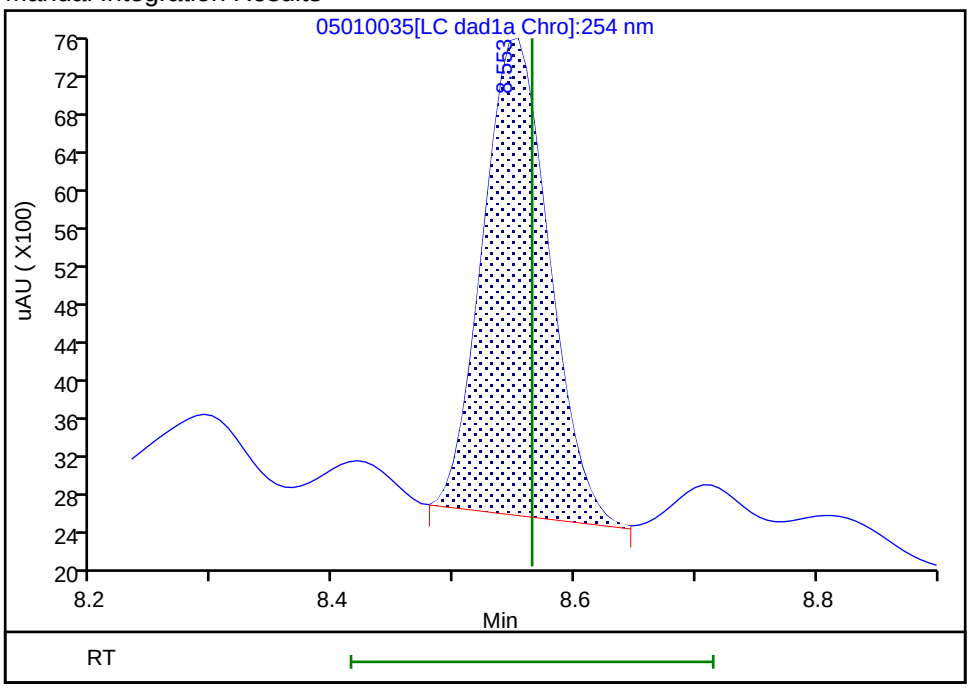
Processing Integration Results

RT: 8.55
Area: 18639
Amount: 0.140888
Amount Units: ug/mL



Manual Integration Results

RT: 8.55
Area: 18819
Amount: 0.142256
Amount Units: ug/mL



Reviewer: LV5D, 14-May-2024 12:47:49 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

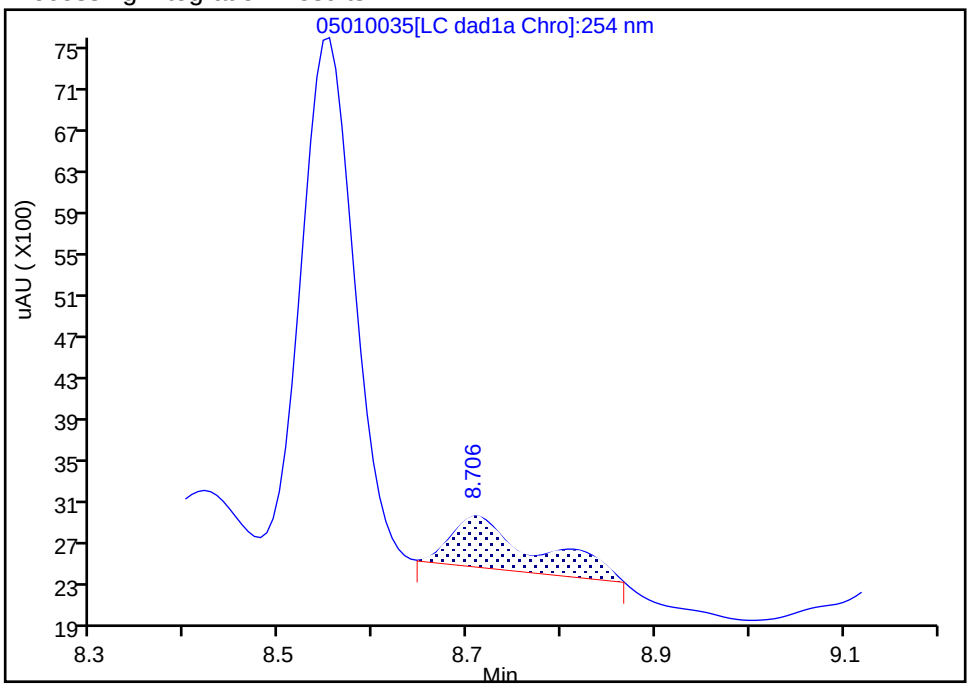
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010035.d				
Injection Date:	11-May-2024 17:57:24	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-A-8-A	Lab Sample ID:	280-191098-8		
Client ID:	LL3mw-248-240401-GW				
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

11 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

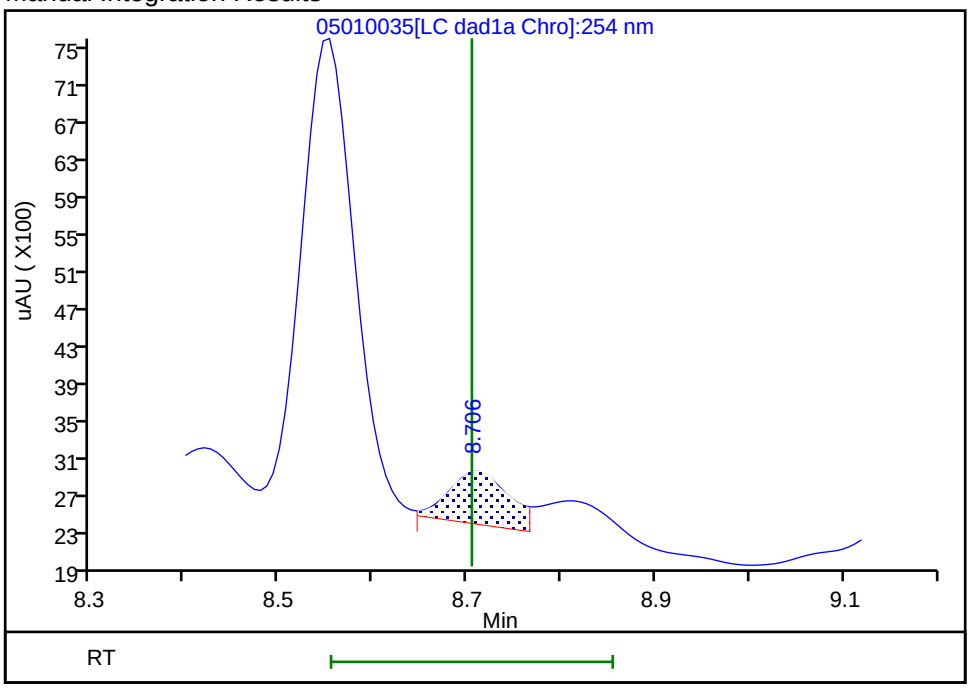
Processing Integration Results

RT: 8.71
Area: 3059
Amount: 0.013727
Amount Units: ug/mL



Manual Integration Results

RT: 8.71
Area: 2490
Amount: 0.011173
Amount Units: ug/mL



Reviewer: LV5D, 14-May-2024 12:47:52 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

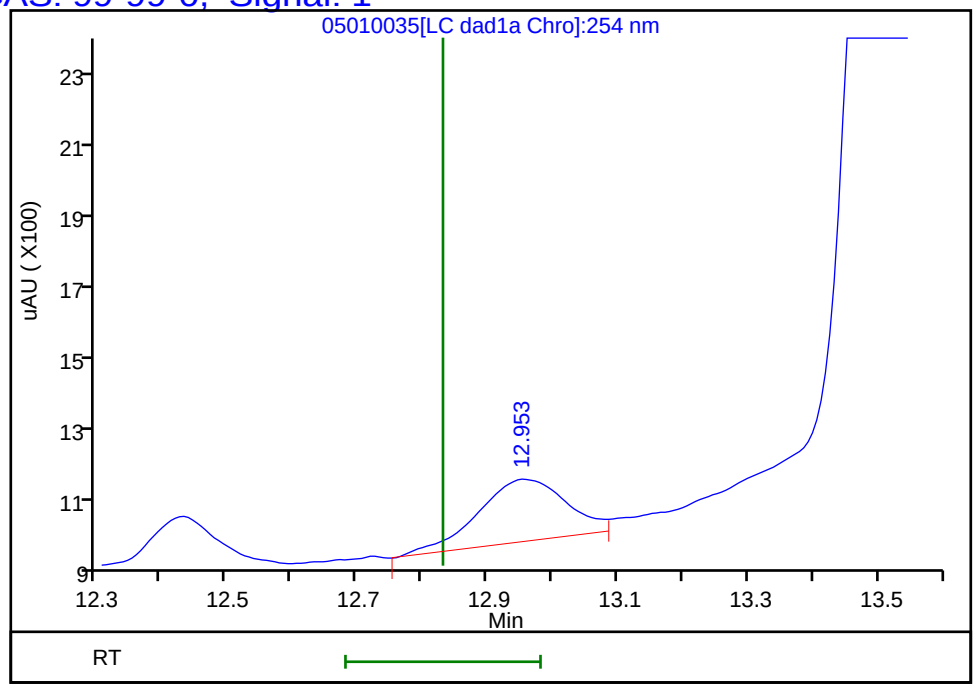
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010035.d				
Injection Date:	11-May-2024 17:57:24	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-A-8-A	Lab Sample ID:	280-191098-8		
Client ID:	LL3mw-248-240401-GW				
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

23 p-Nitrotoluene, CAS: 99-99-0, Signal: 1

RT: 12.95
Response: 1585
Amount: 0.014052



Reviewer: LV5D, 14-May-2024 12:47:53
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

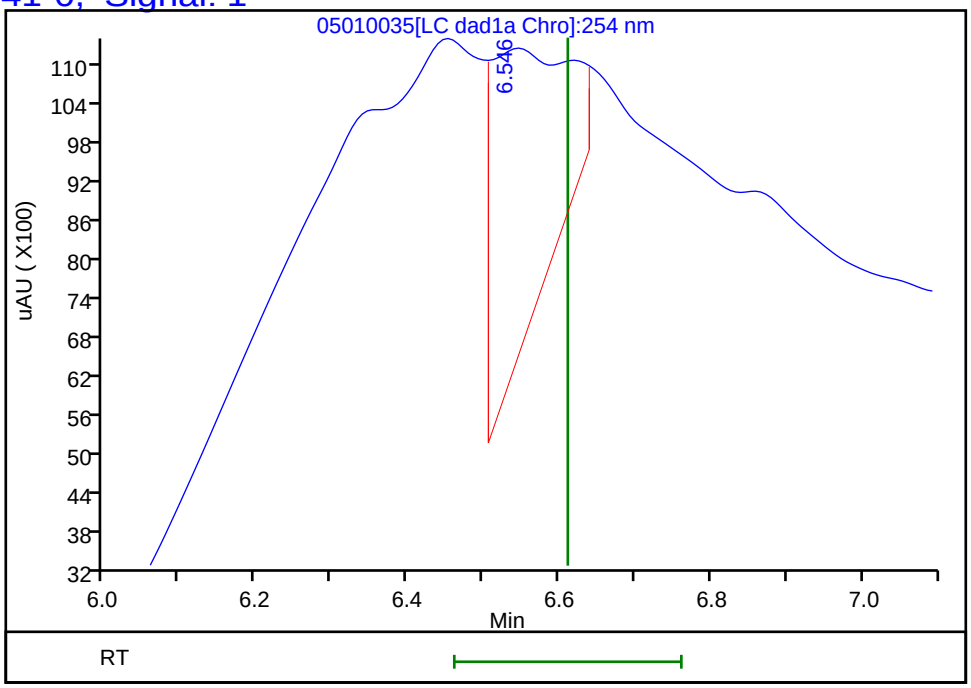
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010035.d				
Injection Date:	11-May-2024 17:57:24	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-A-8-A	Lab Sample ID:	280-191098-8		
Client ID:	LL3mw-248-240401-GW				
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.55
Response: 29085
Amount: 0.304416



Reviewer: LV5D, 14-May-2024 12:47:53
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: LL3mw-248-240401-GW | Lab Sample ID: 280-191098-8

Matrix: Water | Lab File ID: 05110017.D

Analysis Method: 8330B | Date Collected: 05/06/2024 16:07

Extraction Method: 3535 | Date Extracted: 05/10/2024 10:58

Sample wt/vol: 465.7(mL) | Date Analyzed: 05/11/2024 22:07

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653069 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U Q	0.23	0.21	0.090
118-96-7	2,4,6-Trinitrotoluene	0.11	U Q	0.12	0.11	0.048
121-14-2	2,4-Dinitrotoluene	0.086	U Q	0.11	0.086	0.029
121-82-4	*RDX*	*0.24*	*Q B M J1*	*0.23*	0.21	*0.055*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	74	*Q*	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110017.D
Lims ID: 280-191098-A-8-A
Client ID: LL3mw-248-240401-GW
Sample Type: Client
Inject. Date: 11-May-2024 22:07:04 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-A-8-A
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-May-2024 18:12:14 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 14-May-2024 18:08:31

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	5 HMX	1		6.631			ND	
	8 RDX	1	8.732	8.664	0.068	4706	0.0220	M
	9 Nitrobenzene	1		11.317			ND	U
$	10 1,2-Dinitrobenzene	1	12.285	12.311	-0.026	39118	0.1481	
	12 1,3-Dinitrobenzene	1		14.517			ND	
	13 Nitroglycerin	2		14.751			ND	
	14 o-Nitrotoluene	1	15.392	15.431	-0.039	207319	0.8381	
	16 p-Nitrotoluene	1		15.691			ND	
	17 4-Amino-2,6-dinitrotoluene	1		16.144			ND	
	18 m-Nitrotoluene	1		16.544			ND	
	19 2-Amino-4,6-dinitrotoluene	1	16.945	17.017	-0.072	25389	0.0613	
	20 1,3,5-Trinitrobenzene	1		17.464			ND	
	21 2,6-Dinitrotoluene	1		18.424			ND	
	22 2,4-Dinitrotoluene	1		18.911			ND	
	23 Tetryl	1		22.211			ND	
	24 2,4,6-Trinitrotoluene	1		23.191			ND	
	25 PETN	2		24.164			ND	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

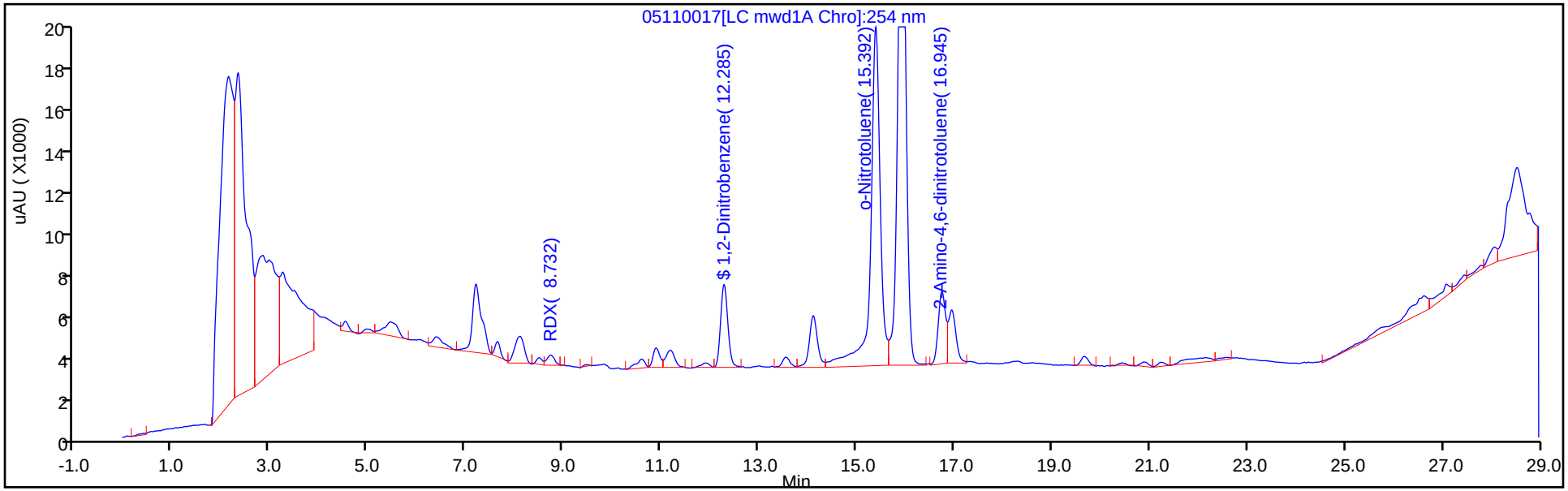
Report Date: 14-May-2024 18:12:33 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

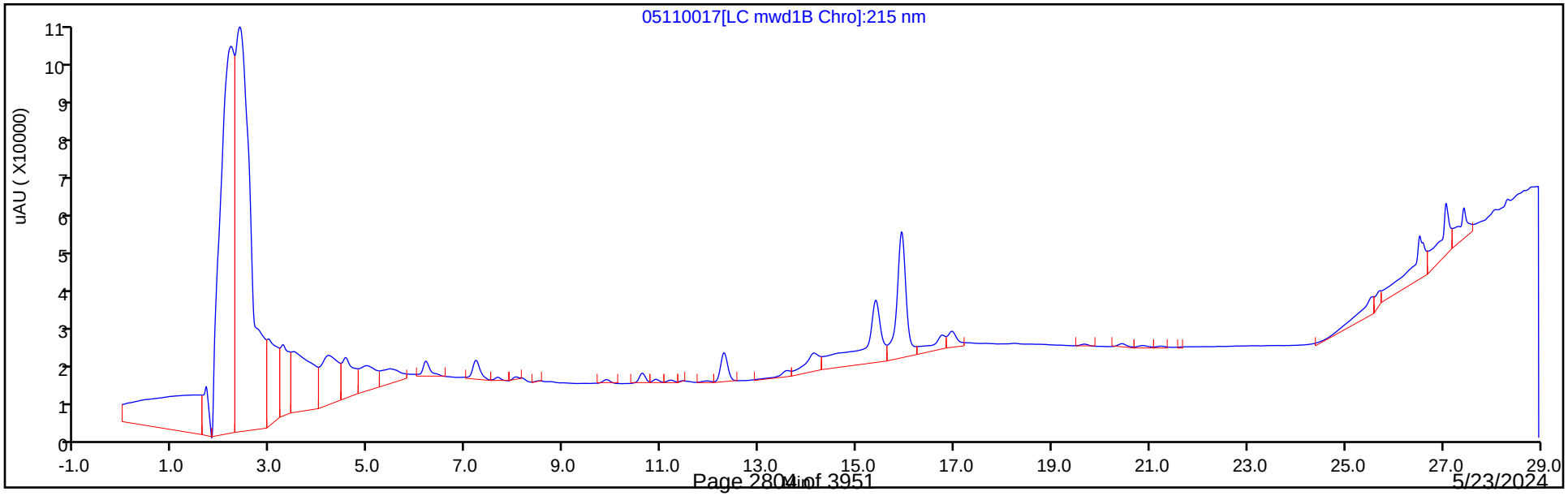
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110017.D

Injection Date:	11-May-2024 22:07:04	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-191098-A-8-A	Lab Sample ID:	280-191098-8	Worklist Smp#:	17
Client ID:	LL3mw-248-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110017.D				
Lims ID:	280-191098-A-8-A				
Client ID:	LL3mw-248-240401-GW				
Sample Type:	Client				
Inject. Date:	11-May-2024 22:07:04	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-A-8-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	14-May-2024 18:12:14	Calib Date:	28-Mar-2024 05:53:05		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1620				

First Level Reviewer: LV5D Date: 14-May-2024 18:08:31

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1481	74.04

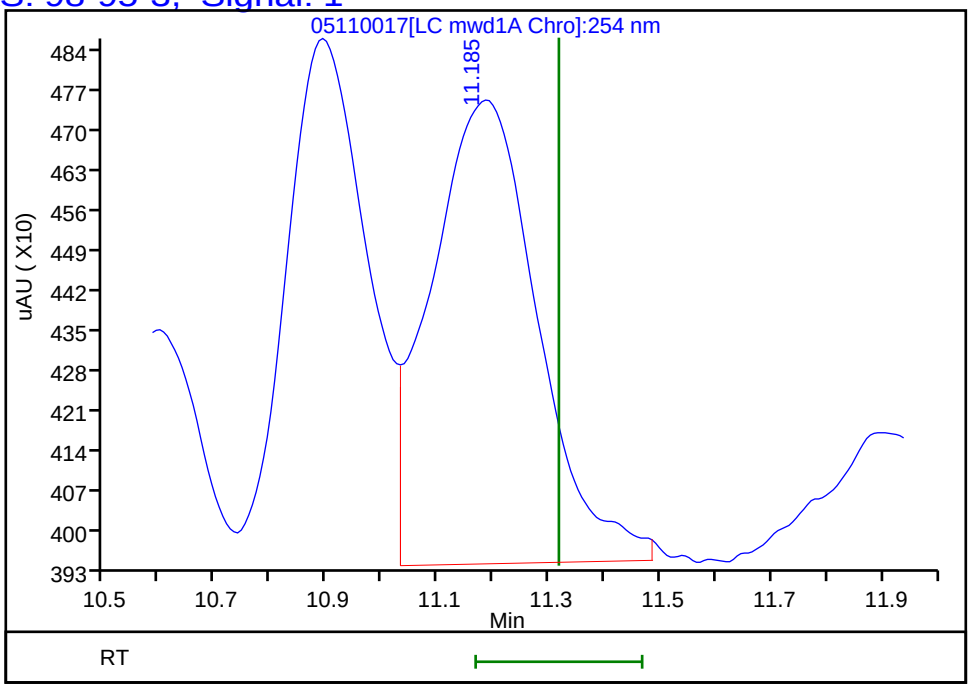
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110017.D				
Injection Date:	11-May-2024 22:07:04	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191098-A-8-A	Lab Sample ID:	280-191098-8		
Client ID:	LL3mw-248-240401-GW				
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

9 Nitrobenzene, CAS: 98-95-3, Signal: 1

RT: 11.19
Response: 10743
Amount: 0.028440



Reviewer: LV5D, 14-May-2024 18:08:31
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

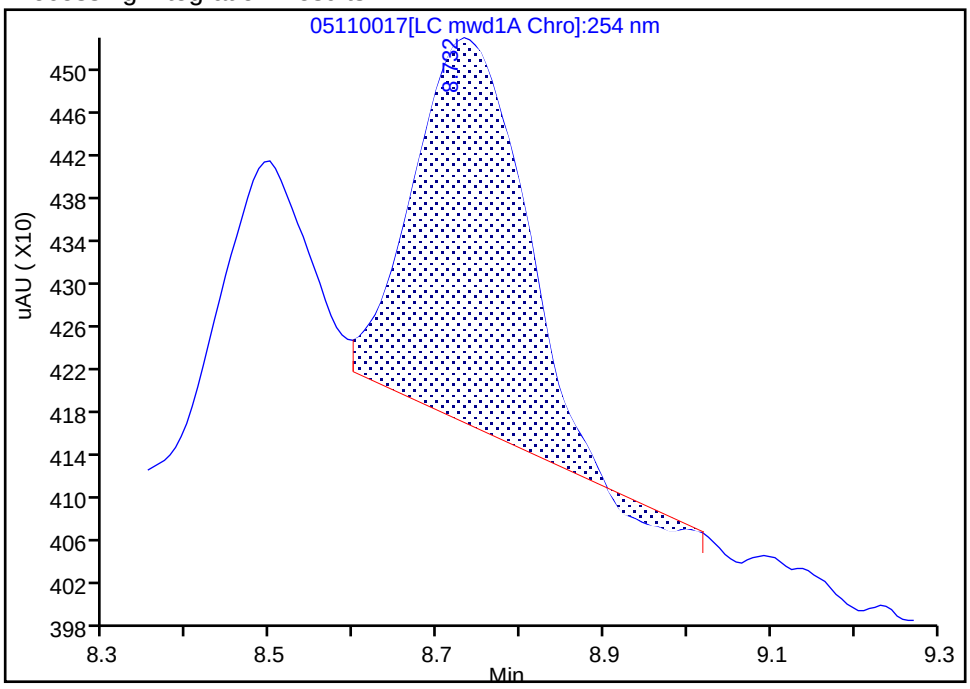
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110017.D				
Injection Date:	11-May-2024 22:07:04	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191098-A-8-A	Lab Sample ID:	280-191098-8		
Client ID:	LL3mw-248-240401-GW				
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

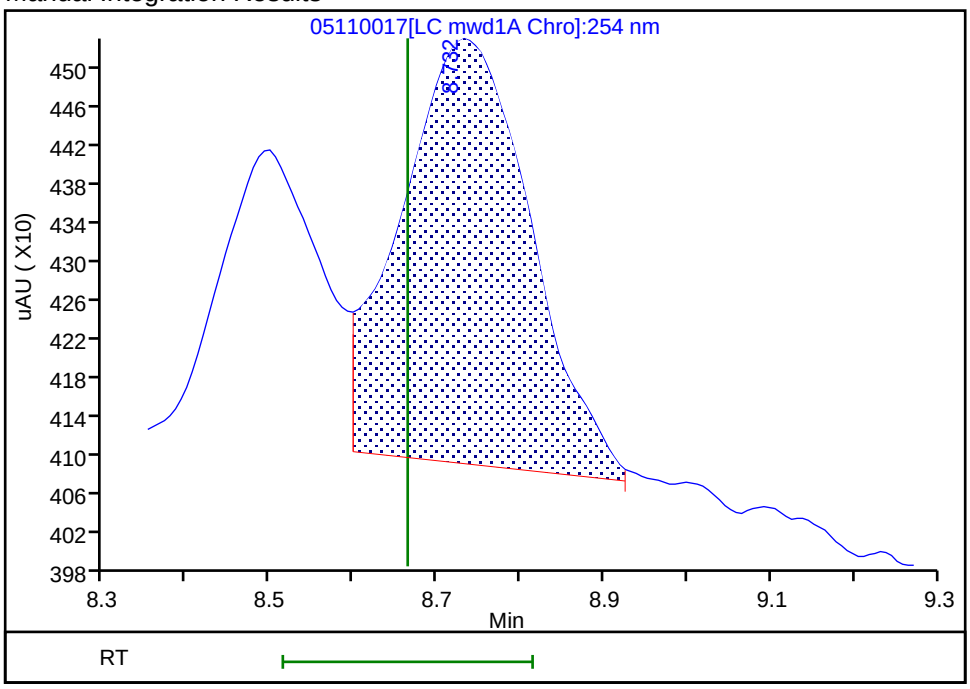
Processing Integration Results

RT: 8.73
Area: 3484
Amount: 0.016311
Amount Units: ug/ml



Manual Integration Results

RT: 8.73
Area: 4706
Amount: 0.022032
Amount Units: ug/ml



Reviewer: LV5D, 14-May-2024 18:08:30 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: LL3mw-248-240401-GW RE | Lab Sample ID: 280-191098-8 RE

Matrix: Water | Lab File ID: 05170017.D

Analysis Method: 8330B | Date Collected: 05/06/2024 16:07

Extraction Method: 3535 | Date Extracted: 05/17/2024 13:10

Sample wt/vol: 451.4(mL) | Date Analyzed: 05/17/2024 22:29

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653873 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	*HMX*	*0.22*	*U H*	*0.23*	0.22	*0.097*
121-82-4	*RDX*	*0.22*	*U M H*	*0.23*	0.22	*0.057*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	94		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170017.D
Lims ID: 280-191098-B-8-A RE
Client ID: LL3mw-248-240401-GW
Sample Type: Client
Inject. Date: 17-May-2024 22:29:32 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-B-8-A
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 18-May-2024 16:46:59 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1674

First Level Reviewer: LV5D Date: 18-May-2024 16:39:36

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 HMX	1		6.664			ND	
8 RDX	1		8.697			ND	U
9 Nitrobenzene	1		11.364			ND	U
$ 10 1,2-Dinitrobenzene	1	12.352	12.351	0.001	49756	0.1884	
12 1,3-Dinitrobenzene	1		14.571			ND	U
13 Nitroglycerin	2		14.784			ND	U
14 o-Nitrotoluene	1	15.452	15.477	-0.025	115775	0.4681	
16 p-Nitrotoluene	1		15.737			ND	
17 4-Amino-2,6-dinitrotoluene	1		16.197			ND	
18 m-Nitrotoluene	1		16.591			ND	
19 2-Amino-4,6-dinitrotoluene	1	17.005	17.071	-0.066	19196	0.0457	
20 1,3,5-Trinitrobenzene	1		17.524			ND	
21 2,6-Dinitrotoluene	1		18.491			ND	
22 2,4-Dinitrotoluene	1		18.977			ND	
23 Tetryl	1		22.277			ND	
24 2,4,6-Trinitrotoluene	1		23.257			ND	
25 PETN	2		24.191			ND	

QC Flag Legend

Processing Flags
Review Flags
U - Marked Undetected

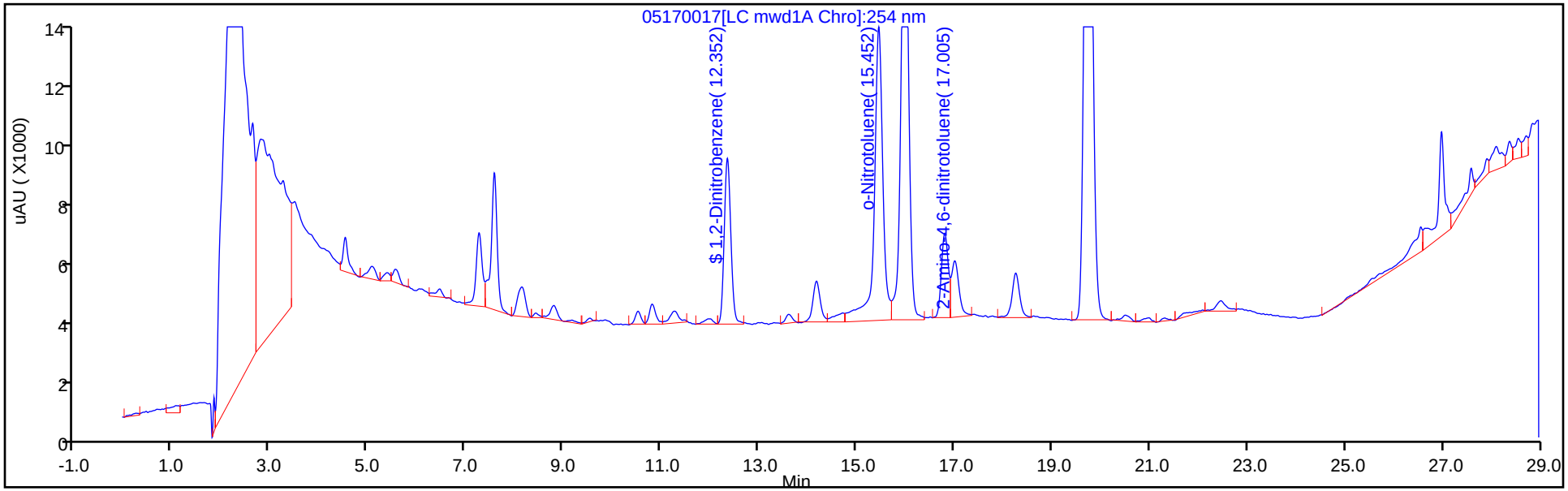
Report Date: 18-May-2024 16:47:02 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

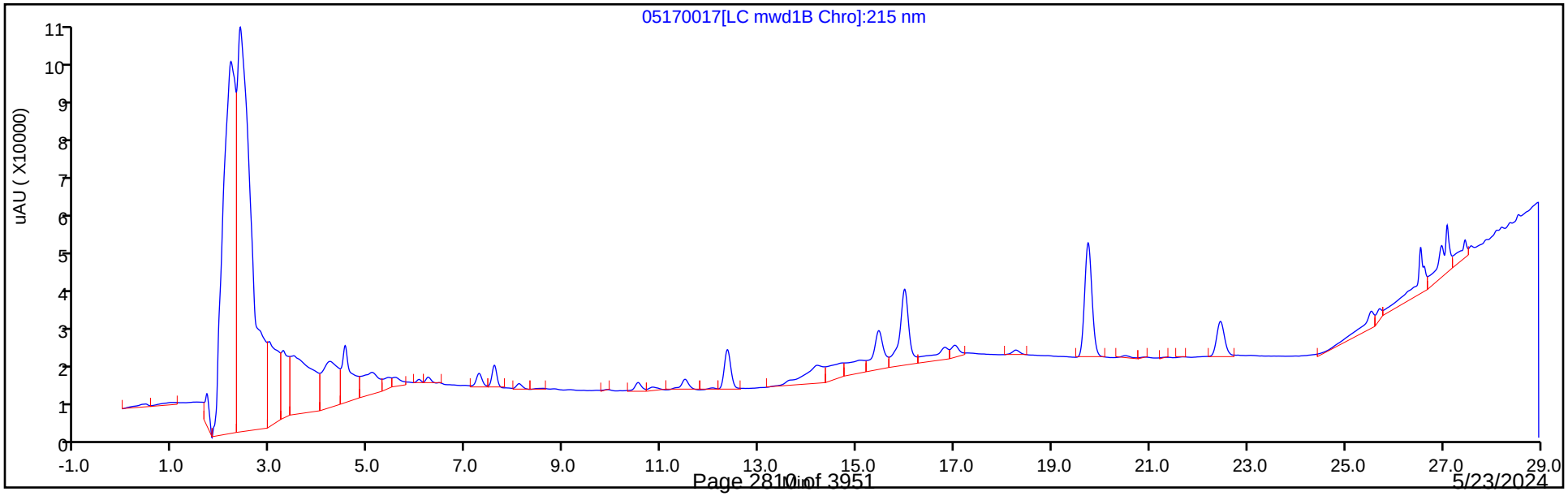
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170017.D

Injection Date:	17-May-2024 22:29:32	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-191098-B-8-A RE	Lab Sample ID:	280-191098-8	Worklist Smp#:	17
Client ID:	LL3mw-248-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170017.D				
Lims ID:	280-191098-B-8-A RE				
Client ID:	LL3mw-248-240401-GW				
Sample Type:	Client				
Inject. Date:	17-May-2024 22:29:32	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-B-8-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	18-May-2024 16:46:59	Calib Date:	28-Mar-2024 05:53:05		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1674				
First Level Reviewer: LV5D		Date:	18-May-2024 16:39:36		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1884	94.18

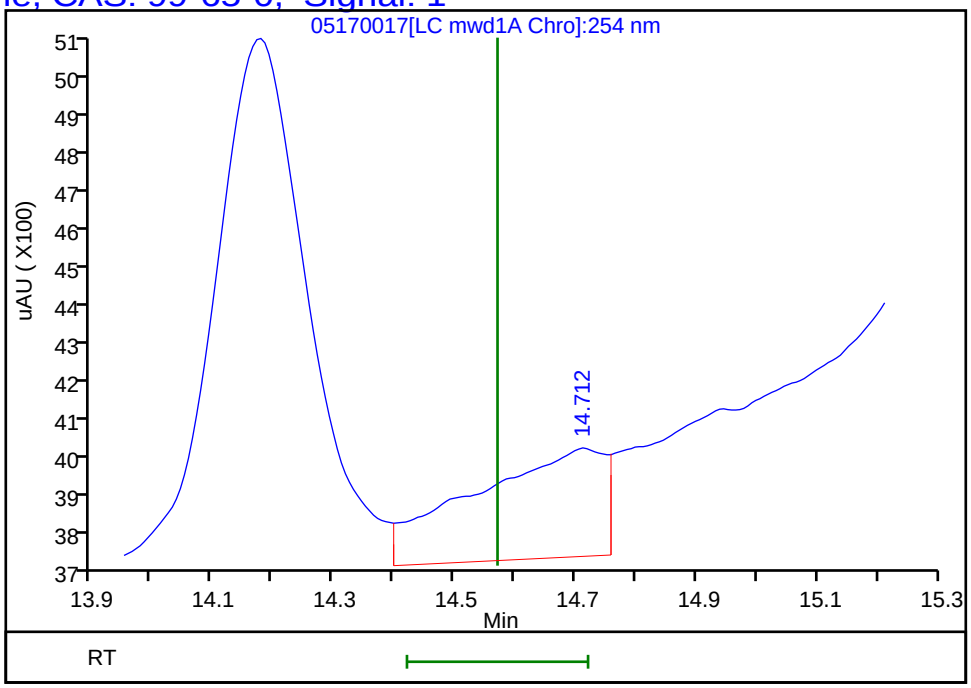
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170017.D				
Injection Date:	17-May-2024 22:29:32	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191098-B-8-A RE	Lab Sample ID:	280-191098-8		
Client ID:	LL3mw-248-240401-GW				
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 14.71
Response: 4126
Amount: 0.006895



Reviewer: LV5D, 18-May-2024 16:39:36
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

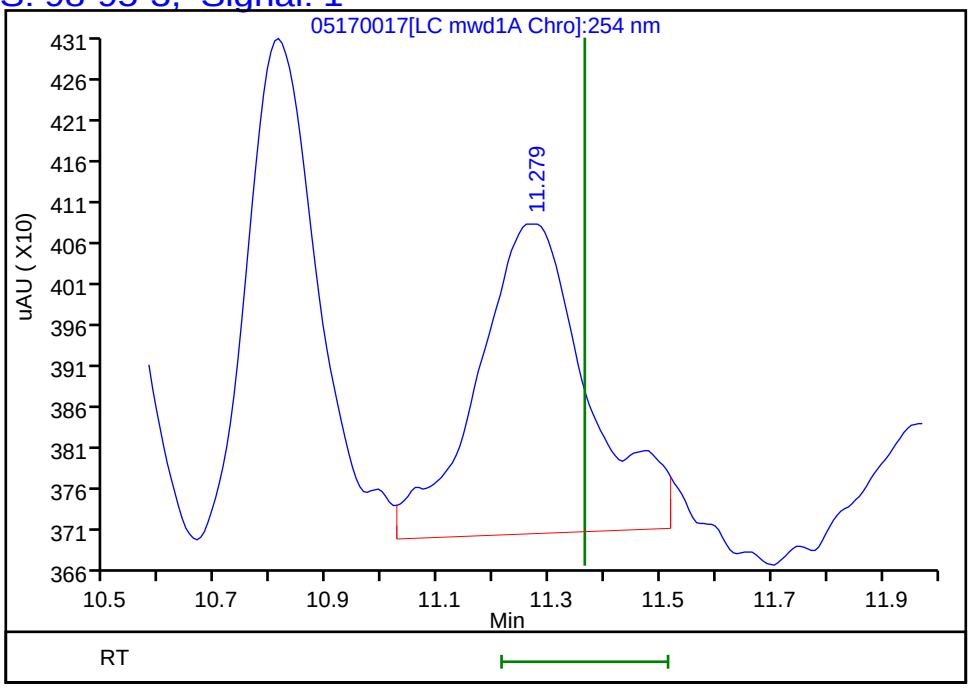
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170017.D				
Injection Date:	17-May-2024 22:29:32	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191098-B-8-A RE	Lab Sample ID:	280-191098-8		
Client ID:	LL3mw-248-240401-GW				
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

9 Nitrobenzene, CAS: 98-95-3, Signal: 1

RT: 11.28
Response: 5188
Amount: 0.013734



Reviewer: LV5D, 18-May-2024 16:39:36
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

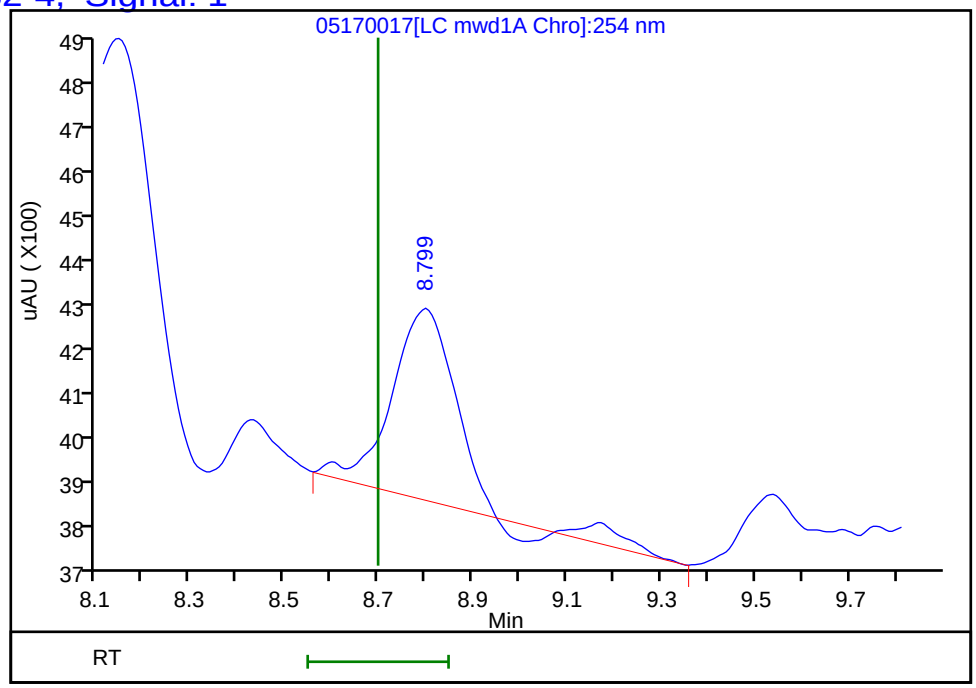
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170017.D				
Injection Date:	17-May-2024 22:29:32	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191098-B-8-A RE	Lab Sample ID:	280-191098-8		
Client ID:	LL3mw-248-240401-GW				
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

8 RDX, CAS: 121-82-4, Signal: 1

RT: 8.80
Response: 4755
Amount: 0.022262



Reviewer: LV5D, 18-May-2024 16:39:36
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: LL3mw-248-240401-GW RE | Lab Sample ID: 280-191098-8 RE

Matrix: Water | Lab File ID: 05170047.D

Analysis Method: 8330B | Date Collected: 05/06/2024 16:07

Extraction Method: 3535 | Date Extracted: 05/17/2024 13:10

Sample wt/vol: 451.4(mL) | Date Analyzed: 05/18/2024 04:46

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653871 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	*1,3,5-Trinitrobenzene*	*0.22*	*U M H*	*0.23*	0.22	*0.093*
99-65-0	*1,3-Dinitrobenzene*	*0.11*	*U M H*	*0.12*	0.11	*0.041*
118-96-7	*2,4,6-Trinitrotoluene*	*0.11*	*U H*	*0.12*	0.11	*0.050*
121-14-2	*2,4-Dinitrotoluene*	*0.089*	*U M H*	*0.11*	0.089	*0.030*
606-20-2	*2,6-Dinitrotoluene*	*0.089*	*U H*	*0.11*	0.089	*0.044*
35572-78-2	*2-Amino-4,6-dinitrotoluene*	*0.11*	*U H*	*0.12*	0.11	*0.056*
88-72-2	*2-Nitrotoluene*	*0.22*	*U M H*	*0.23*	0.22	*0.095*
99-08-1	*3-Nitrotoluene*	*0.39*	*U H*	*0.44*	0.39	*0.22*
19406-51-0	*4-Amino-2,6-dinitrotoluene*	*0.13*	*U H*	*0.17*	0.13	*0.064*
99-99-0	*4-Nitrotoluene*	*0.44*	*U H*	*0.45*	0.44	*0.11*
98-95-3	*Nitrobenzene*	*0.22*	*U H*	*0.23*	0.22	*0.10*
55-63-0	*Nitroglycerin*	*2.2*	*U H*	*2.3*	2.2	*1.0*
78-11-5	*PETN*	*1.1*	*U H*	*1.2*	1.1	*0.50*
479-45-8	*Tetryl*	*0.11*	*U H*	*0.12*	0.11	*0.035*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	92		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\05170047.D
Lims ID: 280-191098-B-8-A RE
Client ID: LL3mw-248-240401-GW
Sample Type: Client
Inject. Date: 18-May-2024 04:46:57 ALS Bottle#: 47 Worklist Smp#: 47
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191098-B-8-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-May-2024 10:51:45 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1674

First Level Reviewer: LV5D Date: 18-May-2024 10:47:04

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1	6.618	6.617	0.001	861	0.009012	M
8 RDX	1	7.651	7.630	0.021	13376	0.1208	
$ 10 1,2-Dinitrobenzene	1	8.558	8.557	0.001	24293	0.1838	
11 1,3,5-Trinitrobenzene	1		8.697			ND	U
12 1,3-Dinitrobenzene	1		9.310			ND	U
13 Nitrobenzene	1		9.670			ND	
15 Tetryl	1		9.983			ND	7
16 Nitroglycerin	2		10.457			ND	
17 2,4,6-Trinitrotoluene	1		10.883			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.043			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.297			ND	
20 2,6-Dinitrotoluene	1		11.450			ND	
21 2,4-Dinitrotoluene	1		11.623			ND	U
22 o-Nitrotoluene	1		12.410			ND	U
23 p-Nitrotoluene	1		12.823			ND	7
24 m-Nitrotoluene	1		13.370			ND	
25 PETN	2		14.437			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

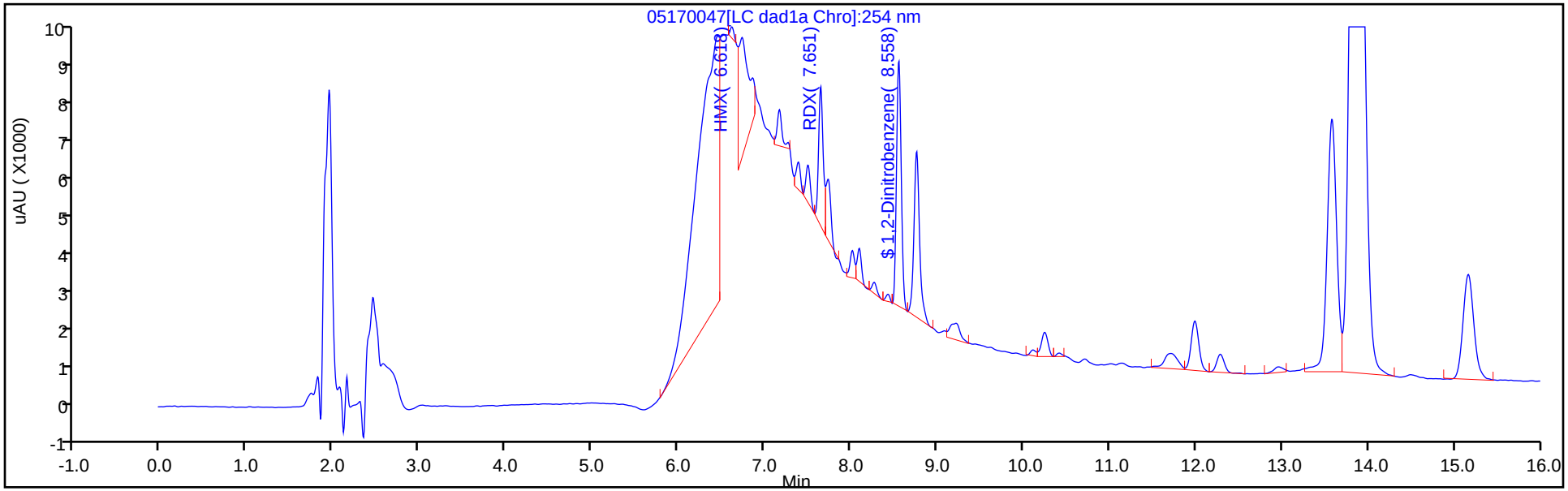
Report Date: 18-May-2024 10:51:51 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

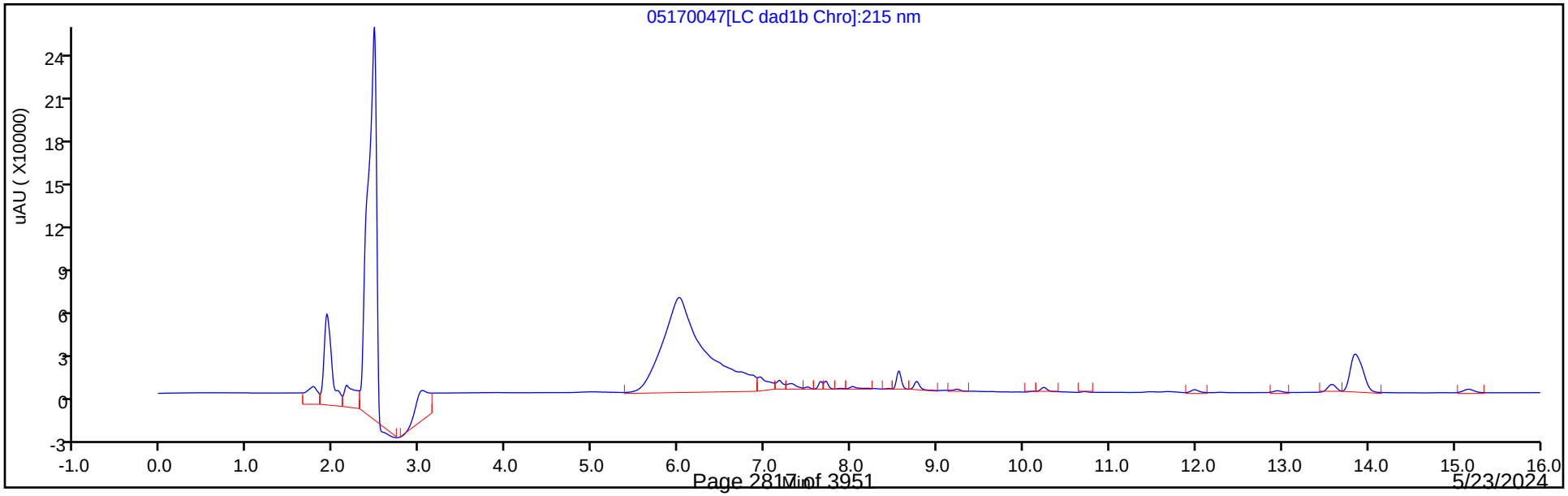
Data File: \\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170047.d

Injection Date:	18-May-2024 04:46:57	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191098-B-8-A RE	Lab Sample ID:	280-191098-8	Worklist Smp#:	47
Client ID:	LL3mw-248-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	47
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\05170047.D				
Lims ID:	280-191098-B-8-A RE				
Client ID:	LL3mw-248-240401-GW				
Sample Type:	Client				
Inject. Date:	18-May-2024 04:46:57	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-B-8-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	18-May-2024 10:51:45	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1674				

First Level Reviewer: LV5D Date: 18-May-2024 10:47:04

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1838	91.92

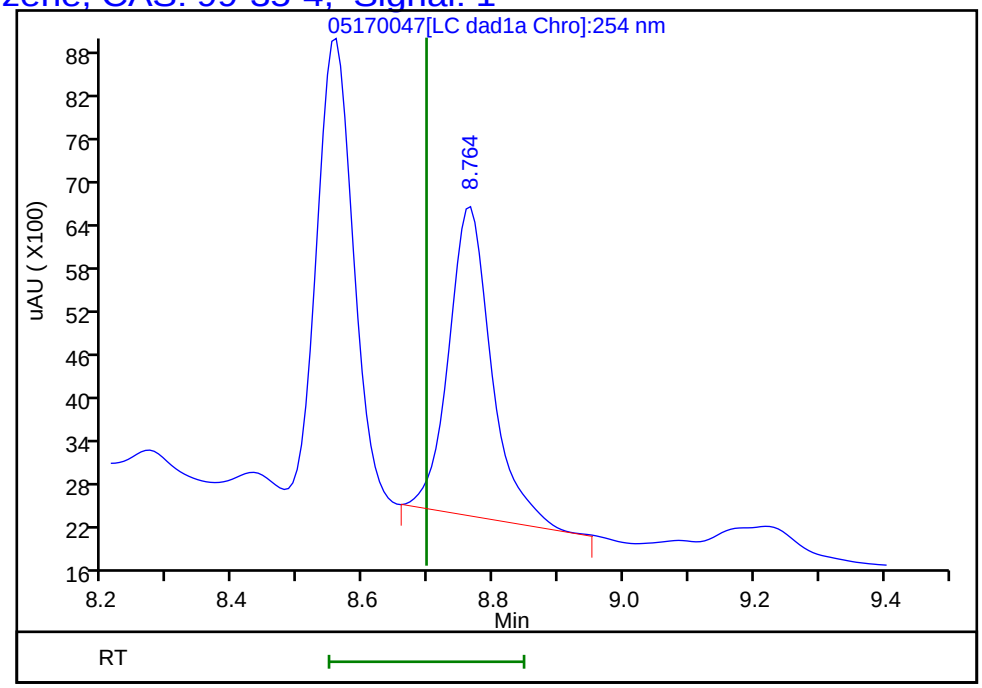
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170047.d				
Injection Date:	18-May-2024 04:46:57	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-B-8-A RE	Lab Sample ID:	280-191098-8		
Client ID:	LL3mw-248-240401-GW				
Operator ID:	JZ	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

11 1,3,5-Trinitrobenzene, CAS: 99-35-4, Signal: 1

RT: 8.76
Response: 19669
Amount: 0.088260



Reviewer: LV5D, 18-May-2024 10:47:04
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

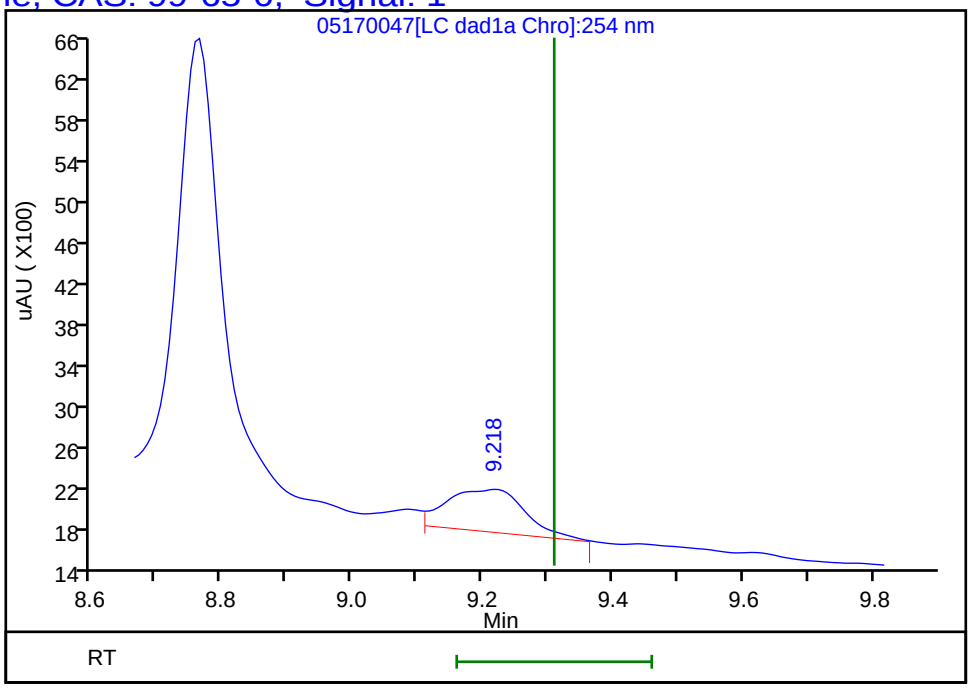
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170047.d
Injection Date: 18-May-2024 04:46:57 Instrument ID: CHHPLC_X3
Lims ID: 280-191098-B-8-A RE Lab Sample ID: 280-191098-8
Client ID: LL3mw-248-240401-GW
Operator ID: JZ ALS Bottle#: 47 Worklist Smp#: 47
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 9.22
Response: 3412
Amount: 0.011395



Reviewer: LV5D, 18-May-2024 10:47:04
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

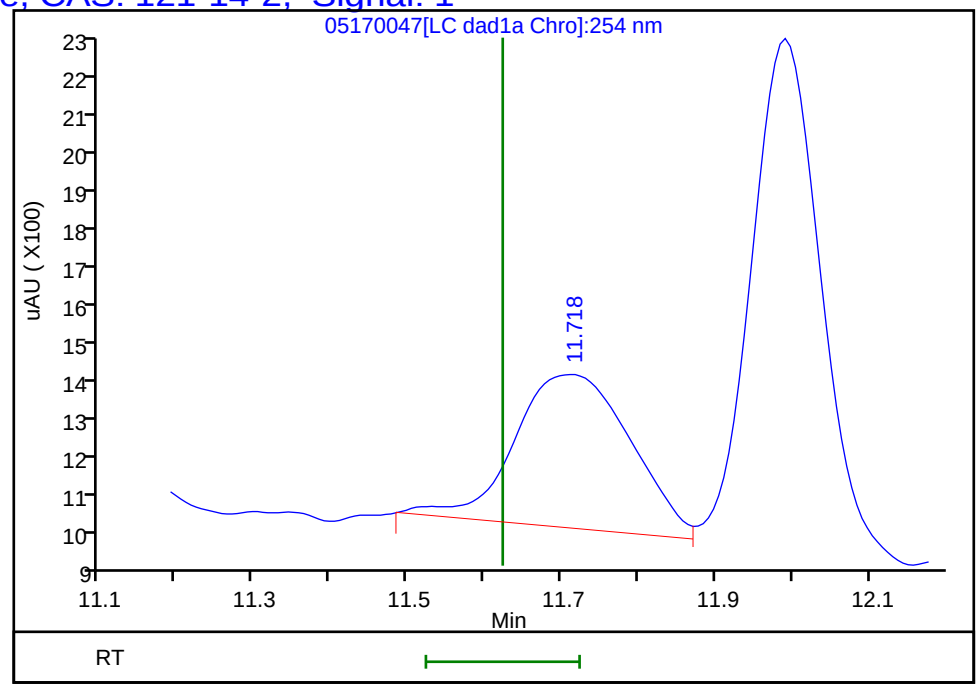
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170047.d
Injection Date: 18-May-2024 04:46:57 Instrument ID: CHHPLC_X3
Lims ID: 280-191098-B-8-A RE Lab Sample ID: 280-191098-8
Client ID: LL3mw-248-240401-GW
Operator ID: JZ ALS Bottle#: 47 Worklist Smp#: 47
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

21 2,4-Dinitrotoluene, CAS: 121-14-2, Signal: 1

RT: 11.72
Response: 4028
Amount: 0.013802



Reviewer: LV5D, 18-May-2024 10:47:04
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

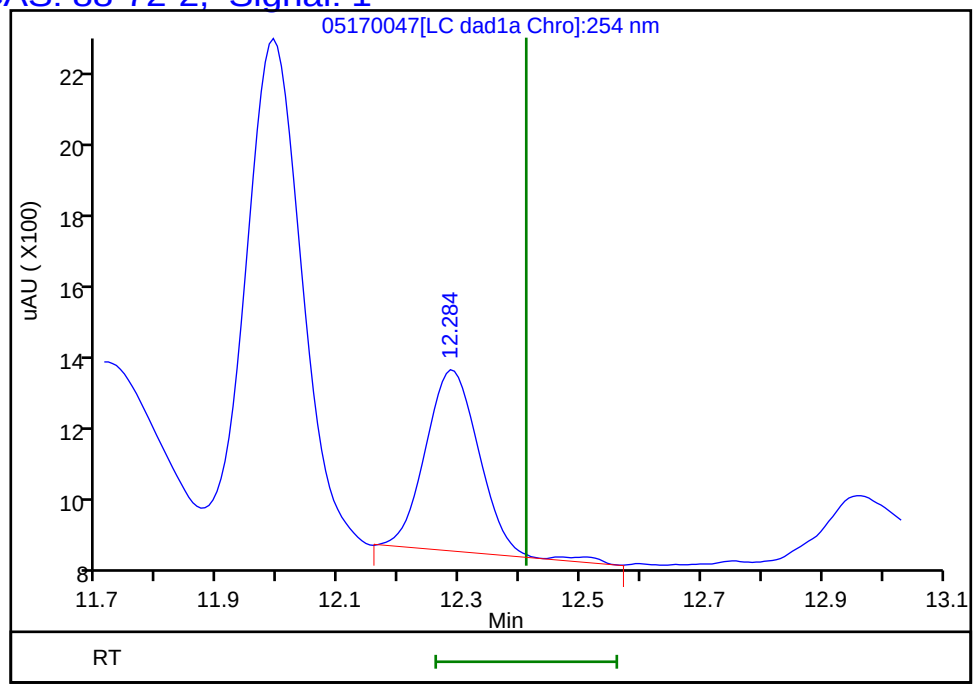
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170047.d				
Injection Date:	18-May-2024 04:46:57	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-B-8-A RE	Lab Sample ID:	280-191098-8		
Client ID:	LL3mw-248-240401-GW				
Operator ID:	JZ	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

22 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 12.28
Response: 2929
Amount: 0.022652



Reviewer: LV5D, 18-May-2024 10:47:04
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

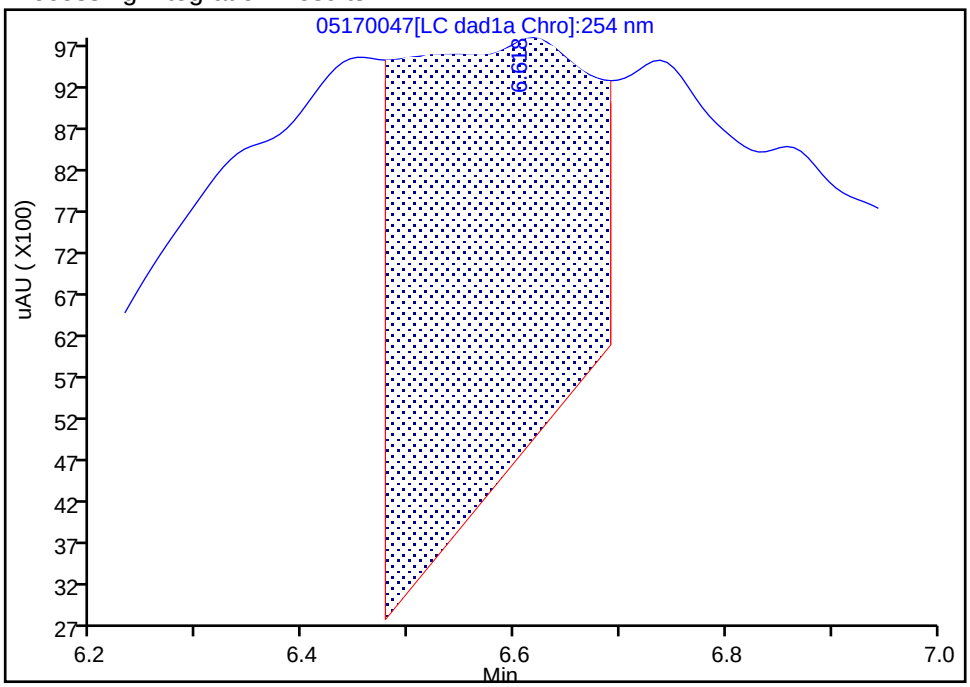
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170047.d				
Injection Date:	18-May-2024 04:46:57	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191098-B-8-A RE	Lab Sample ID:	280-191098-8		
Client ID:	LL3mw-248-240401-GW				
Operator ID:	JZ	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

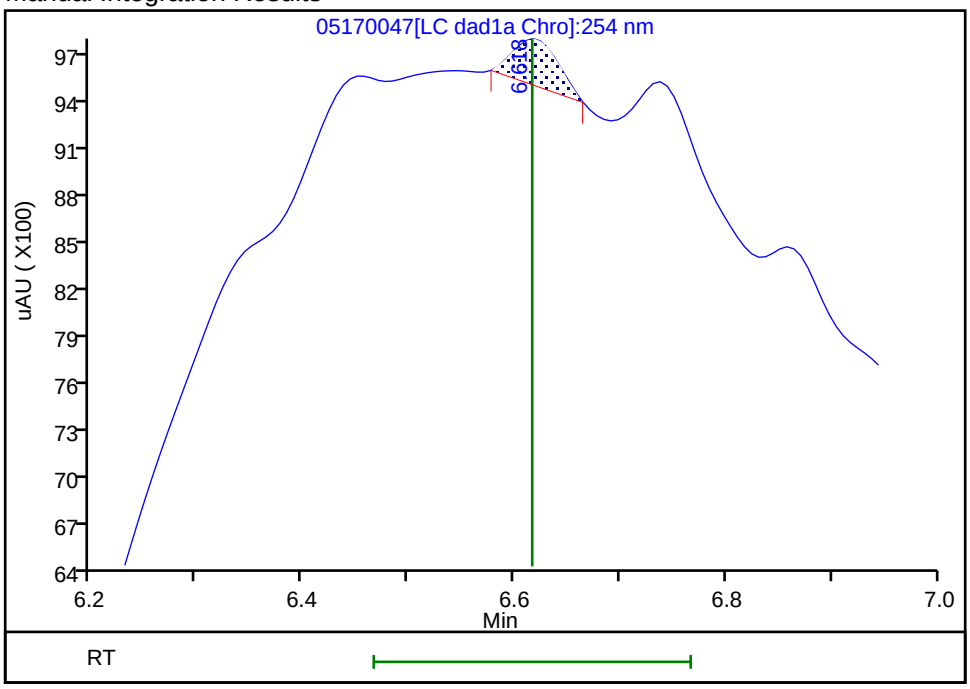
Processing Integration Results

RT: 6.62
Area: 65867
Amount: 0.689391
Amount Units: ug/mL



Manual Integration Results

RT: 6.62
Area: 861
Amount: 0.009012
Amount Units: ug/mL



Reviewer: LV5D, 18-May-2024 10:47:00 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 649950

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5u ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 | Calibration End Date: 04/17/2024 23:41 | Calibration ID: 92320

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-649950/19	04170019.D
Level 2	IC 280-649950/18	04170018.D
Level 3	IC 280-649950/17	04170017.D
Level 4	IC 280-649950/16	04170016.D
Level 5	IC 280-649950/15	04170015.D
Level 6	IC 280-649950/14	04170014.D
Level 7	IC 280-649950/13	04170013.D
Level 8	IC 280-649950/12	04170012.D
Level 9	IC 280-649950/11	04170011.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
TNX	6.480	6.475	6.478	6.476	6.476	6.479	6.476	6.474	6.469		6.376 - 6.576	6.476
HMX	6.580	6.582	6.578	6.583	6.582	6.586	6.582	6.581	6.575		6.433 - 6.733	6.581
DNX	6.786	6.788	6.784	6.789	6.789	6.786	6.789	6.788	6.782		6.689 - 6.889	6.787
MNX	7.206	7.202	7.204	7.203	7.209	7.206	7.202	7.208	7.195		7.053 - 7.353	7.204
RDX	7.580	7.582	7.584	7.583	7.582	7.586	7.582	7.581	7.575		7.433 - 7.733	7.582
Picric acid	7.820	7.822	7.818	7.816	7.809	7.806	7.789	7.781	7.742		7.666 - 7.966	7.800
1,3,5-Trinitrobenzene	8.660	8.655	8.658	8.656	8.656	8.659	8.656	8.654	8.649		8.506 - 8.806	8.656
1,3-Dinitrobenzene	9.273	9.275	9.277	9.276	9.276	9.279	9.276	9.274	9.262		9.126 - 9.426	9.274
Nitrobenzene	9.633	9.635	9.631	9.636	9.636	9.639	9.629	9.634	9.622		9.486 - 9.786	9.633
3,5-Dinitroaniline	9.873	9.868	9.871	9.876	9.876	9.872	9.869	9.868	9.855		9.726 - 10.026	9.870
Tetryl	9.953	9.955	9.957	9.963	9.962	9.959	9.956	9.954	9.948		9.813 - 10.113	9.956
Nitroglycerin	10.426	10.422	10.424	10.429	10.429	10.432	10.422	10.421	10.415		10.279 - 10.579	10.424
2,4,6-Trinitrotoluene	10.866	10.862	10.864	10.869	10.869	10.872	10.862	10.868	10.862		10.769 - 10.969	10.866
4-Amino-2,6-dinitrotoluene	11.046	11.042	11.044	11.049	11.049	11.052	11.042	11.041	11.035		10.949 - 11.149	11.044
2-Amino-4,6-dinitrotoluene	11.306	11.302	11.304	11.309	11.309	11.306	11.302	11.301	11.288		11.209 - 11.409	11.303
2,6-Dinitrotoluene	11.453	11.448	11.451	11.449	11.456	11.452	11.449	11.448	11.442		11.349 - 11.549	11.450
2,4-Dinitrotoluene	11.626	11.622	11.624	11.629	11.629	11.632	11.622	11.621	11.615		11.529 - 11.729	11.624
2-Nitrotoluene	12.419	12.415	12.424	12.423	12.422	12.426	12.416	12.421	12.408		12.273 - 12.573	12.419
4-Nitrotoluene	12.853	12.842	12.844	12.843	12.842	12.846	12.842	12.841	12.835		12.693 - 12.993	12.843
3-Nitrotoluene	13.399	13.395	13.404	13.403	13.402	13.406	13.396	13.394	13.388		13.253 - 13.553	13.399
PETN	14.486	14.482	14.491	14.483	14.489	14.492	14.482	14.481	14.482		14.333 - 14.633	14.485
1,2-Dinitrobenzene	8.520	8.522	8.518	8.516	8.522	8.519	8.516	8.521	8.509		8.366 - 8.666	8.518

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 649950

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 Calibration End Date: 04/17/2024 23:41 Calibration ID: 92320

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-649950/19	04170019.D
Level 2	IC 280-649950/18	04170018.D
Level 3	IC 280-649950/17	04170017.D
Level 4	IC 280-649950/16	04170016.D
Level 5	IC 280-649950/15	04170015.D
Level 6	IC 280-649950/14	04170014.D
Level 7	IC 280-649950/13	04170013.D
Level 8	IC 280-649950/12	04170012.D
Level 9	IC 280-649950/11	04170011.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
TNX	204283 196151 203061	200349 196188	191793 201100	199263 198742	Ave		198992.097				1.9		20.0			
HMX	91900 94332 96305	100850 95253	90720 96297	96450 97787	Ave		95543.7159				3.2		20.0			
DNX	151297 147194 150909	141866 146460	144870 148038	148044 146659	Ave		147259.613				2.0		20.0			
MNX	141061 136630 140394	127930 137960	134936 138920	135218 137235	Ave		136698.122				2.9		20.0			
RDX	118700 107376 107690	116700 106868	112240 106959	111620 108752	Ave		110767.075				4.0		20.0			
Picric acid	78700 78992 82062	76200 79110	76940 79906	80160 81861	Ave		79325.6794				2.5		20.0			
1,3,5-Trinitrobenzene	254900 216292 219181	217450 215905	225160 215779	221290 219723	Ave		222853.263				5.6		20.0			
1,3-Dinitrobenzene	308600 296760 301472	283900 297843	300460 298746	303590 303550	Ave		299435.579				2.3		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 649950

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 Calibration End Date: 04/17/2024 23:41 Calibration ID: 92320

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Nitrobenzene	198500 190564 198214	196600 193678	195180 195570	200350 198305	Ave		196328.944				1.5		20.0			
3,5-Dinitroaniline	197100 219364 223150	208550 215118	215620 219330	226510 219396	Lin2	-237.27823	221006.739							1.0000		0.9900
Tetryl	183500 180328 183105	168700 185315	180200 181964	182380 188801	Ave		181588.165				3.0		20.0			
Nitroglycerin	60480 66994 66784	59815 66731	71314 66745	71367 67945	Ave		66463.8886				6.1		20.0			
2,4,6-Trinitrotoluene	208100 214372 215788	220000 213738	213380 214716	219120 217516	Ave		215192.179				1.7		20.0			
4-Amino-2,6-dinitrotoluene	140600 147324 149438	163050 147888	150660 147166	153440 149965	Ave		149947.846				4.0		20.0			
2-Amino-4,6-dinitrotoluene	195100 199804 204593	199850 197140	198460 200077	200330 202927	Ave		199809.038				1.4		20.0			
2,6-Dinitrotoluene	155700 143756 144234	144000 147368	145340 143629	152180 146021	Ave		146914.119				2.9		20.0			
2,4-Dinitrotoluene	299300 289256 292258	289650 288388	288500 289931	294520 294790	Ave		291843.614				1.3		20.0			
2-Nitrotoluene	134000 124092 127714	138850 125230	130520 125813	129770 127758	Ave		129305.251				3.6		20.0			
4-Nitrotoluene	124900 107484 109658	120650 107433	112620 108510	113600 110337	Ave		112799.056				5.4		20.0			
3-Nitrotoluene	171300 135808 139988	153300 136093	141480 137194	142070 139336	Ave		144063.243				8.0		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 649950

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 Calibration End Date: 04/17/2024 23:41 Calibration ID: 92320

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
PETN	78070 70756 71221	70870 70722	70432 70837	72600 71924	Ave		71936.9690				3.3		20.0			
1,2-Dinitrobenzene	144500 131148 132647	130150 132498	130420 132159	134500 134411	Lin2	93.7809842	131630.761							0.9990		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 649950

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5 ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 | Calibration End Date: 04/17/2024 23:41 | Calibration ID: 92320

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-649950/19	04170019.D
Level 2	IC 280-649950/18	04170018.D
Level 3	IC 280-649950/17	04170017.D
Level 4	IC 280-649950/16	04170016.D
Level 5	IC 280-649950/15	04170015.D
Level 6	IC 280-649950/14	04170014.D
Level 7	IC 280-649950/13	04170013.D
Level 8	IC 280-649950/12	04170012.D
Level 9	IC 280-649950/11	04170011.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
TNX	Ave	2051 78789	4023 141333	9628 199537	20006 509682	49234	0.0100 0.402	0.0201 0.703	0.0502 1.00	0.100 2.51	0.251
HMX	Ave	919 38101	2017 67408	4536 97787	9645 240762	23583	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
DNX	Ave	1516 58701	2843 103834	7258 146952	14834 378026	36872	0.0100 0.401	0.0200 0.701	0.0501 1.00	0.100 2.51	0.251
MNX	Ave	1649 64510	2991 113678	7887 160428	15807 410302	39930	0.0117 0.468	0.0234 0.818	0.0585 1.17	0.117 2.92	0.292
RDX	Ave	1187 42747	2334 74871	5612 108752	11162 269224	26844	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Picric acid	Ave	787 31644	1524 55934	3847 81861	8016 205156	19748	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3,5-Trinitrobenzene	Ave	2549 86362	4349 151045	11258 219723	22129 547952	54073	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	3086 119137	5678 209122	15023 303550	30359 753680	74190	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	1985 77471	3932 136899	9759 198305	20035 495535	47641	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3,5-Dinitroaniline	Lin2	1971 86047	4171 153531	10781 219396	22651 557874	54841	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Tetryl	Ave	1835 74126	3374 127375	9010 188801	18238 457763	45082	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitroglycerin	Ave	6048 266924	11963 467214	35657 679445	71367 1669606	167486	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2,4,6-Trinitrotoluene	Ave	2081 85495	4400 150301	10669 217516	21912 539471	53593	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Amino-2,6-dinitrotoluene	Ave	1406 59155	3261 103016	7533 149965	15344 373596	36831	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Ave	1951	3997	9923	20033	49951	0.0100	0.0200	0.0500	0.100	0.250

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 649950

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5 ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 | Calibration End Date: 04/17/2024 23:41 | Calibration ID: 92320

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
		78856	140054	202927	511483		0.400	0.700	1.00	2.50	
2,6-Dinitrotoluene	Ave	1557 58947	2880 100540	7267 146021	15218 360585	35939	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4-Dinitrotoluene	Ave	2993 115355	5793 202952	14425 294790	29452 730644	72314	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Nitrotoluene	Ave	1340 50092	2777 88069	6526 127758	12977 319286	31023	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Nitrotoluene	Ave	1249 42973	2413 75957	5631 110337	11360 274145	26871	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3-Nitrotoluene	Ave	1713 54437	3066 96036	7074 139336	14207 349971	33952	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
PETN	Ave	7807 282889	14174 495856	35216 719241	72600 1780535	176891	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Lin2	1445 52999	2603 92511	6521 134411	13450 331618	32787	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250

Curve Type Legend:
Ave = Average
Lin2 = Linear 1/conc^2

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170011.D
Lims ID: IC INT/DMT 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 17-Apr-2024 20:37:59 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 9
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-Apr-2024 11:59:21 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:12:45

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.469	6.476	-0.007	509682	2.51	2.56	M
4 HMX	1	6.575	6.583	-0.008	240762	2.50	2.52	M
6 DNX	1	6.782	6.789	-0.007	378026	2.51	2.57	M
7 MNX	1	7.195	7.203	-0.008	410302	2.92	3.00	
8 RDX	1	7.575	7.583	-0.008	269224	2.50	2.43	
9 2,4,6-Trinitrophenol	1	7.742	7.816	-0.074	205156	2.50	2.59	
$ 10 1,2-Dinitrobenzene	1	8.509	8.516	-0.007	331618	2.50	2.52	
11 1,3,5-Trinitrobenzene	1	8.649	8.656	-0.007	547952	2.50	2.46	
12 1,3-Dinitrobenzene	1	9.262	9.276	-0.014	753680	2.50	2.52	
13 Nitrobenzene	1	9.622	9.636	-0.014	495535	2.50	2.52	
14 3,5-Dinitroaniline	1	9.855	9.876	-0.021	557874	2.50	2.53	
15 Tetryl	1	9.948	9.963	-0.015	457763	2.50	2.52	
16 Nitroglycerin	2	10.415	10.429	-0.014	1669606	25.0	25.1	
17 2,4,6-Trinitrotoluene	1	10.862	10.869	-0.007	539471	2.50	2.51	
18 4-Amino-2,6-dinitrotoluene	1	11.035	11.049	-0.014	373596	2.50	2.49	
19 2-Amino-4,6-dinitrotoluene	1	11.288	11.309	-0.021	511483	2.50	2.56	
20 2,6-Dinitrotoluene	1	11.442	11.449	-0.007	360585	2.50	2.45	
21 2,4-Dinitrotoluene	1	11.615	11.629	-0.014	730644	2.50	2.50	
22 o-Nitrotoluene	1	12.408	12.423	-0.015	319286	2.50	2.47	
23 p-Nitrotoluene	1	12.835	12.843	-0.008	274145	2.50	2.43	
24 m-Nitrotoluene	1	13.388	13.403	-0.015	349971	2.50	2.43	
25 PETN	2	14.482	14.483	-0.001	1780535	25.0	24.8	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080	Amount Added: 250.00	Units: uL
8330 DMT_00016	Amount Added: 125.00	Units: uL

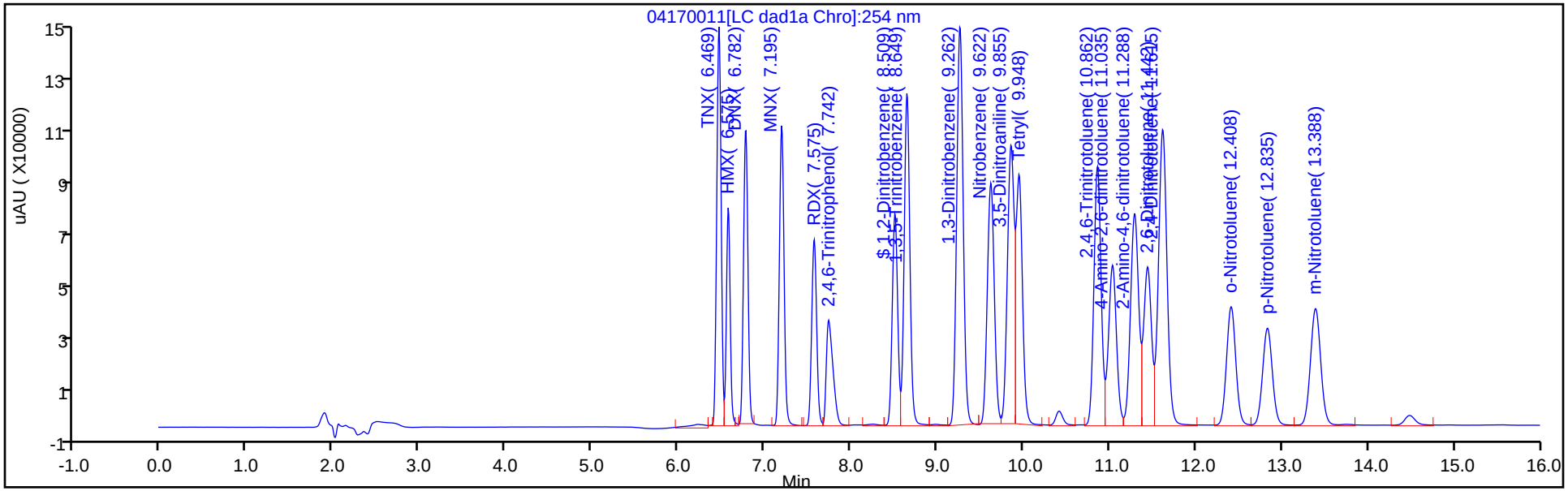
Report Date: 18-Apr-2024 11:59:21 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

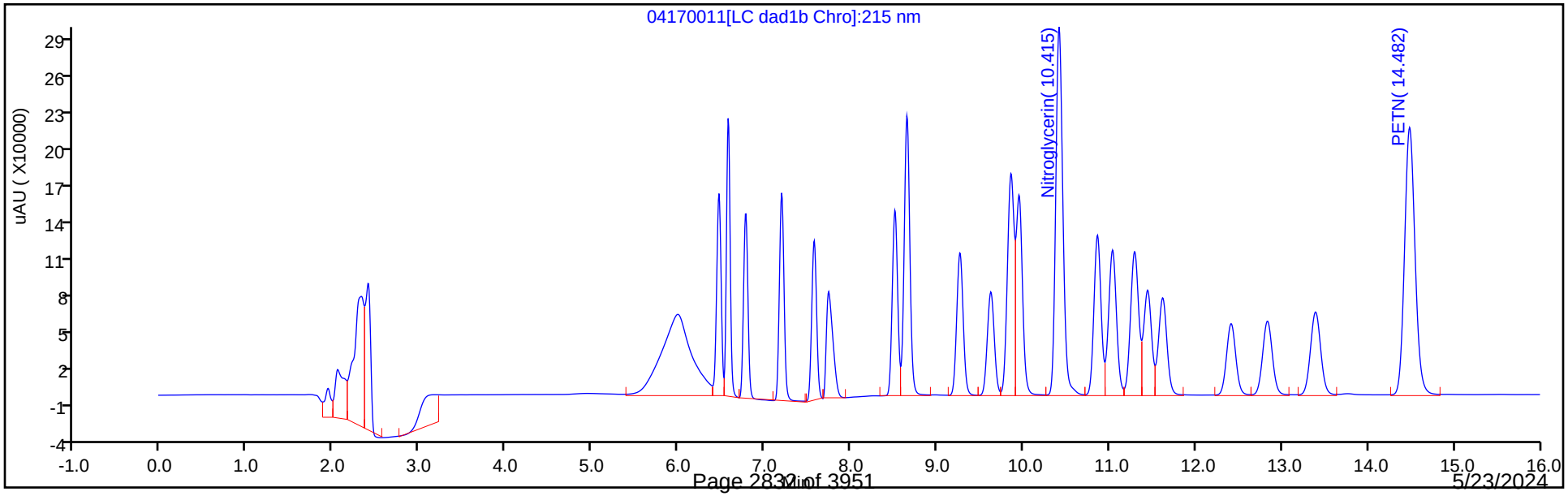
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170011.d

Injection Date:	17-Apr-2024 20:37:59	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 9			Worklist Smp#:	11
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

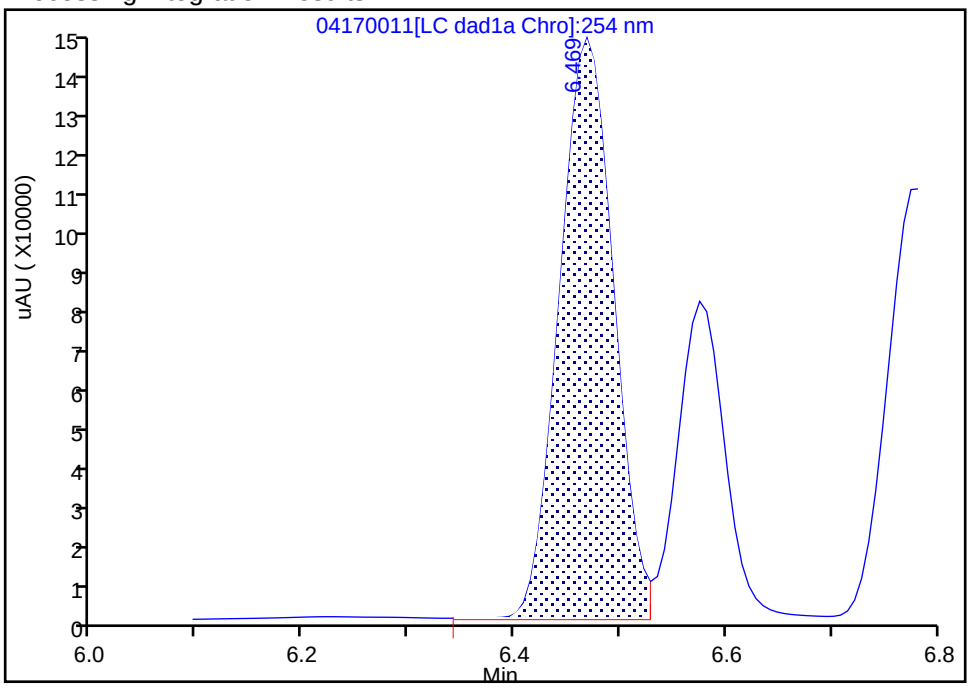
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170011.d
Injection Date: 17-Apr-2024 20:37:59 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 9
Client ID:
Operator ID: JZ/JG ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

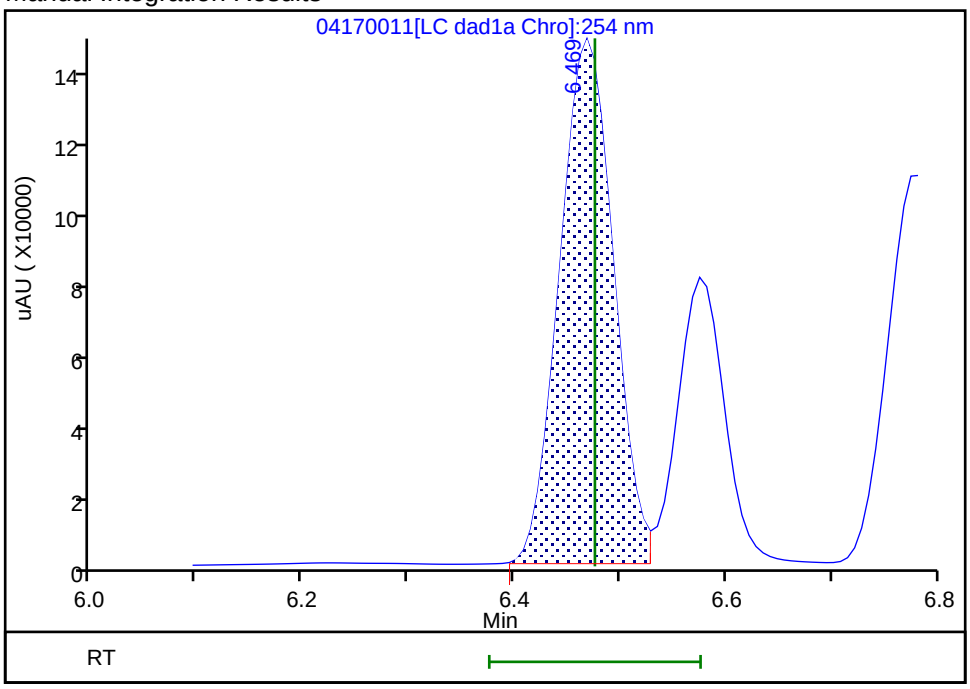
Processing Integration Results

RT: 6.47
Area: 515297
Amount: 2.475720
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 509682
Amount: 2.561318
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:13:26 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

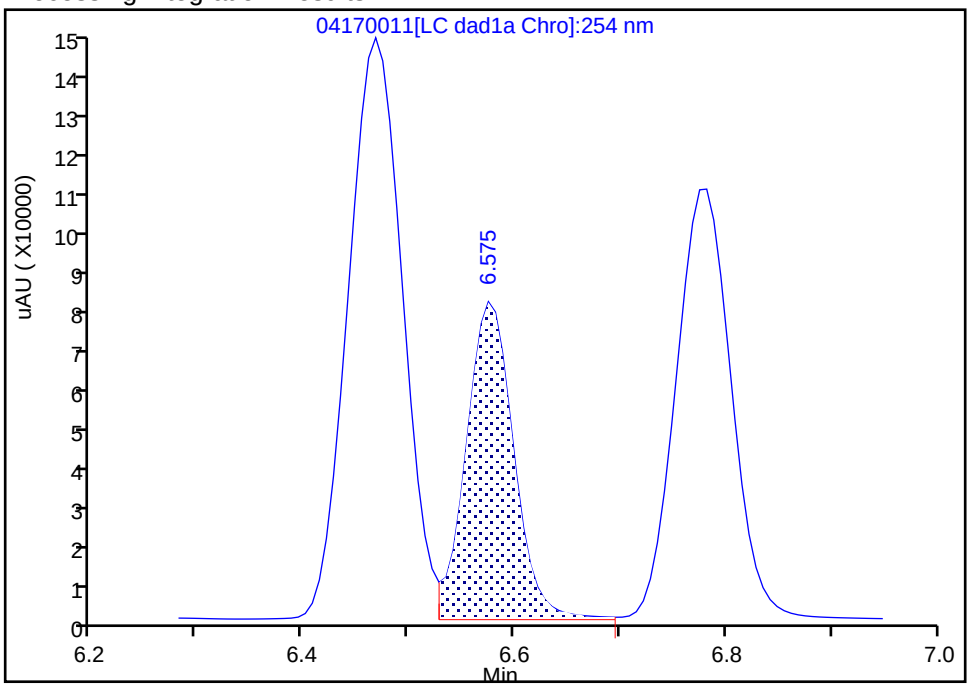
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170011.d
Injection Date: 17-Apr-2024 20:37:59 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 9
Client ID:
Operator ID: JZ/JG ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

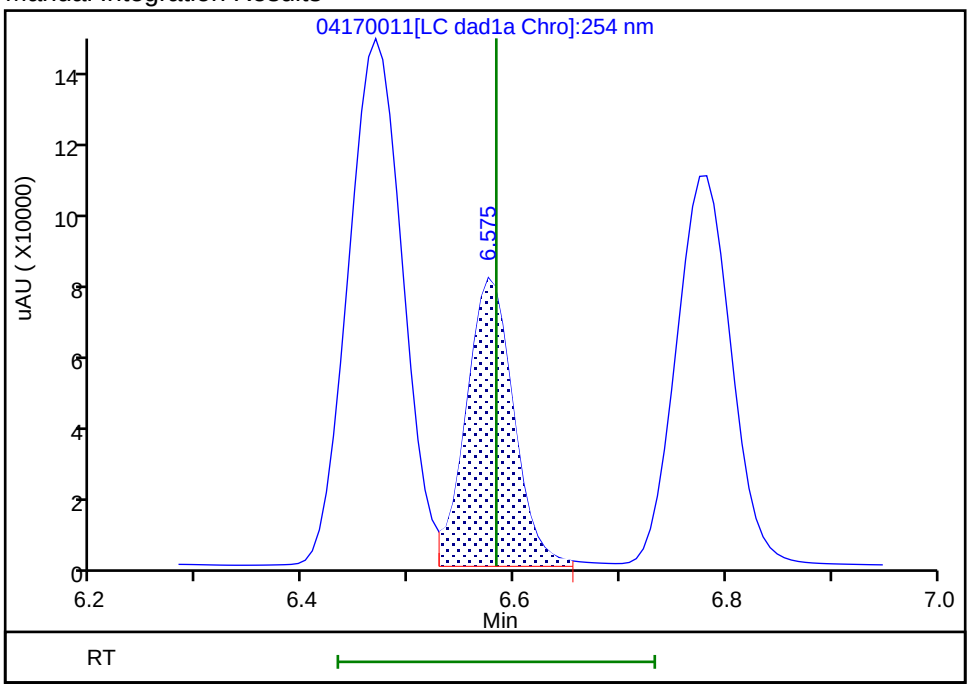
Processing Integration Results

RT: 6.58
Area: 245562
Amount: 2.343167
Amount Units: ug/mL



Manual Integration Results

RT: 6.58
Area: 240762
Amount: 2.519915
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:13:28 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

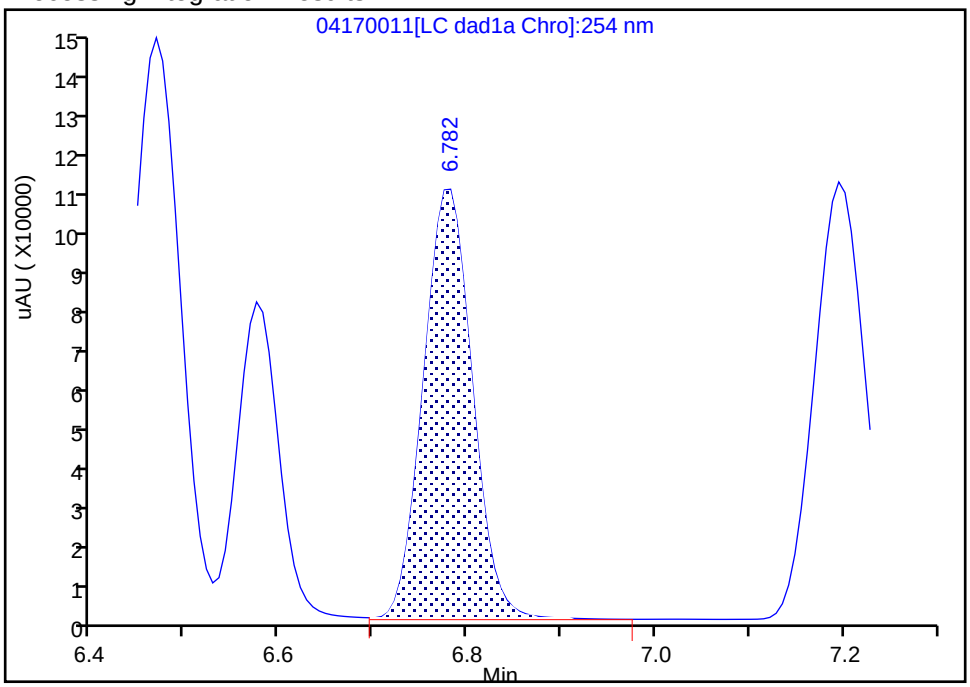
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170011.d				
Injection Date:	17-Apr-2024 20:37:59	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

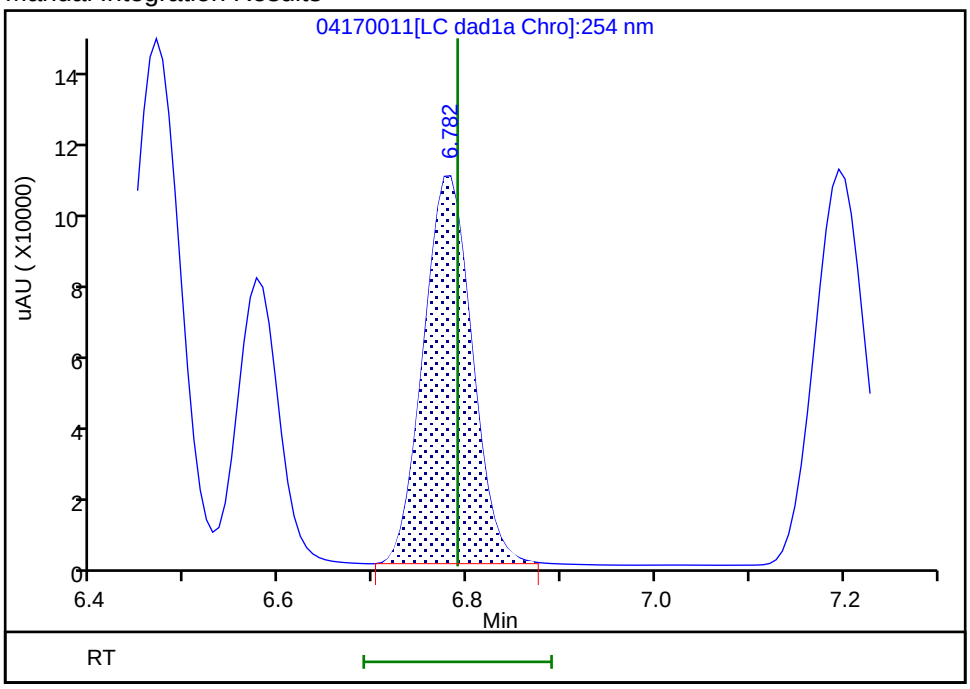
Processing Integration Results

RT: 6.78
Area: 388355
Amount: 2.530843
Amount Units: ug/mL



Manual Integration Results

RT: 6.78
Area: 378026
Amount: 2.567072
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:13:31 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170012.D
Lims ID: IC INT/DMT 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 17-Apr-2024 21:00:56 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 8
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-Apr-2024 11:59:23 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:13:14

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.474	6.476	-0.002	199537	1.00	1.00	M
4 HMX	1	6.581	6.583	-0.002	97787	1.00	1.02	M
6 DNX	1	6.788	6.789	-0.001	146952	1.00	1.00	M
7 MNX	1	7.208	7.203	0.005	160428	1.17	1.17	
8 RDX	1	7.581	7.583	-0.002	108752	1.00	0.9818	
9 2,4,6-Trinitrophenol	1	7.781	7.816	-0.035	81861	1.00	1.03	
$ 10 1,2-Dinitrobenzene	1	8.521	8.516	0.005	134411	1.00	1.02	
11 1,3,5-Trinitrobenzene	1	8.654	8.656	-0.002	219723	1.00	0.9860	
12 1,3-Dinitrobenzene	1	9.274	9.276	-0.002	303550	1.00	1.01	
13 Nitrobenzene	1	9.634	9.636	-0.002	198305	1.00	1.01	
14 3,5-Dinitroaniline	1	9.868	9.876	-0.008	219396	1.00	0.99	
15 Tetryl	1	9.954	9.963	-0.009	188801	1.00	1.04	
16 Nitroglycerin	2	10.421	10.429	-0.008	679445	10.0	10.2	
17 2,4,6-Trinitrotoluene	1	10.868	10.869	-0.001	217516	1.00	1.01	
18 4-Amino-2,6-dinitrotoluene	1	11.041	11.049	-0.008	149965	1.00	1.00	
19 2-Amino-4,6-dinitrotoluene	1	11.301	11.309	-0.008	202927	1.00	1.02	
20 2,6-Dinitrotoluene	1	11.448	11.449	-0.001	146021	1.00	0.99	
21 2,4-Dinitrotoluene	1	11.621	11.629	-0.008	294790	1.00	1.01	
22 o-Nitrotoluene	1	12.421	12.423	-0.002	127758	1.00	0.9880	
23 p-Nitrotoluene	1	12.841	12.843	-0.002	110337	1.00	0.9782	
24 m-Nitrotoluene	1	13.394	13.403	-0.009	139336	1.00	0.9672	
25 PETN	2	14.481	14.483	-0.002	719241	10.0	10.0	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00016	Amount Added: 50.00	Units: uL
8330IntermStk_00080	Amount Added: 100.00	Units: uL

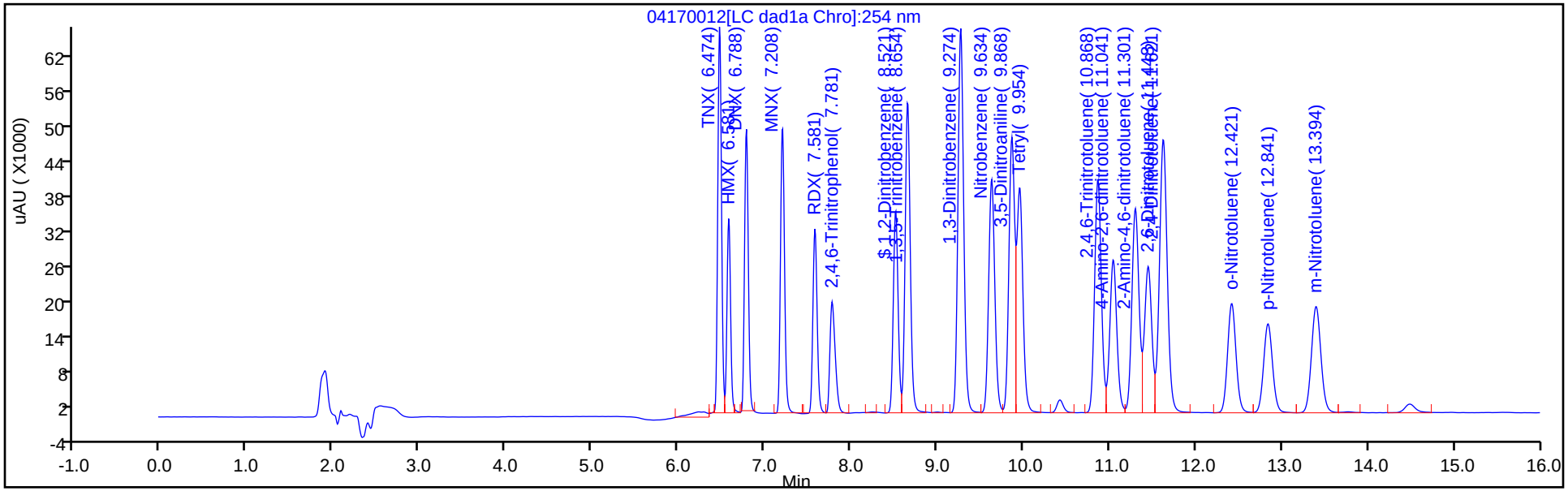
Report Date: 18-Apr-2024 11:59:23 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

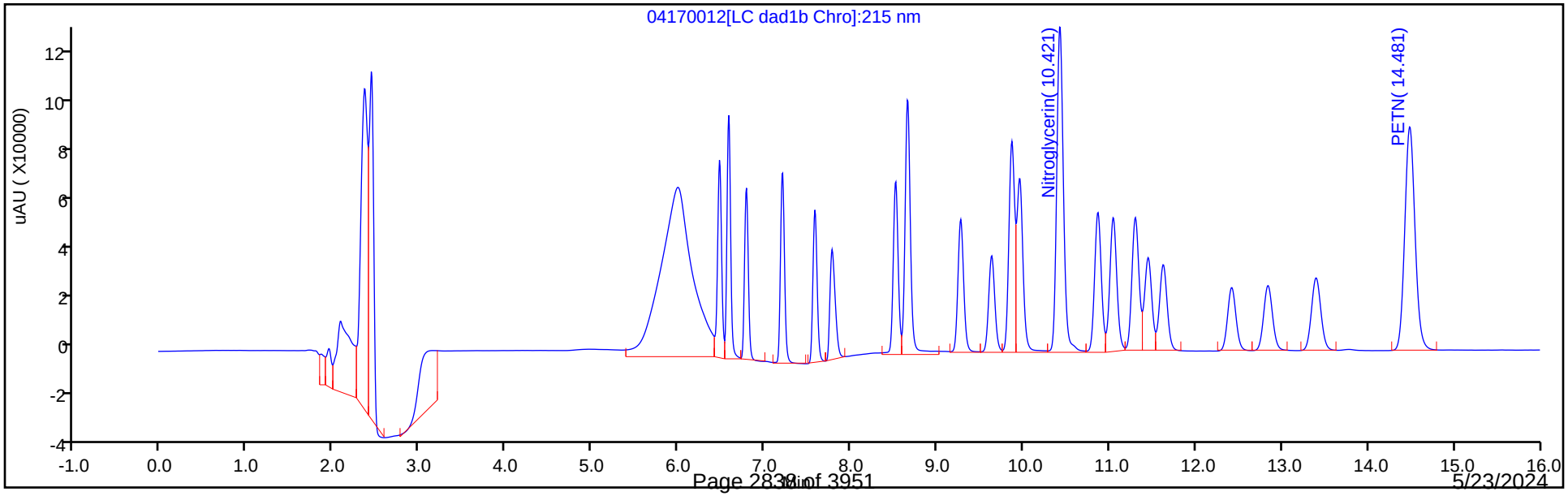
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170012.d

Injection Date:	17-Apr-2024 21:00:56	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 8			Worklist Smp#:	12
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

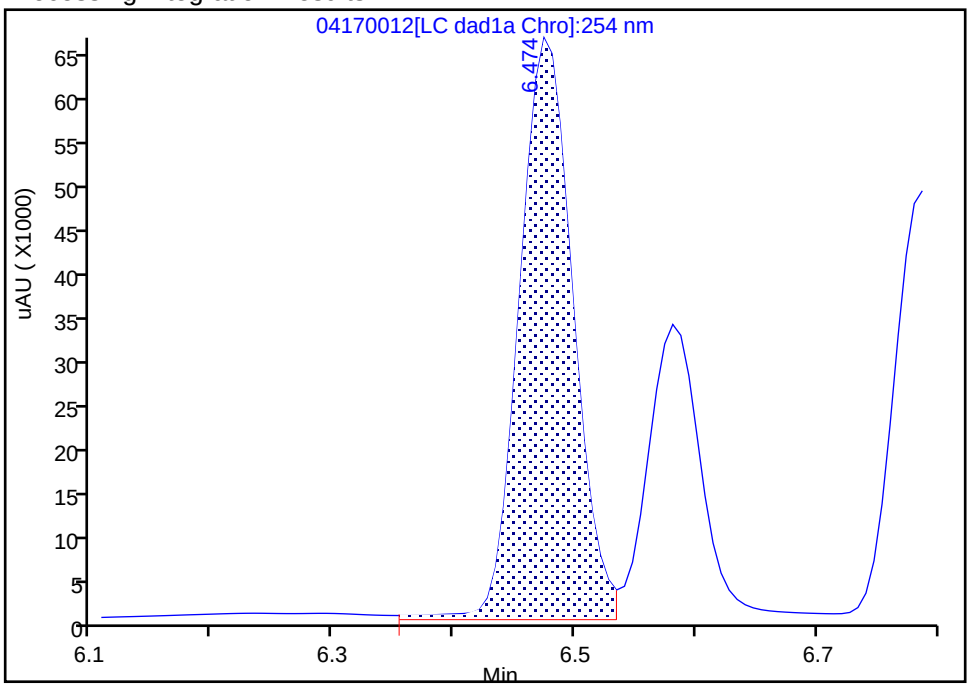
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170012.d				
Injection Date:	17-Apr-2024 21:00:56	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

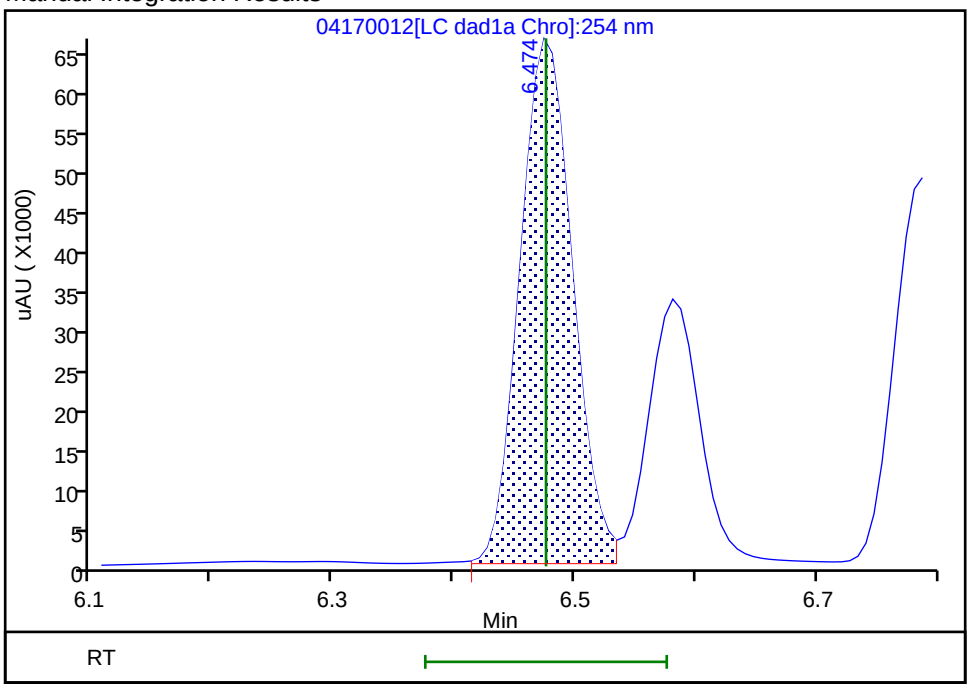
Processing Integration Results

RT: 6.47
Area: 204461
Amount: 0.979758
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 199537
Amount: 1.002738
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:13:07 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

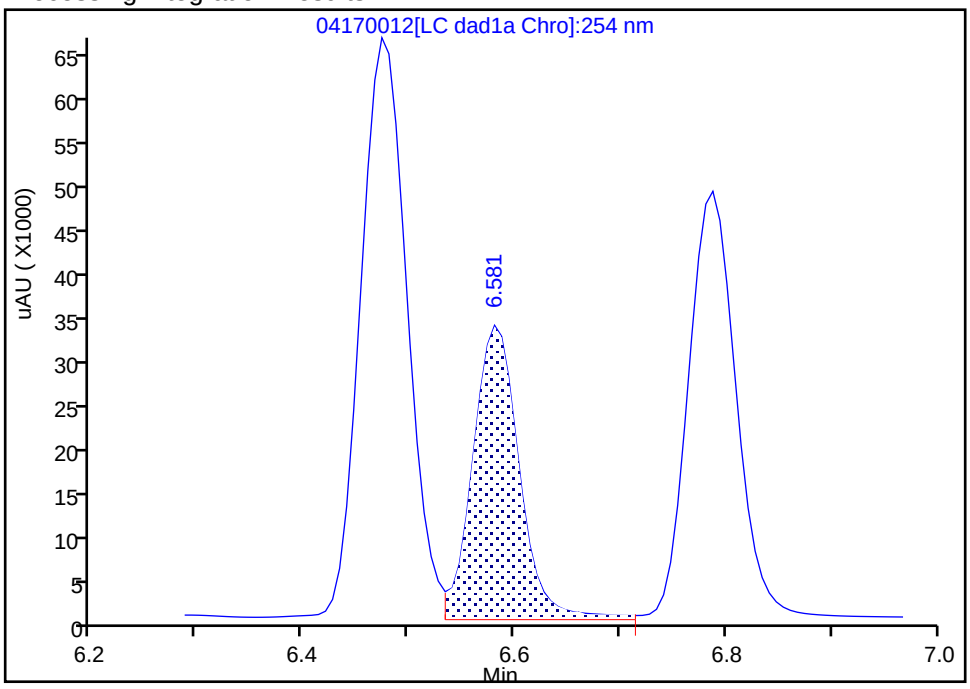
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170012.d
Injection Date: 17-Apr-2024 21:00:56 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 8
Client ID:
Operator ID: JZ/JG ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

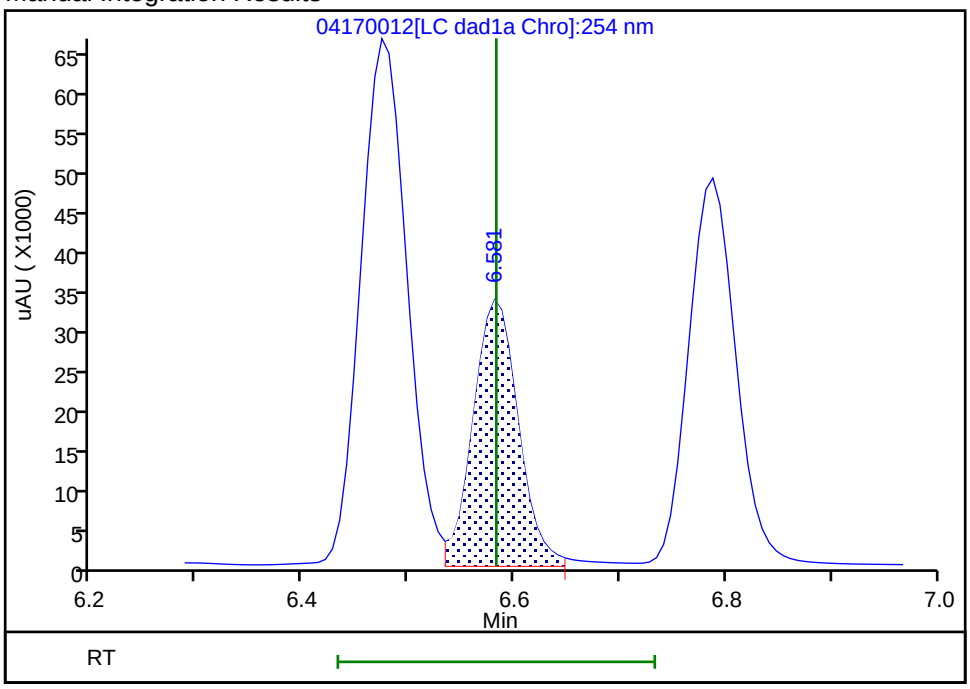
Processing Integration Results

RT: 6.58
Area: 102131
Amount: 0.970072
Amount Units: ug/mL



Manual Integration Results

RT: 6.58
Area: 97787
Amount: 1.023479
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:13:09 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

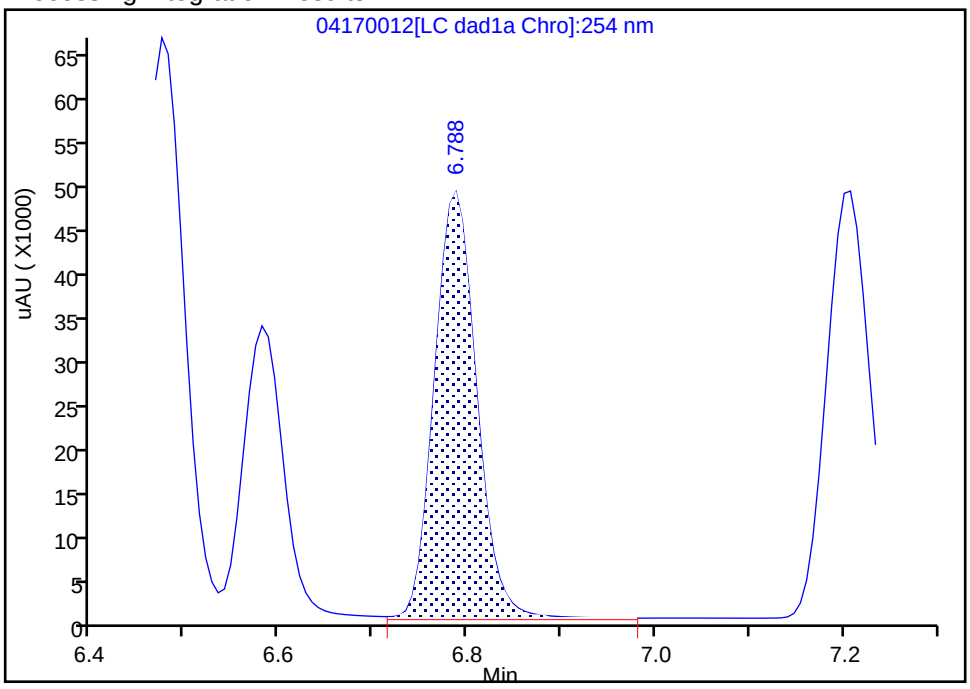
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170012.d
Injection Date: 17-Apr-2024 21:00:56 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 8
Client ID:
Operator ID: JZ/JG ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

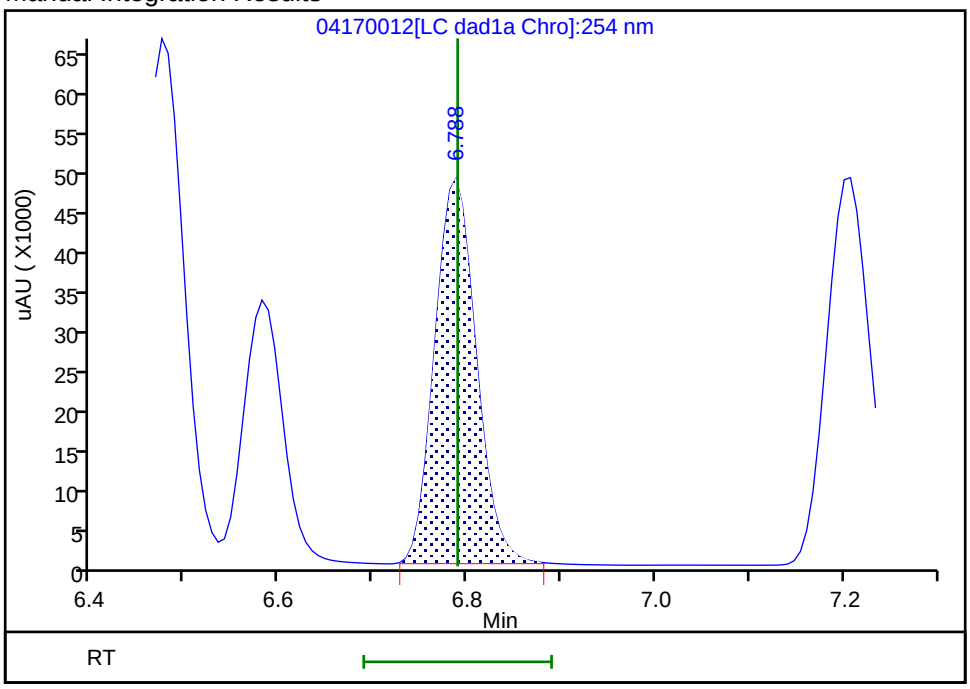
Processing Integration Results

RT: 6.79
Area: 153377
Amount: 0.990791
Amount Units: ug/mL



Manual Integration Results

RT: 6.79
Area: 146952
Amount: 0.997911
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:13:11 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170013.D
Lims ID: IC INT/DMT 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 17-Apr-2024 21:23:54 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 7
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-Apr-2024 11:59:24 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:14:37

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.476	6.476	0.000	141333	0.7028	0.7102	M
4 HMX	1	6.582	6.583	-0.001	67408	0.7000	0.7055	M
6 DNX	1	6.789	6.789	0.000	103834	0.7014	0.7051	M
7 MNX	1	7.202	7.203	-0.001	113678	0.8183	0.8316	
8 RDX	1	7.582	7.583	-0.001	74871	0.7000	0.6759	
9 2,4,6-Trinitrophenol	1	7.789	7.816	-0.027	55934	0.7000	0.7051	
$ 10 1,2-Dinitrobenzene	1	8.516	8.516	0.000	92511	0.7000	0.7021	
11 1,3,5-Trinitrobenzene	1	8.656	8.656	0.000	151045	0.7000	0.6778	
12 1,3-Dinitrobenzene	1	9.276	9.276	0.000	209122	0.7000	0.6984	
13 Nitrobenzene	1	9.629	9.636	-0.007	136899	0.7000	0.6973	
14 3,5-Dinitroaniline	1	9.869	9.876	-0.007	153531	0.7000	0.6958	
15 Tetryl	1	9.956	9.963	-0.007	127375	0.7000	0.7014	
16 Nitroglycerin	2	10.422	10.429	-0.007	467214	7.00	7.03	
17 2,4,6-Trinitrotoluene	1	10.862	10.869	-0.007	150301	0.7000	0.6985	
18 4-Amino-2,6-dinitrotoluene	1	11.042	11.049	-0.007	103016	0.7000	0.6870	
19 2-Amino-4,6-dinitrotoluene	1	11.302	11.309	-0.007	140054	0.7000	0.7009	
20 2,6-Dinitrotoluene	1	11.449	11.449	0.000	100540	0.7000	0.6843	
21 2,4-Dinitrotoluene	1	11.622	11.629	-0.007	202952	0.7000	0.6954	
22 o-Nitrotoluene	1	12.416	12.423	-0.007	88069	0.7000	0.6811	
23 p-Nitrotoluene	1	12.842	12.843	-0.001	75957	0.7000	0.6734	
24 m-Nitrotoluene	1	13.396	13.403	-0.007	96036	0.7000	0.6666	
25 PETN	2	14.482	14.483	-0.001	495856	7.00	6.89	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00016	Amount Added:	35.00	Units: uL
8330IntermStk_00080	Amount Added:	70.00	Units: uL

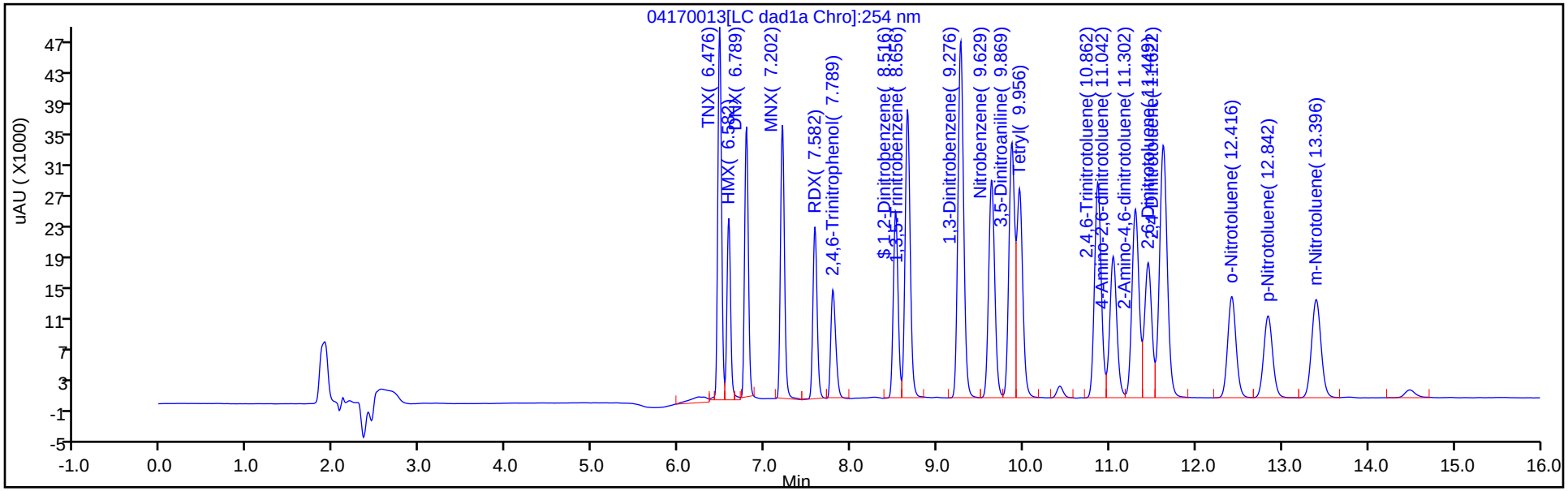
Report Date: 18-Apr-2024 11:59:24 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

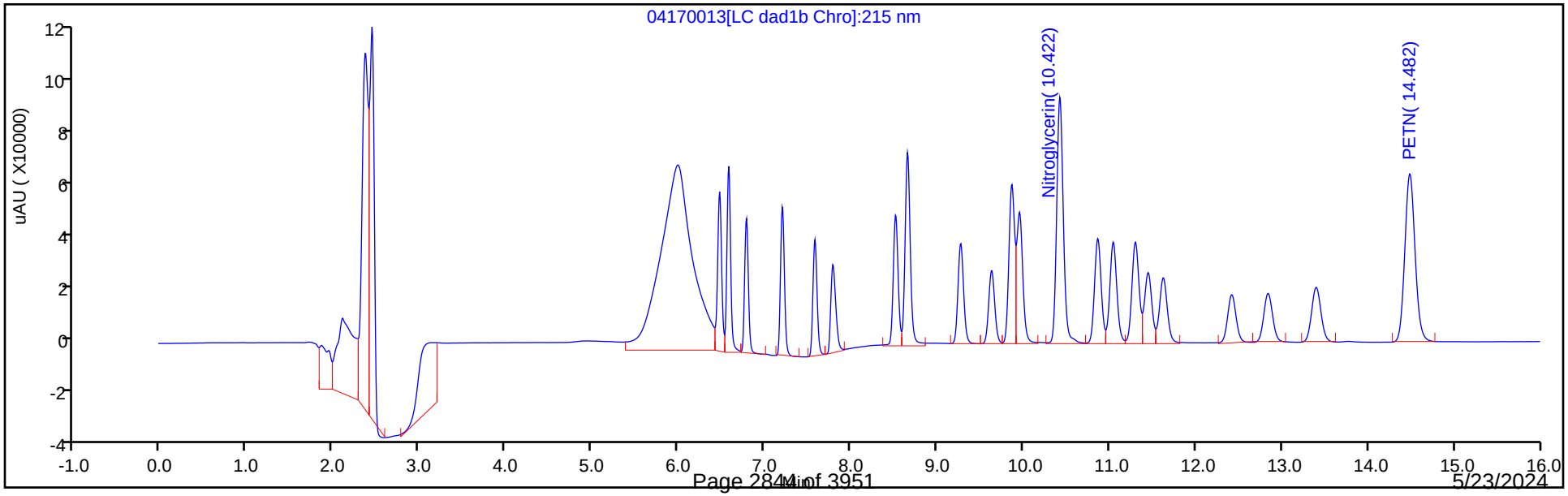
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170013.d

Injection Date:	17-Apr-2024 21:23:54	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 7			Worklist Smp#:	13
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

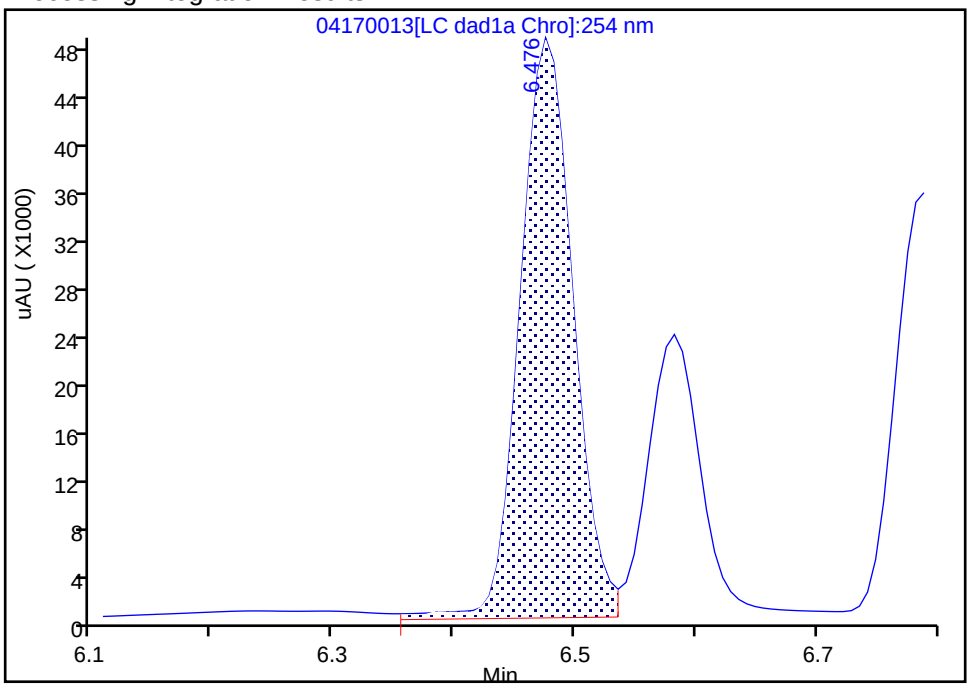
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170013.d				
Injection Date:	17-Apr-2024 21:23:54	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

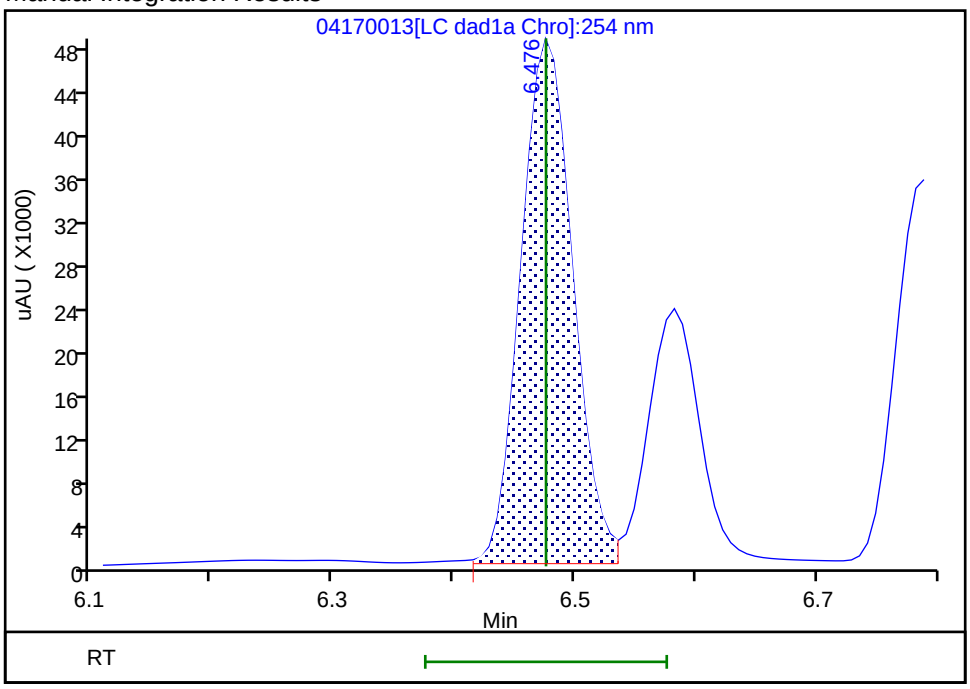
Processing Integration Results

RT: 6.48
Area: 146464
Amount: 0.704521
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 141333
Amount: 0.710244
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:13:45 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

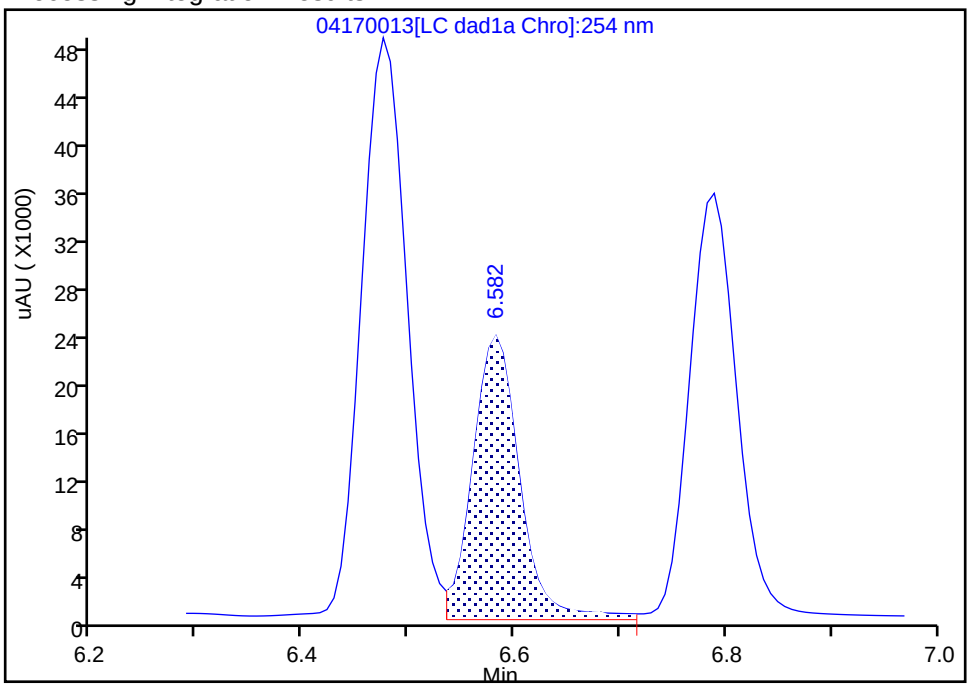
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170013.d
Injection Date: 17-Apr-2024 21:23:54 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 7
Client ID:
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

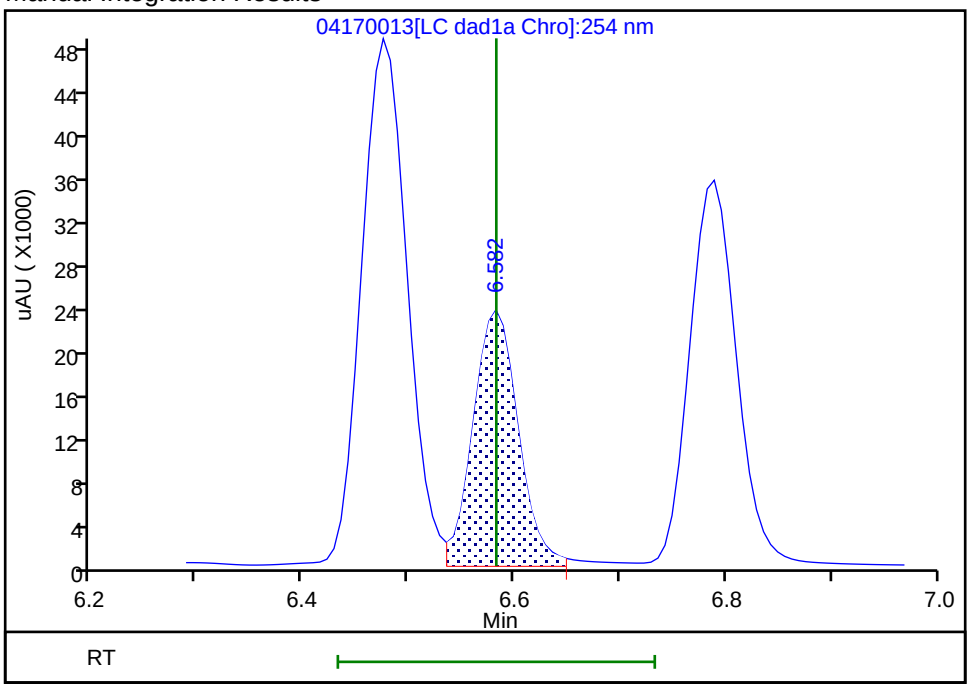
Processing Integration Results

RT: 6.58
Area: 71695
Amount: 0.685513
Amount Units: ug/mL



Manual Integration Results

RT: 6.58
Area: 67408
Amount: 0.705520
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:13:46 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

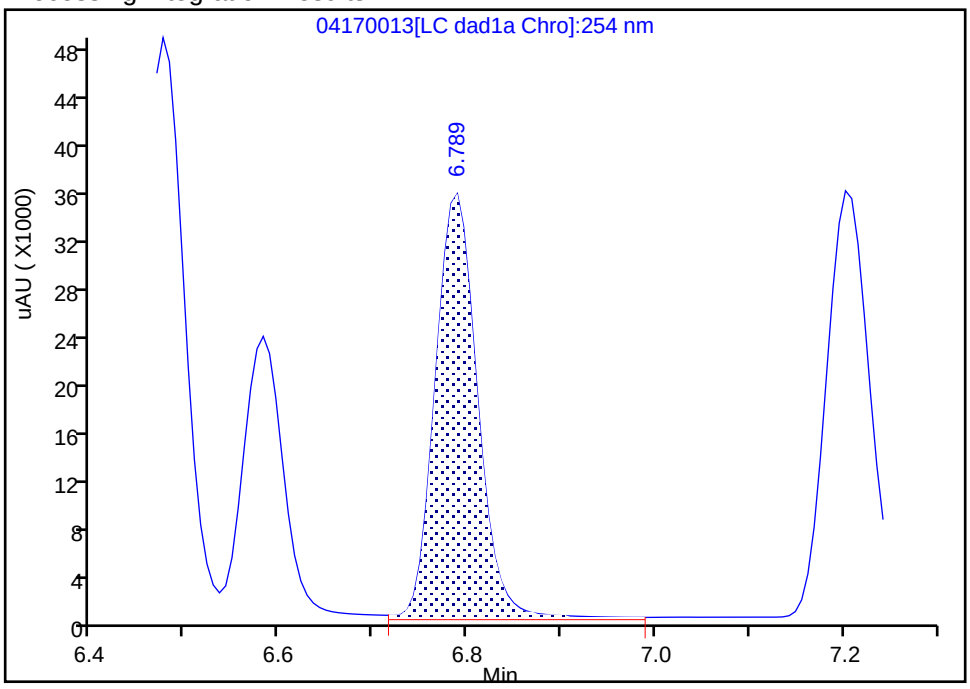
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170013.d				
Injection Date:	17-Apr-2024 21:23:54	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

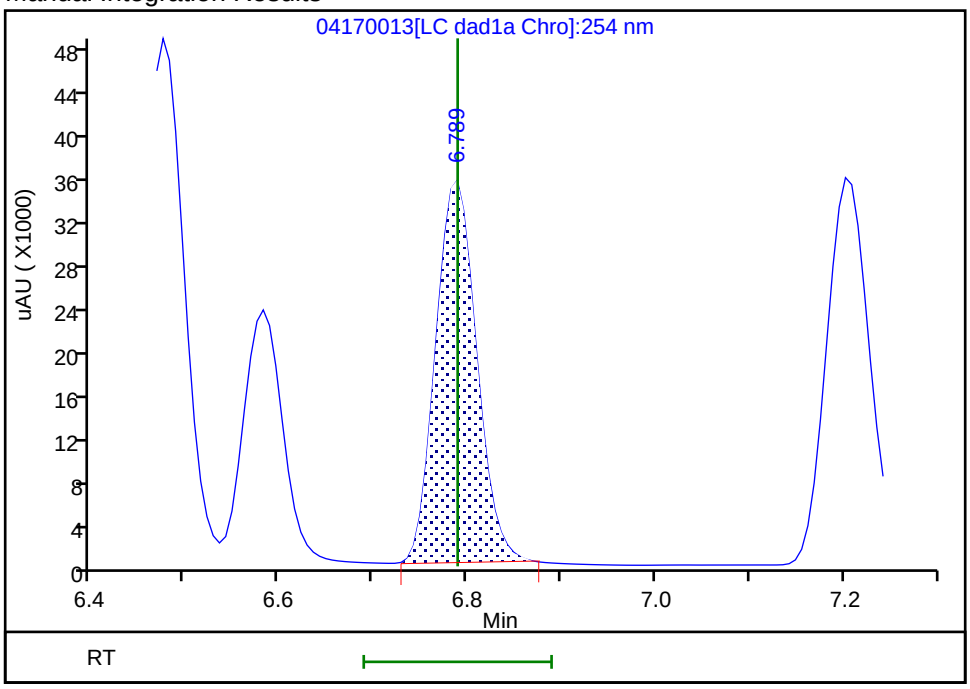
Processing Integration Results

RT: 6.79
Area: 109725
Amount: 0.724468
Amount Units: ug/mL



Manual Integration Results

RT: 6.79
Area: 103834
Amount: 0.705108
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:13:50 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170014.D
Lims ID: IC INT/DMT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 17-Apr-2024 21:46:50 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 6
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-Apr-2024 11:59:25 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:15:01

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.479	6.476	0.003	78789	0.4016	0.3959	M
4 HMX	1	6.586	6.583	0.003	38101	0.4000	0.3988	M
6 DNX	1	6.786	6.789	-0.003	58701	0.4008	0.3986	M
7 MNX	1	7.206	7.203	0.003	64510	0.4676	0.4719	
8 RDX	1	7.586	7.583	0.003	42747	0.4000	0.3859	
9 2,4,6-Trinitrophenol	1	7.806	7.816	-0.010	31644	0.4000	0.3989	
$ 10 1,2-Dinitrobenzene	1	8.519	8.516	0.003	52999	0.4000	0.4019	
11 1,3,5-Trinitrobenzene	1	8.659	8.656	0.003	86362	0.4000	0.3875	
12 1,3-Dinitrobenzene	1	9.279	9.276	0.003	119137	0.4000	0.3979	
13 Nitrobenzene	1	9.639	9.636	0.003	77471	0.4000	0.3946	
14 3,5-Dinitroaniline	1	9.872	9.876	-0.004	86047	0.4000	0.3904	
15 Tetryl	1	9.959	9.963	-0.004	74126	0.4000	0.4082	
16 Nitroglycerin	2	10.432	10.429	0.003	266924	4.00	4.02	
17 2,4,6-Trinitrotoluene	1	10.872	10.869	0.003	85495	0.4000	0.3973	
18 4-Amino-2,6-dinitrotoluene	1	11.052	11.049	0.003	59155	0.4000	0.3945	
19 2-Amino-4,6-dinitrotoluene	1	11.306	11.309	-0.003	78856	0.4000	0.3947	
20 2,6-Dinitrotoluene	1	11.452	11.449	0.003	58947	0.4000	0.4012	
21 2,4-Dinitrotoluene	1	11.632	11.629	0.003	115355	0.4000	0.3953	
22 o-Nitrotoluene	1	12.426	12.423	0.003	50092	0.4000	0.3874	
23 p-Nitrotoluene	1	12.846	12.843	0.003	42973	0.4000	0.3810	
24 m-Nitrotoluene	1	13.406	13.403	0.003	54437	0.4000	0.3779	
25 PETN	2	14.492	14.483	0.009	282889	4.00	3.93	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080	Amount Added:	40.00	Units: uL
8330 DMT_00016	Amount Added:	20.00	Units: uL

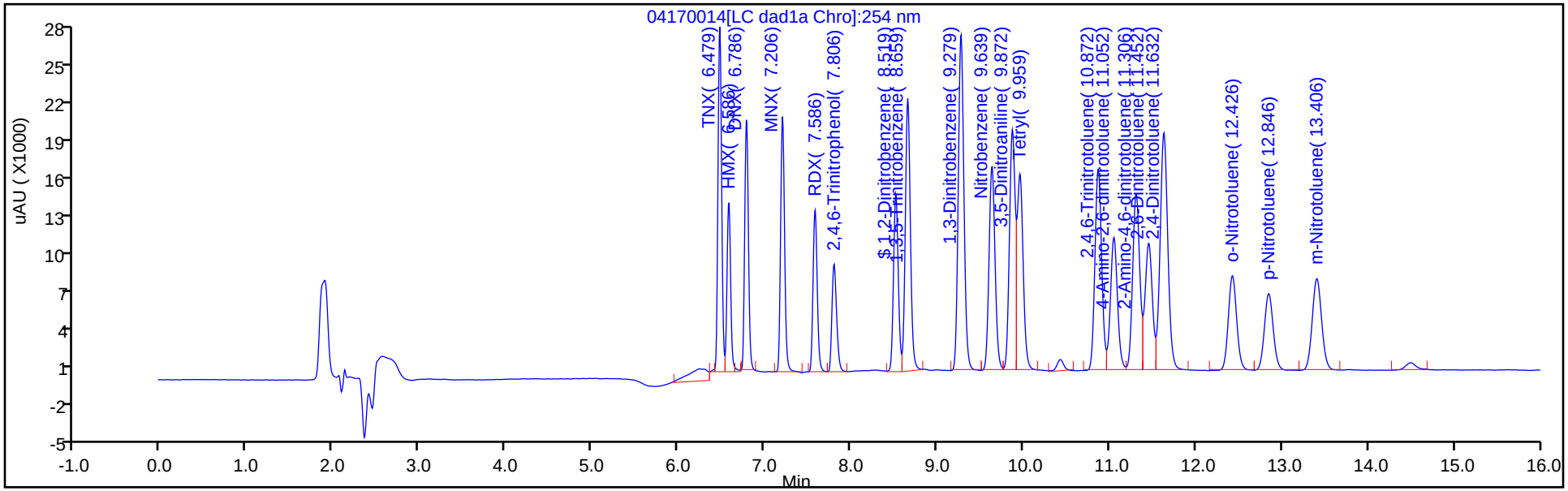
Report Date: 18-Apr-2024 11:59:25 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

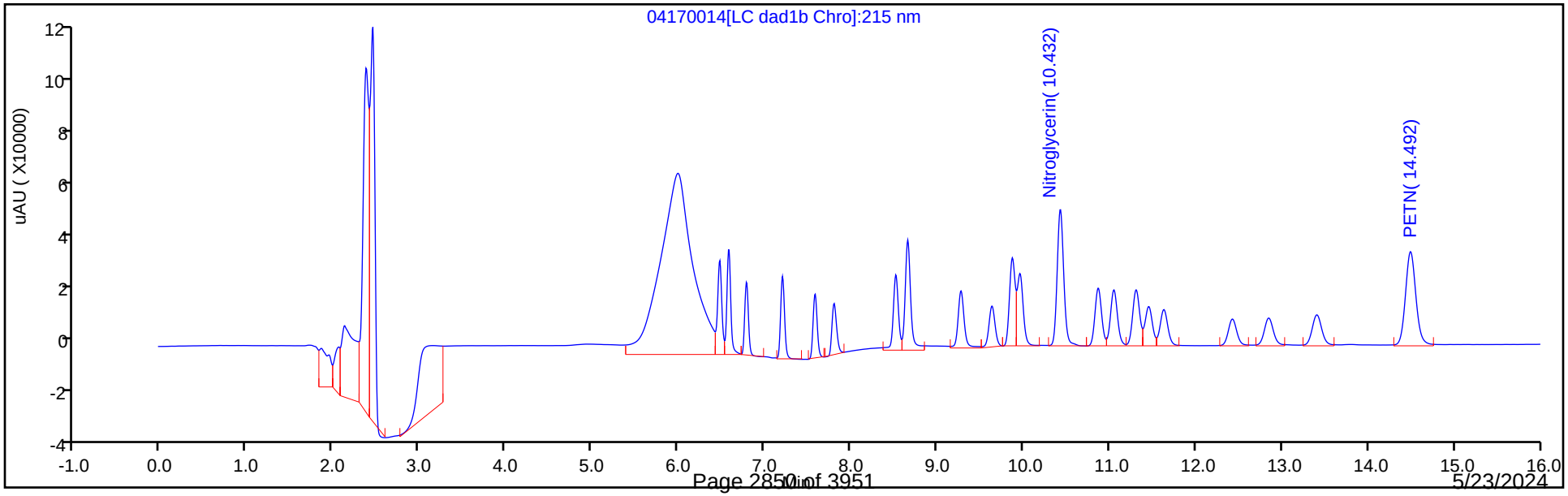
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170014.d

Injection Date:	17-Apr-2024 21:46:50	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 6			Worklist Smp#:	14
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

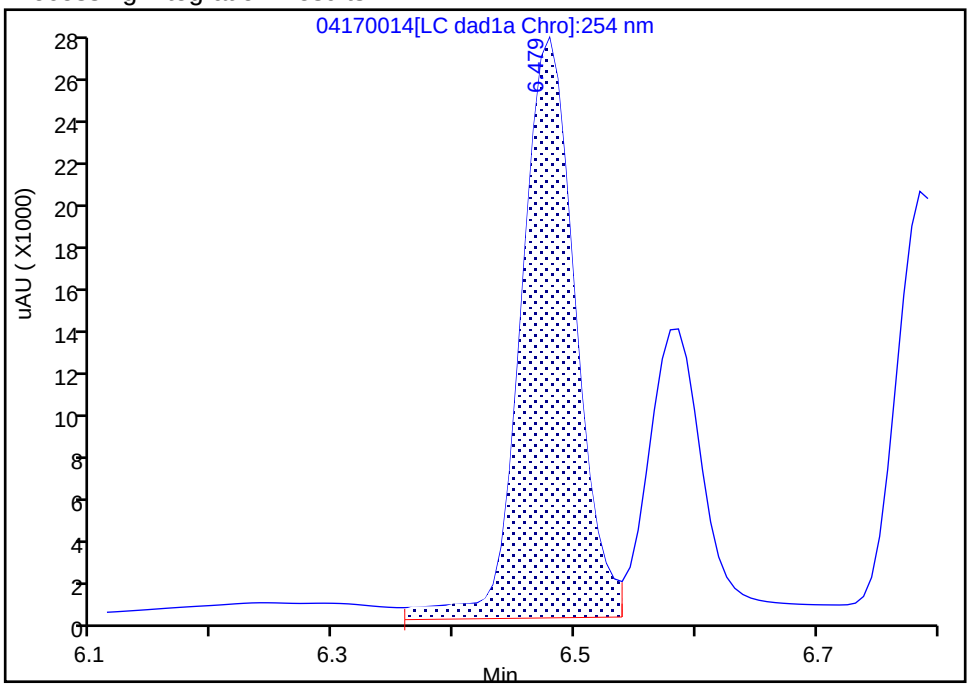
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170014.d
Injection Date: 17-Apr-2024 21:46:50 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 6
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

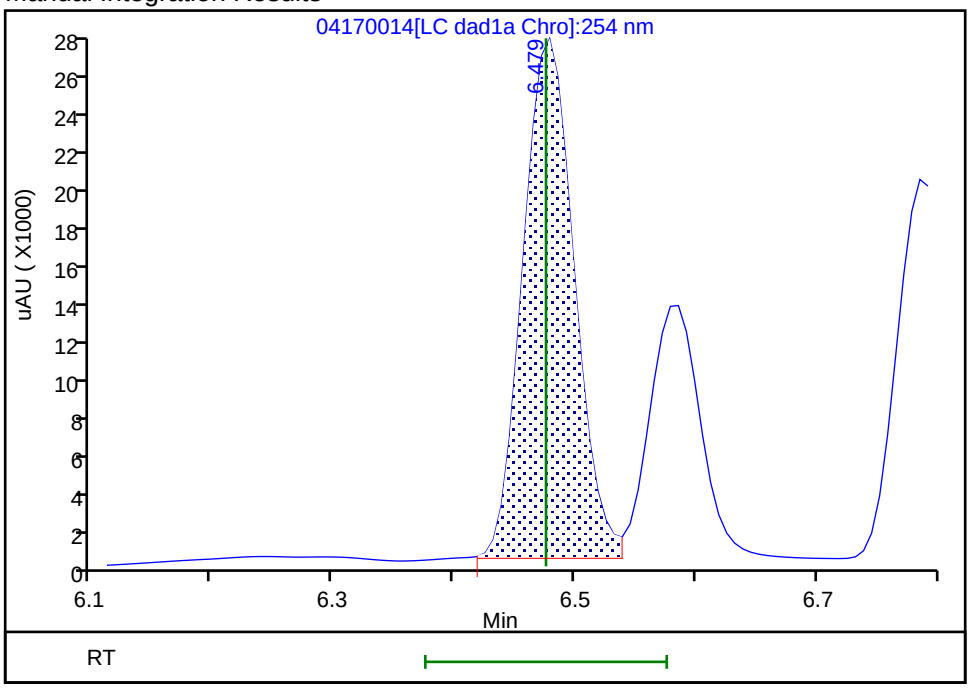
Processing Integration Results

RT: 6.48
Area: 85027
Amount: 0.410599
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 78789
Amount: 0.395940
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:14:54 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

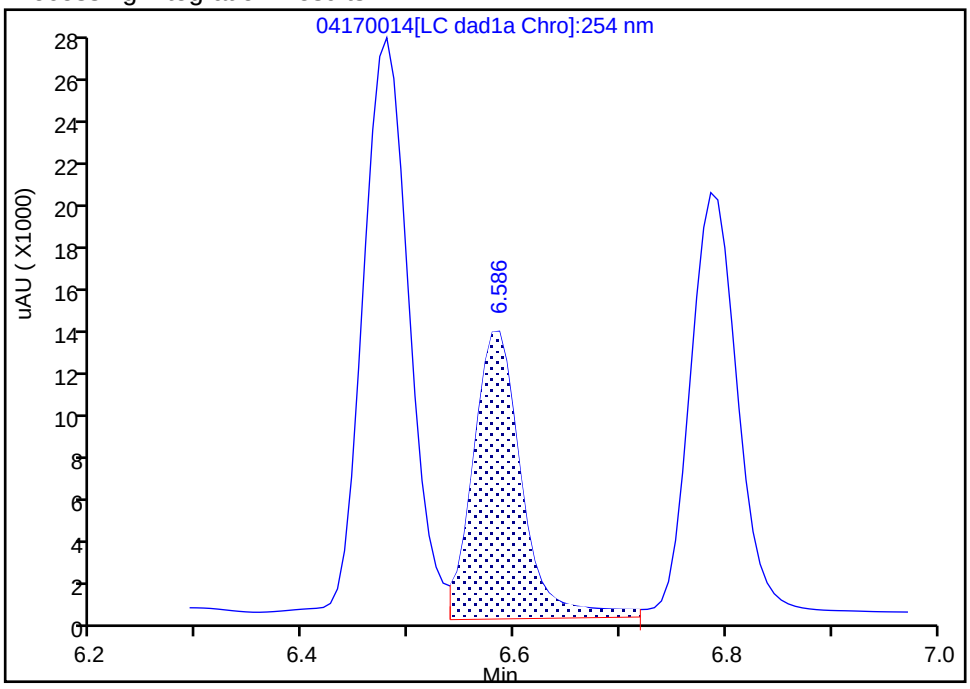
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170014.d
Injection Date: 17-Apr-2024 21:46:50 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 6
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

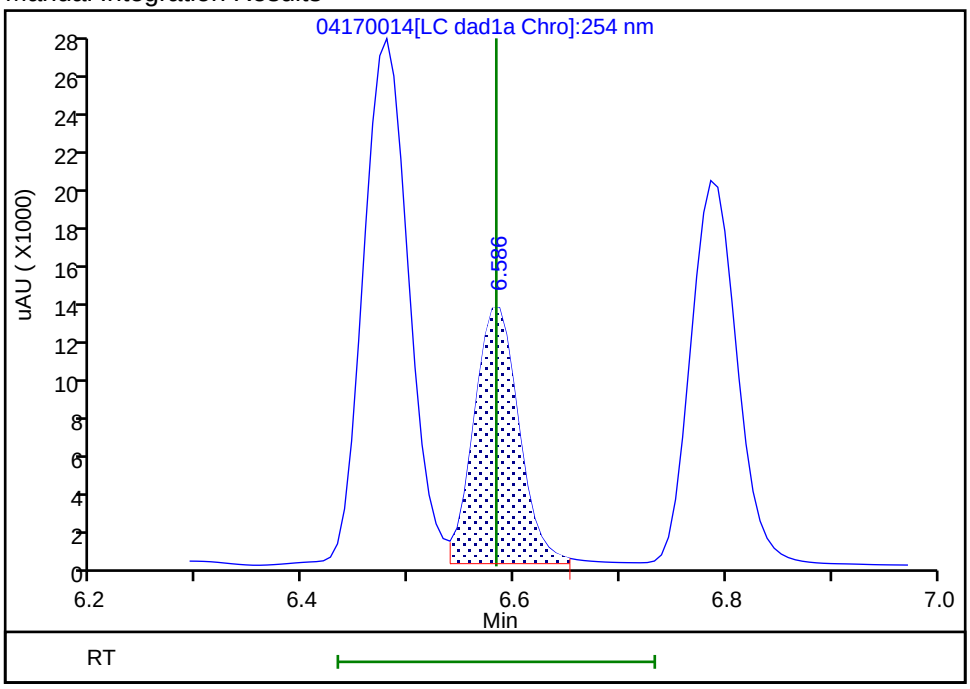
Processing Integration Results

RT: 6.59
Area: 42787
Amount: 0.411788
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 38101
Amount: 0.398781
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:14:55 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

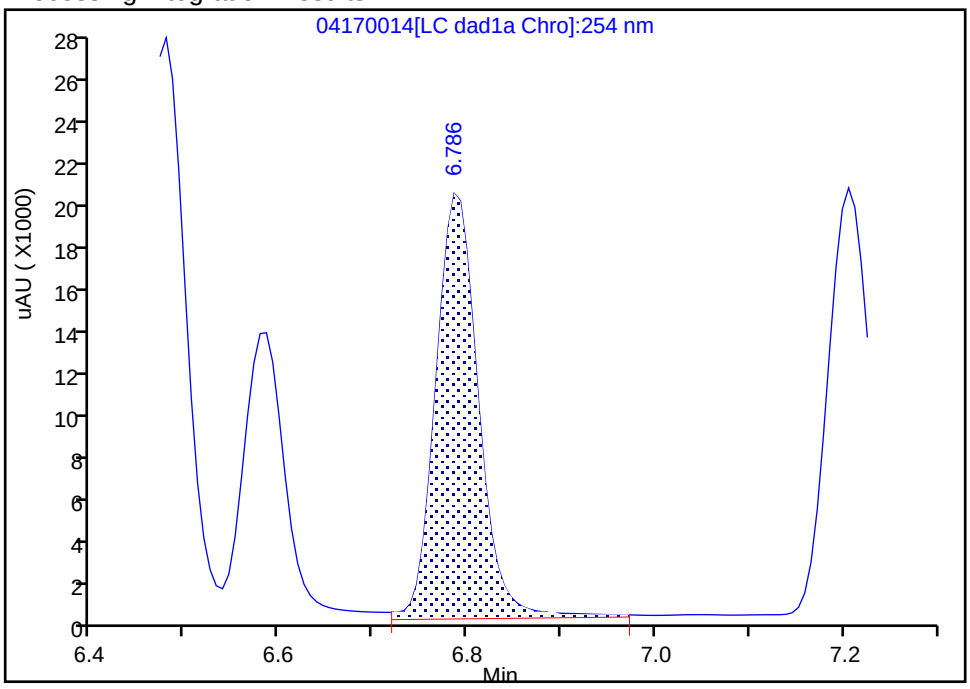
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170014.d				
Injection Date:	17-Apr-2024 21:46:50	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

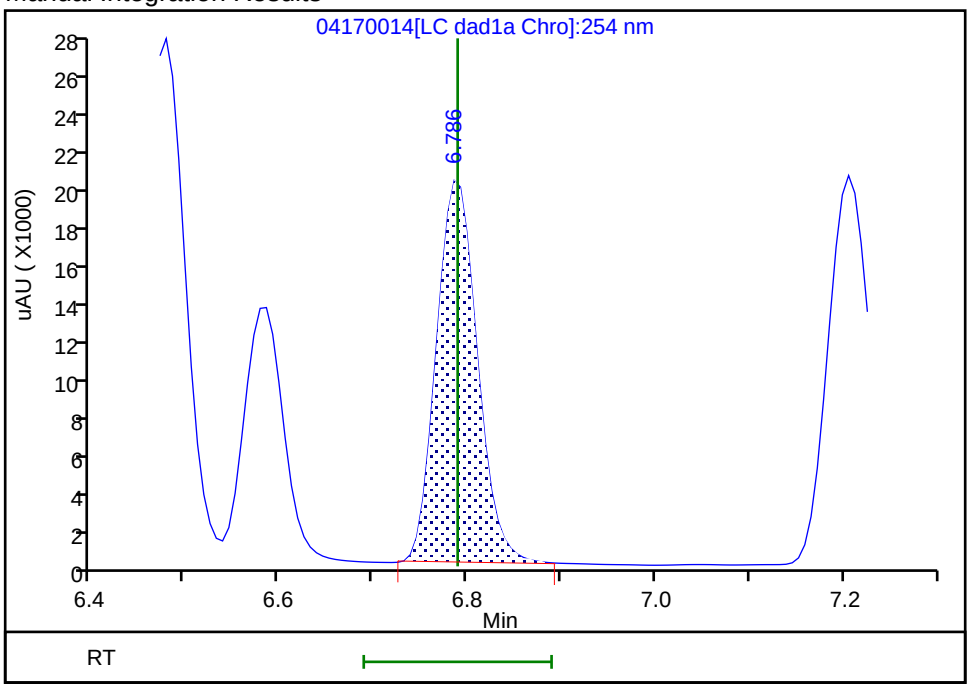
Processing Integration Results

RT: 6.79
Area: 62648
Amount: 0.406964
Amount Units: ug/mL



Manual Integration Results

RT: 6.79
Area: 58701
Amount: 0.398623
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:14:58 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170015.D
Lims ID: IC INT/DMT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 17-Apr-2024 22:09:45 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 5
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-Apr-2024 11:59:26 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:15:36

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.476	6.476	0.000	49234	0.2510	0.2474	M
4 HMX	1	6.582	6.583	-0.001	23583	0.2500	0.2468	M
6 DNX	1	6.789	6.789	0.000	36872	0.2505	0.2504	M
7 MNX	1	7.209	7.203	0.006	39930	0.2923	0.2921	
8 RDX	1	7.582	7.583	-0.001	26844	0.2500	0.2423	
9 2,4,6-Trinitrophenol	1	7.809	7.816	-0.007	19748	0.2500	0.2489	
$ 10 1,2-Dinitrobenzene	1	8.522	8.516	0.006	32787	0.2500	0.2484	
11 1,3,5-Trinitrobenzene	1	8.656	8.656	0.000	54073	0.2500	0.2426	
12 1,3-Dinitrobenzene	1	9.276	9.276	0.000	74190	0.2500	0.2478	
13 Nitrobenzene	1	9.636	9.636	0.000	47641	0.2500	0.2427	
14 3,5-Dinitroaniline	1	9.876	9.876	0.000	54841	0.2500	0.2492	
15 Tetryl	1	9.962	9.963	-0.001	45082	0.2500	0.2483	
16 Nitroglycerin	2	10.429	10.429	0.000	167486	2.50	2.52	
17 2,4,6-Trinitrotoluene	1	10.869	10.869	0.000	53593	0.2500	0.2490	
18 4-Amino-2,6-dinitrotoluene	1	11.049	11.049	0.000	36831	0.2500	0.2456	
19 2-Amino-4,6-dinitrotoluene	1	11.309	11.309	0.000	49951	0.2500	0.2500	
20 2,6-Dinitrotoluene	1	11.456	11.449	0.007	35939	0.2500	0.2446	
21 2,4-Dinitrotoluene	1	11.629	11.629	0.000	72314	0.2500	0.2478	
22 o-Nitrotoluene	1	12.422	12.423	-0.001	31023	0.2500	0.2399	
23 p-Nitrotoluene	1	12.842	12.843	-0.001	26871	0.2500	0.2382	
24 m-Nitrotoluene	1	13.402	13.403	-0.001	33952	0.2500	0.2357	M
25 PETN	2	14.489	14.483	0.006	176891	2.50	2.46	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080	Amount Added:	25.00	Units: uL
8330 DMT_00016	Amount Added:	12.50	Units: uL

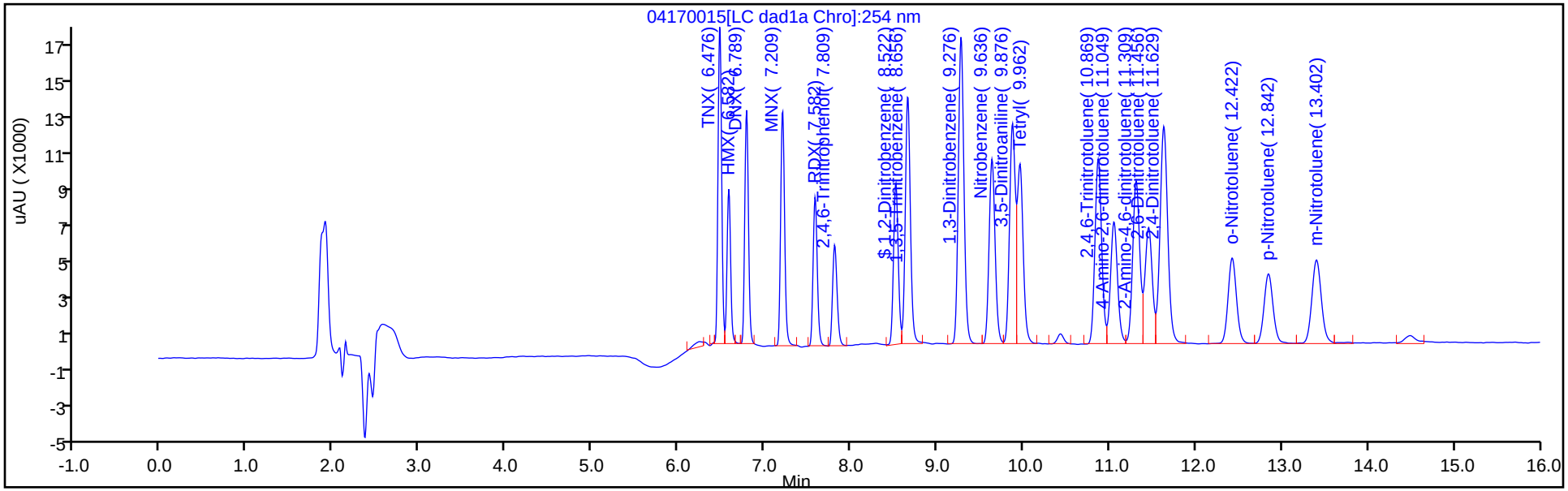
Report Date: 18-Apr-2024 11:59:26 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

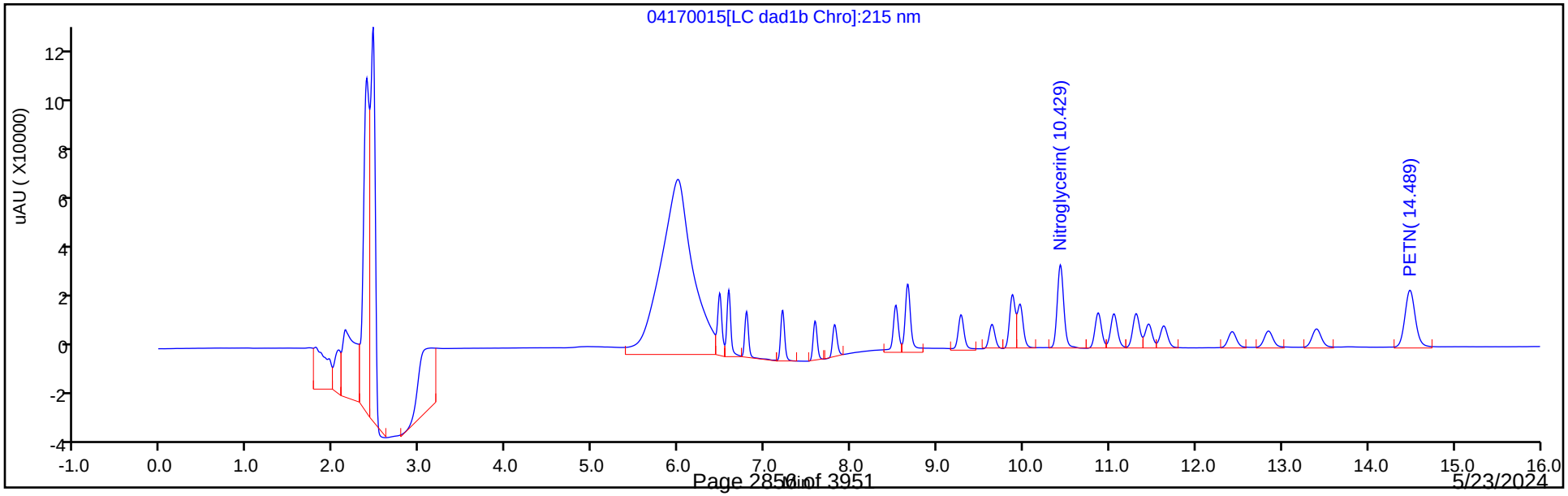
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170015.d

Injection Date:	17-Apr-2024 22:09:45	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 5			Worklist Smp#:	15
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

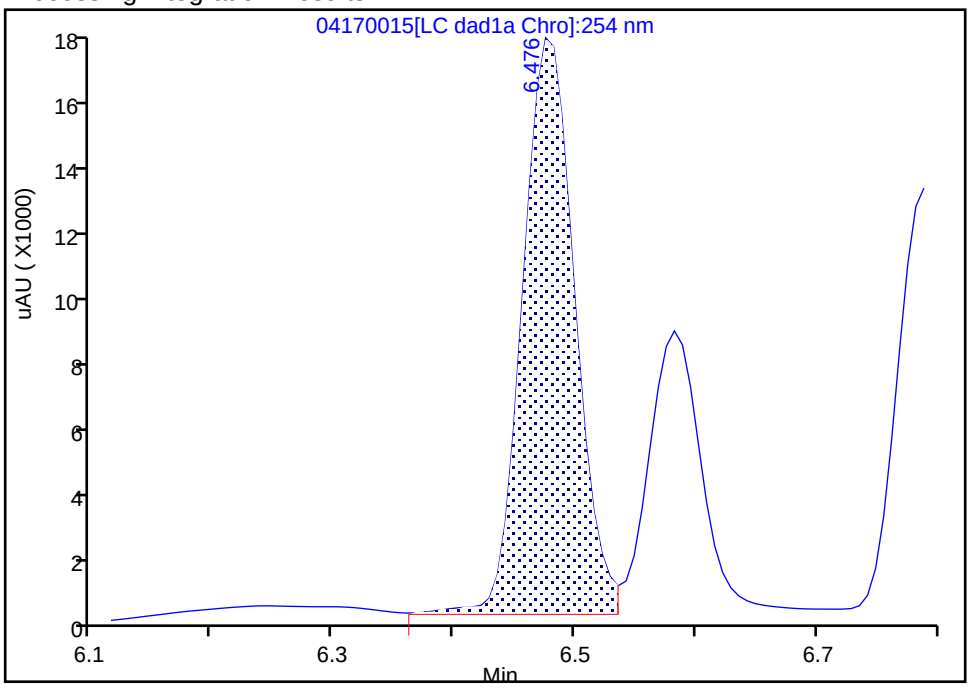
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170015.d				
Injection Date:	17-Apr-2024 22:09:45	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

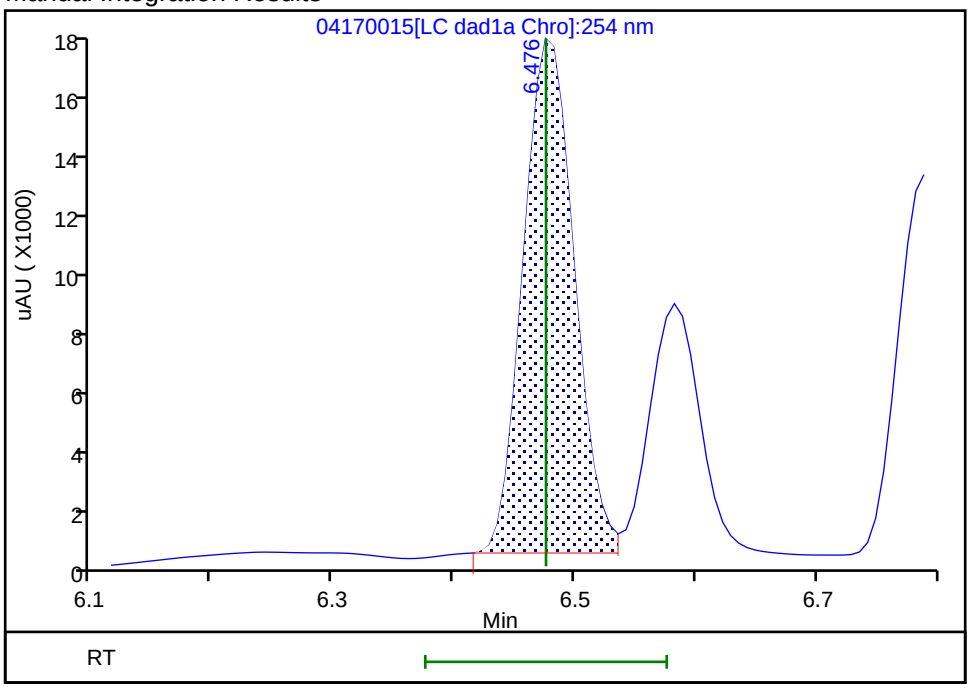
Processing Integration Results

RT: 6.48
Area: 50637
Amount: 0.246583
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 49234
Amount: 0.247417
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:15:14 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

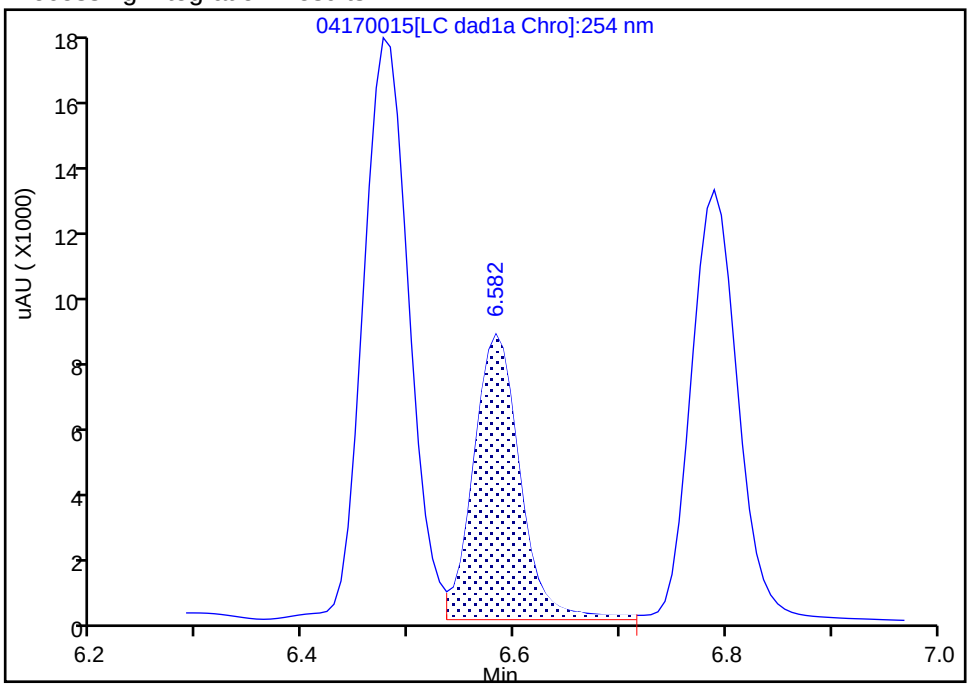
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170015.d
Injection Date: 17-Apr-2024 22:09:45 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

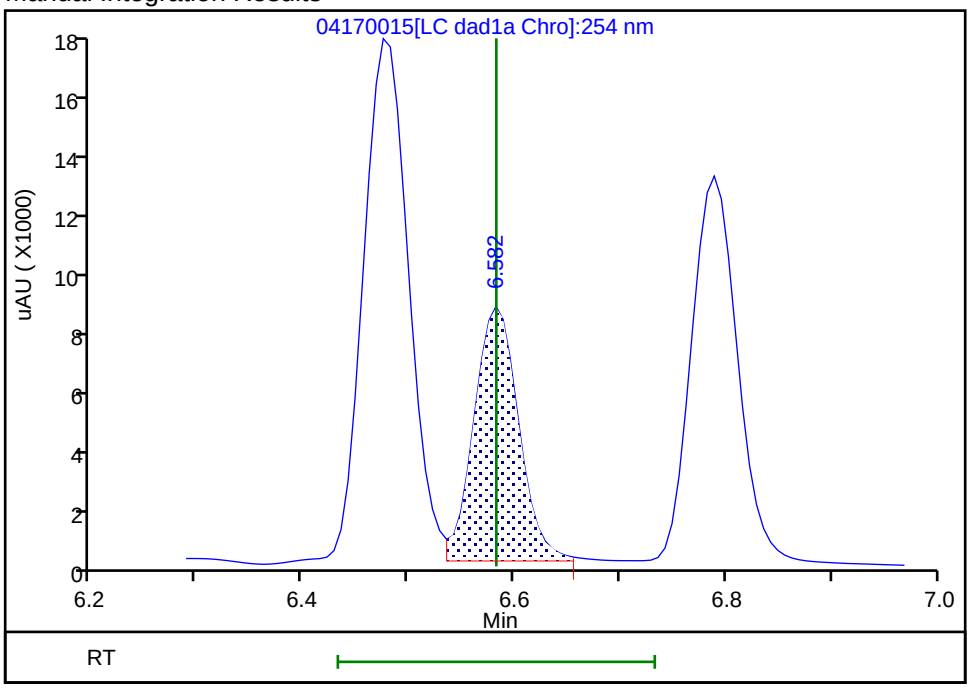
Processing Integration Results

RT: 6.58
Area: 25313
Amount: 0.246706
Amount Units: ug/mL



Manual Integration Results

RT: 6.58
Area: 23583
Amount: 0.246829
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:15:15 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

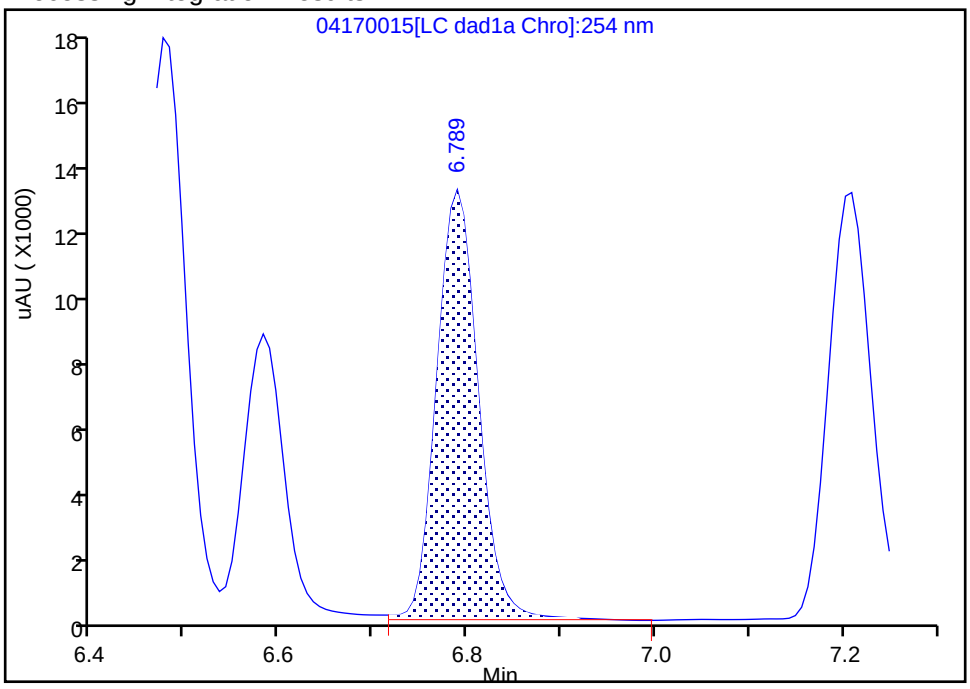
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170015.d
Injection Date: 17-Apr-2024 22:09:45 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

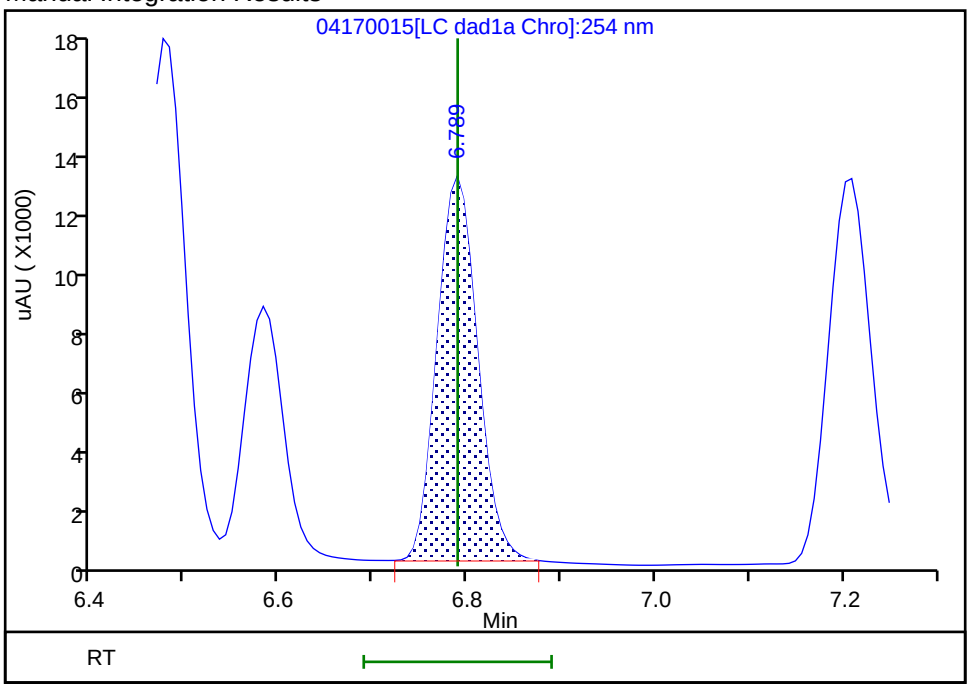
Processing Integration Results

RT: 6.79
Area: 38558
Amount: 0.252268
Amount Units: ug/mL



Manual Integration Results

RT: 6.79
Area: 36872
Amount: 0.250388
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:15:17 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

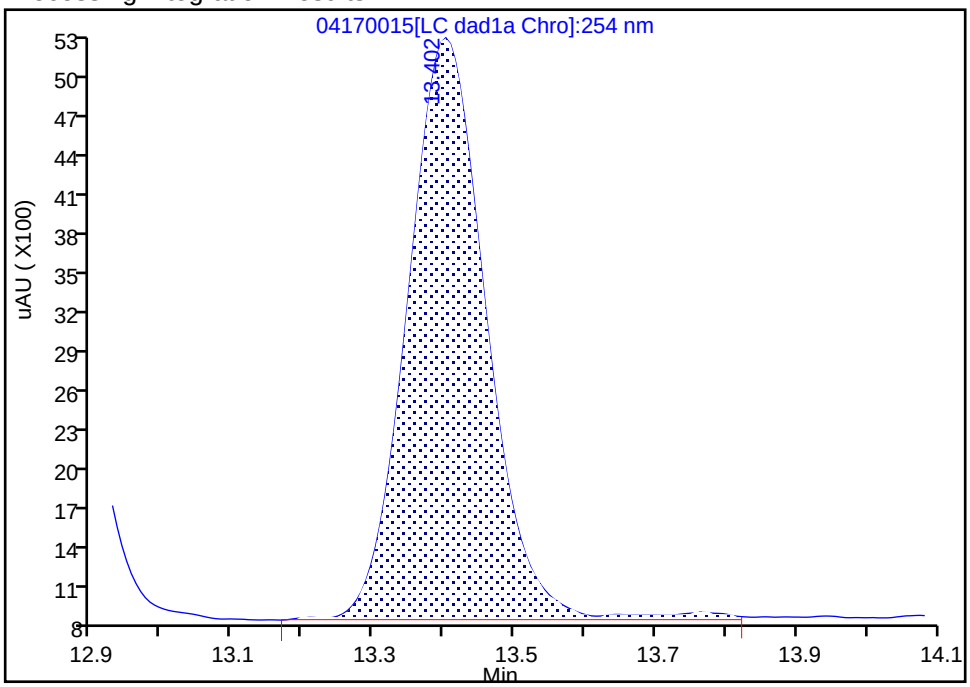
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170015.d
Injection Date: 17-Apr-2024 22:09:45 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

24 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

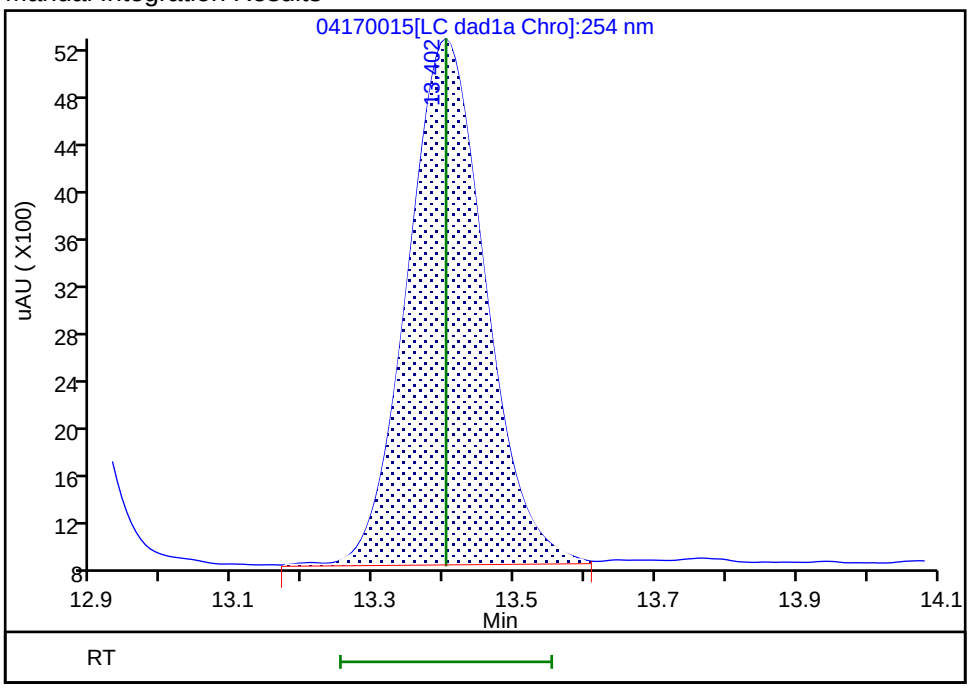
Processing Integration Results

RT: 13.40
Area: 34432
Amount: 0.238653
Amount Units: ug/mL



Manual Integration Results

RT: 13.40
Area: 33952
Amount: 0.235674
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:15:33 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170016.D
Lims ID: IC INT/DMT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 17-Apr-2024 22:32:42 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 4
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-Apr-2024 11:59:27 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:16:09

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.476	6.476	0.000	20006	0.1004	0.1005	M
4 HMX	1	6.583	6.583	0.000	9645	0.1000	0.1009	M
6 DNX	1	6.789	6.789	0.000	14834	0.1002	0.1007	M
7 MNX	1	7.203	7.203	0.000	15807	0.1169	0.1156	
8 RDX	1	7.583	7.583	0.000	11162	0.1000	0.1008	
9 2,4,6-Trinitrophenol	1	7.816	7.816	0.000	8016	0.1000	0.1011	
$ 10 1,2-Dinitrobenzene	1	8.516	8.516	0.000	13450	0.1000	0.1015	
11 1,3,5-Trinitrobenzene	1	8.656	8.656	0.000	22129	0.1000	0.0993	
12 1,3-Dinitrobenzene	1	9.276	9.276	0.000	30359	0.1000	0.1014	
13 Nitrobenzene	1	9.636	9.636	0.000	20035	0.1000	0.1020	
14 3,5-Dinitroaniline	1	9.876	9.876	0.000	22651	0.1000	0.1036	
15 Tetryl	1	9.963	9.963	0.000	18238	0.1000	0.1004	
16 Nitroglycerin	2	10.429	10.429	0.000	71367	1.00	1.07	
17 2,4,6-Trinitrotoluene	1	10.869	10.869	0.000	21912	0.1000	0.1018	
18 4-Amino-2,6-dinitrotoluene	1	11.049	11.049	0.000	15344	0.1000	0.1023	
19 2-Amino-4,6-dinitrotoluene	1	11.309	11.309	0.000	20033	0.1000	0.1003	
20 2,6-Dinitrotoluene	1	11.449	11.449	0.000	15218	0.1000	0.1036	
21 2,4-Dinitrotoluene	1	11.629	11.629	0.000	29452	0.1000	0.1009	
22 o-Nitrotoluene	1	12.423	12.423	0.000	12977	0.1000	0.1004	
23 p-Nitrotoluene	1	12.843	12.843	0.000	11360	0.1000	0.1007	
24 m-Nitrotoluene	1	13.403	13.403	0.000	14207	0.1000	0.0986	
25 PETN	2	14.483	14.483	0.000	72600	1.00	1.01	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080	Amount Added:	10.00	Units: uL
8330 DMT_00016	Amount Added:	5.00	Units: uL

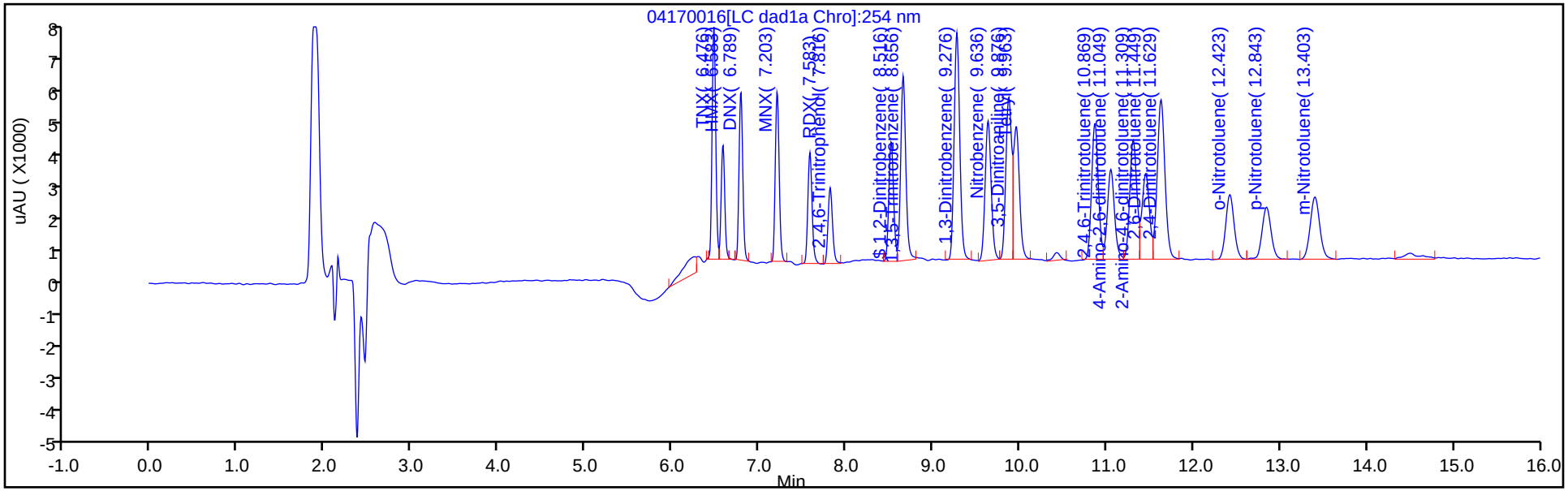
Report Date: 18-Apr-2024 11:59:27 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

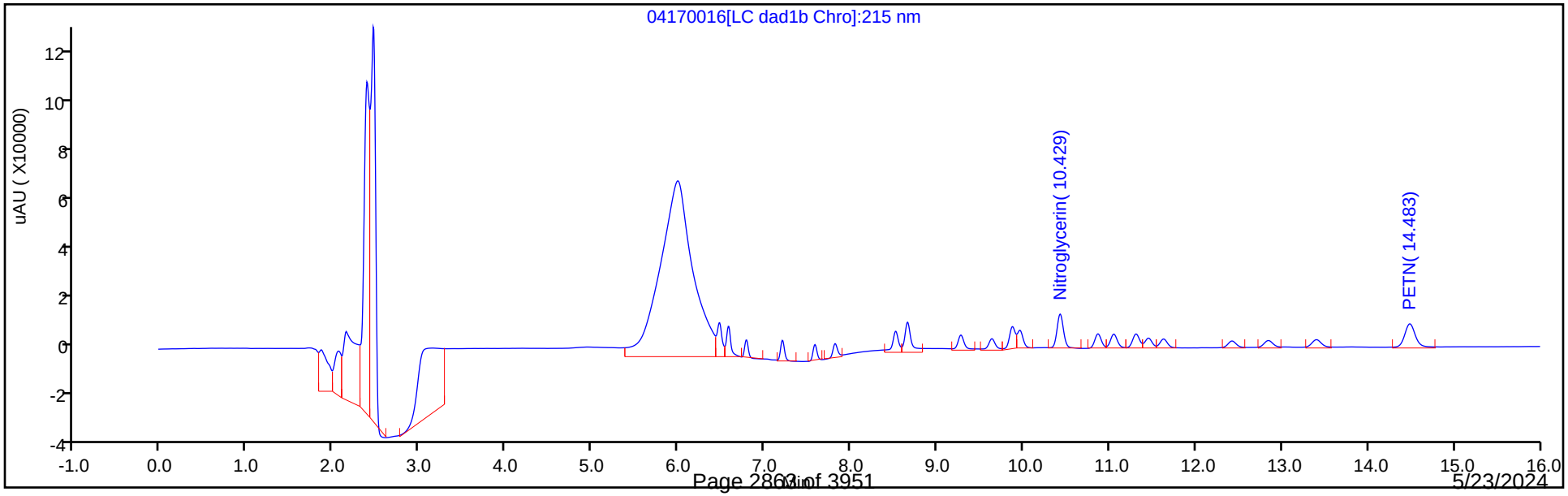
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170016.d

Injection Date:	17-Apr-2024 22:32:42	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 4			Worklist Smp#:	16
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

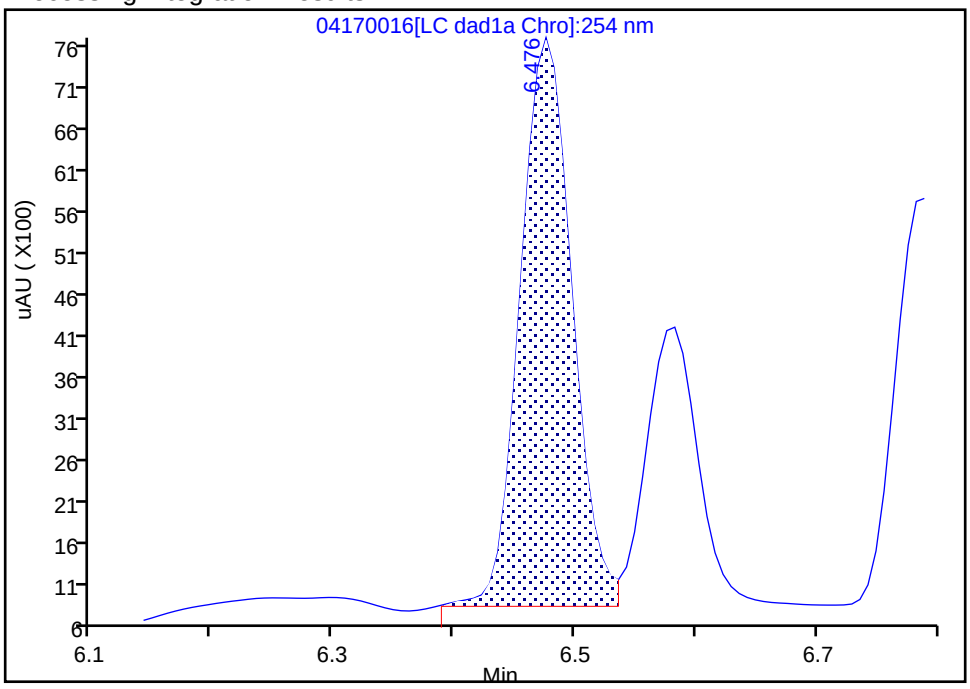
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170016.d				
Injection Date:	17-Apr-2024 22:32:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

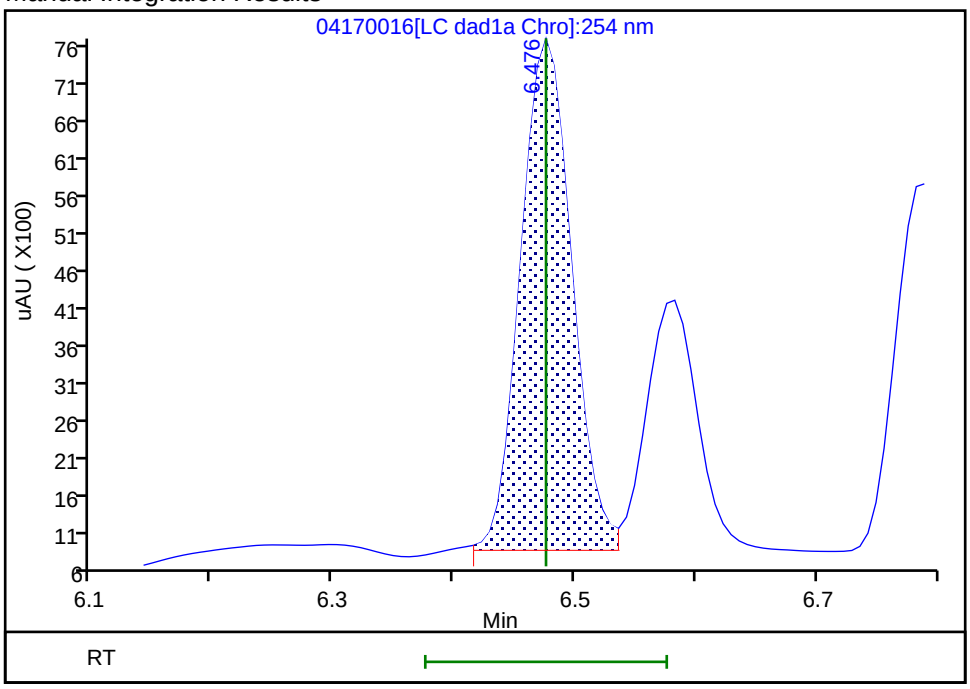
Processing Integration Results

RT: 6.48
Area: 20438
Amount: 0.099827
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 20006
Amount: 0.100537
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:16:01 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

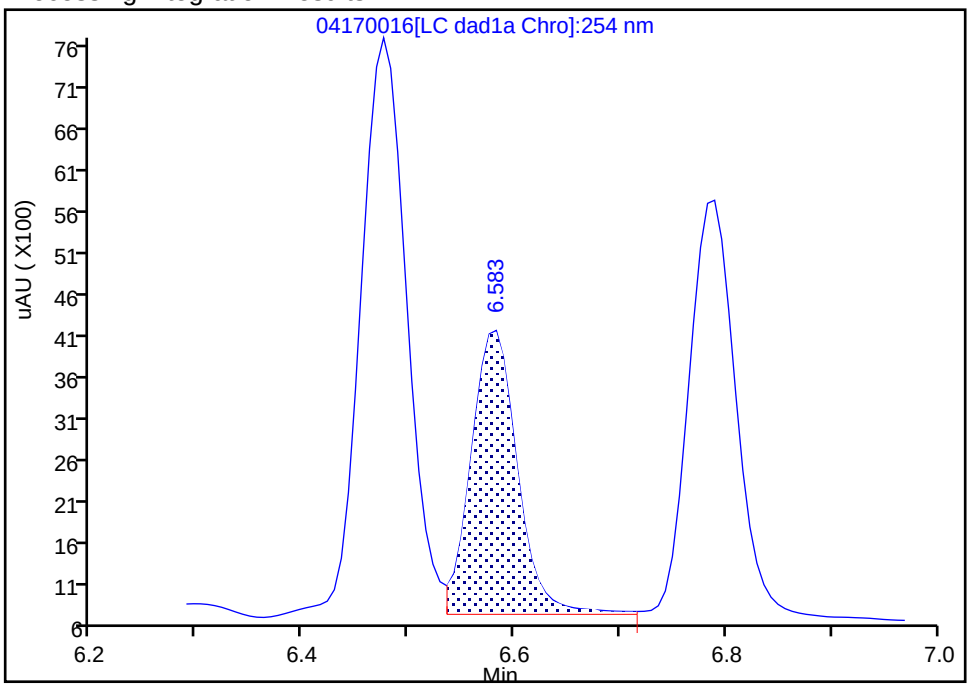
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170016.d				
Injection Date:	17-Apr-2024 22:32:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

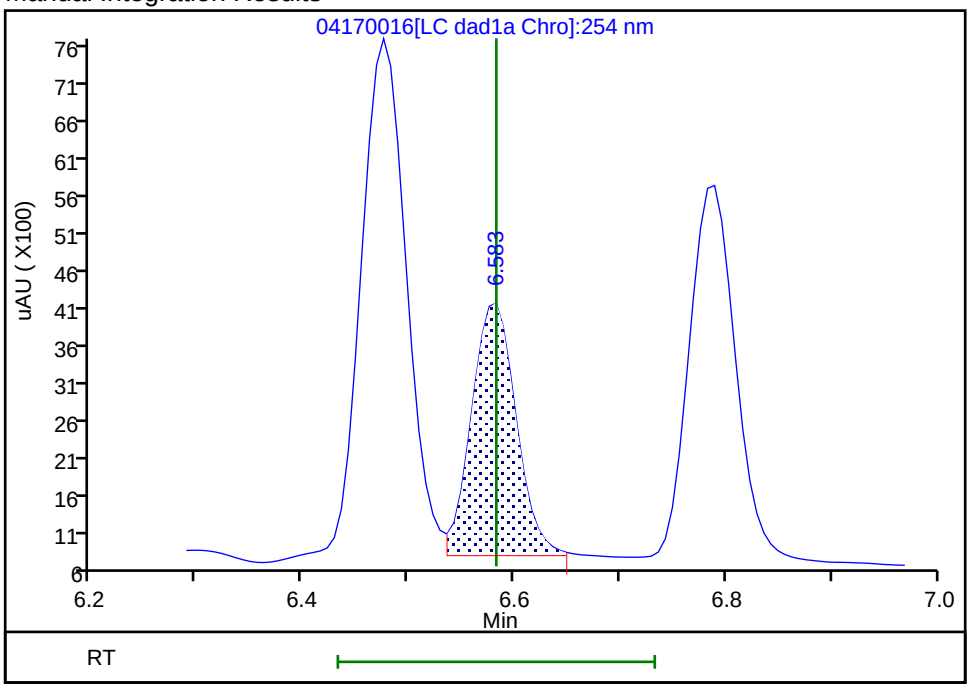
Processing Integration Results

RT: 6.58
Area: 10277
Amount: 0.100918
Amount Units: ug/mL



Manual Integration Results

RT: 6.58
Area: 9645
Amount: 0.100949
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:16:02 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

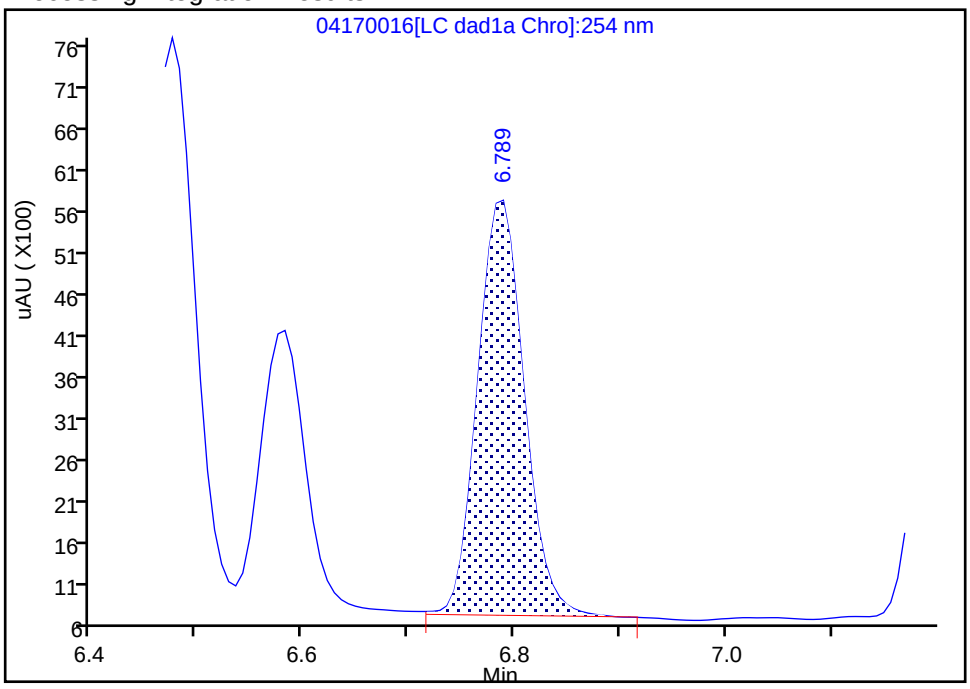
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170016.d
Injection Date: 17-Apr-2024 22:32:42 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

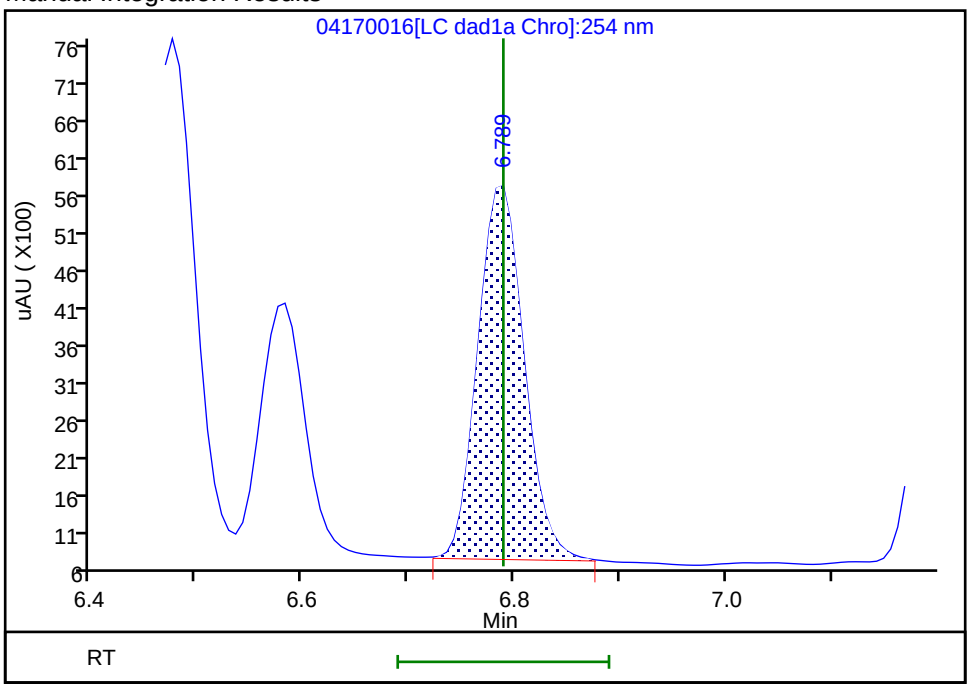
Processing Integration Results

RT: 6.79
Area: 15232
Amount: 0.100146
Amount Units: ug/mL



Manual Integration Results

RT: 6.79
Area: 14834
Amount: 0.100734
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:16:06 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

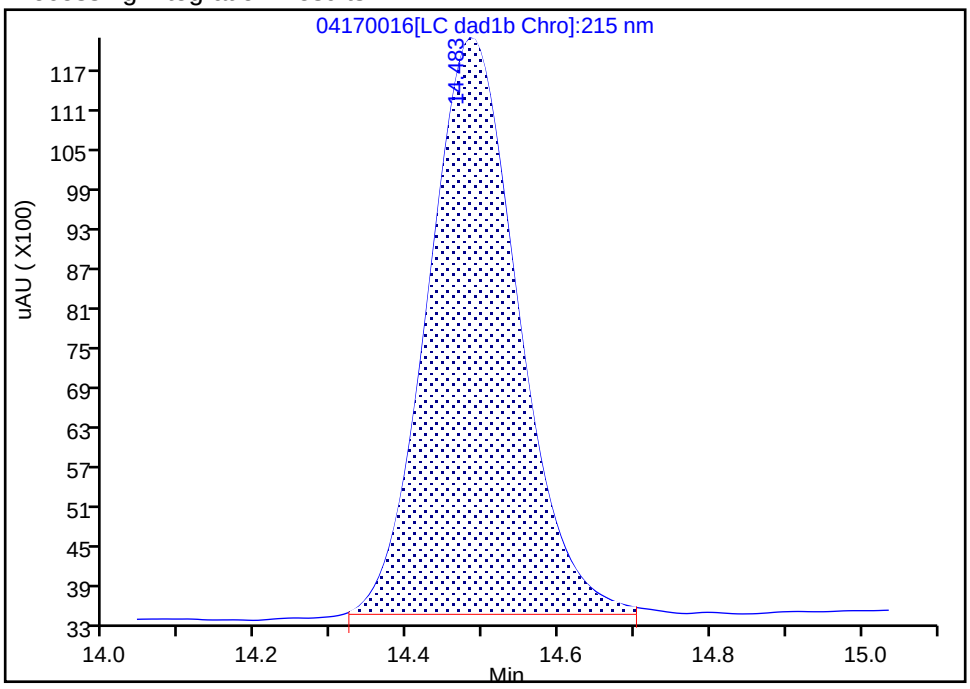
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170016.d
Injection Date: 17-Apr-2024 22:32:42 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

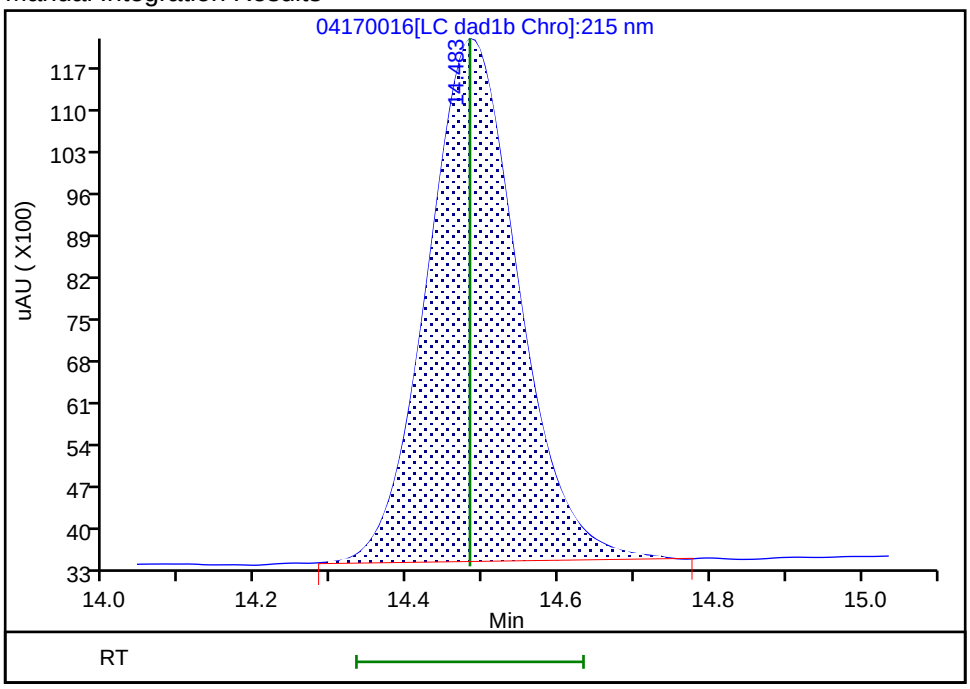
Processing Integration Results

RT: 14.48
Area: 72203
Amount: 1.039474
Amount Units: ug/mL



Manual Integration Results

RT: 14.48
Area: 72600
Amount: 1.009217
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:15:43 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170017.D
Lims ID: IC INT/DMT 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 17-Apr-2024 22:55:38 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 3
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-Apr-2024 11:59:28 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:16:33

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.478	6.476	0.002	9628	0.0502	0.0484	M
4 HMX	1	6.578	6.583	-0.005	4536	0.0500	0.0475	M
6 DNX	1	6.784	6.789	-0.005	7258	0.0501	0.0493	M
7 MNX	1	7.204	7.203	0.001	7887	0.0585	0.0577	
8 RDX	1	7.584	7.583	0.001	5612	0.0500	0.0507	
9 2,4,6-Trinitrophenol	1	7.818	7.816	0.002	3847	0.0500	0.0485	
$ 10 1,2-Dinitrobenzene	1	8.518	8.516	0.002	6521	0.0500	0.0488	
11 1,3,5-Trinitrobenzene	1	8.658	8.656	0.002	11258	0.0500	0.0505	
12 1,3-Dinitrobenzene	1	9.277	9.276	0.001	15023	0.0500	0.0502	
13 Nitrobenzene	1	9.631	9.636	-0.005	9759	0.0500	0.0497	
14 3,5-Dinitroaniline	1	9.871	9.876	-0.005	10781	0.0500	0.0499	
15 Tetryl	1	9.957	9.963	-0.006	9010	0.0500	0.0496	
16 Nitroglycerin	2	10.424	10.429	-0.005	35657	0.5000	0.5365	
17 2,4,6-Trinitrotoluene	1	10.864	10.869	-0.005	10669	0.0500	0.0496	
18 4-Amino-2,6-dinitrotoluene	1	11.044	11.049	-0.005	7533	0.0500	0.0502	
19 2-Amino-4,6-dinitrotoluene	1	11.304	11.309	-0.005	9923	0.0500	0.0497	
20 2,6-Dinitrotoluene	1	11.451	11.449	0.002	7267	0.0500	0.0495	
21 2,4-Dinitrotoluene	1	11.624	11.629	-0.005	14425	0.0500	0.0494	
22 o-Nitrotoluene	1	12.424	12.423	0.001	6526	0.0500	0.0505	
23 p-Nitrotoluene	1	12.844	12.843	0.001	5631	0.0500	0.0499	
24 m-Nitrotoluene	1	13.404	13.403	0.001	7074	0.0500	0.0491	
25 PETN	2	14.491	14.483	0.008	35216	0.5000	0.4895	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080	Amount Added:	5.00	Units: uL
8330 DMT_00016	Amount Added:	2.50	Units: uL

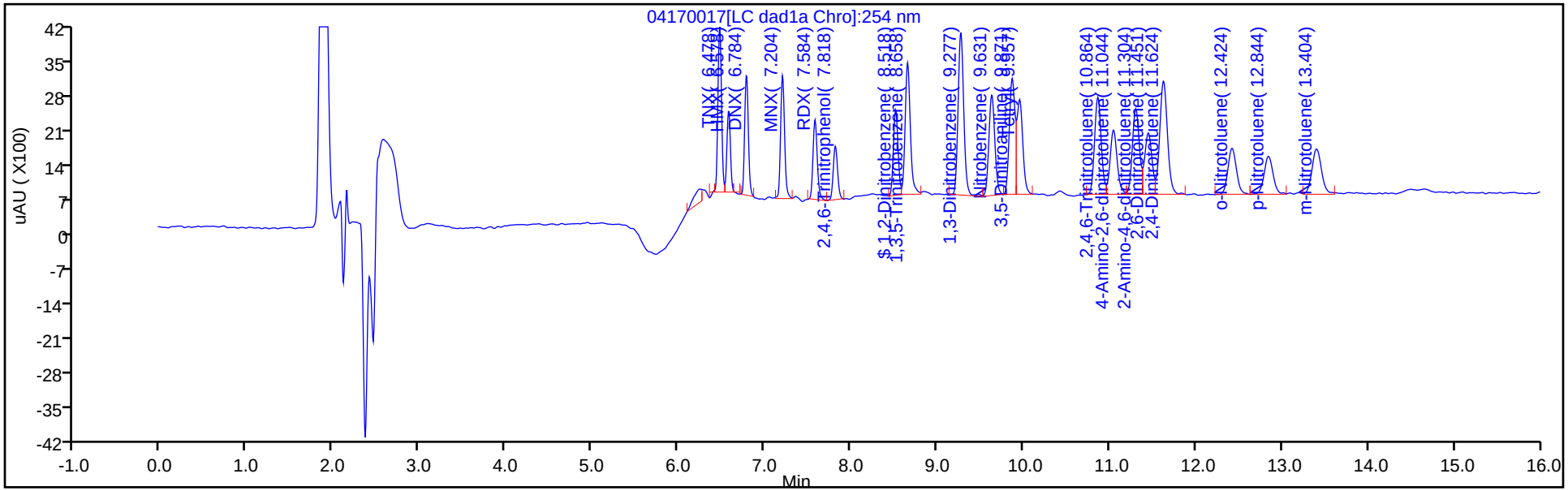
Report Date: 18-Apr-2024 11:59:28 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

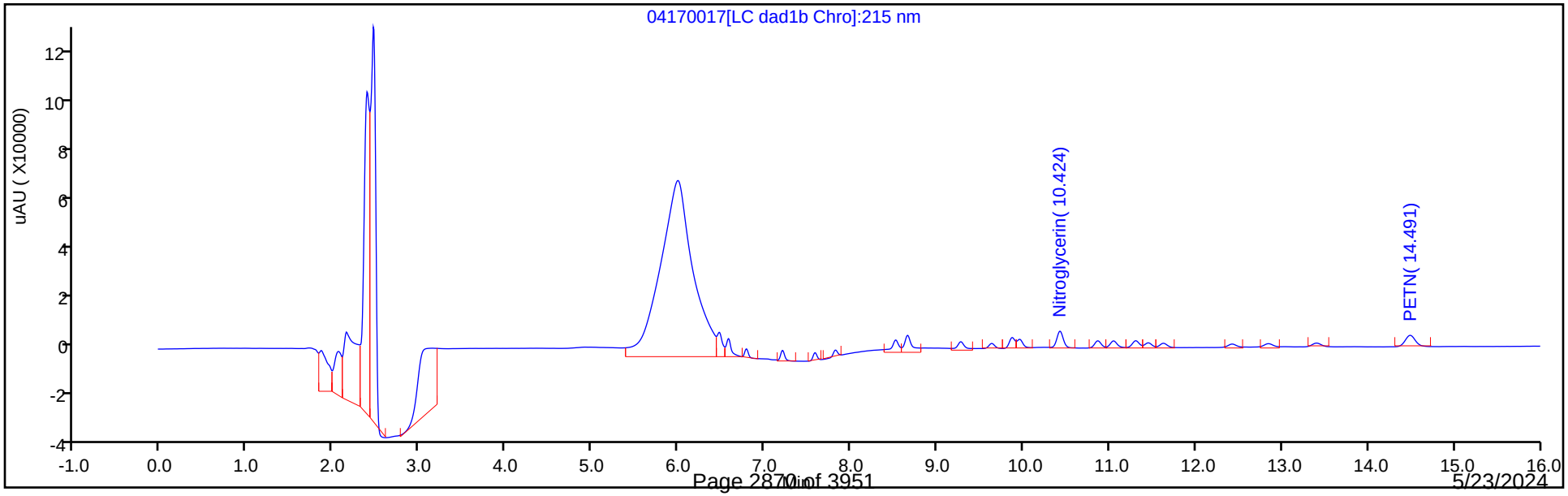
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170017.d

Injection Date:	17-Apr-2024 22:55:38	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 3			Worklist Smp#:	17
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

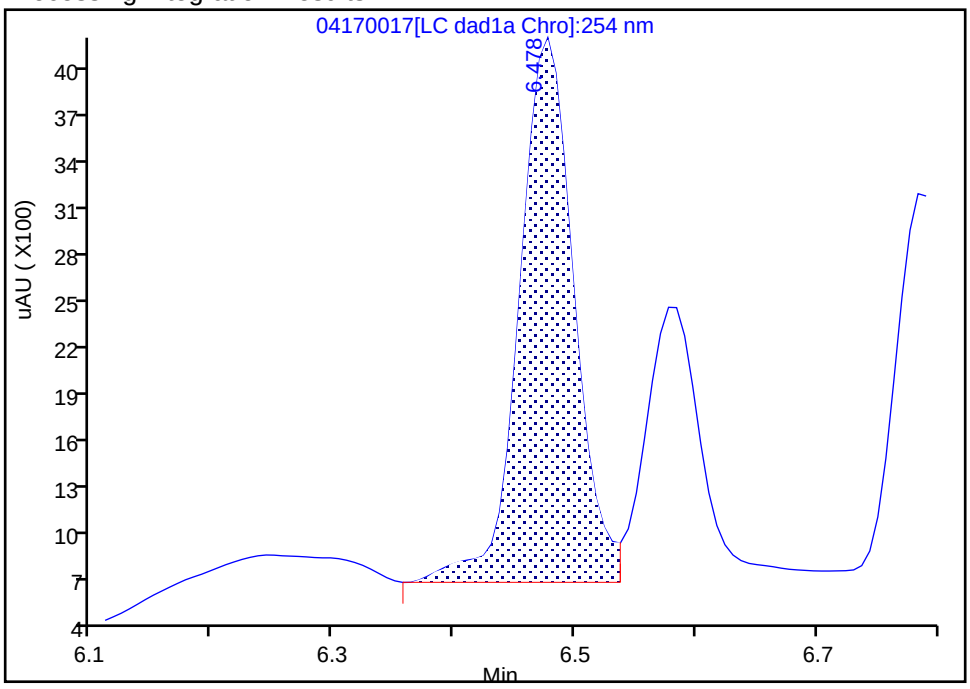
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170017.d
Injection Date: 17-Apr-2024 22:55:38 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

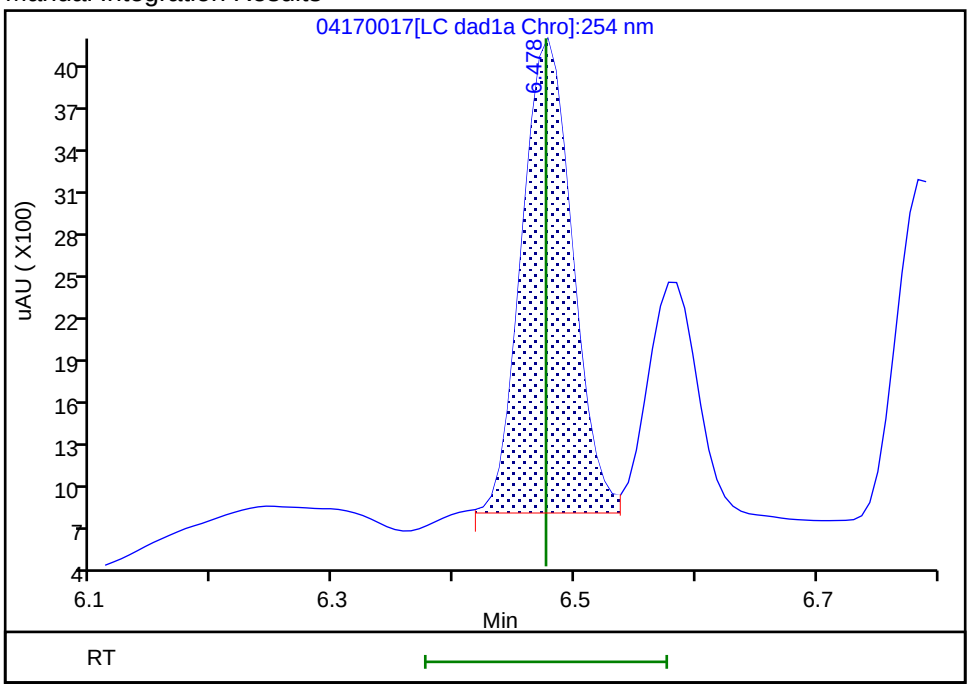
Processing Integration Results

RT: 6.48
Area: 10871
Amount: 0.053223
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 9628
Amount: 0.048384
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:16:21 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

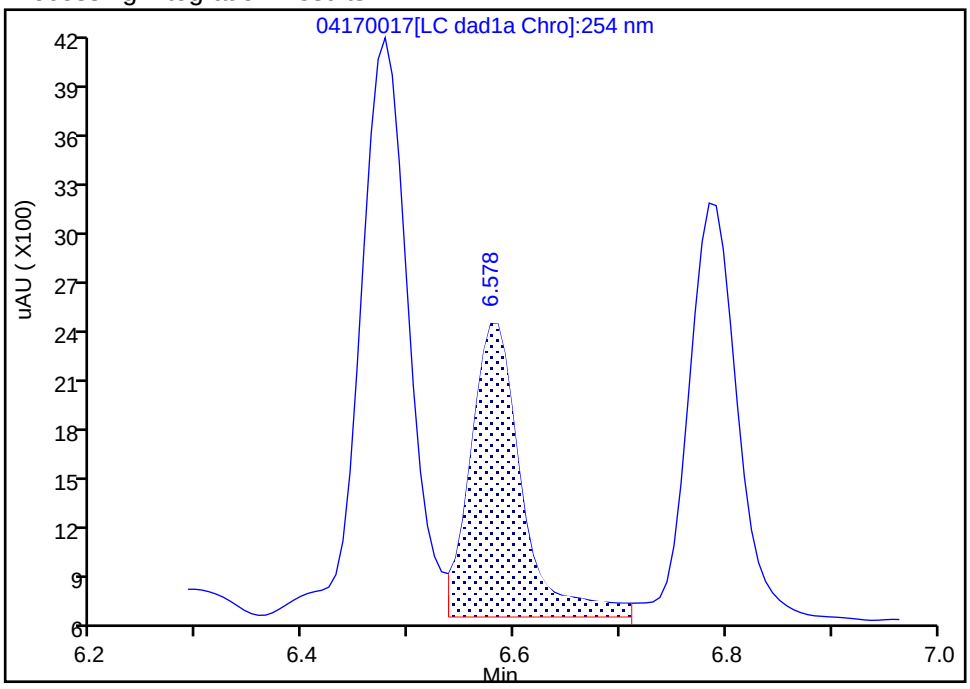
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170017.d
Injection Date: 17-Apr-2024 22:55:38 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

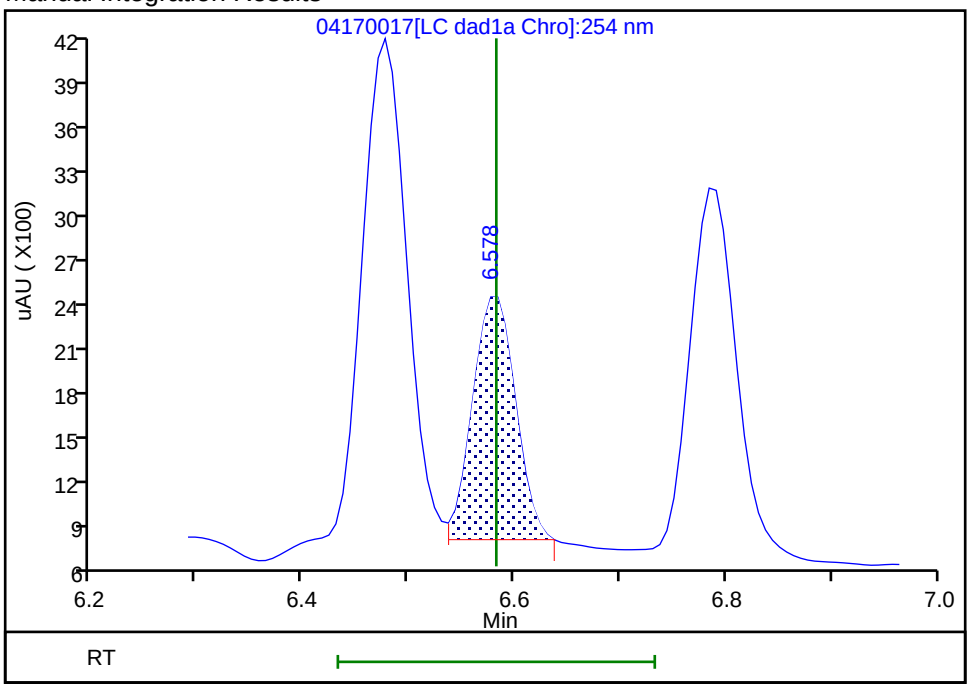
Processing Integration Results

RT: 6.58
Area: 5791
Amount: 0.057261
Amount Units: ug/mL



Manual Integration Results

RT: 6.58
Area: 4536
Amount: 0.047476
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:16:22 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

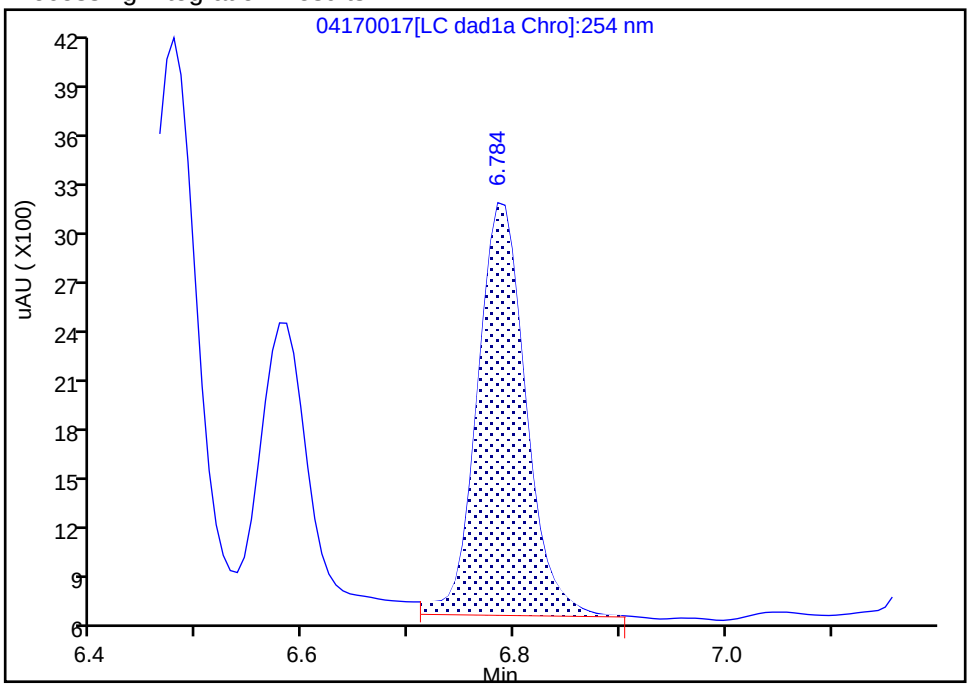
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170017.d				
Injection Date:	17-Apr-2024 22:55:38	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

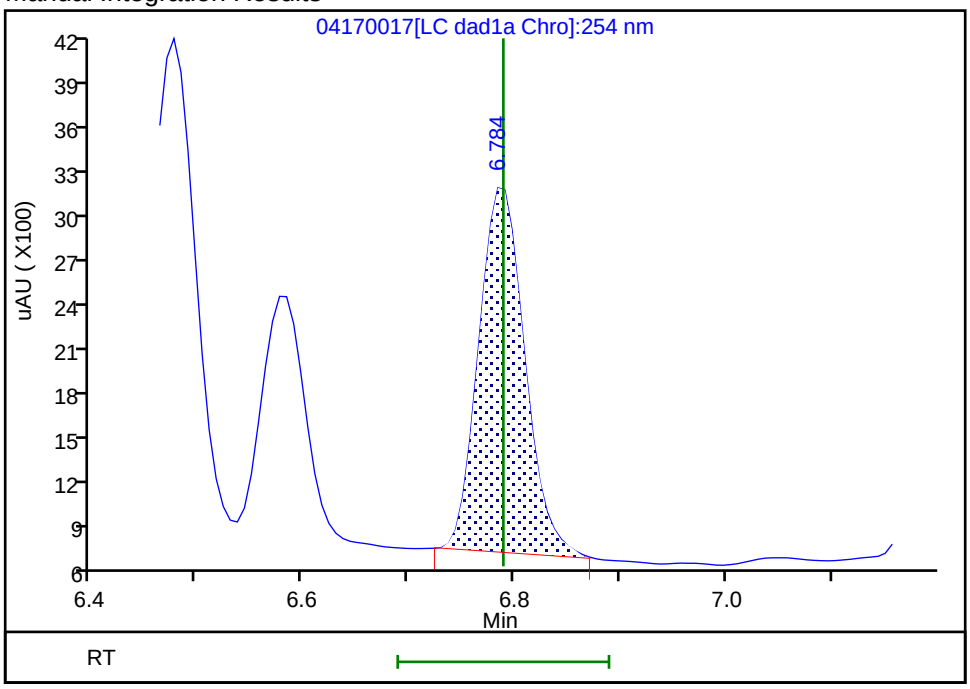
Processing Integration Results

RT: 6.78
Area: 7818
Amount: 0.051551
Amount Units: ug/mL



Manual Integration Results

RT: 6.78
Area: 7258
Amount: 0.049287
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:16:26 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

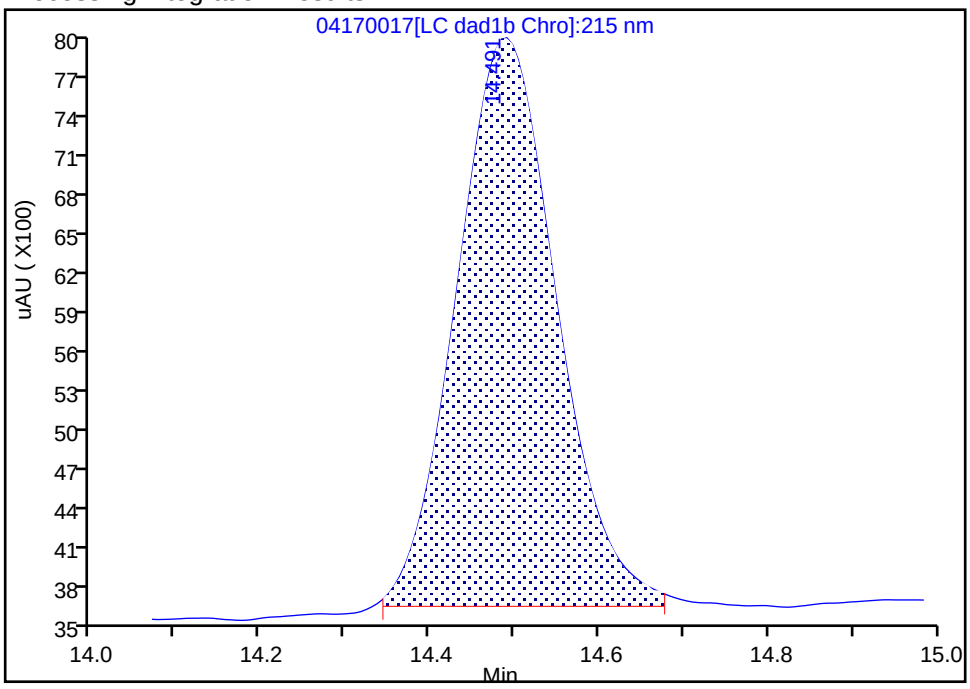
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170017.d
Injection Date: 17-Apr-2024 22:55:38 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

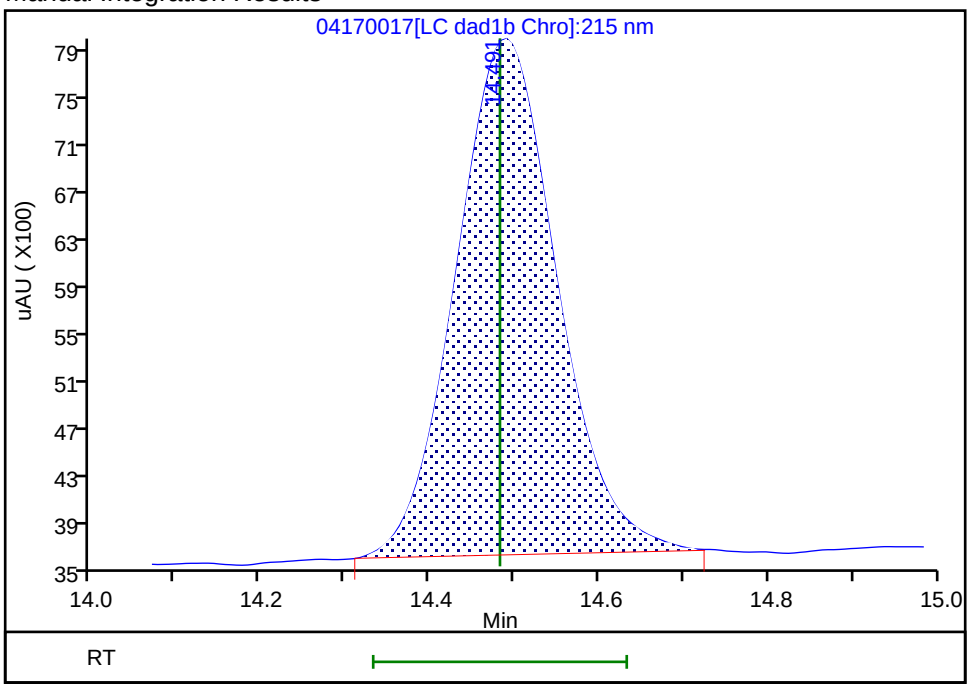
Processing Integration Results

RT: 14.49
Area: 34790
Amount: 0.500498
Amount Units: ug/mL



Manual Integration Results

RT: 14.49
Area: 35216
Amount: 0.489540
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:16:31 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170018.D
Lims ID: IC INT/DMT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 17-Apr-2024 23:18:32 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 2
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-Apr-2024 11:59:29 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:17:35

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.475	6.476	-0.001	4023	0.0201	0.0202	
4 HMX	1	6.582	6.583	-0.001	2017	0.0200	0.0211	
6 DNX	1	6.788	6.789	-0.001	2843	0.0200	0.0193	M
7 MNX	1	7.202	7.203	-0.001	2991	0.0234	0.0219	
8 RDX	1	7.582	7.583	-0.001	2334	0.0200	0.0211	
9 2,4,6-Trinitrophenol	1	7.822	7.816	0.006	1524	0.0200	0.0192	
$ 10 1,2-Dinitrobenzene	1	8.522	8.516	0.006	2603	0.0200	0.0191	M
11 1,3,5-Trinitrobenzene	1	8.655	8.656	-0.001	4349	0.0200	0.0195	M
12 1,3-Dinitrobenzene	1	9.275	9.276	-0.001	5678	0.0200	0.0190	
13 Nitrobenzene	1	9.635	9.636	-0.001	3932	0.0200	0.0200	
14 3,5-Dinitroaniline	1	9.868	9.876	-0.008	4171	0.0200	0.0199	M
15 Tetryl	1	9.955	9.963	-0.008	3374	0.0200	0.0186	Ma
16 Nitroglycerin	2	10.422	10.429	-0.007	11963	0.2000	0.1800	M
17 2,4,6-Trinitrotoluene	1	10.862	10.869	-0.007	4400	0.0200	0.0204	
18 4-Amino-2,6-dinitrotoluene	1	11.042	11.049	-0.007	3261	0.0200	0.0217	
19 2-Amino-4,6-dinitrotoluene	1	11.302	11.309	-0.007	3997	0.0200	0.0200	
20 2,6-Dinitrotoluene	1	11.448	11.449	-0.001	2880	0.0200	0.0196	
21 2,4-Dinitrotoluene	1	11.622	11.629	-0.007	5793	0.0200	0.0198	
22 o-Nitrotoluene	1	12.415	12.423	-0.008	2777	0.0200	0.0215	
23 p-Nitrotoluene	1	12.842	12.843	-0.001	2413	0.0200	0.0214	
24 m-Nitrotoluene	1	13.395	13.403	-0.008	3066	0.0200	0.0213	
25 PETN	2	14.482	14.483	-0.001	14174	0.2000	0.1970	M

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00080	Amount Added:	2.00	Units: uL
8330 DMT_00016	Amount Added:	1.00	Units: uL

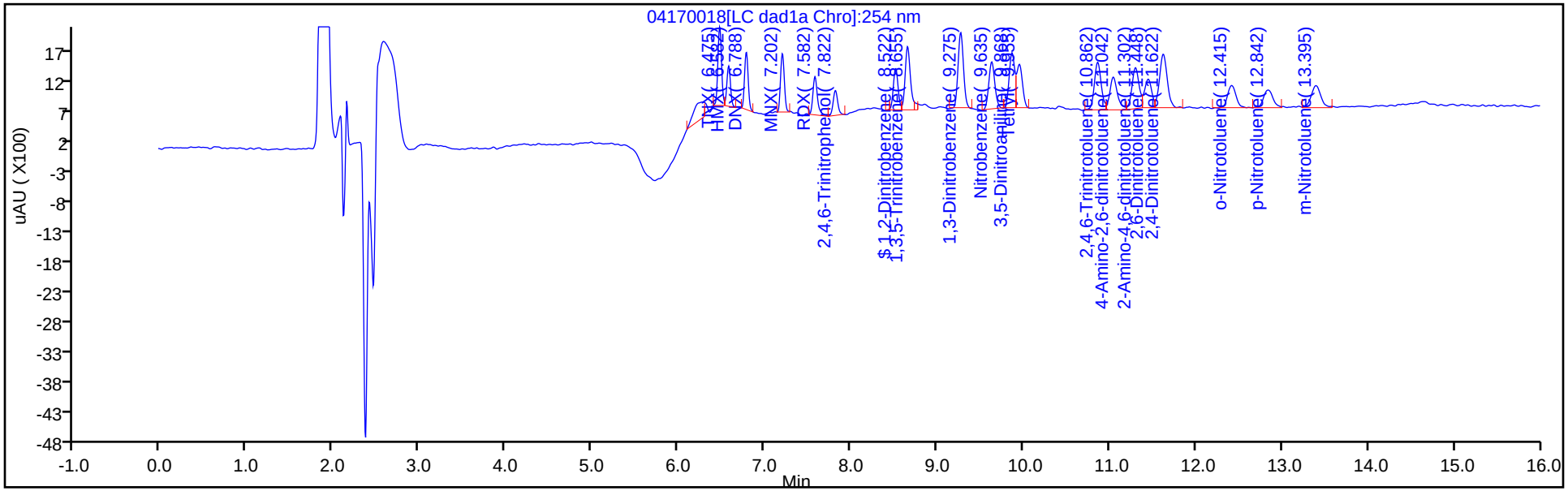
Report Date: 18-Apr-2024 11:59:29 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

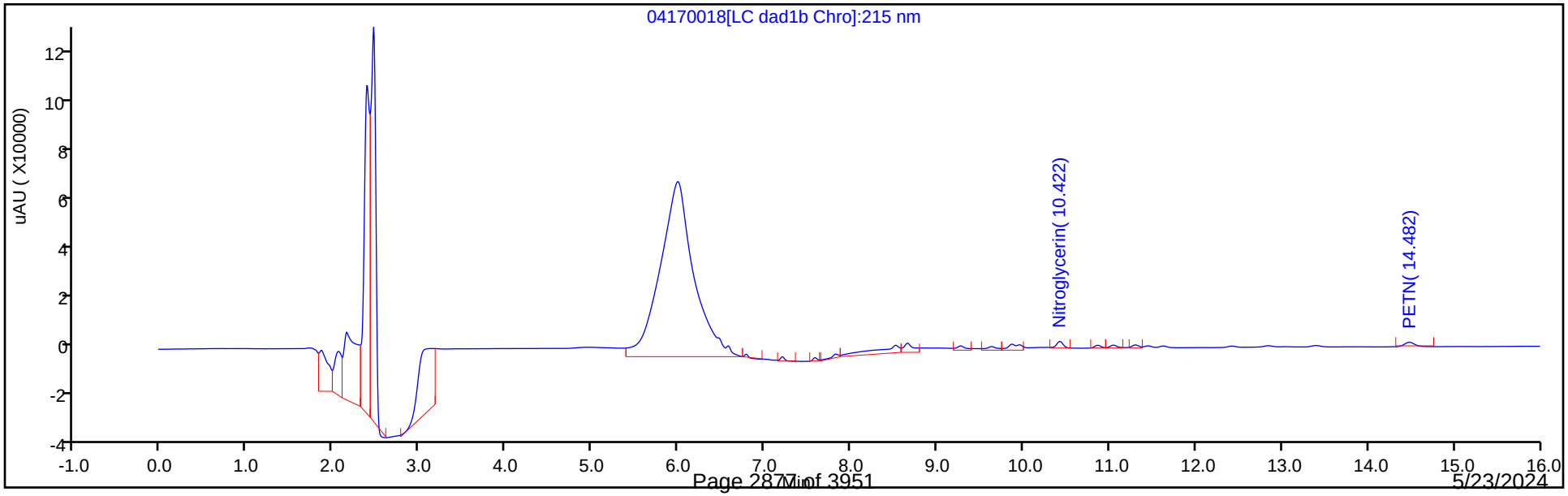
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d

Injection Date:	17-Apr-2024 23:18:32	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 2			Worklist Smp#:	18
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

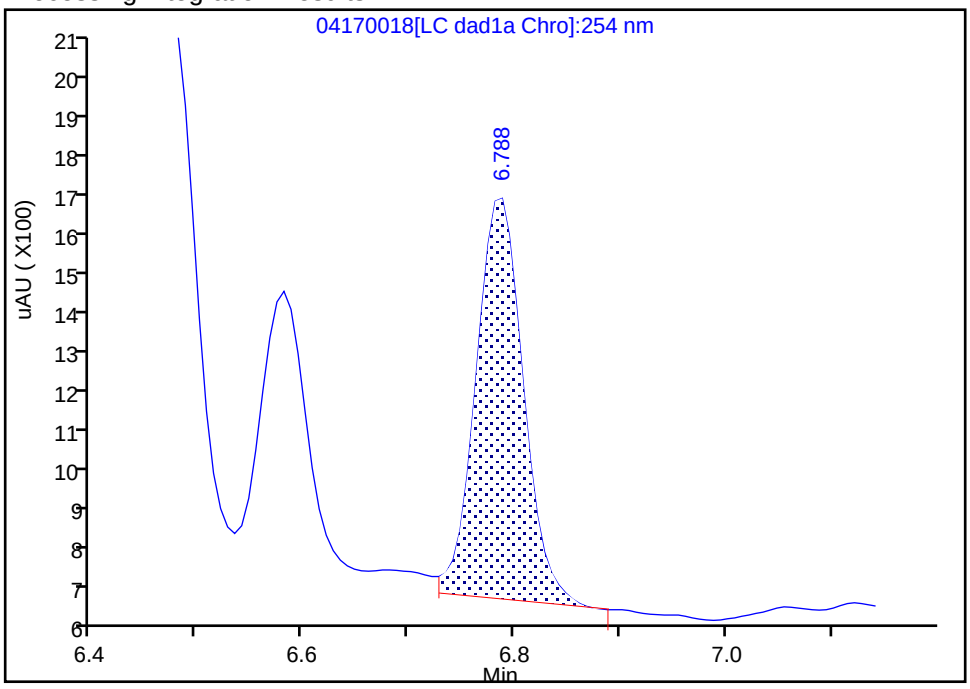
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d				
Injection Date:	17-Apr-2024 23:18:32	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

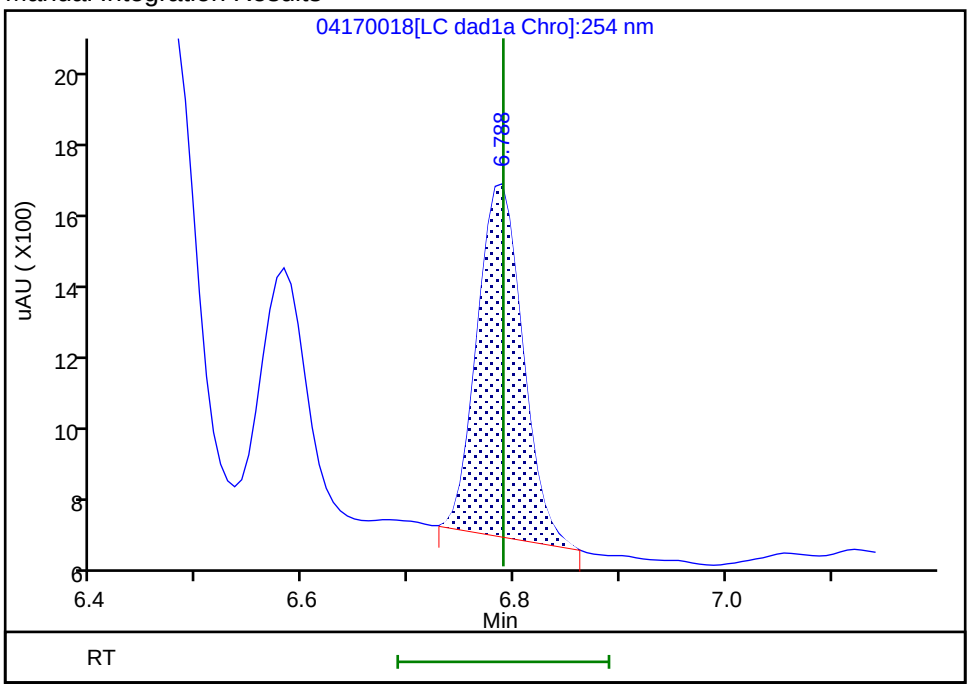
Processing Integration Results

RT: 6.79
Area: 3044
Amount: 0.020237
Amount Units: ug/mL



Manual Integration Results

RT: 6.79
Area: 2843
Amount: 0.019306
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:17:01 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

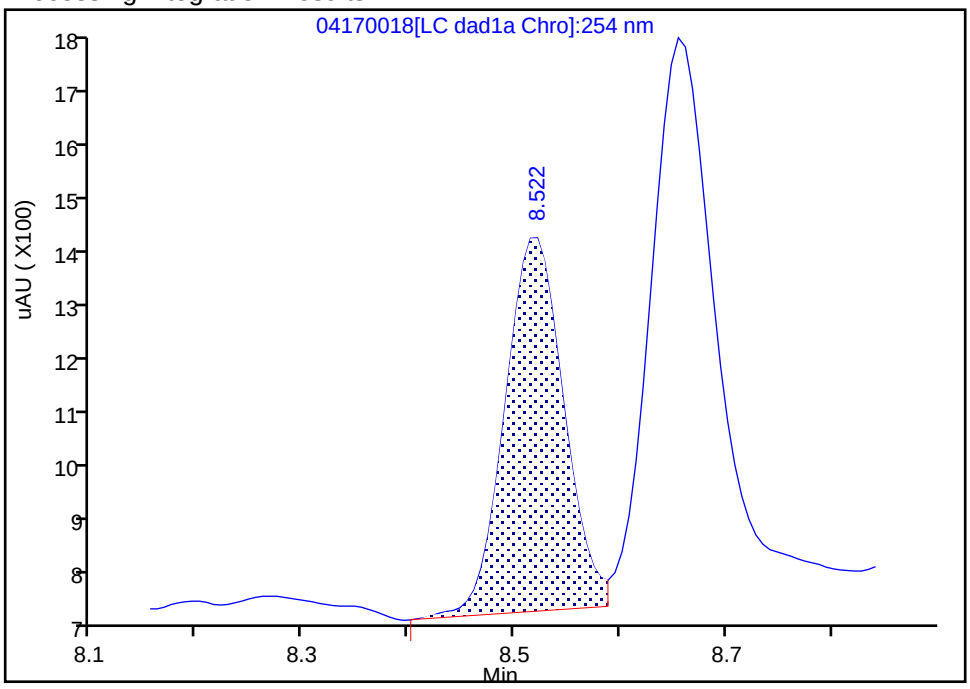
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

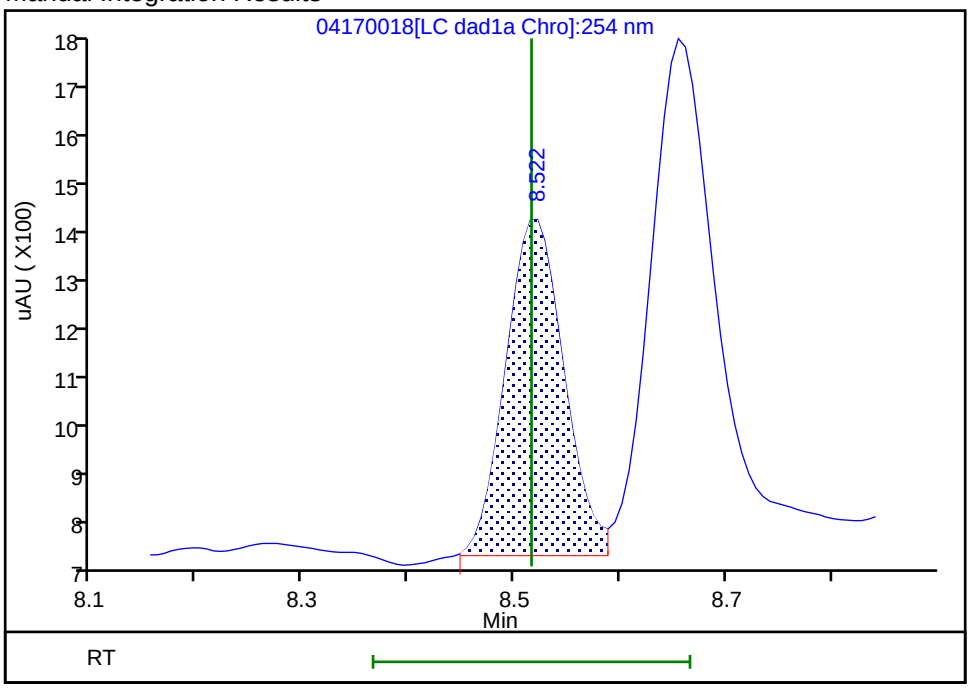
Processing Integration Results

RT: 8.52
Area: 2640
Amount: 0.019730
Amount Units: ug/mL



Manual Integration Results

RT: 8.52
Area: 2603
Amount: 0.019063
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:19:58 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

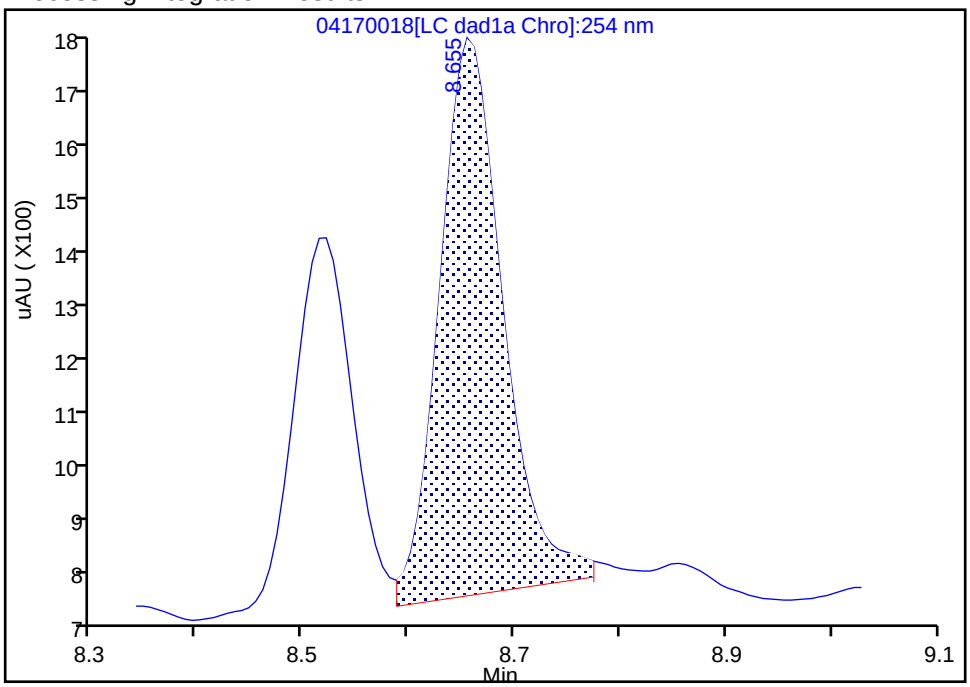
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

11 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

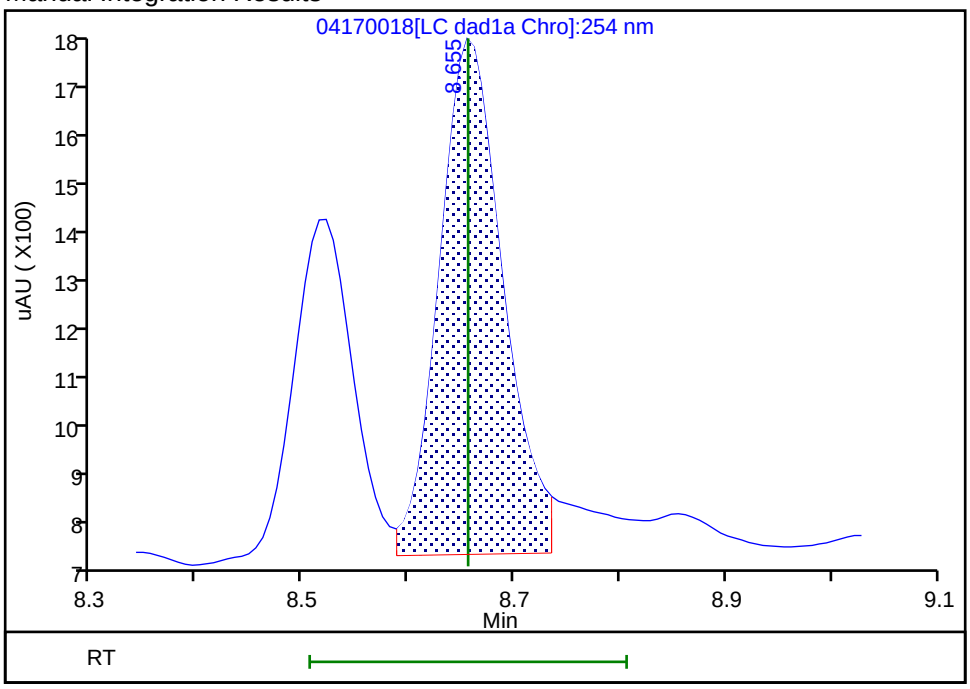
Processing Integration Results

RT: 8.66
Area: 4251
Amount: 0.019122
Amount Units: ug/mL



Manual Integration Results

RT: 8.66
Area: 4349
Amount: 0.019515
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:19:57 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

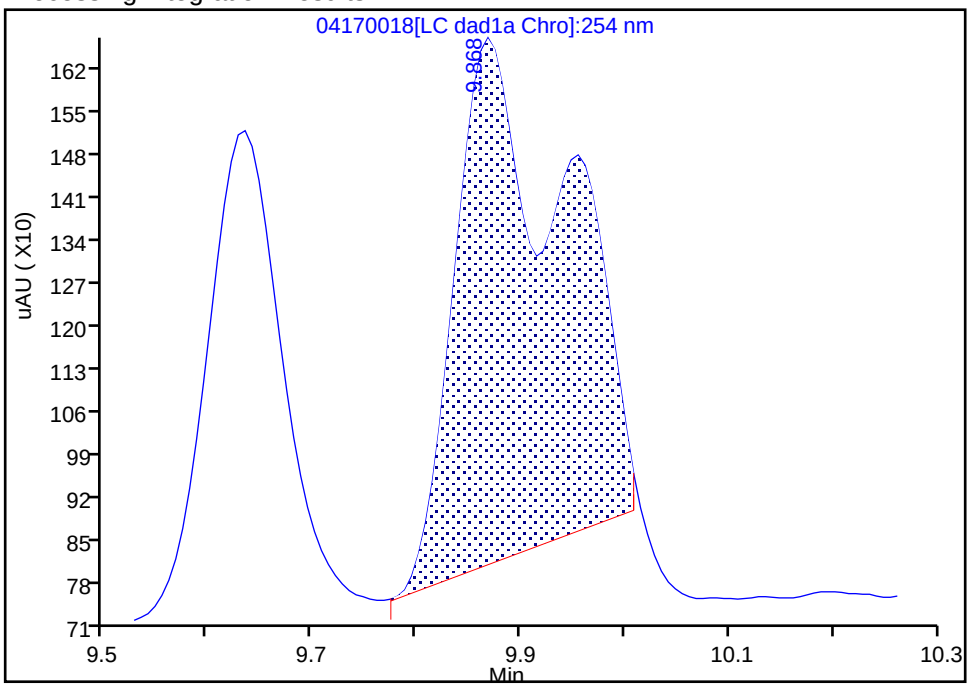
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

14 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

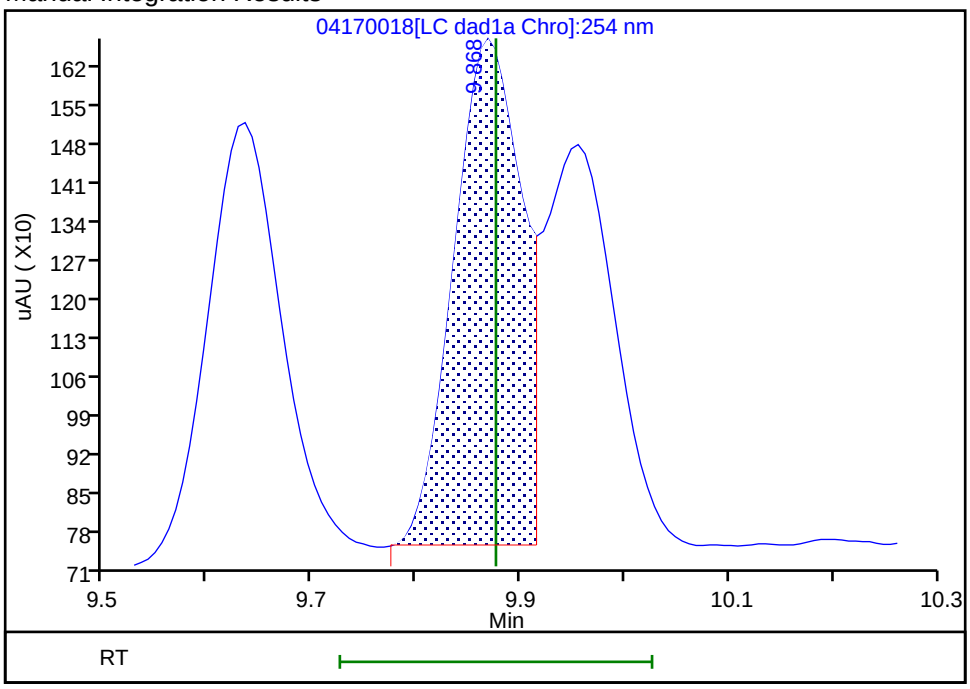
Processing Integration Results

RT: 9.87
Area: 6350
Amount: 0.025070
Amount Units: ug/mL



Manual Integration Results

RT: 9.87
Area: 4171
Amount: 0.019946
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:17:15 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

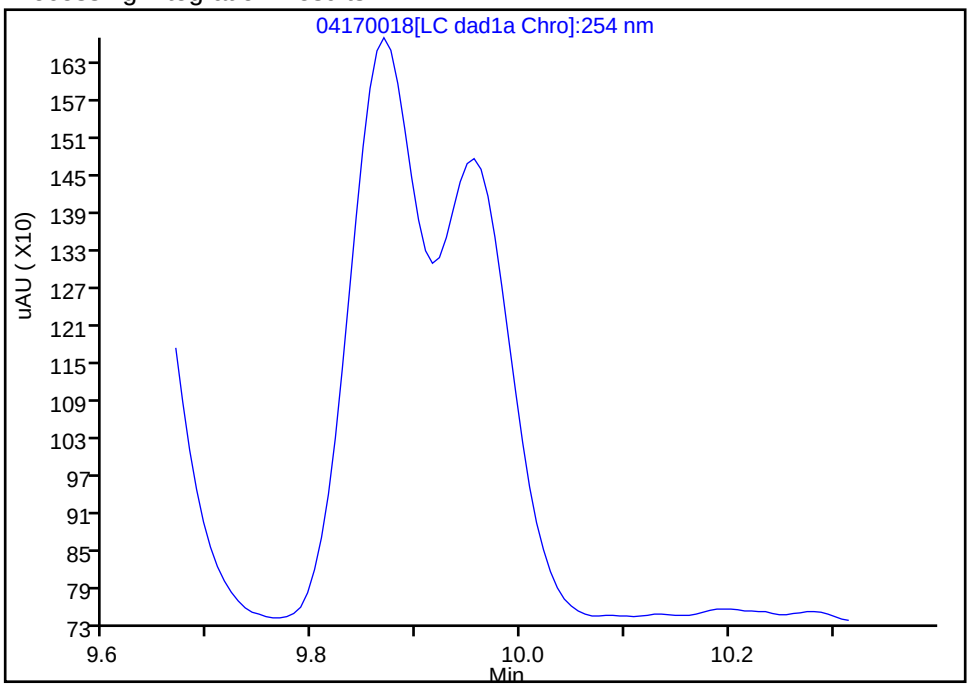
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d				
Injection Date:	17-Apr-2024 23:18:32	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

15 Tetryl, CAS: 479-45-8

Signal: 1

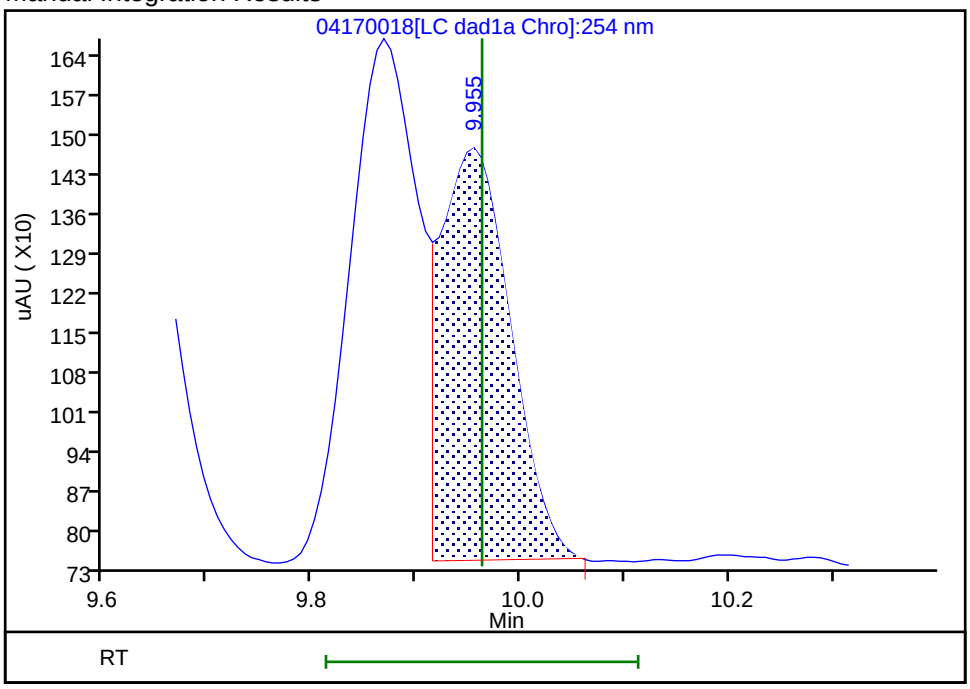
Not Detected
Expected RT: 9.96

Processing Integration Results



Manual Integration Results

RT: 9.95
Area: 3374
Amount: 0.018581
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:17:18 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

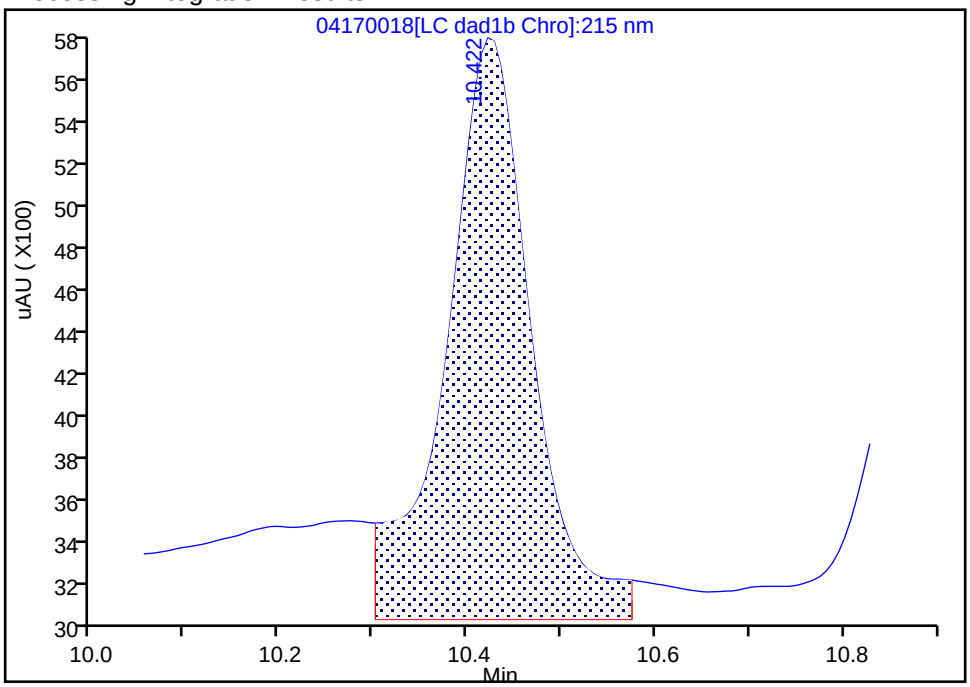
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

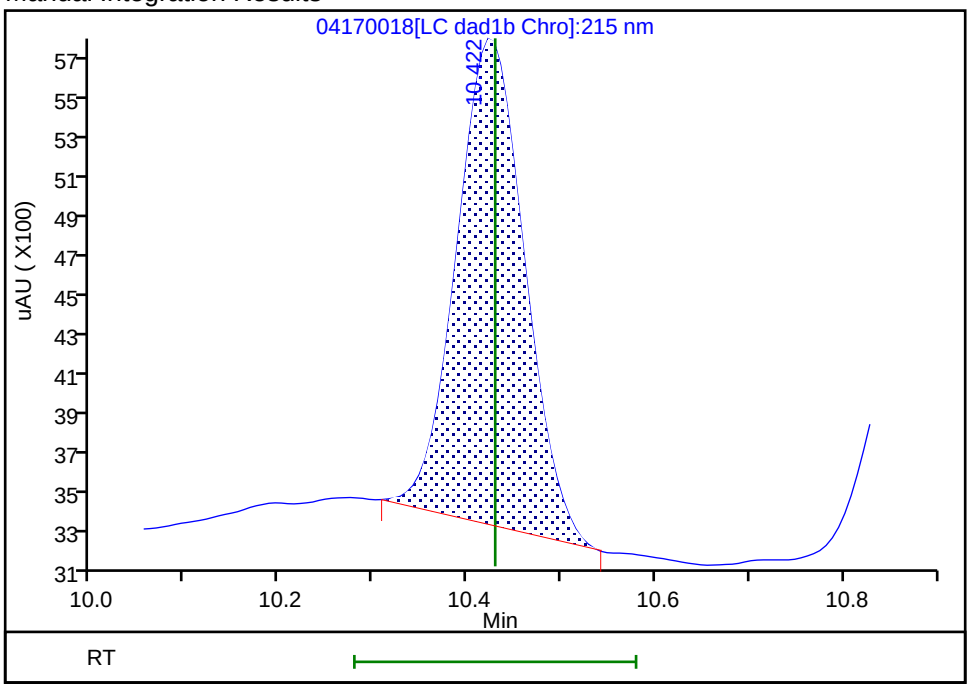
Processing Integration Results

RT: 10.42
Area: 17067
Amount: 0.169937
Amount Units: ug/mL



Manual Integration Results

RT: 10.42
Area: 11963
Amount: 0.179992
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:17:33 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

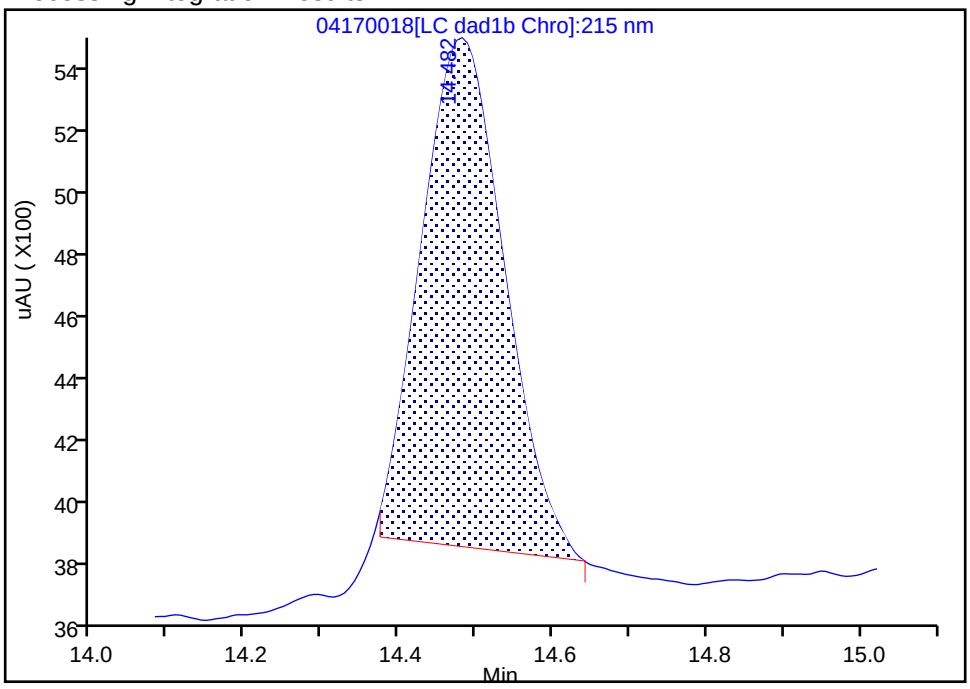
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

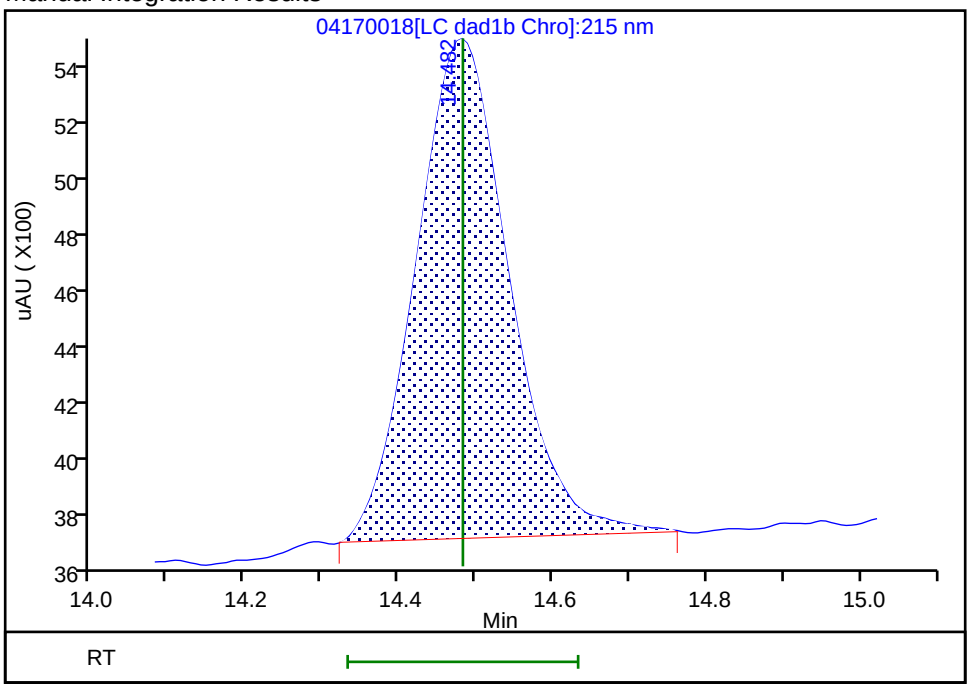
Processing Integration Results

RT: 14.48
Area: 11689
Amount: 0.167904
Amount Units: ug/mL



Manual Integration Results

RT: 14.48
Area: 14174
Amount: 0.197034
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:17:28 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170019.D
Lims ID: IC INT/DMT 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 17-Apr-2024 23:41:30 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 1
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-Apr-2024 11:59:31 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:19:45

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.480	6.476	0.004	2051	0.0100	0.0103	M
4 HMX	1	6.580	6.583	-0.003	919	0.0100	0.009619	M
6 DNX	1	6.786	6.789	-0.003	1516	0.0100	0.0103	M
7 MNX	1	7.206	7.203	0.003	1649	0.0117	0.0121	
8 RDX	1	7.580	7.583	-0.003	1187	0.0100	0.0107	M
9 2,4,6-Trinitrophenol	1	7.820	7.816	0.004	787	0.0100	0.0099	
$ 10 1,2-Dinitrobenzene	1	8.520	8.516	0.004	1445	0.0100	0.0103	M
11 1,3,5-Trinitrobenzene	1	8.660	8.656	0.004	2549	0.0100	0.0114	M
12 1,3-Dinitrobenzene	1	9.273	9.276	-0.003	3086	0.0100	0.0103	
13 Nitrobenzene	1	9.633	9.636	-0.003	1985	0.0100	0.0101	
14 3,5-Dinitroaniline	1	9.873	9.876	-0.003	1971	0.0100	0.0100	M
15 Tetryl	1	9.953	9.963	-0.010	1835	0.0100	0.0101	Ma
16 Nitroglycerin	2	10.426	10.429	-0.003	6048	0.1000	0.0910	M
17 2,4,6-Trinitrotoluene	1	10.866	10.869	-0.003	2081	0.0100	0.009670	
18 4-Amino-2,6-dinitrotoluene	1	11.046	11.049	-0.003	1406	0.0100	0.009377	
19 2-Amino-4,6-dinitrotoluene	1	11.306	11.309	-0.003	1951	0.0100	0.009764	
20 2,6-Dinitrotoluene	1	11.453	11.449	0.004	1557	0.0100	0.0106	
21 2,4-Dinitrotoluene	1	11.626	11.629	-0.003	2993	0.0100	0.0103	
22 o-Nitrotoluene	1	12.419	12.423	-0.004	1340	0.0100	0.0104	
23 p-Nitrotoluene	1	12.853	12.843	0.010	1249	0.0100	0.0111	
24 m-Nitrotoluene	1	13.399	13.403	-0.004	1713	0.0100	0.0119	
25 PETN	2	14.486	14.483	0.003	7807	0.1000	0.1085	Ma

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00080	Amount Added:	1.00	Units: uL
8330 DMT_00016	Amount Added:	0.50	Units: uL

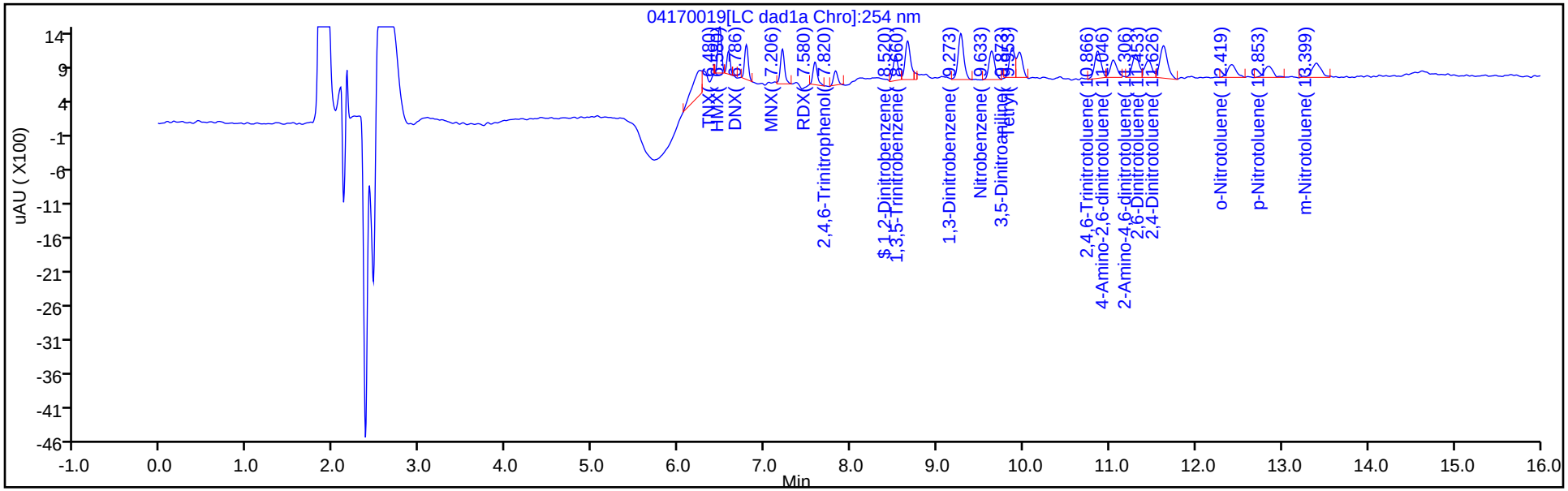
Report Date: 18-Apr-2024 11:59:31 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

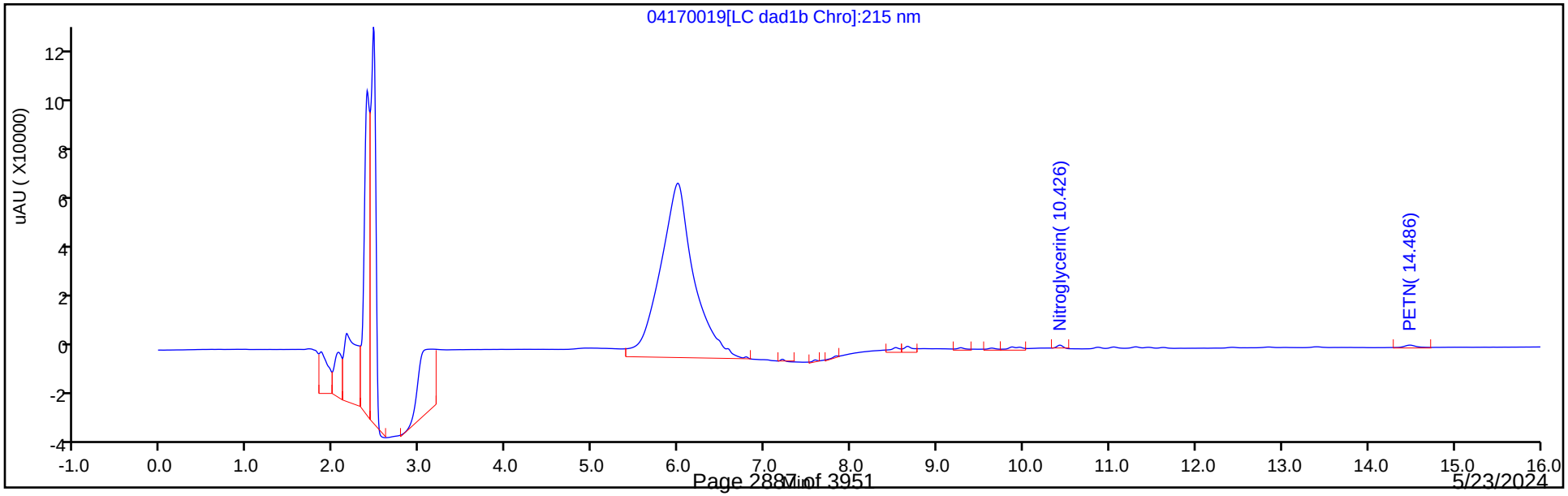
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d

Injection Date:	17-Apr-2024 23:41:30	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 1			Worklist Smp#:	19
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

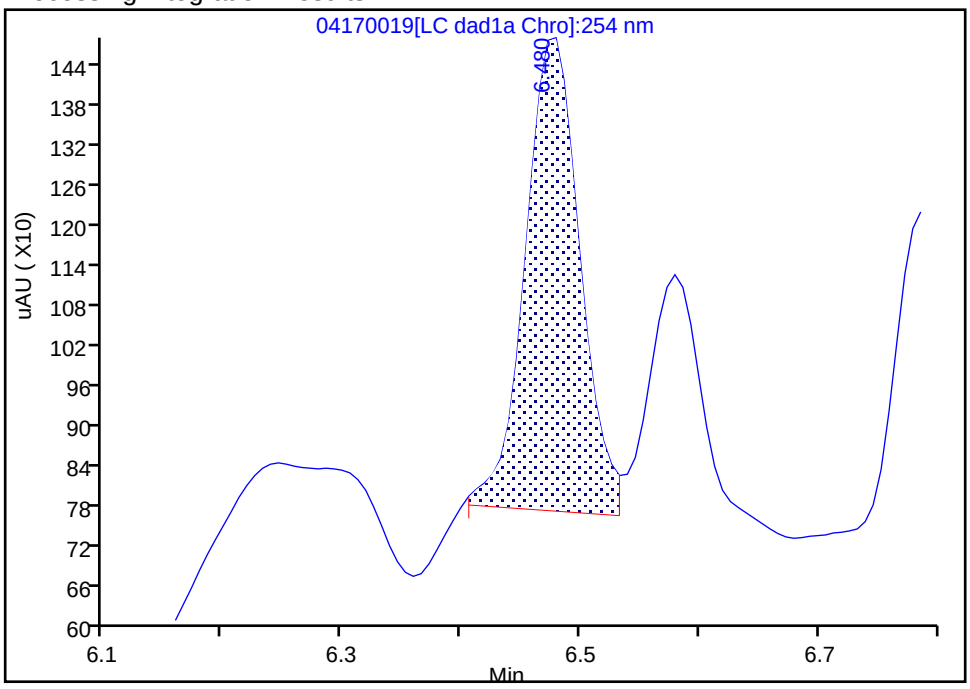
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d				
Injection Date:	17-Apr-2024 23:41:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

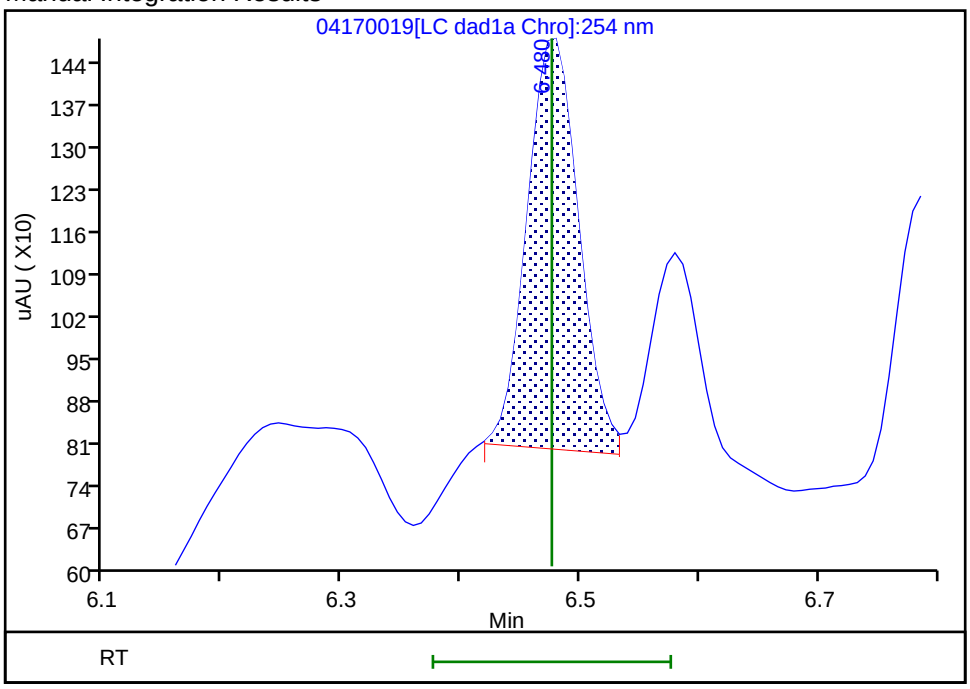
Processing Integration Results

RT: 6.48
Area: 2278
Amount: 0.011305
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 2051
Amount: 0.010307
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:18:24 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

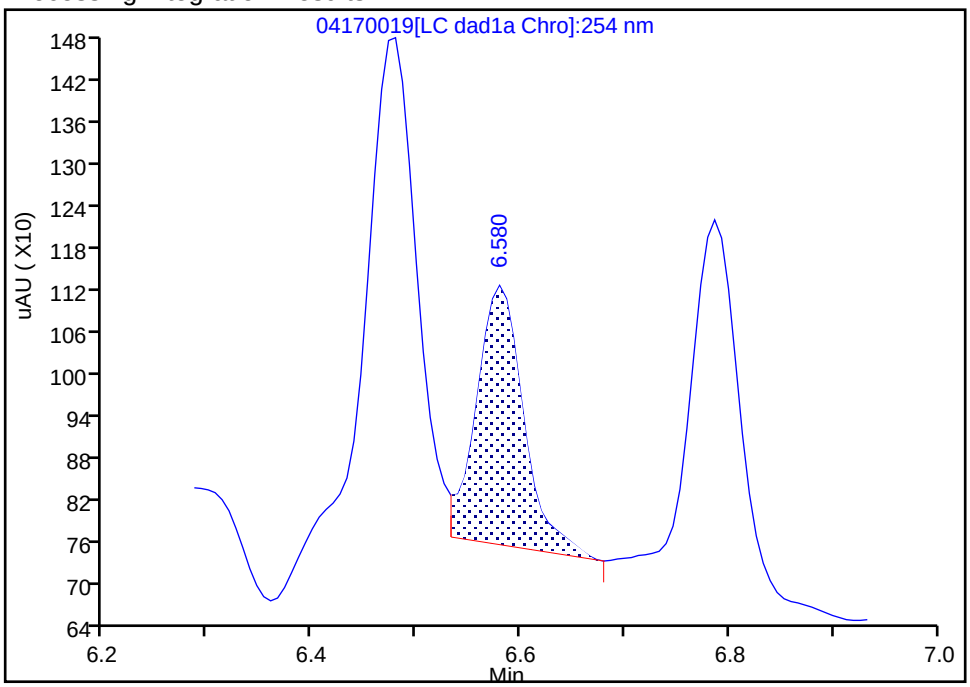
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d				
Injection Date:	17-Apr-2024 23:41:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

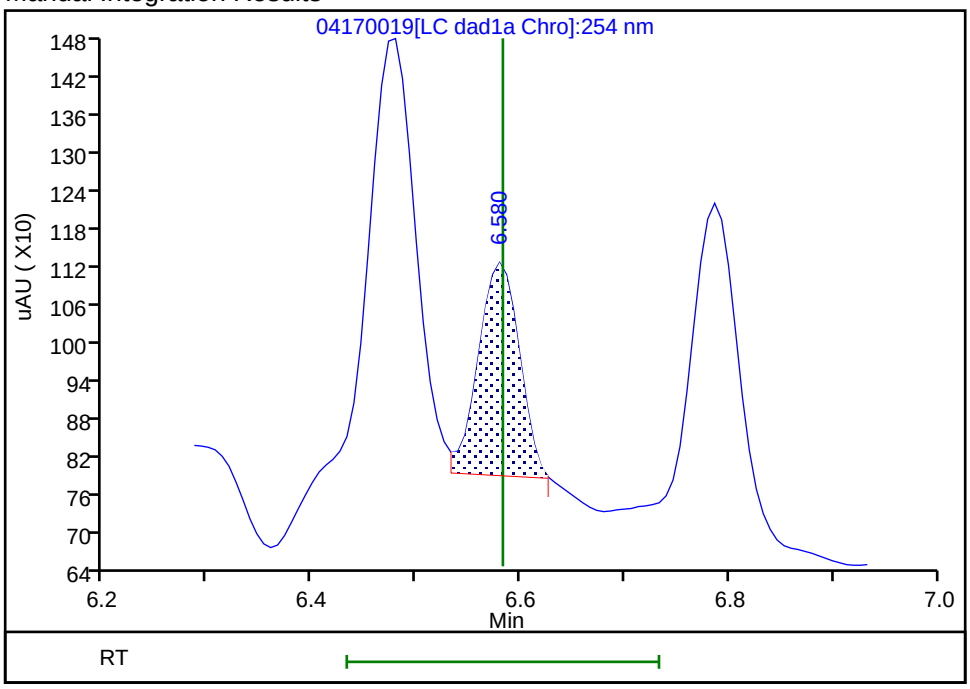
Processing Integration Results

RT: 6.58
Area: 1171
Amount: 0.011907
Amount Units: ug/mL



Manual Integration Results

RT: 6.58
Area: 919
Amount: 0.009619
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:18:25 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

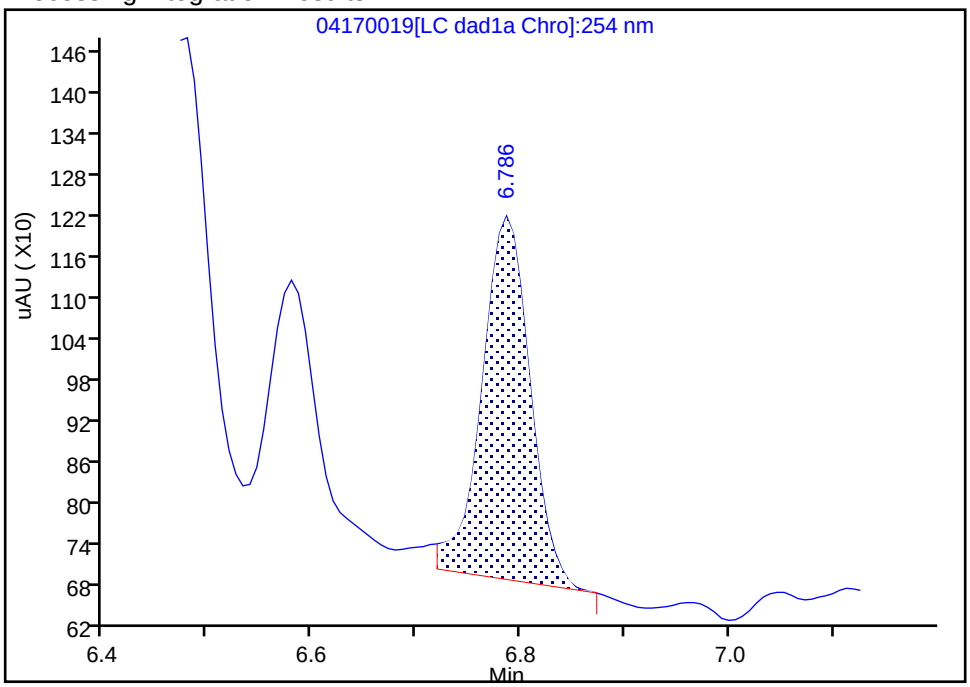
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d				
Injection Date:	17-Apr-2024 23:41:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

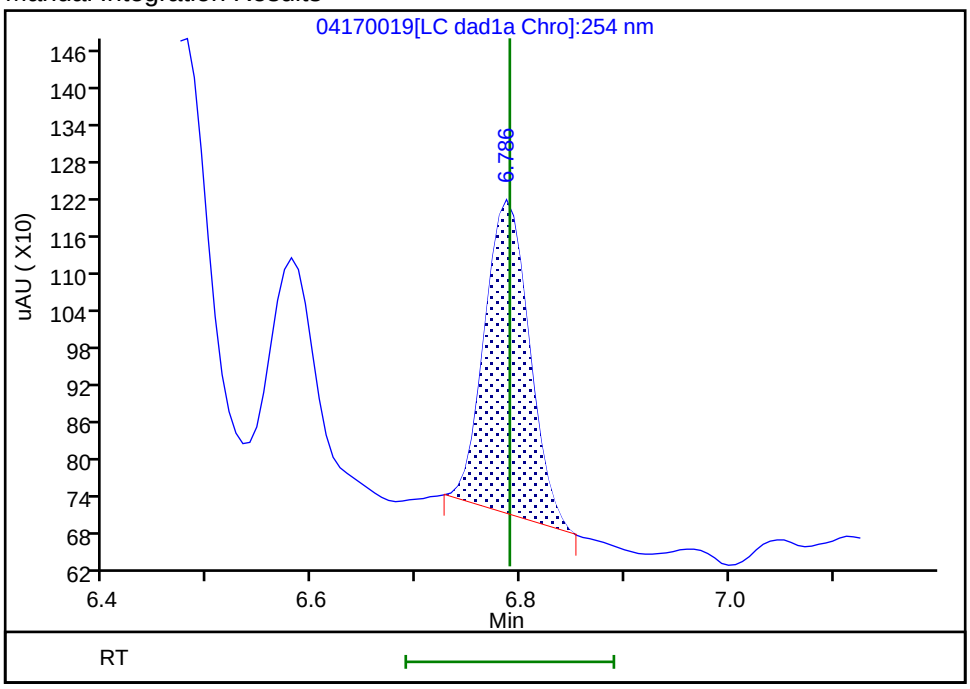
Processing Integration Results

RT: 6.79
Area: 1700
Amount: 0.011386
Amount Units: ug/mL



Manual Integration Results

RT: 6.79
Area: 1516
Amount: 0.010295
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:18:35 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

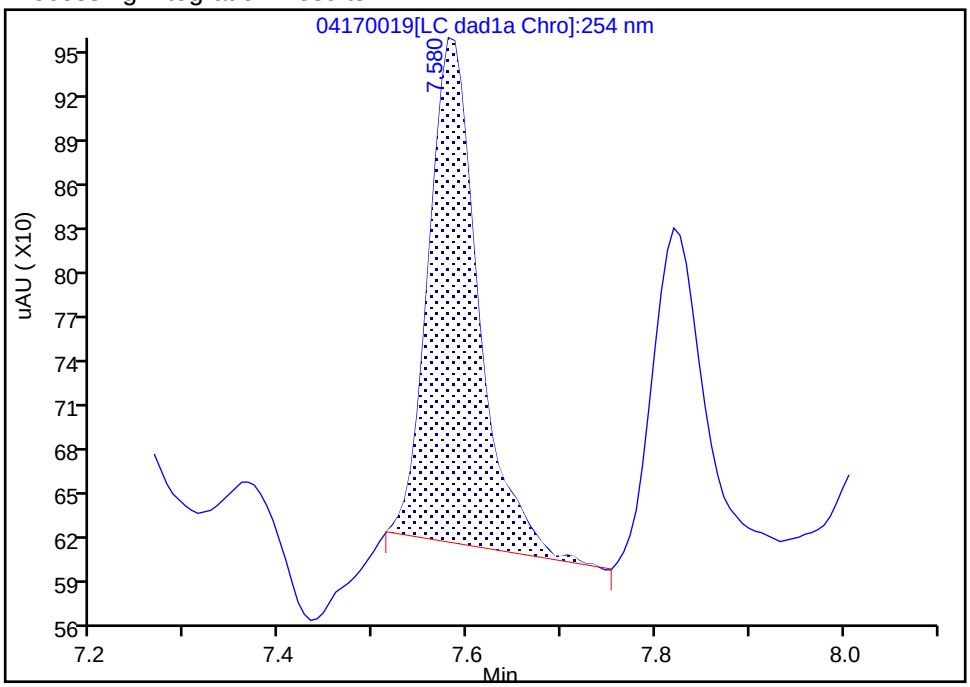
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

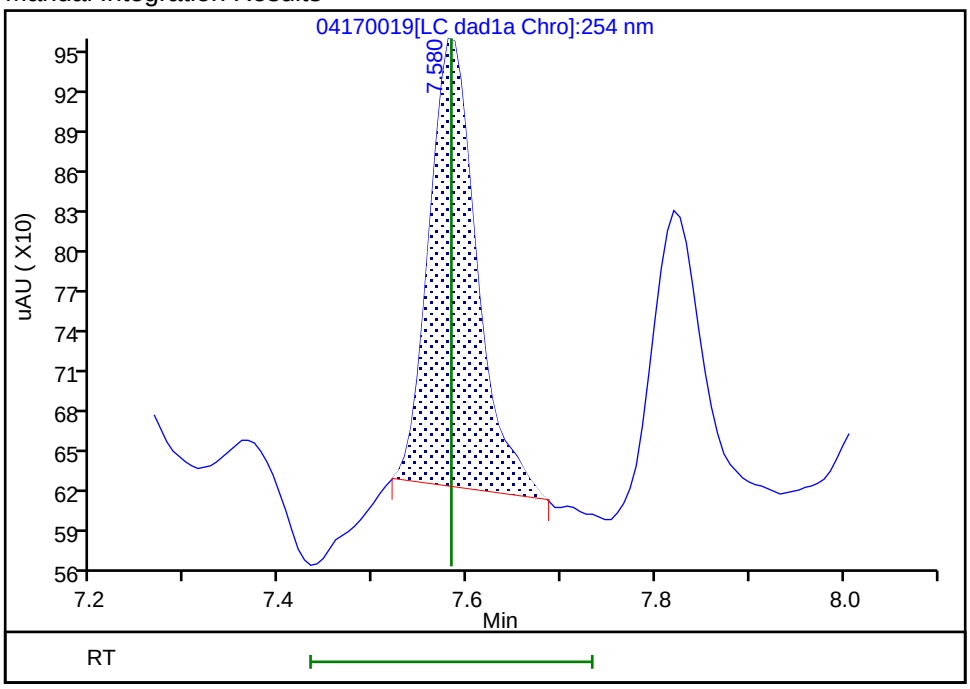
Processing Integration Results

RT: 7.58
Area: 1262
Amount: 0.011308
Amount Units: ug/mL



Manual Integration Results

RT: 7.58
Area: 1187
Amount: 0.010716
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:18:45 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

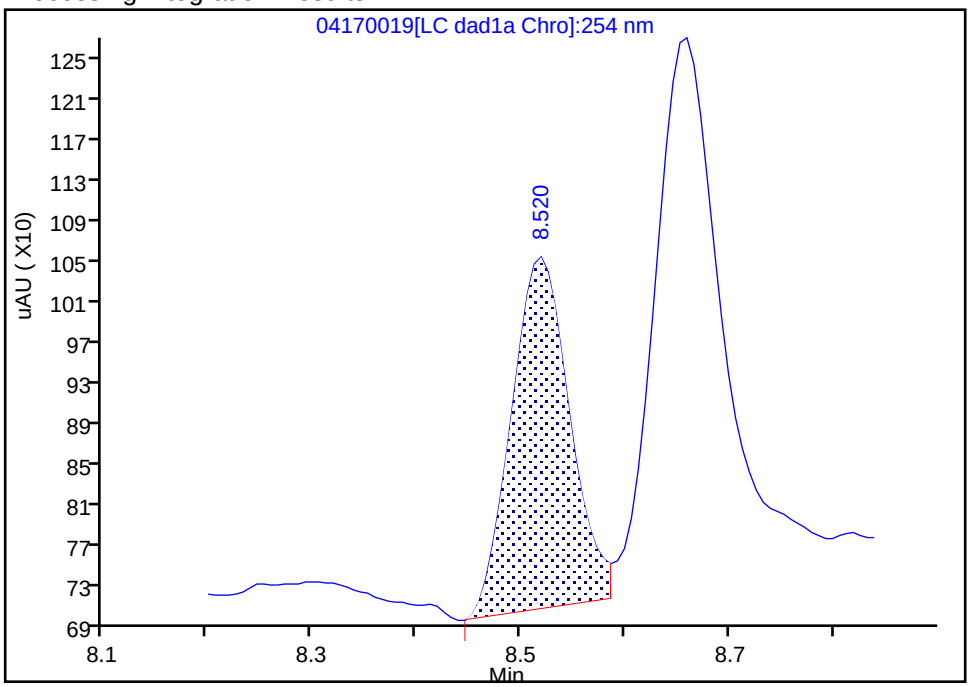
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

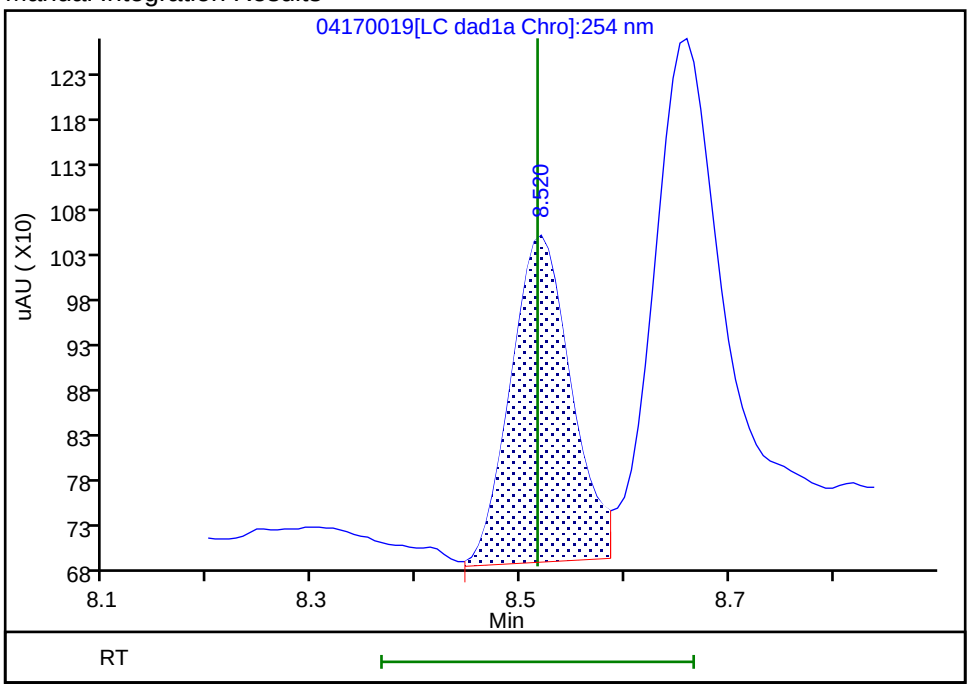
Processing Integration Results

RT: 8.52
Area: 1357
Amount: 0.010216
Amount Units: ug/mL



Manual Integration Results

RT: 8.52
Area: 1445
Amount: 0.010265
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:19:23 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

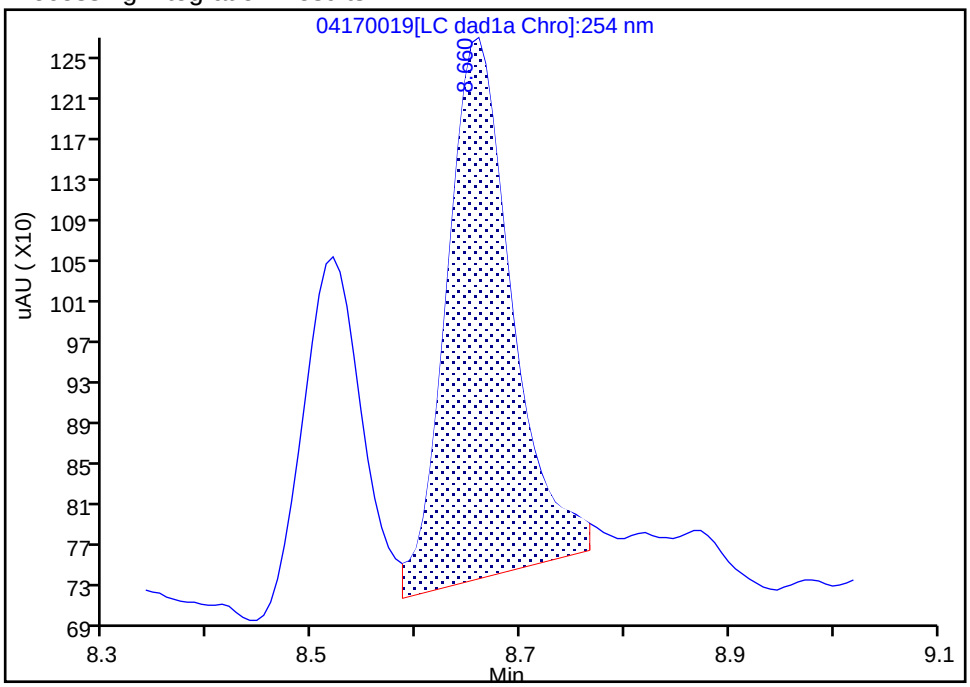
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

11 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

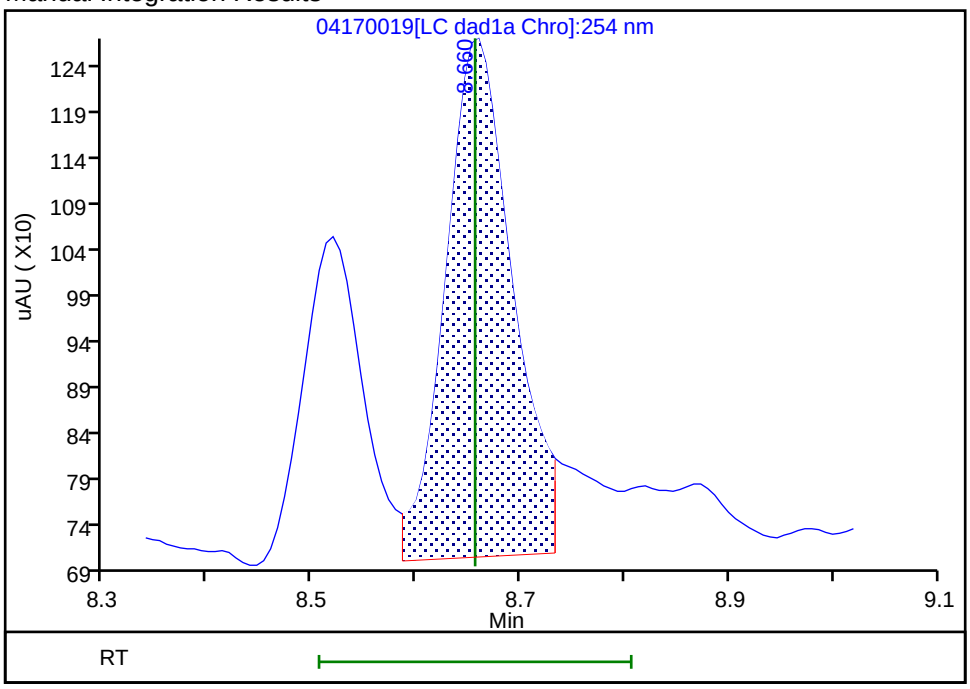
Processing Integration Results

RT: 8.66
Area: 2346
Amount: 0.010661
Amount Units: ug/mL



Manual Integration Results

RT: 8.66
Area: 2549
Amount: 0.011438
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:19:28 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

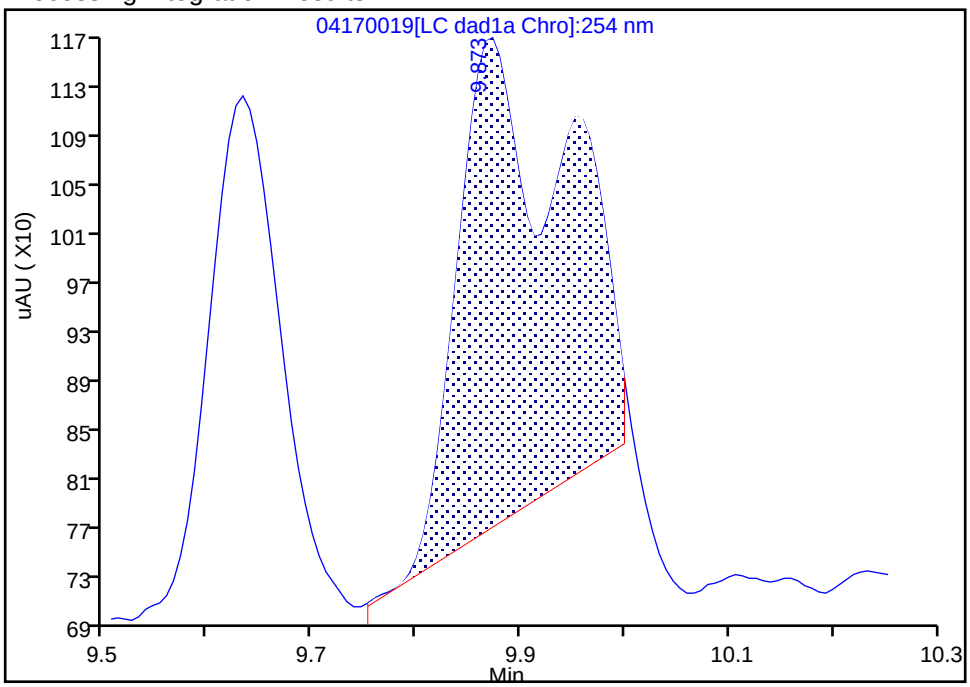
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d				
Injection Date:	17-Apr-2024 23:41:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

14 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

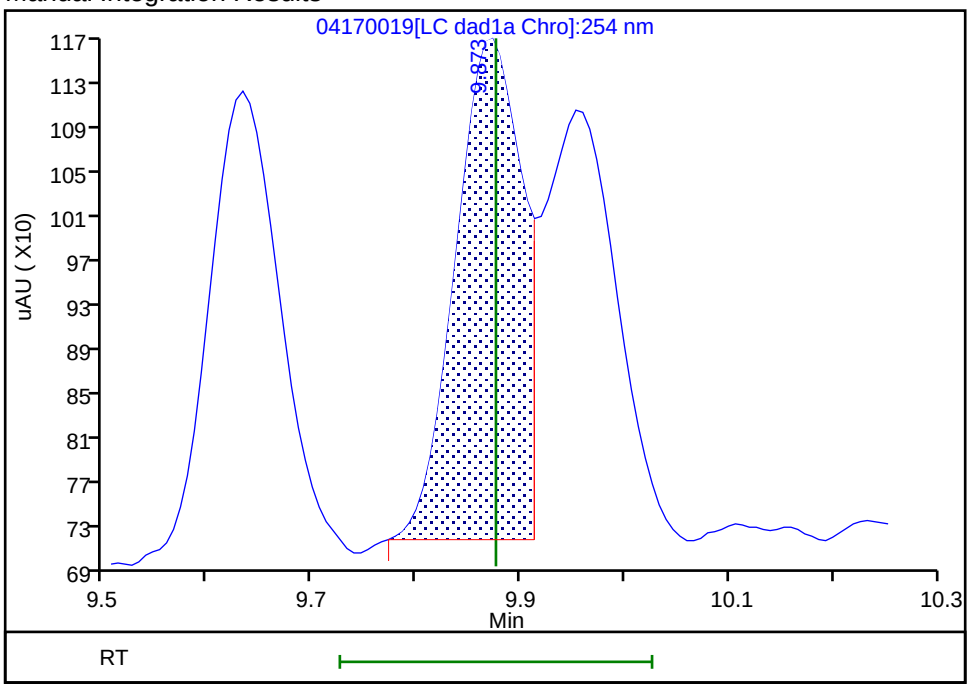
Processing Integration Results

RT: 9.87
Area: 2822
Amount: 0.010781
Amount Units: ug/mL



Manual Integration Results

RT: 9.87
Area: 1971
Amount: 0.009992
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:18:02 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

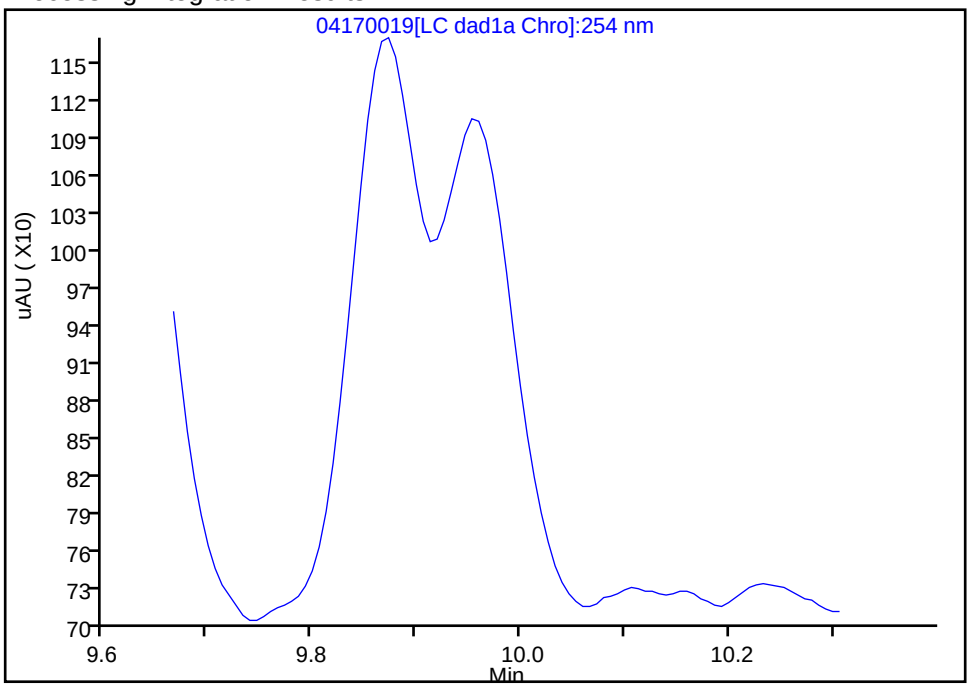
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d				
Injection Date:	17-Apr-2024 23:41:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

15 Tetryl, CAS: 479-45-8

Signal: 1

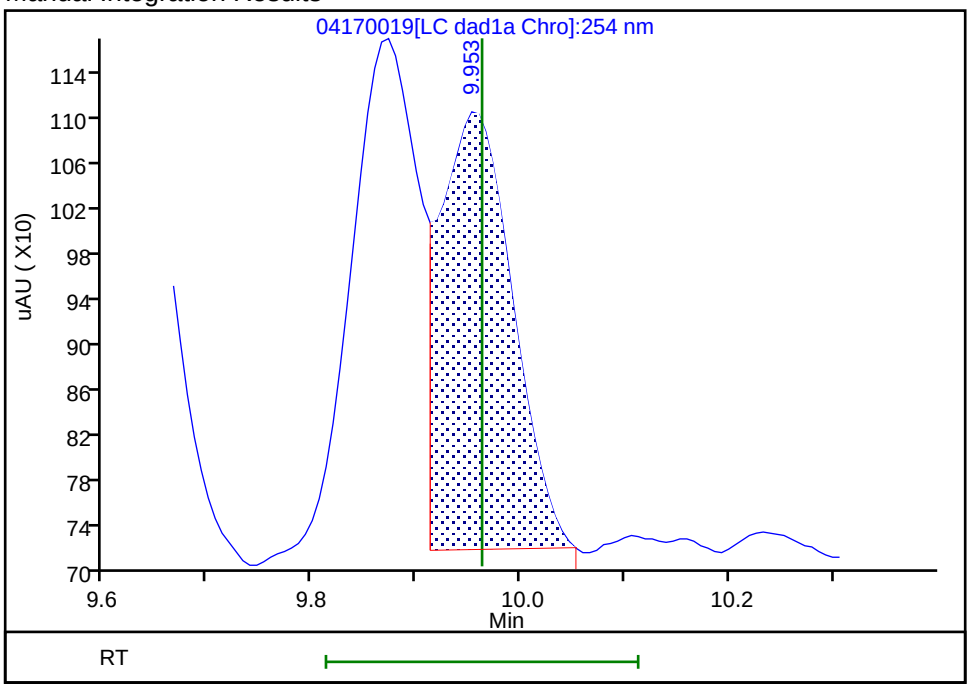
Not Detected
Expected RT: 9.96

Processing Integration Results



Manual Integration Results

RT: 9.95
Area: 1835
Amount: 0.010105
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:18:04 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

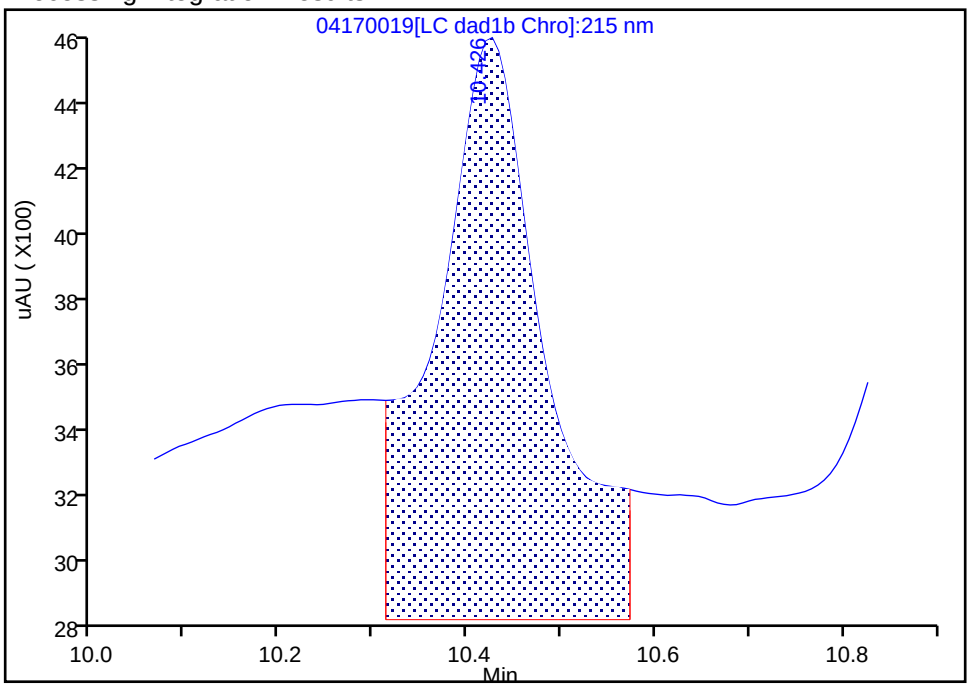
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

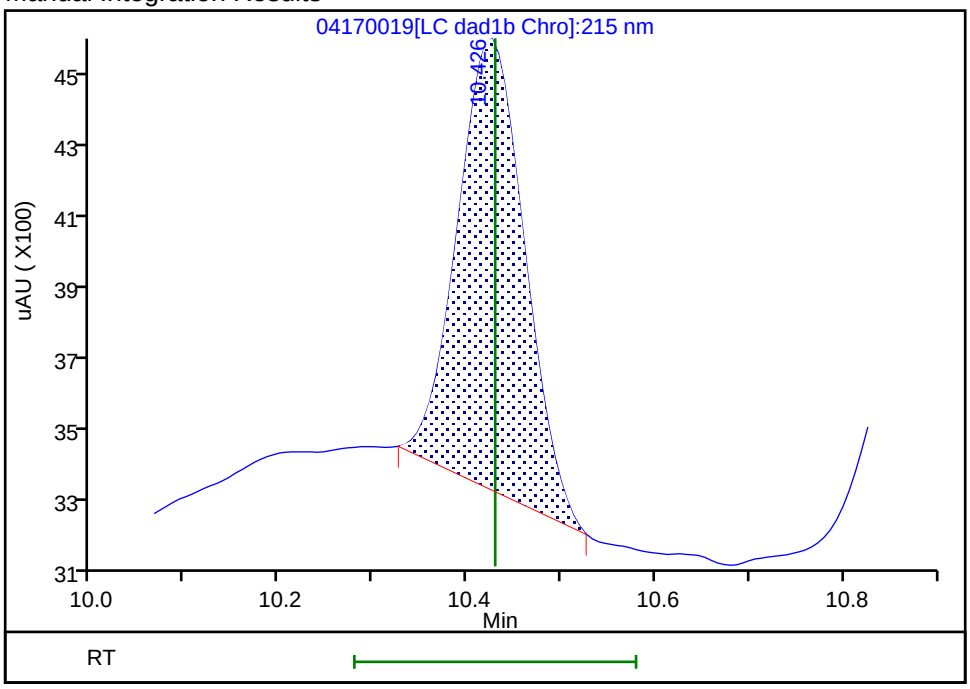
Processing Integration Results

RT: 10.43
Area: 14354
Amount: 0.189635
Amount Units: ug/mL



Manual Integration Results

RT: 10.43
Area: 6048
Amount: 0.090997
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:17:39 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

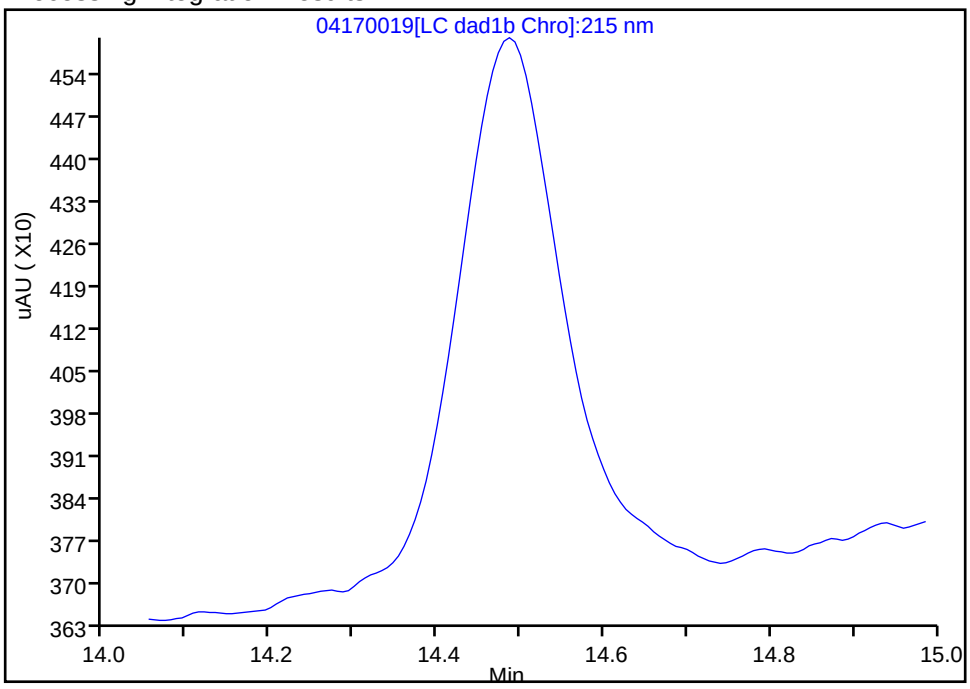
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d				
Injection Date:	17-Apr-2024 23:41:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

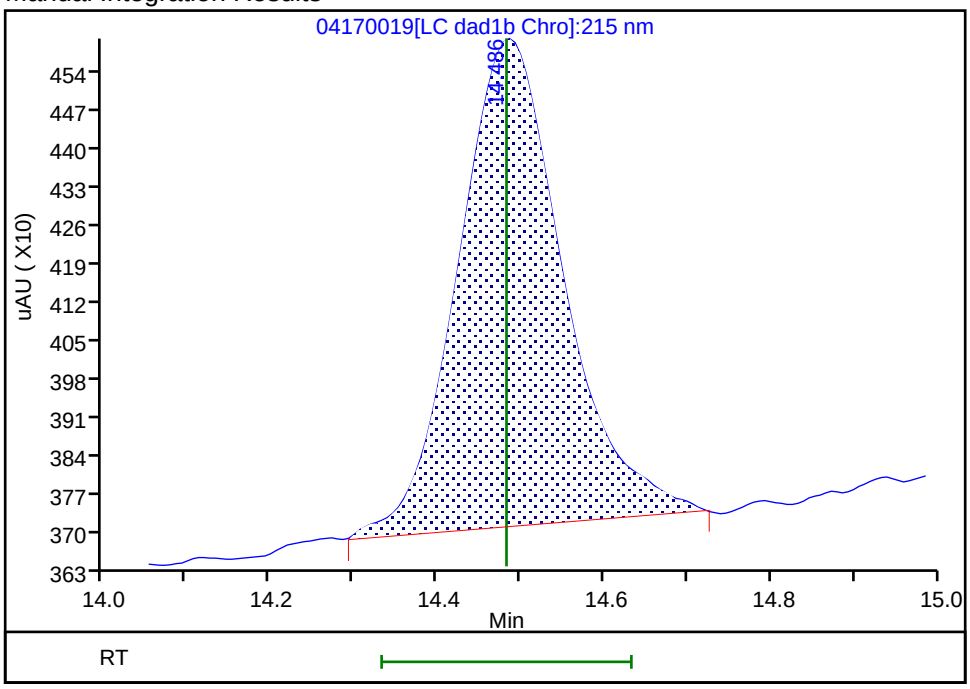
Not Detected
Expected RT: 14.48

Processing Integration Results



Manual Integration Results

RT: 14.49
Area: 7807
Amount: 0.108526
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:17:47 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Calibration / TNX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

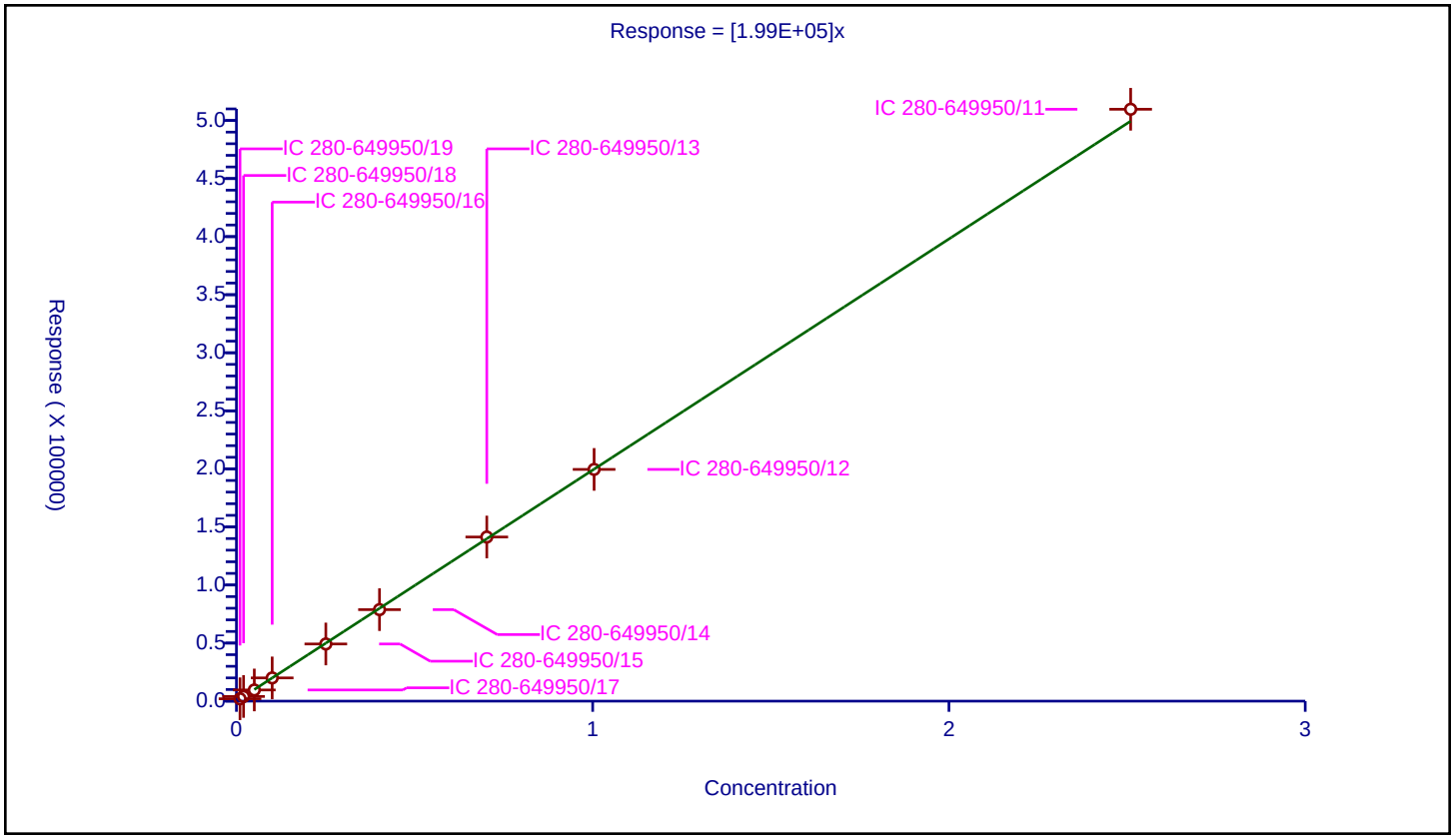
Curve Coefficients

Intercept:	0
Slope:	1.99E+05

Error Coefficients

Relative Standard Deviation:	1.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01004	2051.0			204282.868526	Y
2	IC 280-649950/18	0.02008	4023.0			200348.605578	Y
3	IC 280-649950/17	0.0502	9628.0			191792.828685	Y
4	IC 280-649950/16	0.1004	20006.0			199262.948207	Y
5	IC 280-649950/15	0.251	49234.0			196151.394422	Y
6	IC 280-649950/14	0.4016	78789.0			196187.749004	Y
7	IC 280-649950/13	0.7028	141333.0			201099.88617	Y
8	IC 280-649950/12	1.004	199537.0			198742.031873	Y
9	IC 280-649950/11	2.51	509682.0			203060.557769	Y



Calibration / HMX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

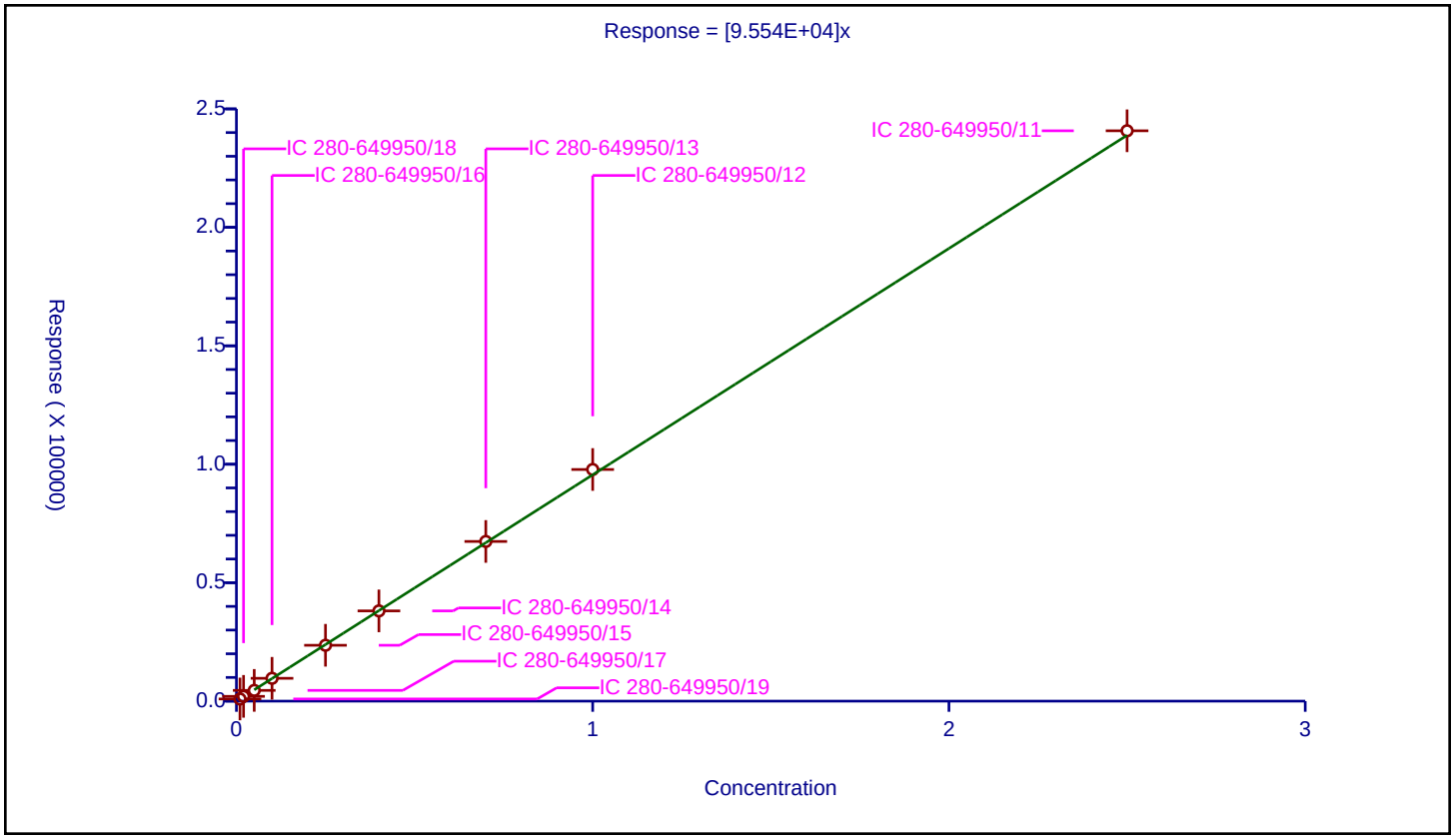
Curve Coefficients

Intercept:	0
Slope:	9.554E+04

Error Coefficients

Relative Standard Deviation:	3.2

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	919.0			91900.0	Y
2	IC 280-649950/18	0.02	2017.0			100850.0	Y
3	IC 280-649950/17	0.05	4536.0			90720.0	Y
4	IC 280-649950/16	0.1	9645.0			96450.0	Y
5	IC 280-649950/15	0.25	23583.0			94332.0	Y
6	IC 280-649950/14	0.4	38101.0			95252.5	Y
7	IC 280-649950/13	0.7	67408.0			96297.142857	Y
8	IC 280-649950/12	1.0	97787.0			97787.0	Y
9	IC 280-649950/11	2.5	240762.0			96304.8	Y



5/23/2024
4:40:30 AM

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

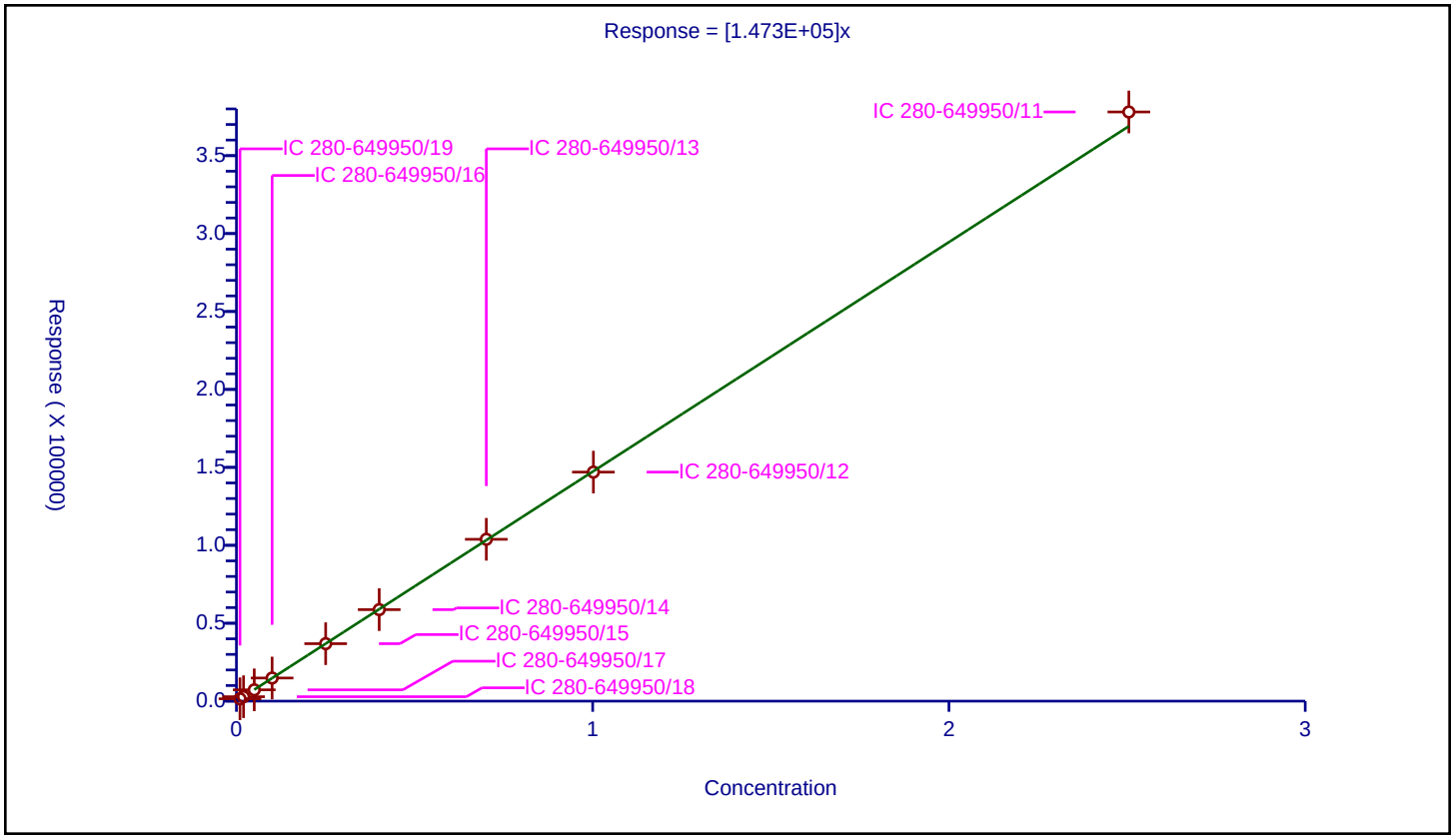
Curve Coefficients

Intercept:	0
Slope:	1.473E+05

Error Coefficients

Relative Standard Deviation:	2.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01002	1516.0			151297.40519	Y
2	IC 280-649950/18	0.02004	2843.0			141866.267465	Y
3	IC 280-649950/17	0.0501	7258.0			144870.259481	Y
4	IC 280-649950/16	0.1002	14834.0			148043.912176	Y
5	IC 280-649950/15	0.2505	36872.0			147193.612774	Y
6	IC 280-649950/14	0.4008	58701.0			146459.580838	Y
7	IC 280-649950/13	0.7014	103834.0			148038.209296	Y
8	IC 280-649950/12	1.002	146952.0			146658.682635	Y
9	IC 280-649950/11	2.505	378026.0			150908.582834	Y



Calibration / MNX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

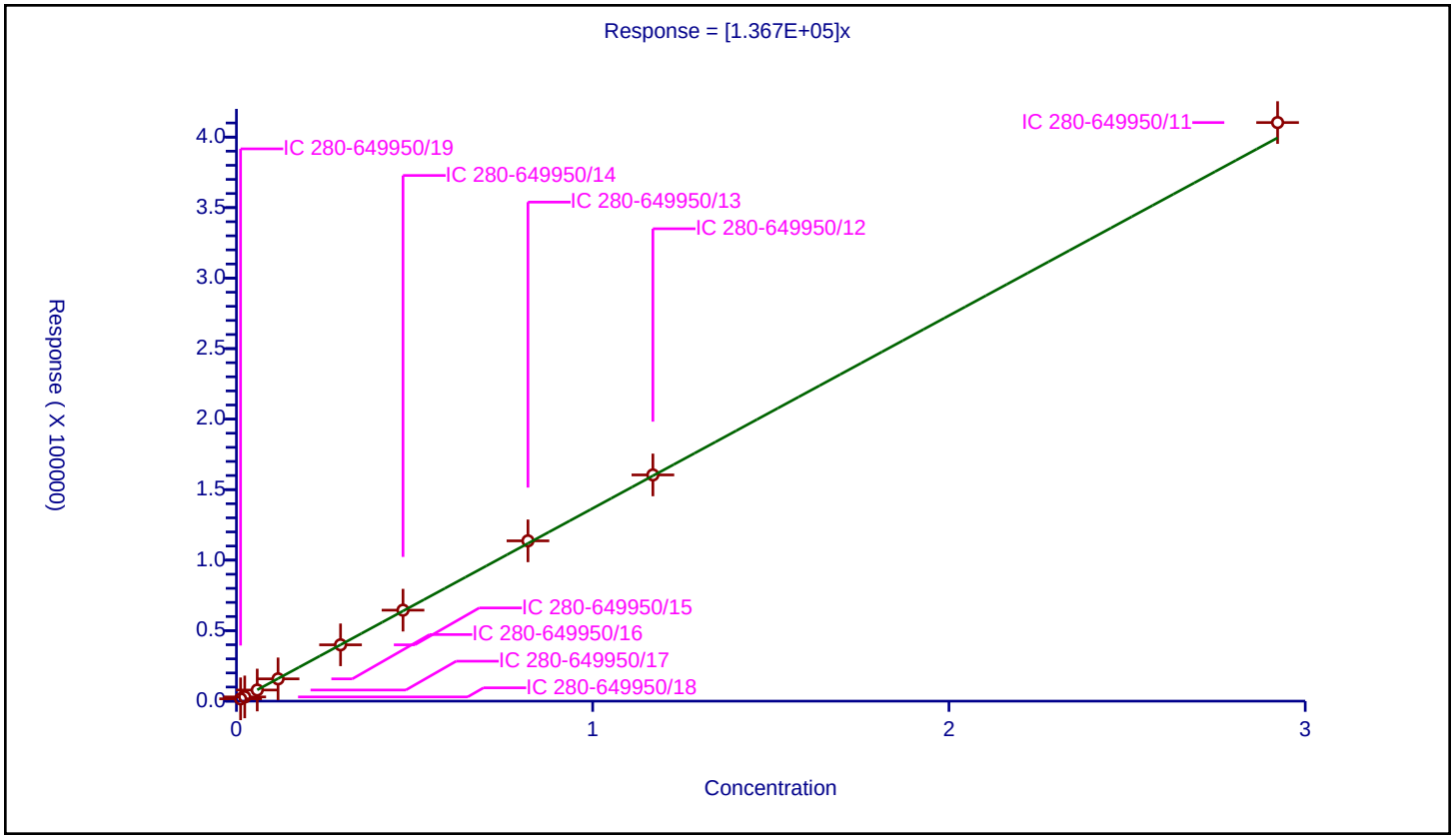
Curve Coefficients

Intercept:	0
Slope:	1.367E+05

Error Coefficients

Relative Standard Deviation:	2.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01169	1649.0			141060.735672	Y
2	IC 280-649950/18	0.02338	2991.0			127929.854577	Y
3	IC 280-649950/17	0.05845	7887.0			134935.842601	Y
4	IC 280-649950/16	0.1169	15807.0			135218.135158	Y
5	IC 280-649950/15	0.29225	39930.0			136629.597947	Y
6	IC 280-649950/14	0.4676	64510.0			137959.794696	Y
7	IC 280-649950/13	0.8183	113678.0			138919.711597	Y
8	IC 280-649950/12	1.169	160428.0			137235.243798	Y
9	IC 280-649950/11	2.9225	410302.0			140394.183062	Y



Calibration / RDX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

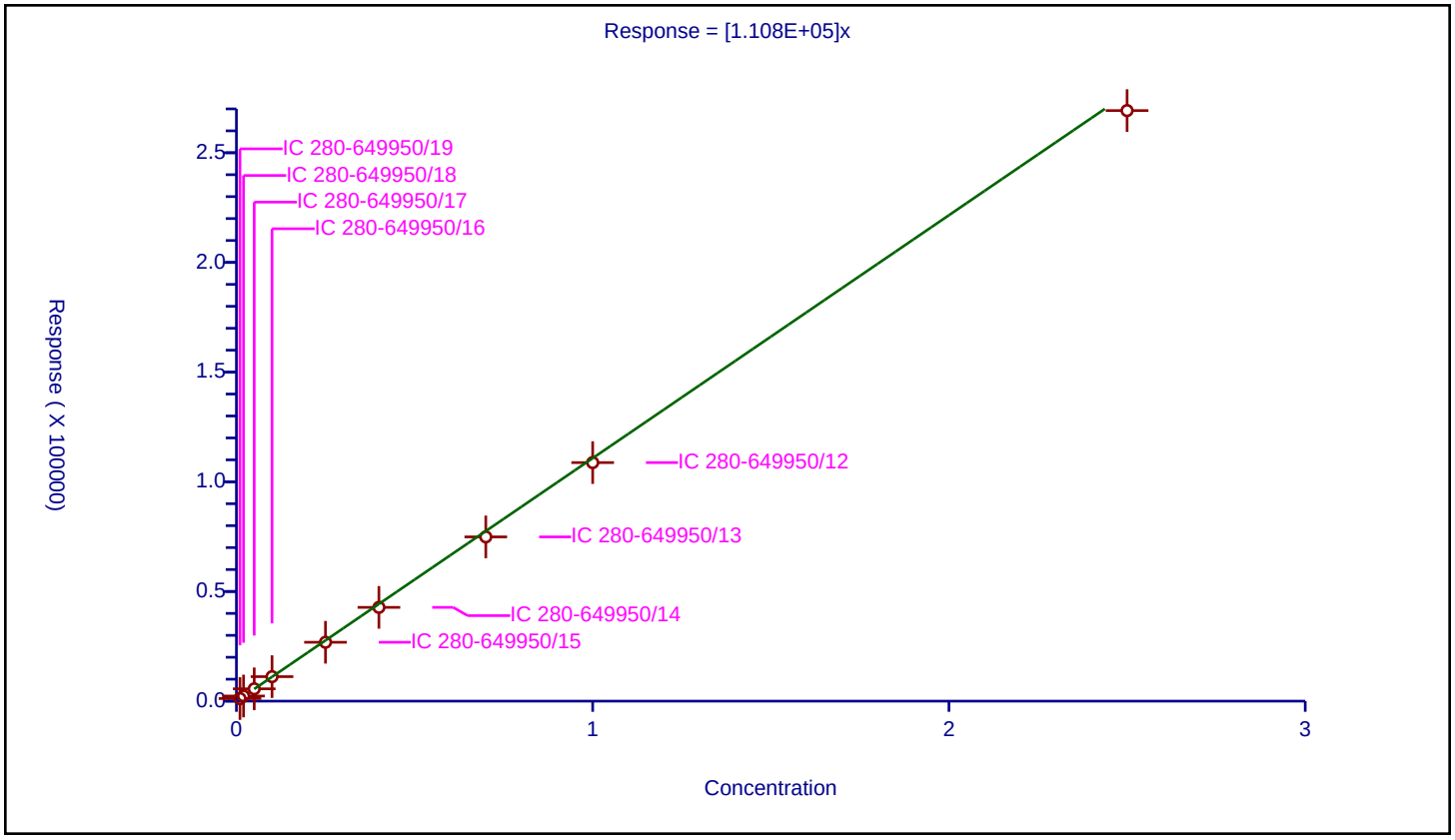
Curve Coefficients

Intercept:	0
Slope:	1.108E+05

Error Coefficients

Relative Standard Deviation:	4.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1187.0			118700.0	Y
2	IC 280-649950/18	0.02	2334.0			116700.0	Y
3	IC 280-649950/17	0.05	5612.0			112240.0	Y
4	IC 280-649950/16	0.1	11162.0			111620.0	Y
5	IC 280-649950/15	0.25	26844.0			107376.0	Y
6	IC 280-649950/14	0.4	42747.0			106867.5	Y
7	IC 280-649950/13	0.7	74871.0			106958.571429	Y
8	IC 280-649950/12	1.0	108752.0			108752.0	Y
9	IC 280-649950/11	2.5	269224.0			107689.6	Y



5/23/2024
4:40:30 AM

Calibration / 2,4,6-Trinitrophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

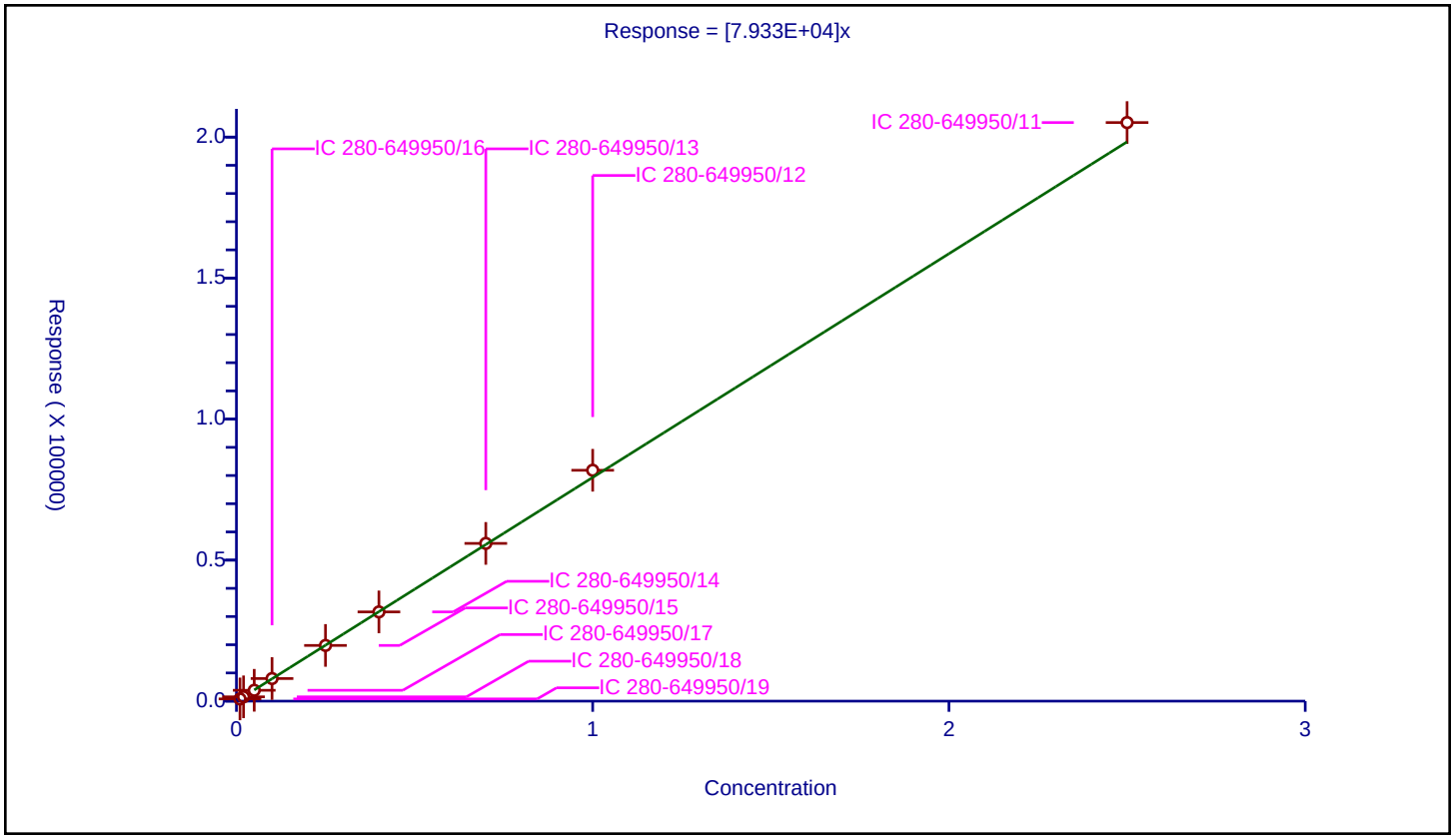
Curve Coefficients

Intercept:	0
Slope:	7.933E+04

Error Coefficients

Relative Standard Deviation:	2.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	787.0			78700.0	Y
2	IC 280-649950/18	0.02	1524.0			76200.0	Y
3	IC 280-649950/17	0.05	3847.0			76940.0	Y
4	IC 280-649950/16	0.1	8016.0			80160.0	Y
5	IC 280-649950/15	0.25	19748.0			78992.0	Y
6	IC 280-649950/14	0.4	31644.0			79110.0	Y
7	IC 280-649950/13	0.7	55934.0			79905.714286	Y
8	IC 280-649950/12	1.0	81861.0			81861.0	Y
9	IC 280-649950/11	2.5	205156.0			82062.4	Y



5/23/2024
4:40:30 AM

Calibration / 1,2-Dinitrobenzene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

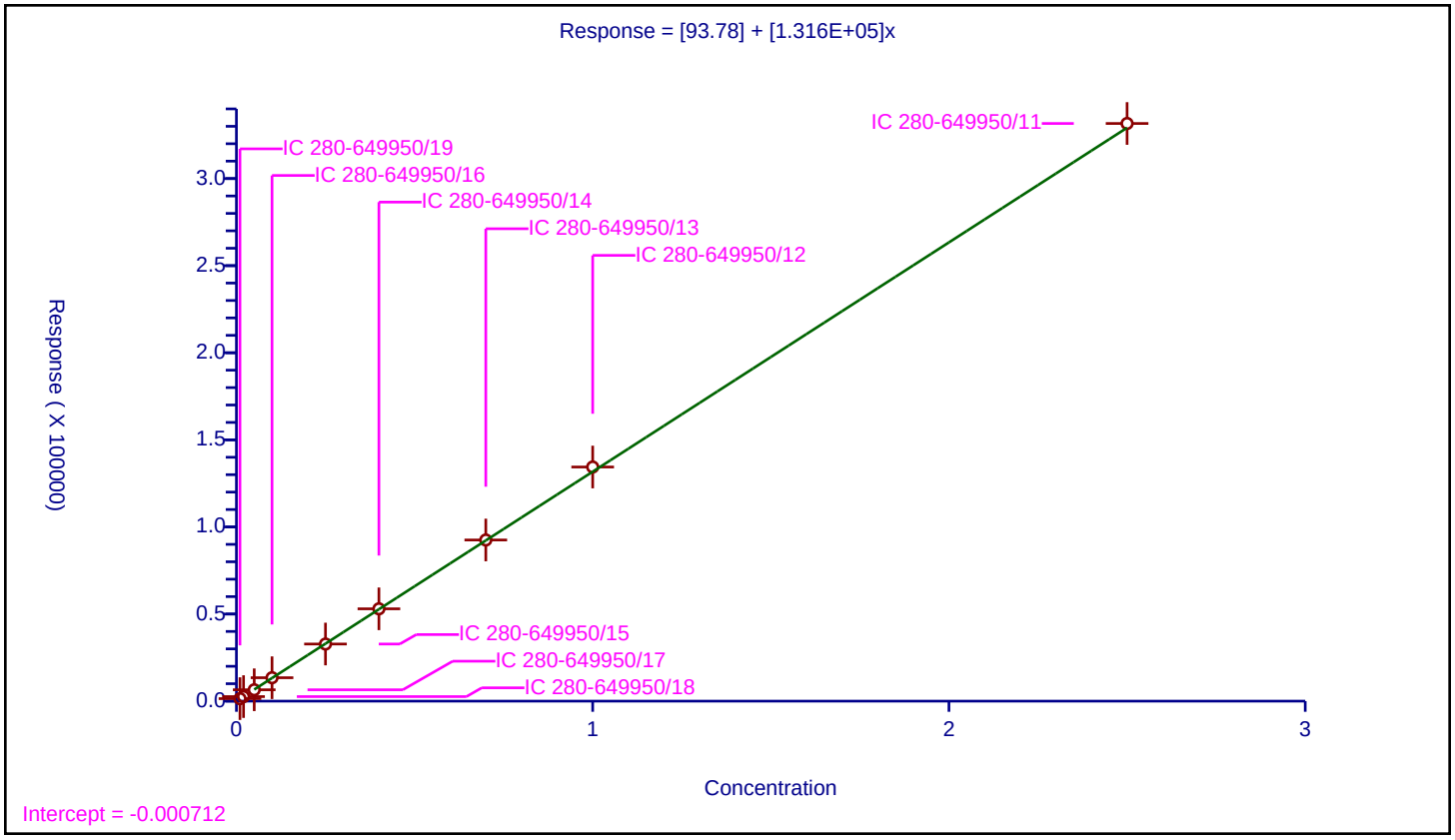
Curve Coefficients

Intercept:	93.78
Slope:	1.316E+05

Error Coefficients

Relative Standard Deviation:	2.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1445.0			144500.0	Y
2	IC 280-649950/18	0.02	2603.0			130150.0	Y
3	IC 280-649950/17	0.05	6521.0			130420.0	Y
4	IC 280-649950/16	0.1	13450.0			134500.0	Y
5	IC 280-649950/15	0.25	32787.0			131148.0	Y
6	IC 280-649950/14	0.4	52999.0			132497.5	Y
7	IC 280-649950/13	0.7	92511.0			132158.571429	Y
8	IC 280-649950/12	1.0	134411.0			134411.0	Y
9	IC 280-649950/11	2.5	331618.0			132647.2	Y



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Calibration / 1,3,5-Trinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

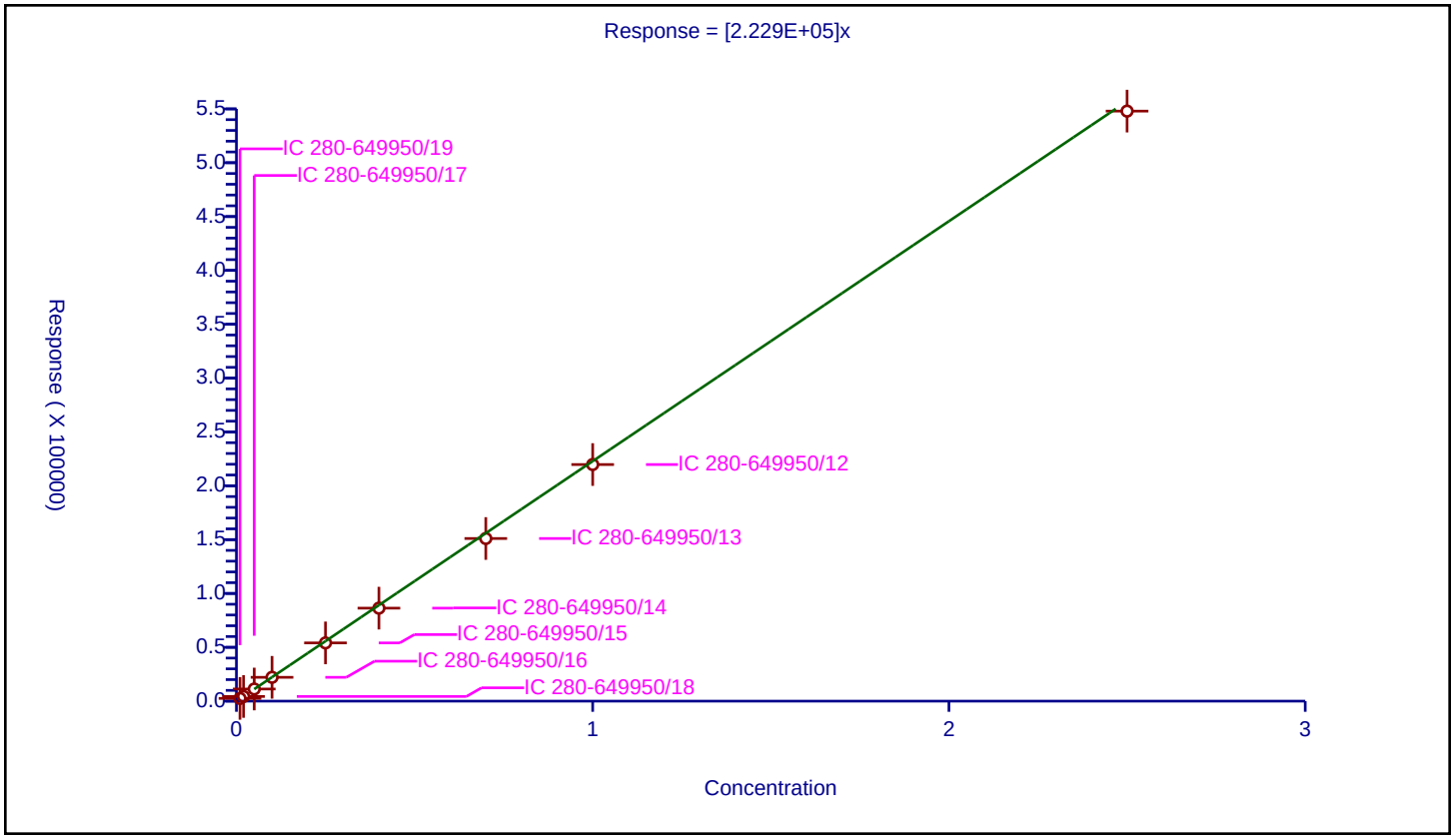
Curve Coefficients

Intercept:	0
Slope:	2.229E+05

Error Coefficients

Relative Standard Deviation:	5.6

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	2549.0			254900.0	Y
2	IC 280-649950/18	0.02	4349.0			217450.0	Y
3	IC 280-649950/17	0.05	11258.0			225160.0	Y
4	IC 280-649950/16	0.1	22129.0			221290.0	Y
5	IC 280-649950/15	0.25	54073.0			216292.0	Y
6	IC 280-649950/14	0.4	86362.0			215905.0	Y
7	IC 280-649950/13	0.7	151045.0			215778.571429	Y
8	IC 280-649950/12	1.0	219723.0			219723.0	Y
9	IC 280-649950/11	2.5	547952.0			219180.8	Y



Calibration / 1,3-Dinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

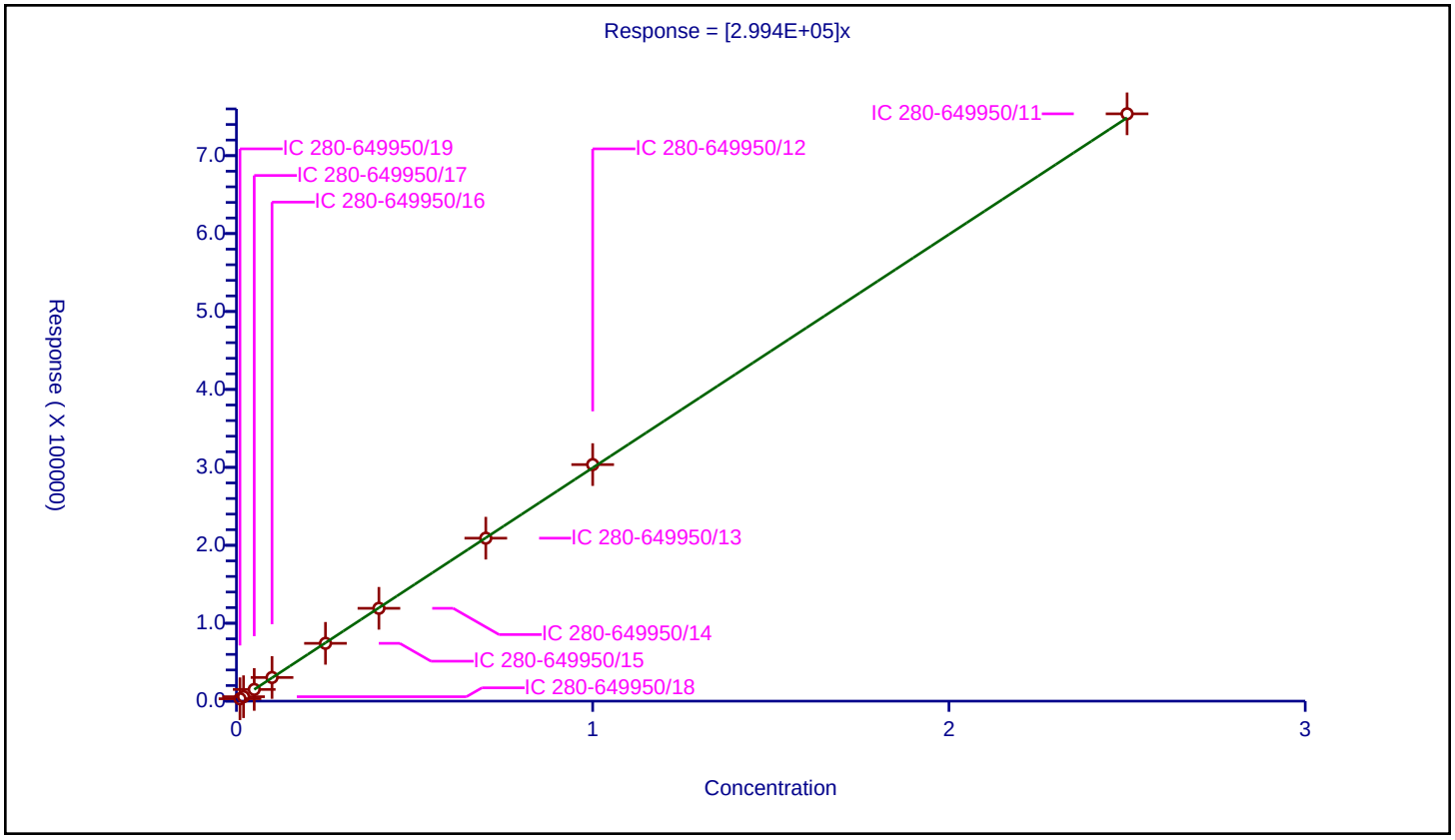
Curve Coefficients

Intercept:	0
Slope:	2.994E+05

Error Coefficients

Relative Standard Deviation:	2.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	3086.0			308600.0	Y
2	IC 280-649950/18	0.02	5678.0			283900.0	Y
3	IC 280-649950/17	0.05	15023.0			300460.0	Y
4	IC 280-649950/16	0.1	30359.0			303590.0	Y
5	IC 280-649950/15	0.25	74190.0			296760.0	Y
6	IC 280-649950/14	0.4	119137.0			297842.5	Y
7	IC 280-649950/13	0.7	209122.0			298745.714286	Y
8	IC 280-649950/12	1.0	303550.0			303550.0	Y
9	IC 280-649950/11	2.5	753680.0			301472.0	Y



Calibration / Nitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

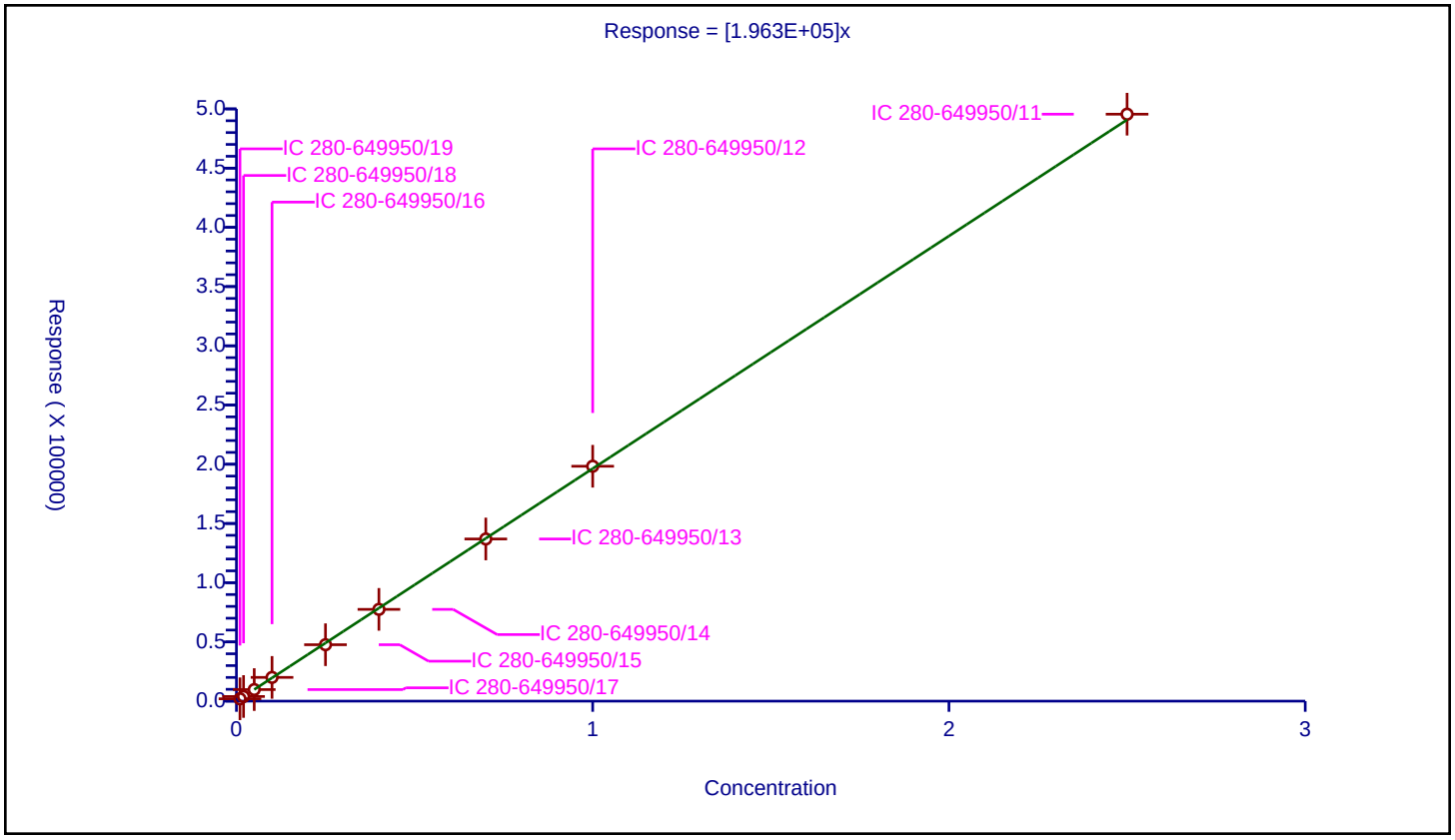
Curve Coefficients

Intercept:	0
Slope:	1.963E+05

Error Coefficients

Relative Standard Deviation:	1.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1985.0			198500.0	Y
2	IC 280-649950/18	0.02	3932.0			196600.0	Y
3	IC 280-649950/17	0.05	9759.0			195180.0	Y
4	IC 280-649950/16	0.1	20035.0			200350.0	Y
5	IC 280-649950/15	0.25	47641.0			190564.0	Y
6	IC 280-649950/14	0.4	77471.0			193677.5	Y
7	IC 280-649950/13	0.7	136899.0			195570.0	Y
8	IC 280-649950/12	1.0	198305.0			198305.0	Y
9	IC 280-649950/11	2.5	495535.0			198214.0	Y



Calibration / 3,5-Dinitroaniline

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

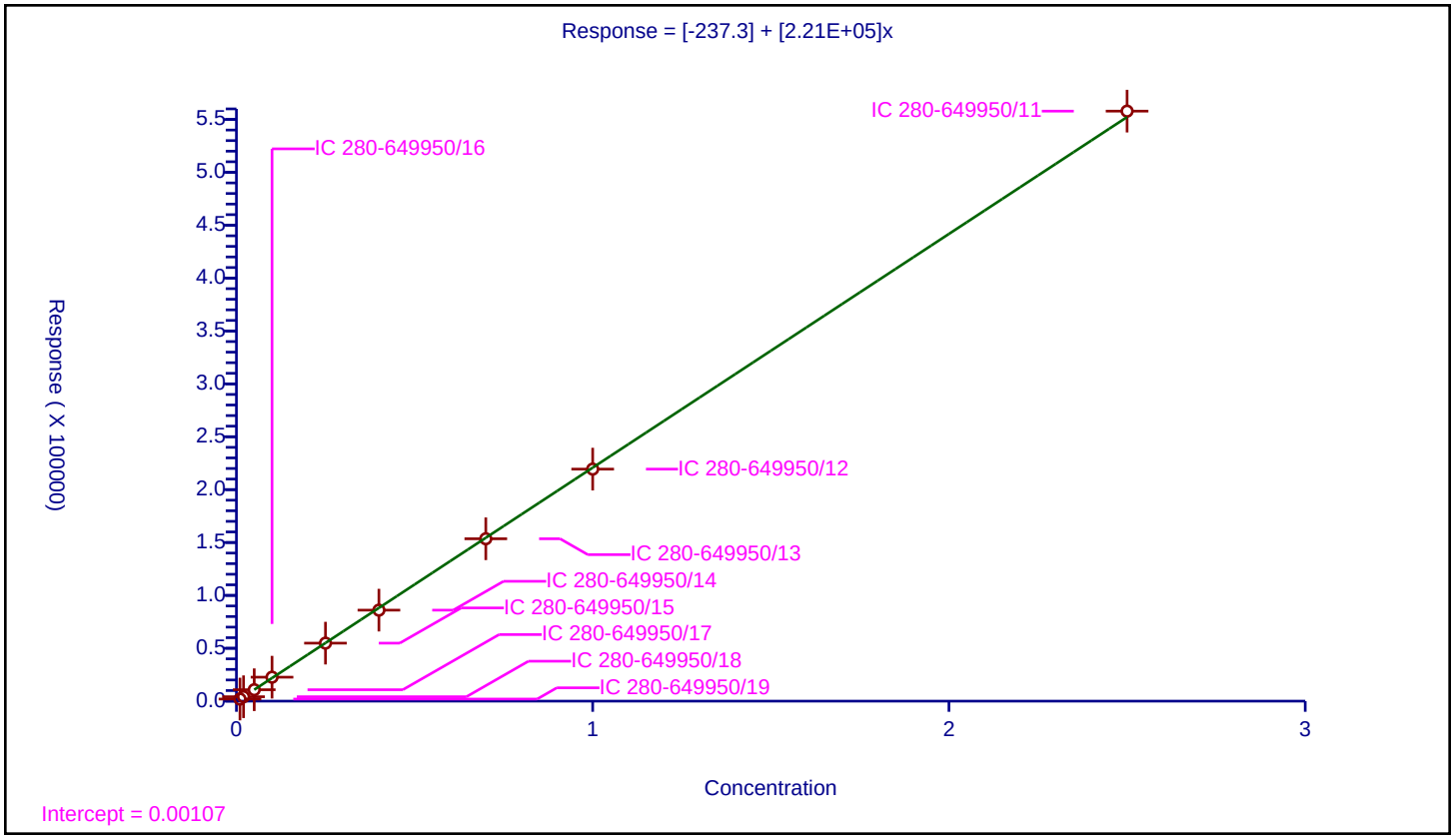
Curve Coefficients

Intercept:	-237.3
Slope:	2.21E+05

Error Coefficients

Relative Standard Deviation:	1.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1971.0			197100.0	Y
2	IC 280-649950/18	0.02	4171.0			208550.0	Y
3	IC 280-649950/17	0.05	10781.0			215620.0	Y
4	IC 280-649950/16	0.1	22651.0			226510.0	Y
5	IC 280-649950/15	0.25	54841.0			219364.0	Y
6	IC 280-649950/14	0.4	86047.0			215117.5	Y
7	IC 280-649950/13	0.7	153531.0			219330.0	Y
8	IC 280-649950/12	1.0	219396.0			219396.0	Y
9	IC 280-649950/11	2.5	557874.0			223149.6	Y



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Calibration / Tetryl

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

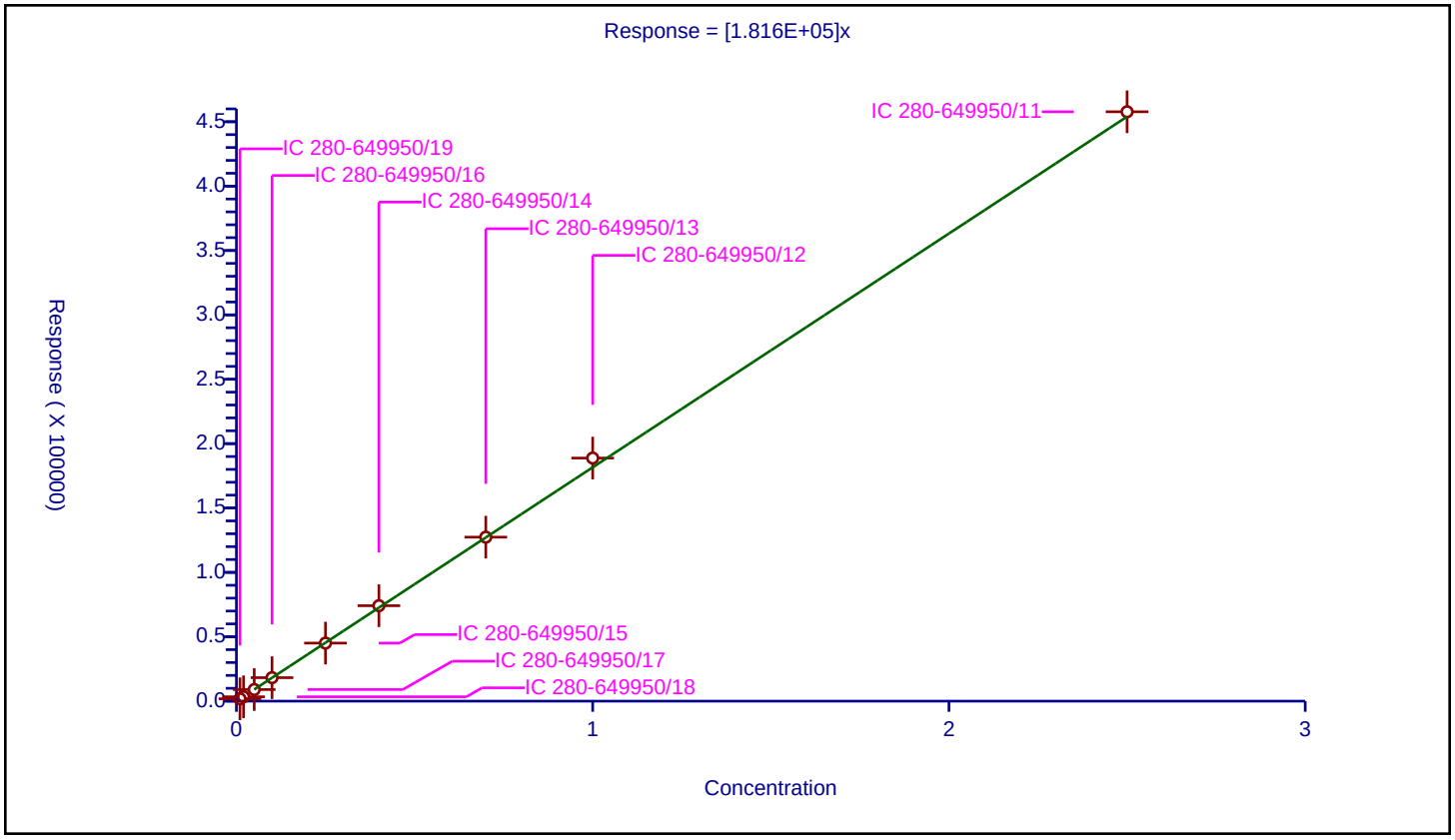
Curve Coefficients

Intercept:	0
Slope:	1.816E+05

Error Coefficients

Relative Standard Deviation:	3.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1835.0			183500.0	Y
2	IC 280-649950/18	0.02	3374.0			168700.0	Y
3	IC 280-649950/17	0.05	9010.0			180200.0	Y
4	IC 280-649950/16	0.1	18238.0			182380.0	Y
5	IC 280-649950/15	0.25	45082.0			180328.0	Y
6	IC 280-649950/14	0.4	74126.0			185315.0	Y
7	IC 280-649950/13	0.7	127375.0			181964.285714	Y
8	IC 280-649950/12	1.0	188801.0			188801.0	Y
9	IC 280-649950/11	2.5	457763.0			183105.2	Y



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Calibration / Nitroglycerin

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

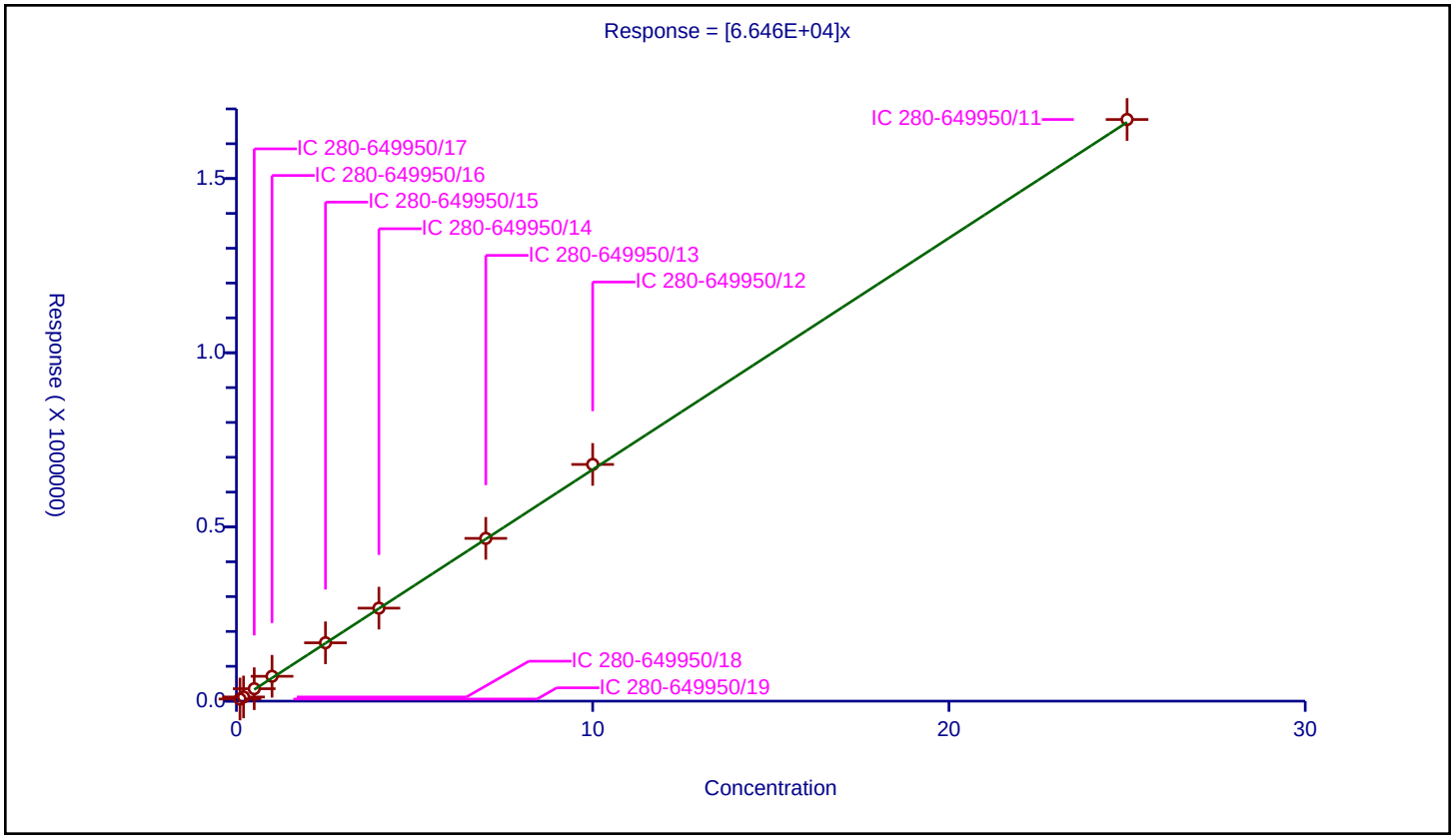
Curve Coefficients

Intercept:	0
Slope:	6.646E+04

Error Coefficients

Relative Standard Deviation:	6.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.1	6048.0			60480.0	Y
2	IC 280-649950/18	0.2	11963.0			59815.0	Y
3	IC 280-649950/17	0.5	35657.0			71314.0	Y
4	IC 280-649950/16	1.0	71367.0			71367.0	Y
5	IC 280-649950/15	2.5	167486.0			66994.4	Y
6	IC 280-649950/14	4.0	266924.0			66731.0	Y
7	IC 280-649950/13	7.0	467214.0			66744.857143	Y
8	IC 280-649950/12	10.0	679445.0			67944.5	Y
9	IC 280-649950/11	25.0	1669606.0			66784.24	Y



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Calibration / 2,4,6-Trinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

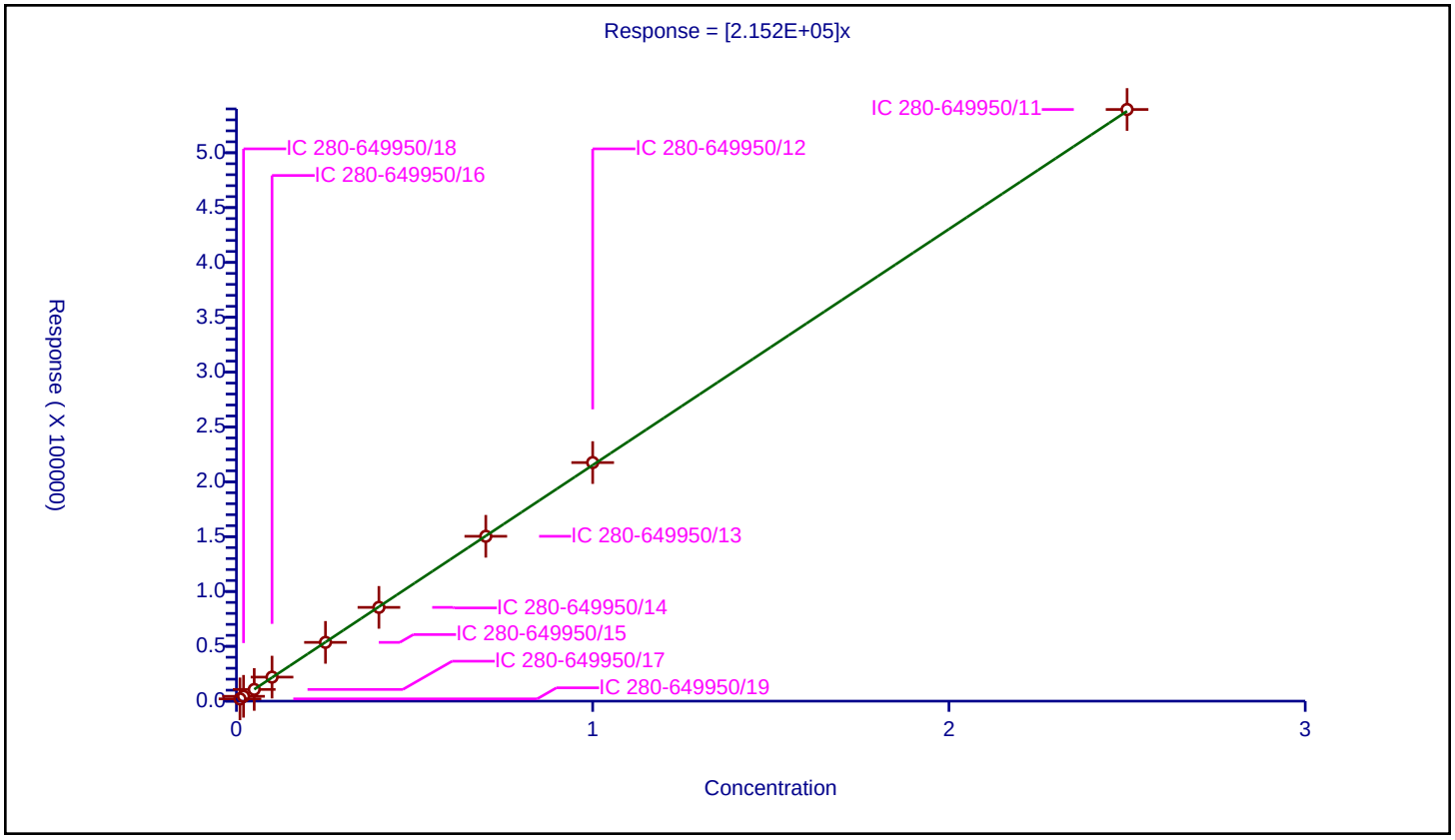
Curve Coefficients

Intercept:	0
Slope:	2.152E+05

Error Coefficients

Relative Standard Deviation:	1.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	2081.0			208100.0	Y
2	IC 280-649950/18	0.02	4400.0			220000.0	Y
3	IC 280-649950/17	0.05	10669.0			213380.0	Y
4	IC 280-649950/16	0.1	21912.0			219120.0	Y
5	IC 280-649950/15	0.25	53593.0			214372.0	Y
6	IC 280-649950/14	0.4	85495.0			213737.5	Y
7	IC 280-649950/13	0.7	150301.0			214715.714286	Y
8	IC 280-649950/12	1.0	217516.0			217516.0	Y
9	IC 280-649950/11	2.5	539471.0			215788.4	Y



Calibration / 4-Amino-2,6-dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

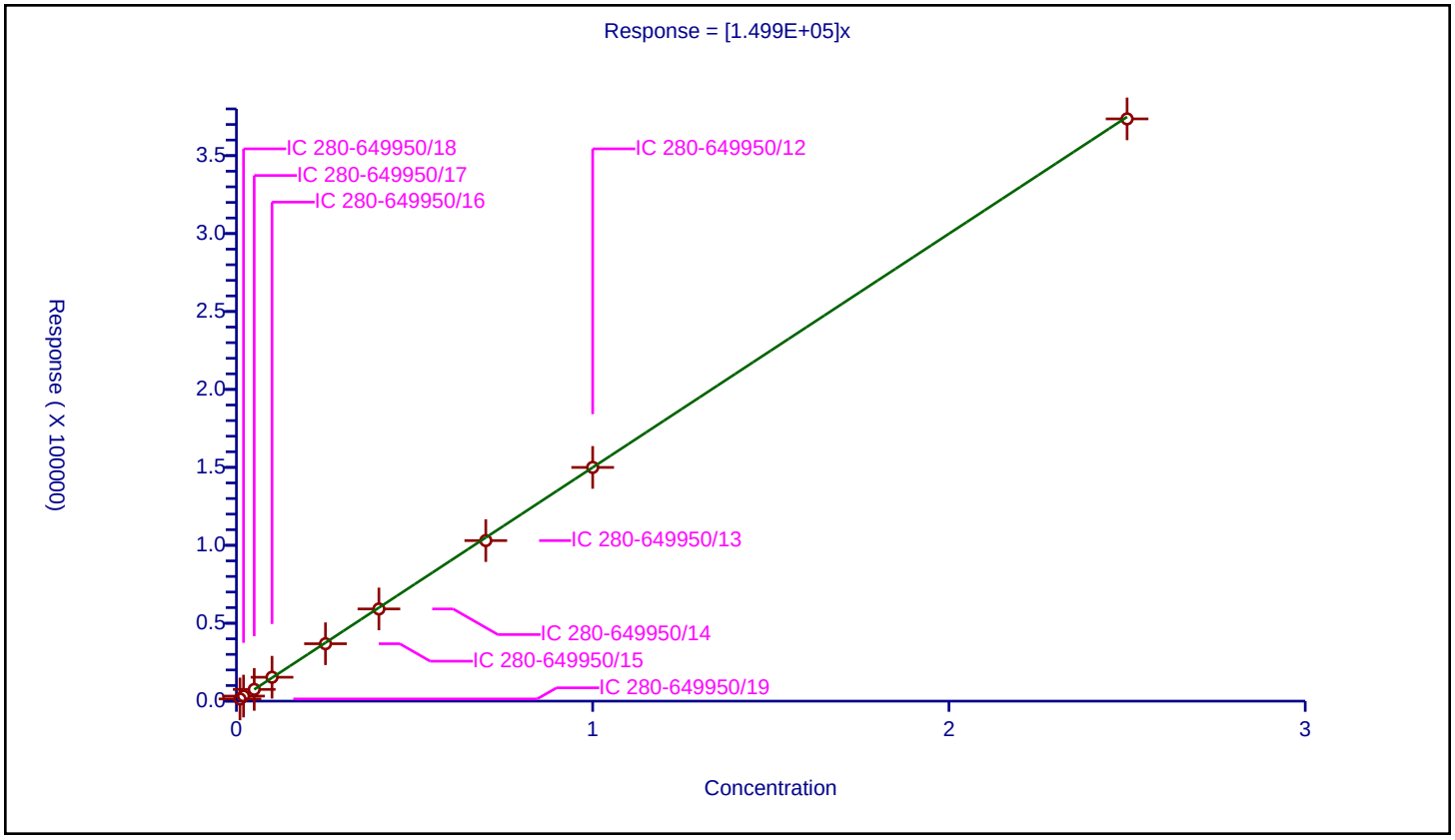
Curve Coefficients

Intercept:	0
Slope:	1.499E+05

Error Coefficients

Relative Standard Deviation:	4.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1406.0			140600.0	Y
2	IC 280-649950/18	0.02	3261.0			163050.0	Y
3	IC 280-649950/17	0.05	7533.0			150660.0	Y
4	IC 280-649950/16	0.1	15344.0			153440.0	Y
5	IC 280-649950/15	0.25	36831.0			147324.0	Y
6	IC 280-649950/14	0.4	59155.0			147887.5	Y
7	IC 280-649950/13	0.7	103016.0			147165.714286	Y
8	IC 280-649950/12	1.0	149965.0			149965.0	Y
9	IC 280-649950/11	2.5	373596.0			149438.4	Y



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Calibration / 2-Amino-4,6-dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

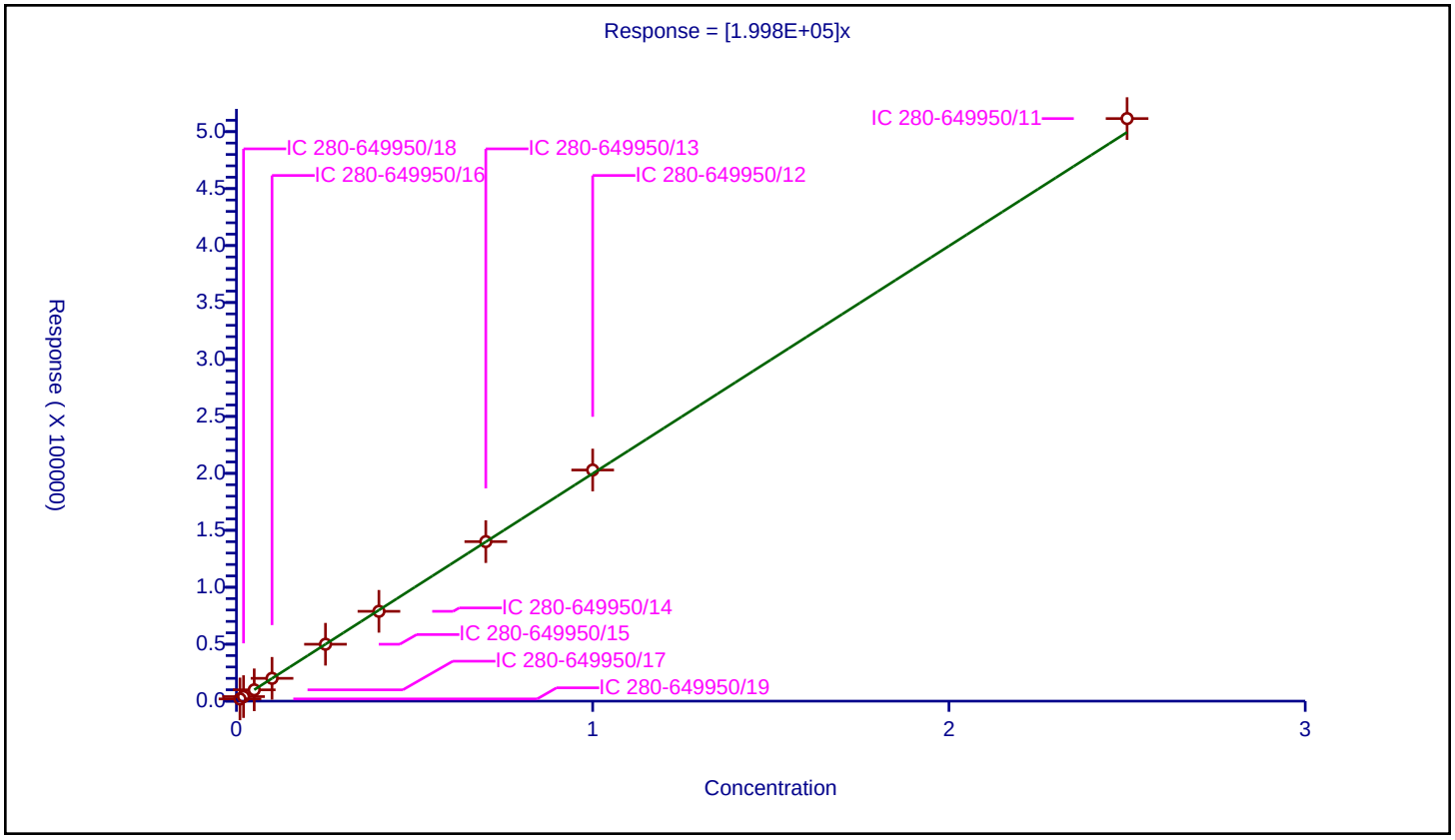
Curve Coefficients

Intercept:	0
Slope:	1.998E+05

Error Coefficients

Relative Standard Deviation:	1.4

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1951.0			195100.0	Y
2	IC 280-649950/18	0.02	3997.0			199850.0	Y
3	IC 280-649950/17	0.05	9923.0			198460.0	Y
4	IC 280-649950/16	0.1	20033.0			200330.0	Y
5	IC 280-649950/15	0.25	49951.0			199804.0	Y
6	IC 280-649950/14	0.4	78856.0			197140.0	Y
7	IC 280-649950/13	0.7	140054.0			200077.142857	Y
8	IC 280-649950/12	1.0	202927.0			202927.0	Y
9	IC 280-649950/11	2.5	511483.0			204593.2	Y



Calibration / 2,6-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

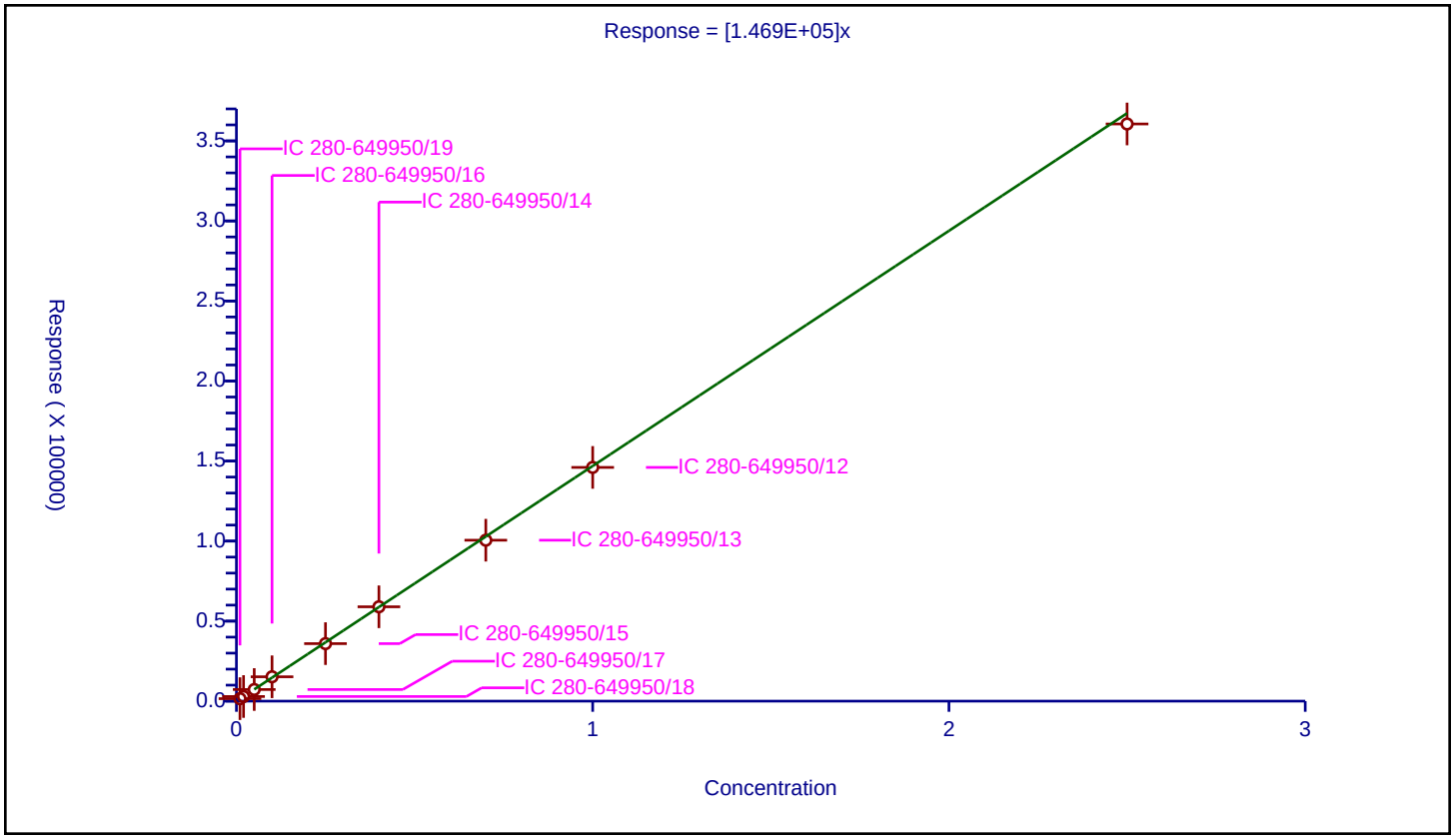
Curve Coefficients

Intercept:	0
Slope:	1.469E+05

Error Coefficients

Relative Standard Deviation:	2.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1557.0			155700.0	Y
2	IC 280-649950/18	0.02	2880.0			144000.0	Y
3	IC 280-649950/17	0.05	7267.0			145340.0	Y
4	IC 280-649950/16	0.1	15218.0			152180.0	Y
5	IC 280-649950/15	0.25	35939.0			143756.0	Y
6	IC 280-649950/14	0.4	58947.0			147367.5	Y
7	IC 280-649950/13	0.7	100540.0			143628.571429	Y
8	IC 280-649950/12	1.0	146021.0			146021.0	Y
9	IC 280-649950/11	2.5	360585.0			144234.0	Y



Calibration / 2,4-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

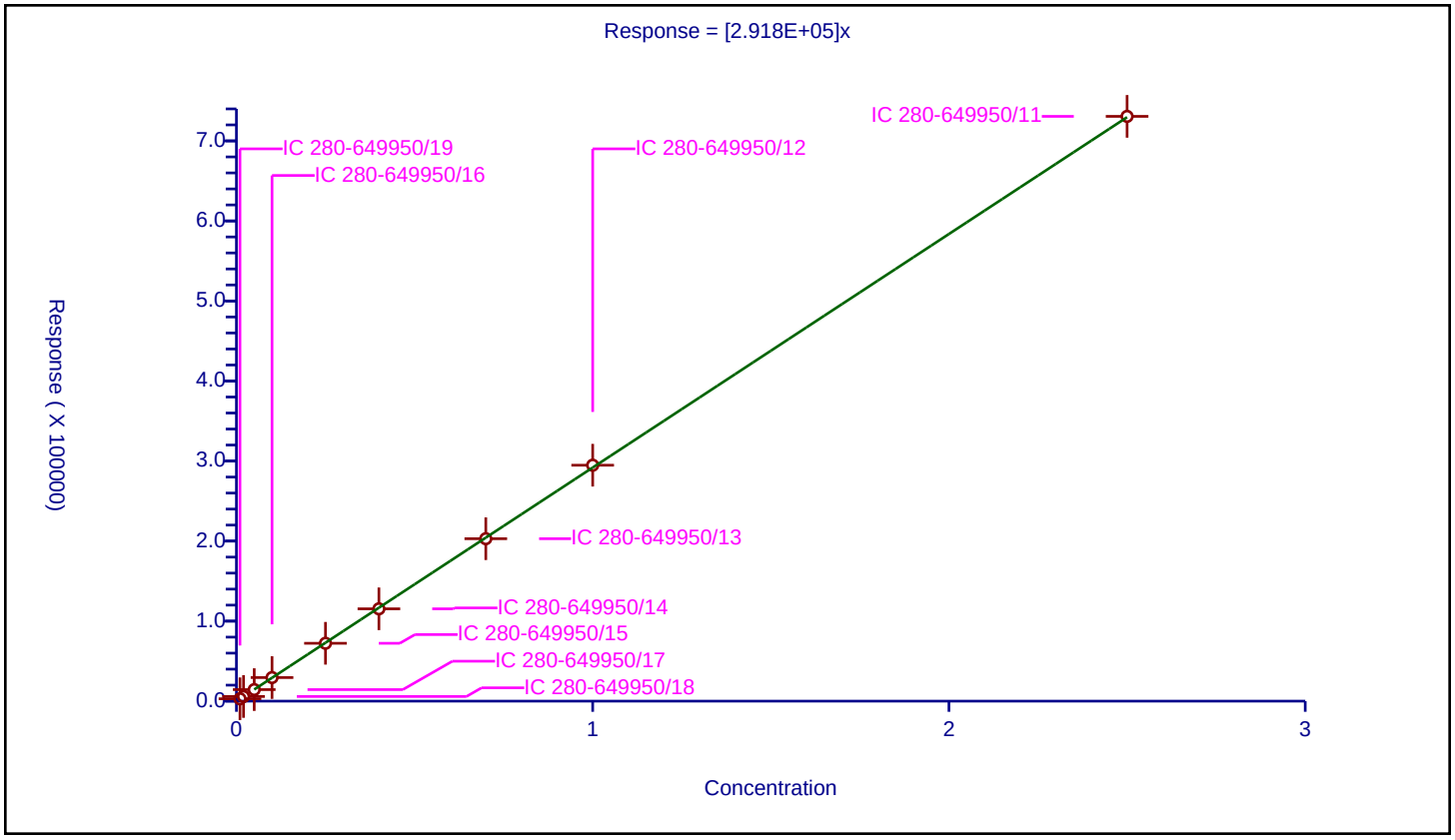
Curve Coefficients

Intercept:	0
Slope:	2.918E+05

Error Coefficients

Relative Standard Deviation:	1.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	2993.0			299300.0	Y
2	IC 280-649950/18	0.02	5793.0			289650.0	Y
3	IC 280-649950/17	0.05	14425.0			288500.0	Y
4	IC 280-649950/16	0.1	29452.0			294520.0	Y
5	IC 280-649950/15	0.25	72314.0			289256.0	Y
6	IC 280-649950/14	0.4	115355.0			288387.5	Y
7	IC 280-649950/13	0.7	202952.0			289931.428571	Y
8	IC 280-649950/12	1.0	294790.0			294790.0	Y
9	IC 280-649950/11	2.5	730644.0			292257.6	Y



Calibration / o-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

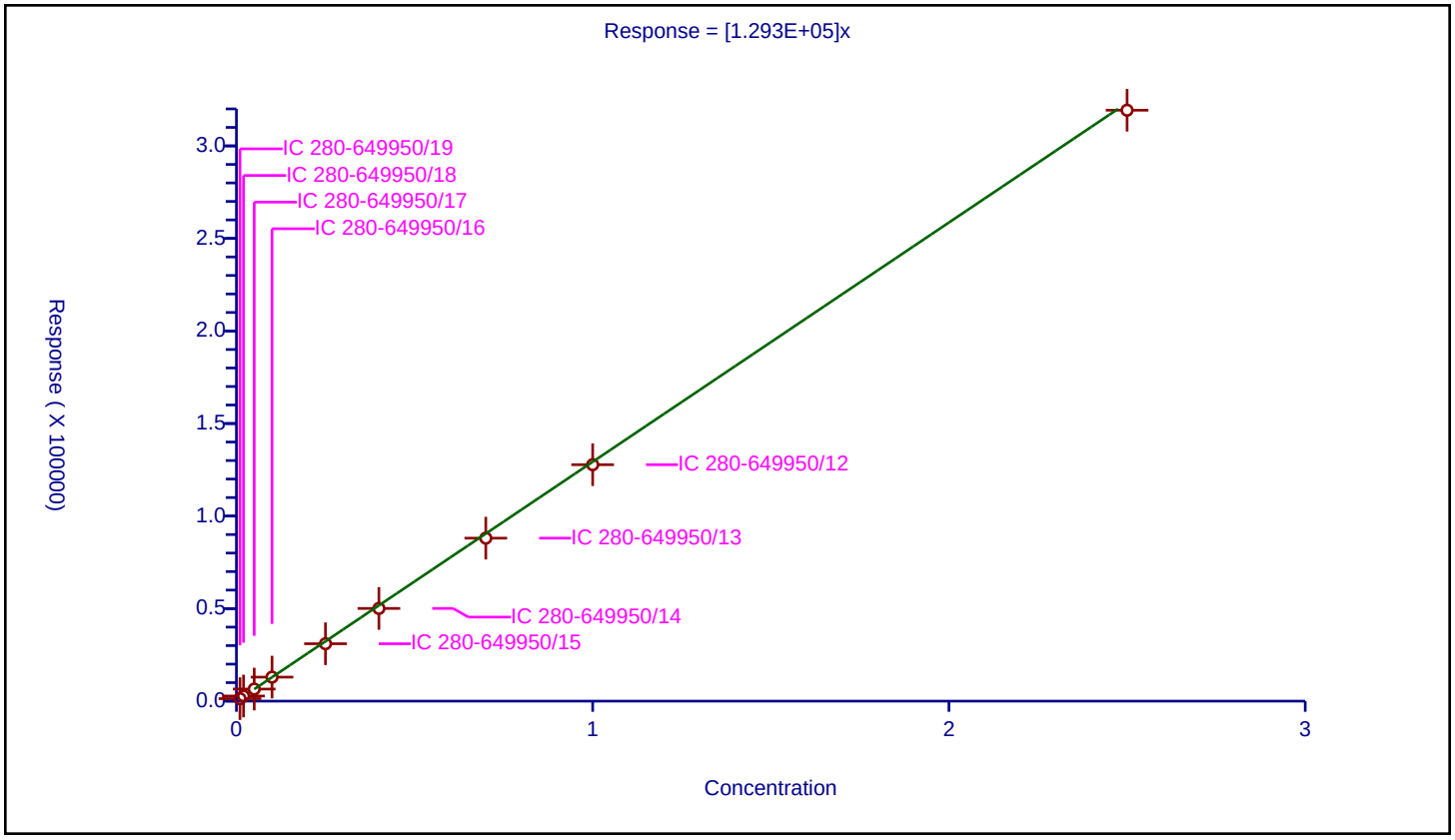
Curve Coefficients

Intercept:	0
Slope:	1.293E+05

Error Coefficients

Relative Standard Deviation:	3.6

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1340.0			134000.0	Y
2	IC 280-649950/18	0.02	2777.0			138850.0	Y
3	IC 280-649950/17	0.05	6526.0			130520.0	Y
4	IC 280-649950/16	0.1	12977.0			129770.0	Y
5	IC 280-649950/15	0.25	31023.0			124092.0	Y
6	IC 280-649950/14	0.4	50092.0			125230.0	Y
7	IC 280-649950/13	0.7	88069.0			125812.857143	Y
8	IC 280-649950/12	1.0	127758.0			127758.0	Y
9	IC 280-649950/11	2.5	319286.0			127714.4	Y



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Calibration / p-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

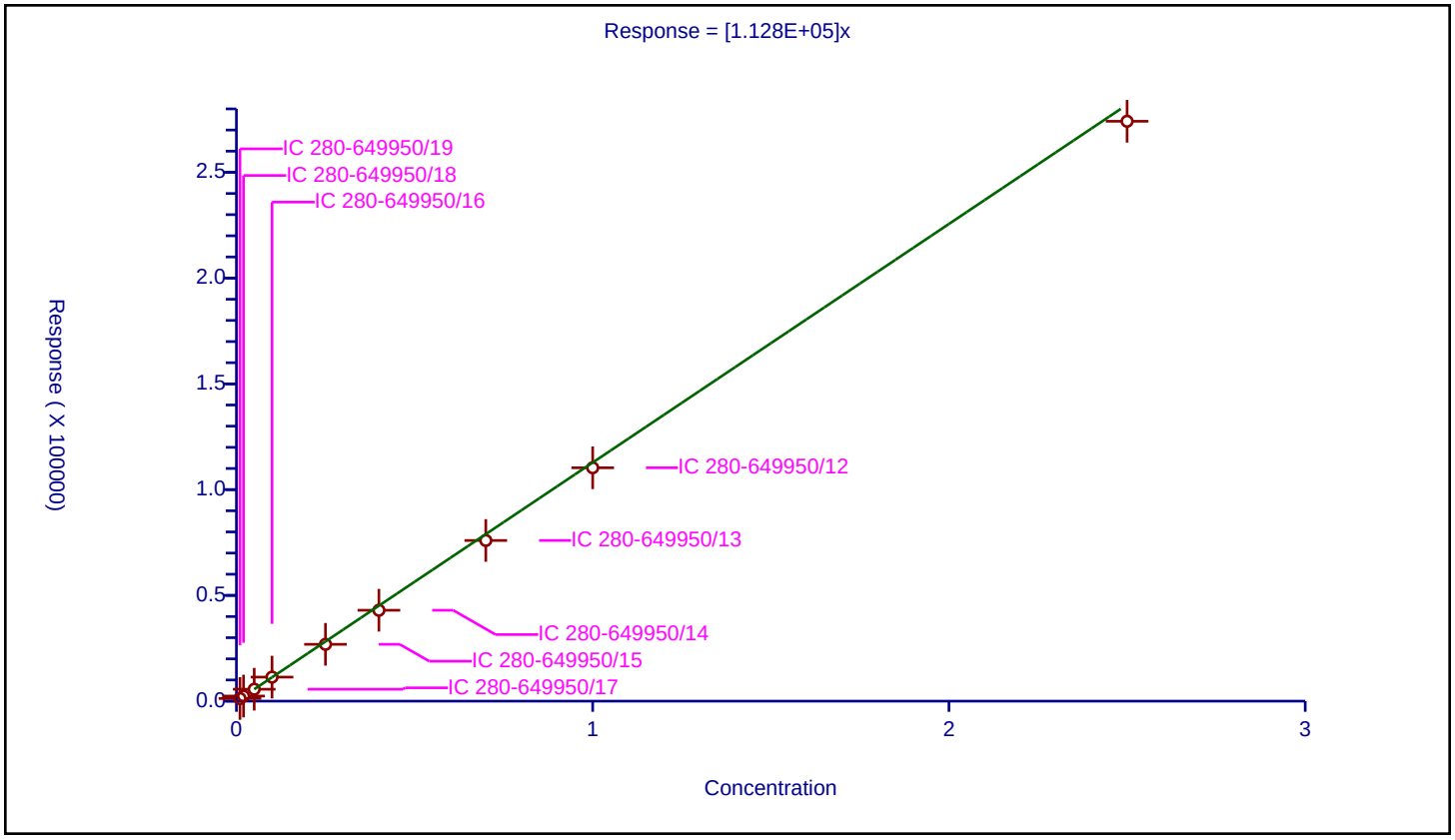
Curve Coefficients

Intercept:	0
Slope:	1.128E+05

Error Coefficients

Relative Standard Deviation:	5.4

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1249.0			124900.0	Y
2	IC 280-649950/18	0.02	2413.0			120650.0	Y
3	IC 280-649950/17	0.05	5631.0			112620.0	Y
4	IC 280-649950/16	0.1	11360.0			113600.0	Y
5	IC 280-649950/15	0.25	26871.0			107484.0	Y
6	IC 280-649950/14	0.4	42973.0			107432.5	Y
7	IC 280-649950/13	0.7	75957.0			108510.0	Y
8	IC 280-649950/12	1.0	110337.0			110337.0	Y
9	IC 280-649950/11	2.5	274145.0			109658.0	Y



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Calibration / m-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

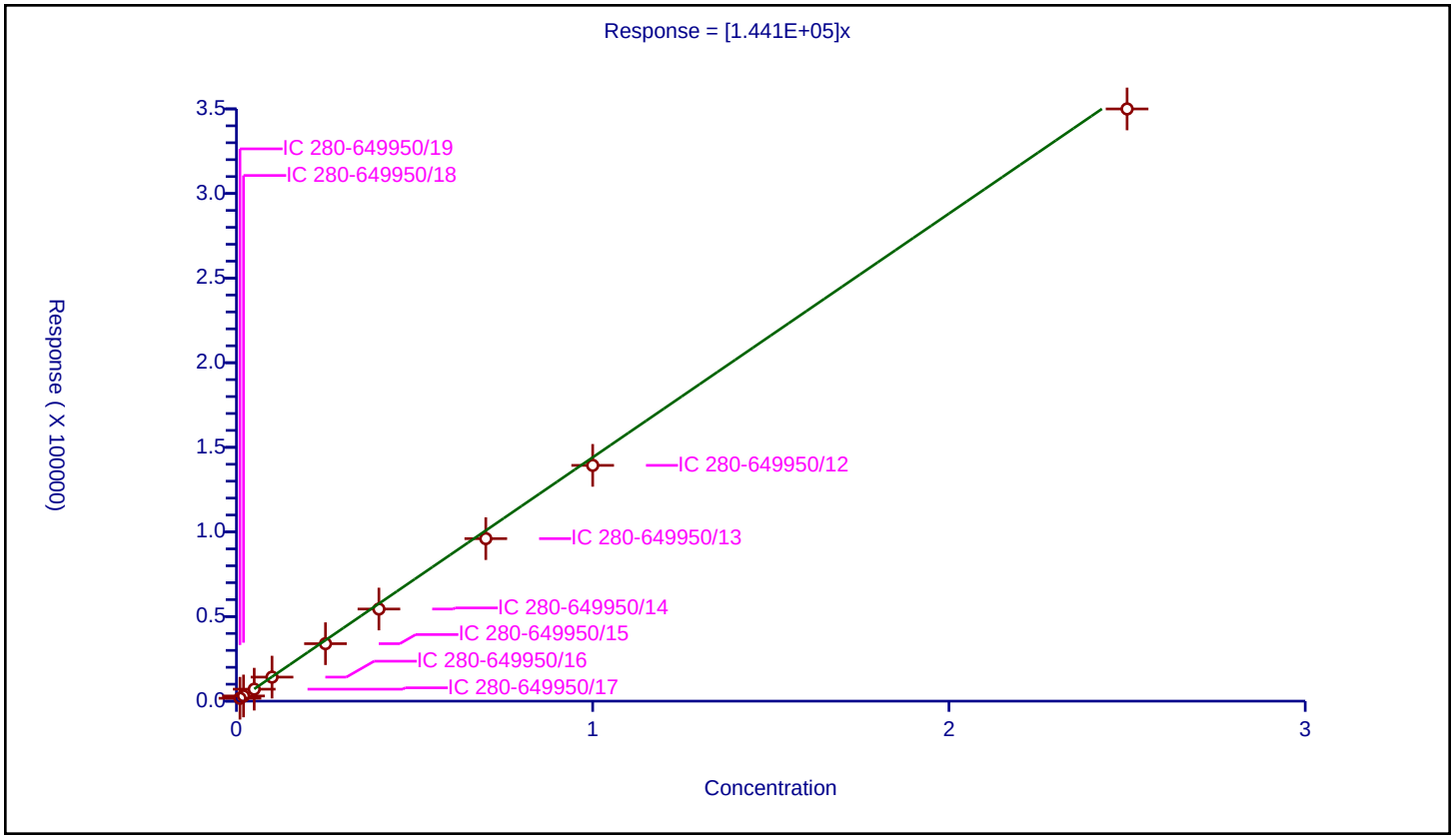
Curve Coefficients

Intercept:	0
Slope:	1.441E+05

Error Coefficients

Relative Standard Deviation:	8.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1713.0			171300.0	Y
2	IC 280-649950/18	0.02	3066.0			153300.0	Y
3	IC 280-649950/17	0.05	7074.0			141480.0	Y
4	IC 280-649950/16	0.1	14207.0			142070.0	Y
5	IC 280-649950/15	0.25	33952.0			135808.0	Y
6	IC 280-649950/14	0.4	54437.0			136092.5	Y
7	IC 280-649950/13	0.7	96036.0			137194.285714	Y
8	IC 280-649950/12	1.0	139336.0			139336.0	Y
9	IC 280-649950/11	2.5	349971.0			139988.4	Y



Calibration / PETN

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

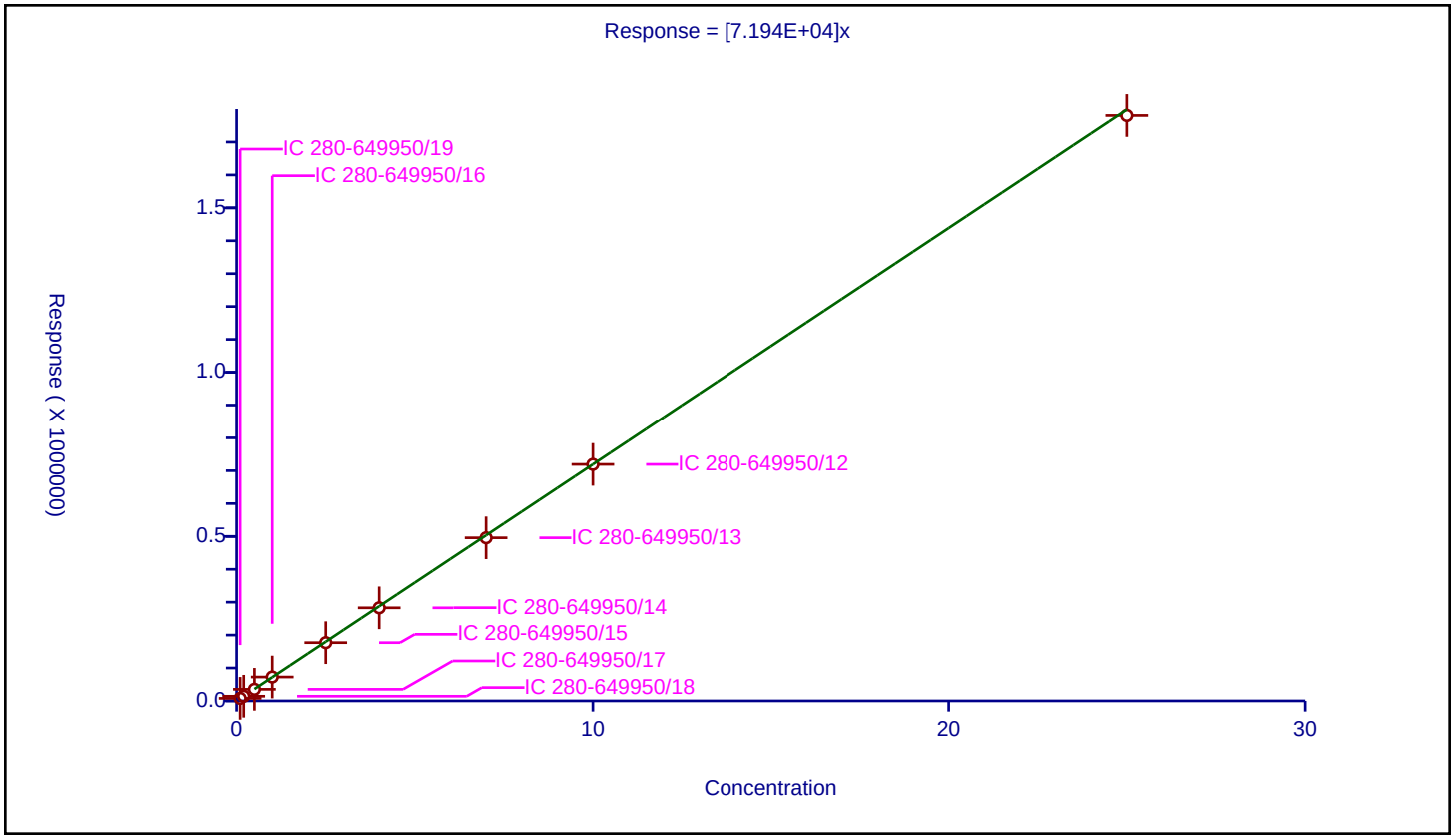
Curve Coefficients

Intercept:	0
Slope:	7.194E+04

Error Coefficients

Relative Standard Deviation:	3.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.1	7807.0			78070.0	Y
2	IC 280-649950/18	0.2	14174.0			70870.0	Y
3	IC 280-649950/17	0.5	35216.0			70432.0	Y
4	IC 280-649950/16	1.0	72600.0			72600.0	Y
5	IC 280-649950/15	2.5	176891.0			70756.4	Y
6	IC 280-649950/14	4.0	282889.0			70722.25	Y
7	IC 280-649950/13	7.0	495856.0			70836.571429	Y
8	IC 280-649950/12	10.0	719241.0			71924.1	Y
9	IC 280-649950/11	25.0	1780535.0			71221.4	Y



5/23/2024
4:40:30 AM

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 647408

SDG No.:

Instrument ID: CHHPLC_X5 | GC Column: Luna-phenyl ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/27/2024 19:58 | Calibration End Date: 03/28/2024 00:38 | Calibration ID: 91606

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-647408/18	03270018.D
Level 2	IC 280-647408/17	03270017.D
Level 3	IC 280-647408/16	03270016.D
Level 4	IC 280-647408/15	03270015.D
Level 5	IC 280-647408/14	03270014.D
Level 6	IC 280-647408/13	03270013.D
Level 7	IC 280-647408/12	03270012.D
Level 8	IC 280-647408/11	03270011.D
Level 9	IC 280-647408/10	03270010.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
HMX	6.792	6.785	6.786	6.792	6.787	6.780	6.776	6.776	6.746		6.637 - 6.937	6.780
Picric acid	7.978	7.985	7.979	7.959	7.934	7.900	7.862	7.829	7.720		7.784 - 8.084	7.905
RDX	8.885	8.878	8.886	8.886	8.881	8.873	8.869	8.862	8.813		8.731 - 9.031	8.870
Nitrobenzene	11.558	11.558	11.566	11.566	11.554	11.546	11.542	11.535	11.493		11.404 - 11.704	11.546
3,5-Dinitroaniline	14.392	14.391	14.399	14.399	14.394	14.386	14.382	14.369	14.326		14.244 - 14.544	14.382
1,3-Dinitrobenzene	14.812	14.811	14.826	14.826	14.821	14.813	14.809	14.795	14.759		14.671 - 14.971	14.808
Nitroglycerin	15.072	15.071	15.079	15.079	15.074	15.066	15.062	15.049	15.026		14.924 - 15.224	15.064
2-Nitrotoluene	15.758	15.751	15.759	15.759	15.754	15.746	15.742	15.729	15.699		15.604 - 15.904	15.744
4-Nitrotoluene	16.012	16.018	16.026	16.026	16.021	16.013	16.002	15.995	15.959		15.871 - 16.171	16.008
4-Amino-2,6-dinitrotoluene	16.498	16.498	16.519	16.519	16.514	16.500	16.496	16.482	16.453		16.364 - 16.664	16.498
3-Nitrotoluene	16.878	16.878	16.886	16.892	16.881	16.866	16.862	16.855	16.826		16.731 - 17.031	16.869
2-Amino-4,6-dinitrotoluene	17.372	17.384	17.399	17.399	17.394	17.380	17.376	17.362	17.333		17.244 - 17.544	17.378
1,3,5-Trinitrobenzene	17.812	17.804	17.819	17.819	17.807	17.800	17.796	17.789	17.766		17.657 - 17.957	17.801
2,6-Dinitrotoluene	18.818	18.811	18.826	18.832	18.827	18.813	18.809	18.795	18.773		18.677 - 18.977	18.812
2,4-Dinitrotoluene	19.298	19.311	19.312	19.319	19.314	19.306	19.302	19.282	19.259		19.164 - 19.464	19.300
Tetryl	22.725	22.725	22.739	22.746	22.741	22.733	22.722	22.709	22.686		22.591 - 22.891	22.725
2,4,6-Trinitrotoluene	23.692	23.705	23.706	23.712	23.707	23.700	23.696	23.676	23.660		23.557 - 23.857	23.695
PETN	24.825	24.685	24.686	24.692	24.687	24.680	24.669	24.649	24.640		24.537 - 24.837	24.690
1,2-Dinitrobenzene	12.578	12.578	12.586	12.586	12.581	12.573	12.569	12.555	12.519		12.431 - 12.731	12.569

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 647408

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/27/2024 19:58 Calibration End Date: 03/28/2024 00:38 Calibration ID: 91606

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-647408/18	03270018.D
Level 2	IC 280-647408/17	03270017.D
Level 3	IC 280-647408/16	03270016.D
Level 4	IC 280-647408/15	03270015.D
Level 5	IC 280-647408/14	03270014.D
Level 6	IC 280-647408/13	03270013.D
Level 7	IC 280-647408/12	03270012.D
Level 8	IC 280-647408/11	03270011.D
Level 9	IC 280-647408/10	03270010.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
HMX	253600 178576 178724	210600 179675	187120 175606	185210 176039	Ave		191683.346				13.4		20.0			
Picric acid	168700 146368 150000	149450 146663	151540 145471	149350 146238	Ave		150420.037				4.8		20.0			
RDX	236800 204796 206088	239950 205348	213060 202331	210660 203312	Ave		213593.925				6.8		20.0			
Nitrobenzene	411300 364912 376028	390750 370663	376560 366150	375790 367527	Ave		377742.211				3.9		20.0			
3,5-Dinitroaniline	442500 441216 439684	418300 443008	452440 435431	450830 435844	Lin2	-50.938523	440988.605							0.9990		0.9900
1,3-Dinitrobenzene	531200 611432 602033	579400 618725	609240 601600	631690 599978	Ave		598366.467				4.8		20.0			
Nitroglycerin	125370 132075 132712	148120 135788	139970 133151	139113 132211	Ave		135389.835				4.7		20.0			
2-Nitrotoluene	261200 250920 237708	268250 245000	243220 241149	239700 239038	Ave		247353.841				4.3		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191098-1 Analy Batch No.: 647408

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/27/2024 19:58 Calibration End Date: 03/28/2024 00:38 Calibration ID: 91606

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
4-Nitrotoluene	304900 221044 219752	270450 221805	229980 218320	220830 212404	Lin2	916.184358	216224.969							0.9990		0.9900
4-Amino-2,6-dinitrotoluene	356400 281540 275792	342050 282180	291760 277401	285350 274352	Lin2	878.402026	277835.425							0.9990		0.9900
3-Nitrotoluene	447900 278012 273901	350650 276580	298180 273564	285700 268594	Lin2	1747.31496	269140.538							1.0000		0.9900
2-Amino-4,6-dinitrotoluene	475100 396684 397012	486350 397985	420200 395076	410300 391883	Lin2	963.350593	398688.925							0.9980		0.9900
1,3,5-Trinitrobenzene	437600 409628 414341	496800 414988	443840 415713	426790 407003	Ave		429633.573				6.6		20.0			
2,6-Dinitrotoluene	271600 277536 275752	261150 274760	269860 278736	275560 270529	Ave		272831.457				2.0		20.0			
2,4-Dinitrotoluene	545500 552684 552028	549950 548203	540320 545894	541960 542165	Ave		546522.687				0.8		20.0			
Tetryl	369000 328732 333232	346250 330055	331380 327494	331100 328904	Ave		336238.587				4.0		20.0			
2,4,6-Trinitrotoluene	453400 409840 415288	420800 412215	407920 406460	413330 408906	Ave		416462.111				3.5		20.0			
PETN	89820 128835 134788	105930 131269	113402 131115	125929 132355	Lin2	-4400.5935	130750.946							0.9990		0.9900
1,2-Dinitrobenzene	303200 255328 259343	272300 257463	261300 254114	259500 254825	Ave		264152.554				5.9		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 647408

SDG No.:

Instrument ID: CHHPLC_X5 | GC Column: Luna-pheny ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/27/2024 19:58 | Calibration End Date: 03/28/2024 00:38 | Calibration ID: 91606

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-647408/18	03270018.D
Level 2	IC 280-647408/17	03270017.D
Level 3	IC 280-647408/16	03270016.D
Level 4	IC 280-647408/15	03270015.D
Level 5	IC 280-647408/14	03270014.D
Level 6	IC 280-647408/13	03270013.D
Level 7	IC 280-647408/12	03270012.D
Level 8	IC 280-647408/11	03270011.D
Level 9	IC 280-647408/10	03270010.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
HMX	Ave	2536 71870	4212 122924	9356 176039	18521 446811	44644	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Picric acid	Ave	1687 58665	2989 101830	7577 146238	14935 375001	36592	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
RDX	Ave	2368 82139	4799 141632	10653 203312	21066 515221	51199	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	4113 148265	7815 256305	18828 367527	37579 940071	91228	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3,5-Dinitroaniline	Lin2	4425 177203	8366 304802	22622 435844	45083 1099211	110304	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	5312 247490	11588 421120	30462 599978	63169 1505083	152858	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitroglycerin	Ave	12537 543150	29624 932056	69985 1322106	139113 3317794	330187	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2-Nitrotoluene	Ave	2612 98000	5365 168804	12161 239038	23970 594270	62730	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Nitrotoluene	Lin2	3049 88722	5409 152824	11499 212404	22083 549379	55261	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Amino-2,6-dinitrotoluene	Lin2	3564 112872	6841 194181	14588 274352	28535 689480	70385	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3-Nitrotoluene	Lin2	4479 110632	7013 191495	14909 268594	28570 684753	69503	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Lin2	4751 159194	9727 276553	21010 391883	41030 992531	99171	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3,5-Trinitrobenzene	Ave	4376 165995	9936 290999	22192 407003	42679 1035852	102407	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,6-Dinitrotoluene	Ave	2716 109904	5223 195115	13493 270529	27556 689381	69384	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4-Dinitrotoluene	Ave	5455	10999	27016	54196	138171	0.0100	0.0200	0.0500	0.100	0.250

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-191098-1 | Analy Batch No.: 647408

SDG No.:

Instrument ID: CHHPLC_X5 | GC Column: Luna-pheny ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/27/2024 19:58 | Calibration End Date: 03/28/2024 00:38 | Calibration ID: 91606

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
		219281	382126	542165	1380071		0.400	0.700	1.00	2.50	
Tetryl	Ave	3690 132022	6925 229246	16569 328904	33110 833080	82183	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4,6-Trinitrotoluene	Ave	4534 164886	8416 284522	20396 408906	41333 1038220	102460	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
PETN	Lin2	8982 525075	21186 917804	56701 1323551	125929 3369705	322087	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Ave	3032 102985	5446 177880	13065 254825	25950 648358	63832	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250

Curve Type Legend:
Ave = Average
Lin2 = Linear 1/conc^2

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270010.D
Lims ID: IC INT 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 27-Mar-2024 19:58:57 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 9
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 28-Mar-2024 14:09:24 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1687

First Level Reviewer: LV5D Date: 28-Mar-2024 11:16:57

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.746	6.787	-0.041	446811	2.50	2.33	
7 2,4,6-Trinitrophenol	1	7.720	7.934	-0.214	375001	2.50	2.49	a
8 RDX	1	8.813	8.881	-0.068	515221	2.50	2.41	
9 Nitrobenzene	1	11.493	11.554	-0.061	940071	2.50	2.49	
$ 10 1,2-Dinitrobenzene	1	12.519	12.581	-0.062	648358	2.50	2.45	
11 3,5-Dinitroaniline	1	14.326	14.394	-0.068	1099211	2.50	2.49	
12 1,3-Dinitrobenzene	1	14.759	14.821	-0.062	1505083	2.50	2.52	
13 Nitroglycerin	2	15.026	15.074	-0.048	3317794	25.0	24.5	M
14 o-Nitrotoluene	1	15.699	15.754	-0.055	594270	2.50	2.40	
16 p-Nitrotoluene	1	15.959	16.021	-0.062	549379	2.50	2.54	
17 4-Amino-2,6-dinitrotoluene	1	16.453	16.514	-0.061	689480	2.50	2.48	
18 m-Nitrotoluene	1	16.826	16.881	-0.055	684753	2.50	2.54	
19 2-Amino-4,6-dinitrotoluene	1	17.333	17.394	-0.061	992531	2.50	2.49	
20 1,3,5-Trinitrobenzene	1	17.766	17.807	-0.041	1035852	2.50	2.41	
21 2,6-Dinitrotoluene	1	18.773	18.827	-0.054	689381	2.50	2.53	
22 2,4-Dinitrotoluene	1	19.259	19.314	-0.055	1380071	2.50	2.53	
23 Tetryl	1	22.686	22.741	-0.055	833080	2.50	2.48	
24 2,4,6-Trinitrotoluene	1	23.660	23.707	-0.047	1038220	2.50	2.49	
25 PETN	2	24.640	24.687	-0.047	3369705	25.0	25.8	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00079 Amount Added: 250.00 Units: uL

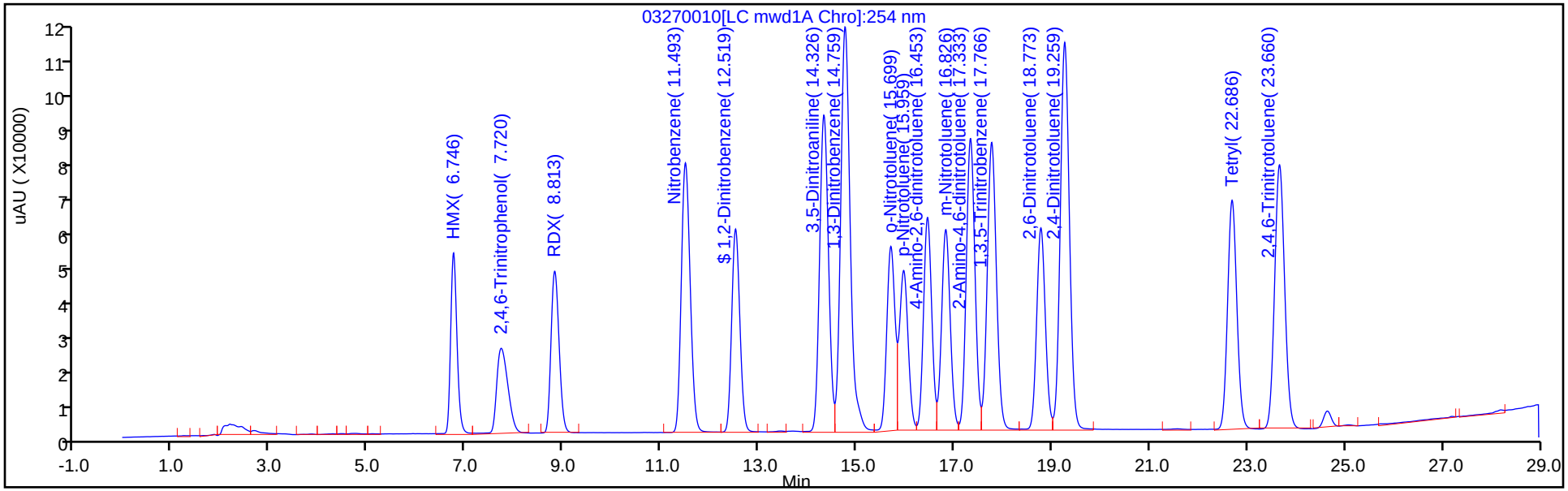
Report Date: 28-Mar-2024 14:09:24 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

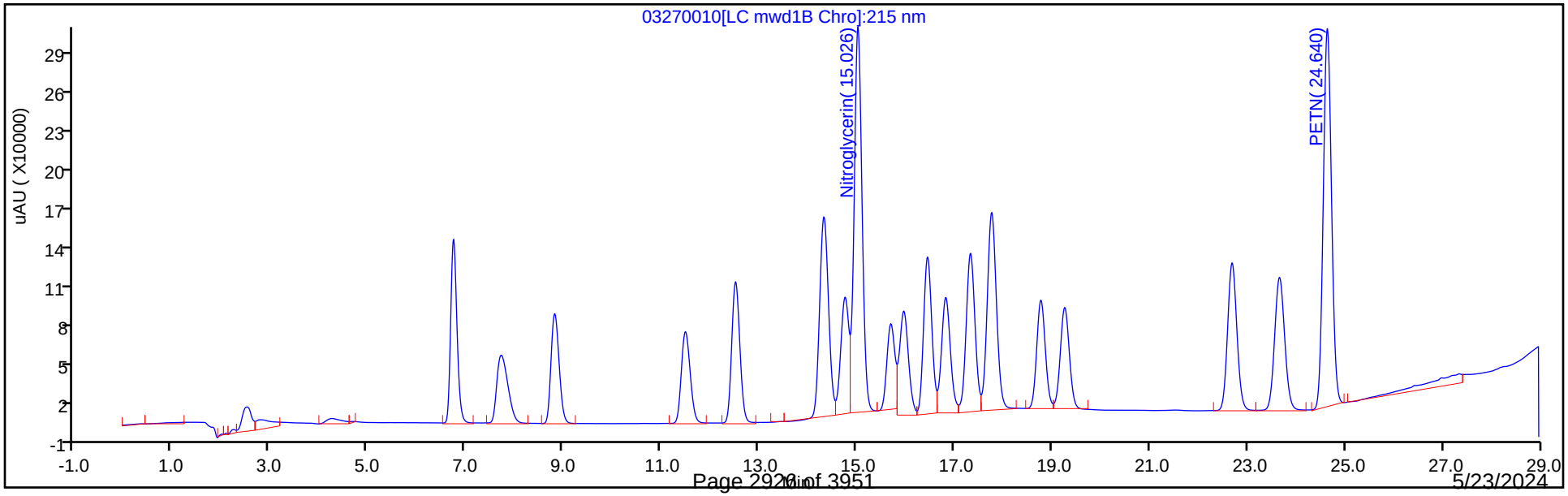
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270010.D

Injection Date:	27-Mar-2024 19:58:57	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC INT 9			Worklist Smp#:	10
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

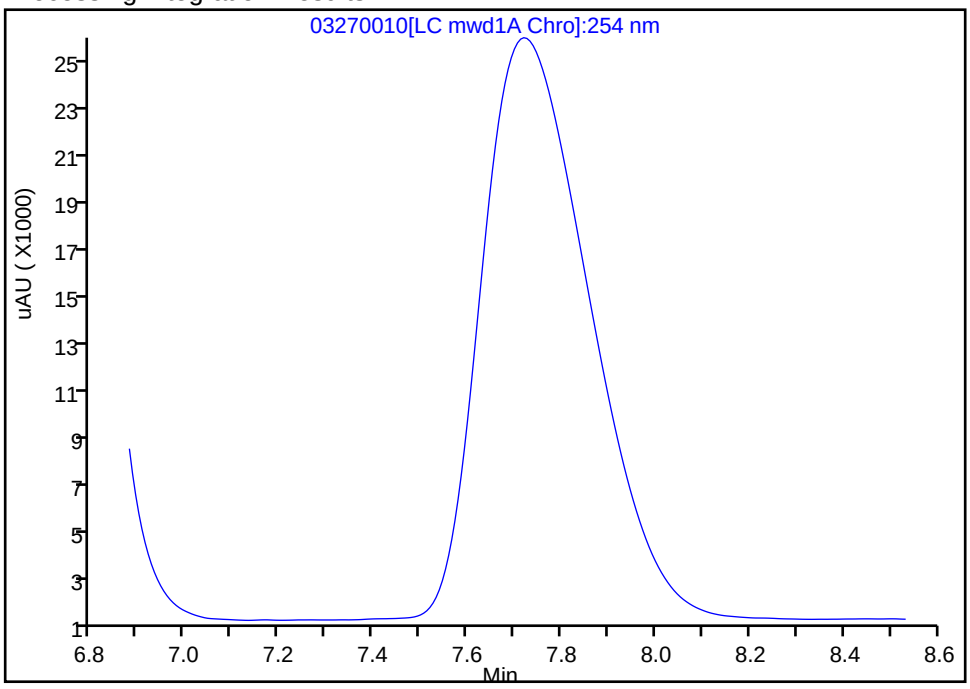
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270010.D				
Injection Date:	27-Mar-2024 19:58:57	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

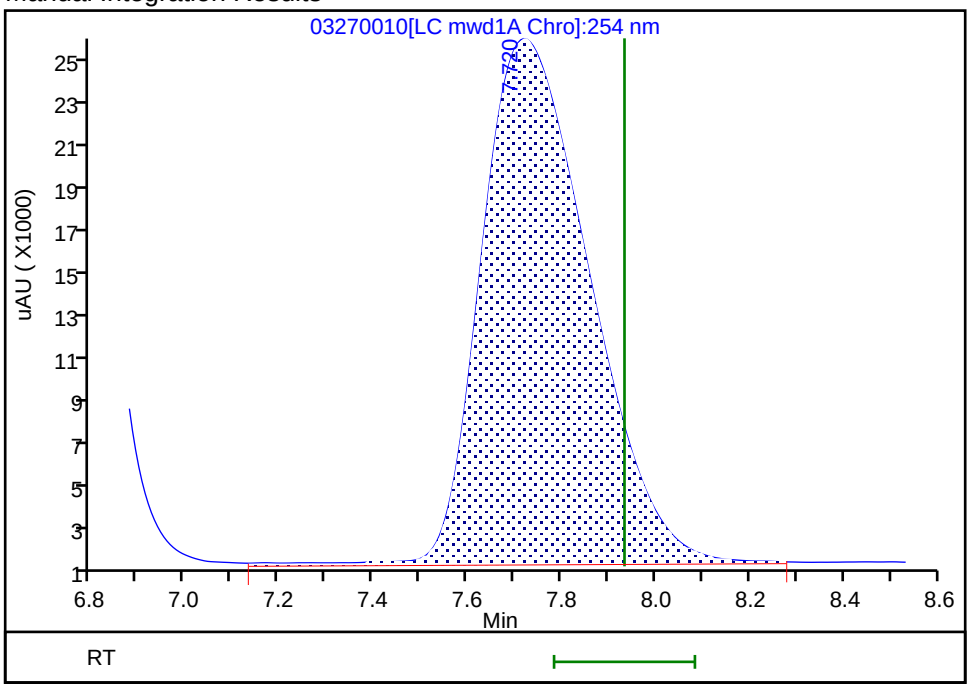
Not Detected
Expected RT: 7.93

Processing Integration Results



Manual Integration Results

RT: 7.72
Area: 375001
Amount: 2.493026
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:16:55 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Denver

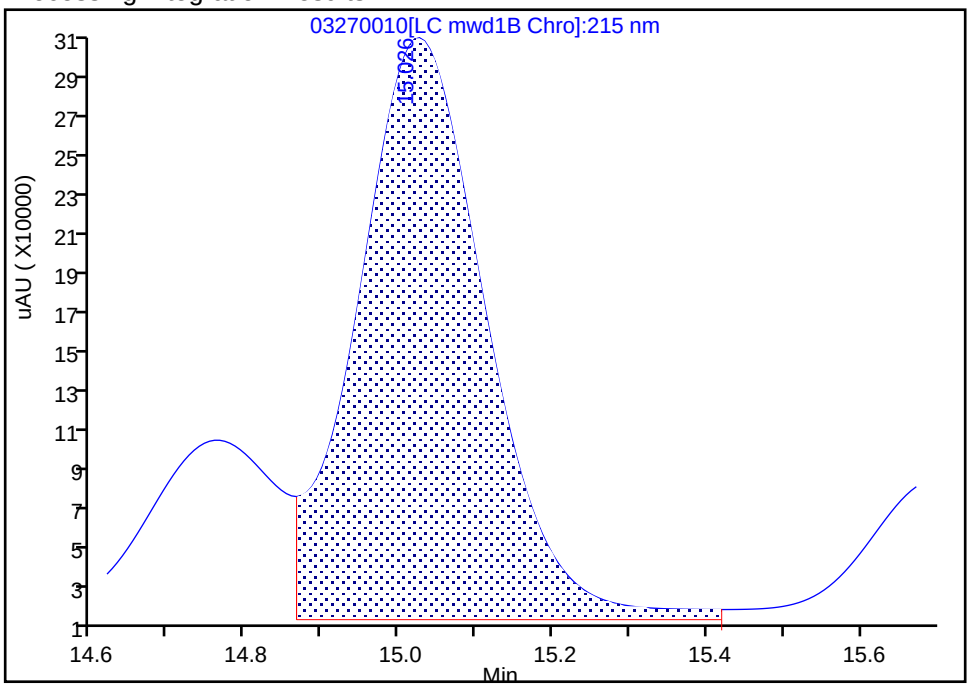
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270010.D
Injection Date: 27-Mar-2024 19:58:57 Instrument ID: CHHPLC_X5
Lims ID: IC INT 9
Client ID:
Operator ID: JZ/JG ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

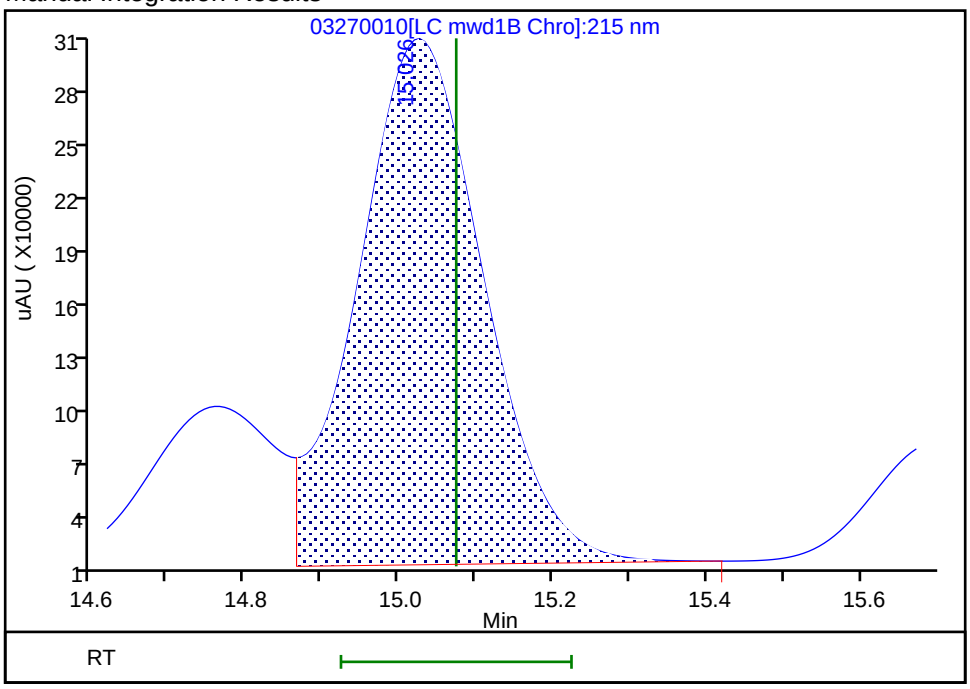
Processing Integration Results

RT: 15.03
Area: 3446477
Amount: 12.481393
Amount Units: ug/ml



Manual Integration Results

RT: 15.03
Area: 3317794
Amount: 24.505488
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:35:19 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270011.D
Lims ID: IC INT 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 27-Mar-2024 20:33:55 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 8
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 28-Mar-2024 14:09:24 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1687

First Level Reviewer: LV5D Date: 28-Mar-2024 11:35:38

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.776	6.787	-0.011	176039	1.00	0.9184	
7 2,4,6-Trinitrophenol	1	7.829	7.934	-0.105	146238	1.00	0.9722	
8 RDX	1	8.862	8.881	-0.019	203312	1.00	0.9519	
9 Nitrobenzene	1	11.535	11.554	-0.019	367527	1.00	0.9730	
$ 10 1,2-Dinitrobenzene	1	12.555	12.581	-0.026	254825	1.00	0.9647	
11 3,5-Dinitroaniline	1	14.369	14.394	-0.025	435844	1.00	0.9884	
12 1,3-Dinitrobenzene	1	14.795	14.821	-0.026	599978	1.00	1.00	
13 Nitroglycerin	2	15.049	15.074	-0.025	1322106	10.0	9.77	M
14 o-Nitrotoluene	1	15.729	15.754	-0.025	239038	1.00	0.9664	
16 p-Nitrotoluene	1	15.995	16.021	-0.026	212404	1.00	0.9781	
17 4-Amino-2,6-dinitrotoluene	1	16.482	16.514	-0.032	274352	1.00	0.9843	
18 m-Nitrotoluene	1	16.855	16.881	-0.026	268594	1.00	0.99	
19 2-Amino-4,6-dinitrotoluene	1	17.362	17.394	-0.032	391883	1.00	0.9805	
20 1,3,5-Trinitrobenzene	1	17.789	17.807	-0.018	407003	1.00	0.9473	
21 2,6-Dinitrotoluene	1	18.795	18.827	-0.032	270529	1.00	0.99	
22 2,4-Dinitrotoluene	1	19.282	19.314	-0.032	542165	1.00	0.99	
23 Tetryl	1	22.709	22.741	-0.032	328904	1.00	0.9782	
24 2,4,6-Trinitrotoluene	1	23.676	23.707	-0.031	408906	1.00	0.9819	
25 PETN	2	24.649	24.687	-0.038	1323551	10.0	10.2	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079 Amount Added: 100.00 Units: uL

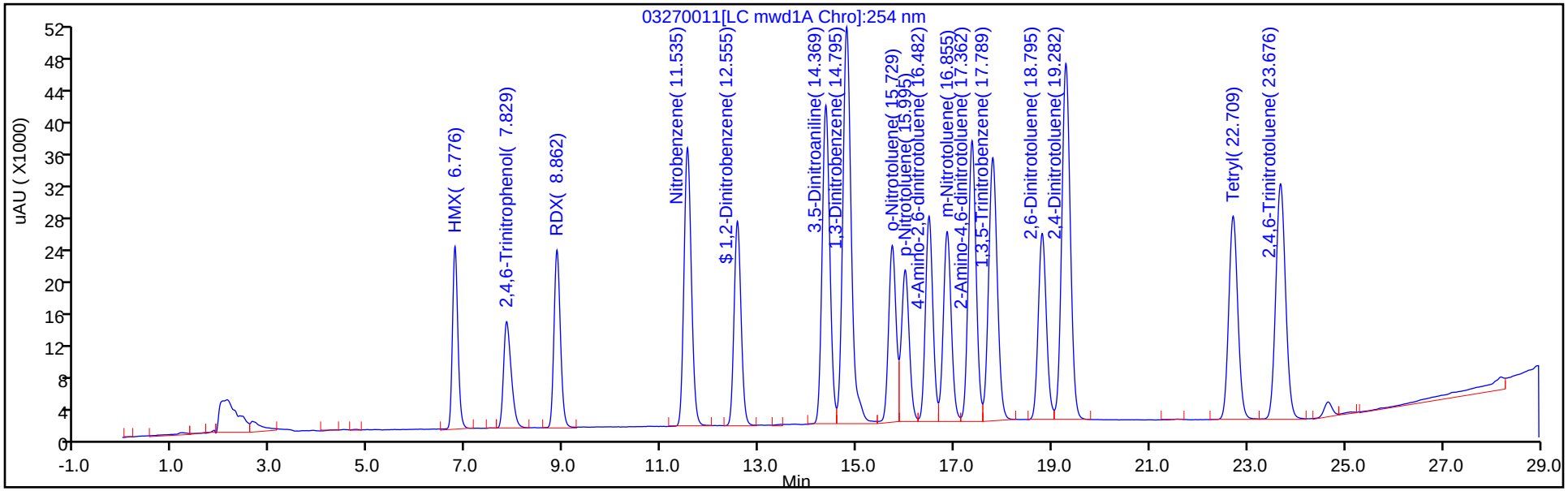
Report Date: 28-Mar-2024 14:09:25 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

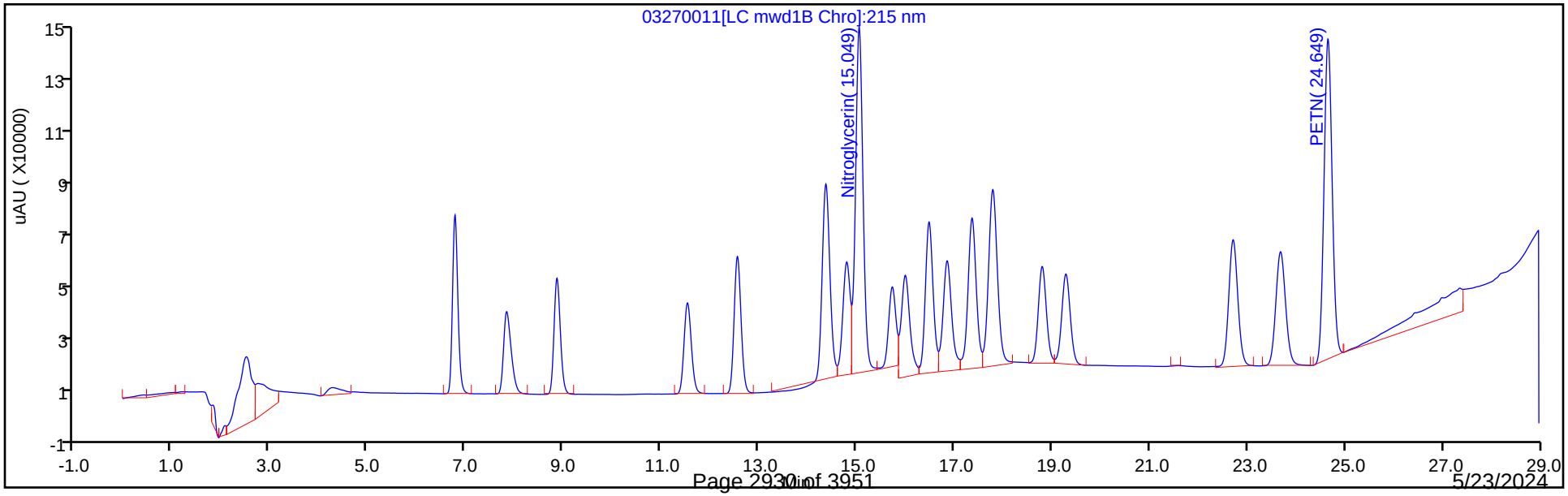
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270011.D

Injection Date:	27-Mar-2024 20:33:55	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC INT 8			Worklist Smp#:	11
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

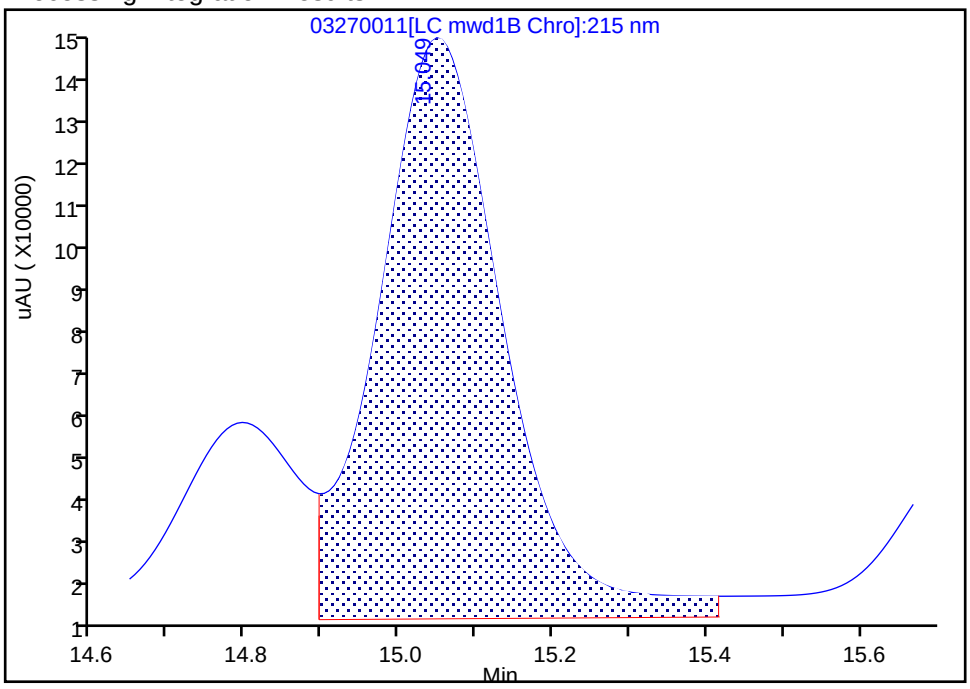
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270011.D
Injection Date: 27-Mar-2024 20:33:55 Instrument ID: CHHPLC_X5
Lims ID: IC INT 8
Client ID:
Operator ID: JZ/JG ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

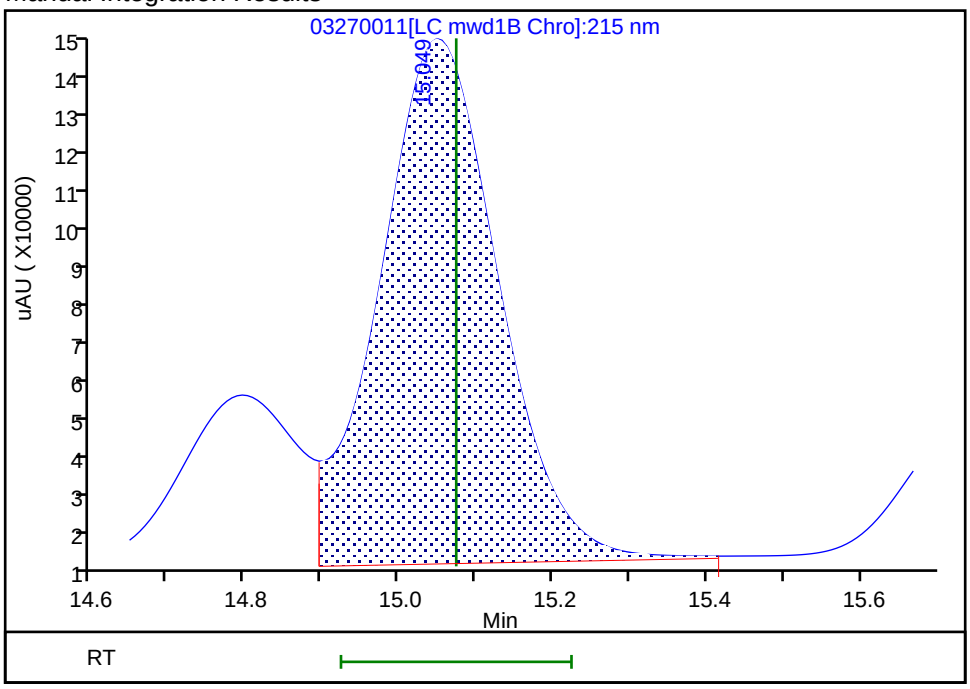
Processing Integration Results

RT: 15.05
Area: 1435019
Amount: 5.207698
Amount Units: ug/ml



Manual Integration Results

RT: 15.05
Area: 1322106
Amount: 9.765179
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:35:36 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270012.D
Lims ID: IC INT 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 27-Mar-2024 21:08:51 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 7
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 28-Mar-2024 14:09:26 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1687

First Level Reviewer: LV5D Date: 28-Mar-2024 11:35:47

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.776	6.787	-0.011	122924	0.7000	0.6413	
7 2,4,6-Trinitrophenol	1	7.862	7.934	-0.072	101830	0.7000	0.6770	
8 RDX	1	8.869	8.881	-0.012	141632	0.7000	0.6631	
9 Nitrobenzene	1	11.542	11.554	-0.012	256305	0.7000	0.6785	
$ 10 1,2-Dinitrobenzene	1	12.569	12.581	-0.012	177880	0.7000	0.6734	
11 3,5-Dinitroaniline	1	14.382	14.394	-0.012	304802	0.7000	0.6913	
12 1,3-Dinitrobenzene	1	14.809	14.821	-0.012	421120	0.7000	0.7038	
13 Nitroglycerin	2	15.062	15.074	-0.012	932056	7.00	6.88	M
14 o-Nitrotoluene	1	15.742	15.754	-0.012	168804	0.7000	0.6824	
16 p-Nitrotoluene	1	16.002	16.021	-0.019	152824	0.7000	0.7025	
17 4-Amino-2,6-dinitrotoluene	1	16.496	16.514	-0.018	194181	0.7000	0.6957	
18 m-Nitrotoluene	1	16.862	16.881	-0.019	191495	0.7000	0.7050	
19 2-Amino-4,6-dinitrotoluene	1	17.376	17.394	-0.018	276553	0.7000	0.6912	
20 1,3,5-Trinitrobenzene	1	17.796	17.807	-0.011	290999	0.7000	0.6773	
21 2,6-Dinitrotoluene	1	18.809	18.827	-0.018	195115	0.7000	0.7151	
22 2,4-Dinitrotoluene	1	19.302	19.314	-0.012	382126	0.7000	0.6992	
23 Tetryl	1	22.722	22.741	-0.019	229246	0.7000	0.6818	
24 2,4,6-Trinitrotoluene	1	23.696	23.707	-0.011	284522	0.7000	0.6832	
25 PETN	2	24.669	24.687	-0.018	917804	7.00	7.05	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079 Amount Added: 70.00 Units: uL

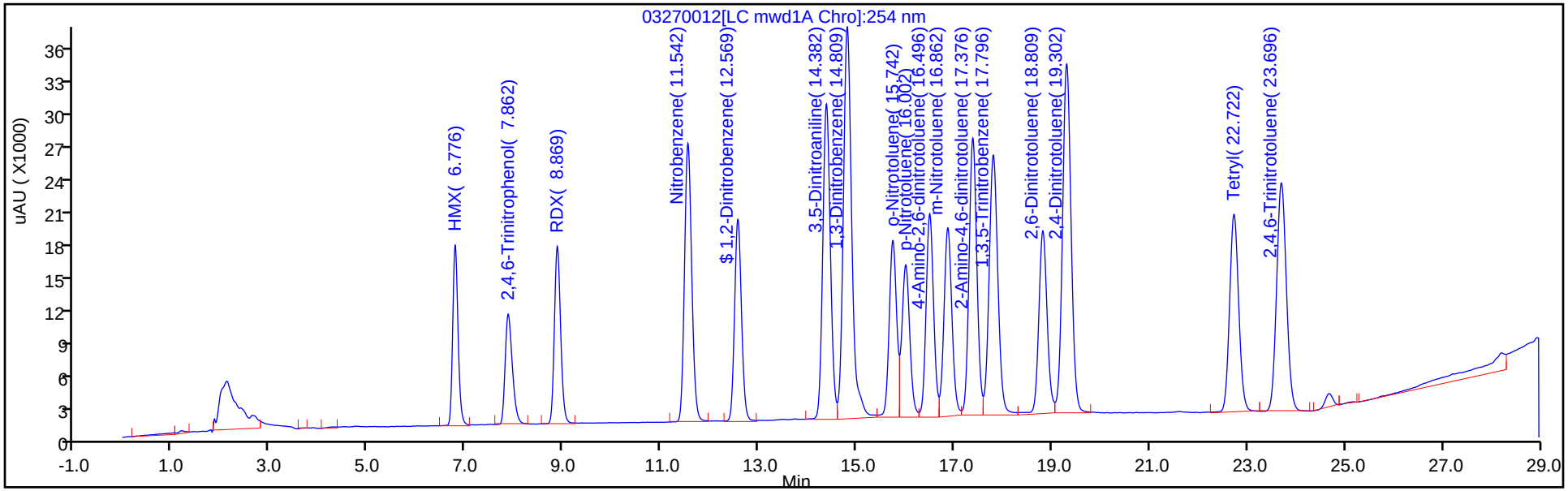
Report Date: 28-Mar-2024 14:09:26 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

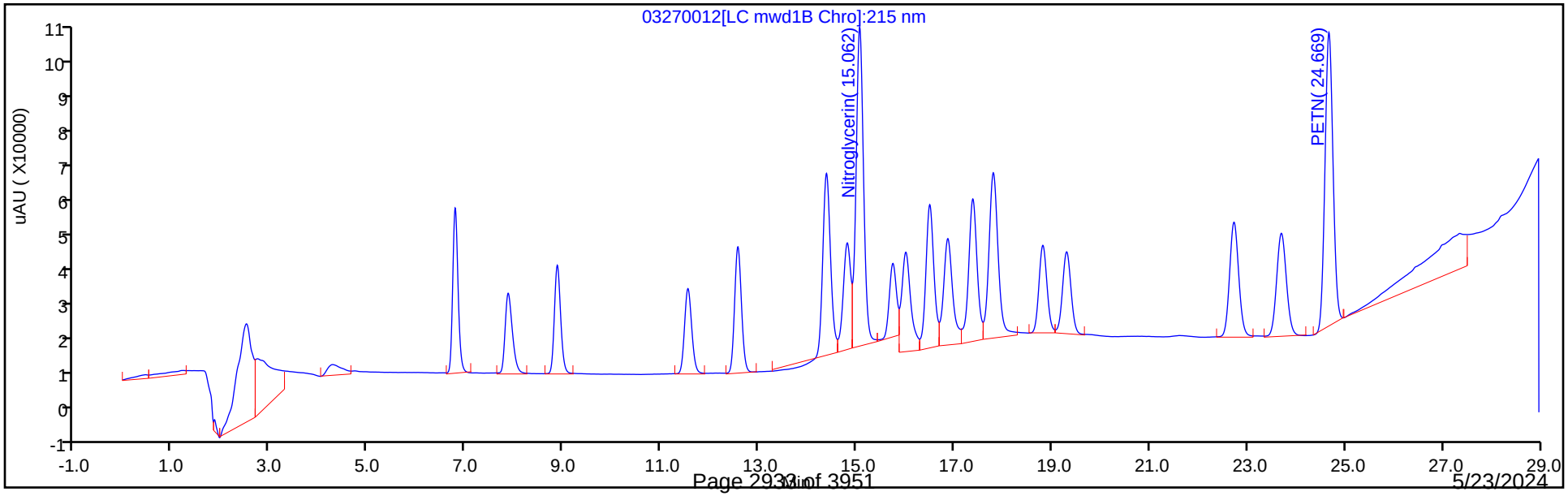
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270012.D

Injection Date:	27-Mar-2024 21:08:51	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC INT 7			Worklist Smp#:	12
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

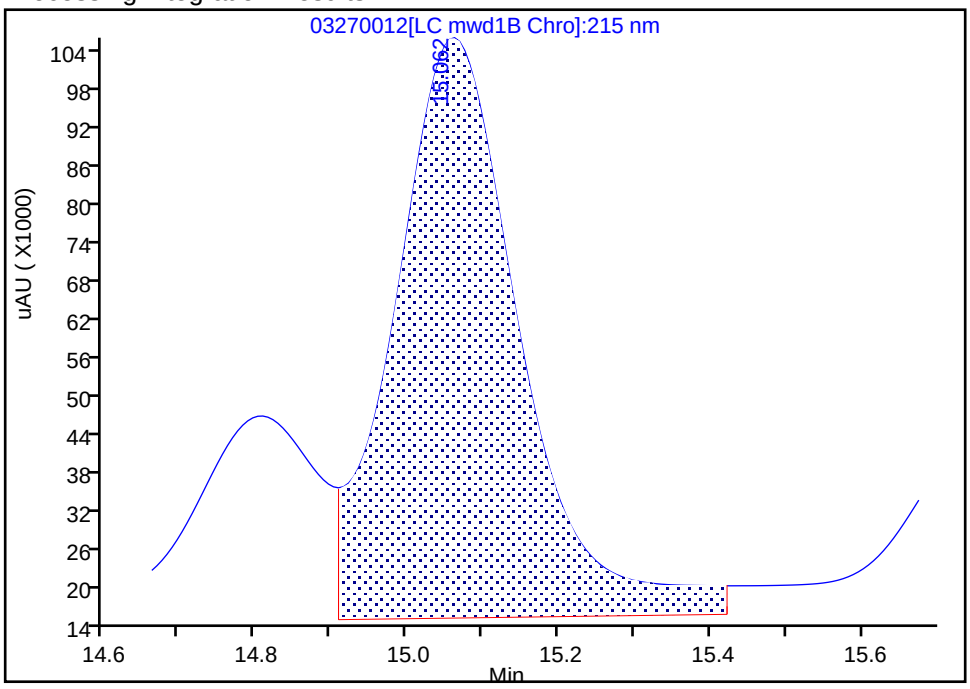
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270012.D				
Injection Date:	27-Mar-2024 21:08:51	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

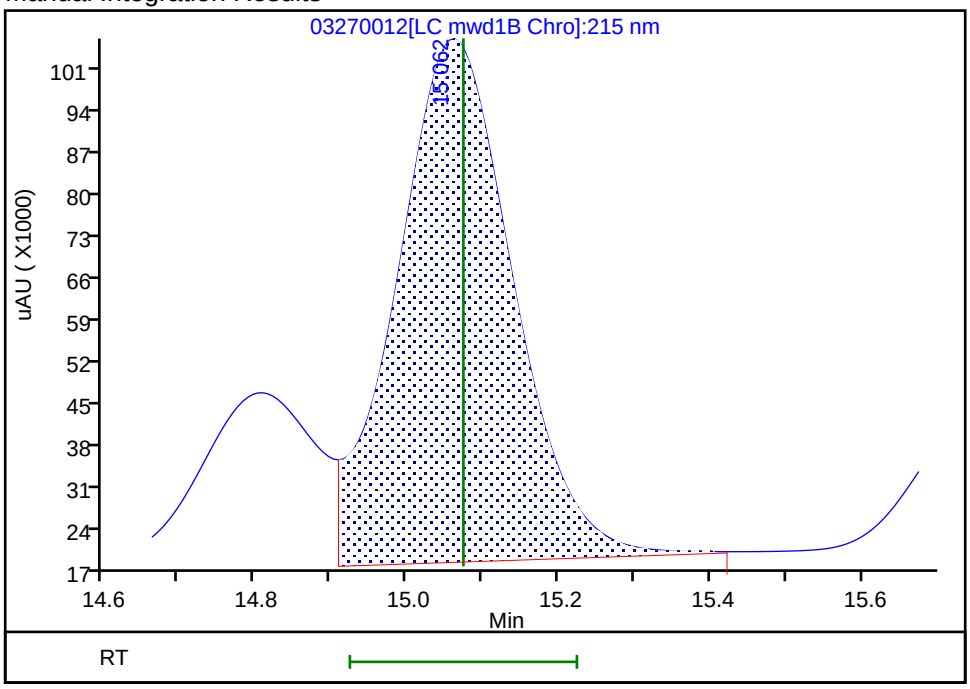
Processing Integration Results

RT: 15.06
Area: 1044814
Amount: 3.808982
Amount Units: ug/ml



Manual Integration Results

RT: 15.06
Area: 932056
Amount: 6.884239
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:35:45 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270013.D
Lims ID: IC INT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 27-Mar-2024 21:43:46 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 6
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 28-Mar-2024 14:09:26 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1687

First Level Reviewer: LV5D Date: 28-Mar-2024 11:35:54

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.780	6.787	-0.007	71870	0.4000	0.3749	
7 2,4,6-Trinitrophenol	1	7.900	7.934	-0.034	58665	0.4000	0.3900	
8 RDX	1	8.873	8.881	-0.008	82139	0.4000	0.3846	
9 Nitrobenzene	1	11.546	11.554	-0.008	148265	0.4000	0.3925	
$ 10 1,2-Dinitrobenzene	1	12.573	12.581	-0.008	102985	0.4000	0.3899	
11 3,5-Dinitroaniline	1	14.386	14.394	-0.008	177203	0.4000	0.4019	
12 1,3-Dinitrobenzene	1	14.813	14.821	-0.008	247490	0.4000	0.4136	
13 Nitroglycerin	2	15.066	15.074	-0.008	543150	4.00	4.01	M
14 o-Nitrotoluene	1	15.746	15.754	-0.008	98000	0.4000	0.3962	
16 p-Nitrotoluene	1	16.013	16.021	-0.008	88722	0.4000	0.4061	
17 4-Amino-2,6-dinitrotoluene	1	16.500	16.514	-0.014	112872	0.4000	0.4031	
18 m-Nitrotoluene	1	16.866	16.881	-0.015	110632	0.4000	0.4046	
19 2-Amino-4,6-dinitrotoluene	1	17.380	17.394	-0.014	159194	0.4000	0.3969	
20 1,3,5-Trinitrobenzene	1	17.800	17.807	-0.007	165995	0.4000	0.3864	
21 2,6-Dinitrotoluene	1	18.813	18.827	-0.014	109904	0.4000	0.4028	
22 2,4-Dinitrotoluene	1	19.306	19.314	-0.008	219281	0.4000	0.4012	
23 Tetryl	1	22.733	22.741	-0.008	132022	0.4000	0.3926	
24 2,4,6-Trinitrotoluene	1	23.700	23.707	-0.007	164886	0.4000	0.3959	
25 PETN	2	24.680	24.687	-0.007	525075	4.00	4.05	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079 Amount Added: 40.00 Units: uL

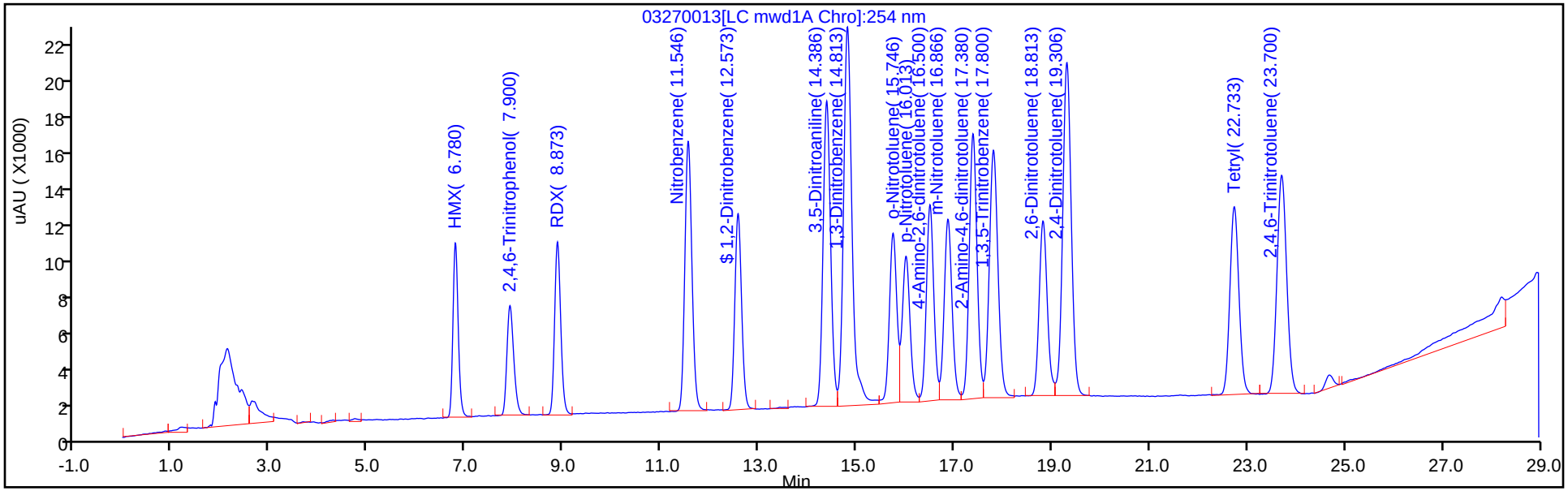
Report Date: 28-Mar-2024 14:09:27 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

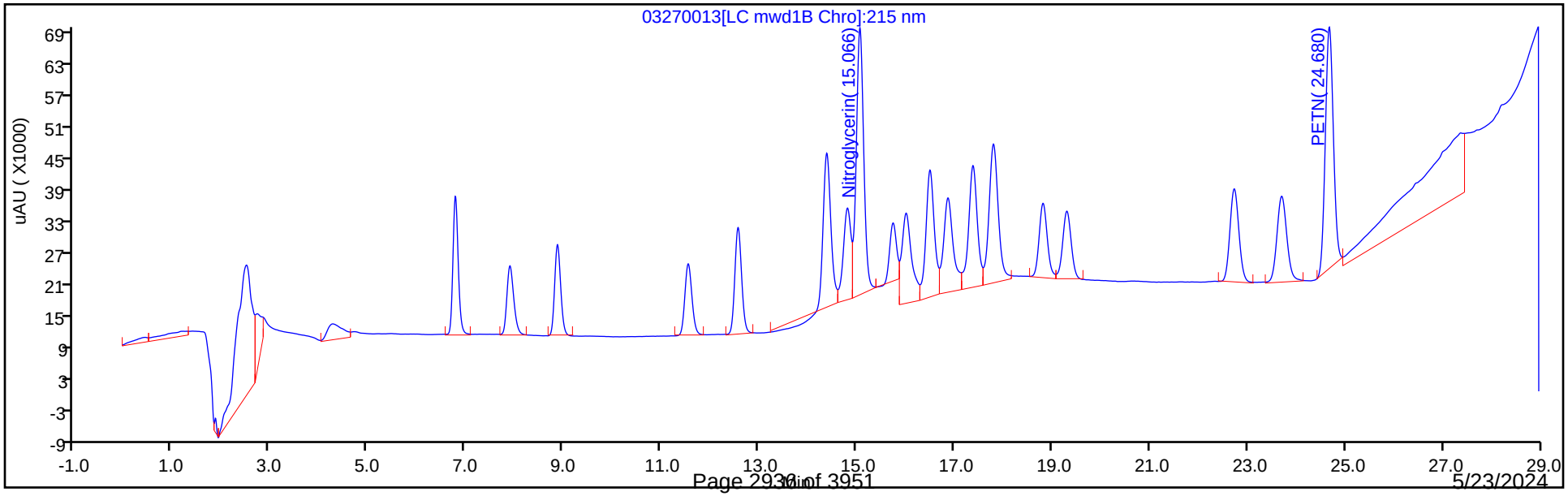
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270013.D

Injection Date:	27-Mar-2024 21:43:46	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC INT 6			Worklist Smp#:	13
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

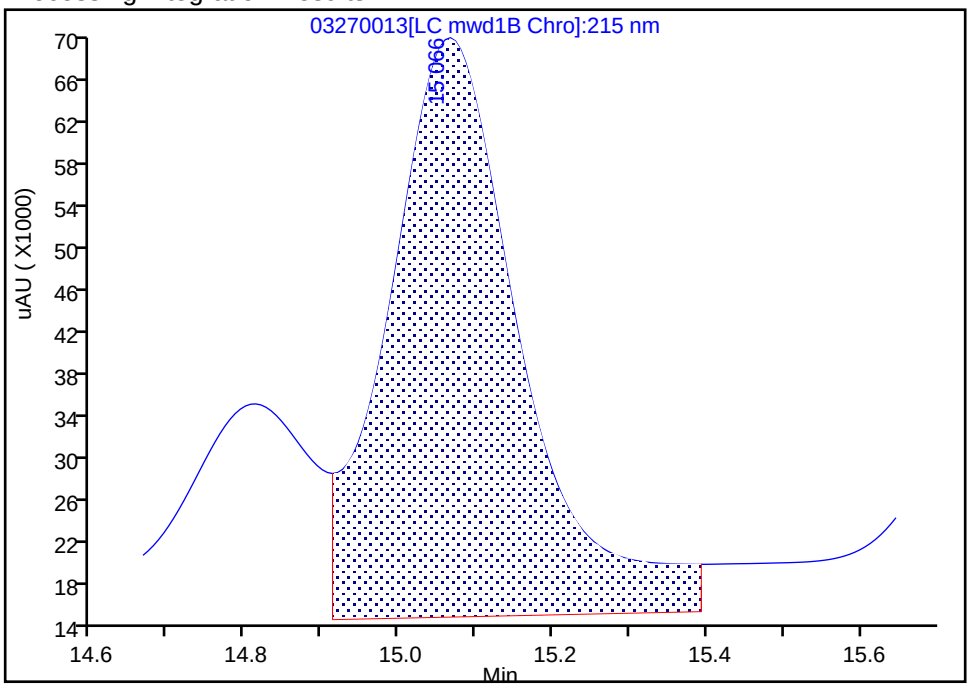
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270013.D				
Injection Date:	27-Mar-2024 21:43:46	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

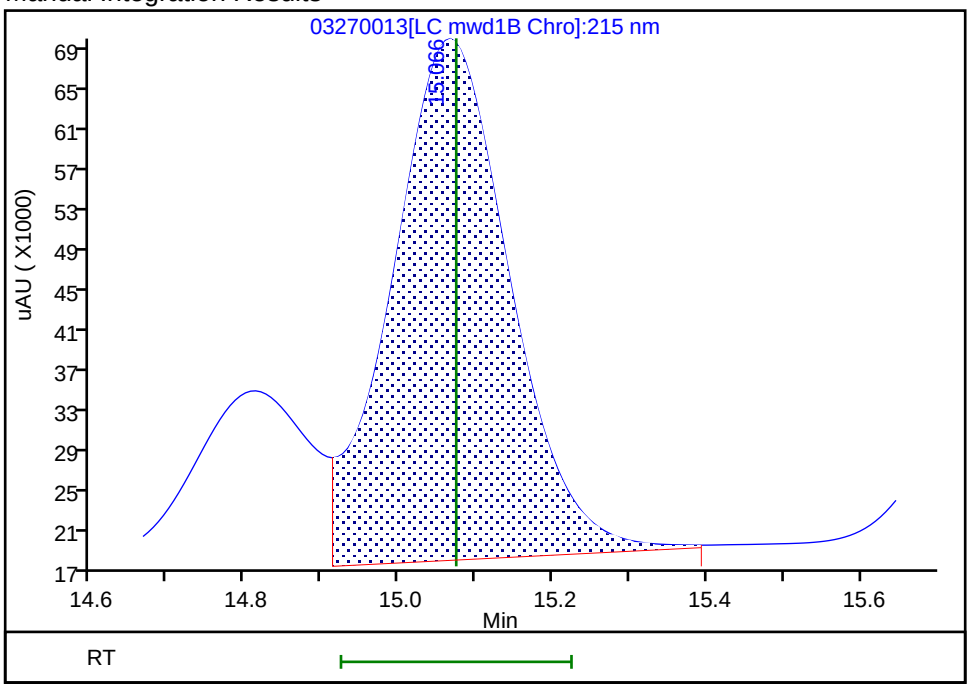
Processing Integration Results

RT: 15.07
Area: 652029
Amount: 2.392654
Amount Units: ug/ml



Manual Integration Results

RT: 15.07
Area: 543150
Amount: 4.011749
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:35:52 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

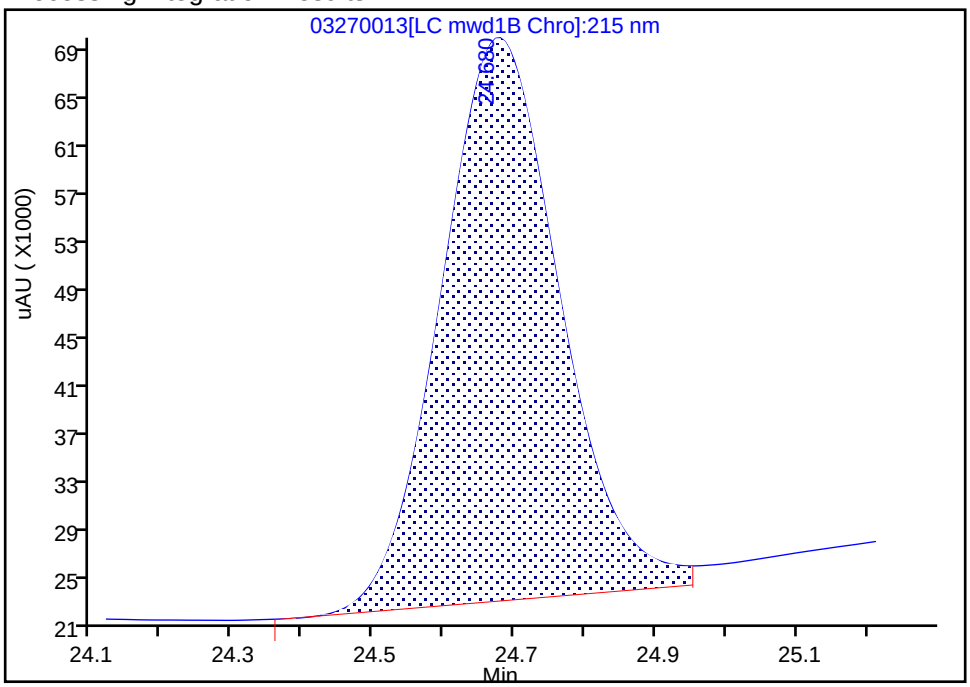
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270013.D
Injection Date: 27-Mar-2024 21:43:46 Instrument ID: CHHPLC_X5
Lims ID: IC INT 6
Client ID:
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1B, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

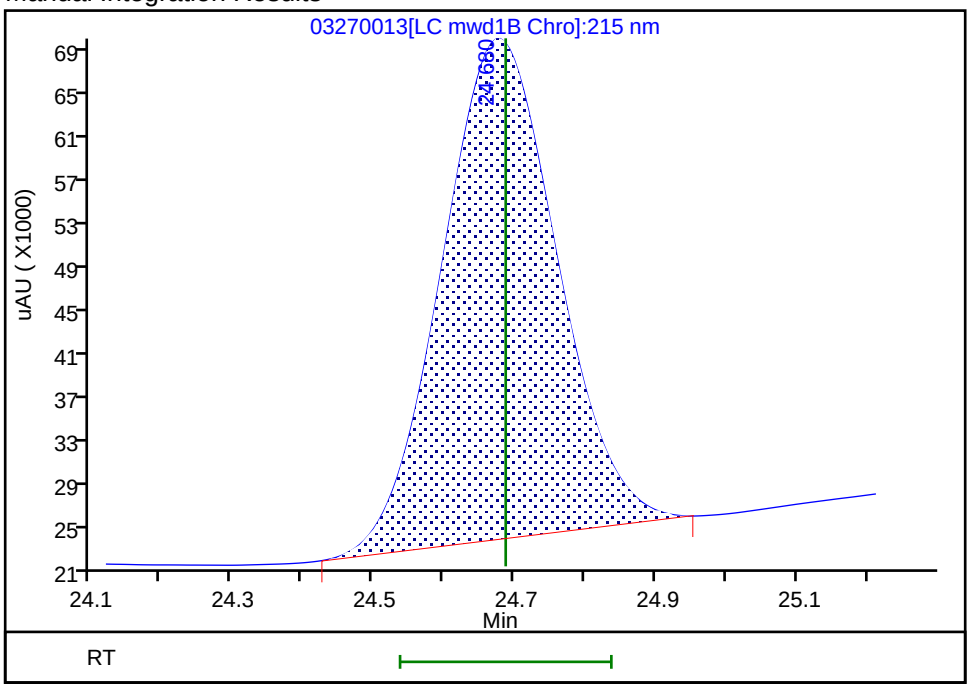
Processing Integration Results

RT: 24.68
Area: 552157
Amount: 4.031774
Amount Units: ug/ml



Manual Integration Results

RT: 24.68
Area: 525075
Amount: 4.049497
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:39:31 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D
Lims ID: IC INT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 27-Mar-2024 22:18:46 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 5
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 28-Mar-2024 14:09:27 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1687

First Level Reviewer: LV5D Date: 28-Mar-2024 11:36:04

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.787	6.787	0.000	44644	0.2500	0.2329	
7 2,4,6-Trinitrophenol	1	7.934	7.934	0.000	36592	0.2500	0.2433	
8 RDX	1	8.881	8.881	0.000	51199	0.2500	0.2397	
9 Nitrobenzene	1	11.554	11.554	0.000	91228	0.2500	0.2415	
$ 10 1,2-Dinitrobenzene	1	12.581	12.581	0.000	63832	0.2500	0.2416	
11 3,5-Dinitroaniline	1	14.394	14.394	0.000	110304	0.2500	0.2502	M
12 1,3-Dinitrobenzene	1	14.821	14.821	0.000	152858	0.2500	0.2555	M
13 Nitroglycerin	2	15.074	15.074	0.000	330187	2.50	2.44	M
14 o-Nitrotoluene	1	15.754	15.754	0.000	62730	0.2500	0.2536	M
16 p-Nitrotoluene	1	16.021	16.021	0.000	55261	0.2500	0.2513	M
17 4-Amino-2,6-dinitrotoluene	1	16.514	16.514	0.000	70385	0.2500	0.2502	M
18 m-Nitrotoluene	1	16.881	16.881	0.000	69503	0.2500	0.2517	M
19 2-Amino-4,6-dinitrotoluene	1	17.394	17.394	0.000	99171	0.2500	0.2463	M
20 1,3,5-Trinitrobenzene	1	17.807	17.807	0.000	102407	0.2500	0.2384	M
21 2,6-Dinitrotoluene	1	18.827	18.827	0.000	69384	0.2500	0.2543	
22 2,4-Dinitrotoluene	1	19.314	19.314	0.000	138171	0.2500	0.2528	
23 Tetryl	1	22.741	22.741	0.000	82183	0.2500	0.2444	
24 2,4,6-Trinitrotoluene	1	23.707	23.707	0.000	102460	0.2500	0.2460	
25 PETN	2	24.687	24.687	0.000	322087	2.50	2.50	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079 Amount Added: 25.00 Units: uL

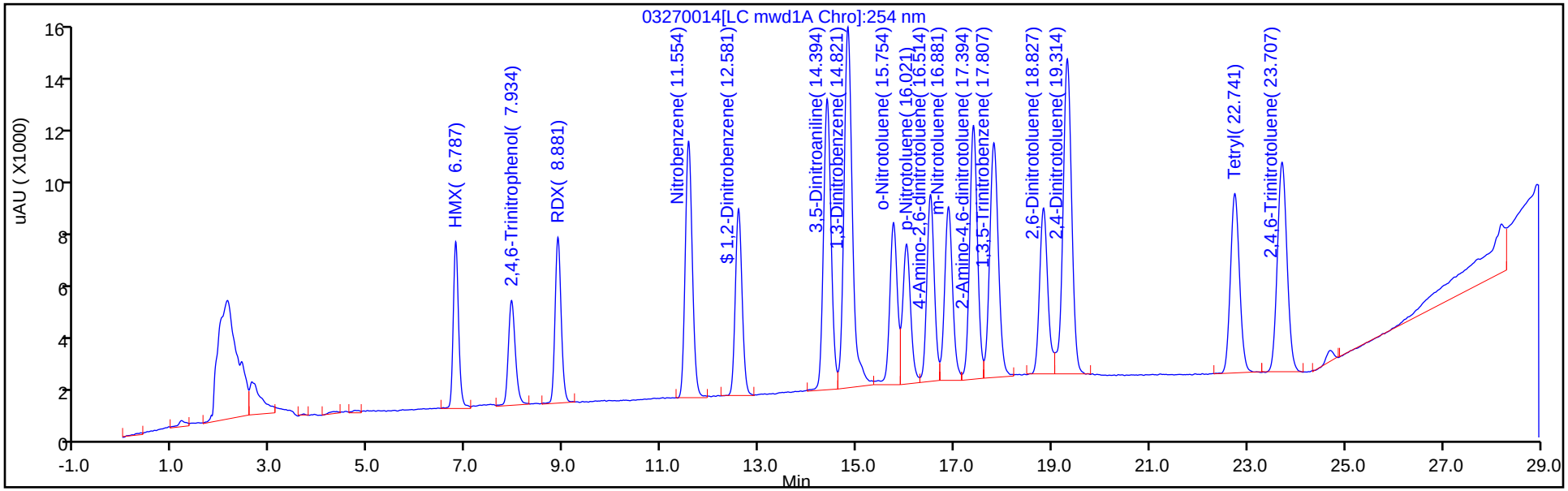
Report Date: 28-Mar-2024 14:09:28 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

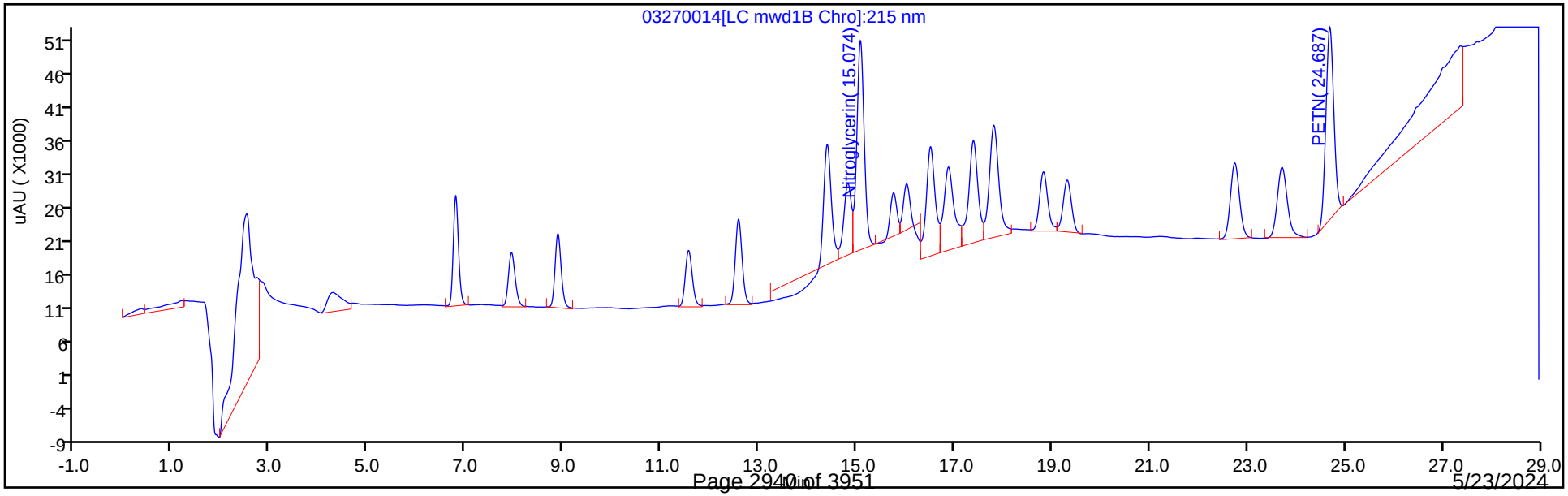
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D

Injection Date:	27-Mar-2024 22:18:46	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC INT 5			Worklist Smp#:	14
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

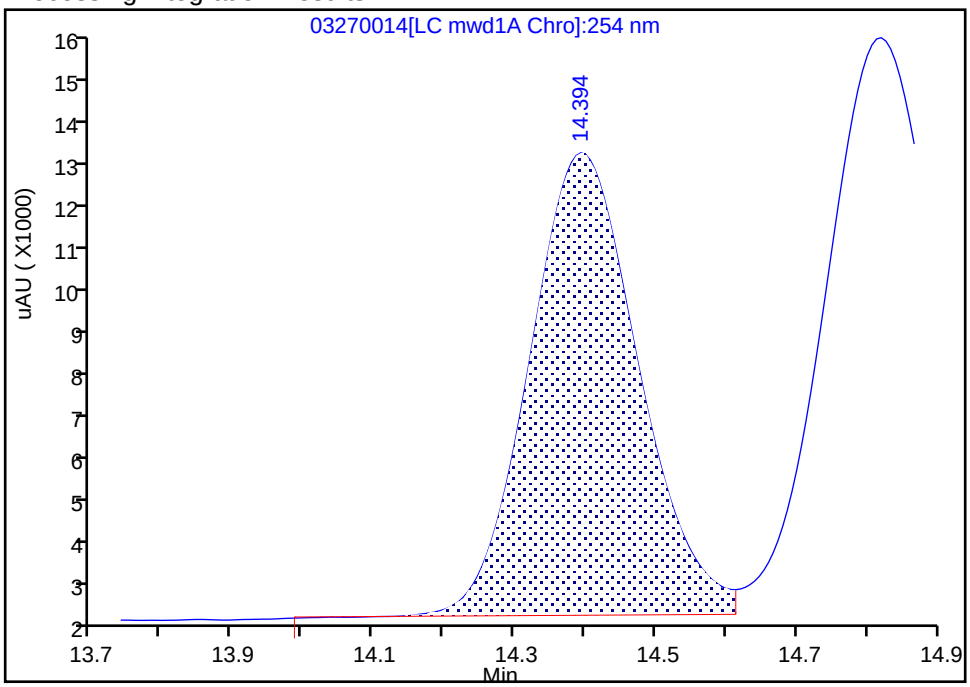
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D				
Injection Date:	27-Mar-2024 22:18:46	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

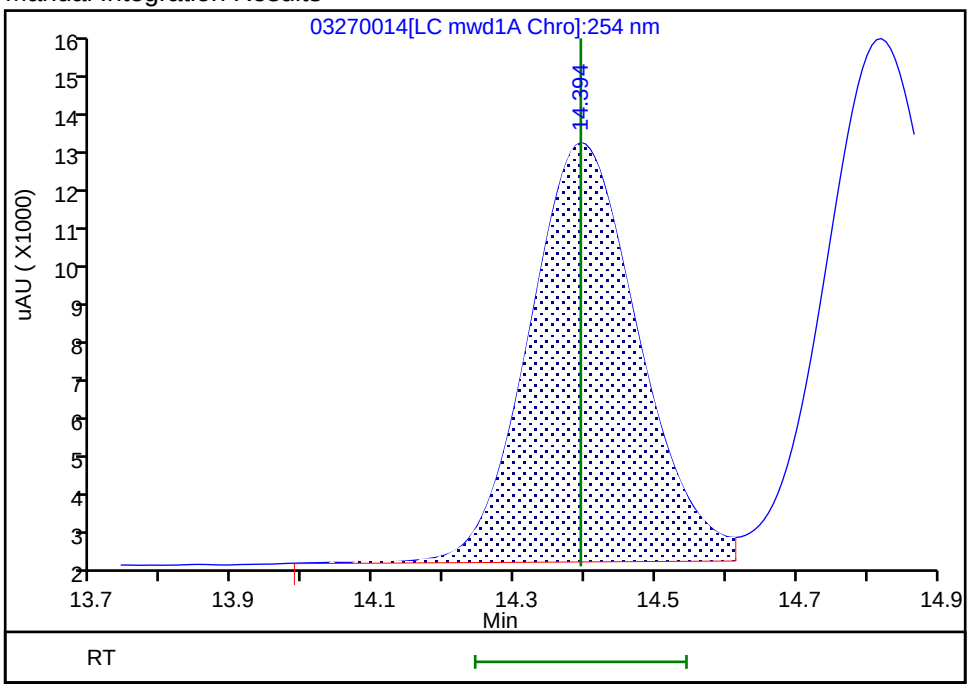
Processing Integration Results

RT: 14.39
Area: 110022
Amount: 0.249696
Amount Units: ug/ml



Manual Integration Results

RT: 14.39
Area: 110304
Amount: 0.250244
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 12:08:56 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

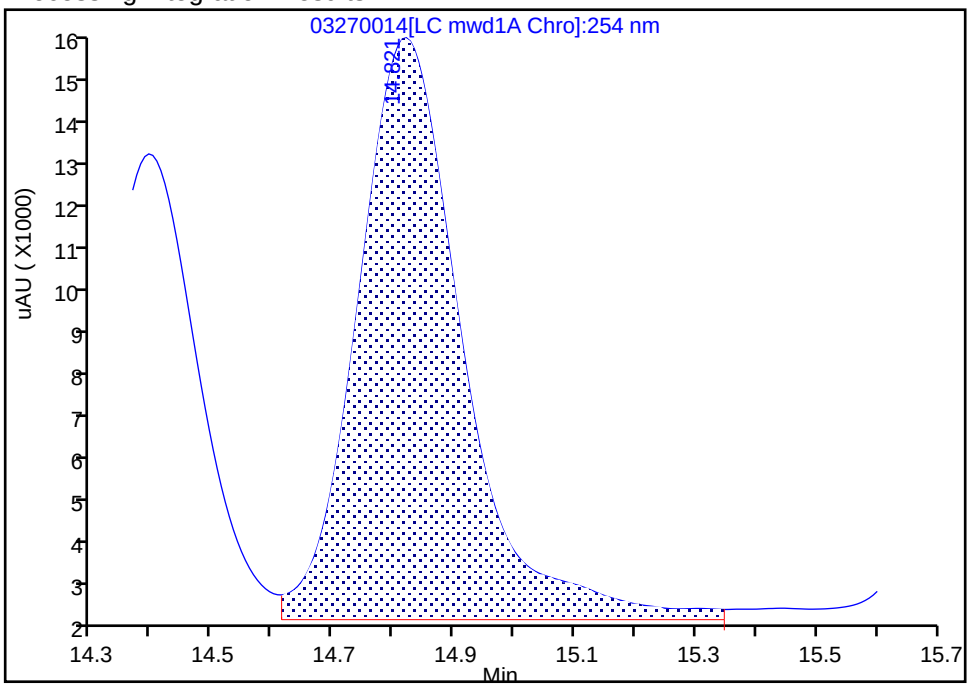
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D
Injection Date: 27-Mar-2024 22:18:46 Instrument ID: CHHPLC_X5
Lims ID: IC INT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

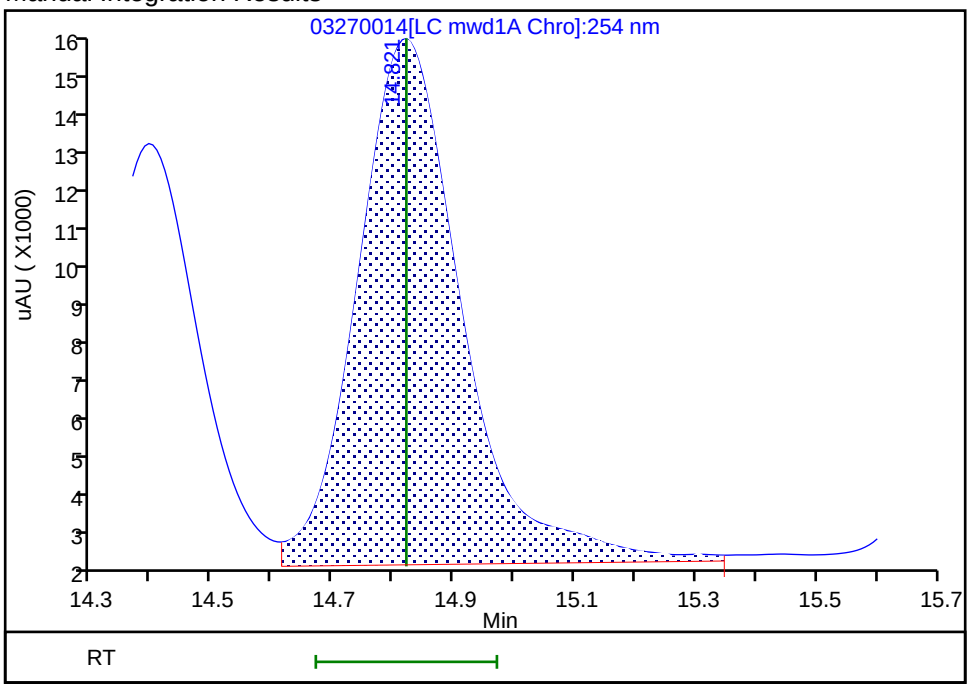
Processing Integration Results

RT: 14.82
Area: 154024
Amount: 0.257185
Amount Units: ug/ml



Manual Integration Results

RT: 14.82
Area: 152858
Amount: 0.255459
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 12:08:56 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

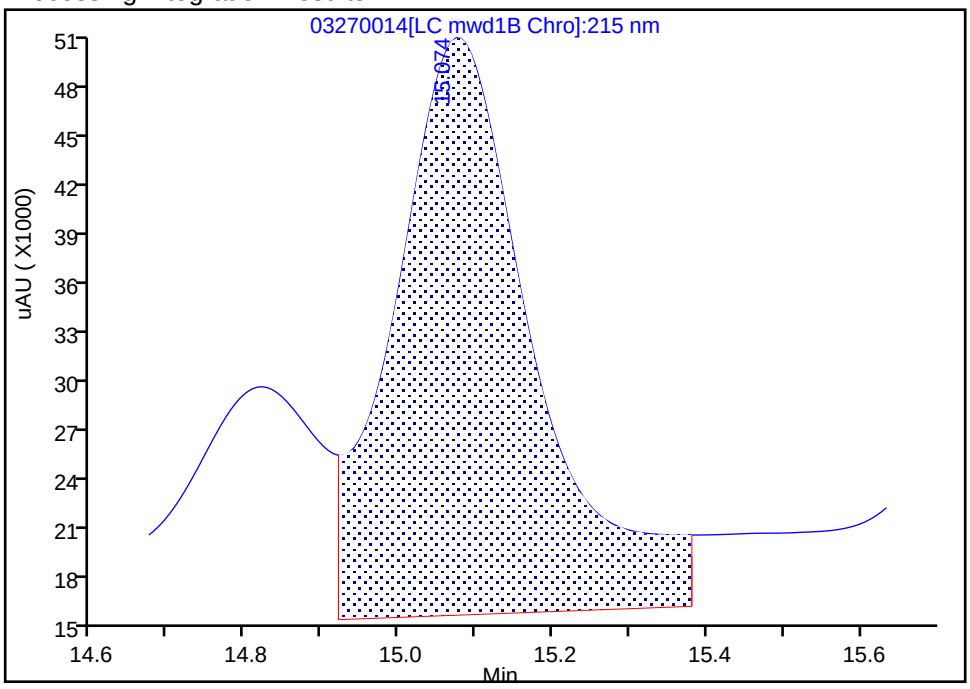
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D				
Injection Date:	27-Mar-2024 22:18:46	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

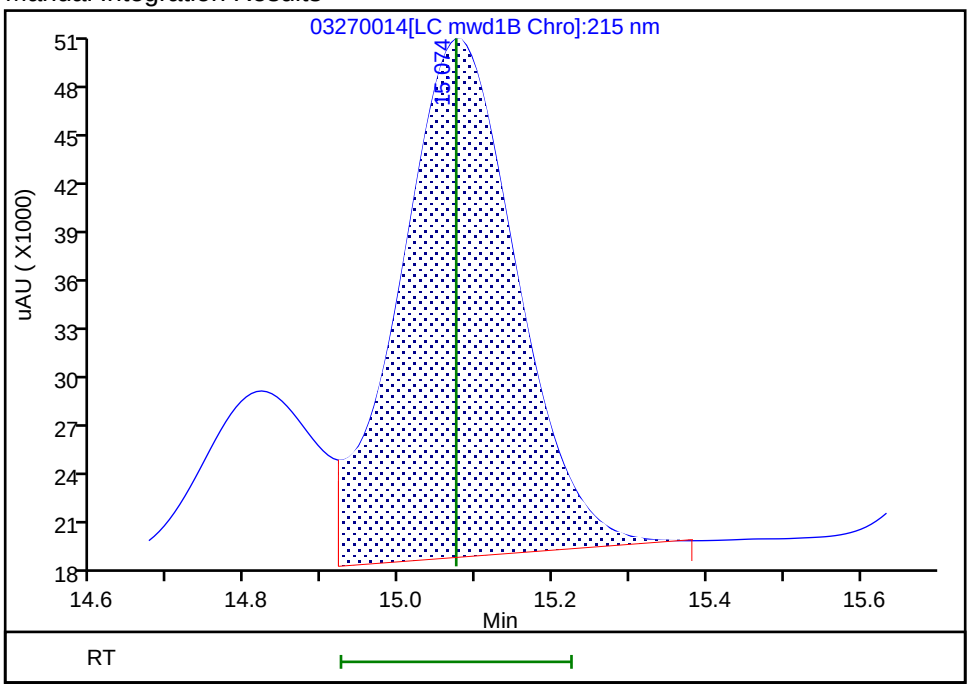
Processing Integration Results

RT: 15.07
Area: 442091
Amount: 1.640482
Amount Units: ug/ml



Manual Integration Results

RT: 15.07
Area: 330187
Amount: 2.438787
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:36:02 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

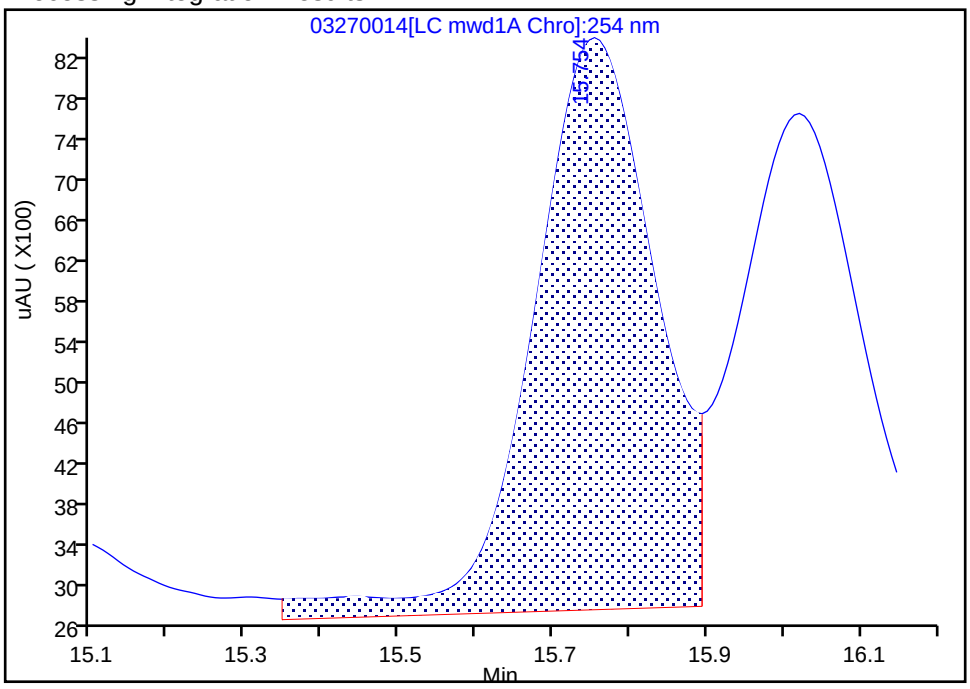
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D				
Injection Date:	27-Mar-2024 22:18:46	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

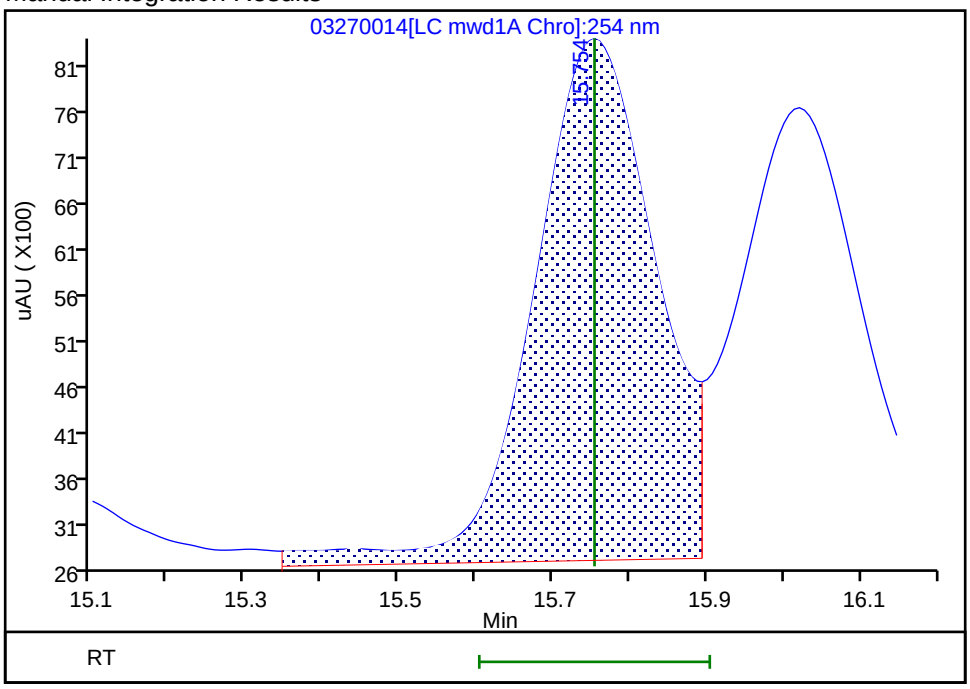
Processing Integration Results

RT: 15.75
Area: 63370
Amount: 0.255897
Amount Units: ug/ml



Manual Integration Results

RT: 15.75
Area: 62730
Amount: 0.253604
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 12:08:56 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

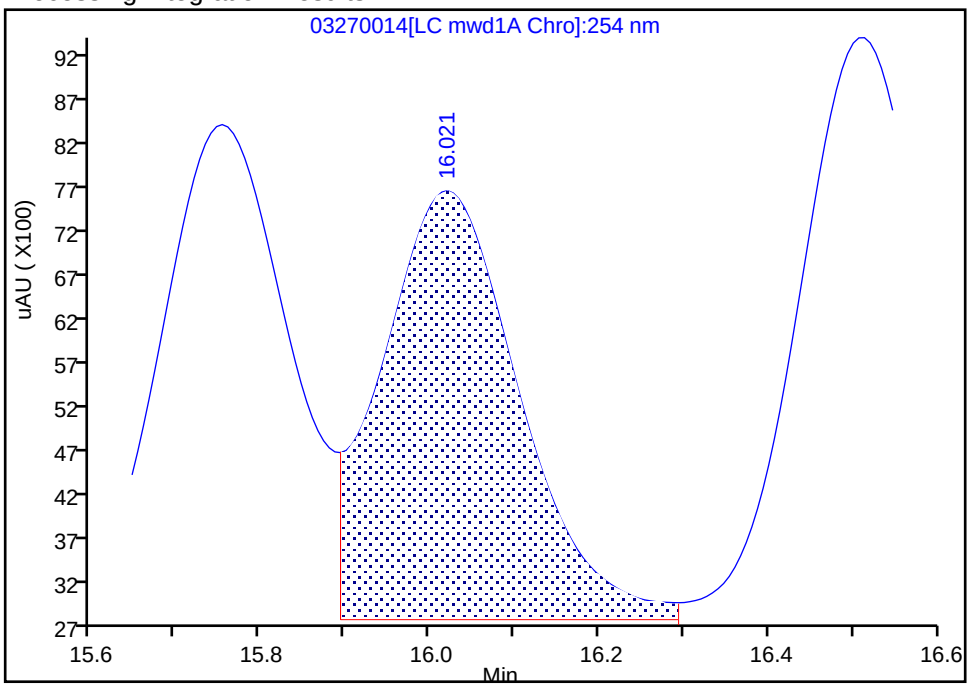
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D				
Injection Date:	27-Mar-2024 22:18:46	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

16 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

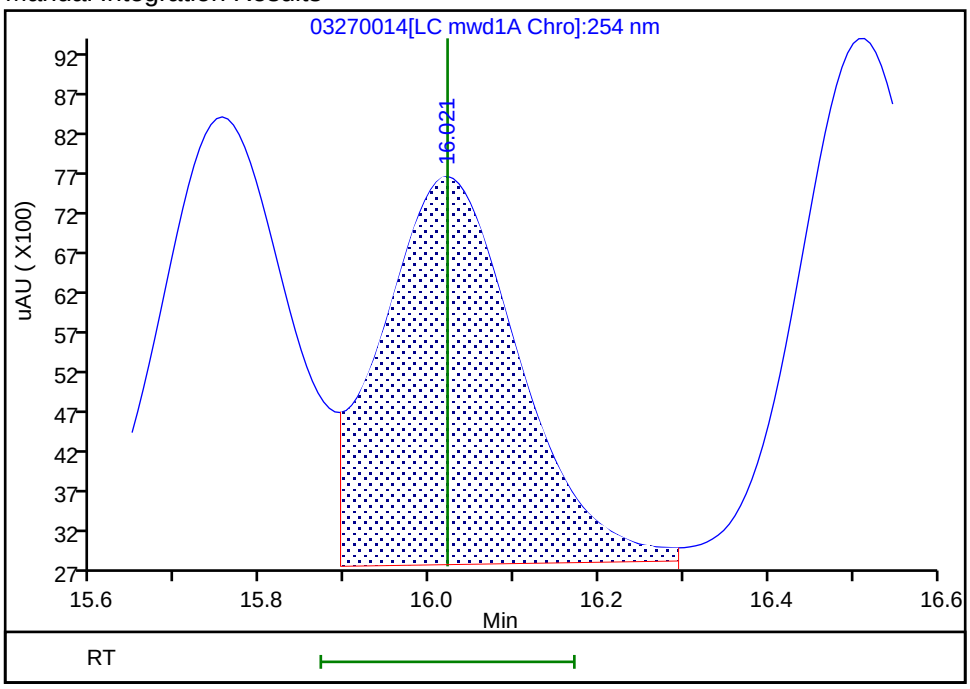
Processing Integration Results

RT: 16.02
Area: 55201
Amount: 0.234427
Amount Units: ug/ml



Manual Integration Results

RT: 16.02
Area: 55261
Amount: 0.251335
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 12:08:56 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

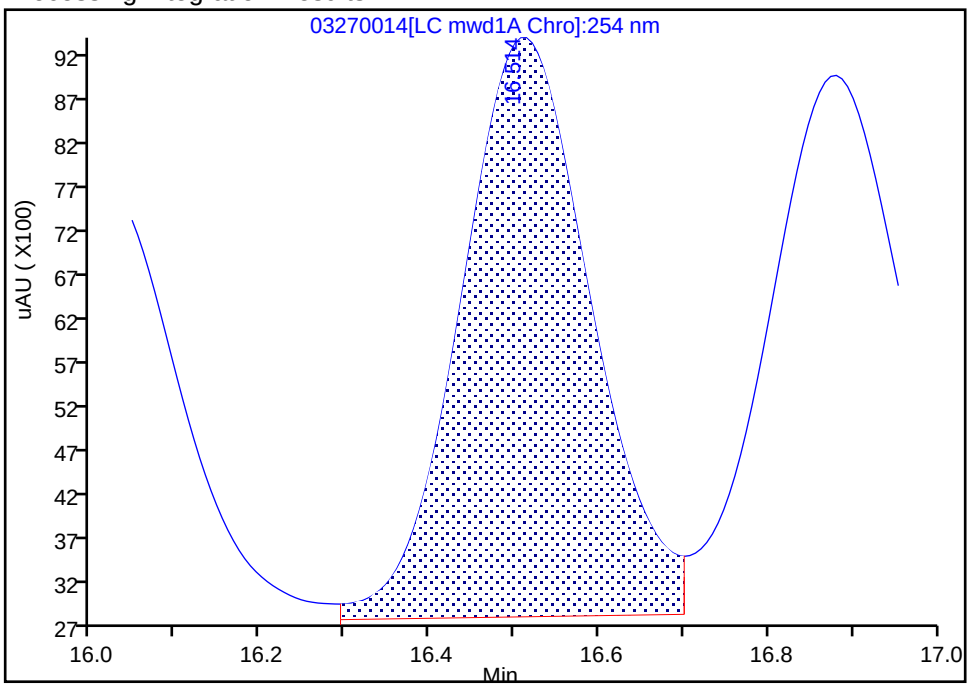
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D				
Injection Date:	27-Mar-2024 22:18:46	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

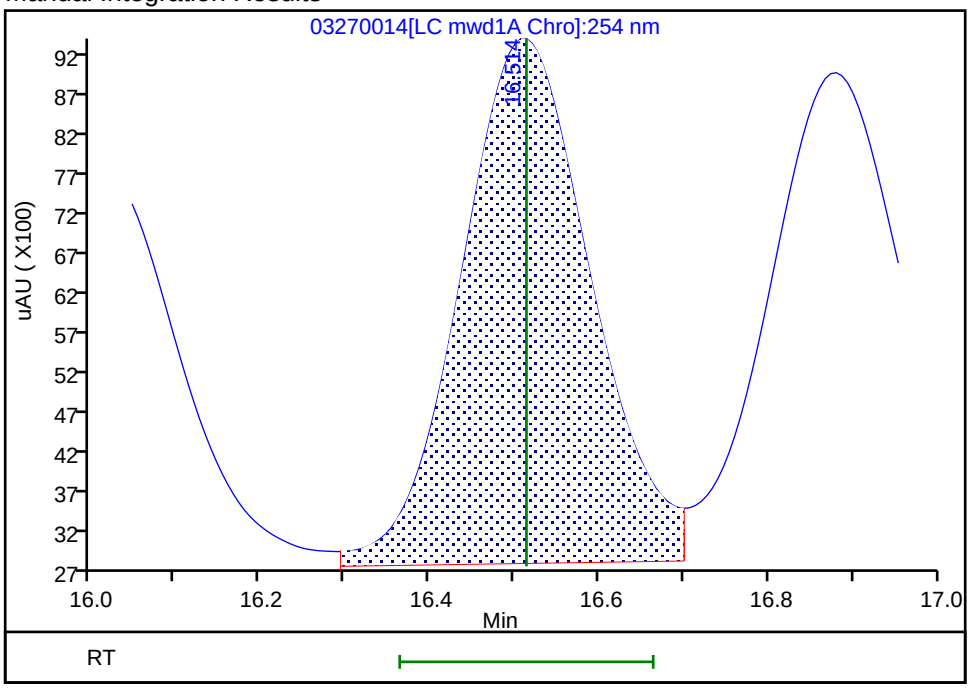
Processing Integration Results

RT: 16.51
Area: 70665
Amount: 0.238380
Amount Units: ug/ml



Manual Integration Results

RT: 16.51
Area: 70385
Amount: 0.250172
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 12:08:56 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

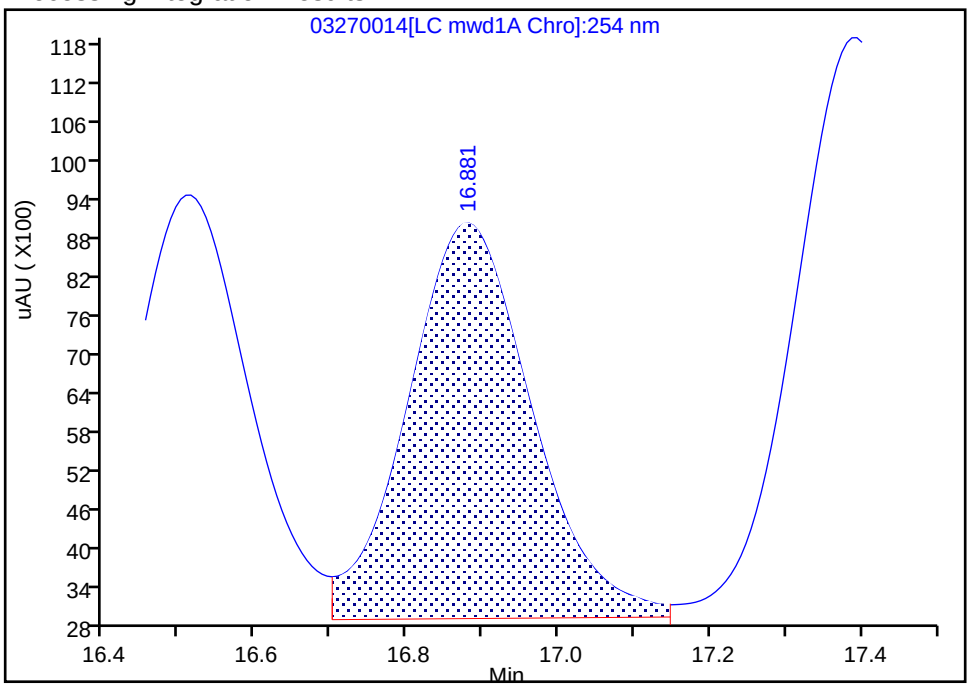
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D
Injection Date: 27-Mar-2024 22:18:46 Instrument ID: CHHPLC_X5
Lims ID: IC INT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

18 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

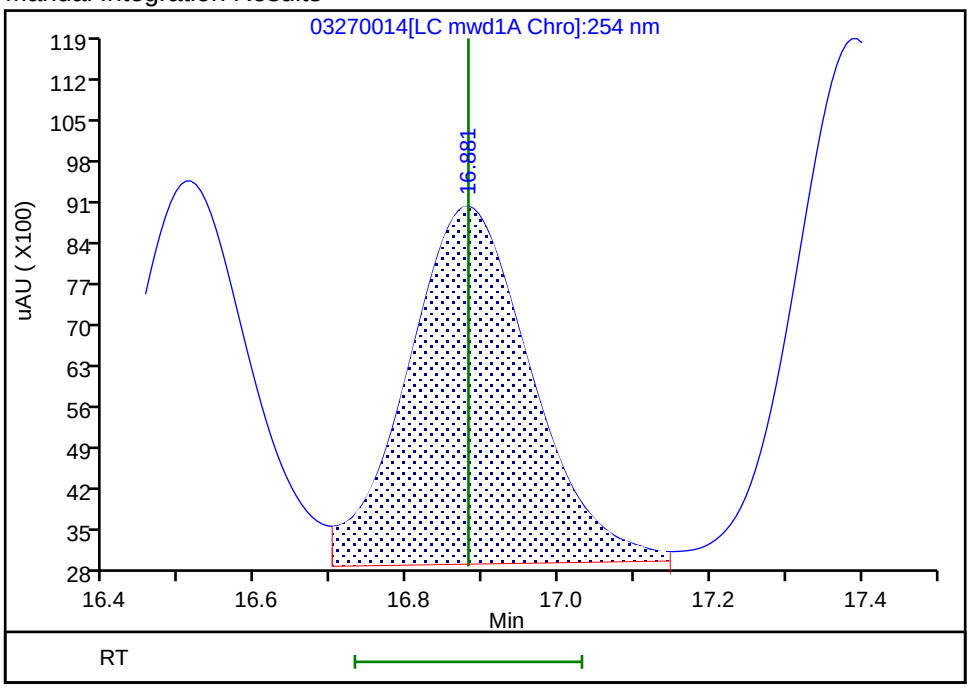
Processing Integration Results

RT: 16.88
Area: 69825
Amount: 0.228156
Amount Units: ug/ml



Manual Integration Results

RT: 16.88
Area: 69503
Amount: 0.251748
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 12:08:56 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

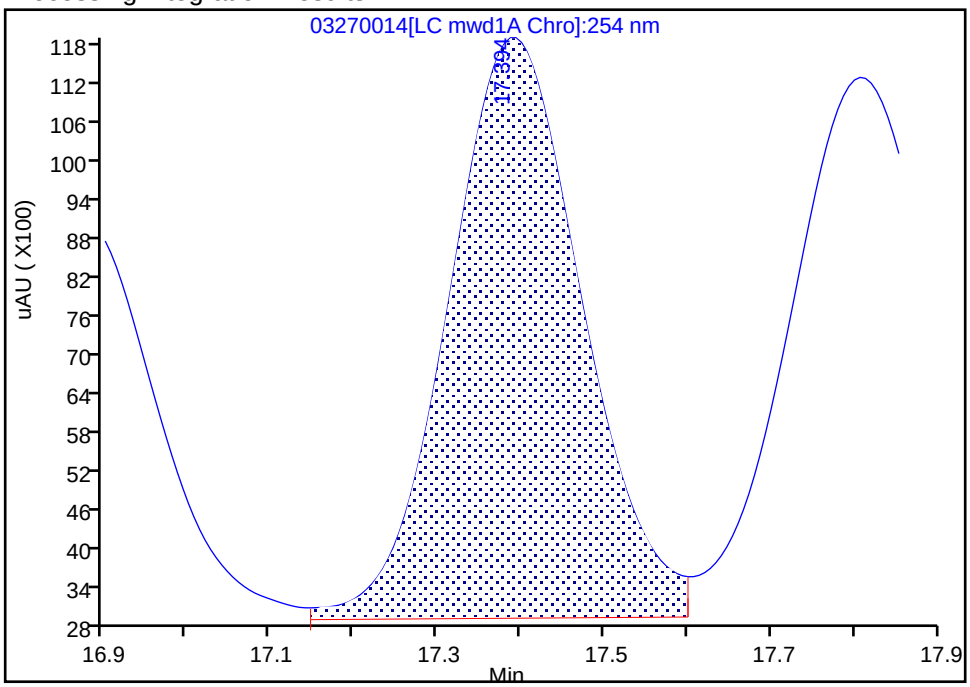
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D				
Injection Date:	27-Mar-2024 22:18:46	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

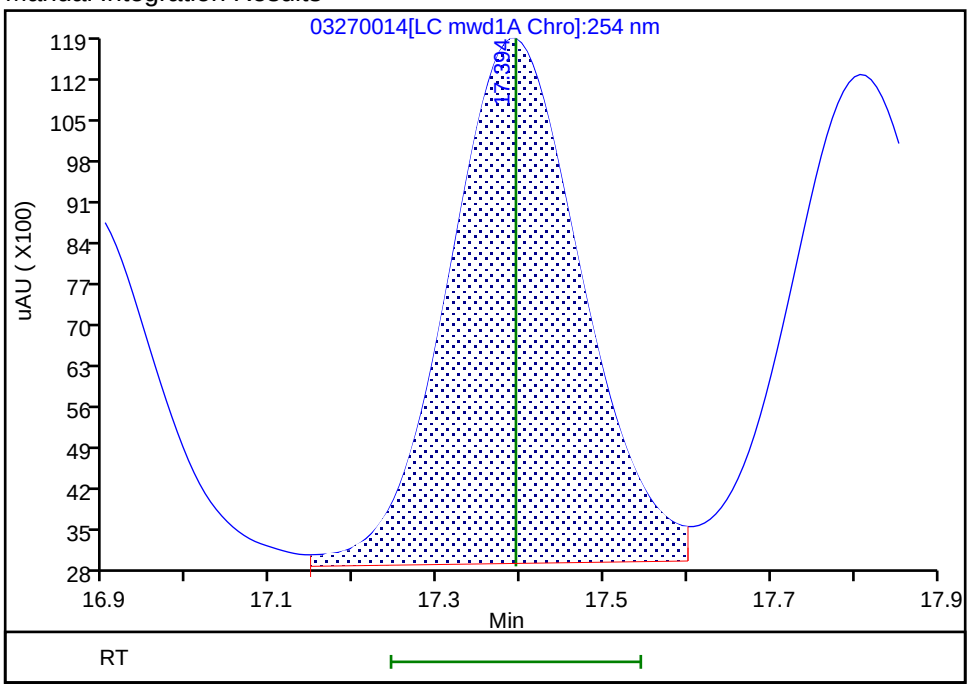
Processing Integration Results

RT: 17.39
Area: 99484
Amount: 0.237379
Amount Units: ug/ml



Manual Integration Results

RT: 17.39
Area: 99171
Amount: 0.246327
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 12:08:56 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

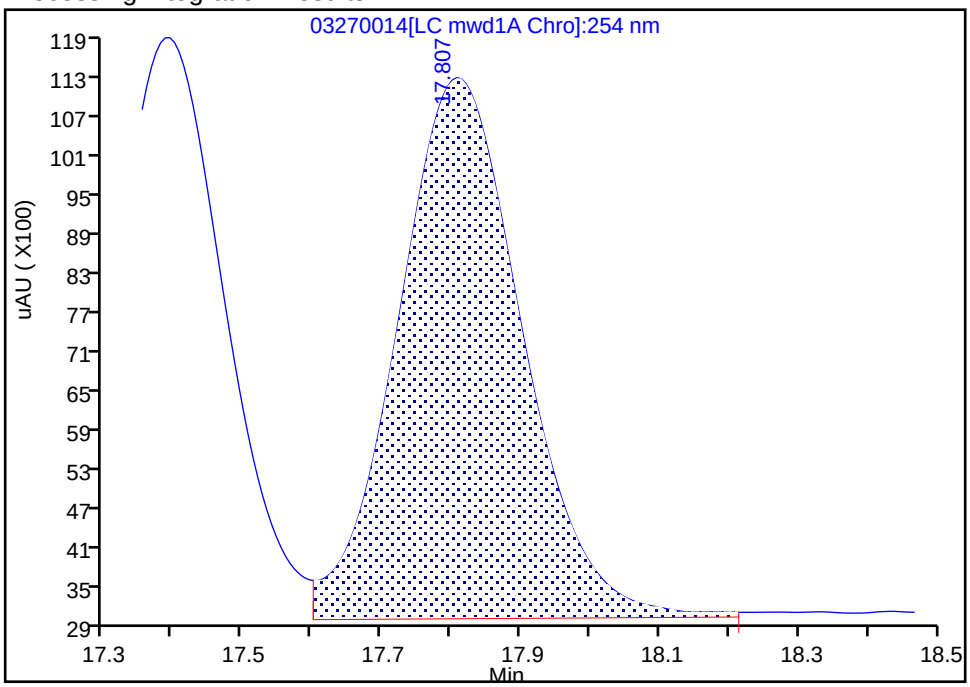
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D
Injection Date: 27-Mar-2024 22:18:46 Instrument ID: CHHPLC_X5
Lims ID: IC INT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

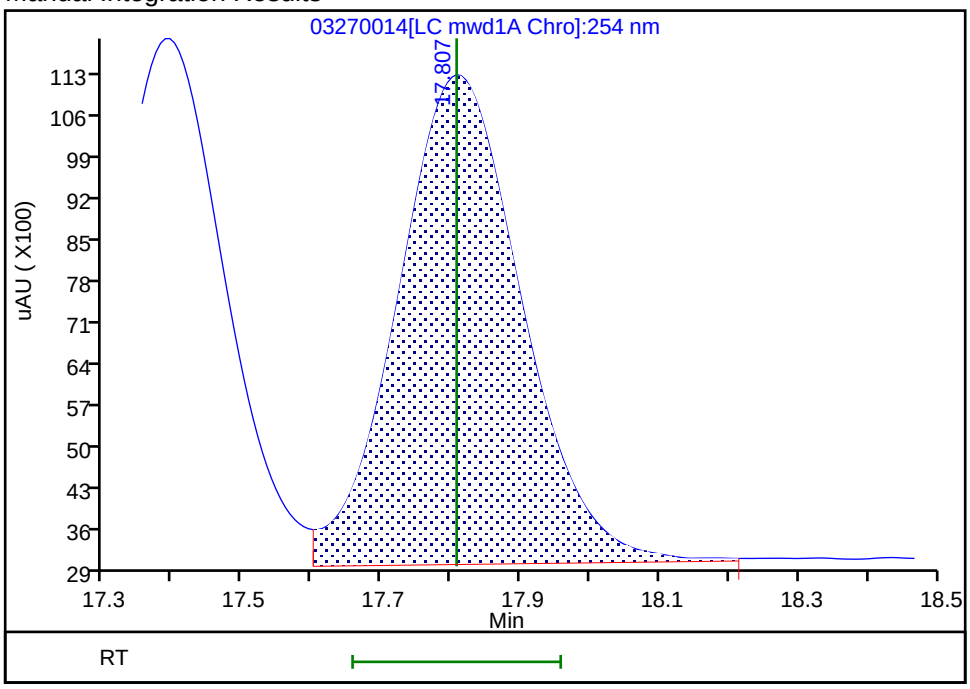
Processing Integration Results

RT: 17.81
Area: 103455
Amount: 0.240537
Amount Units: ug/ml



Manual Integration Results

RT: 17.81
Area: 102407
Amount: 0.238359
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 12:08:56 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

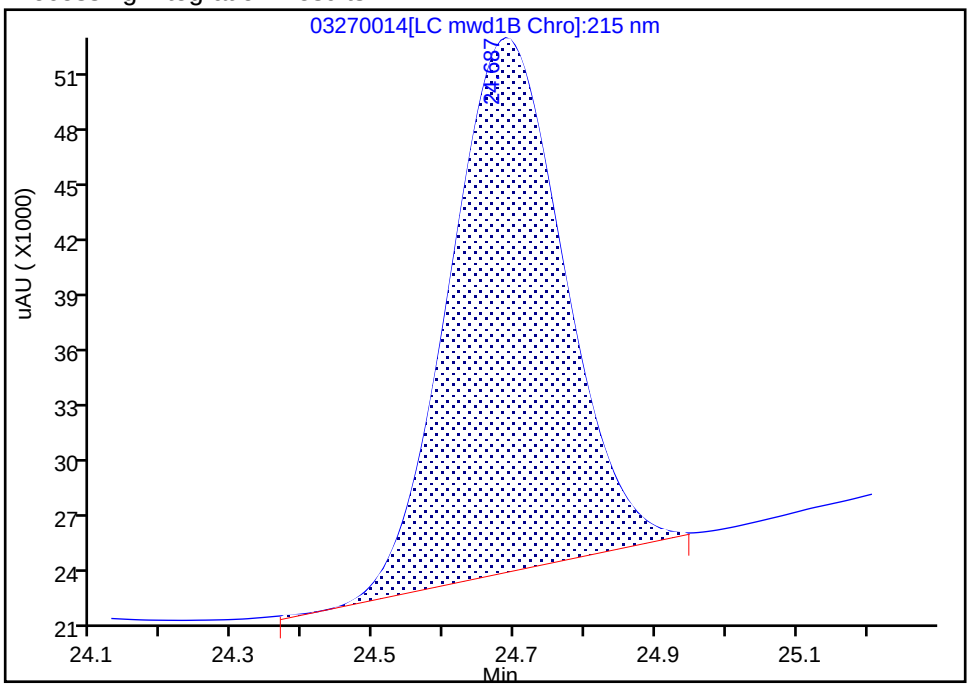
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D
Injection Date: 27-Mar-2024 22:18:46 Instrument ID: CHHPLC_X5
Lims ID: IC INT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1B, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

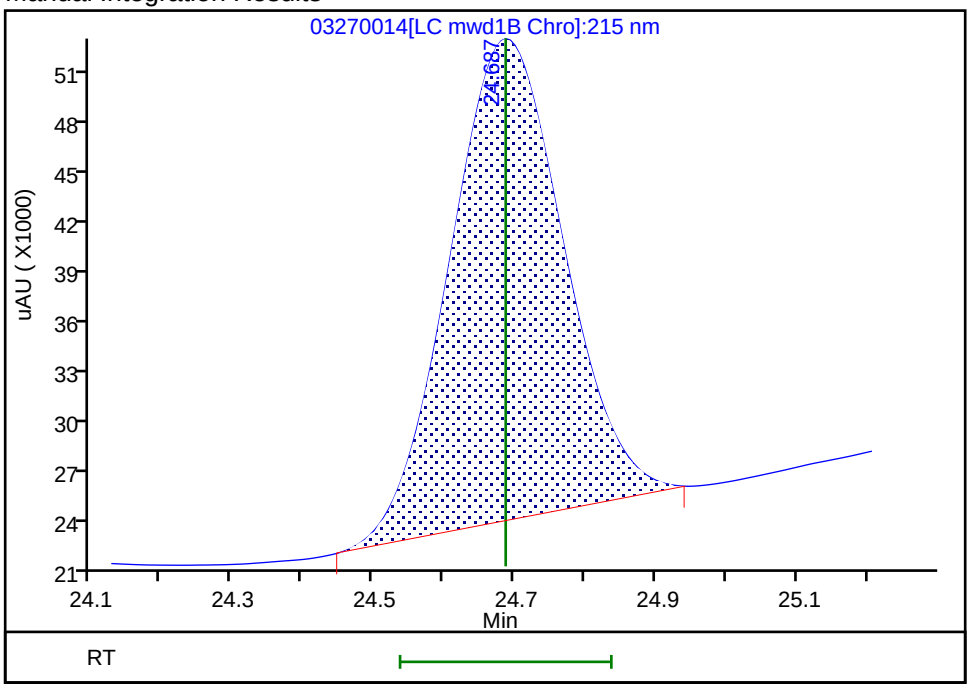
Processing Integration Results

RT: 24.69
Area: 324210
Amount: 2.380412
Amount Units: ug/ml



Manual Integration Results

RT: 24.69
Area: 322087
Amount: 2.497019
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:39:37 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270015.D
Lims ID: IC INT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 27-Mar-2024 22:53:40 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 4
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 28-Mar-2024 14:09:28 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1687

First Level Reviewer: LV5D Date: 28-Mar-2024 14:07:46

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.792	6.787	0.005	18521	0.1000	0.0966	
7 2,4,6-Trinitrophenol	1	7.959	7.934	0.025	14935	0.1000	0.0993	
8 RDX	1	8.886	8.881	0.005	21066	0.1000	0.0986	
9 Nitrobenzene	1	11.566	11.554	0.012	37579	0.1000	0.0995	
$ 10 1,2-Dinitrobenzene	1	12.586	12.581	0.005	25950	0.1000	0.0982	
11 3,5-Dinitroaniline	1	14.399	14.394	0.005	45083	0.1000	0.1023	
12 1,3-Dinitrobenzene	1	14.826	14.821	0.005	63169	0.1000	0.1056	
13 Nitroglycerin	2	15.079	15.074	0.005	139113	1.00	1.03	M
14 o-Nitrotoluene	1	15.759	15.754	0.005	23970	0.1000	0.0969	
16 p-Nitrotoluene	1	16.026	16.021	0.005	22083	0.1000	0.0979	
17 4-Amino-2,6-dinitrotoluene	1	16.519	16.514	0.005	28535	0.1000	0.0995	
18 m-Nitrotoluene	1	16.892	16.881	0.011	28570	0.1000	0.0997	
19 2-Amino-4,6-dinitrotoluene	1	17.399	17.394	0.005	41030	0.1000	0.1005	
20 1,3,5-Trinitrobenzene	1	17.819	17.807	0.012	42679	0.1000	0.0993	
21 2,6-Dinitrotoluene	1	18.832	18.827	0.005	27556	0.1000	0.1010	
22 2,4-Dinitrotoluene	1	19.319	19.314	0.005	54196	0.1000	0.0992	M
23 Tetryl	1	22.746	22.741	0.005	33110	0.1000	0.0985	
24 2,4,6-Trinitrotoluene	1	23.712	23.707	0.005	41333	0.1000	0.0992	
25 PETN	2	24.692	24.687	0.005	125929	1.00	1.00	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079 Amount Added: 10.00 Units: uL

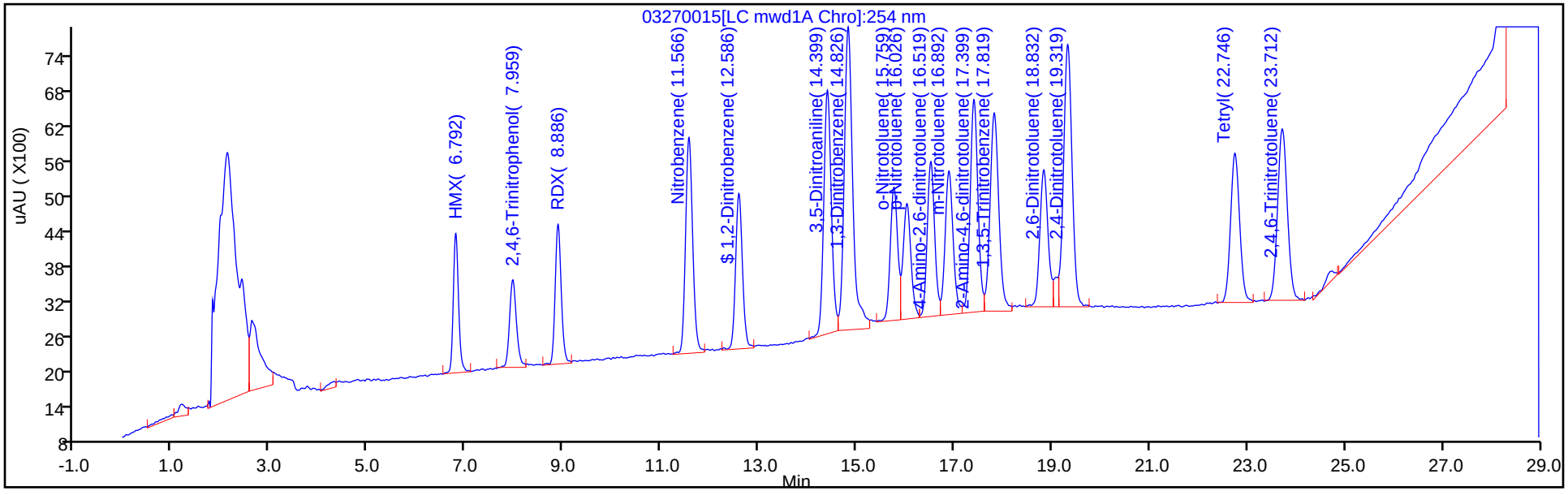
Report Date: 28-Mar-2024 14:09:29 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

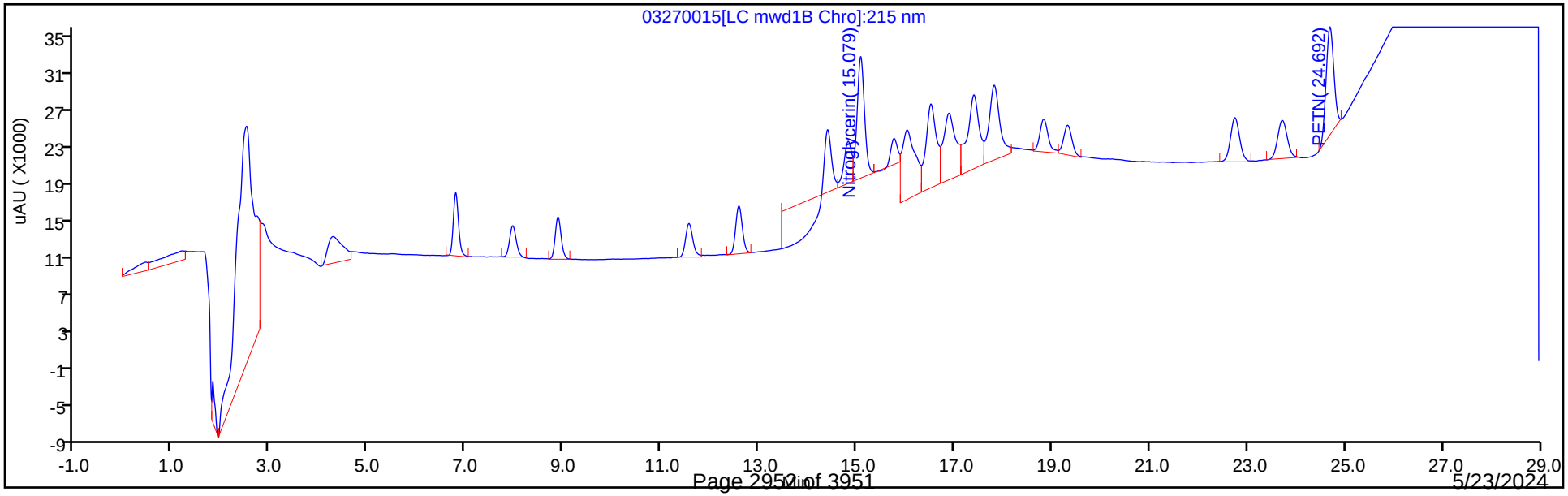
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270015.D

Injection Date:	27-Mar-2024 22:53:40	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC INT 4			Worklist Smp#:	15
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

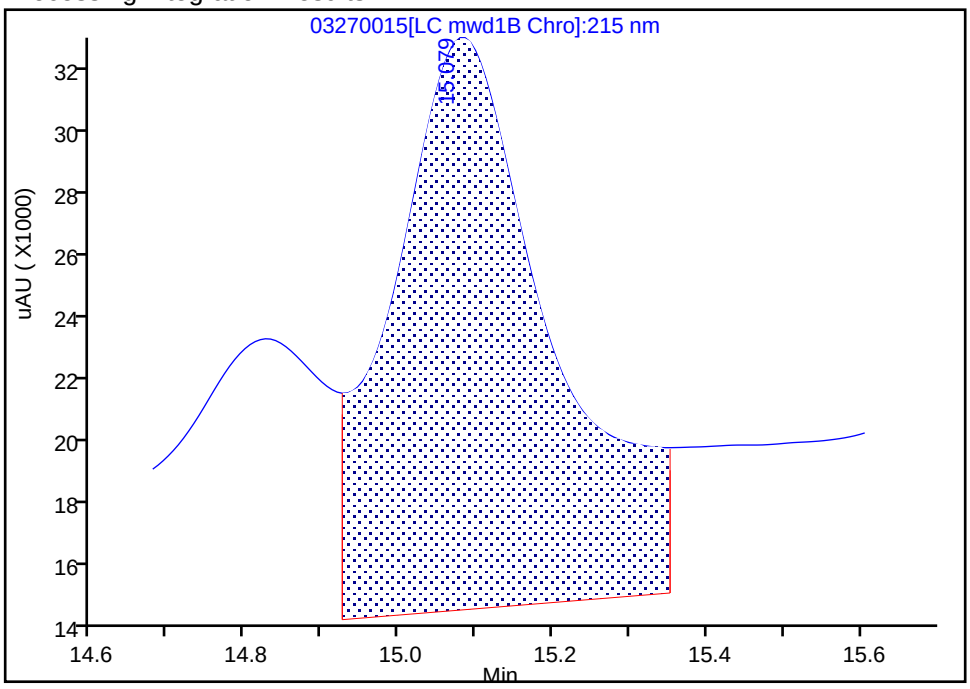
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270015.D				
Injection Date:	27-Mar-2024 22:53:40	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

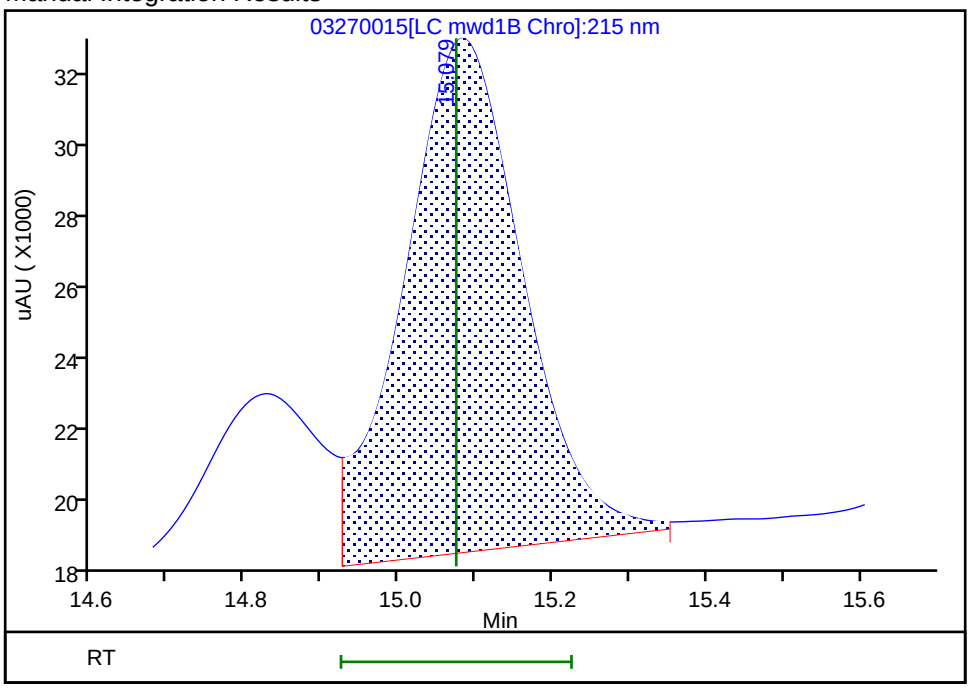
Processing Integration Results

RT: 15.08
Area: 243113
Amount: 0.919090
Amount Units: ug/ml



Manual Integration Results

RT: 15.08
Area: 139113
Amount: 1.027500
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:36:11 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

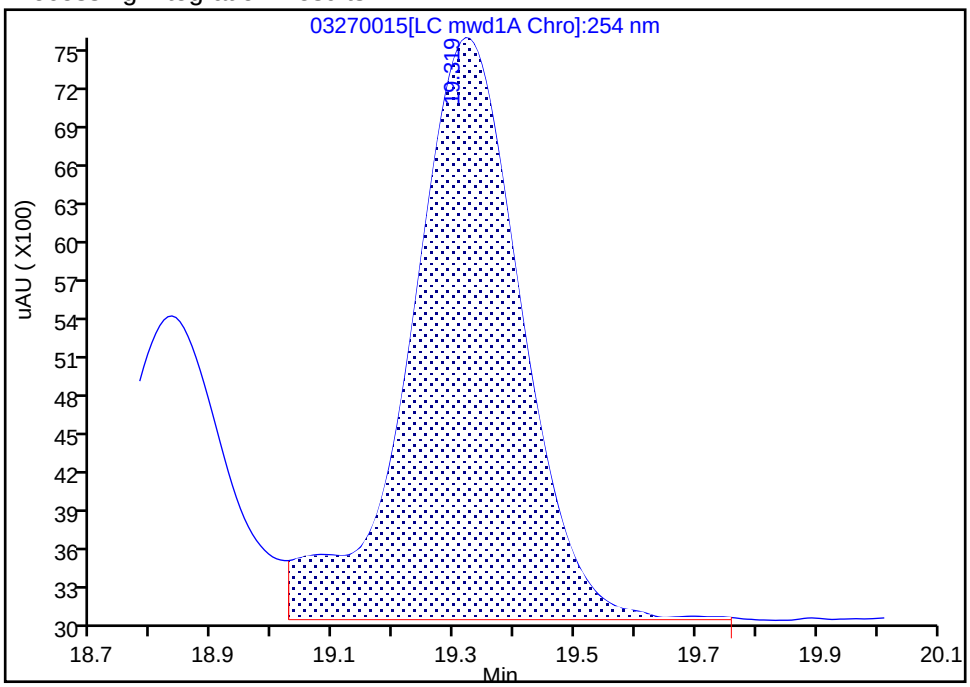
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270015.D
Injection Date: 27-Mar-2024 22:53:40 Instrument ID: CHHPLC_X5
Lims ID: IC INT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

22 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

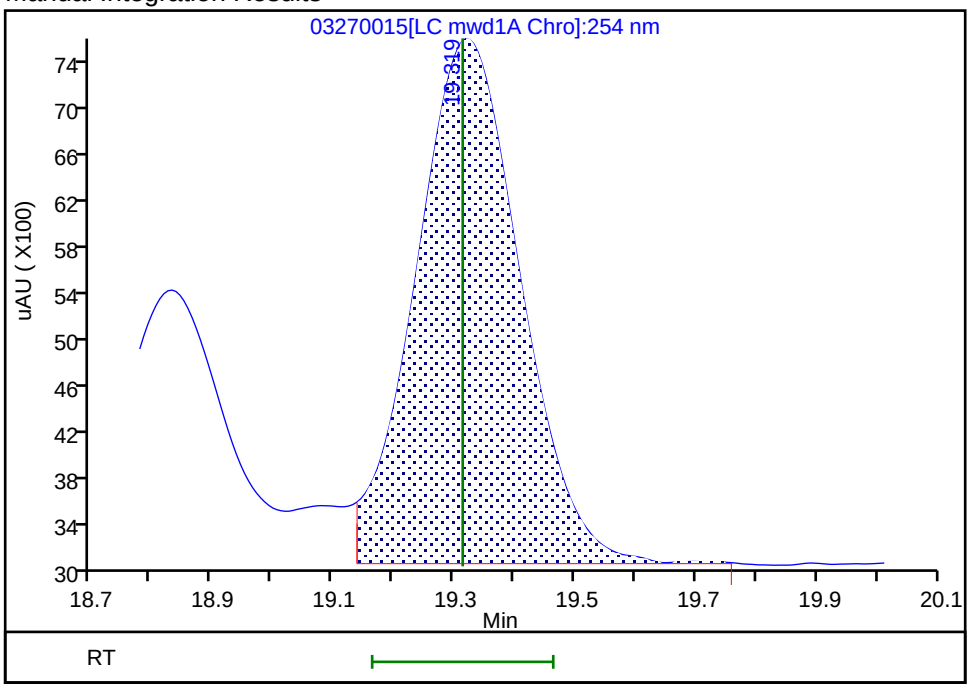
Processing Integration Results

RT: 19.32
Area: 57498
Amount: 0.104505
Amount Units: ug/ml



Manual Integration Results

RT: 19.32
Area: 54196
Amount: 0.099165
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:37:09 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

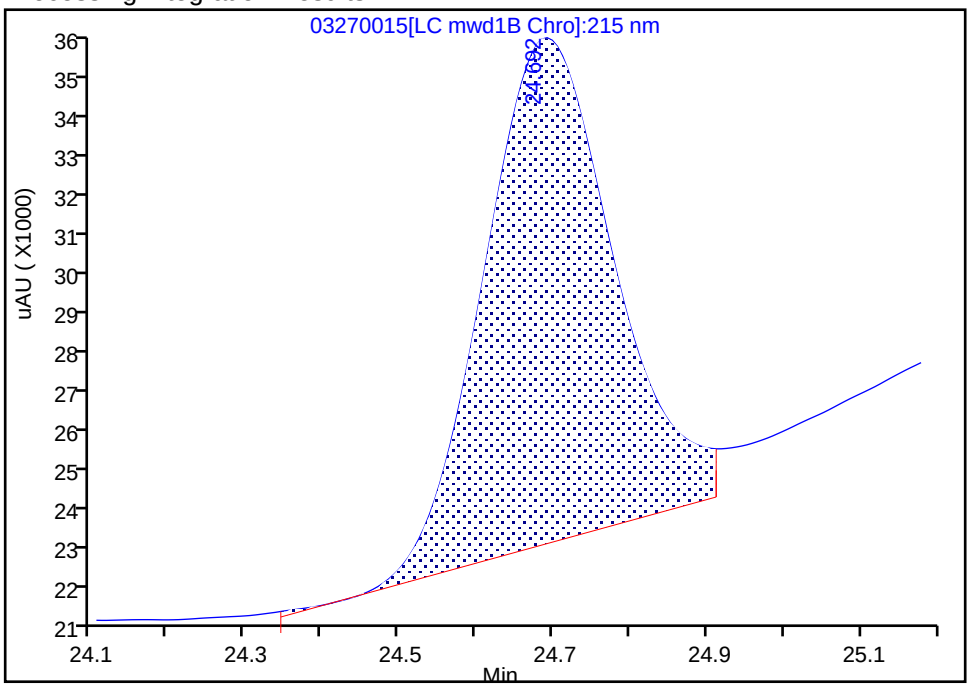
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270015.D
Injection Date: 27-Mar-2024 22:53:40 Instrument ID: CHHPLC_X5
Lims ID: IC INT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1B, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

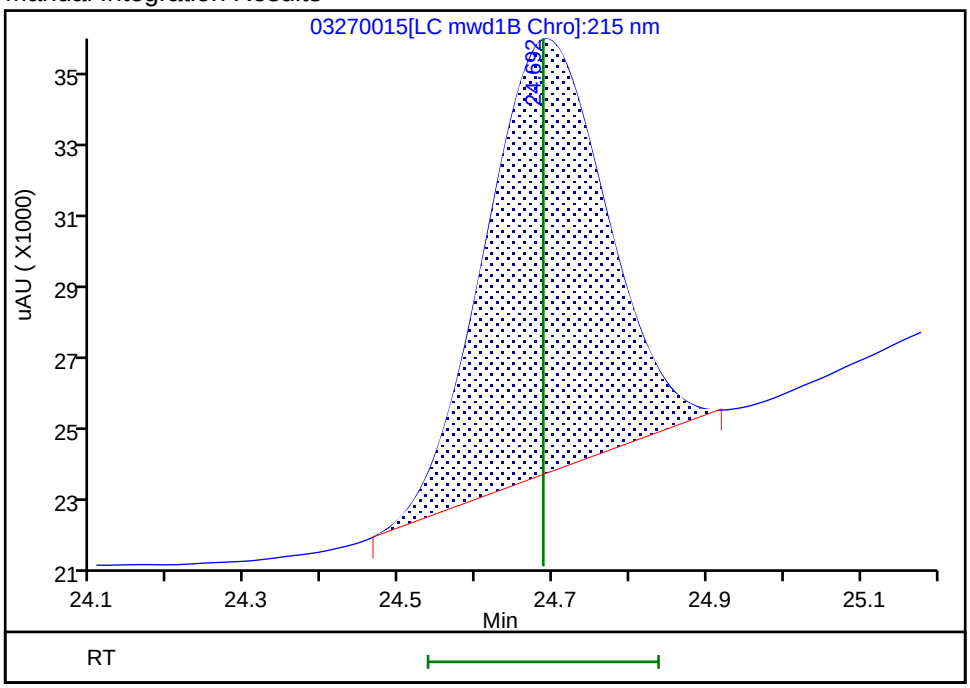
Processing Integration Results

RT: 24.69
Area: 141762
Amount: 1.041565
Amount Units: ug/ml



Manual Integration Results

RT: 24.69
Area: 125929
Amount: 0.996777
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:39:44 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270016.D
Lims ID: IC INT 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 27-Mar-2024 23:28:41 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 3
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 28-Mar-2024 14:09:29 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1687

First Level Reviewer: LV5D Date: 28-Mar-2024 11:37:02

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.786	6.787	-0.001	9356	0.0500	0.0488	
7 2,4,6-Trinitrophenol	1	7.979	7.934	0.045	7577	0.0500	0.0504	
8 RDX	1	8.886	8.881	0.005	10653	0.0500	0.0499	
9 Nitrobenzene	1	11.566	11.554	0.012	18828	0.0500	0.0498	
$ 10 1,2-Dinitrobenzene	1	12.586	12.581	0.005	13065	0.0500	0.0495	
11 3,5-Dinitroaniline	1	14.399	14.394	0.005	22622	0.0500	0.0514	M
12 1,3-Dinitrobenzene	1	14.826	14.821	0.005	30462	0.0500	0.0509	M
13 Nitroglycerin	2	15.079	15.074	0.005	69985	0.5000	0.5169	M
14 o-Nitrotoluene	1	15.759	15.754	0.005	12161	0.0500	0.0492	M
16 p-Nitrotoluene	1	16.026	16.021	0.005	11499	0.0500	0.0489	
17 4-Amino-2,6-dinitrotoluene	1	16.519	16.514	0.005	14588	0.0500	0.0493	
18 m-Nitrotoluene	1	16.886	16.881	0.005	14909	0.0500	0.0489	
19 2-Amino-4,6-dinitrotoluene	1	17.399	17.394	0.005	21010	0.0500	0.0503	
20 1,3,5-Trinitrobenzene	1	17.819	17.807	0.012	22192	0.0500	0.0517	
21 2,6-Dinitrotoluene	1	18.826	18.827	-0.001	13493	0.0500	0.0495	
22 2,4-Dinitrotoluene	1	19.312	19.314	-0.002	27016	0.0500	0.0494	M
23 Tetryl	1	22.739	22.741	-0.002	16569	0.0500	0.0493	
24 2,4,6-Trinitrotoluene	1	23.706	23.707	-0.001	20396	0.0500	0.0490	
25 PETN	2	24.686	24.687	-0.001	56701	0.5000	0.4673	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079 Amount Added: 5.00 Units: uL

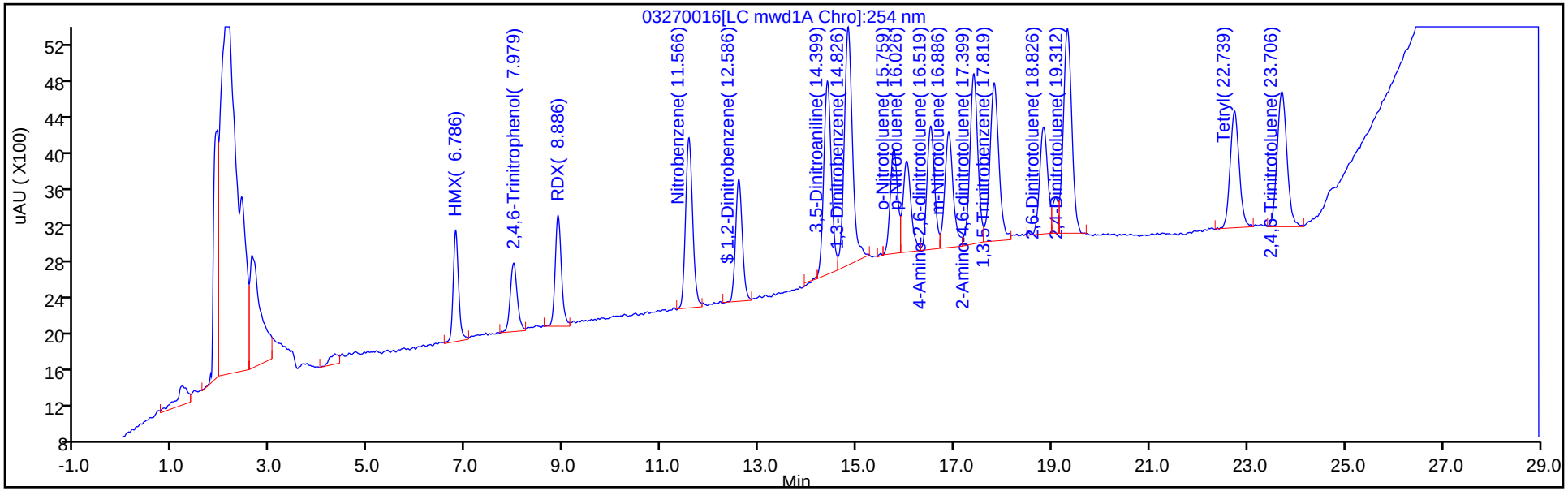
Report Date: 28-Mar-2024 14:09:29 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

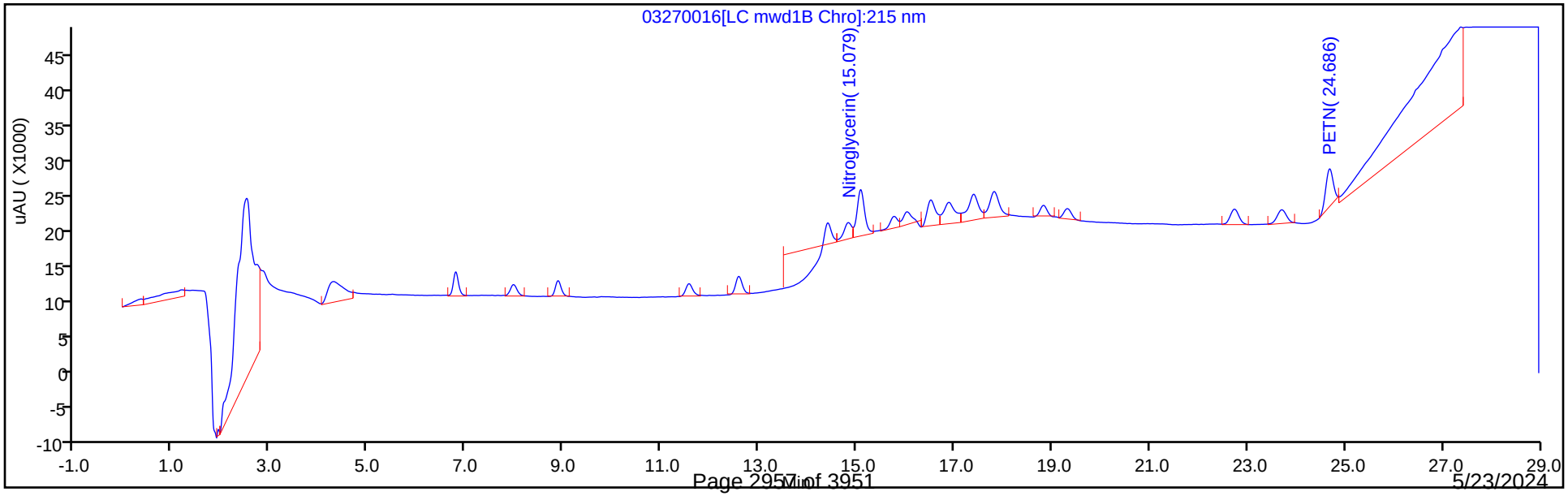
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270016.D

Injection Date:	27-Mar-2024 23:28:41	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC INT 3			Worklist Smp#:	16
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

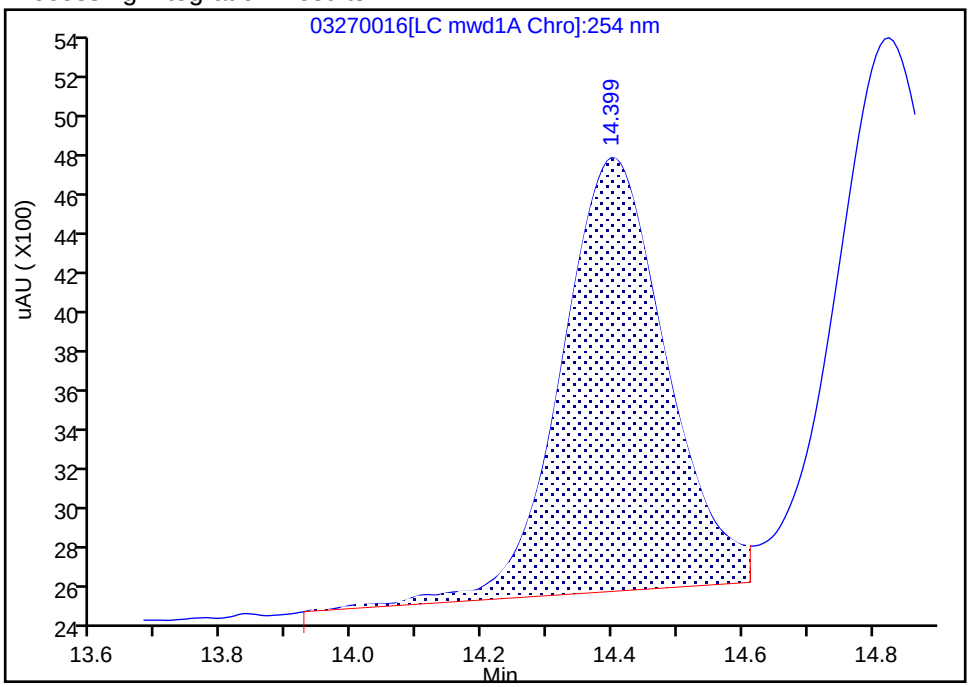
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270016.D				
Injection Date:	27-Mar-2024 23:28:41	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

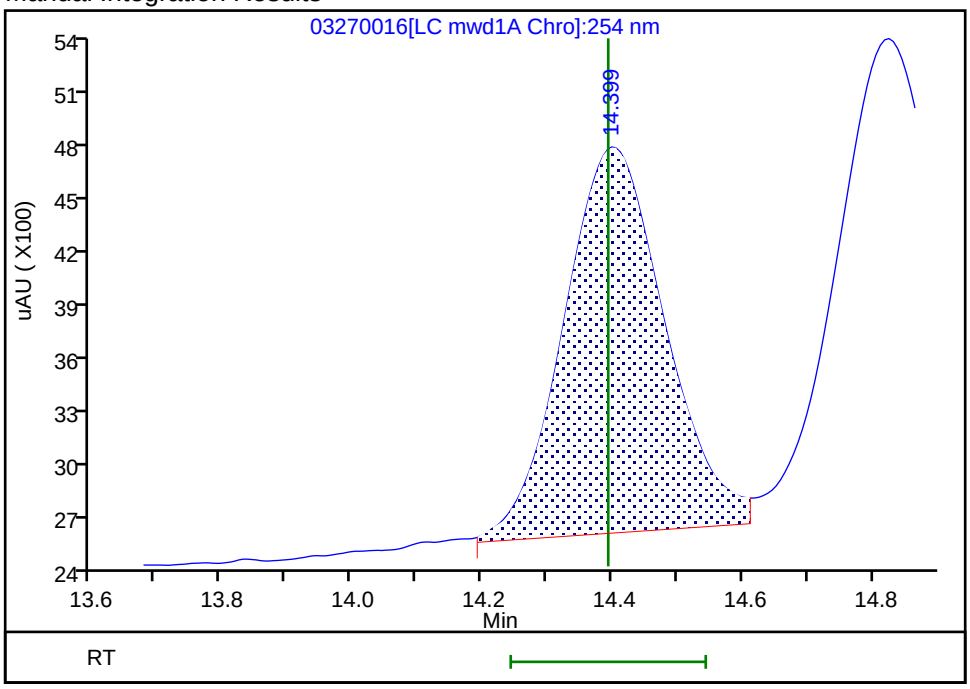
Processing Integration Results

RT: 14.40
Area: 23798
Amount: 0.050100
Amount Units: ug/ml



Manual Integration Results

RT: 14.40
Area: 22622
Amount: 0.051414
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:36:52 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

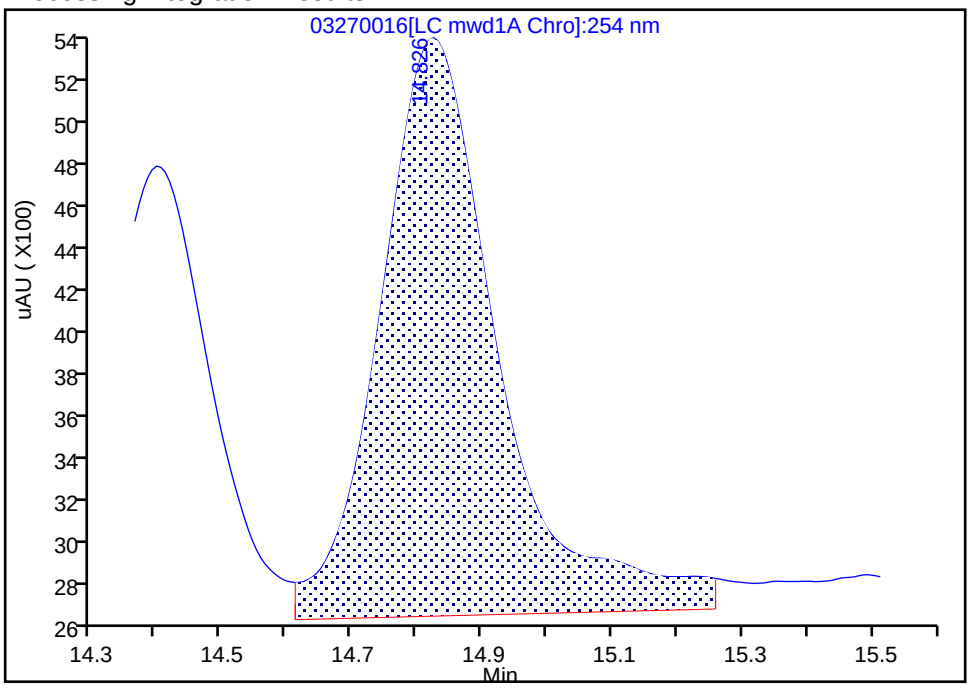
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270016.D
Injection Date: 27-Mar-2024 23:28:41 Instrument ID: CHHPLC_X5
Lims ID: IC INT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

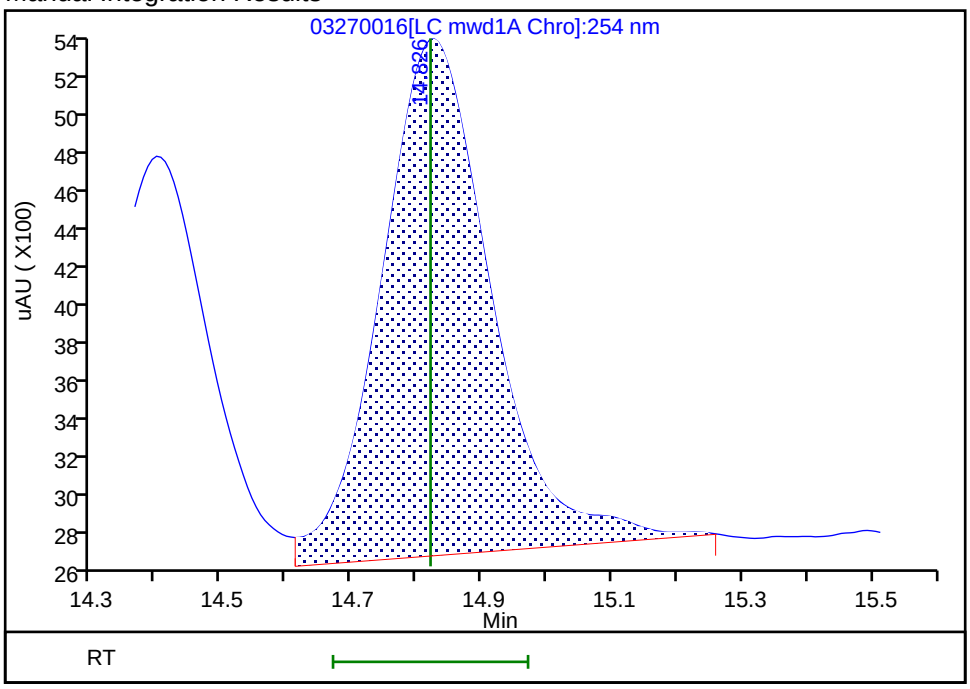
Processing Integration Results

RT: 14.83
Area: 33780
Amount: 0.051704
Amount Units: ug/ml



Manual Integration Results

RT: 14.83
Area: 30462
Amount: 0.050909
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:36:49 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

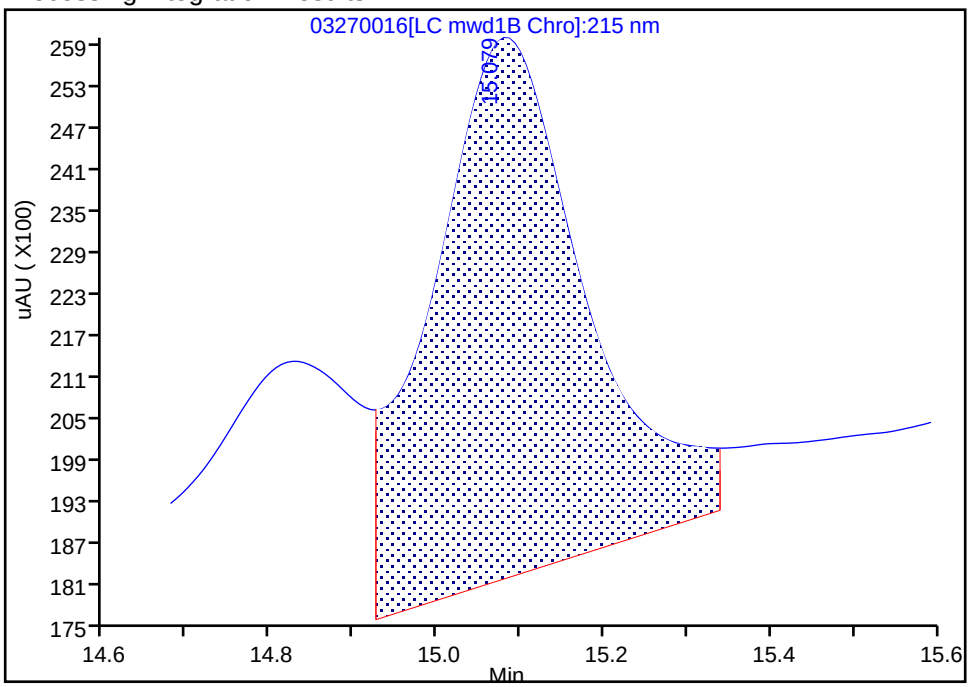
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270016.D				
Injection Date:	27-Mar-2024 23:28:41	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

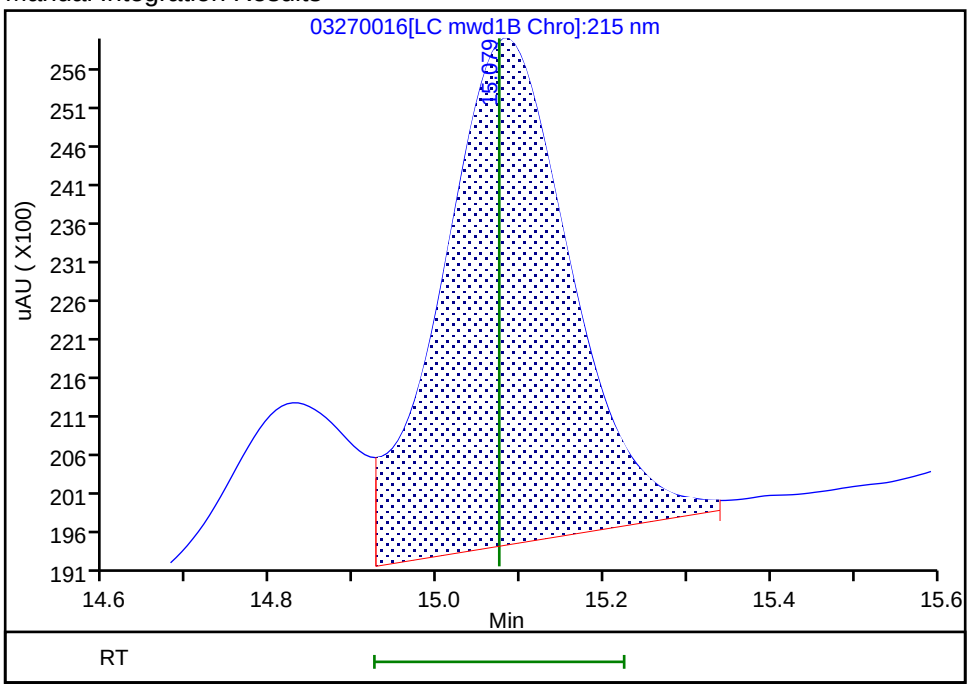
Processing Integration Results

RT: 15.08
Area: 99658
Amount: 0.393968
Amount Units: ug/ml



Manual Integration Results

RT: 15.08
Area: 69985
Amount: 0.516915
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:36:32 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

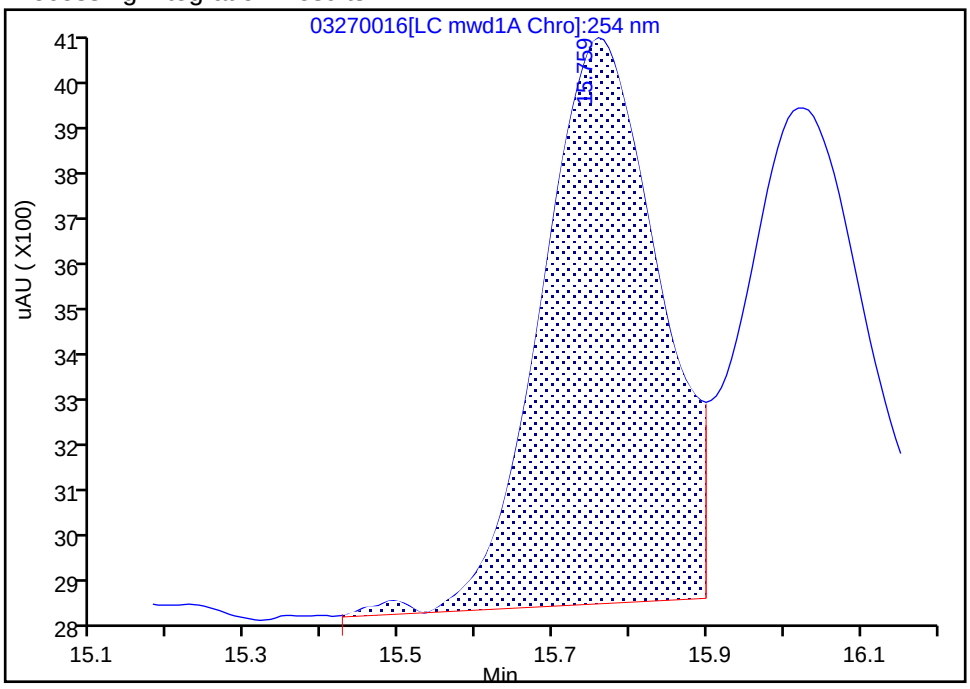
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270016.D				
Injection Date:	27-Mar-2024 23:28:41	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

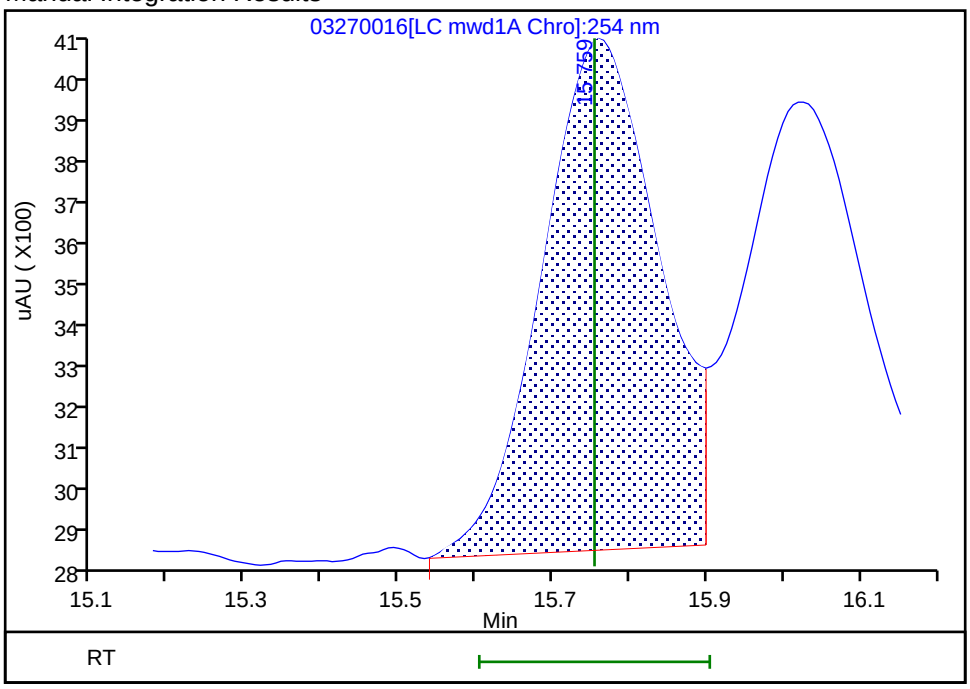
Processing Integration Results

RT: 15.76
Area: 12251
Amount: 0.049220
Amount Units: ug/ml



Manual Integration Results

RT: 15.76
Area: 12161
Amount: 0.049164
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:36:54 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

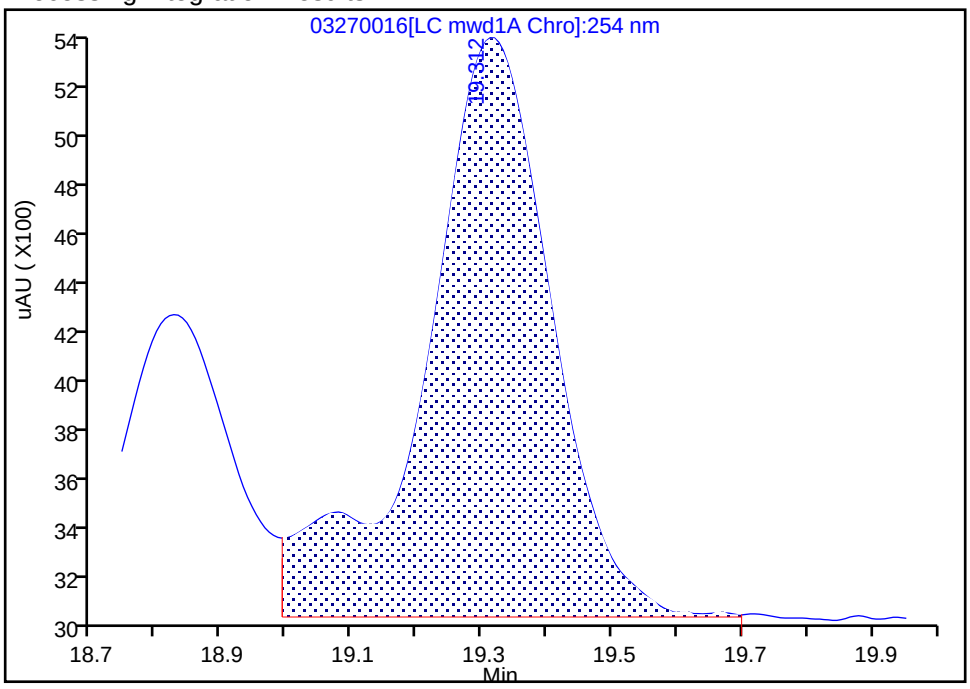
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270016.D				
Injection Date:	27-Mar-2024 23:28:41	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

22 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

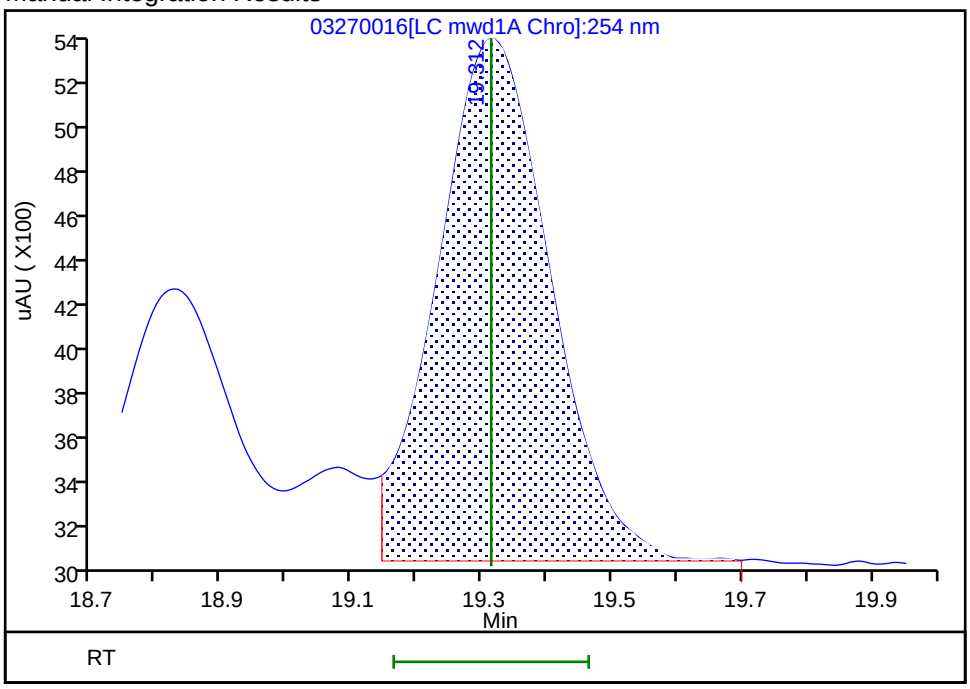
Processing Integration Results

RT: 19.31
Area: 30318
Amount: 0.054379
Amount Units: ug/ml



Manual Integration Results

RT: 19.31
Area: 27016
Amount: 0.049433
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:36:59 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

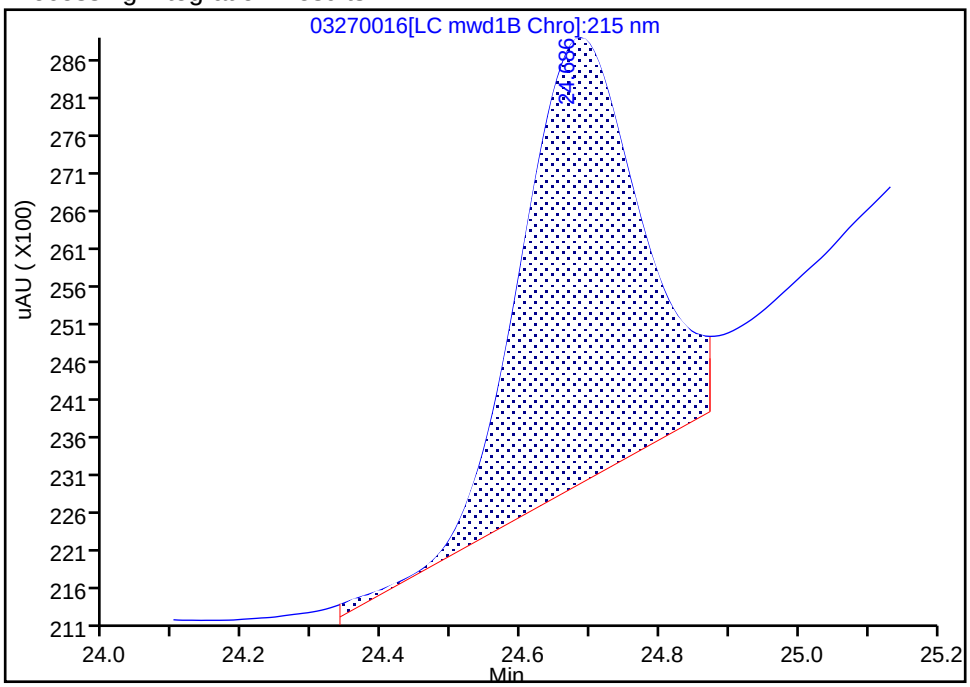
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270016.D				
Injection Date:	27-Mar-2024 23:28:41	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

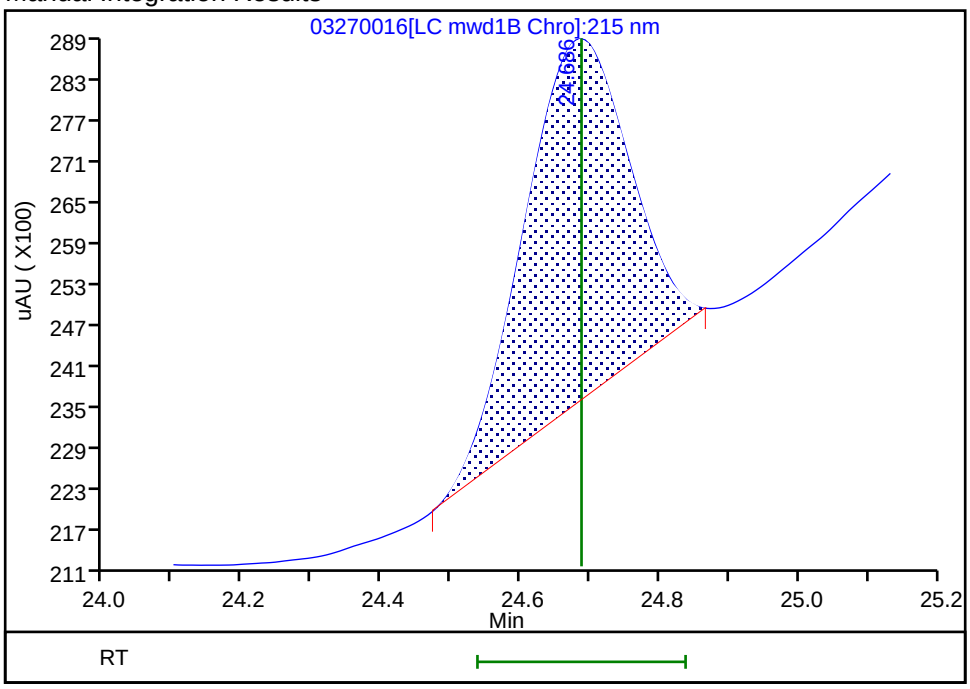
Processing Integration Results

RT: 24.69
Area: 70537
Amount: 0.525042
Amount Units: ug/ml



Manual Integration Results

RT: 24.69
Area: 56701
Amount: 0.467313
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:40:12 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270017.D
Lims ID: IC INT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 28-Mar-2024 00:03:36 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 2
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 28-Mar-2024 14:09:30 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1687

First Level Reviewer: LV5D Date: 28-Mar-2024 14:09:02

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.785	6.787	-0.002	4212	0.0200	0.0220	
7 2,4,6-Trinitrophenol	1	7.985	7.934	0.051	2989	0.0200	0.0199	
8 RDX	1	8.878	8.881	-0.003	4799	0.0200	0.0225	
9 Nitrobenzene	1	11.558	11.554	0.004	7815	0.0200	0.0207	
$ 10 1,2-Dinitrobenzene	1	12.578	12.581	-0.003	5446	0.0200	0.0206	
11 3,5-Dinitroaniline	1	14.391	14.394	-0.003	8366	0.0200	0.0191	M
12 1,3-Dinitrobenzene	1	14.811	14.821	-0.010	11588	0.0200	0.0194	M
13 Nitroglycerin	2	15.071	15.074	-0.003	29624	0.2000	0.2188	M
14 o-Nitrotoluene	1	15.751	15.754	-0.003	5365	0.0200	0.0217	
16 p-Nitrotoluene	1	16.018	16.021	-0.003	5409	0.0200	0.0208	
17 4-Amino-2,6-dinitrotoluene	1	16.498	16.514	-0.016	6841	0.0200	0.0215	
18 m-Nitrotoluene	1	16.878	16.881	-0.003	7013	0.0200	0.0196	
19 2-Amino-4,6-dinitrotoluene	1	17.384	17.394	-0.010	9727	0.0200	0.0220	
20 1,3,5-Trinitrobenzene	1	17.804	17.807	-0.003	9936	0.0200	0.0231	
21 2,6-Dinitrotoluene	1	18.811	18.827	-0.016	5223	0.0200	0.0191	
22 2,4-Dinitrotoluene	1	19.311	19.314	-0.003	10999	0.0200	0.0201	
23 Tetryl	1	22.725	22.741	-0.016	6925	0.0200	0.0206	
24 2,4,6-Trinitrotoluene	1	23.705	23.707	-0.002	8416	0.0200	0.0202	
25 PETN	2	24.685	24.687	-0.002	21186	0.2000	0.1957	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079 Amount Added: 2.00 Units: uL

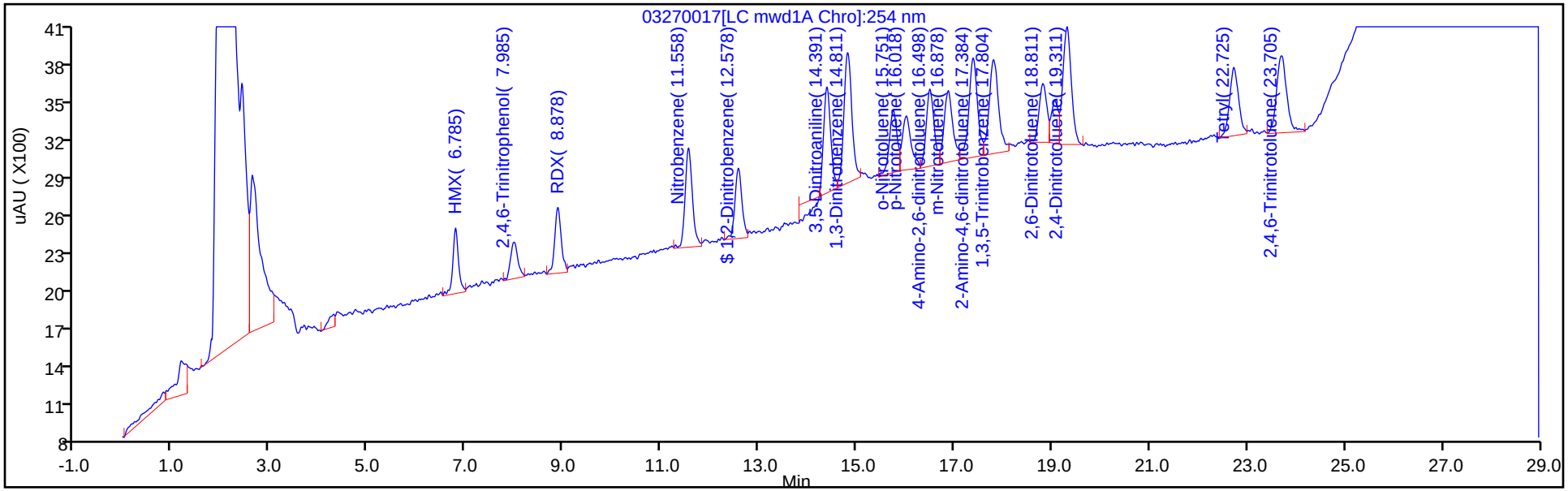
Report Date: 28-Mar-2024 14:09:30 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

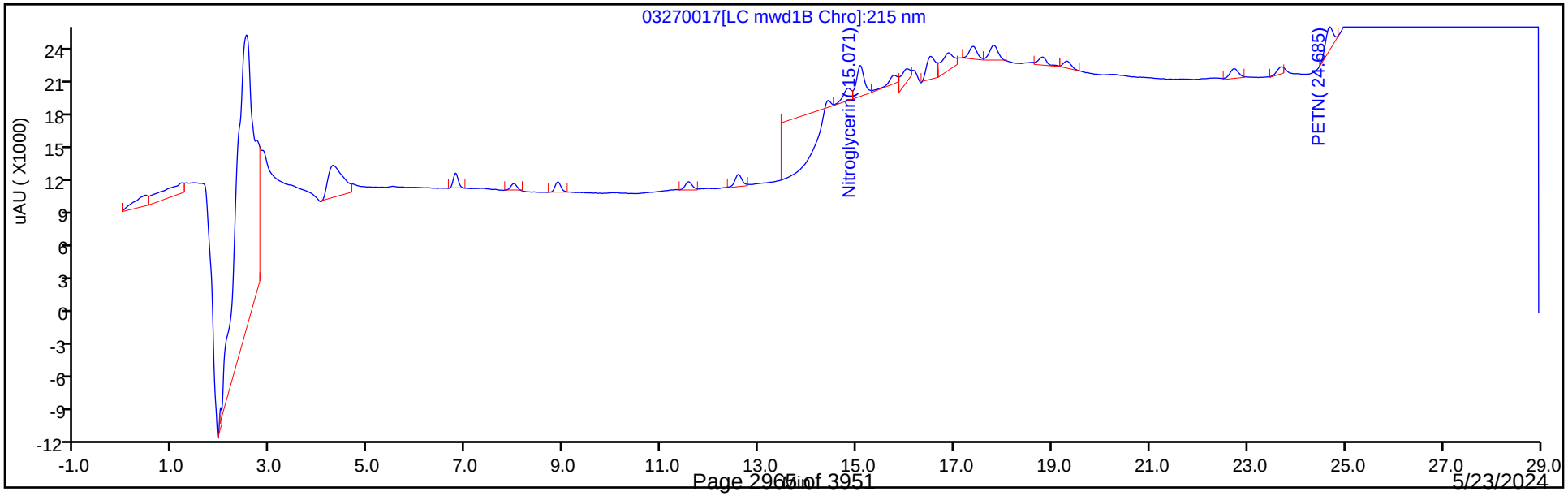
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270017.D

Injection Date:	28-Mar-2024 00:03:36	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC INT 2			Worklist Smp#:	17
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

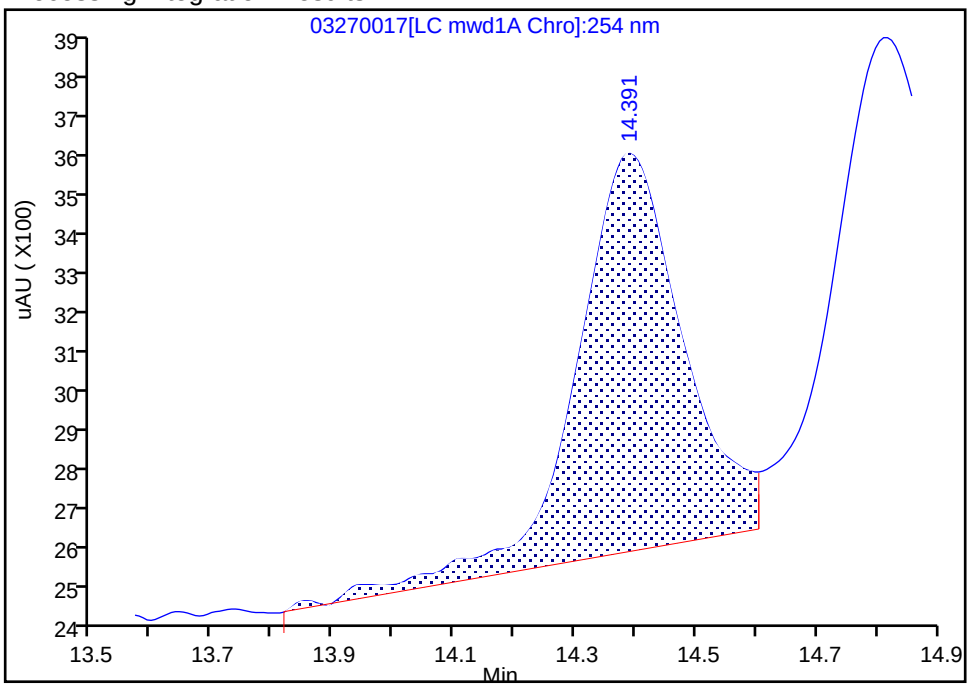
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270017.D
Injection Date: 28-Mar-2024 00:03:36 Instrument ID: CHHPLC_X5
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

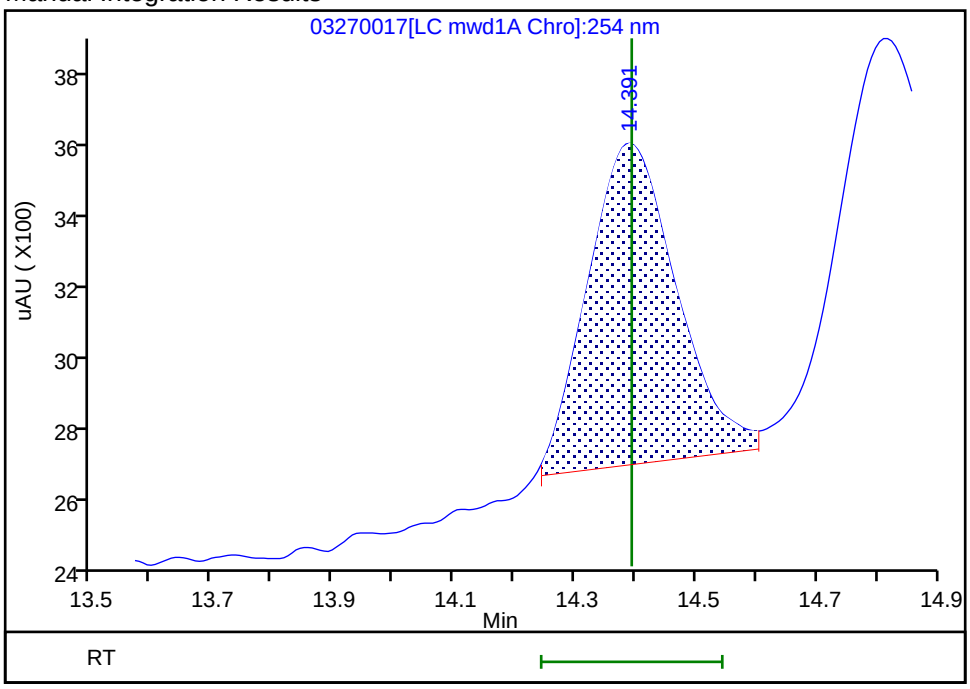
Processing Integration Results

RT: 14.39
Area: 11417
Amount: 0.022003
Amount Units: ug/ml



Manual Integration Results

RT: 14.39
Area: 8366
Amount: 0.019087
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:37:29 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

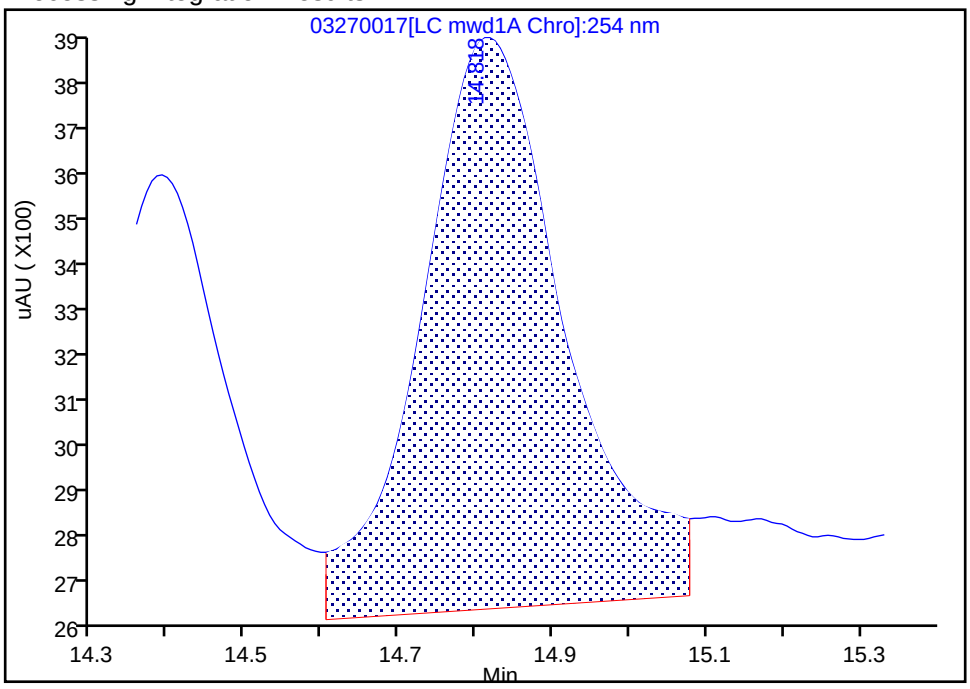
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270017.D				
Injection Date:	28-Mar-2024 00:03:36	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

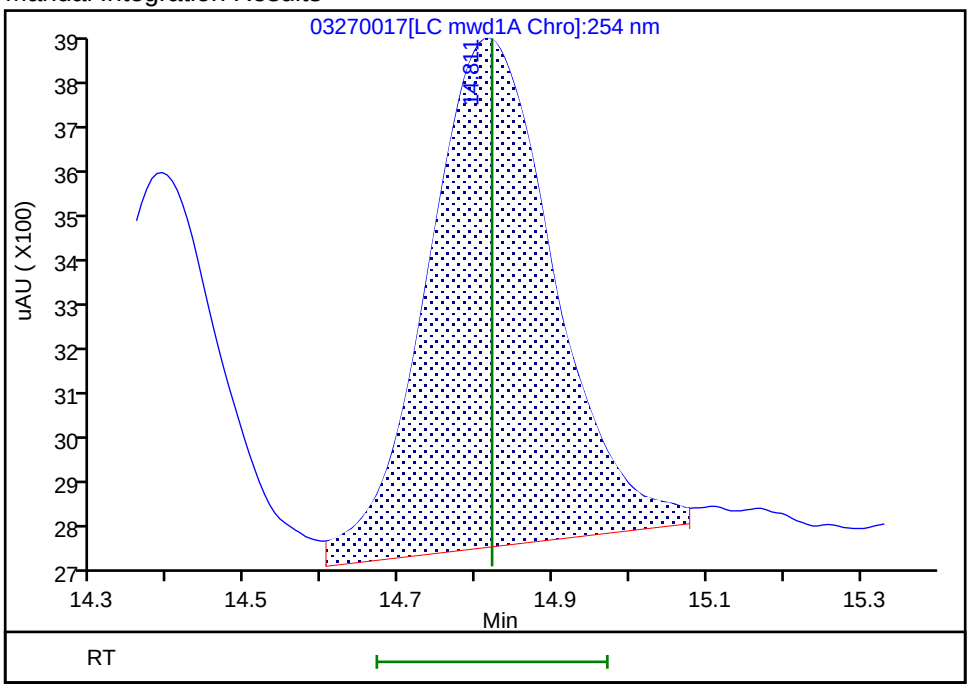
Processing Integration Results

RT: 14.82
Area: 14456
Amount: 0.022379
Amount Units: ug/ml



Manual Integration Results

RT: 14.81
Area: 11588
Amount: 0.019366
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:37:26 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

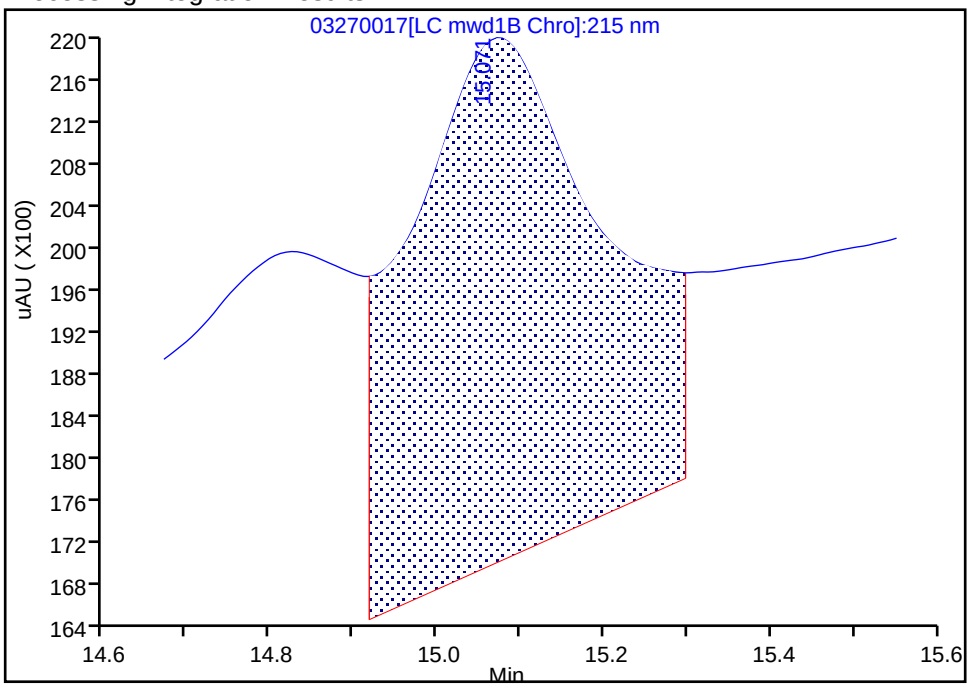
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270017.D				
Injection Date:	28-Mar-2024 00:03:36	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

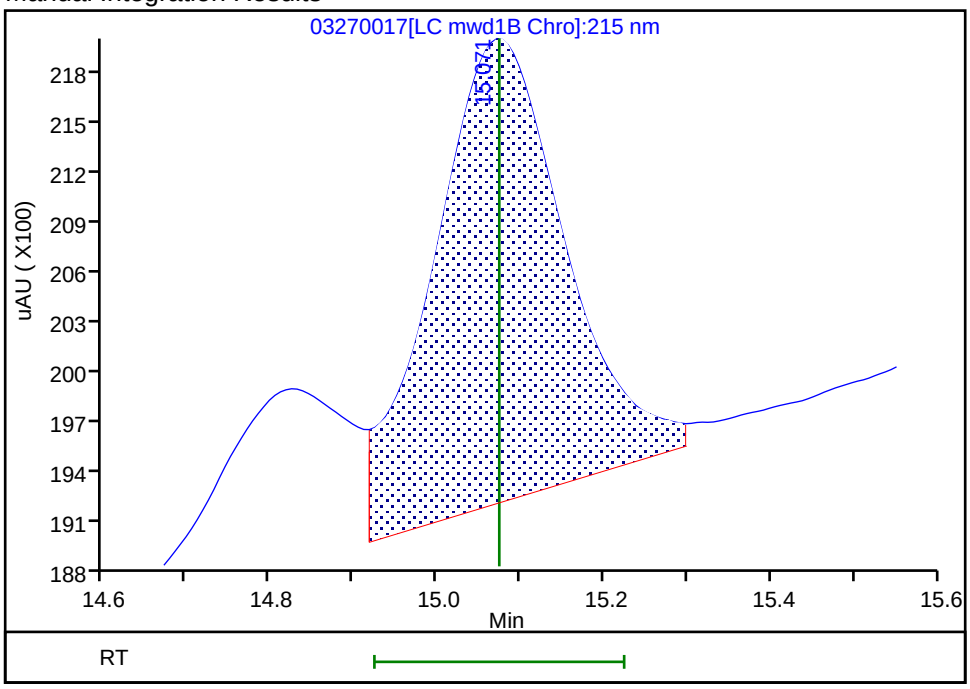
Processing Integration Results

RT: 15.07
Area: 79624
Amount: 0.323195
Amount Units: ug/ml



Manual Integration Results

RT: 15.07
Area: 29624
Amount: 0.218805
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:37:38 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

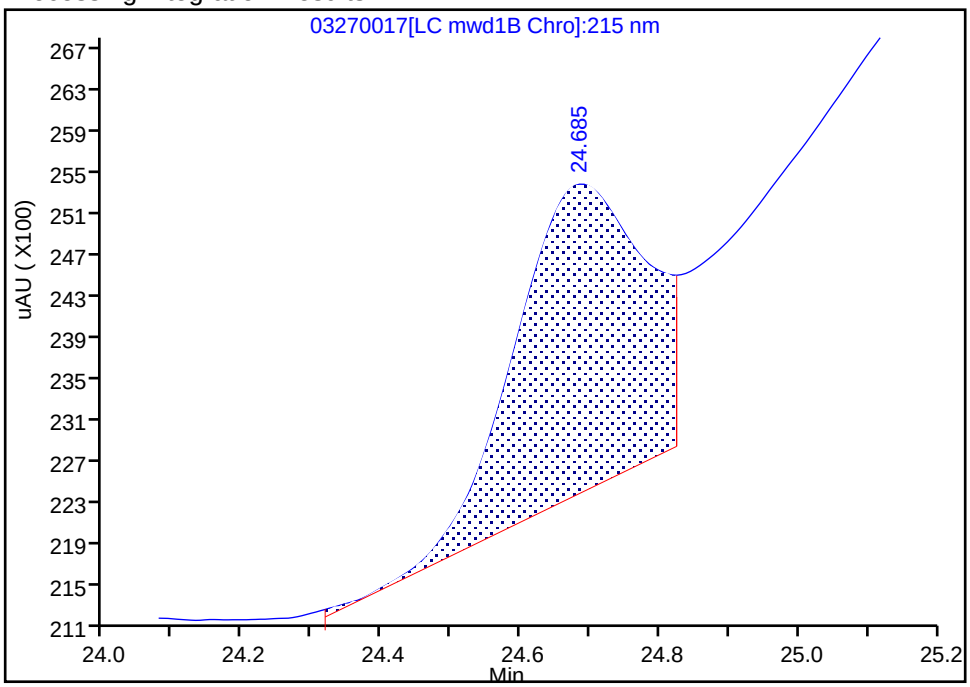
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270017.D
Injection Date: 28-Mar-2024 00:03:36 Instrument ID: CHHPLC_X5
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1B, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

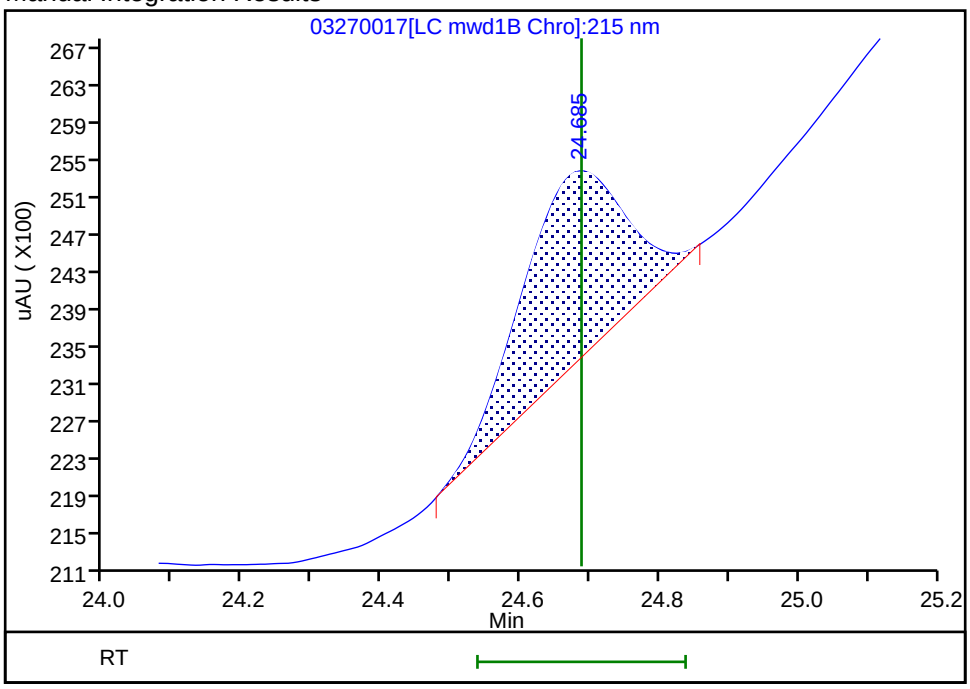
Processing Integration Results

RT: 24.68
Area: 38785
Amount: 0.297974
Amount Units: ug/ml



Manual Integration Results

RT: 24.68
Area: 21186
Amount: 0.195690
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:40:17 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D
Lims ID: IC INT 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 28-Mar-2024 00:38:31 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 1
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 28-Mar-2024 14:09:31 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1687

First Level Reviewer: LV5D Date: 28-Mar-2024 14:09:13

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.792	6.787	0.005	2536	0.0100	0.0132	
7 2,4,6-Trinitrophenol	1	7.978	7.934	0.044	1687	0.0100	0.0112	
8 RDX	1	8.885	8.881	0.004	2368	0.0100	0.0111	
9 Nitrobenzene	1	11.558	11.554	0.004	4113	0.0100	0.0109	
$ 10 1,2-Dinitrobenzene	1	12.578	12.581	-0.003	3032	0.0100	0.0115	
11 3,5-Dinitroaniline	1	14.392	14.394	-0.002	4425	0.0100	0.0101	M
12 1,3-Dinitrobenzene	1	14.812	14.821	-0.009	5312	0.0100	0.008878	M
13 Nitroglycerin	2	15.072	15.074	-0.002	12537	0.1000	0.0926	M
14 o-Nitrotoluene	1	15.758	15.754	0.004	2612	0.0100	0.0106	M
16 p-Nitrotoluene	1	16.012	16.021	-0.009	3049	0.0100	0.009864	M
17 4-Amino-2,6-dinitrotoluene	1	16.498	16.514	-0.016	3564	0.0100	0.009666	M
18 m-Nitrotoluene	1	16.878	16.881	-0.003	4479	0.0100	0.0101	M
19 2-Amino-4,6-dinitrotoluene	1	17.372	17.394	-0.022	4751	0.0100	0.009500	M
20 1,3,5-Trinitrobenzene	1	17.812	17.807	0.005	4376	0.0100	0.0102	M
21 2,6-Dinitrotoluene	1	18.818	18.827	-0.009	2716	0.0100	0.0100	
22 2,4-Dinitrotoluene	1	19.298	19.314	-0.016	5455	0.0100	0.0100	
23 Tetryl	1	22.725	22.741	-0.016	3690	0.0100	0.0110	
24 2,4,6-Trinitrotoluene	1	23.692	23.707	-0.015	4534	0.0100	0.0109	
25 PETN	2	24.825	24.687	0.138	8982	0.1000	0.1024	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079 Amount Added: 1.00 Units: uL

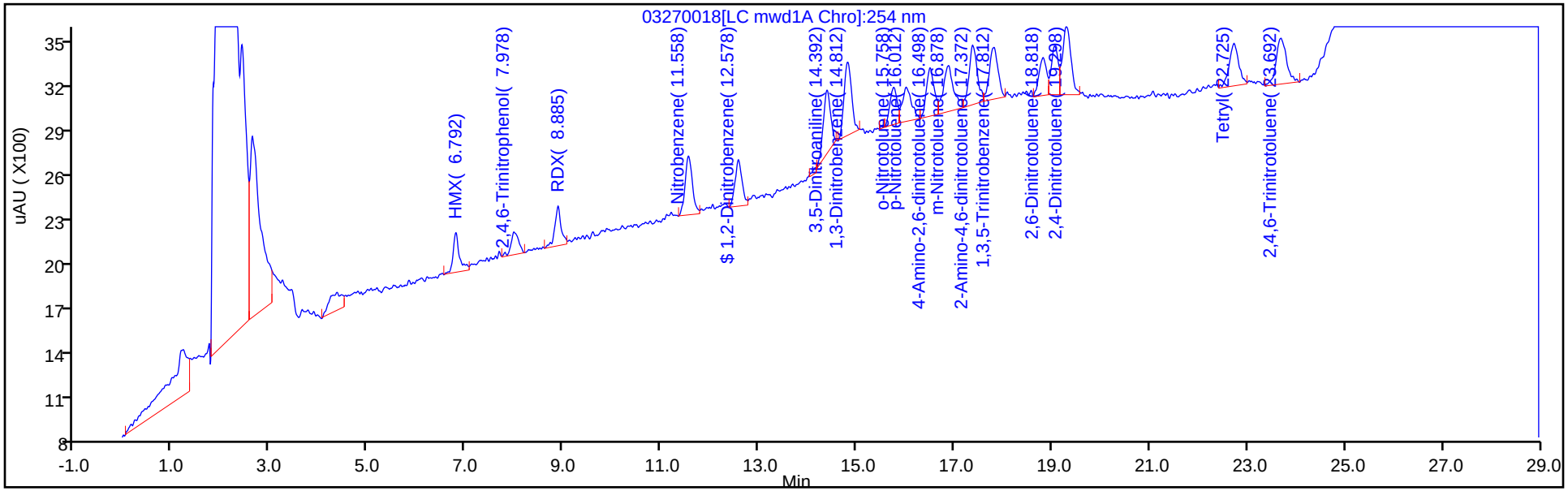
Report Date: 28-Mar-2024 14:09:32 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

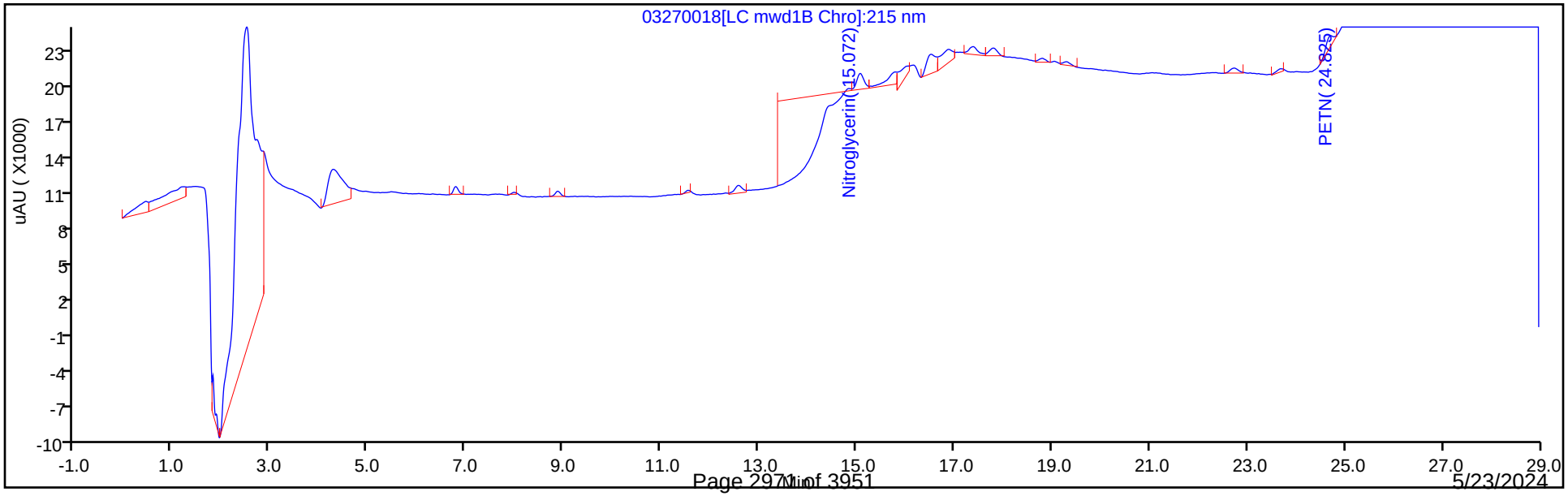
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D

Injection Date:	28-Mar-2024 00:38:31	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC INT 1			Worklist Smp#:	18
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

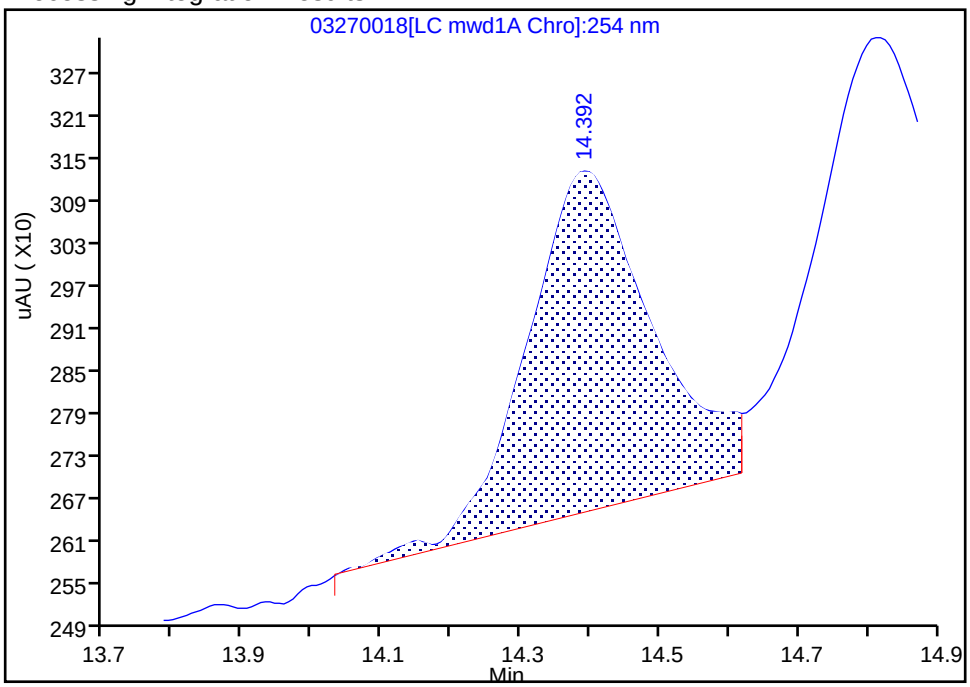
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D				
Injection Date:	28-Mar-2024 00:38:31	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

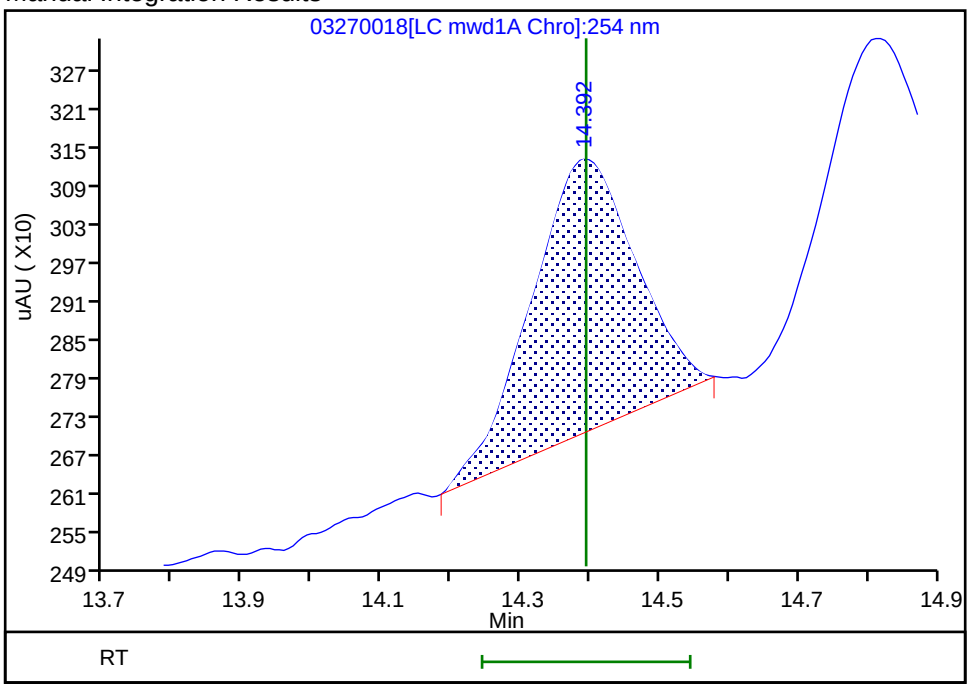
Processing Integration Results

RT: 14.39
Area: 6010
Amount: 0.010889
Amount Units: ug/ml



Manual Integration Results

RT: 14.39
Area: 4425
Amount: 0.010150
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:38:35 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

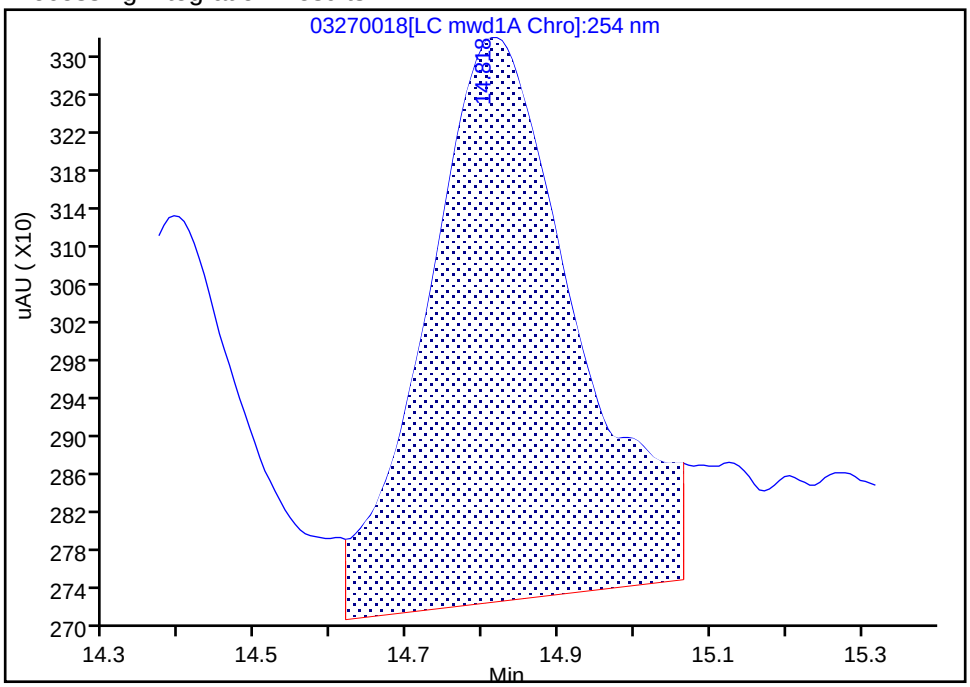
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D
Injection Date: 28-Mar-2024 00:38:31 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

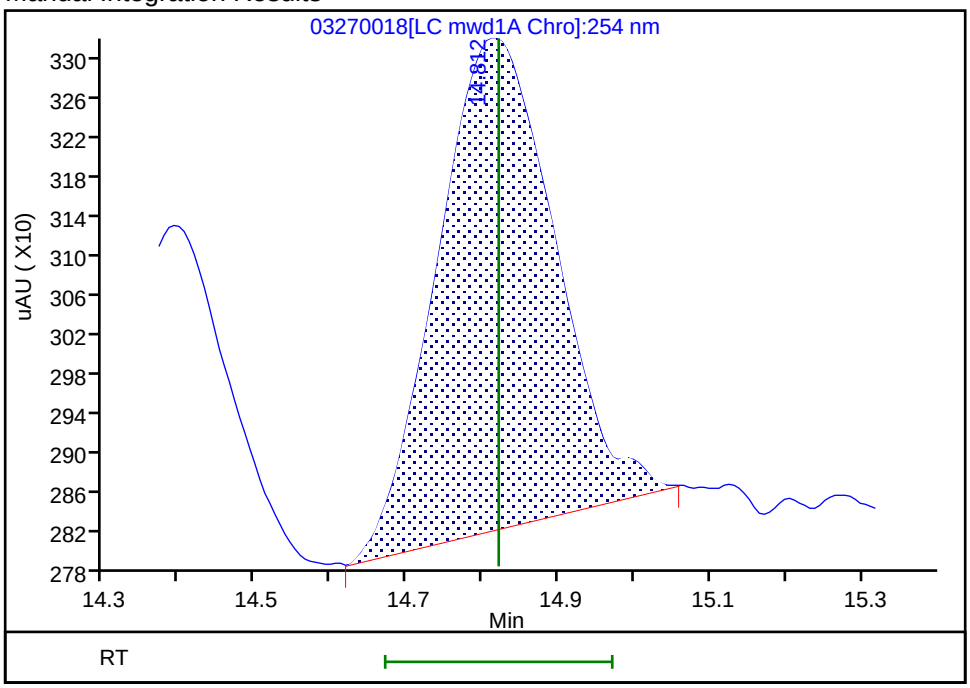
Processing Integration Results

RT: 14.82
Area: 8115
Amount: 0.012880
Amount Units: ug/ml



Manual Integration Results

RT: 14.81
Area: 5312
Amount: 0.008878
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:38:44 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

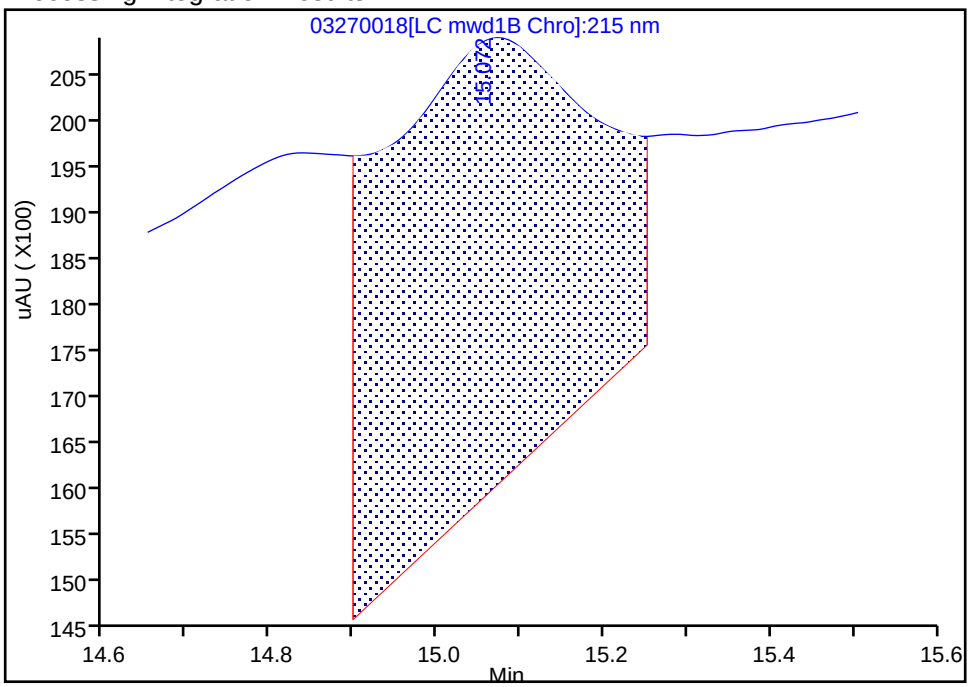
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D				
Injection Date:	28-Mar-2024 00:38:31	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

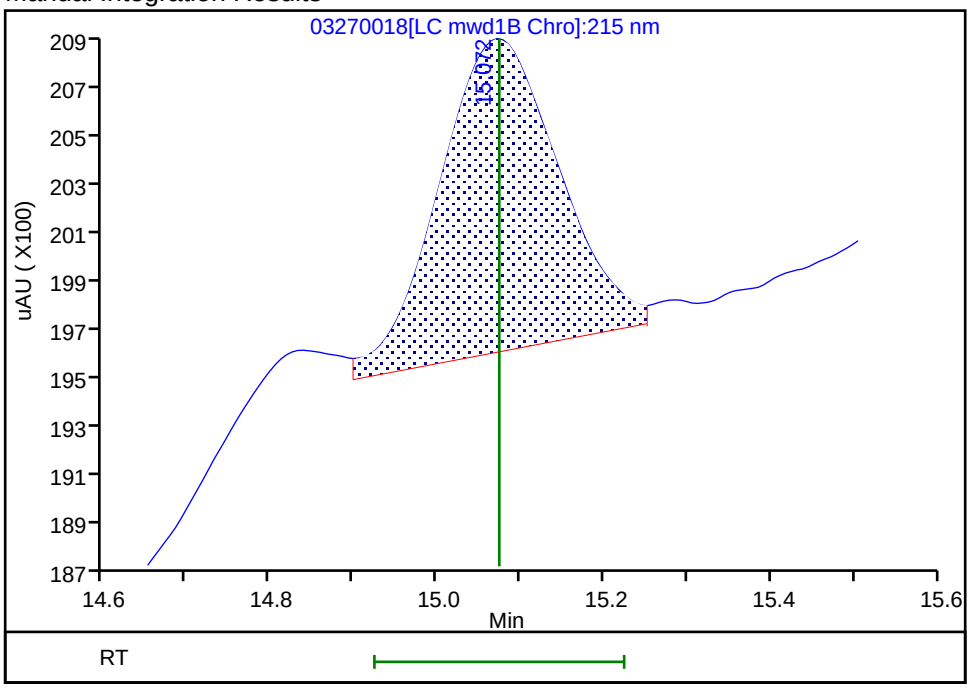
Processing Integration Results

RT: 15.07
Area: 87415
Amount: 0.399908
Amount Units: ug/ml



Manual Integration Results

RT: 15.07
Area: 12537
Amount: 0.092599
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:37:46 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

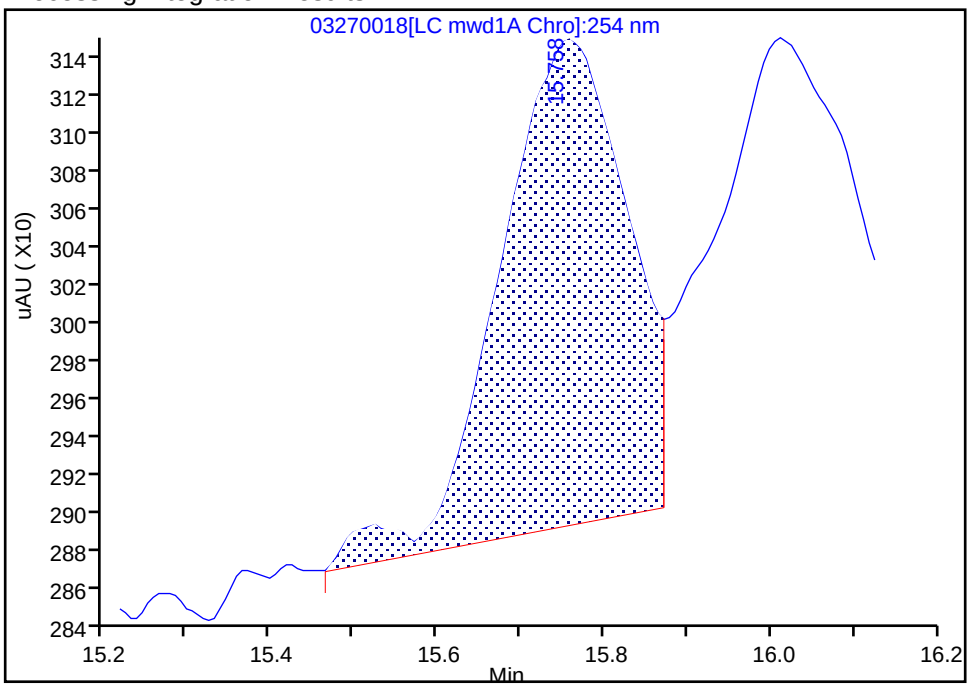
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D				
Injection Date:	28-Mar-2024 00:38:31	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

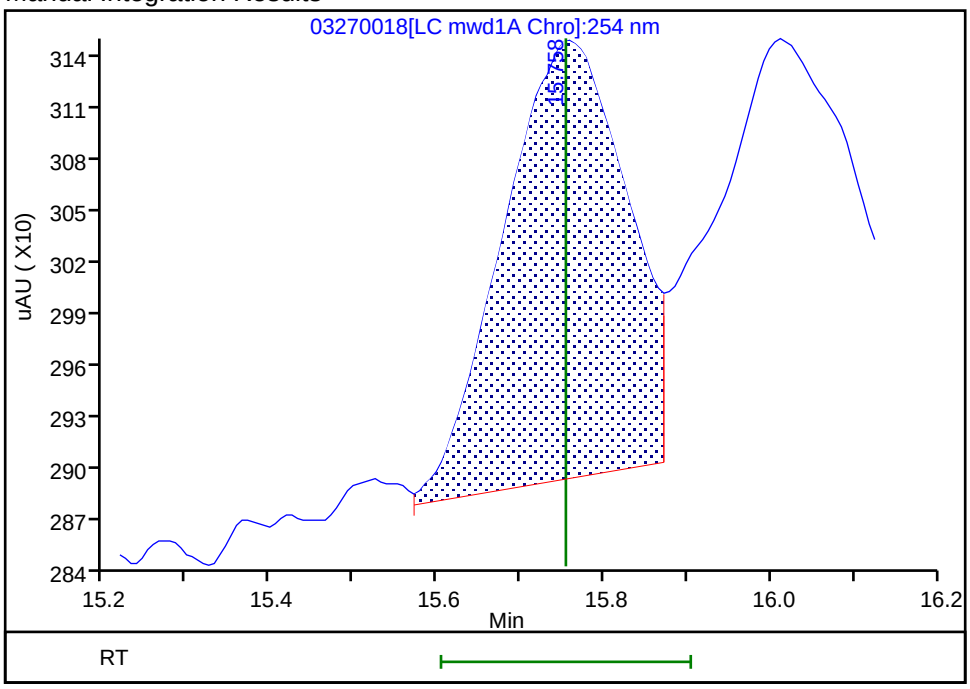
Processing Integration Results

RT: 15.76
Area: 2708
Amount: 0.010888
Amount Units: ug/ml



Manual Integration Results

RT: 15.76
Area: 2612
Amount: 0.010560
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:39:02 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

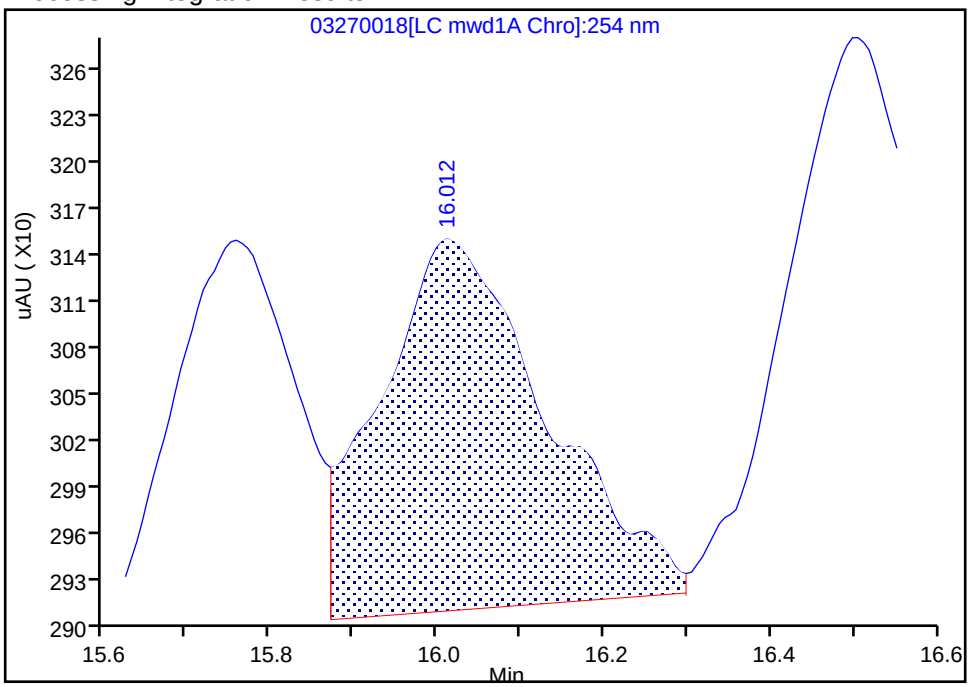
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D				
Injection Date:	28-Mar-2024 00:38:31	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

16 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

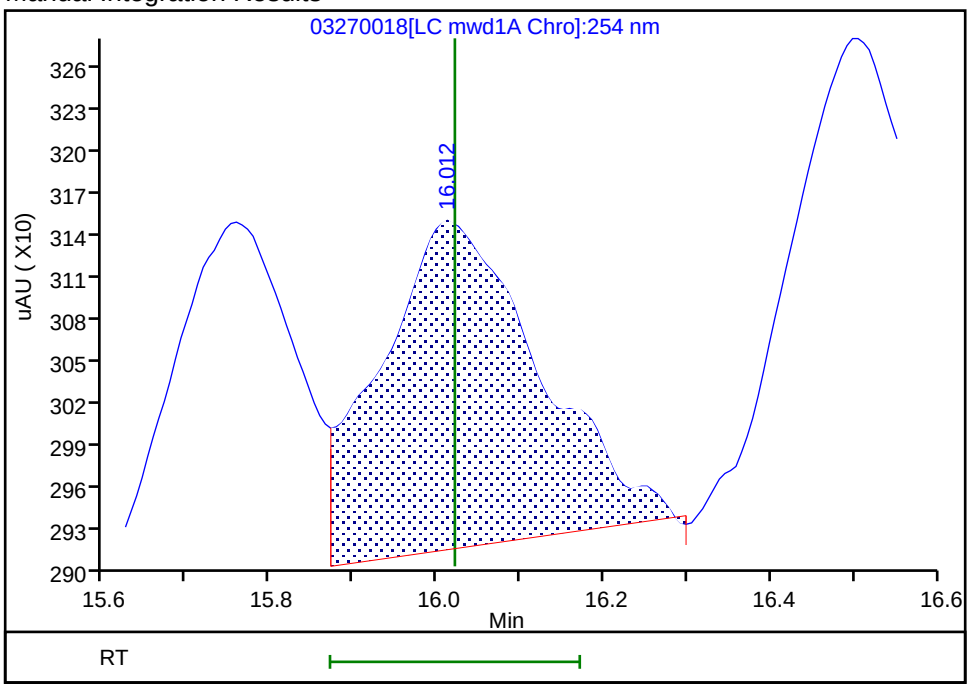
Processing Integration Results

RT: 16.01
Area: 3305
Amount: 0.013868
Amount Units: ug/ml



Manual Integration Results

RT: 16.01
Area: 3049
Amount: 0.009864
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:38:57 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

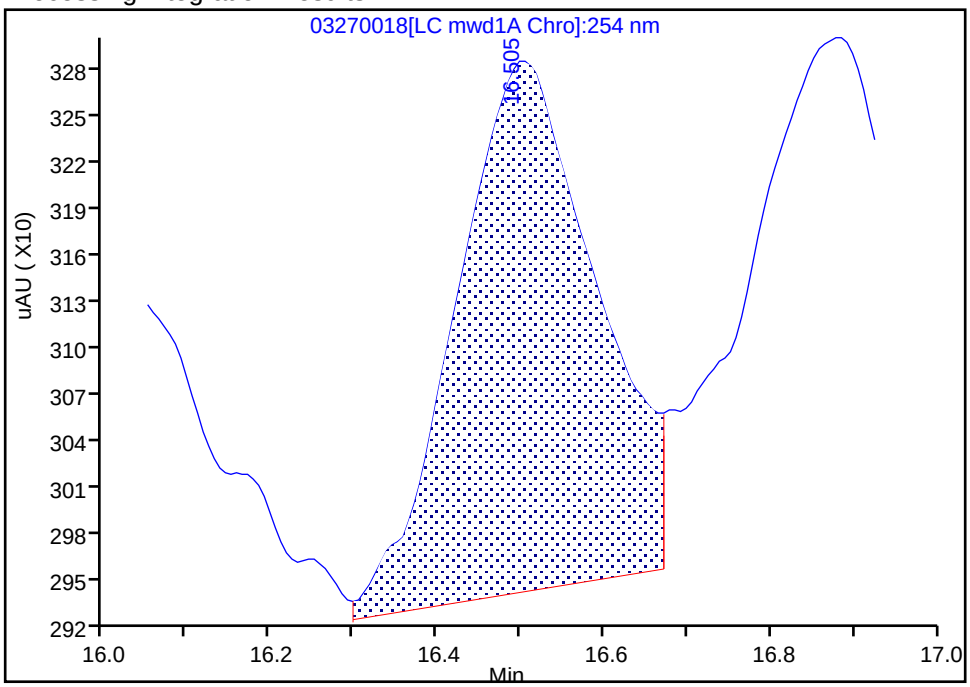
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D
Injection Date: 28-Mar-2024 00:38:31 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

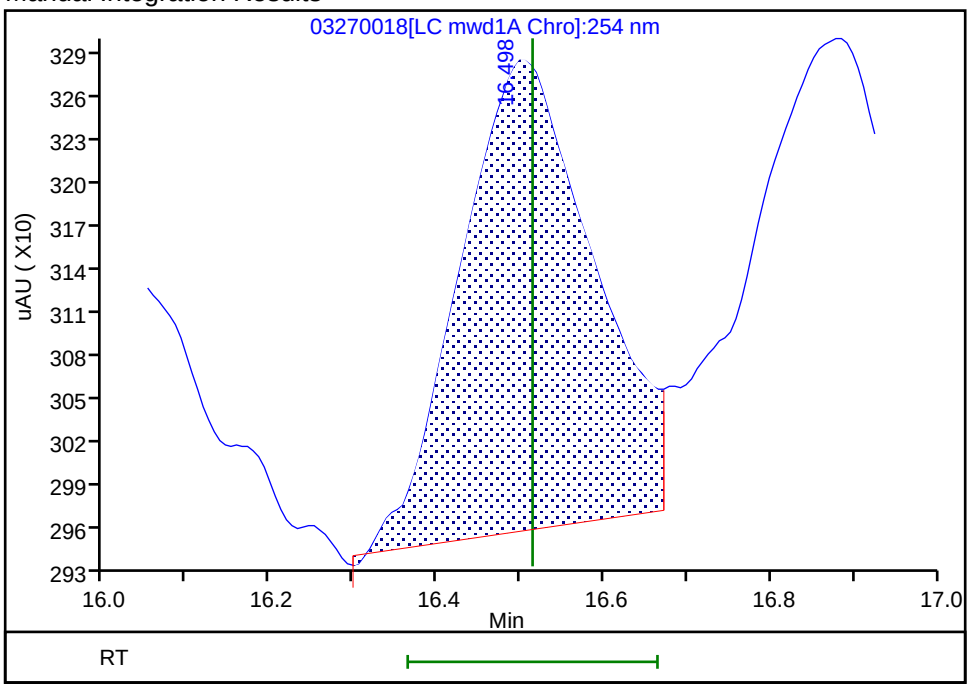
Processing Integration Results

RT: 16.50
Area: 3978
Amount: 0.013214
Amount Units: ug/ml



Manual Integration Results

RT: 16.50
Area: 3564
Amount: 0.009666
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:38:57 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

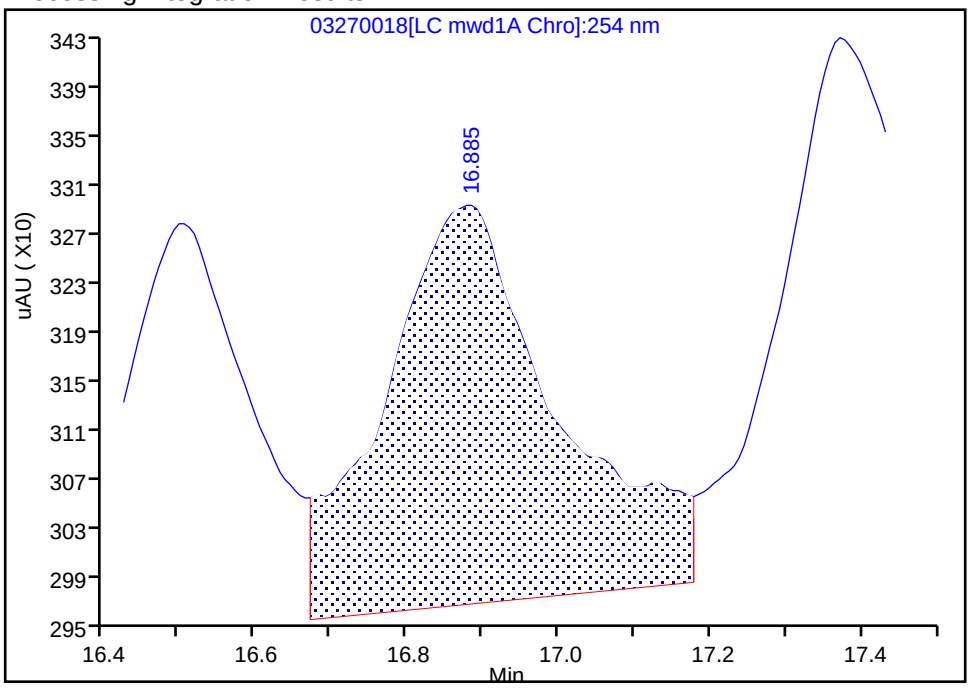
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D
Injection Date: 28-Mar-2024 00:38:31 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

18 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

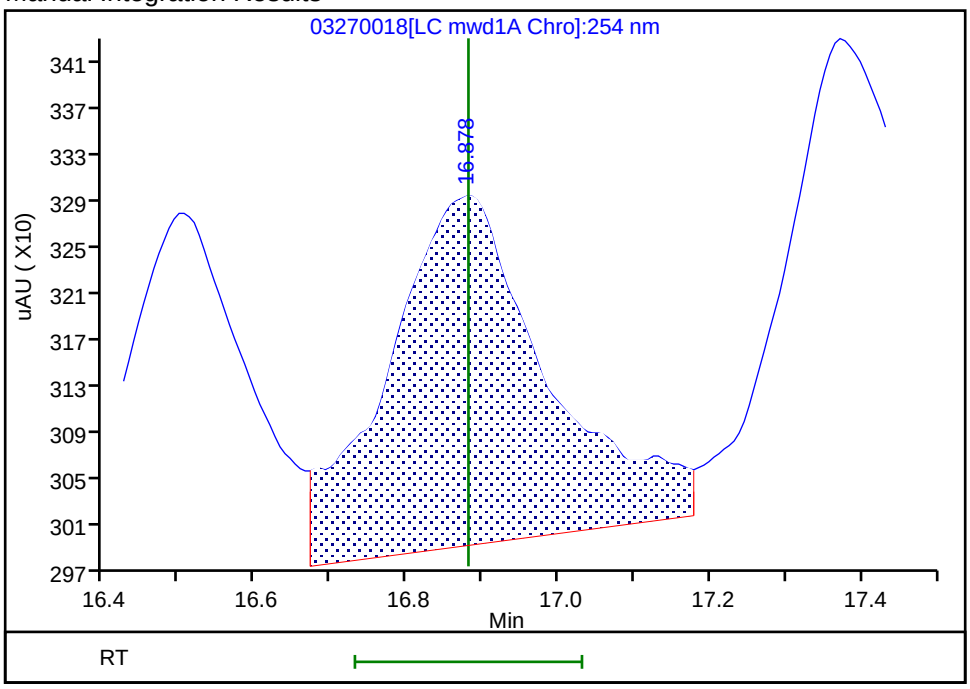
Processing Integration Results

RT: 16.88
Area: 5194
Amount: 0.010694
Amount Units: ug/ml



Manual Integration Results

RT: 16.88
Area: 4479
Amount: 0.010150
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:38:57 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

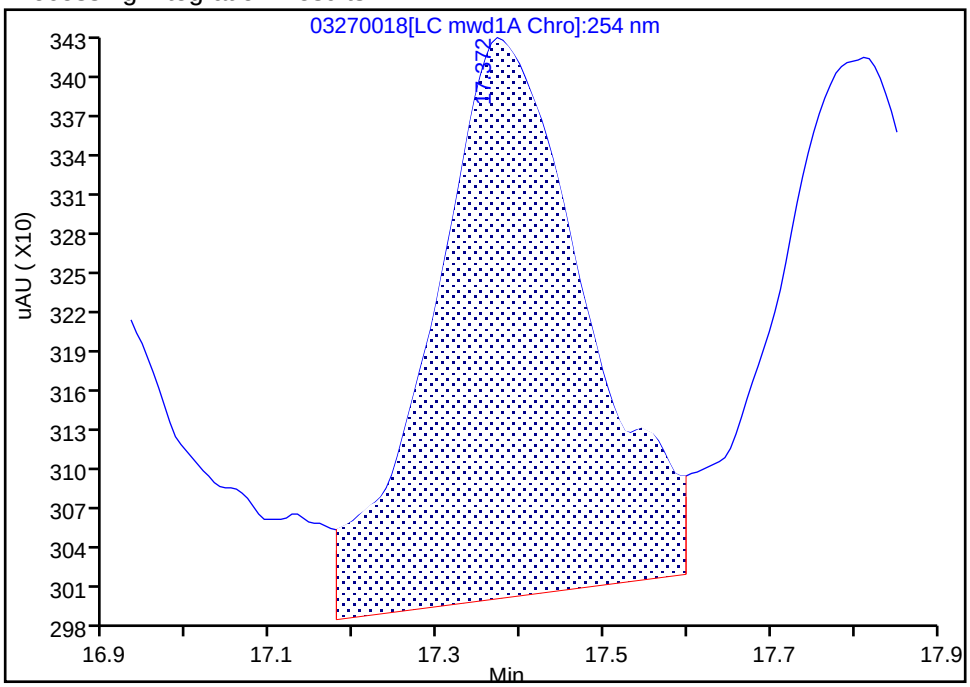
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D				
Injection Date:	28-Mar-2024 00:38:31	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

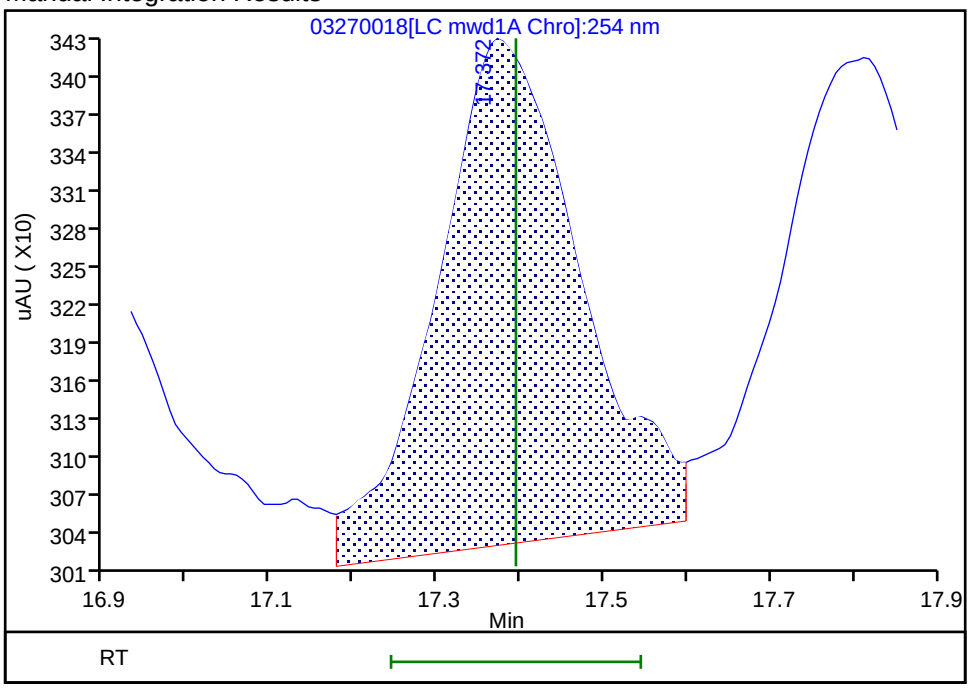
Processing Integration Results

RT: 17.37
Area: 5469
Amount: 0.012806
Amount Units: ug/ml



Manual Integration Results

RT: 17.37
Area: 4751
Amount: 0.009500
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:38:57 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

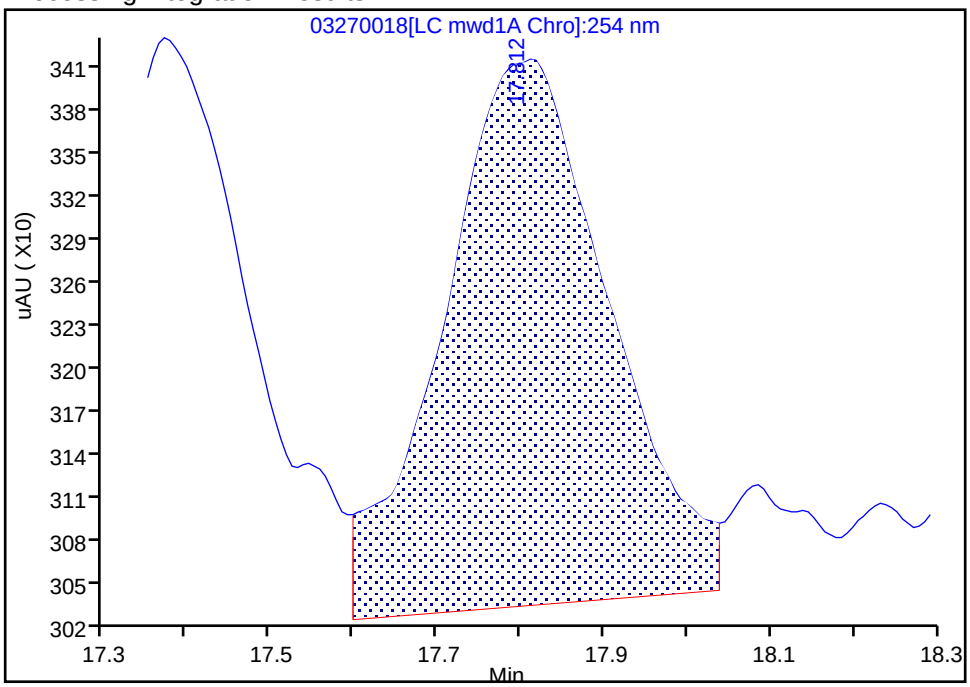
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D
Injection Date: 28-Mar-2024 00:38:31 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

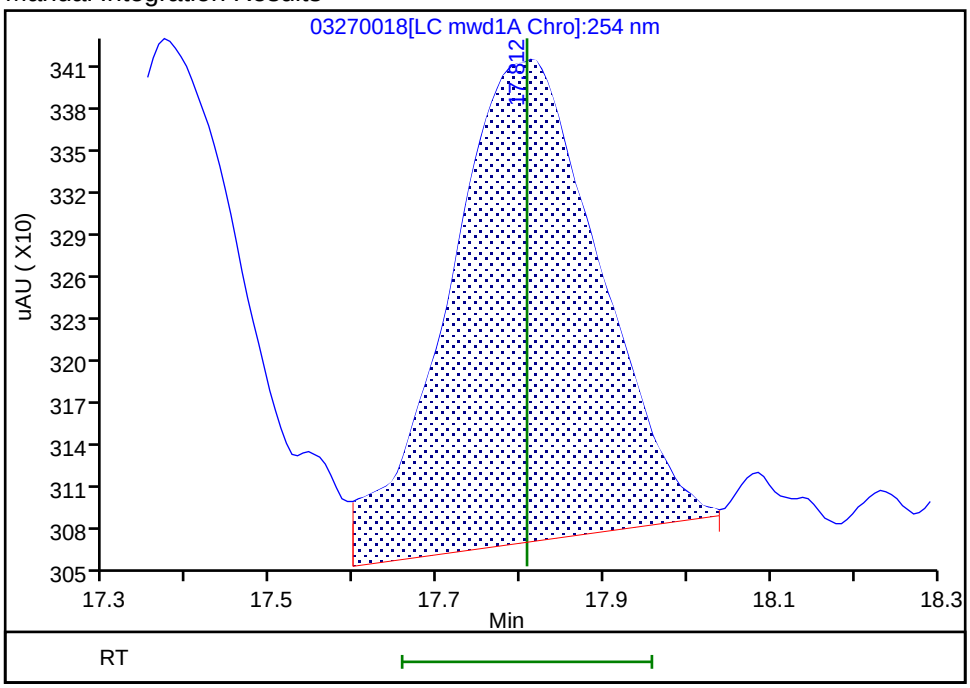
Processing Integration Results

RT: 17.81
Area: 5314
Amount: 0.012063
Amount Units: ug/ml



Manual Integration Results

RT: 17.81
Area: 4376
Amount: 0.010185
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:38:57 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

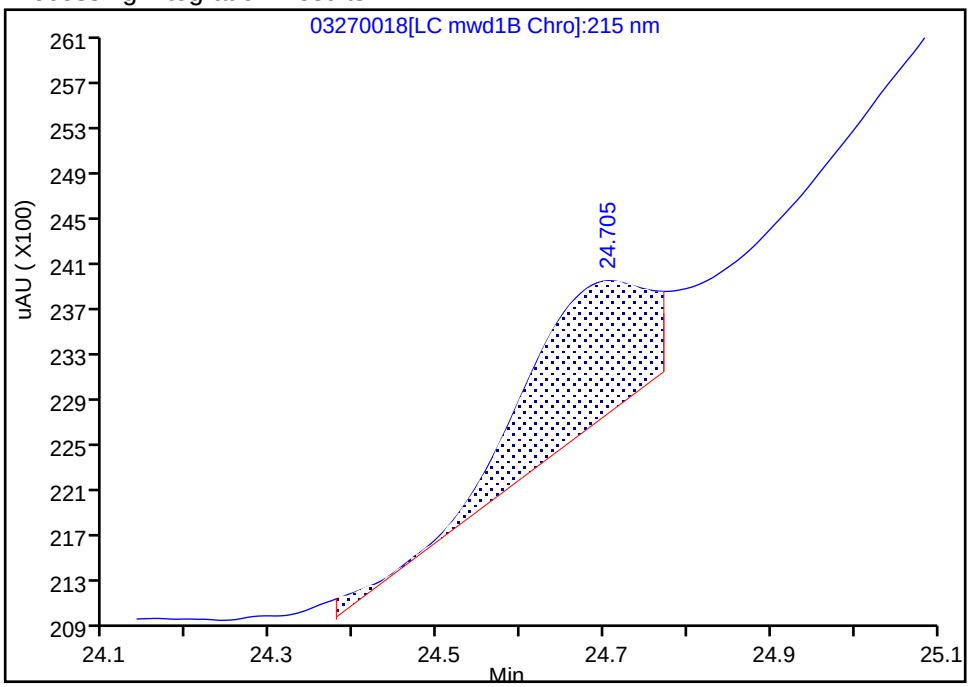
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D
Injection Date: 28-Mar-2024 00:38:31 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1B, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

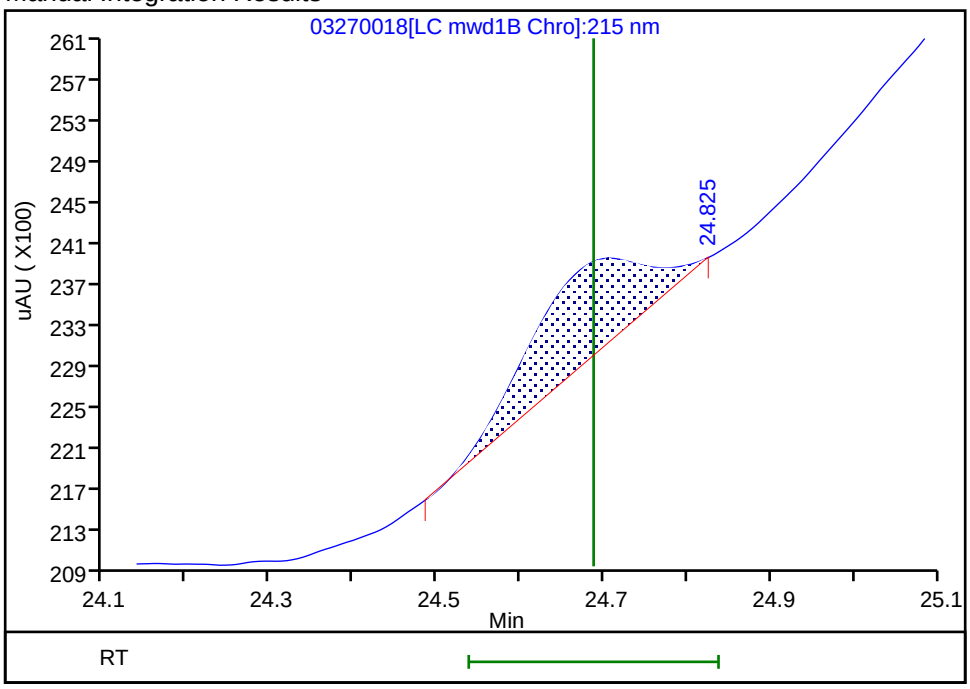
Processing Integration Results

RT: 24.71
Area: 12976
Amount: 0.091775
Amount Units: ug/ml



Manual Integration Results

RT: 24.83
Area: 8982
Amount: 0.102352
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:39:20 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Calibration / HMX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

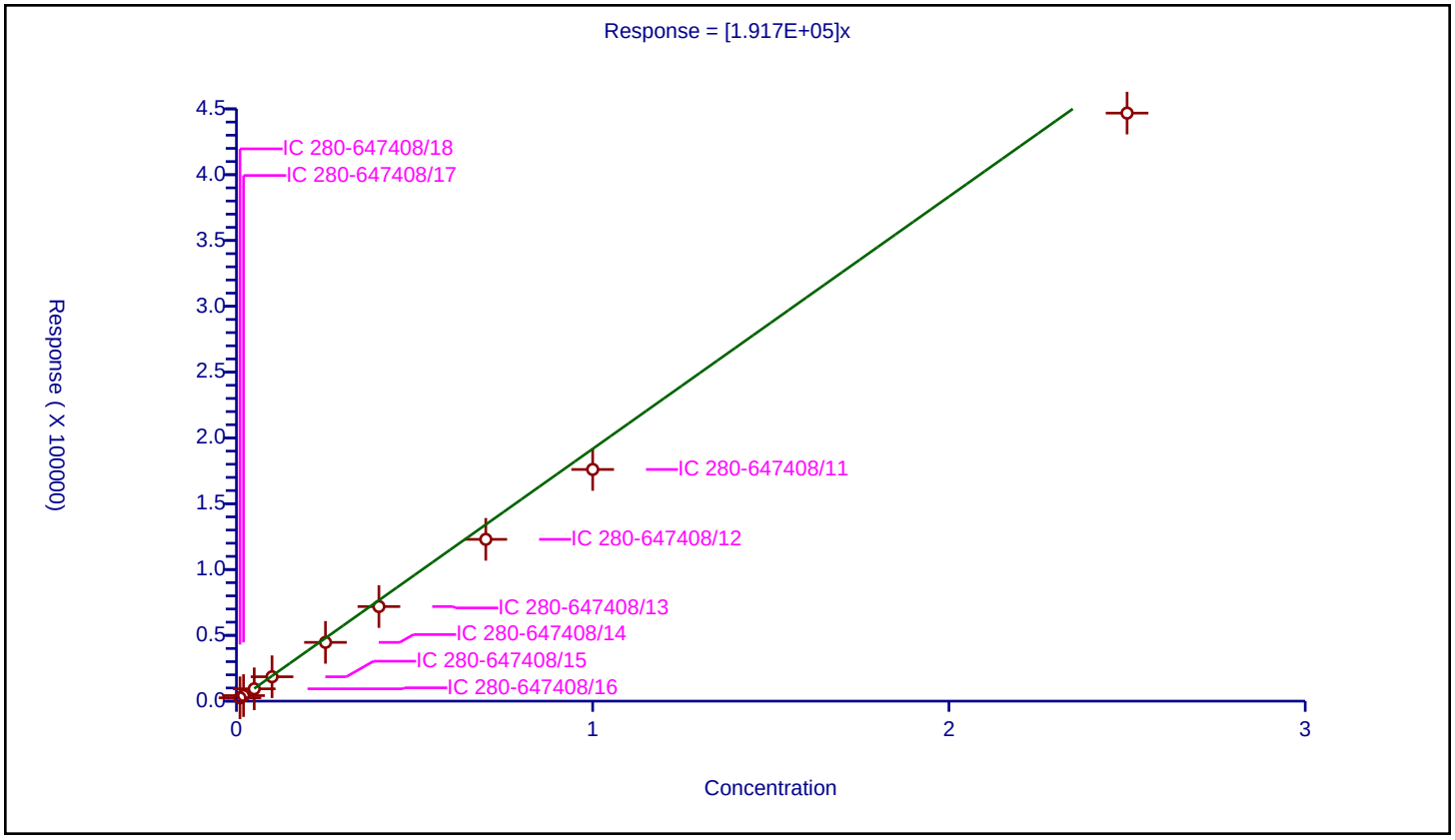
Curve Coefficients

Intercept:	0
Slope:	1.917E+05

Error Coefficients

Relative Standard Deviation:	13.4

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	2536.0			253600.0	Y
2	IC 280-647408/17	0.02	4212.0			210600.0	Y
3	IC 280-647408/16	0.05	9356.0			187120.0	Y
4	IC 280-647408/15	0.1	18521.0			185210.0	Y
5	IC 280-647408/14	0.25	44644.0			178576.0	Y
6	IC 280-647408/13	0.4	71870.0			179675.0	Y
7	IC 280-647408/12	0.7	122924.0			175605.714286	Y
8	IC 280-647408/11	1.0	176039.0			176039.0	Y
9	IC 280-647408/10	2.5	446811.0			178724.4	Y



Calibration / 2,4,6-Trinitrophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

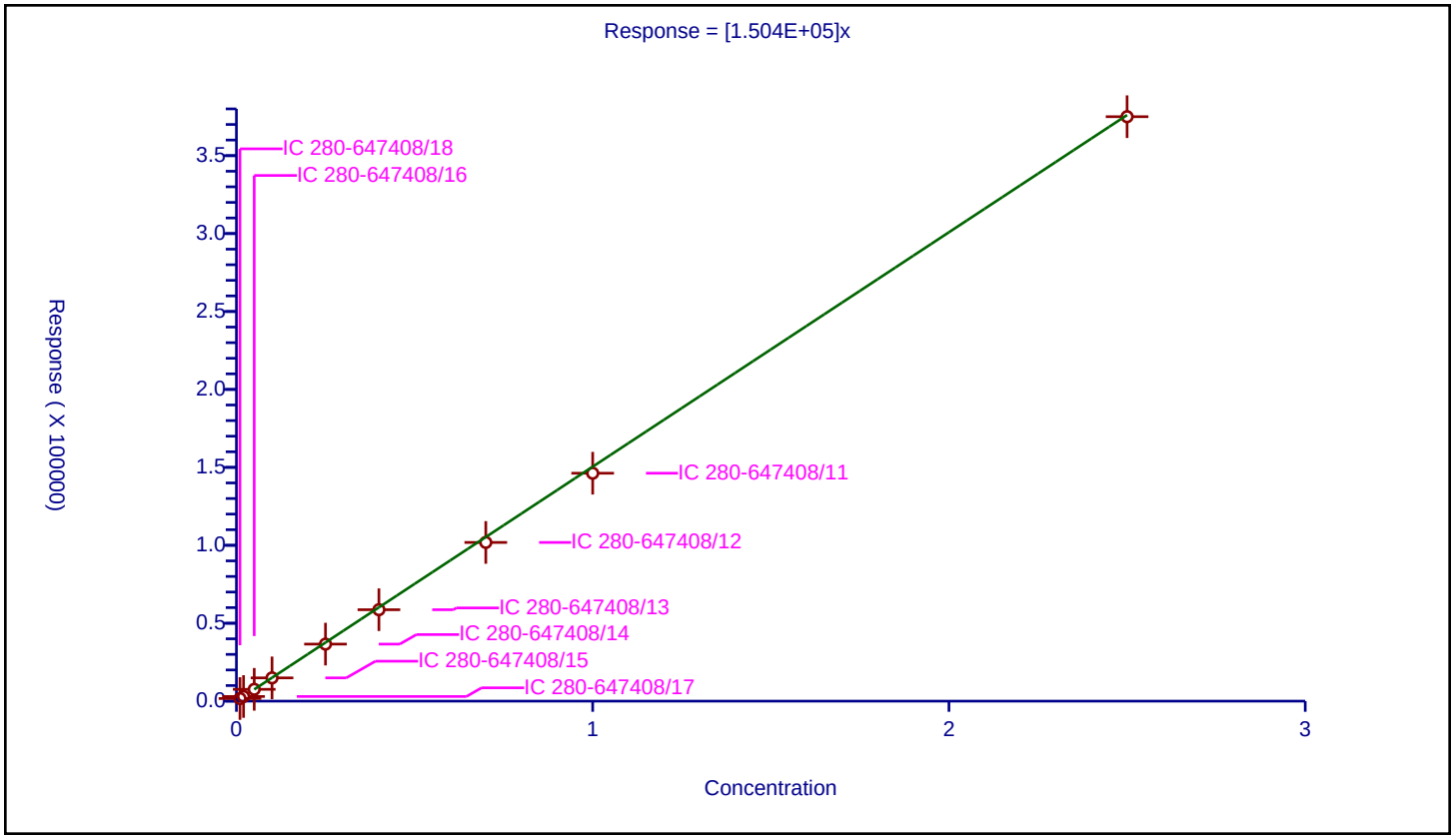
Curve Coefficients

Intercept:	0
Slope:	1.504E+05

Error Coefficients

Relative Standard Deviation:	4.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	1687.0			168700.0	Y
2	IC 280-647408/17	0.02	2989.0			149450.0	Y
3	IC 280-647408/16	0.05	7577.0			151540.0	Y
4	IC 280-647408/15	0.1	14935.0			149350.0	Y
5	IC 280-647408/14	0.25	36592.0			146368.0	Y
6	IC 280-647408/13	0.4	58665.0			146662.5	Y
7	IC 280-647408/12	0.7	101830.0			145471.428571	Y
8	IC 280-647408/11	1.0	146238.0			146238.0	Y
9	IC 280-647408/10	2.5	375001.0			150000.4	Y



5/23/2024
4:40:30 AM

Calibration / RDX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

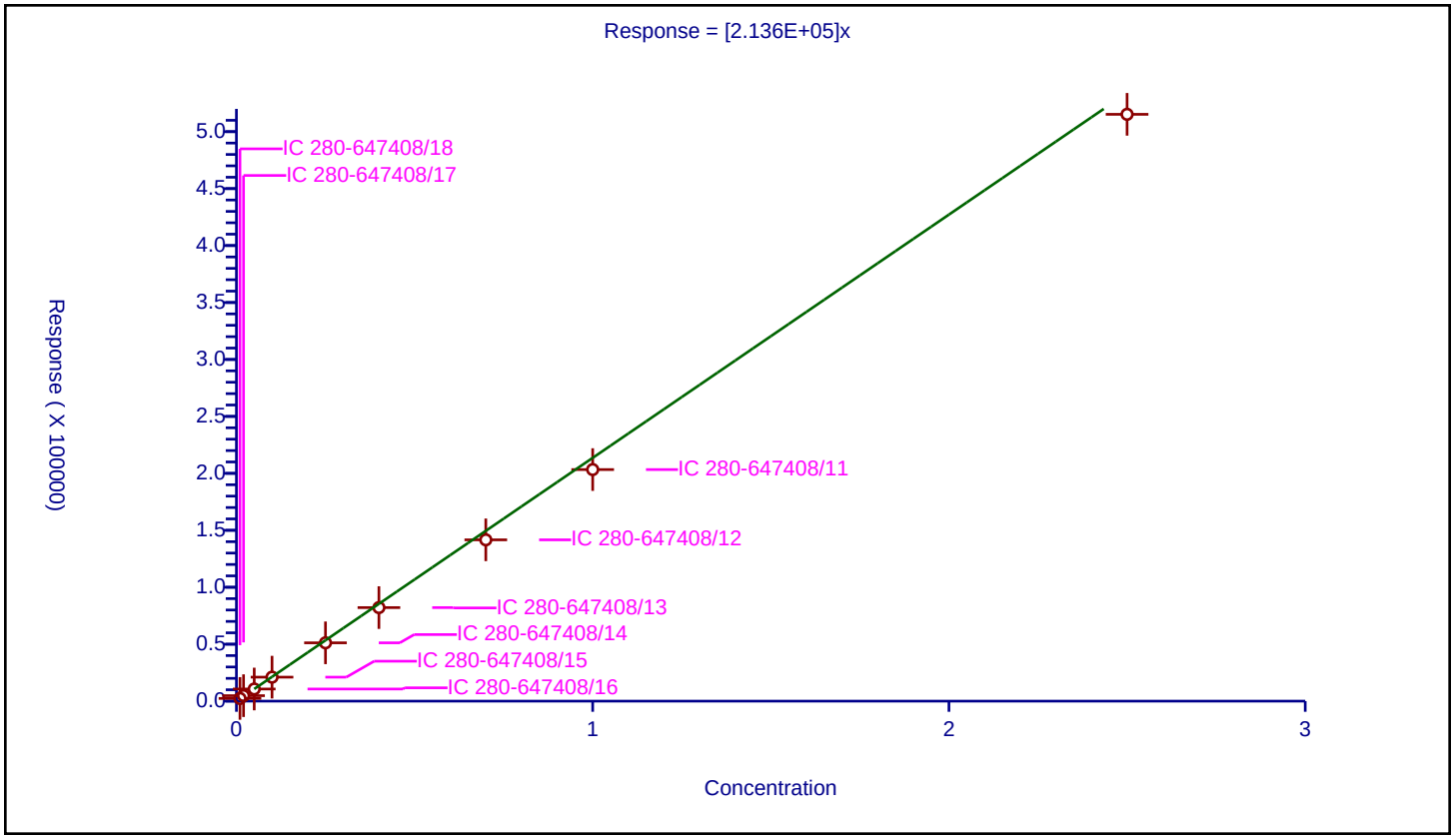
Curve Coefficients

Intercept:	0
Slope:	2.136E+05

Error Coefficients

Relative Standard Deviation:	6.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	2368.0			236800.0	Y
2	IC 280-647408/17	0.02	4799.0			239950.0	Y
3	IC 280-647408/16	0.05	10653.0			213060.0	Y
4	IC 280-647408/15	0.1	21066.0			210660.0	Y
5	IC 280-647408/14	0.25	51199.0			204796.0	Y
6	IC 280-647408/13	0.4	82139.0			205347.5	Y
7	IC 280-647408/12	0.7	141632.0			202331.428571	Y
8	IC 280-647408/11	1.0	203312.0			203312.0	Y
9	IC 280-647408/10	2.5	515221.0			206088.4	Y



5/23/2024
4:40:30 AM

Calibration / Nitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

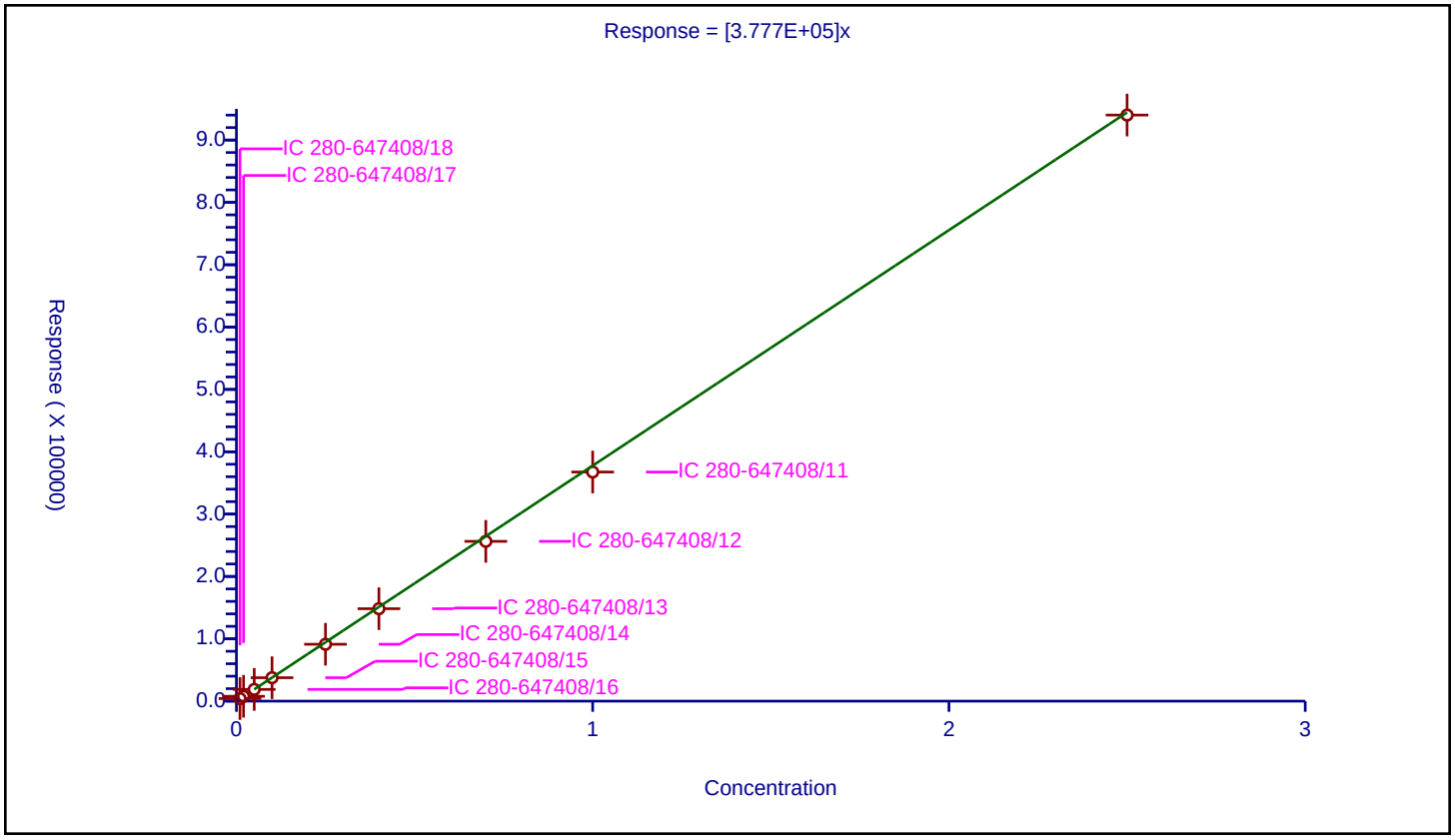
Curve Coefficients

Intercept:	0
Slope:	3.777E+05

Error Coefficients

Relative Standard Deviation:	3.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	4113.0			411300.0	Y
2	IC 280-647408/17	0.02	7815.0			390750.0	Y
3	IC 280-647408/16	0.05	18828.0			376560.0	Y
4	IC 280-647408/15	0.1	37579.0			375790.0	Y
5	IC 280-647408/14	0.25	91228.0			364912.0	Y
6	IC 280-647408/13	0.4	148265.0			370662.5	Y
7	IC 280-647408/12	0.7	256305.0			366150.0	Y
8	IC 280-647408/11	1.0	367527.0			367527.0	Y
9	IC 280-647408/10	2.5	940071.0			376028.4	Y



Calibration / 1,2-Dinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

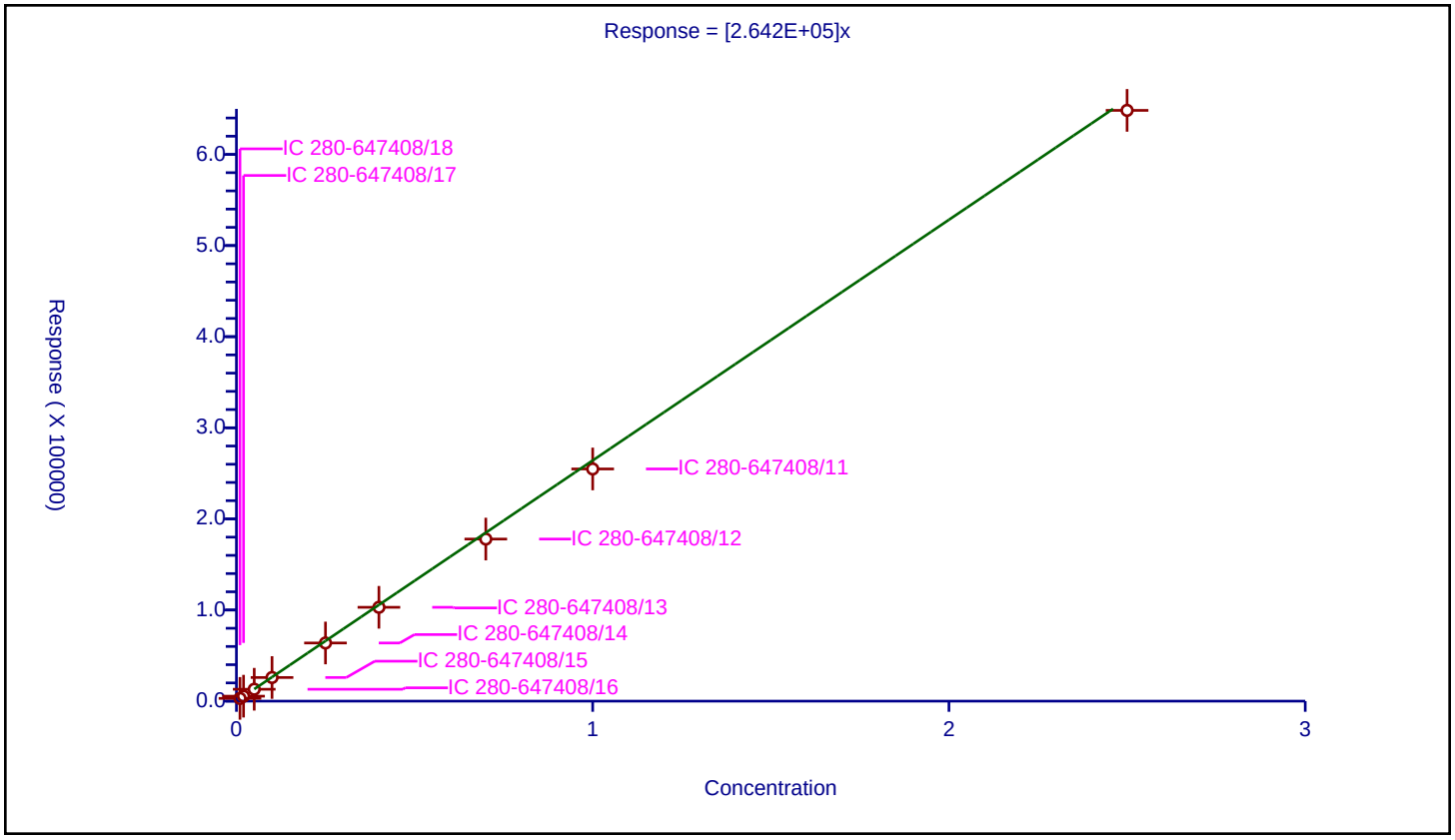
Curve Coefficients

Intercept:	0
Slope:	2.642E+05

Error Coefficients

Relative Standard Deviation:	5.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	3032.0			303200.0	Y
2	IC 280-647408/17	0.02	5446.0			272300.0	Y
3	IC 280-647408/16	0.05	13065.0			261300.0	Y
4	IC 280-647408/15	0.1	25950.0			259500.0	Y
5	IC 280-647408/14	0.25	63832.0			255328.0	Y
6	IC 280-647408/13	0.4	102985.0			257462.5	Y
7	IC 280-647408/12	0.7	177880.0			254114.285714	Y
8	IC 280-647408/11	1.0	254825.0			254825.0	Y
9	IC 280-647408/10	2.5	648358.0			259343.2	Y



5/23/2024
4:40:30 AM

Calibration / 3,5-Dinitroaniline

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

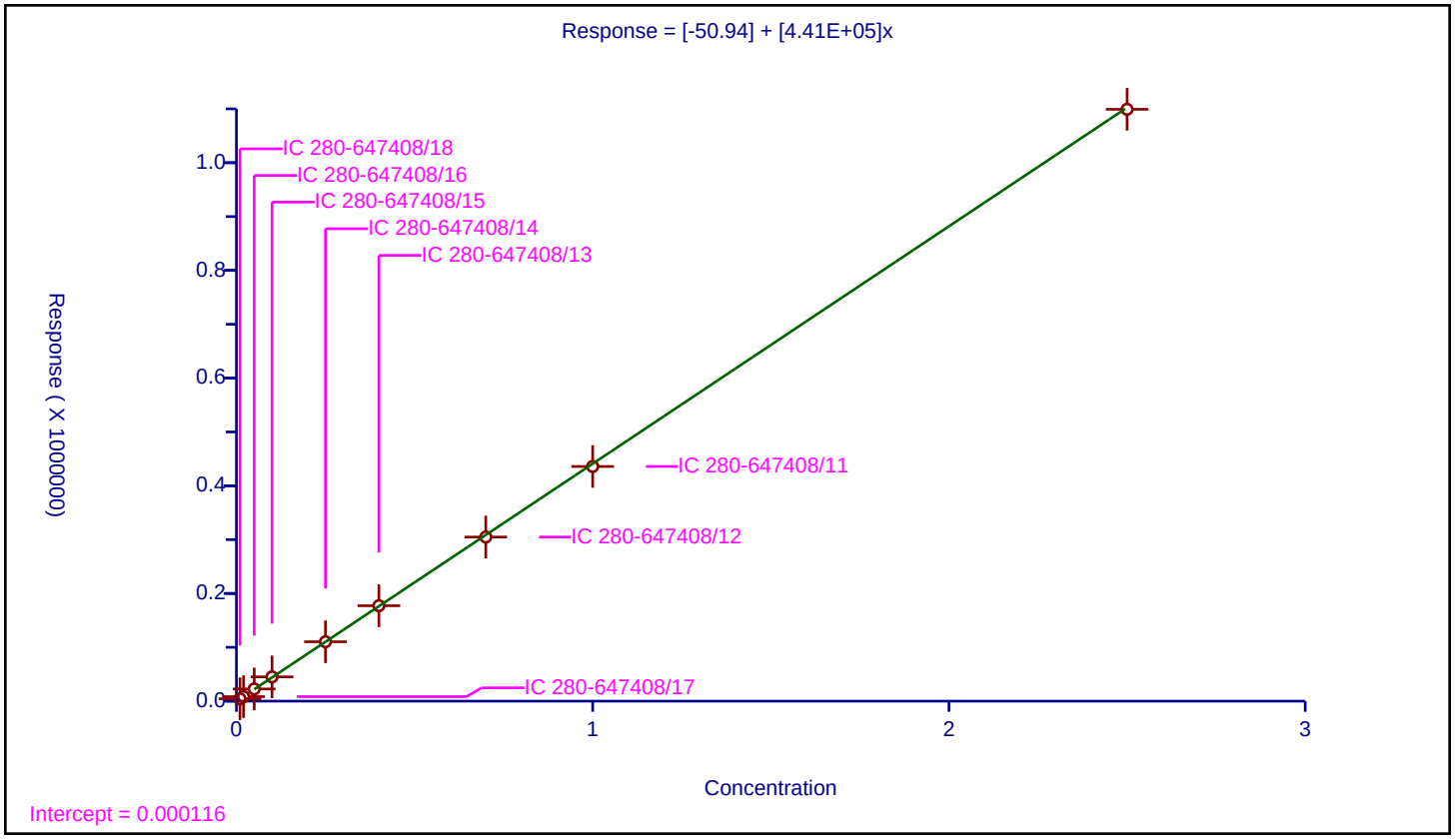
Curve Coefficients

Intercept:	-50.94
Slope:	4.41E+05

Error Coefficients

Relative Standard Deviation:	2.4

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	4425.0			442500.0	Y
2	IC 280-647408/17	0.02	8366.0			418300.0	Y
3	IC 280-647408/16	0.05	22622.0			452440.0	Y
4	IC 280-647408/15	0.1	45083.0			450830.0	Y
5	IC 280-647408/14	0.25	110304.0			441216.0	Y
6	IC 280-647408/13	0.4	177203.0			443007.5	Y
7	IC 280-647408/12	0.7	304802.0			435431.428571	Y
8	IC 280-647408/11	1.0	435844.0			435844.0	Y
9	IC 280-647408/10	2.5	1099211.0			439684.4	Y



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Calibration / 1,3-Dinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

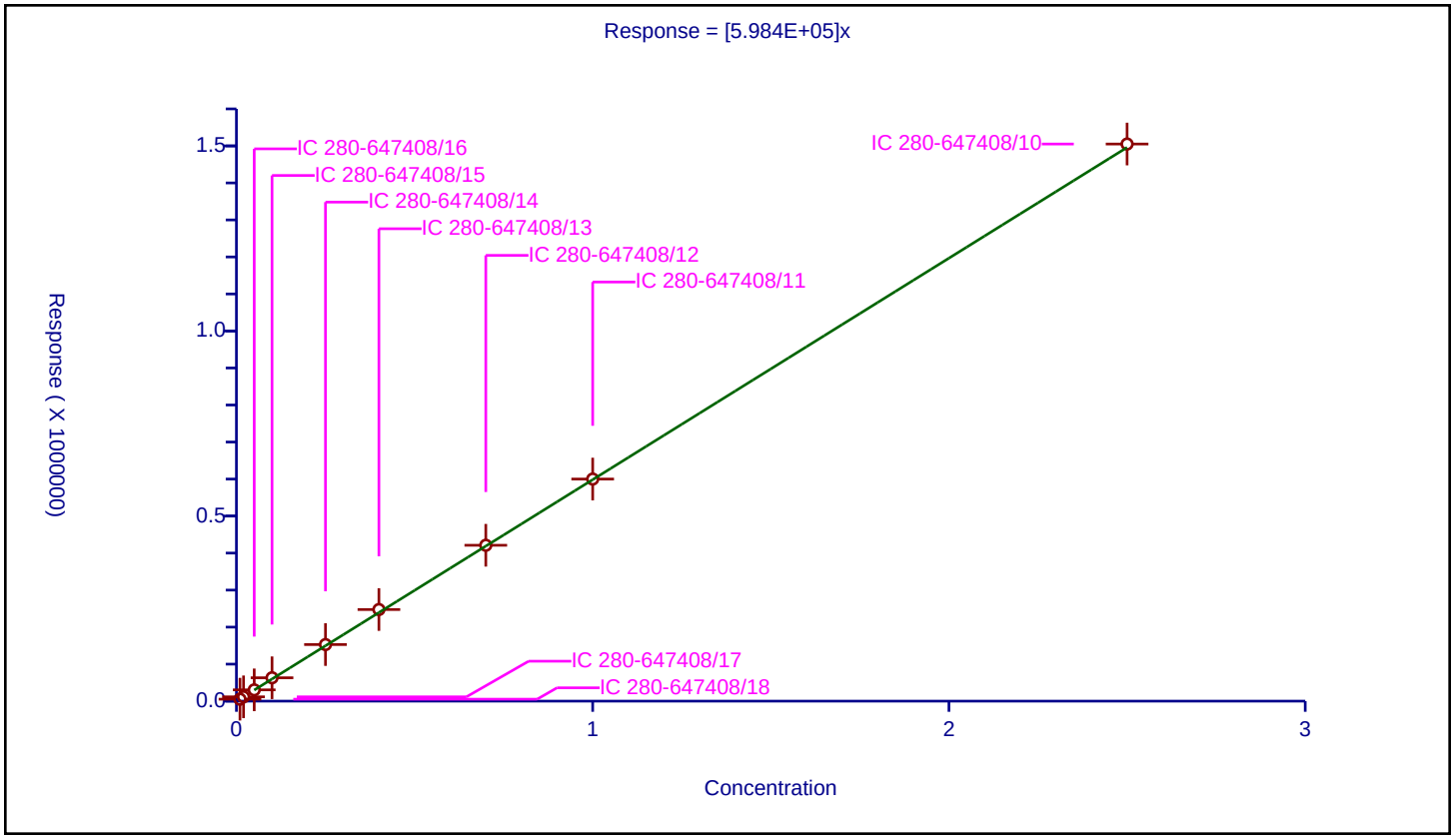
Curve Coefficients

Intercept:	0
Slope:	5.984E+05

Error Coefficients

Relative Standard Deviation:	4.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	5312.0			531200.0	Y
2	IC 280-647408/17	0.02	11588.0			579400.0	Y
3	IC 280-647408/16	0.05	30462.0			609240.0	Y
4	IC 280-647408/15	0.1	63169.0			631690.0	Y
5	IC 280-647408/14	0.25	152858.0			611432.0	Y
6	IC 280-647408/13	0.4	247490.0			618725.0	Y
7	IC 280-647408/12	0.7	421120.0			601600.0	Y
8	IC 280-647408/11	1.0	599978.0			599978.0	Y
9	IC 280-647408/10	2.5	1505083.0			602033.2	Y



Calibration / Nitroglycerin

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

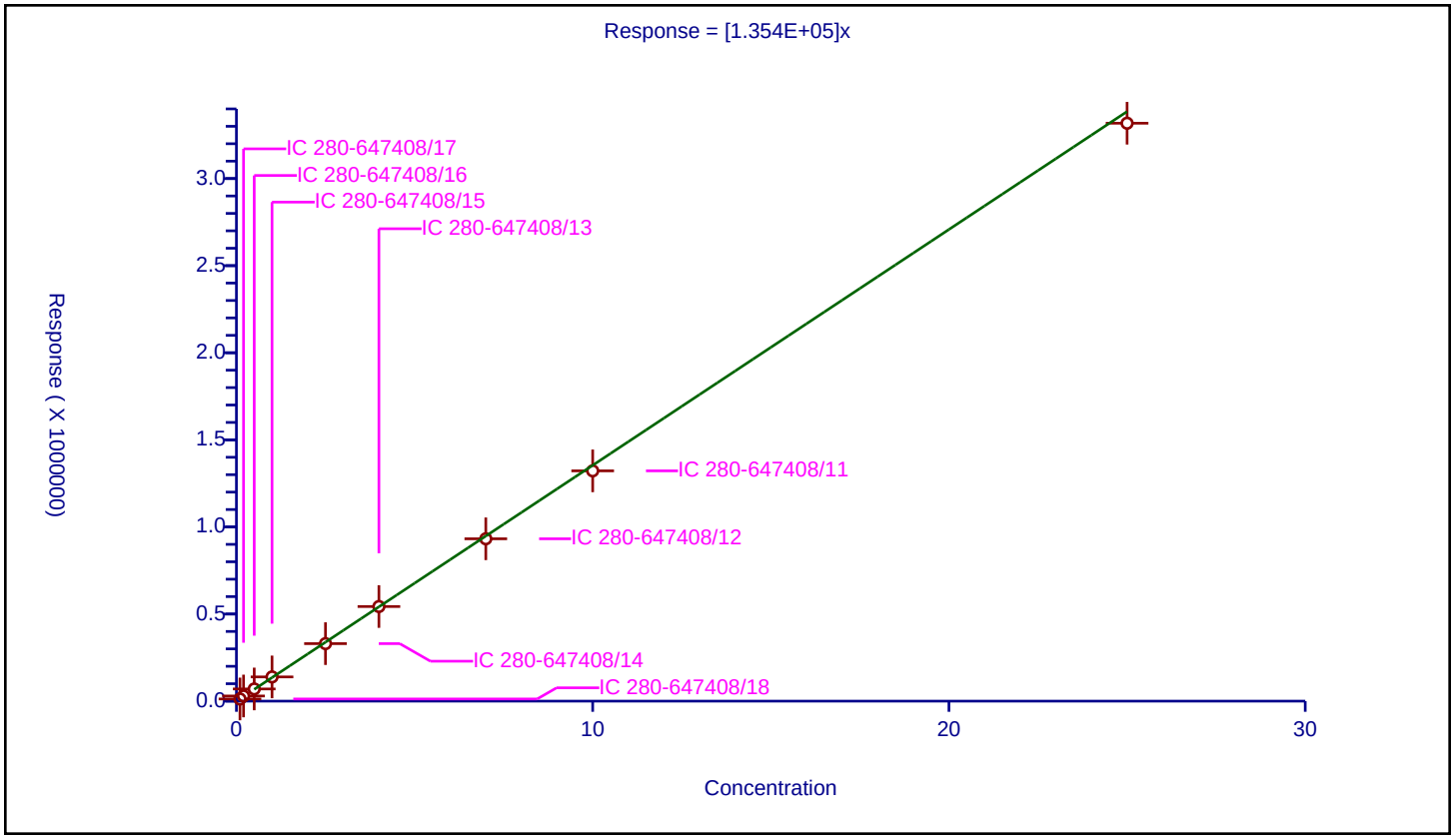
Curve Coefficients

Intercept:	0
Slope:	1.354E+05

Error Coefficients

Relative Standard Deviation:	4.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.1	12537.0			125370.0	Y
2	IC 280-647408/17	0.2	29624.0			148120.0	Y
3	IC 280-647408/16	0.5	69985.0			139970.0	Y
4	IC 280-647408/15	1.0	139113.0			139113.0	Y
5	IC 280-647408/14	2.5	330187.0			132074.8	Y
6	IC 280-647408/13	4.0	543150.0			135787.5	Y
7	IC 280-647408/12	7.0	932056.0			133150.857143	Y
8	IC 280-647408/11	10.0	1322106.0			132210.6	Y
9	IC 280-647408/10	25.0	3317794.0			132711.76	Y



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Calibration / o-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

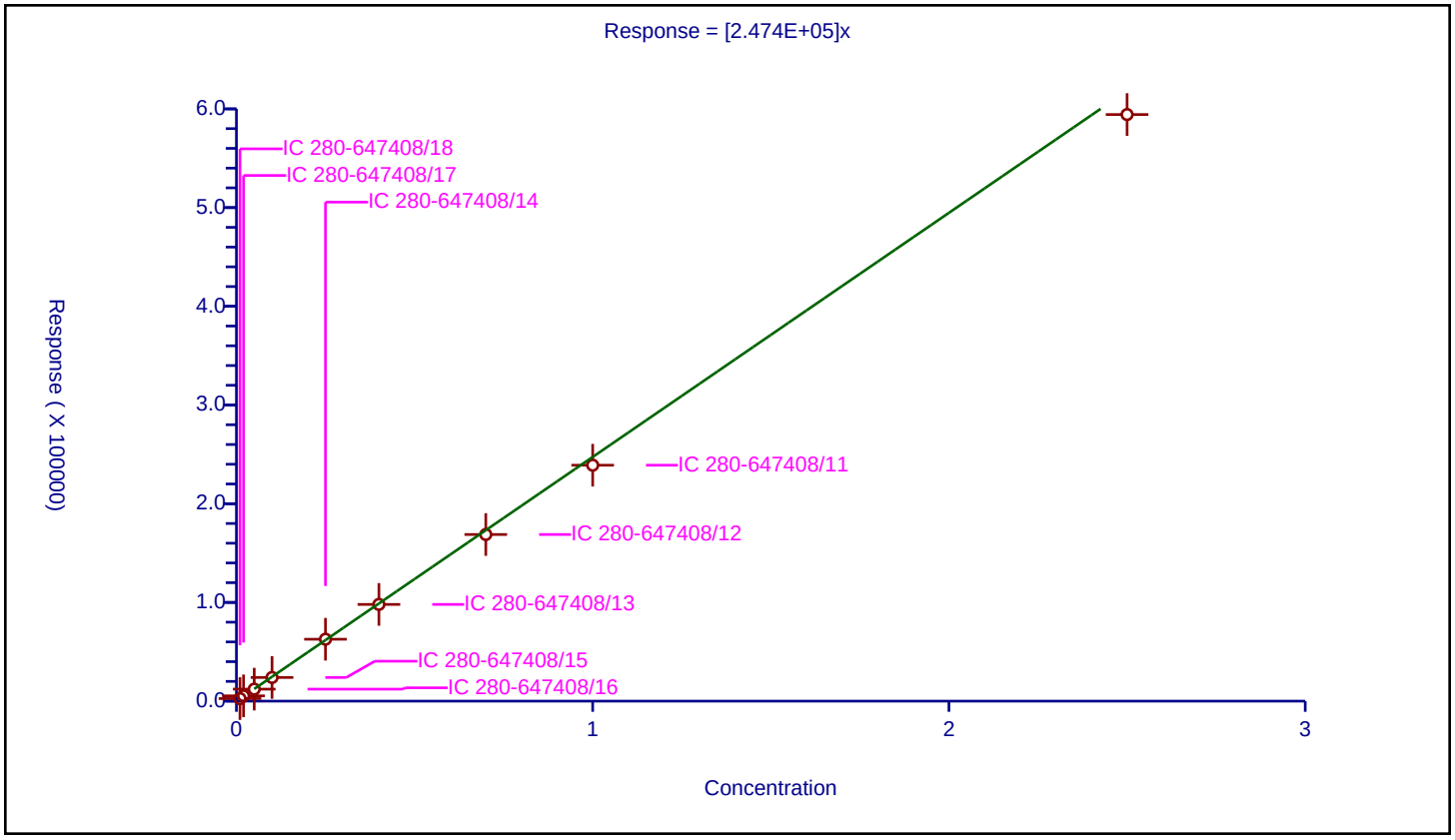
Curve Coefficients

Intercept:	0
Slope:	2.474E+05

Error Coefficients

Relative Standard Deviation:	4.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	2612.0			261200.0	Y
2	IC 280-647408/17	0.02	5365.0			268250.0	Y
3	IC 280-647408/16	0.05	12161.0			243220.0	Y
4	IC 280-647408/15	0.1	23970.0			239700.0	Y
5	IC 280-647408/14	0.25	62730.0			250920.0	Y
6	IC 280-647408/13	0.4	98000.0			245000.0	Y
7	IC 280-647408/12	0.7	168804.0			241148.571429	Y
8	IC 280-647408/11	1.0	239038.0			239038.0	Y
9	IC 280-647408/10	2.5	594270.0			237708.0	Y



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Calibration / p-Nitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

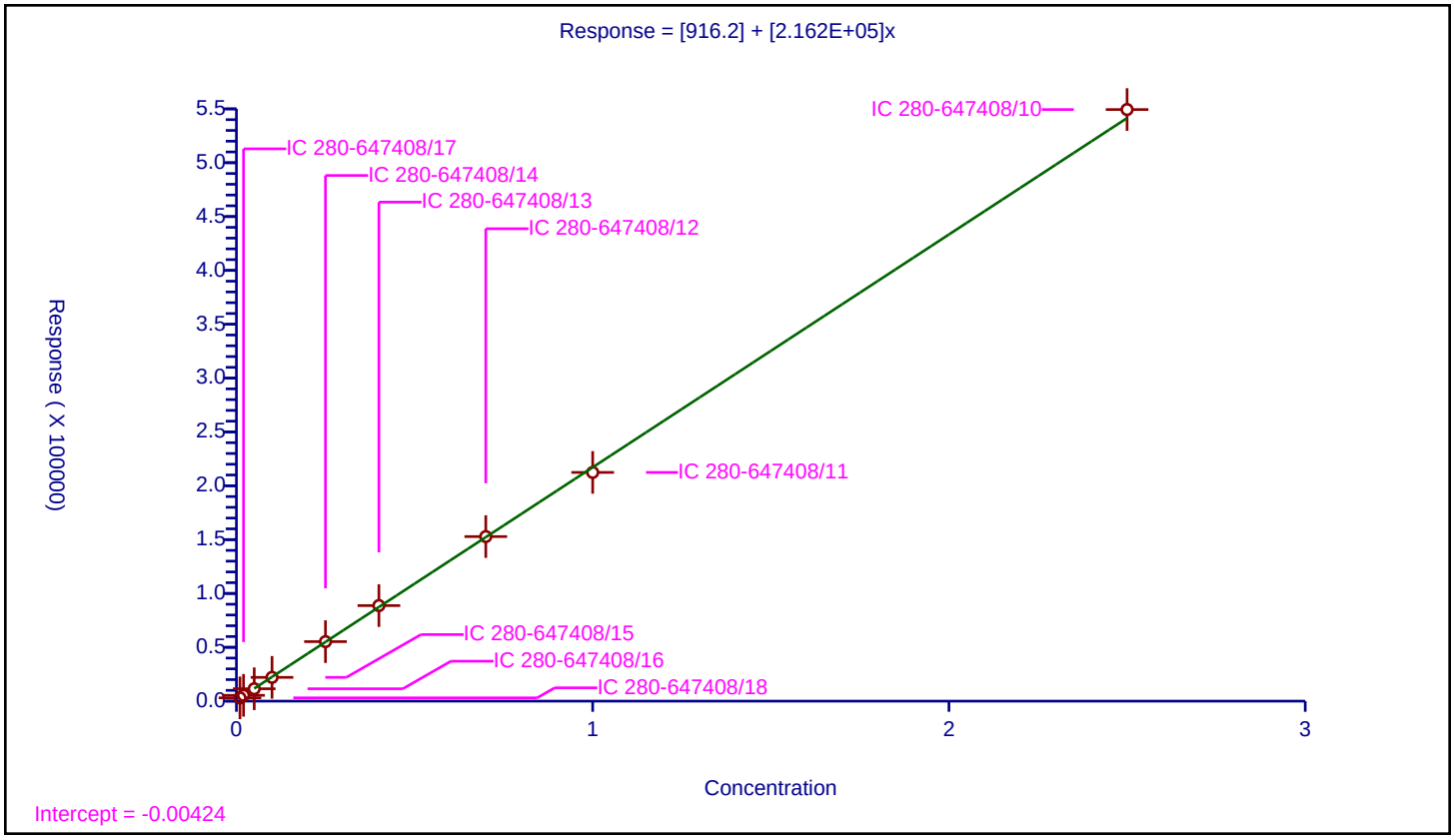
Curve Coefficients

Intercept:	916.2
Slope:	2.162E+05

Error Coefficients

Relative Standard Deviation:	2.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	3049.0			304900.0	Y
2	IC 280-647408/17	0.02	5409.0			270450.0	Y
3	IC 280-647408/16	0.05	11499.0			229980.0	Y
4	IC 280-647408/15	0.1	22083.0			220830.0	Y
5	IC 280-647408/14	0.25	55261.0			221044.0	Y
6	IC 280-647408/13	0.4	88722.0			221805.0	Y
7	IC 280-647408/12	0.7	152824.0			218320.0	Y
8	IC 280-647408/11	1.0	212404.0			212404.0	Y
9	IC 280-647408/10	2.5	549379.0			219751.6	Y



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Calibration / 4-Amino-2,6-dinitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

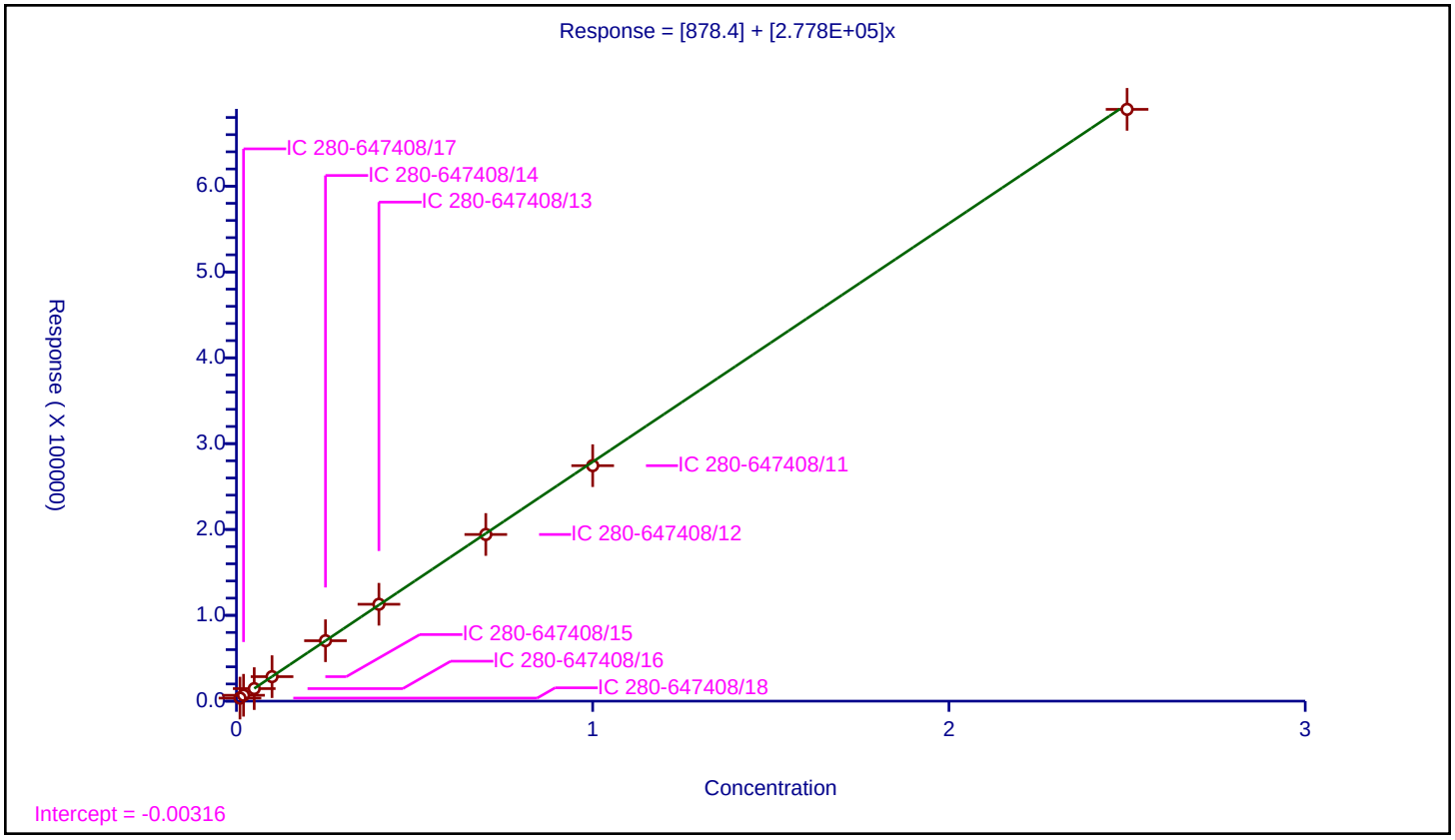
Curve Coefficients

Intercept:	878.4
Slope:	2.778E+05

Error Coefficients

Relative Standard Deviation:	3.2

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	3564.0			356400.0	Y
2	IC 280-647408/17	0.02	6841.0			342050.0	Y
3	IC 280-647408/16	0.05	14588.0			291760.0	Y
4	IC 280-647408/15	0.1	28535.0			285350.0	Y
5	IC 280-647408/14	0.25	70385.0			281540.0	Y
6	IC 280-647408/13	0.4	112872.0			282180.0	Y
7	IC 280-647408/12	0.7	194181.0			277401.428571	Y
8	IC 280-647408/11	1.0	274352.0			274352.0	Y
9	IC 280-647408/10	2.5	689480.0			275792.0	Y



Calibration / m-Nitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

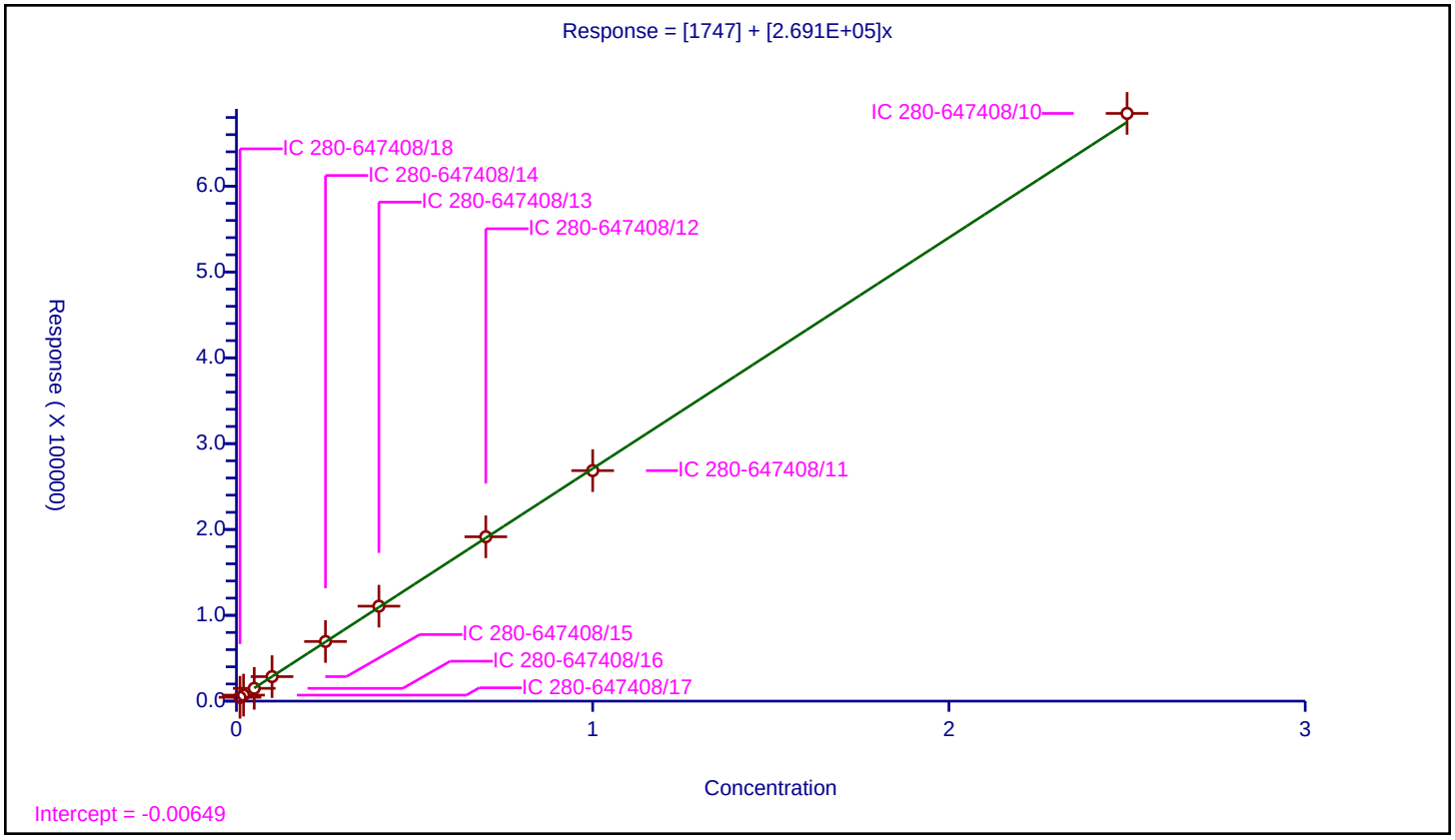
Curve Coefficients

Intercept:	1747
Slope:	2.691E+05

Error Coefficients

Relative Standard Deviation:	1.6

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	4479.0			447900.0	Y
2	IC 280-647408/17	0.02	7013.0			350650.0	Y
3	IC 280-647408/16	0.05	14909.0			298180.0	Y
4	IC 280-647408/15	0.1	28570.0			285700.0	Y
5	IC 280-647408/14	0.25	69503.0			278012.0	Y
6	IC 280-647408/13	0.4	110632.0			276580.0	Y
7	IC 280-647408/12	0.7	191495.0			273564.285714	Y
8	IC 280-647408/11	1.0	268594.0			268594.0	Y
9	IC 280-647408/10	2.5	684753.0			273901.2	Y



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Calibration / 2-Amino-4,6-dinitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

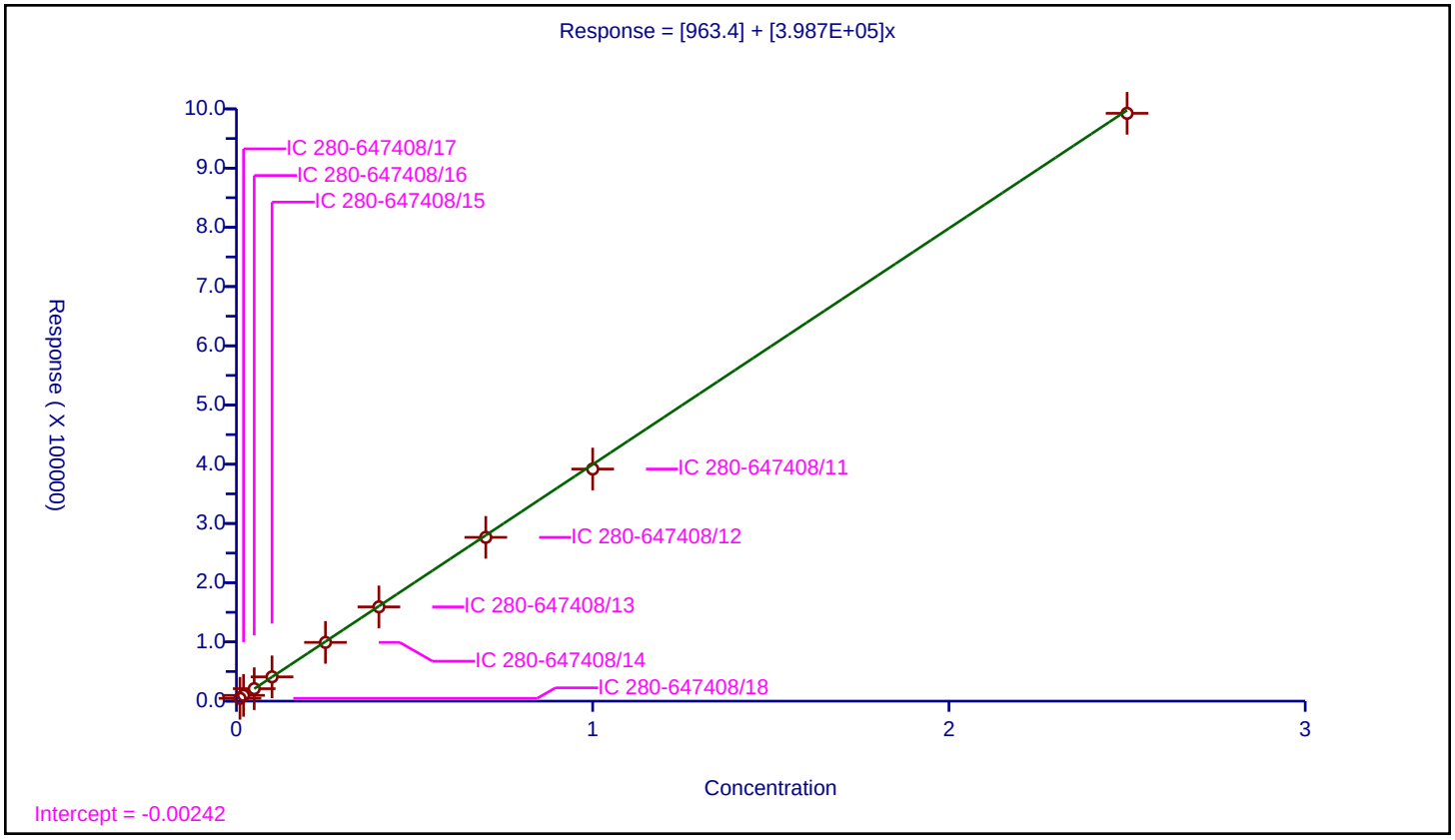
Curve Coefficients

Intercept:	963.4
Slope:	3.987E+05

Error Coefficients

Relative Standard Deviation:	4.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	4751.0			475100.0	Y
2	IC 280-647408/17	0.02	9727.0			486350.0	Y
3	IC 280-647408/16	0.05	21010.0			420200.0	Y
4	IC 280-647408/15	0.1	41030.0			410300.0	Y
5	IC 280-647408/14	0.25	99171.0			396684.0	Y
6	IC 280-647408/13	0.4	159194.0			397985.0	Y
7	IC 280-647408/12	0.7	276553.0			395075.714286	Y
8	IC 280-647408/11	1.0	391883.0			391883.0	Y
9	IC 280-647408/10	2.5	992531.0			397012.4	Y



Calibration / 1,3,5-Trinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

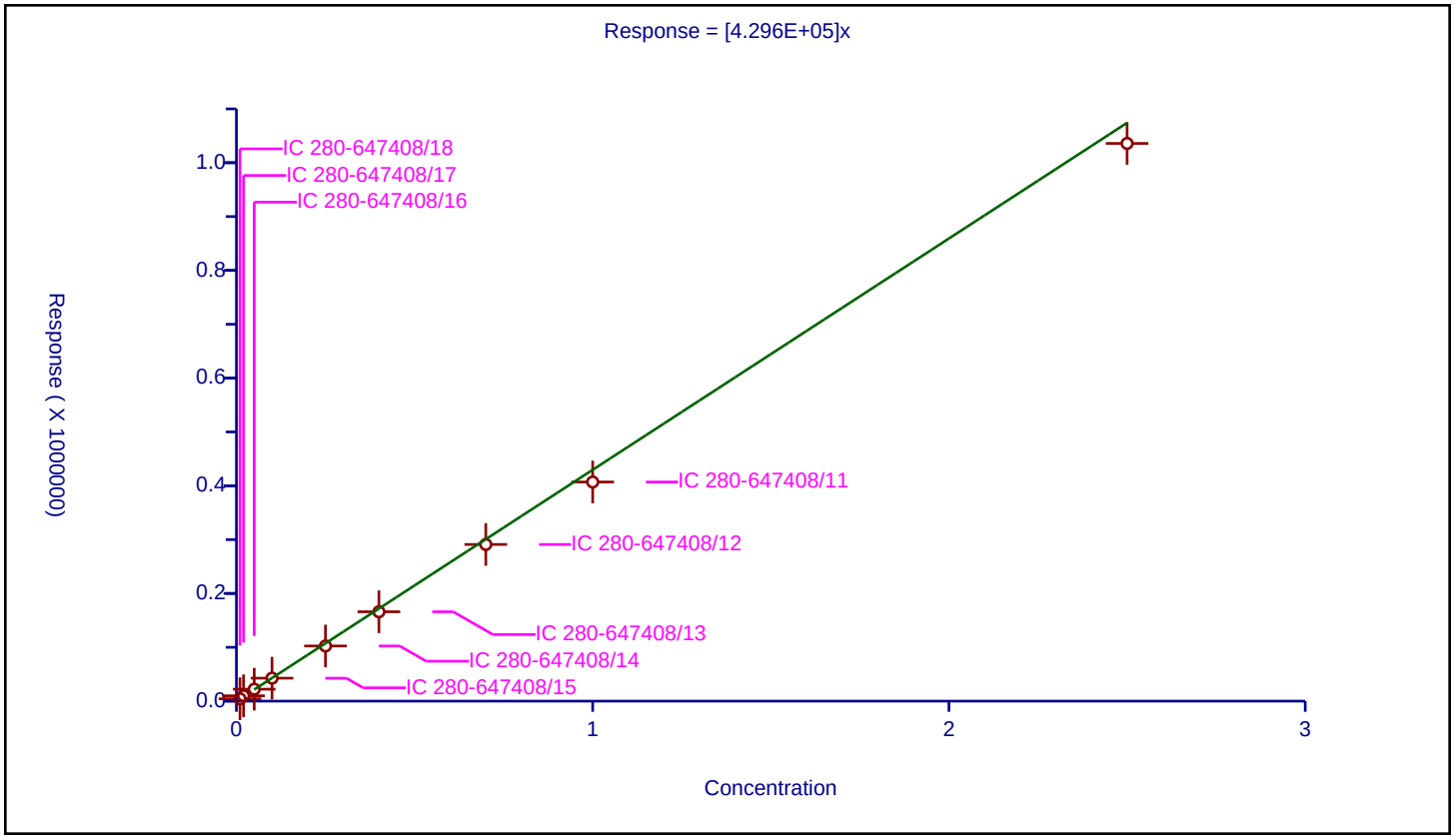
Curve Coefficients

Intercept:	0
Slope:	4.296E+05

Error Coefficients

Relative Standard Deviation:	6.6

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	4376.0			437600.0	Y
2	IC 280-647408/17	0.02	9936.0			496800.0	Y
3	IC 280-647408/16	0.05	22192.0			443840.0	Y
4	IC 280-647408/15	0.1	42679.0			426790.0	Y
5	IC 280-647408/14	0.25	102407.0			409628.0	Y
6	IC 280-647408/13	0.4	165995.0			414987.5	Y
7	IC 280-647408/12	0.7	290999.0			415712.857143	Y
8	IC 280-647408/11	1.0	407003.0			407003.0	Y
9	IC 280-647408/10	2.5	1035852.0			414340.8	Y



Calibration / 2,6-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

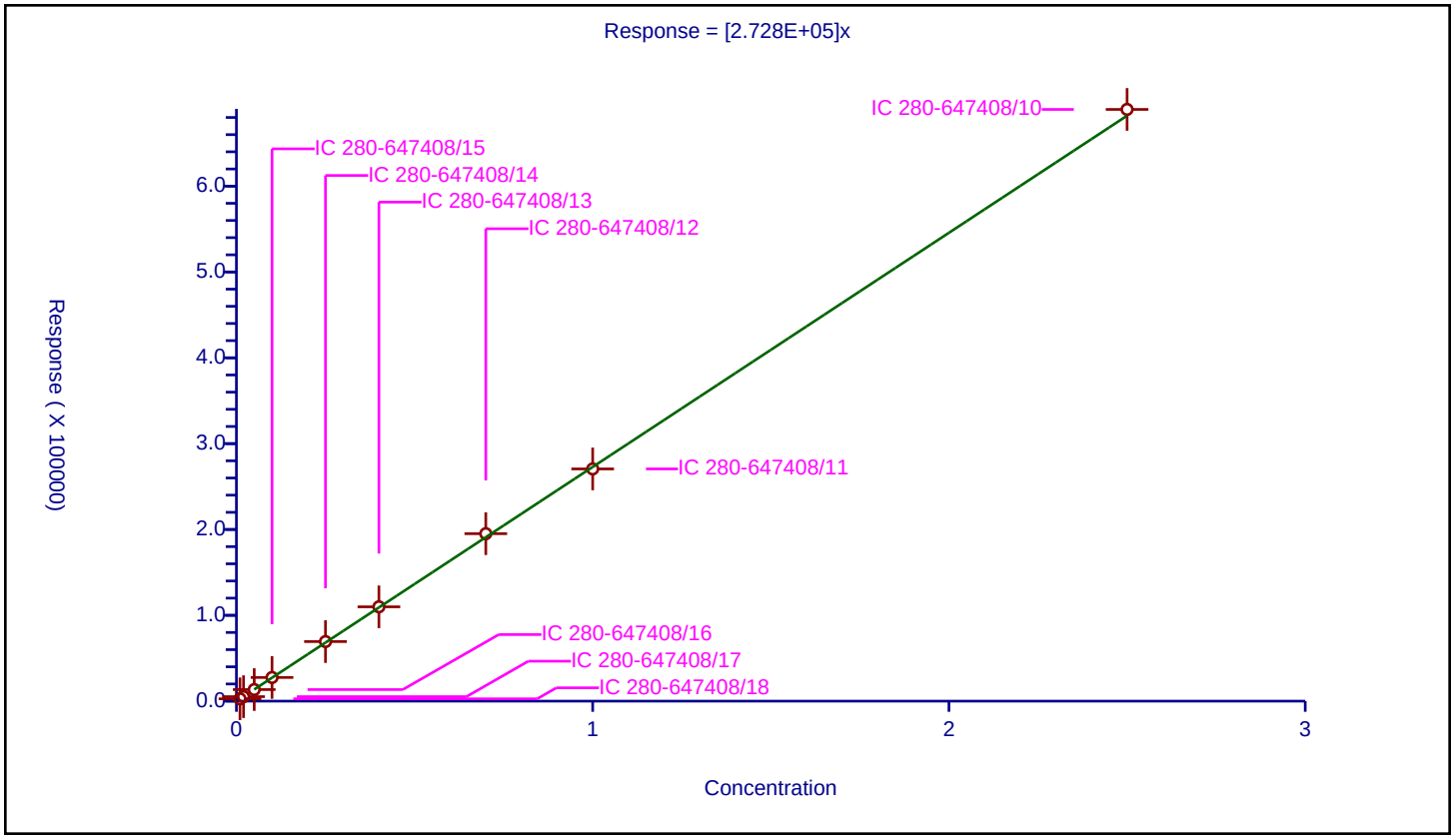
Curve Coefficients

Intercept:	0
Slope:	2.728E+05

Error Coefficients

Relative Standard Deviation:	2.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	2716.0			271600.0	Y
2	IC 280-647408/17	0.02	5223.0			261150.0	Y
3	IC 280-647408/16	0.05	13493.0			269860.0	Y
4	IC 280-647408/15	0.1	27556.0			275560.0	Y
5	IC 280-647408/14	0.25	69384.0			277536.0	Y
6	IC 280-647408/13	0.4	109904.0			274760.0	Y
7	IC 280-647408/12	0.7	195115.0			278735.714286	Y
8	IC 280-647408/11	1.0	270529.0			270529.0	Y
9	IC 280-647408/10	2.5	689381.0			275752.4	Y



Calibration / 2,4-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

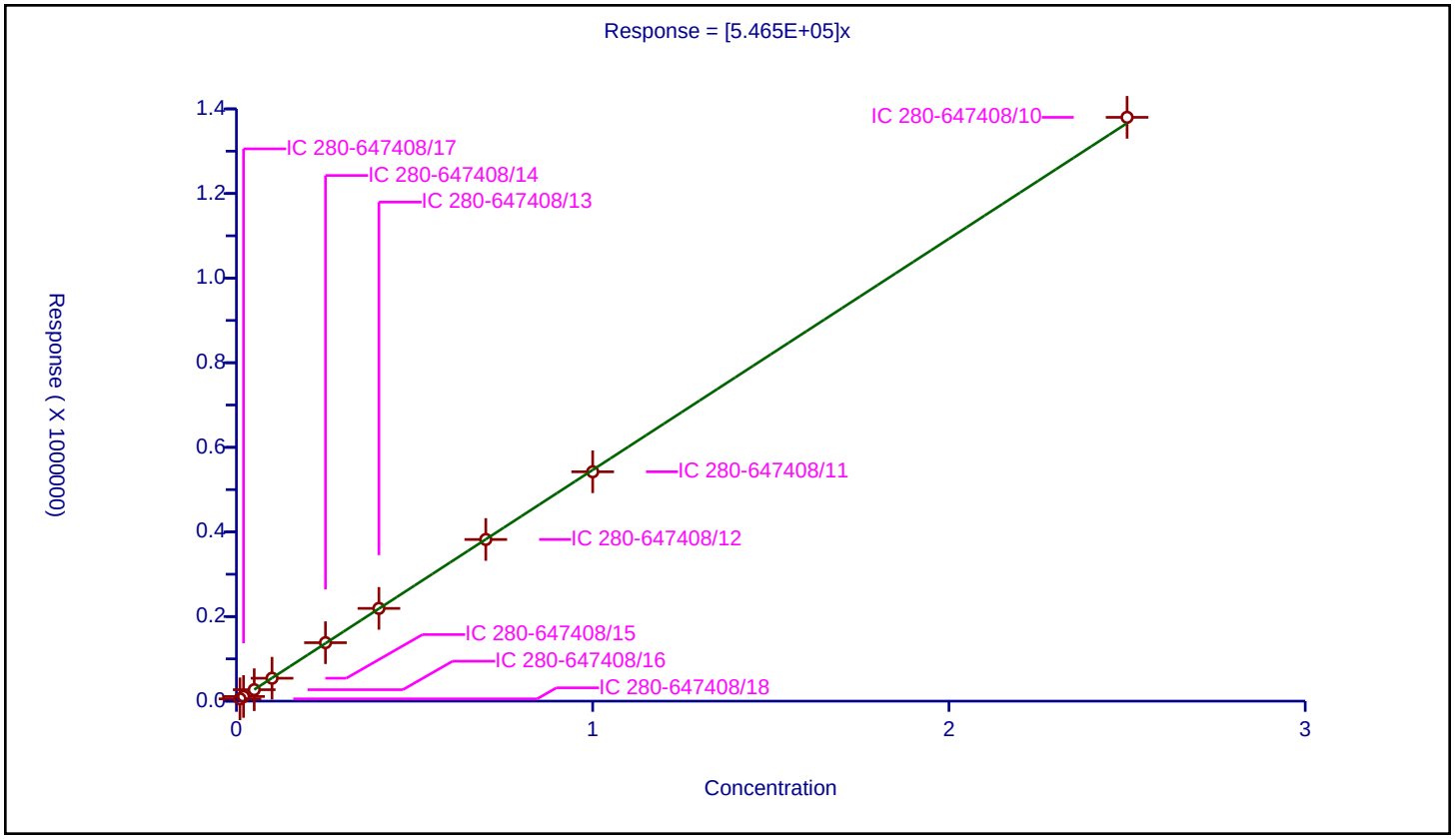
Curve Coefficients

Intercept:	0
Slope:	5.465E+05

Error Coefficients

Relative Standard Deviation:	0.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	5455.0			545500.0	Y
2	IC 280-647408/17	0.02	10999.0			549950.0	Y
3	IC 280-647408/16	0.05	27016.0			540320.0	Y
4	IC 280-647408/15	0.1	54196.0			541960.0	Y
5	IC 280-647408/14	0.25	138171.0			552684.0	Y
6	IC 280-647408/13	0.4	219281.0			548202.5	Y
7	IC 280-647408/12	0.7	382126.0			545894.285714	Y
8	IC 280-647408/11	1.0	542165.0			542165.0	Y
9	IC 280-647408/10	2.5	1380071.0			552028.4	Y



Calibration / Tetryl

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

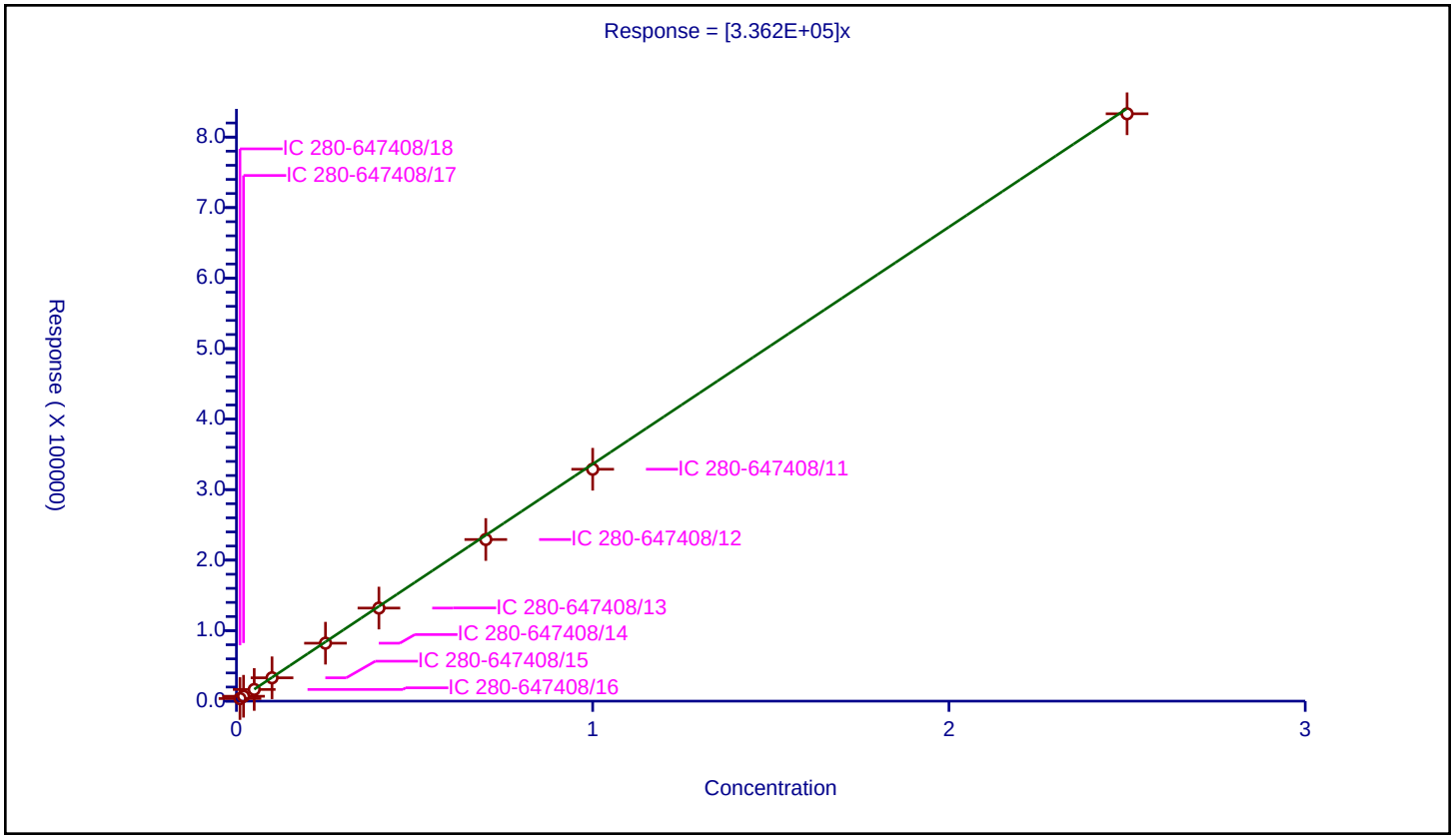
Curve Coefficients

Intercept:	0
Slope:	3.362E+05

Error Coefficients

Relative Standard Deviation:	4.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	3690.0			369000.0	Y
2	IC 280-647408/17	0.02	6925.0			346250.0	Y
3	IC 280-647408/16	0.05	16569.0			331380.0	Y
4	IC 280-647408/15	0.1	33110.0			331100.0	Y
5	IC 280-647408/14	0.25	82183.0			328732.0	Y
6	IC 280-647408/13	0.4	132022.0			330055.0	Y
7	IC 280-647408/12	0.7	229246.0			327494.285714	Y
8	IC 280-647408/11	1.0	328904.0			328904.0	Y
9	IC 280-647408/10	2.5	833080.0			333232.0	Y



Calibration / 2,4,6-Trinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

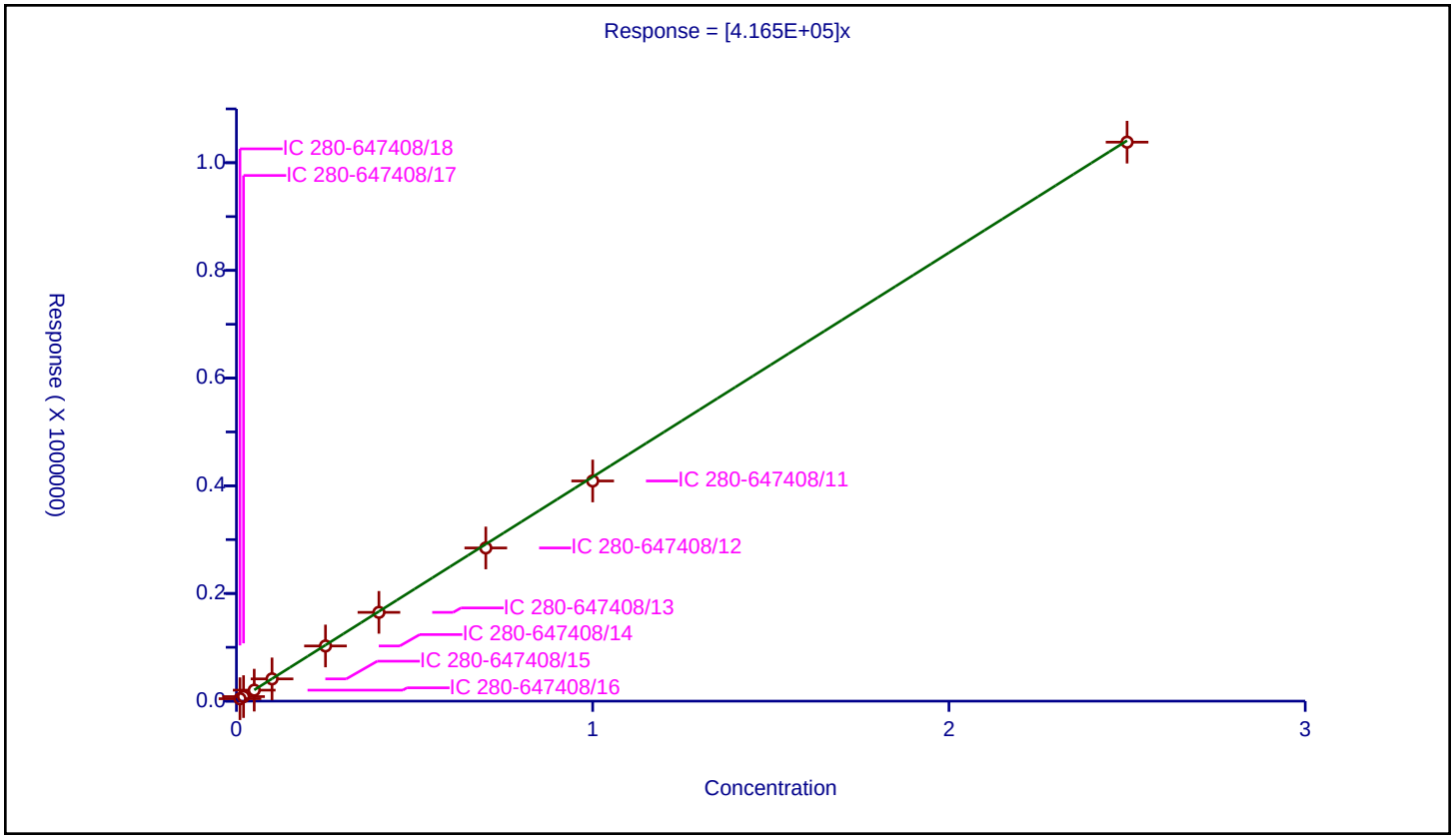
Curve Coefficients

Intercept:	0
Slope:	4.165E+05

Error Coefficients

Relative Standard Deviation:	3.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	4534.0			453400.0	Y
2	IC 280-647408/17	0.02	8416.0			420800.0	Y
3	IC 280-647408/16	0.05	20396.0			407920.0	Y
4	IC 280-647408/15	0.1	41333.0			413330.0	Y
5	IC 280-647408/14	0.25	102460.0			409840.0	Y
6	IC 280-647408/13	0.4	164886.0			412215.0	Y
7	IC 280-647408/12	0.7	284522.0			406460.0	Y
8	IC 280-647408/11	1.0	408906.0			408906.0	Y
9	IC 280-647408/10	2.5	1038220.0			415288.0	Y



5/23/2024
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Calibration / PETN

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

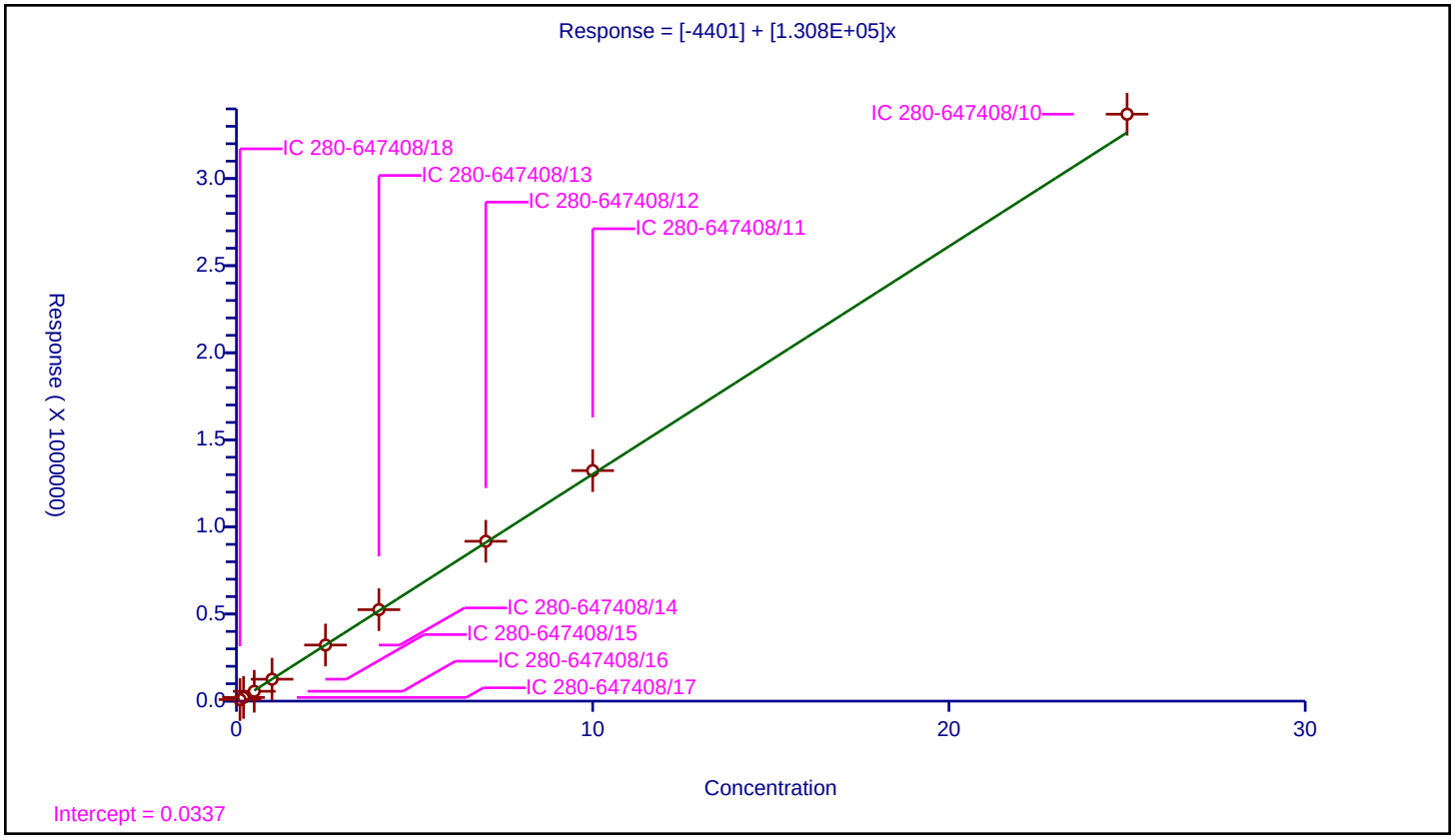
Curve Coefficients

Intercept:	-4401
Slope:	1.308E+05

Error Coefficients

Relative Standard Deviation:	3.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.1	8982.0			89820.0	Y
2	IC 280-647408/17	0.2	21186.0			105930.0	Y
3	IC 280-647408/16	0.5	56701.0			113402.0	Y
4	IC 280-647408/15	1.0	125929.0			125929.0	Y
5	IC 280-647408/14	2.5	322087.0			128834.8	Y
6	IC 280-647408/13	4.0	525075.0			131268.75	Y
7	IC 280-647408/12	7.0	917804.0			131114.857143	Y
8	IC 280-647408/11	10.0	1323551.0			132355.1	Y
9	IC 280-647408/10	25.0	3369705.0			134788.2	Y



5/23/2024
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FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICV 280-649950/20 Calibration Date: 04/18/2024 00:04

Instrument ID: CHHPLC_X3 Calib Start Date: 04/17/2024 20:37

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 04/17/2024 23:41

Lab File ID: 04170020.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	198992	204787		517	502	2.9	20.0
HMX	Ave	95544	88884		465	500	-7.0	20.0
DNX	Ave	147260	152248		518	501	3.4	20.0
MNX	Ave	136698	141932		607	585	3.8	20.0
RDX	Ave	110767	107360		485	500	-3.1	20.0
Picric acid	Ave	79326	85128		537	500	7.3	20.0
1,3,5-Trinitrobenzene	Ave	222853	238232		535	500	6.9	20.0
1,3-Dinitrobenzene	Ave	299436	315400		527	500	5.3	20.0
Nitrobenzene	Ave	196329	207206		528	500	5.5	20.0
3,5-Dinitroaniline	Lin2		227972		517	500	3.4	20.0
Tetryl	Ave	181588	191842		528	500	5.6	20.0
Nitroglycerin	Ave	66464	70364		5290	5000	5.9	20.0
2,4,6-Trinitrotoluene	Ave	215192	218358		507	500	1.5	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	155448		518	500	3.7	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	208532		522	500	4.4	20.0
2,6-Dinitrotoluene	Ave	146914	147890		503	500	0.7	20.0
2,4-Dinitrotoluene	Ave	291844	298646		512	500	2.3	20.0
2-Nitrotoluene	Ave	129305	129160		499	500	-0.1	20.0
4-Nitrotoluene	Ave	112799	111300		493	500	-1.3	20.0
3-Nitrotoluene	Ave	144063	142054		493	500	-1.4	20.0
PETN	Ave	71937	78341		5450	5000	8.9	20.0
1,2-Dinitrobenzene	Lin2		127242		483	500	-3.5	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICV 280-649950/20 Calibration Date: 04/18/2024 00:04

Instrument ID: CHHPLC_X3 Calib Start Date: 04/17/2024 20:37

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 04/17/2024 23:41

Lab File ID: 04170020.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.48	6.38	6.58
HMX	6.58	6.43	6.73
DNX	6.79	6.69	6.89
MNX	7.20	7.05	7.35
RDX	7.58	7.43	7.73
Picric acid	7.80	7.67	7.97
1,3,5-Trinitrobenzene	8.66	8.51	8.81
1,3-Dinitrobenzene	9.27	9.13	9.43
Nitrobenzene	9.63	9.49	9.79
3,5-Dinitroaniline	9.87	9.73	10.03
Tetryl	9.95	9.81	10.11
Nitroglycerin	10.43	10.28	10.58
2,4,6-Trinitrotoluene	10.86	10.77	10.97
4-Amino-2,6-dinitrotoluene	11.04	10.95	11.15
2-Amino-4,6-dinitrotoluene	11.30	11.21	11.41
2,6-Dinitrotoluene	11.45	11.35	11.55
2,4-Dinitrotoluene	11.62	11.53	11.73
2-Nitrotoluene	12.41	12.27	12.57
4-Nitrotoluene	12.84	12.69	12.99
3-Nitrotoluene	13.39	13.25	13.55
PETN	14.48	14.33	14.63
1,2-Dinitrobenzene	8.52	8.37	8.67

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170020.D
Lims ID: ICV INT/DMT
Client ID:
Sample Type: ICV
Inject. Date: 18-Apr-2024 00:04:28 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV INT/DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-Apr-2024 12:06:14 Calib Date: 17-Apr-2024 23:41:30
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170019.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:20:39

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.475	6.476	-0.001	102803	0.5020	0.5166	M
4 HMX	1	6.581	6.583	-0.002	44442	0.5000	0.4651	M
6 DNX	1	6.788	6.789	-0.001	76276	0.5010	0.5180	M
7 MNX	1	7.201	7.203	-0.002	82959	0.5845	0.6069	
8 RDX	1	7.581	7.583	-0.002	53680	0.5000	0.4846	
9 2,4,6-Trinitrophenol	1	7.795	7.816	-0.021	42564	0.5000	0.5366	
$ 10 1,2-Dinitrobenzene	1	8.515	8.516	-0.001	63621	0.5000	0.4826	
11 1,3,5-Trinitrobenzene	1	8.655	8.656	-0.001	119116	0.5000	0.5345	
12 1,3-Dinitrobenzene	1	9.274	9.276	-0.002	157700	0.5000	0.5267	
13 Nitrobenzene	1	9.628	9.636	-0.008	103603	0.5000	0.5277	
14 3,5-Dinitroaniline	1	9.868	9.876	-0.008	113986	0.5000	0.5168	
15 Tetryl	1	9.954	9.963	-0.009	95921	0.5000	0.5282	
16 Nitroglycerin	2	10.428	10.429	-0.001	351818	5.00	5.29	
17 2,4,6-Trinitrotoluene	1	10.861	10.869	-0.008	109179	0.5000	0.5074	
18 4-Amino-2,6-dinitrotoluene	1	11.041	11.049	-0.008	77724	0.5000	0.5183	
19 2-Amino-4,6-dinitrotoluene	1	11.301	11.309	-0.008	104266	0.5000	0.5218	
20 2,6-Dinitrotoluene	1	11.448	11.449	-0.001	73945	0.5000	0.5033	
21 2,4-Dinitrotoluene	1	11.621	11.629	-0.008	149323	0.5000	0.5117	
22 o-Nitrotoluene	1	12.414	12.423	-0.009	64580	0.5000	0.4994	
23 p-Nitrotoluene	1	12.841	12.843	-0.002	55650	0.5000	0.4934	
24 m-Nitrotoluene	1	13.394	13.403	-0.009	71027	0.5000	0.4930	
25 PETN	2	14.481	14.483	-0.002	391703	5.00	5.45	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

Review Flags
M - Manually Integrated

Reagents:

8330Surrogate_00154	Amount Added:	50.00	Units: uL
8330 LCS_00134	Amount Added:	50.00	Units: uL
8330_OP_DMT_00026	Amount Added:	50.00	Units: uL

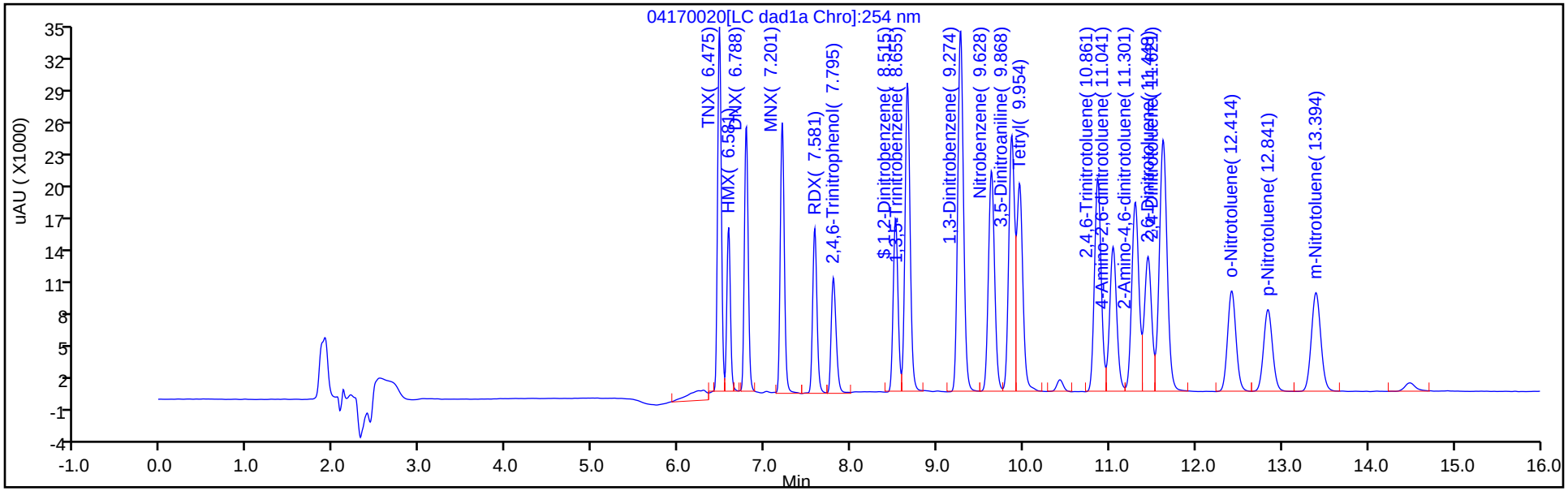
Report Date: 18-Apr-2024 12:06:16 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

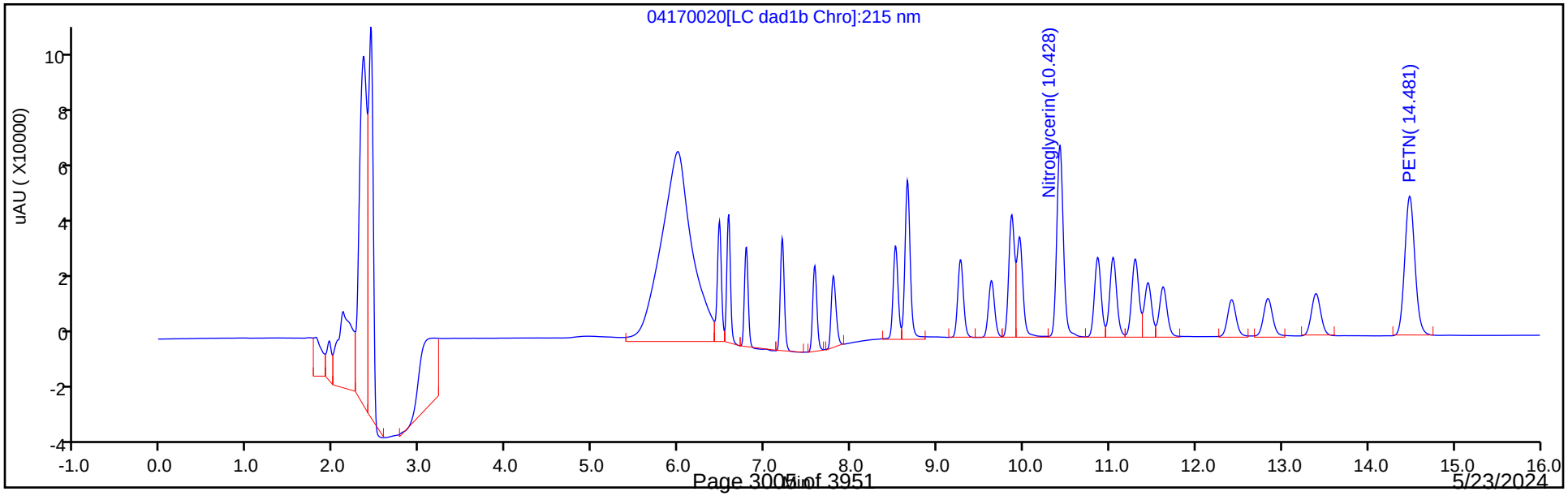
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170020.d

Injection Date:	18-Apr-2024 00:04:28	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	ICV INT/DMT			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

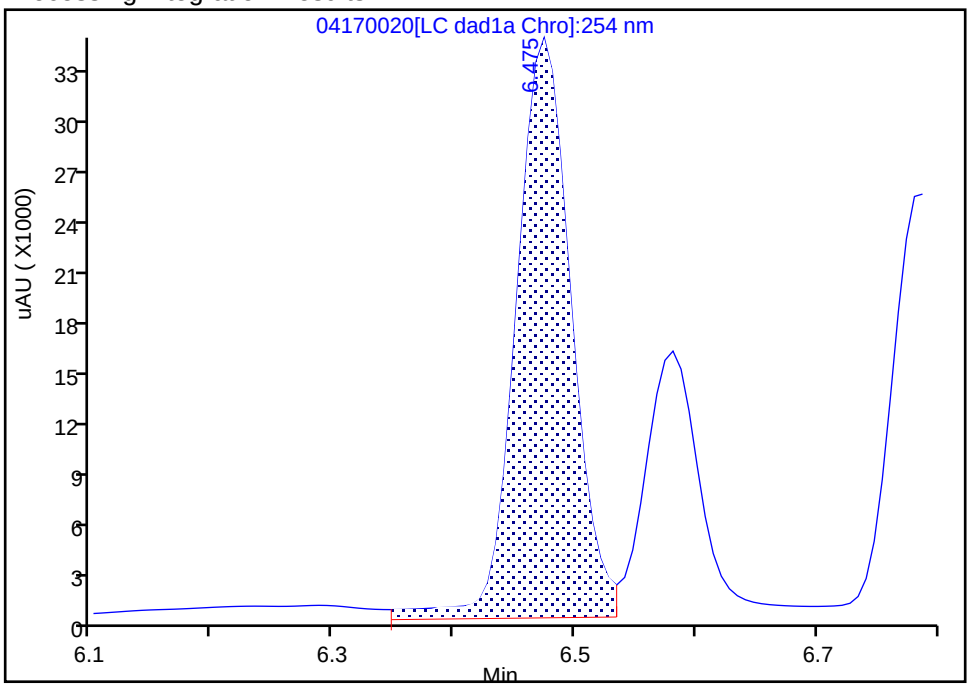
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170020.d				
Injection Date:	18-Apr-2024 00:04:28	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT/DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

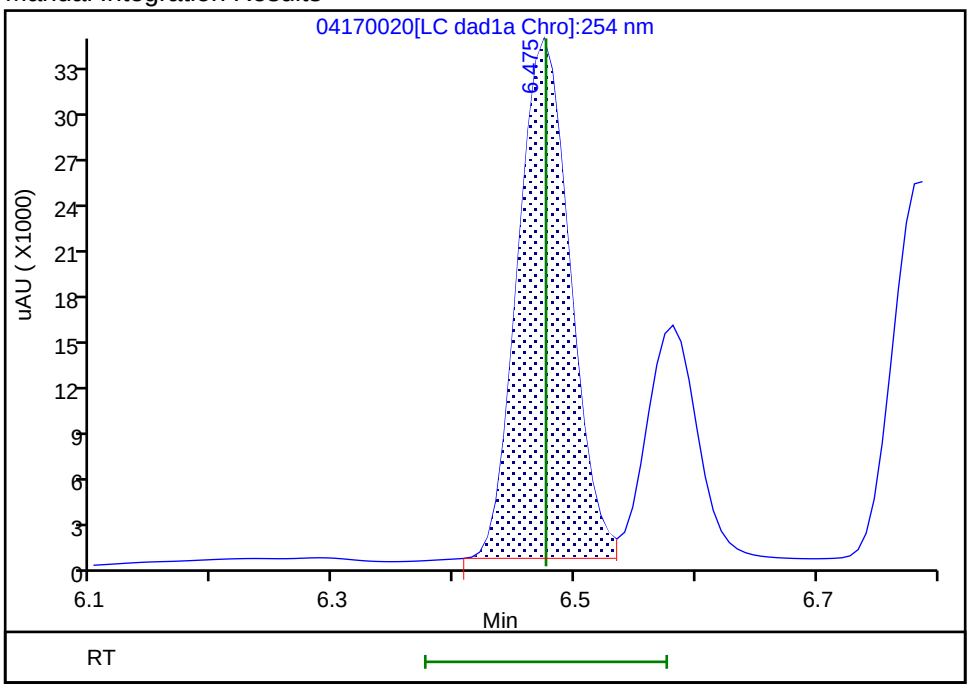
Processing Integration Results

RT: 6.47
Area: 110168
Amount: 0.553630
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 102803
Amount: 0.516619
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:20:20 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

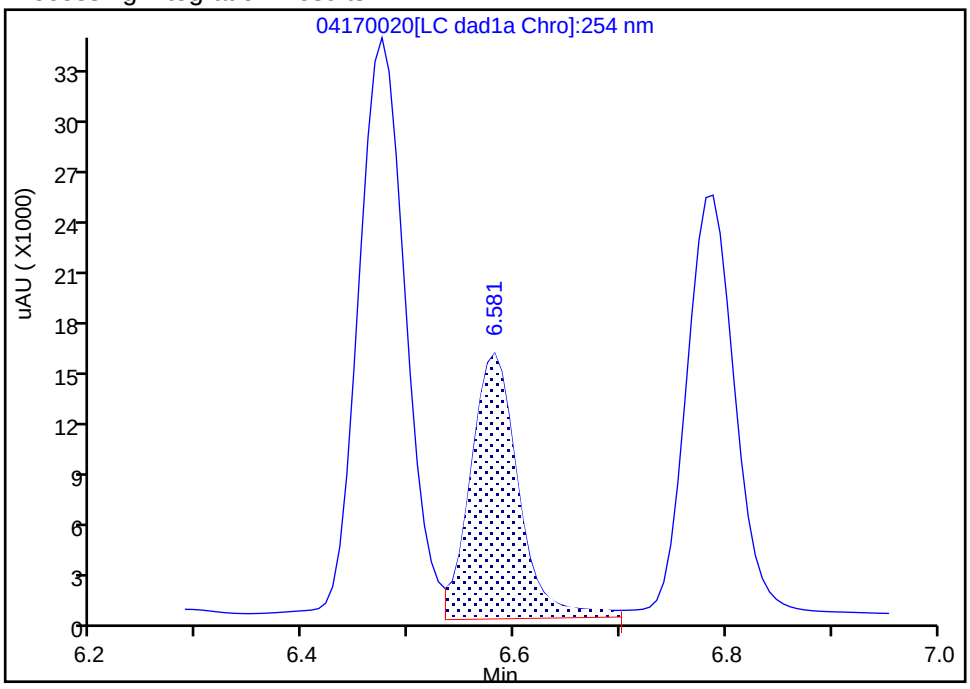
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170020.d				
Injection Date:	18-Apr-2024 00:04:28	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT/DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

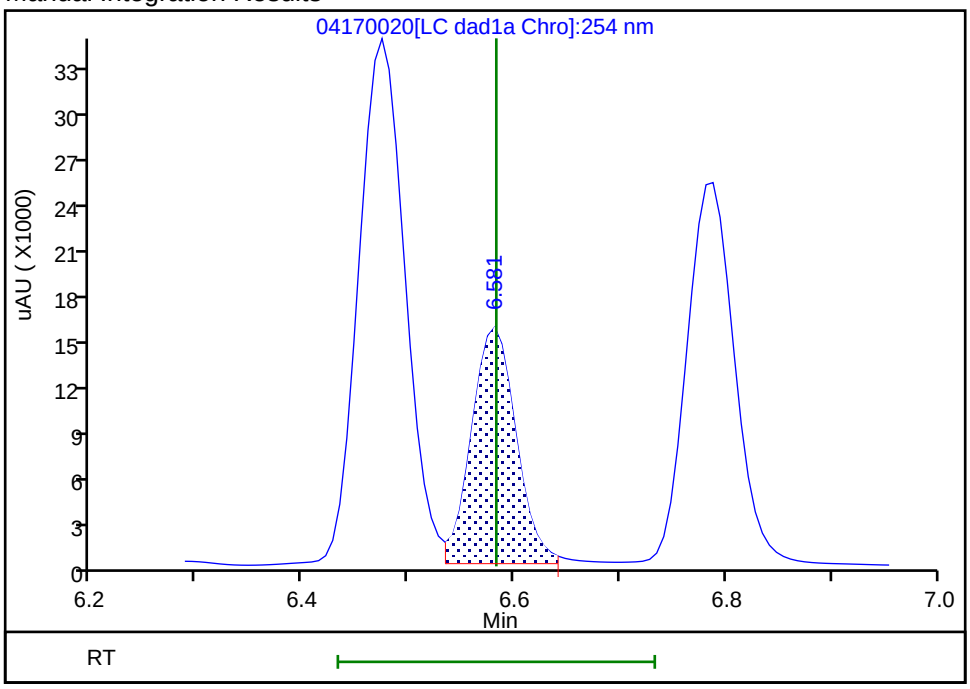
Processing Integration Results

RT: 6.58
Area: 49818
Amount: 0.521416
Amount Units: ug/mL



Manual Integration Results

RT: 6.58
Area: 44442
Amount: 0.465148
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:20:21 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver

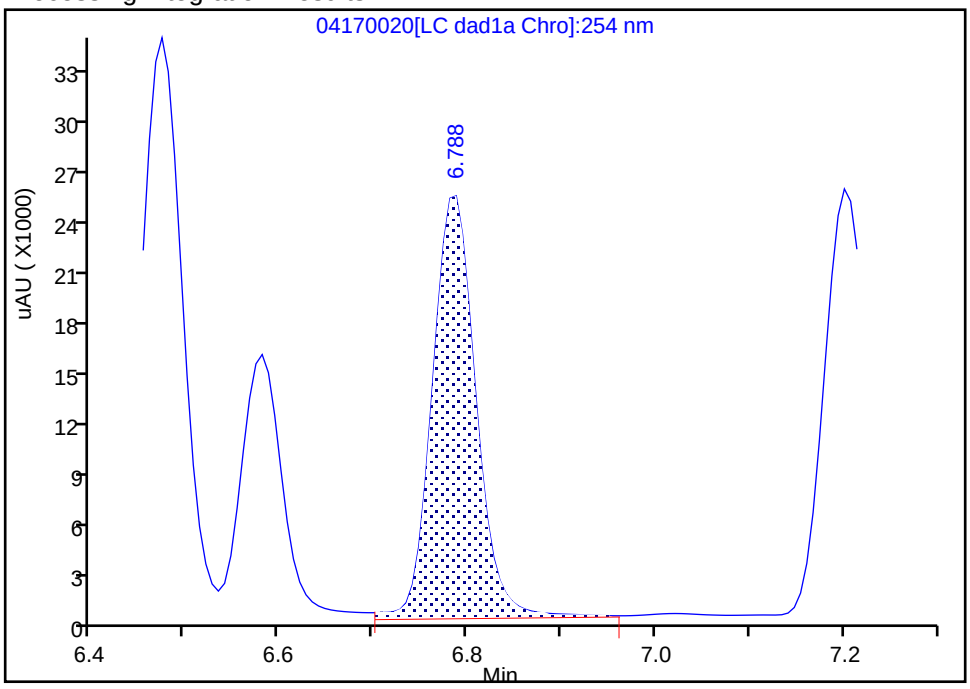
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170020.d				
Injection Date:	18-Apr-2024 00:04:28	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT/DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

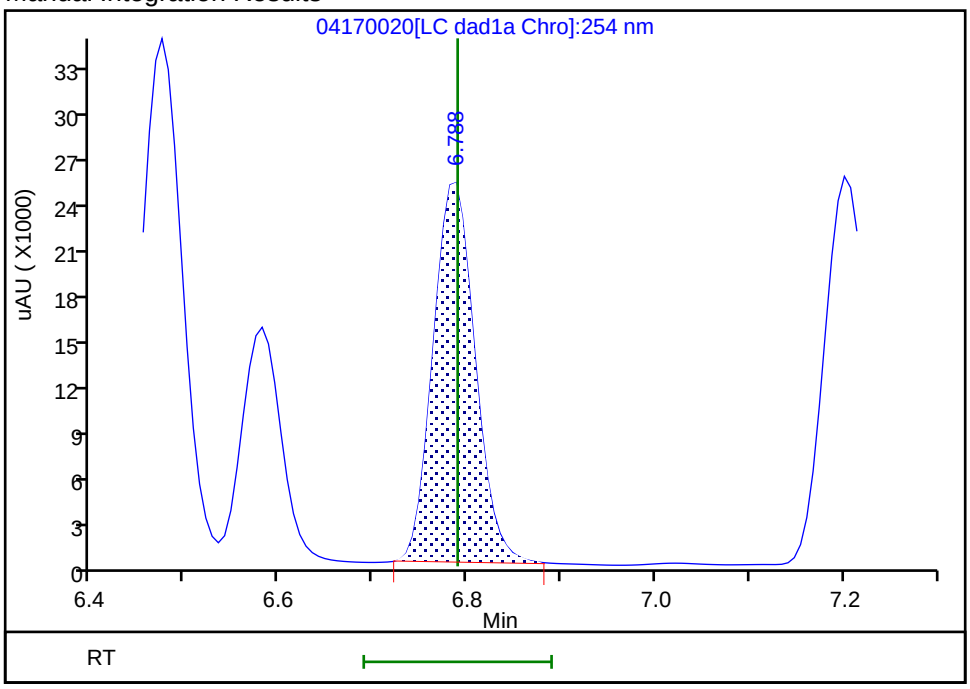
Processing Integration Results

RT: 6.79
Area: 81732
Amount: 0.555020
Amount Units: ug/mL



Manual Integration Results

RT: 6.79
Area: 76276
Amount: 0.517970
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:20:24 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653063/7 | Calibration Date: 05/11/2024 14:53

Instrument ID: CHHPLC_X3 | Calib Start Date: 04/17/2024 20:37

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 04/17/2024 23:41

Lab File ID: 05010007.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95544	97868		256	250	2.4	20.0
RDX	Ave	110767	107792		243	250	-2.7	20.0
Picric acid	Ave	79326	82312		259	250	3.8	20.0
1,3,5-Trinitrobenzene	Ave	222853	222484		250	250	-0.2	20.0
1,3-Dinitrobenzene	Ave	299436	302840		253	250	1.1	20.0
Nitrobenzene	Ave	196329	195348		249	250	-0.5	20.0
3,5-Dinitroaniline	Lin2		227728		259	250	3.5	20.0
Tetryl	Ave	181588	171348		236	250	-5.6	20.0
Nitroglycerin	Ave	66464	67986		2560	2500	2.3	20.0
2,4,6-Trinitrotoluene	Ave	215192	217080		252	250	0.9	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	152156		254	250	1.5	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	203660		255	250	1.9	20.0
2,6-Dinitrotoluene	Ave	146914	149308		254	250	1.6	20.0
2,4-Dinitrotoluene	Ave	291844	298012		255	250	2.1	20.0
2-Nitrotoluene	Ave	129305	130104		252	250	0.6	20.0
4-Nitrotoluene	Ave	112799	109440		243	250	-3.0	20.0
3-Nitrotoluene	Ave	144063	138356		240	250	-4.0	20.0
PETN	Ave	71937	72393		2520	2500	0.6	20.0
1,2-Dinitrobenzene	Lin2		133420		253	250	1.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653063/7 Calibration Date: 05/11/2024 14:53

Instrument ID: CHHPLC_X3 Calib Start Date: 04/17/2024 20:37

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 04/17/2024 23:41

Lab File ID: 05010007.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.61	6.46	6.76
RDX	7.63	7.48	7.78
Picric acid	7.85	7.70	8.00
1,3,5-Trinitrobenzene	8.71	8.56	8.86
1,3-Dinitrobenzene	9.32	9.17	9.47
Nitrobenzene	9.67	9.52	9.82
3,5-Dinitroaniline	9.90	9.75	10.05
Tetryl	9.99	9.84	10.14
Nitroglycerin	10.46	10.31	10.61
2,4,6-Trinitrotoluene	10.89	10.79	10.99
4-Amino-2,6-dinitrotoluene	11.06	10.96	11.16
2-Amino-4,6-dinitrotoluene	11.32	11.22	11.42
2,6-Dinitrotoluene	11.46	11.36	11.56
2,4-Dinitrotoluene	11.64	11.54	11.74
2-Nitrotoluene	12.42	12.27	12.57
4-Nitrotoluene	12.83	12.68	12.98
3-Nitrotoluene	13.37	13.22	13.52
PETN	14.42	14.27	14.57
1,2-Dinitrobenzene	8.57	8.42	8.72

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\05010007.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 11-May-2024 14:53:45 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 14-May-2024 14:09:25 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 11-May-2024 15:17:01

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.611	6.611	0.000	24467	0.2500	0.2561	
8 RDX	1	7.631	7.631	0.000	26948	0.2500	0.2433	
9 2,4,6-Trinitrophenol	1	7.845	7.845	0.000	20578	0.2500	0.2594	
$ 10 1,2-Dinitrobenzene	1	8.565	8.565	0.000	33355	0.2500	0.2527	
11 1,3,5-Trinitrobenzene	1	8.705	8.705	0.000	55621	0.2500	0.2496	
12 1,3-Dinitrobenzene	1	9.318	9.318	0.000	75710	0.2500	0.2528	
13 Nitrobenzene	1	9.671	9.671	0.000	48837	0.2500	0.2488	
14 3,5-Dinitroaniline	1	9.904	9.904	0.000	56932	0.2500	0.2587	
15 Tetryl	1	9.991	9.991	0.000	42837	0.2500	0.2359	
16 Nitroglycerin	2	10.458	10.458	0.000	169964	2.50	2.56	
17 2,4,6-Trinitrotoluene	1	10.891	10.891	0.000	54270	0.2500	0.2522	
18 4-Amino-2,6-dinitrotoluene	1	11.064	11.064	0.000	38039	0.2500	0.2537	
19 2-Amino-4,6-dinitrotoluene	1	11.318	11.318	0.000	50915	0.2500	0.2548	
20 2,6-Dinitrotoluene	1	11.464	11.464	0.000	37327	0.2500	0.2541	
21 2,4-Dinitrotoluene	1	11.638	11.638	0.000	74503	0.2500	0.2553	
22 o-Nitrotoluene	1	12.418	12.418	0.000	32526	0.2500	0.2515	
23 p-Nitrotoluene	1	12.831	12.831	0.000	27360	0.2500	0.2426	
24 m-Nitrotoluene	1	13.371	13.371	0.000	34589	0.2500	0.2401	
25 PETN	2	14.418	14.418	0.000	180982	2.50	2.52	

QC Flag Legend

Processing Flags

Reagents:

8330IntermStk_00080 Amount Added: 25.00 Units: uL

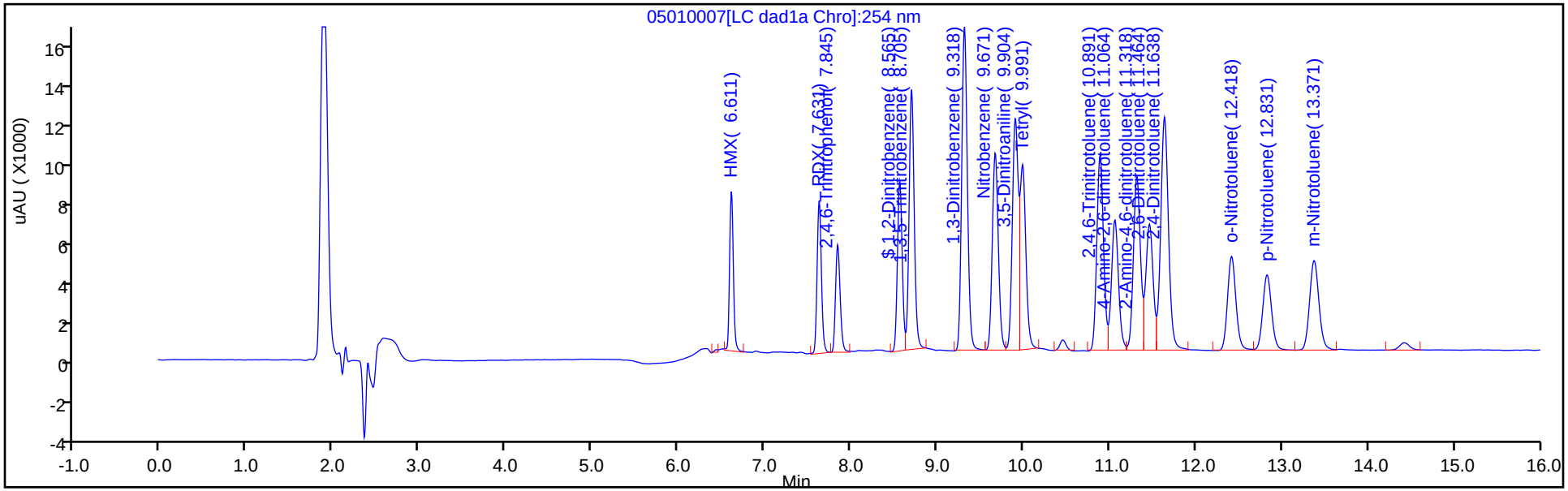
Report Date: 14-May-2024 14:09:25 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

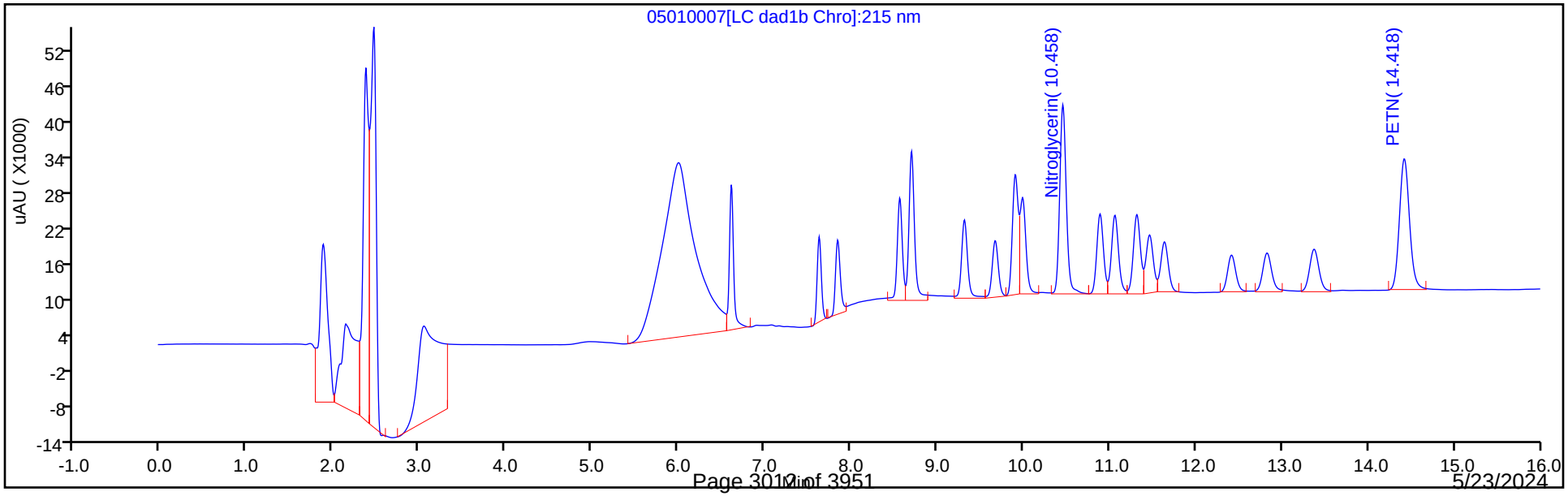
Data File: \\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010007.d

Injection Date:	11-May-2024 14:53:45	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	7
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653063/38 Calibration Date: 05/11/2024 19:06

Instrument ID: CHHPLC_X3 Calib Start Date: 04/17/2024 20:37

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 04/17/2024 23:41

Lab File ID: 05010038.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95544	95192		249	250	-0.4	20.0
RDX	Ave	110767	107544		243	250	-2.9	20.0
Picric acid	Ave	79326	82008		258	250	3.4	20.0
1,3,5-Trinitrobenzene	Ave	222853	222344		249	250	-0.2	20.0
1,3-Dinitrobenzene	Ave	299436	303368		253	250	1.3	20.0
Nitrobenzene	Ave	196329	194404		248	250	-1.0	20.0
3,5-Dinitroaniline	Lin2		226628		257	250	3.0	20.0
Tetryl	Ave	181588	172176		237	250	-5.2	20.0
Nitroglycerin	Ave	66464	67974		2560	2500	2.3	20.0
2,4,6-Trinitrotoluene	Ave	215192	216432		251	250	0.6	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	151836		253	250	1.3	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	200124		250	250	0.2	20.0
2,6-Dinitrotoluene	Ave	146914	152968		260	250	4.1	20.0
2,4-Dinitrotoluene	Ave	291844	297296		255	250	1.9	20.0
2-Nitrotoluene	Ave	129305	129376		250	250	0.0	20.0
4-Nitrotoluene	Ave	112799	109128		242	250	-3.3	20.0
3-Nitrotoluene	Ave	144063	138160		240	250	-4.1	20.0
PETN	Ave	71937	72194		2510	2500	0.4	20.0
1,2-Dinitrobenzene	Lin2		134452		255	250	1.9	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653063/38 Calibration Date: 05/11/2024 19:06

Instrument ID: CHHPLC_X3 Calib Start Date: 04/17/2024 20:37

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 04/17/2024 23:41

Lab File ID: 05010038.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.61	6.46	6.76
RDX	7.63	7.48	7.78
Picric acid	7.84	7.70	8.00
1,3,5-Trinitrobenzene	8.69	8.56	8.86
1,3-Dinitrobenzene	9.31	9.17	9.47
Nitrobenzene	9.66	9.52	9.82
3,5-Dinitroaniline	9.89	9.75	10.05
Tetryl	9.97	9.84	10.14
Nitroglycerin	10.44	10.31	10.61
2,4,6-Trinitrotoluene	10.87	10.79	10.99
4-Amino-2,6-dinitrotoluene	11.05	10.96	11.16
2-Amino-4,6-dinitrotoluene	11.30	11.22	11.42
2,6-Dinitrotoluene	11.45	11.36	11.56
2,4-Dinitrotoluene	11.62	11.54	11.74
2-Nitrotoluene	12.39	12.27	12.57
4-Nitrotoluene	12.81	12.68	12.98
3-Nitrotoluene	13.35	13.22	13.52
PETN	14.39	14.27	14.57
1,2-Dinitrobenzene	8.56	8.42	8.72

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\05010038.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 11-May-2024 19:06:25 ALS Bottle#: 7 Worklist Smp#: 38
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 14-May-2024 14:09:36 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 14-May-2024 12:53:28

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.613	6.611	0.002	23798	0.2500	0.2491	M
8 RDX	1	7.626	7.631	-0.005	26886	0.2500	0.2427	
9 2,4,6-Trinitrophenol	1	7.840	7.845	-0.005	20502	0.2500	0.2585	
$ 10 1,2-Dinitrobenzene	1	8.560	8.565	-0.005	33613	0.2500	0.2546	
11 1,3,5-Trinitrobenzene	1	8.693	8.705	-0.012	55586	0.2500	0.2494	
12 1,3-Dinitrobenzene	1	9.306	9.318	-0.012	75842	0.2500	0.2533	
13 Nitrobenzene	1	9.659	9.671	-0.012	48601	0.2500	0.2475	
14 3,5-Dinitroaniline	1	9.893	9.904	-0.011	56657	0.2500	0.2574	
15 Tetryl	1	9.973	9.991	-0.018	43044	0.2500	0.2370	
16 Nitroglycerin	2	10.439	10.458	-0.019	169936	2.50	2.56	
17 2,4,6-Trinitrotoluene	1	10.873	10.891	-0.018	54108	0.2500	0.2514	
18 4-Amino-2,6-dinitrotoluene	1	11.046	11.064	-0.018	37959	0.2500	0.2531	
19 2-Amino-4,6-dinitrotoluene	1	11.299	11.318	-0.019	50031	0.2500	0.2504	
20 2,6-Dinitrotoluene	1	11.446	11.464	-0.018	38242	0.2500	0.2603	
21 2,4-Dinitrotoluene	1	11.619	11.638	-0.019	74324	0.2500	0.2547	
22 o-Nitrotoluene	1	12.393	12.418	-0.025	32344	0.2500	0.2501	
23 p-Nitrotoluene	1	12.806	12.831	-0.025	27282	0.2500	0.2419	
24 m-Nitrotoluene	1	13.353	13.371	-0.018	34540	0.2500	0.2398	
25 PETN	2	14.393	14.418	-0.025	180484	2.50	2.51	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080 Amount Added: 25.00 Units: uL

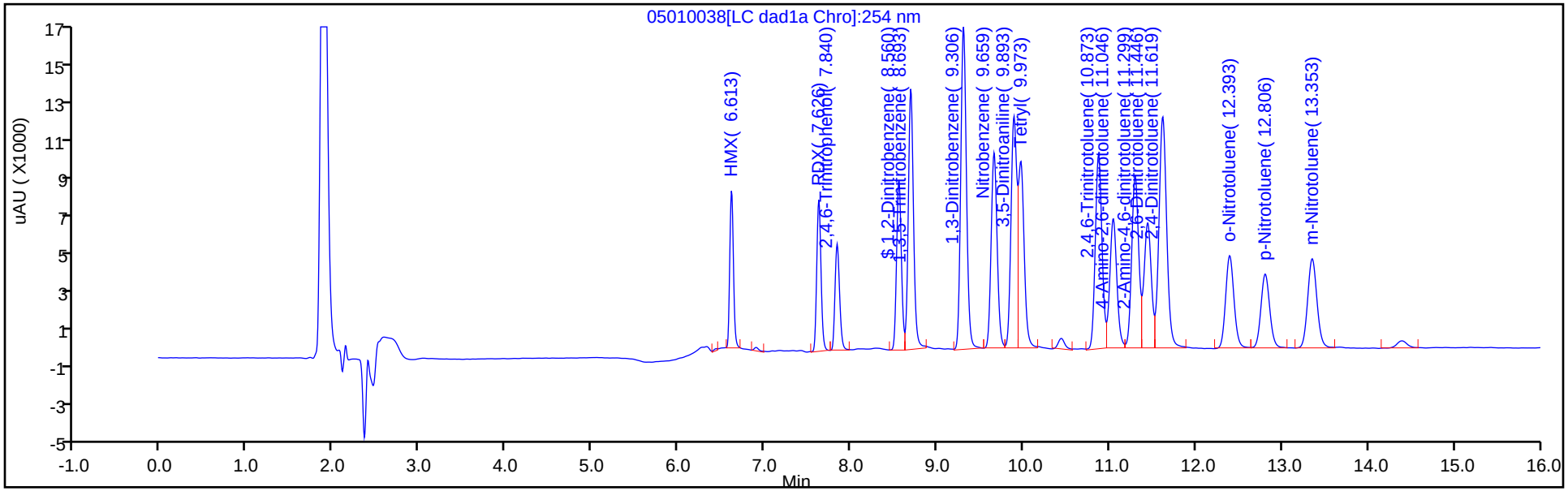
Report Date: 14-May-2024 14:09:37 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

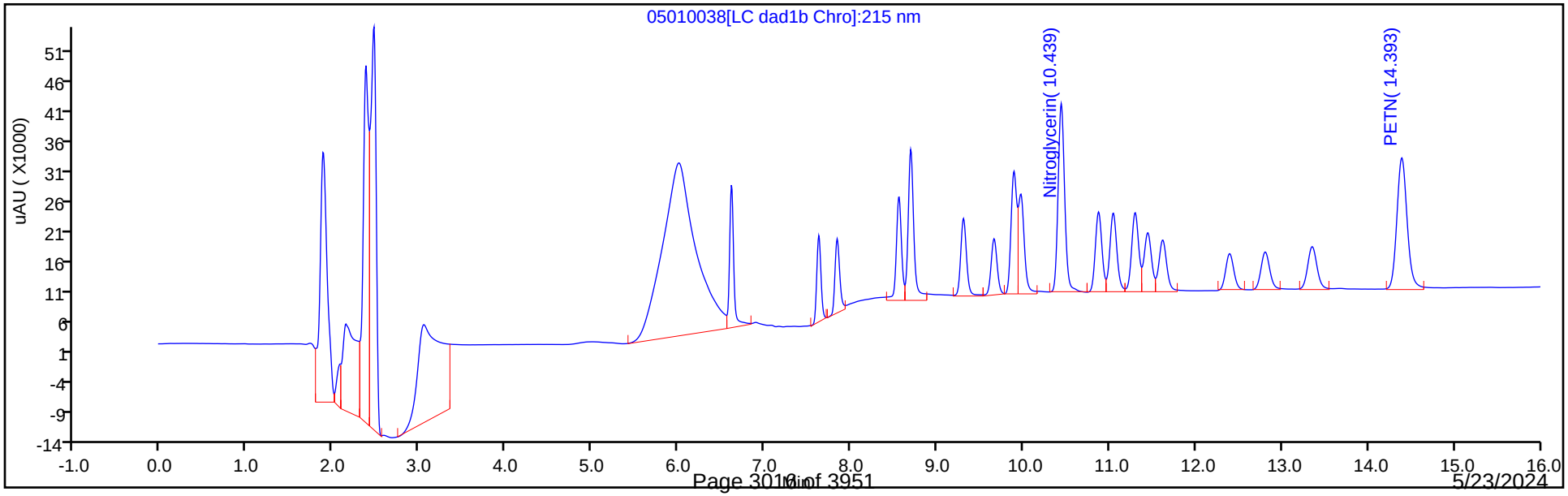
Data File: \\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010038.d

Injection Date:	11-May-2024 19:06:25	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	38
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

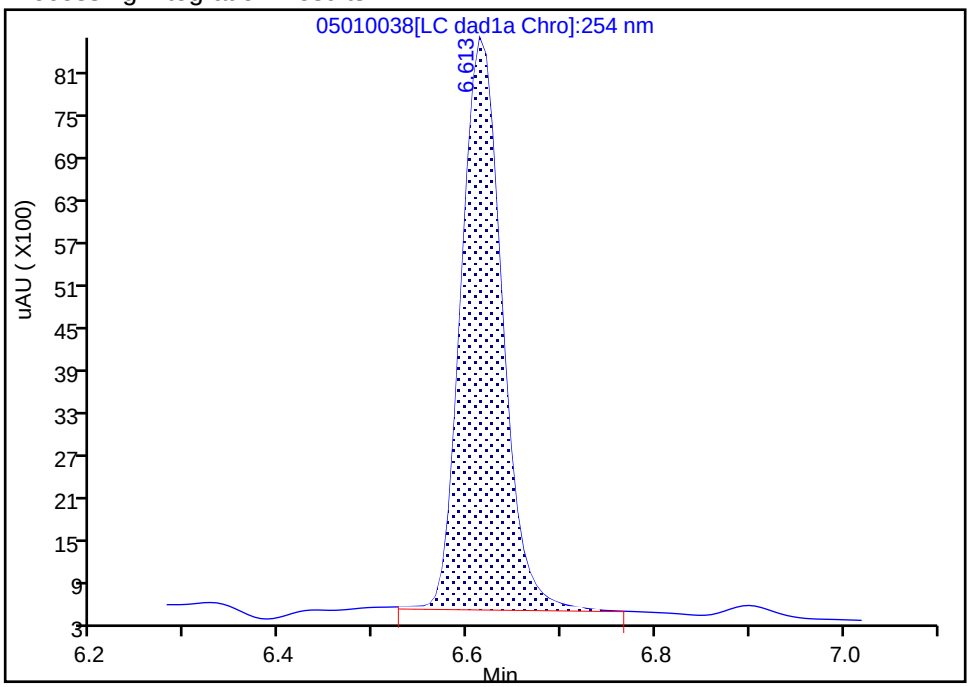
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010038.d				
Injection Date:	11-May-2024 19:06:25	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

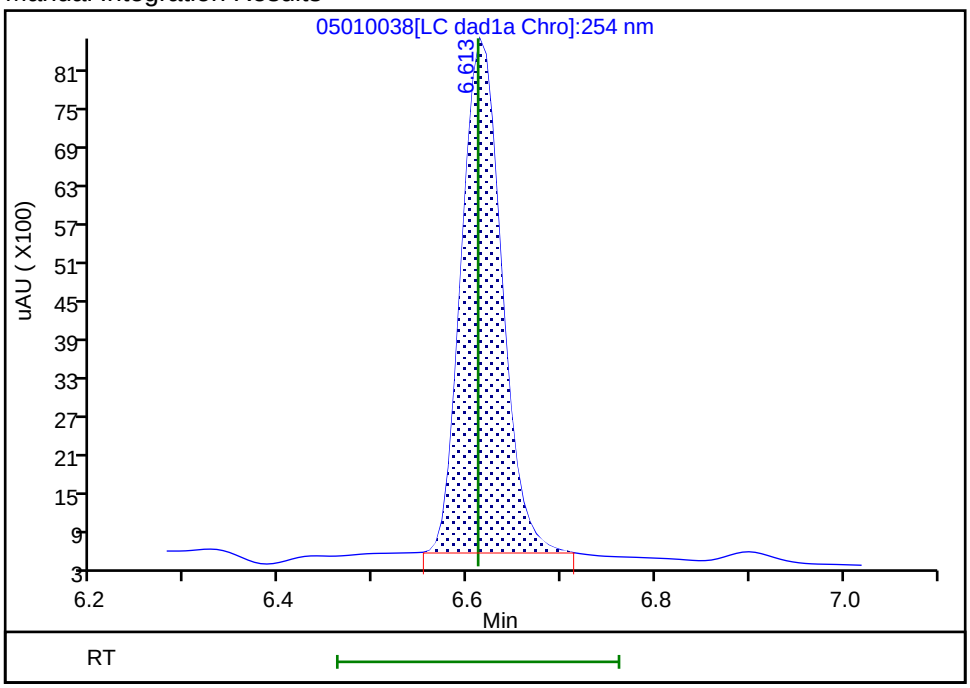
Processing Integration Results

RT: 6.61
Area: 24435
Amount: 0.255747
Amount Units: ug/mL



Manual Integration Results

RT: 6.61
Area: 23798
Amount: 0.249080
Amount Units: ug/mL



Reviewer: LV5D, 14-May-2024 12:53:27 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653063/48 | Calibration Date: 05/11/2024 22:56

Instrument ID: CHHPLC_X3 | Calib Start Date: 04/17/2024 20:37

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 04/17/2024 23:41

Lab File ID: 05010048.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95544	94884		248	250	-0.7	20.0
RDX	Ave	110767	107444		242	250	-3.0	20.0
Picric acid	Ave	79326	82548		260	250	4.1	20.0
1,3,5-Trinitrobenzene	Ave	222853	222220		249	250	-0.3	20.0
1,3-Dinitrobenzene	Ave	299436	302772		253	250	1.1	20.0
Nitrobenzene	Ave	196329	191536		244	250	-2.4	20.0
3,5-Dinitroaniline	Lin2		216220		246	250	-1.7	20.0
Tetryl	Ave	181588	181576		250	250	-0.0	20.0
Nitroglycerin	Ave	66464	68184		2560	2500	2.6	20.0
2,4,6-Trinitrotoluene	Ave	215192	214964		250	250	-0.1	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	152648		255	250	1.8	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	199944		250	250	0.0	20.0
2,6-Dinitrotoluene	Ave	146914	152400		259	250	3.7	20.0
2,4-Dinitrotoluene	Ave	291844	296824		254	250	1.7	20.0
2-Nitrotoluene	Ave	129305	129056		250	250	-0.2	20.0
4-Nitrotoluene	Ave	112799	107804		239	250	-4.4	20.0
3-Nitrotoluene	Ave	144063	135920		236	250	-5.7	20.0
PETN	Ave	71937	72523		2520	2500	0.8	20.0
1,2-Dinitrobenzene	Lin2		133344		253	250	1.0	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653063/48 Calibration Date: 05/11/2024 22:56

Instrument ID: CHHPLC_X3 Calib Start Date: 04/17/2024 20:37

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 04/17/2024 23:41

Lab File ID: 05010048.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.61	6.46	6.76
RDX	7.63	7.48	7.78
Picric acid	7.84	7.70	8.00
1,3,5-Trinitrobenzene	8.70	8.56	8.86
1,3-Dinitrobenzene	9.31	9.17	9.47
Nitrobenzene	9.66	9.52	9.82
3,5-Dinitroaniline	9.89	9.75	10.05
Tetryl	9.98	9.84	10.14
Nitroglycerin	10.45	10.31	10.61
2,4,6-Trinitrotoluene	10.88	10.79	10.99
4-Amino-2,6-dinitrotoluene	11.05	10.96	11.16
2-Amino-4,6-dinitrotoluene	11.30	11.22	11.42
2,6-Dinitrotoluene	11.45	11.36	11.56
2,4-Dinitrotoluene	11.63	11.54	11.74
2-Nitrotoluene	12.41	12.27	12.57
4-Nitrotoluene	12.82	12.68	12.98
3-Nitrotoluene	13.37	13.22	13.52
PETN	14.43	14.27	14.57
1,2-Dinitrobenzene	8.56	8.42	8.72

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\05010048.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 11-May-2024 22:56:00 ALS Bottle#: 7 Worklist Smp#: 48
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 14-May-2024 14:09:46 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 14-May-2024 13:23:02

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.613	6.611	0.002	23721	0.2500	0.2483	M
8 RDX	1	7.626	7.631	-0.005	26861	0.2500	0.2425	
9 2,4,6-Trinitrophenol	1	7.839	7.845	-0.006	20637	0.2500	0.2602	
$ 10 1,2-Dinitrobenzene	1	8.559	8.565	-0.006	33336	0.2500	0.2525	
11 1,3,5-Trinitrobenzene	1	8.699	8.705	-0.006	55555	0.2500	0.2493	
12 1,3-Dinitrobenzene	1	9.306	9.318	-0.012	75693	0.2500	0.2528	
13 Nitrobenzene	1	9.659	9.671	-0.012	47884	0.2500	0.2439	
14 3,5-Dinitroaniline	1	9.893	9.904	-0.011	54055	0.2500	0.2457	
15 Tetryl	1	9.979	9.991	-0.012	45394	0.2500	0.2500	
16 Nitroglycerin	2	10.446	10.458	-0.012	170461	2.50	2.56	
17 2,4,6-Trinitrotoluene	1	10.879	10.891	-0.012	53741	0.2500	0.2497	
18 4-Amino-2,6-dinitrotoluene	1	11.046	11.064	-0.018	38162	0.2500	0.2545	
19 2-Amino-4,6-dinitrotoluene	1	11.299	11.318	-0.019	49986	0.2500	0.2502	
20 2,6-Dinitrotoluene	1	11.446	11.464	-0.018	38100	0.2500	0.2593	
21 2,4-Dinitrotoluene	1	11.626	11.638	-0.012	74206	0.2500	0.2543	
22 o-Nitrotoluene	1	12.406	12.418	-0.012	32264	0.2500	0.2495	
23 p-Nitrotoluene	1	12.819	12.831	-0.012	26951	0.2500	0.2389	
24 m-Nitrotoluene	1	13.373	13.371	0.002	33980	0.2500	0.2359	
25 PETN	2	14.426	14.418	0.008	181308	2.50	2.52	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080 Amount Added: 25.00 Units: uL

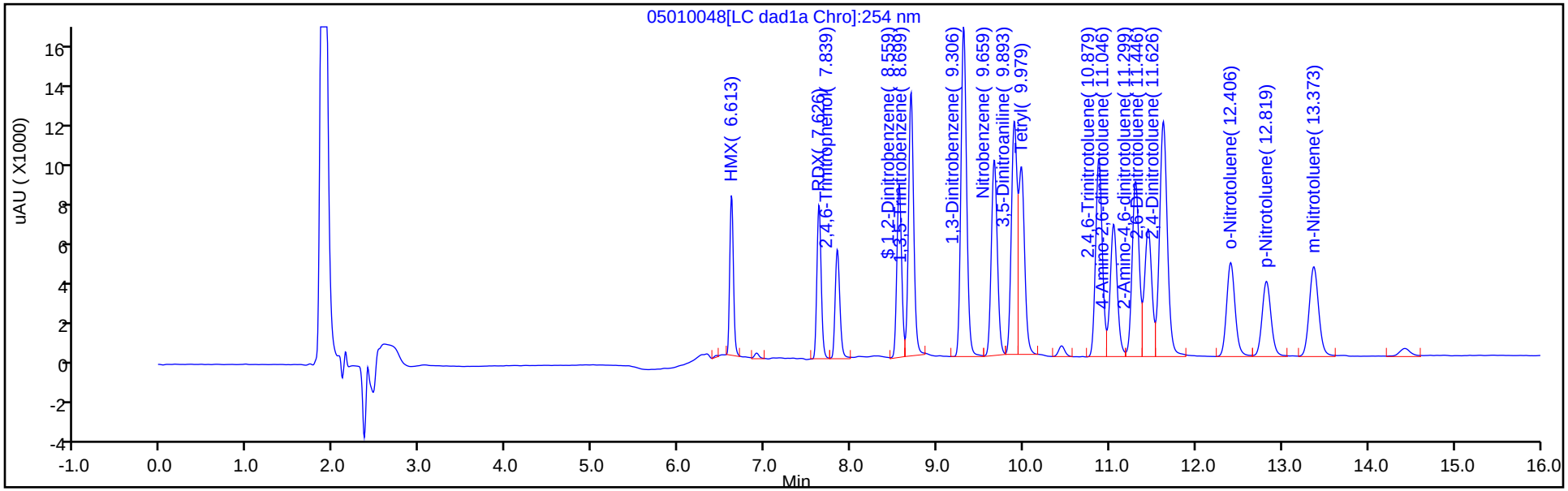
Report Date: 14-May-2024 14:09:46 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

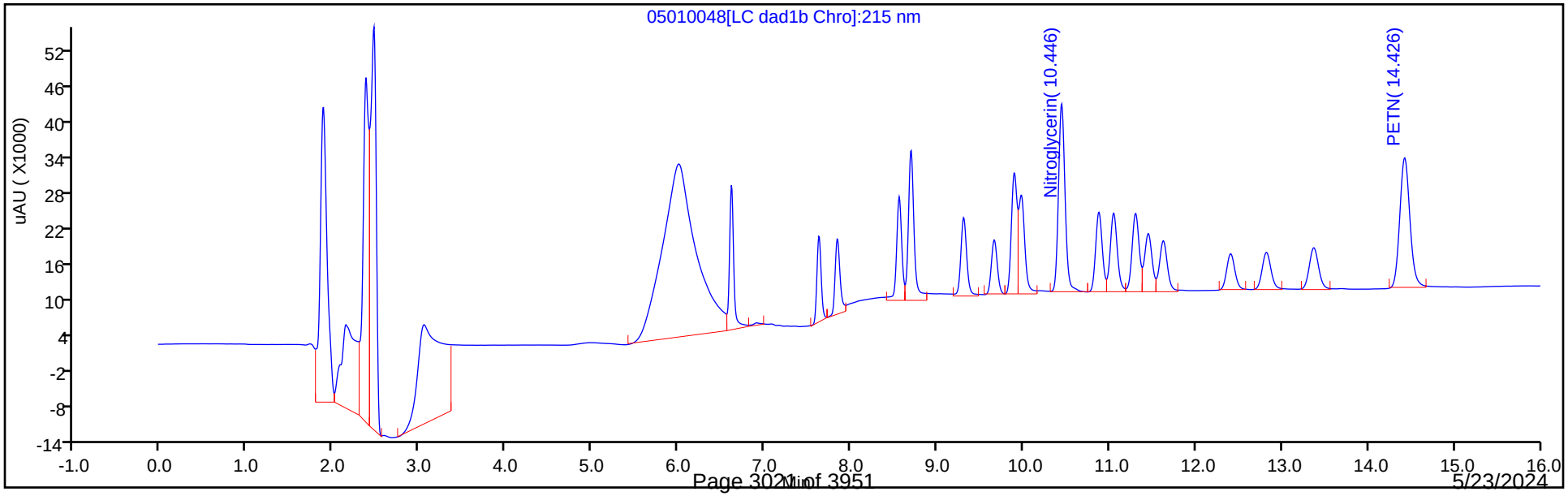
Data File: \\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010048.d

Injection Date:	11-May-2024 22:56:00	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	48
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

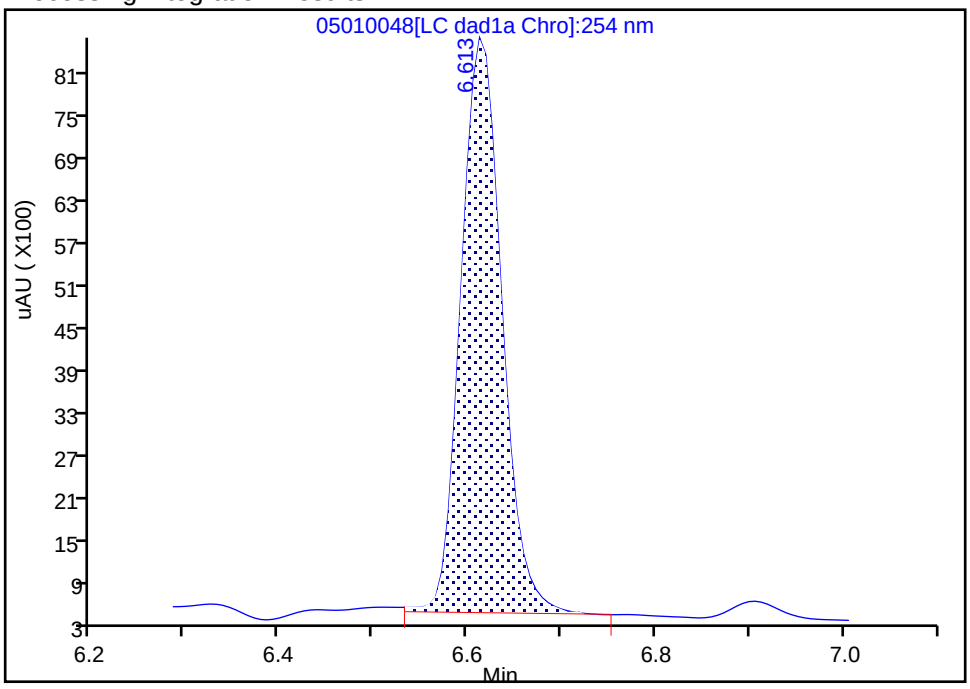
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010048.d				
Injection Date:	11-May-2024 22:56:00	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	48
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

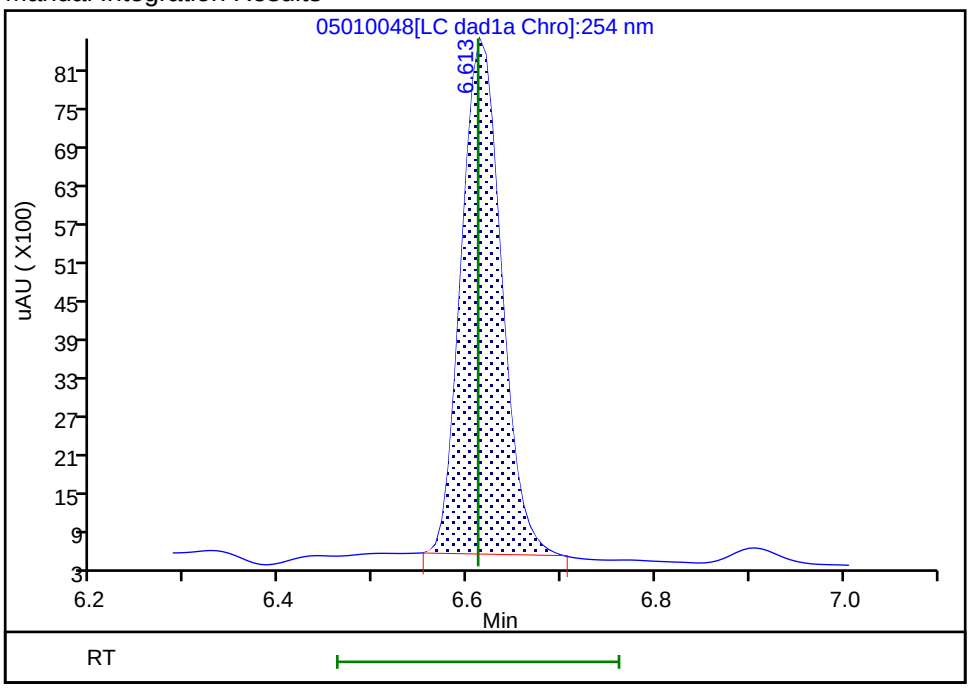
Processing Integration Results

RT: 6.61
Area: 24340
Amount: 0.254752
Amount Units: ug/mL



Manual Integration Results

RT: 6.61
Area: 23721
Amount: 0.248274
Amount Units: ug/mL



Reviewer: LV5D, 14-May-2024 14:09:18 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653871/39 | Calibration Date: 05/18/2024 01:43

Instrument ID: CHHPLC_X3 | Calib Start Date: 04/17/2024 20:37

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 04/17/2024 23:41

Lab File ID: 05170039.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95544	94988		249	250	-0.6	20.0
RDX	Ave	110767	109808		248	250	-0.9	20.0
Picric acid	Ave	79326	81824		258	250	3.1	20.0
1,3,5-Trinitrobenzene	Ave	222853	219764		247	250	-1.4	20.0
1,3-Dinitrobenzene	Ave	299436	305028		255	250	1.9	20.0
Nitrobenzene	Ave	196329	190440		243	250	-3.0	20.0
3,5-Dinitroaniline	Lin2		218676		248	250	-0.6	20.0
Tetryl	Ave	181588	180640		249	250	-0.5	20.0
Nitroglycerin	Ave	66464	68429		2570	2500	3.0	20.0
2,4,6-Trinitrotoluene	Ave	215192	216712		252	250	0.7	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	153036		255	250	2.1	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	201944		253	250	1.1	20.0
2,6-Dinitrotoluene	Ave	146914	150508		256	250	2.4	20.0
2,4-Dinitrotoluene	Ave	291844	299444		257	250	2.6	20.0
2-Nitrotoluene	Ave	129305	123696		239	250	-4.3	20.0
4-Nitrotoluene	Ave	112799	106860		237	250	-5.3	20.0
3-Nitrotoluene	Ave	144063	134924		234	250	-6.3	20.0
PETN	Ave	71937	72874		2530	2500	1.3	20.0
1,2-Dinitrobenzene	Lin2		133632		253	250	1.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653871/39 Calibration Date: 05/18/2024 01:43

Instrument ID: CHHPLC_X3 Calib Start Date: 04/17/2024 20:37

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 04/17/2024 23:41

Lab File ID: 05170039.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.62	6.47	6.77
RDX	7.63	7.48	7.78
Picric acid	7.86	7.71	8.01
1,3,5-Trinitrobenzene	8.69	8.55	8.85
1,3-Dinitrobenzene	9.30	9.16	9.46
Nitrobenzene	9.65	9.52	9.82
3,5-Dinitroaniline	9.88	9.74	10.04
Tetryl	9.97	9.83	10.13
Nitroglycerin	10.44	10.31	10.61
2,4,6-Trinitrotoluene	10.87	10.78	10.98
4-Amino-2,6-dinitrotoluene	11.03	10.94	11.14
2-Amino-4,6-dinitrotoluene	11.29	11.20	11.40
2,6-Dinitrotoluene	11.44	11.35	11.55
2,4-Dinitrotoluene	11.61	11.52	11.72
2-Nitrotoluene	12.39	12.26	12.56
4-Nitrotoluene	12.80	12.67	12.97
3-Nitrotoluene	13.35	13.22	13.52
PETN	14.39	14.29	14.59
1,2-Dinitrobenzene	8.55	8.41	8.71

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\05170039.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 18-May-2024 01:43:21 ALS Bottle#: 7 Worklist Smp#: 39
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-May-2024 10:51:45 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1674

First Level Reviewer: LV5D Date: 18-May-2024 10:33:29

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.620	6.617	0.003	23747	0.2500	0.2485	M
8 RDX	1	7.626	7.630	-0.004	27452	0.2500	0.2478	
9 2,4,6-Trinitrophenol	1	7.860	7.863	-0.003	20456	0.2500	0.2579	
$ 10 1,2-Dinitrobenzene	1	8.553	8.557	-0.004	33408	0.2500	0.2531	
11 1,3,5-Trinitrobenzene	1	8.693	8.697	-0.004	54941	0.2500	0.2465	
12 1,3-Dinitrobenzene	1	9.300	9.310	-0.010	76257	0.2500	0.2547	
13 Nitrobenzene	1	9.653	9.670	-0.017	47610	0.2500	0.2425	
14 3,5-Dinitroaniline	1	9.880	9.890	-0.010	54669	0.2500	0.2484	
15 Tetryl	1	9.966	9.983	-0.017	45160	0.2500	0.2487	
16 Nitroglycerin	2	10.440	10.457	-0.017	171073	2.50	2.57	
17 2,4,6-Trinitrotoluene	1	10.873	10.883	-0.010	54178	0.2500	0.2518	
18 4-Amino-2,6-dinitrotoluene	1	11.033	11.043	-0.010	38259	0.2500	0.2551	
19 2-Amino-4,6-dinitrotoluene	1	11.286	11.297	-0.011	50486	0.2500	0.2527	
20 2,6-Dinitrotoluene	1	11.440	11.450	-0.010	37627	0.2500	0.2561	
21 2,4-Dinitrotoluene	1	11.613	11.623	-0.010	74861	0.2500	0.2565	
22 o-Nitrotoluene	1	12.386	12.410	-0.024	30924	0.2500	0.2392	
23 p-Nitrotoluene	1	12.800	12.823	-0.023	26715	0.2500	0.2368	
24 m-Nitrotoluene	1	13.346	13.370	-0.024	33731	0.2500	0.2341	
25 PETN	2	14.386	14.437	-0.051	182184	2.50	2.53	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00081 Amount Added: 25.00 Units: uL

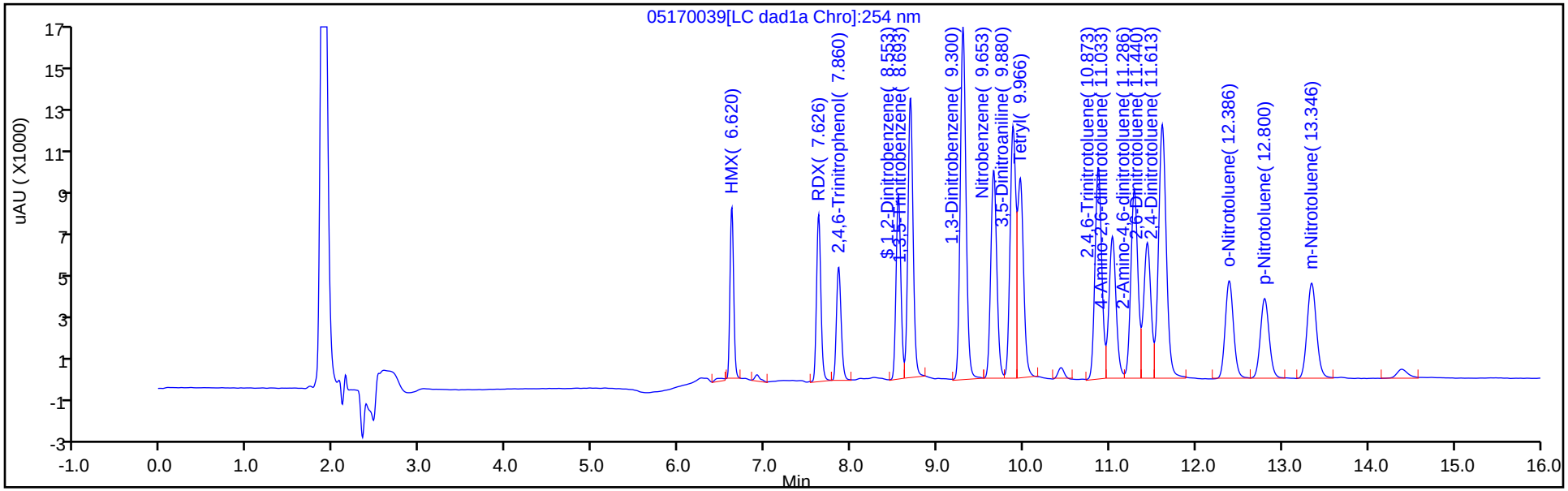
Report Date: 18-May-2024 10:51:45 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

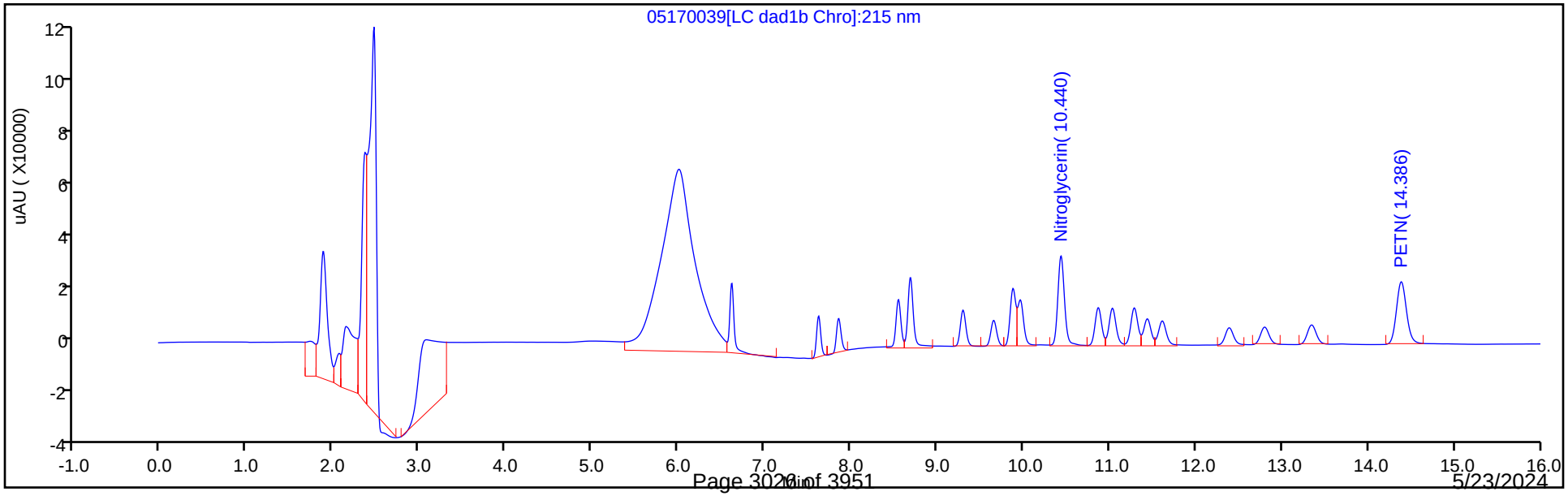
Data File: \\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170039.d

Injection Date:	18-May-2024 01:43:21	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	39
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

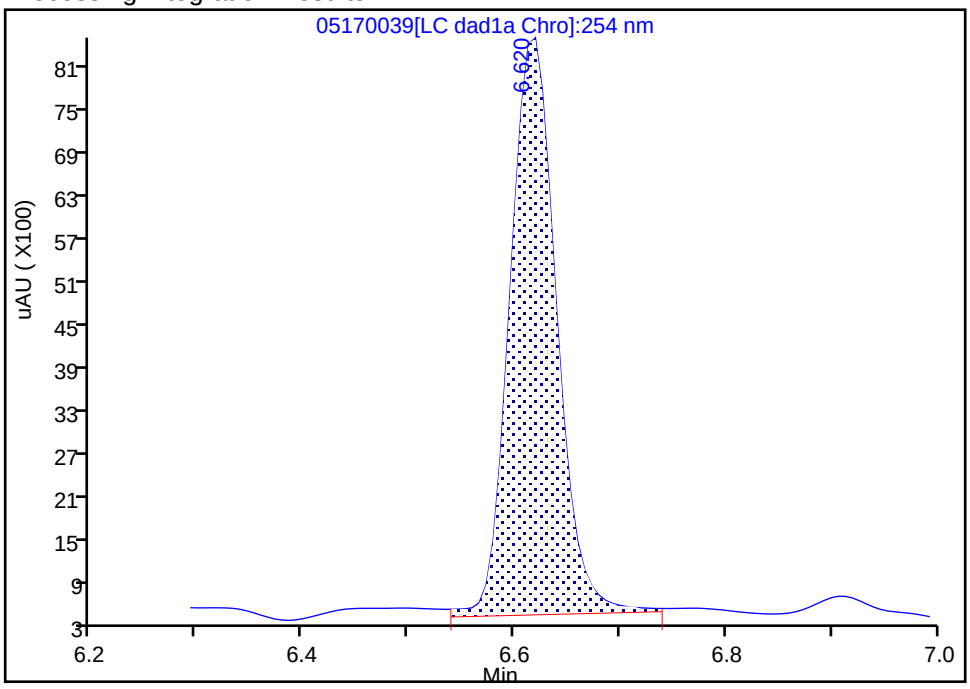
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170039.d				
Injection Date:	18-May-2024 01:43:21	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

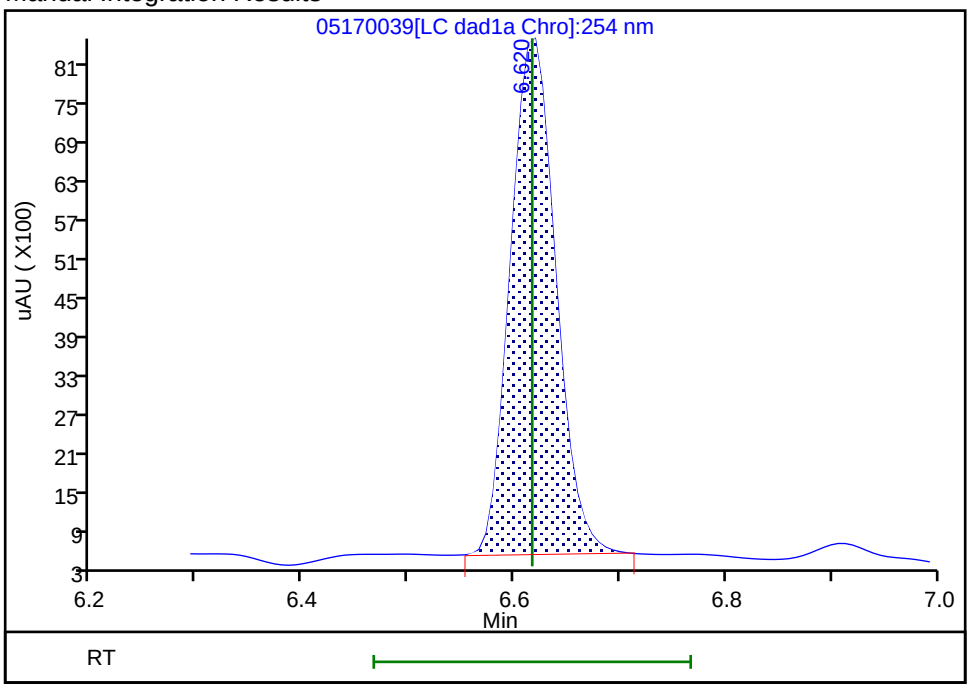
Processing Integration Results

RT: 6.62
Area: 24864
Amount: 0.260237
Amount Units: ug/mL



Manual Integration Results

RT: 6.62
Area: 23747
Amount: 0.248546
Amount Units: ug/mL



Reviewer: LV5D, 18-May-2024 10:33:28 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653871/50 | Calibration Date: 05/18/2024 05:55

Instrument ID: CHHPLC_X3 | Calib Start Date: 04/17/2024 20:37

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 04/17/2024 23:41

Lab File ID: 05170050.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95544	95468		250	250	-0.0	20.0
RDX	Ave	110767	109284		247	250	-1.3	20.0
Picric acid	Ave	79326	81408		257	250	2.6	20.0
1,3,5-Trinitrobenzene	Ave	222853	219352		246	250	-1.6	20.0
1,3-Dinitrobenzene	Ave	299436	304060		254	250	1.5	20.0
Nitrobenzene	Ave	196329	187436		239	250	-4.5	20.0
3,5-Dinitroaniline	Lin2		217196		247	250	-1.3	20.0
Tetryl	Ave	181588	182064		251	250	0.3	20.0
Nitroglycerin	Ave	66464	69011		2600	2500	3.8	20.0
2,4,6-Trinitrotoluene	Ave	215192	216348		251	250	0.5	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	152956		255	250	2.0	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	203924		255	250	2.1	20.0
2,6-Dinitrotoluene	Ave	146914	147032		250	250	0.0	20.0
2,4-Dinitrotoluene	Ave	291844	300296		257	250	2.9	20.0
2-Nitrotoluene	Ave	129305	122164		236	250	-5.5	20.0
4-Nitrotoluene	Ave	112799	107096		237	250	-5.1	20.0
3-Nitrotoluene	Ave	144063	133688		232	250	-7.2	20.0
PETN	Ave	71937	72834		2530	2500	1.2	20.0
1,2-Dinitrobenzene	Lin2		133120		252	250	0.8	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653871/50 Calibration Date: 05/18/2024 05:55

Instrument ID: CHHPLC_X3 Calib Start Date: 04/17/2024 20:37

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 04/17/2024 23:41

Lab File ID: 05170050.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.61	6.47	6.77
RDX	7.63	7.48	7.78
Picric acid	7.86	7.71	8.01
1,3,5-Trinitrobenzene	8.69	8.55	8.85
1,3-Dinitrobenzene	9.31	9.16	9.46
Nitrobenzene	9.66	9.52	9.82
3,5-Dinitroaniline	9.89	9.74	10.04
Tetryl	9.97	9.83	10.13
Nitroglycerin	10.44	10.31	10.61
2,4,6-Trinitrotoluene	10.87	10.78	10.98
4-Amino-2,6-dinitrotoluene	11.03	10.94	11.14
2-Amino-4,6-dinitrotoluene	11.29	11.20	11.40
2,6-Dinitrotoluene	11.44	11.35	11.55
2,4-Dinitrotoluene	11.61	11.52	11.72
2-Nitrotoluene	12.39	12.26	12.56
4-Nitrotoluene	12.81	12.67	12.97
3-Nitrotoluene	13.35	13.22	13.52
PETN	14.39	14.29	14.59
1,2-Dinitrobenzene	8.55	8.41	8.71

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\05170050.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 18-May-2024 05:55:45 ALS Bottle#: 7 Worklist Smp#: 50
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-May-2024 10:51:53 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1674

First Level Reviewer: LV5D Date: 18-May-2024 10:47:53

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.613	6.617	-0.004	23867	0.2500	0.2498	
8 RDX	1	7.626	7.630	-0.004	27321	0.2500	0.2467	
9 2,4,6-Trinitrophenol	1	7.860	7.863	-0.003	20352	0.2500	0.2566	
$ 10 1,2-Dinitrobenzene	1	8.553	8.557	-0.004	33280	0.2500	0.2521	
11 1,3,5-Trinitrobenzene	1	8.693	8.697	-0.004	54838	0.2500	0.2461	
12 1,3-Dinitrobenzene	1	9.306	9.310	-0.004	76015	0.2500	0.2539	
13 Nitrobenzene	1	9.659	9.670	-0.011	46859	0.2500	0.2387	
14 3,5-Dinitroaniline	1	9.886	9.890	-0.004	54299	0.2500	0.2468	
15 Tetryl	1	9.973	9.983	-0.010	45516	0.2500	0.2507	
16 Nitroglycerin	2	10.439	10.457	-0.018	172528	2.50	2.60	
17 2,4,6-Trinitrotoluene	1	10.873	10.883	-0.010	54087	0.2500	0.2513	
18 4-Amino-2,6-dinitrotoluene	1	11.033	11.043	-0.010	38239	0.2500	0.2550	
19 2-Amino-4,6-dinitrotoluene	1	11.293	11.297	-0.004	50981	0.2500	0.2551	
20 2,6-Dinitrotoluene	1	11.439	11.450	-0.011	36758	0.2500	0.2502	
21 2,4-Dinitrotoluene	1	11.613	11.623	-0.010	75074	0.2500	0.2572	
22 o-Nitrotoluene	1	12.393	12.410	-0.017	30541	0.2500	0.2362	
23 p-Nitrotoluene	1	12.806	12.823	-0.017	26774	0.2500	0.2374	
24 m-Nitrotoluene	1	13.346	13.370	-0.024	33422	0.2500	0.2320	
25 PETN	2	14.393	14.437	-0.044	182084	2.50	2.53	

QC Flag Legend
Processing Flags

Reagents:
8330IntermStk_00081 Amount Added: 25.00 Units: uL

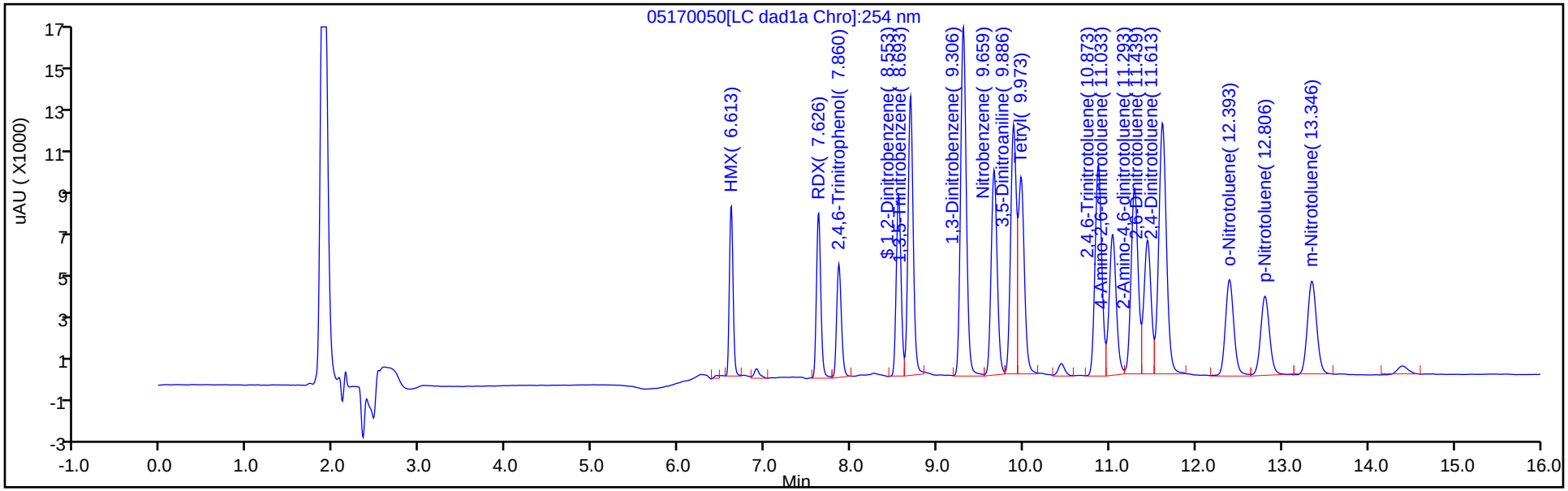
Report Date: 18-May-2024 10:51:53 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

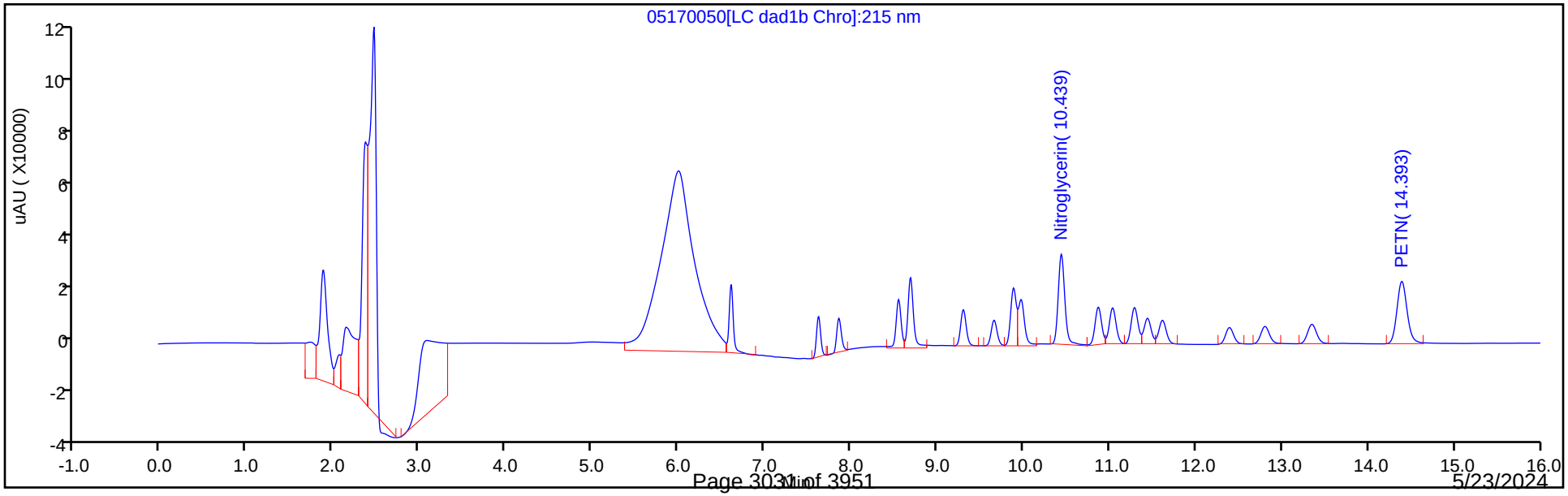
Data File: \\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170050.d

Injection Date:	18-May-2024 05:55:45	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	50
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICV 280-647408/19 | Calibration Date: 03/28/2024 01:13

Instrument ID: CHHPLC_X5 | Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 03/28/2024 00:38

Lab File ID: 03270019.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	191683	167164		436	500	-12.8	20.0
Picric acid	Ave	150420	166198		552	500	10.5	20.0
RDX	Ave	213594	203324		476	500	-4.8	20.0
Nitrobenzene	Ave	377742	392296		519	500	3.9	20.0
3,5-Dinitroaniline	Lin2		459904		522	500	4.3	20.0
1,3-Dinitrobenzene	Ave	598366	638906		534	500	6.8	20.0
Nitroglycerin	Ave	135390	138980		5130	5000	2.7	20.0
2-Nitrotoluene	Ave	247354	249362		504	500	0.8	20.0
4-Nitrotoluene	Lin2		225116		516	500	3.3	20.0
4-Amino-2,6-dinitrotoluene	Lin2		292534		523	500	4.7	20.0
3-Nitrotoluene	Lin2		281860		517	500	3.4	20.0
2-Amino-4,6-dinitrotoluene	Lin2		407870		509	500	1.8	20.0
1,3,5-Trinitrobenzene	Ave	429634	451924		526	500	5.2	20.0
2,6-Dinitrotoluene	Ave	272831	283050		519	500	3.7	20.0
2,4-Dinitrotoluene	Ave	546523	560170		512	500	2.5	20.0
Tetryl	Ave	336239	335112		498	500	-0.3	20.0
2,4,6-Trinitrotoluene	Ave	416462	413246		496	500	-0.8	20.0
PETN	Lin2		137527		5290	5000	5.9	20.0
1,2-Dinitrobenzene	Ave	264153	251008		475	500	-5.0	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICV 280-647408/19 Calibration Date: 03/28/2024 01:13

Instrument ID: CHHPLC_X5 Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/28/2024 00:38

Lab File ID: 03270019.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.78	6.64	6.94
Picric acid	7.89	7.78	8.08
RDX	8.87	8.73	9.03
Nitrobenzene	11.55	11.40	11.70
3,5-Dinitroaniline	14.39	14.24	14.54
1,3-Dinitrobenzene	14.81	14.67	14.97
Nitroglycerin	15.07	14.92	15.22
2-Nitrotoluene	15.75	15.60	15.90
4-Nitrotoluene	16.01	15.87	16.17
4-Amino-2,6-dinitrotoluene	16.50	16.36	16.66
3-Nitrotoluene	16.87	16.73	17.03
2-Amino-4,6-dinitrotoluene	17.38	17.24	17.54
1,3,5-Trinitrobenzene	17.80	17.66	17.96
2,6-Dinitrotoluene	18.81	18.68	18.98
2,4-Dinitrotoluene	19.30	19.16	19.46
Tetryl	22.73	22.59	22.89
2,4,6-Trinitrotoluene	23.69	23.56	23.86
PETN	24.67	24.54	24.84
1,2-Dinitrobenzene	12.57	12.43	12.73

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270019.D
Lims ID: ICV INT
Client ID:
Sample Type: ICV
Inject. Date: 28-Mar-2024 01:13:27 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV INT
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 28-Mar-2024 14:21:53 Calib Date: 28-Mar-2024 00:38:31
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1687

First Level Reviewer: LV5D Date: 28-Mar-2024 11:45:09

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	5 HMX	1	6.781	6.787	-0.006	83582	0.5000	0.4360	
	7 2,4,6-Trinitrophenol	1	7.894	7.934	-0.040	83099	0.5000	0.5524	
	8 RDX	1	8.867	8.881	-0.014	101662	0.5000	0.4760	
	9 Nitrobenzene	1	11.547	11.554	-0.007	196148	0.5000	0.5193	
$	10 1,2-Dinitrobenzene	1	12.574	12.581	-0.007	125504	0.5000	0.4751	
	11 3,5-Dinitroaniline	1	14.387	14.394	-0.007	229952	0.5000	0.5216	
	12 1,3-Dinitrobenzene	1	14.814	14.821	-0.007	319453	0.5000	0.5339	
	13 Nitroglycerin	2	15.074	15.074	0.000	694898	5.00	5.13	M
	14 o-Nitrotoluene	1	15.747	15.754	-0.007	124681	0.5000	0.5041	
	16 p-Nitrotoluene	1	16.007	16.021	-0.014	112558	0.5000	0.5163	
	17 4-Amino-2,6-dinitrotoluene	1	16.501	16.514	-0.013	146267	0.5000	0.5233	
	18 m-Nitrotoluene	1	16.867	16.881	-0.014	140930	0.5000	0.5171	
	19 2-Amino-4,6-dinitrotoluene	1	17.381	17.394	-0.013	203935	0.5000	0.5091	
	20 1,3,5-Trinitrobenzene	1	17.801	17.807	-0.006	225962	0.5000	0.5259	
	21 2,6-Dinitrotoluene	1	18.814	18.827	-0.013	141525	0.5000	0.5187	
	22 2,4-Dinitrotoluene	1	19.301	19.314	-0.013	280085	0.5000	0.5125	
	23 Tetryl	1	22.727	22.741	-0.014	167556	0.5000	0.4983	
	24 2,4,6-Trinitrotoluene	1	23.694	23.707	-0.013	206623	0.5000	0.4961	
	25 PETN	2	24.667	24.687	-0.020	687636	5.00	5.29	M
	26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

Reagents:

8330Surrogate_00154	Amount Added:	50.00	Units: uL
8330 LCS_00134	Amount Added:	50.00	Units: uL

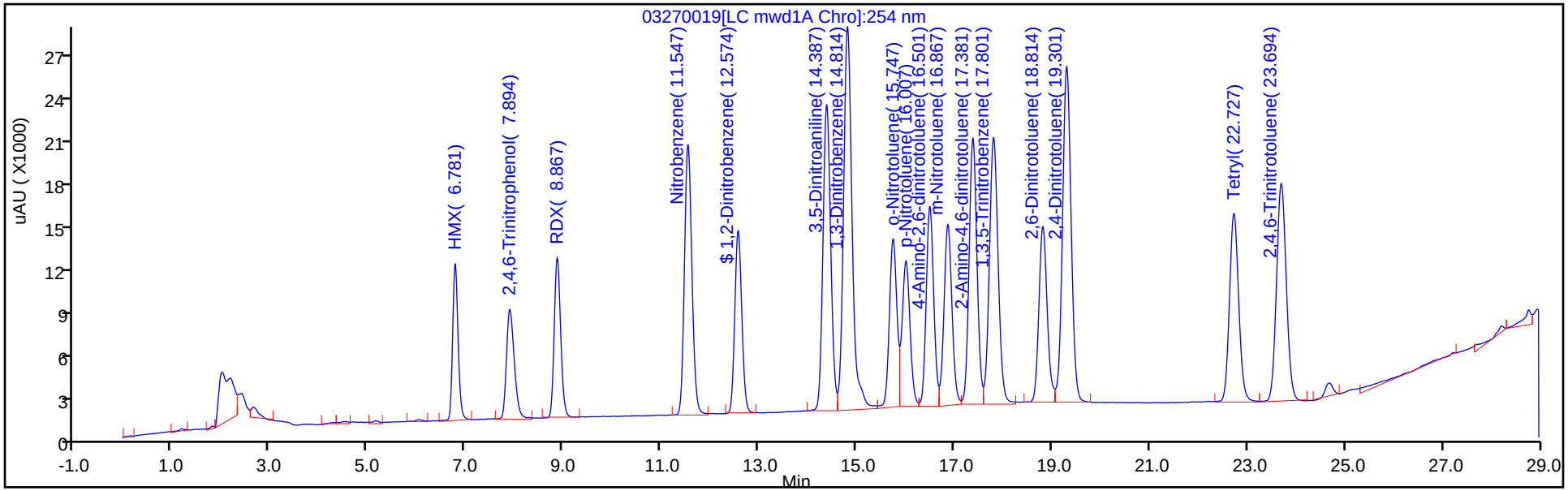
Report Date: 28-Mar-2024 14:21:55 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

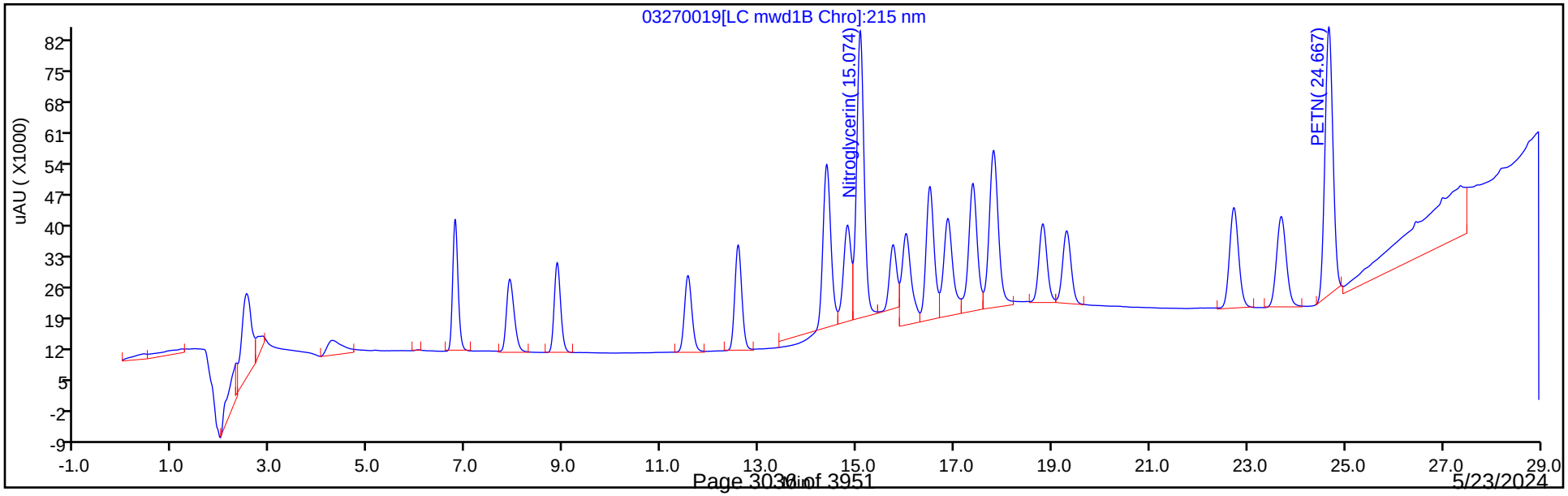
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270019.D

Injection Date:	28-Mar-2024 01:13:27	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	ICV INT			Worklist Smp#:	19
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

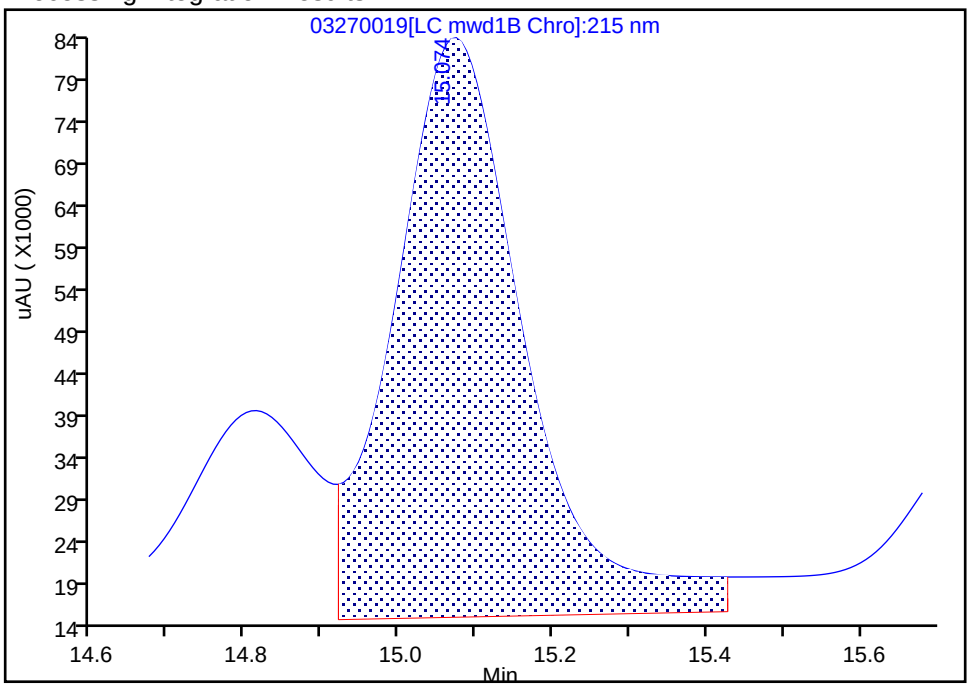
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270019.D				
Injection Date:	28-Mar-2024 01:13:27	Instrument ID:	CHHPLC_X5		
Lims ID:	ICV INT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

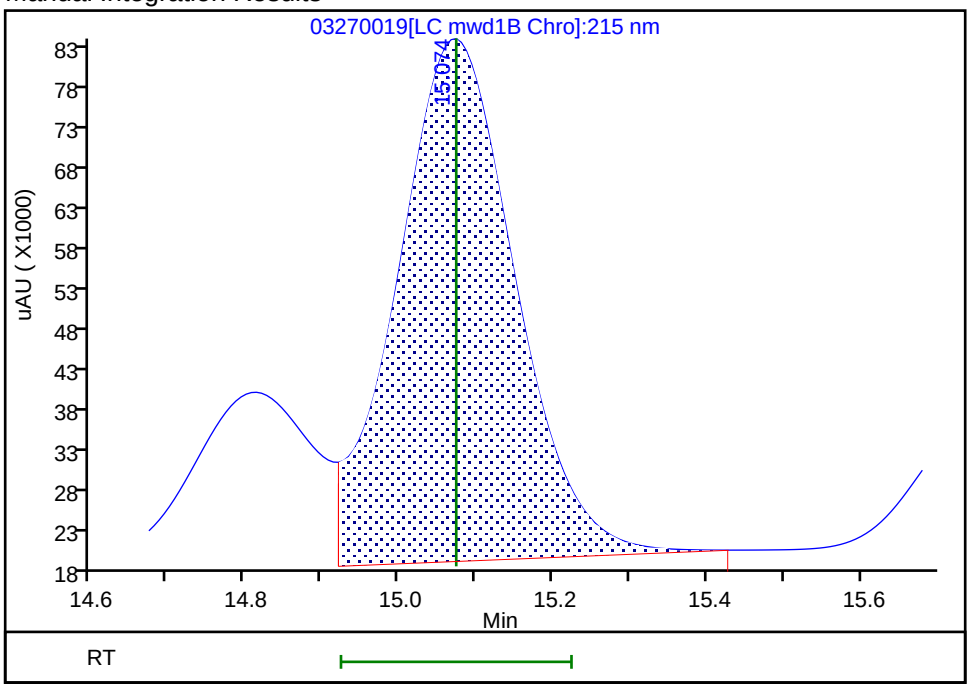
Processing Integration Results

RT: 15.07
Area: 805189
Amount: 5.947189
Amount Units: ug/ml



Manual Integration Results

RT: 15.07
Area: 694898
Amount: 5.132571
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:41:18 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

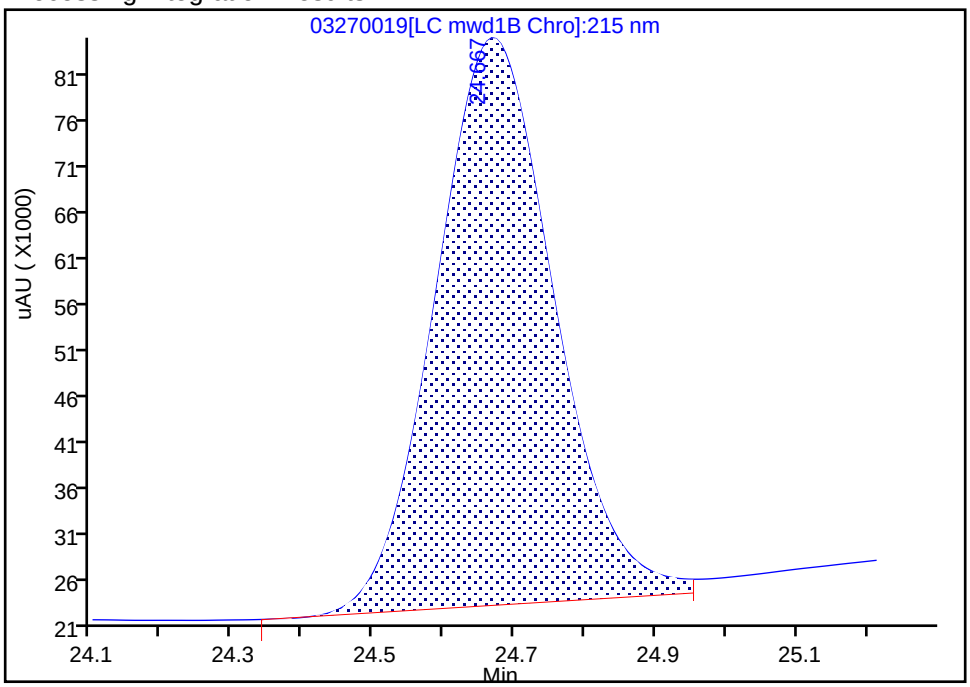
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270019.D
Injection Date: 28-Mar-2024 01:13:27 Instrument ID: CHHPLC_X5
Lims ID: ICV INT
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1B, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

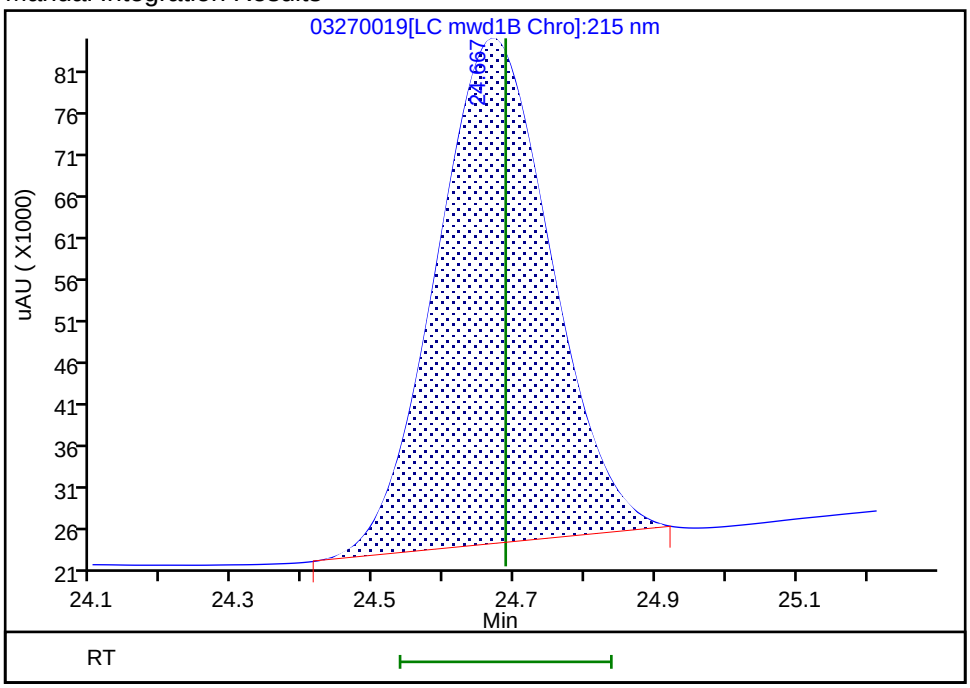
Processing Integration Results

RT: 24.67
Area: 722782
Amount: 5.561586
Amount Units: ug/ml



Manual Integration Results

RT: 24.67
Area: 687636
Amount: 5.292785
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:43:32 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653069/7 | Calibration Date: 05/11/2024 17:27

Instrument ID: CHHPLC_X5 | Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 03/28/2024 00:38

Lab File ID: 05110007.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	191683	178276		233	250	-7.0	20.0
Picric acid	Ave	150420	154404		257	250	2.6	20.0
RDX	Ave	213594	209012		245	250	-2.1	20.0
Nitrobenzene	Ave	377742	380984		252	250	0.9	20.0
3,5-Dinitroaniline	Lin2		446724		253	250	1.3	20.0
1,3-Dinitrobenzene	Ave	598366	619124		259	250	3.5	20.0
Nitroglycerin	Ave	135390	138462		2560	2500	2.3	20.0
2-Nitrotoluene	Ave	247354	247420		250	250	0.0	20.0
4-Nitrotoluene	Lin2		221980		252	250	1.0	20.0
4-Amino-2,6-dinitrotoluene	Lin2		281380		250	250	0.0	20.0
3-Nitrotoluene	Lin2		280900		254	250	1.8	20.0
2-Amino-4,6-dinitrotoluene	Lin2		401836		250	250	-0.2	20.0
1,3,5-Trinitrobenzene	Ave	429634	417040		243	250	-2.9	20.0
2,6-Dinitrotoluene	Ave	272831	274840		252	250	0.7	20.0
2,4-Dinitrotoluene	Ave	546523	548048		251	250	0.3	20.0
Tetryl	Ave	336239	309632		230	250	-7.9	20.0
2,4,6-Trinitrotoluene	Ave	416462	400708		241	250	-3.8	20.0
PETN	Lin2		124218		2410	2500	-3.7	20.0
1,2-Dinitrobenzene	Ave	264153	260764		247	250	-1.3	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653069/7 Calibration Date: 05/11/2024 17:27

Instrument ID: CHHPLC_X5 Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/28/2024 00:38

Lab File ID: 05110007.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.63	6.48	6.78
Picric acid	8.32	8.17	8.47
RDX	8.66	8.51	8.81
Nitrobenzene	11.32	11.17	11.47
3,5-Dinitroaniline	14.07	13.92	14.22
1,3-Dinitrobenzene	14.52	14.37	14.67
Nitroglycerin	14.75	14.60	14.90
2-Nitrotoluene	15.43	15.28	15.58
4-Nitrotoluene	15.69	15.54	15.84
4-Amino-2,6-dinitrotoluene	16.14	15.99	16.29
3-Nitrotoluene	16.54	16.39	16.69
2-Amino-4,6-dinitrotoluene	17.02	16.87	17.17
1,3,5-Trinitrobenzene	17.46	17.31	17.61
2,6-Dinitrotoluene	18.42	18.27	18.57
2,4-Dinitrotoluene	18.91	18.76	19.06
Tetryl	22.21	22.06	22.36
2,4,6-Trinitrotoluene	23.19	23.04	23.34
PETN	24.16	24.01	24.31
1,2-Dinitrobenzene	12.31	12.16	12.46

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110007.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 11-May-2024 17:27:22 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-May-2024 18:12:33 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 14-May-2024 12:59:49

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.631	6.631	0.000	44569	0.2500	0.2325	
7 2,4,6-Trinitrophenol	1	8.317	8.317	0.000	38601	0.2500	0.2566	
8 RDX	1	8.664	8.664	0.000	52253	0.2500	0.2446	
9 Nitrobenzene	1	11.317	11.317	0.000	95246	0.2500	0.2521	
$ 10 1,2-Dinitrobenzene	1	12.311	12.311	0.000	65191	0.2500	0.2468	
11 3,5-Dinitroaniline	1	14.071	14.071	0.000	111681	0.2500	0.2534	
12 1,3-Dinitrobenzene	1	14.517	14.517	0.000	154781	0.2500	0.2587	
13 Nitroglycerin	2	14.751	14.751	0.000	346155	2.50	2.56	M
14 o-Nitrotoluene	1	15.431	15.431	0.000	61855	0.2500	0.2501	
16 p-Nitrotoluene	1	15.691	15.691	0.000	55495	0.2500	0.2524	
17 4-Amino-2,6-dinitrotoluene	1	16.144	16.144	0.000	70345	0.2500	0.2500	
18 m-Nitrotoluene	1	16.544	16.544	0.000	70225	0.2500	0.2544	
19 2-Amino-4,6-dinitrotoluene	1	17.017	17.017	0.000	100459	0.2500	0.2496	
20 1,3,5-Trinitrobenzene	1	17.464	17.464	0.000	104260	0.2500	0.2427	
21 2,6-Dinitrotoluene	1	18.424	18.424	0.000	68710	0.2500	0.2518	
22 2,4-Dinitrotoluene	1	18.911	18.911	0.000	137012	0.2500	0.2507	
23 Tetryl	1	22.211	22.211	0.000	77408	0.2500	0.2302	M
24 2,4,6-Trinitrotoluene	1	23.191	23.191	0.000	100177	0.2500	0.2405	M
25 PETN	2	24.164	24.164	0.000	310545	2.50	2.41	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080 Amount Added: 25.00 Units: uL

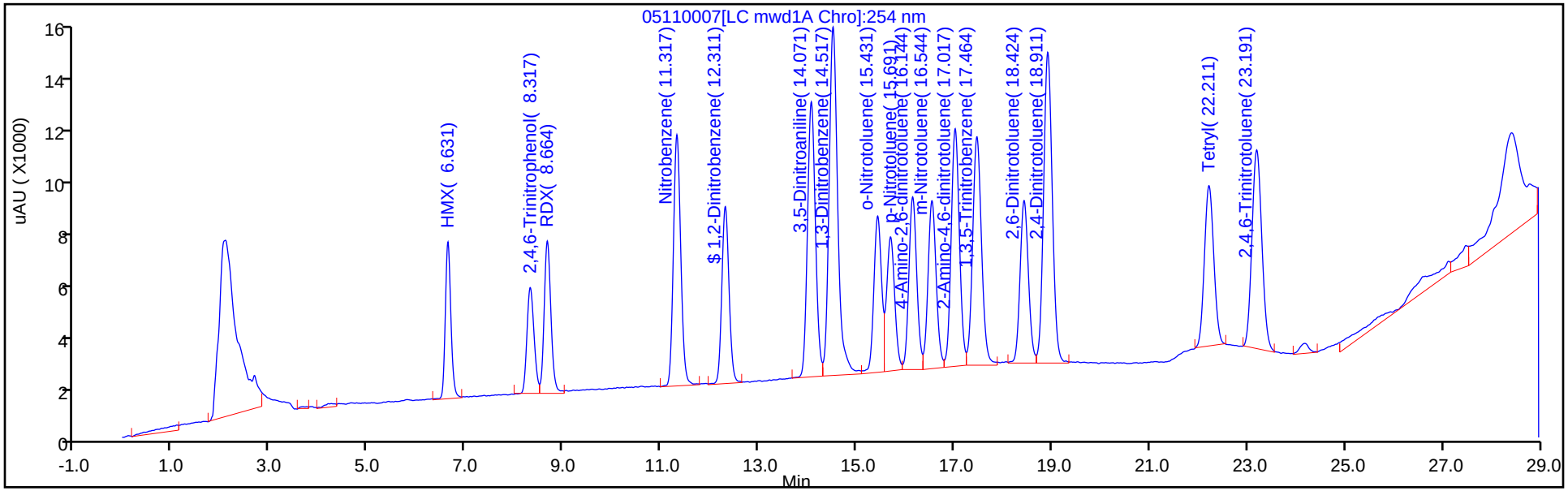
Report Date: 14-May-2024 18:12:33 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

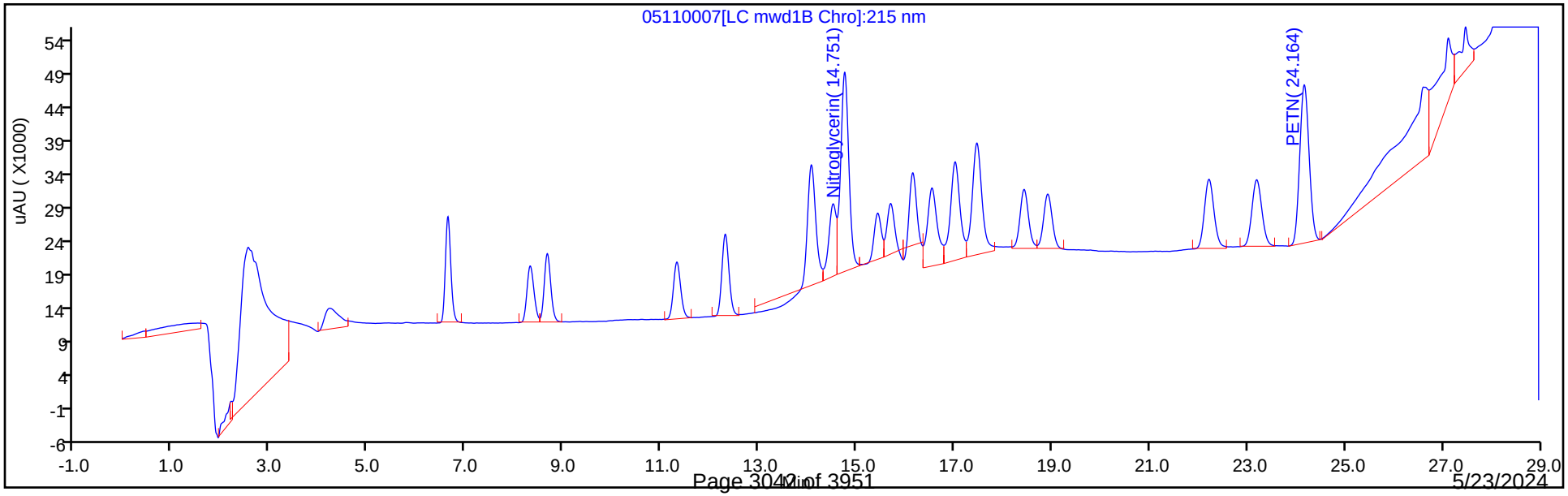
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110007.D

Injection Date:	11-May-2024 17:27:22	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	CCV			Worklist Smp#:	7
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

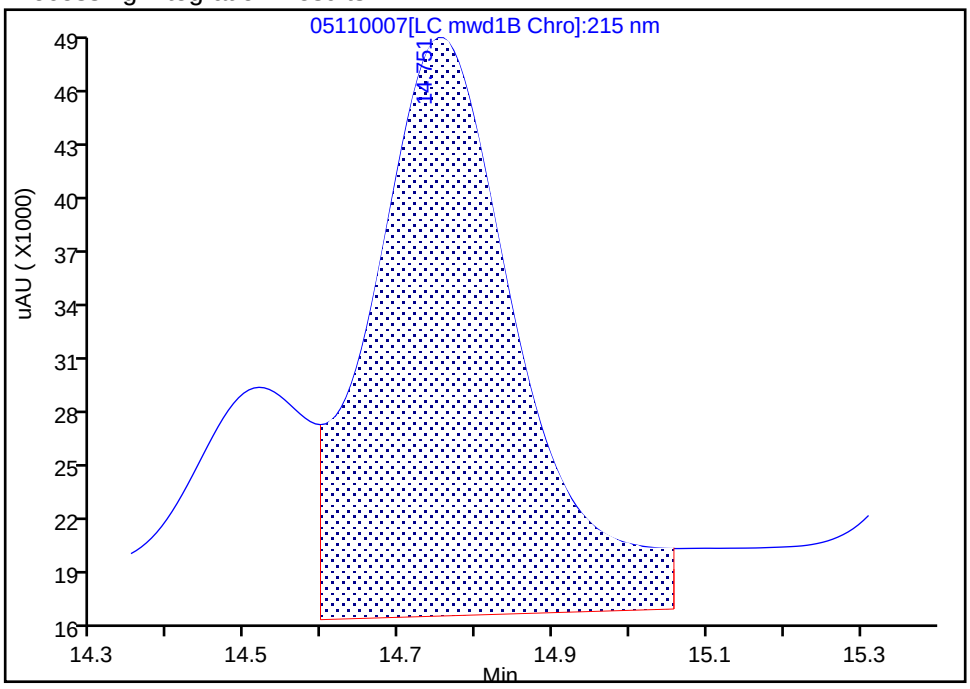
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110007.D				
Injection Date:	11-May-2024 17:27:22	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

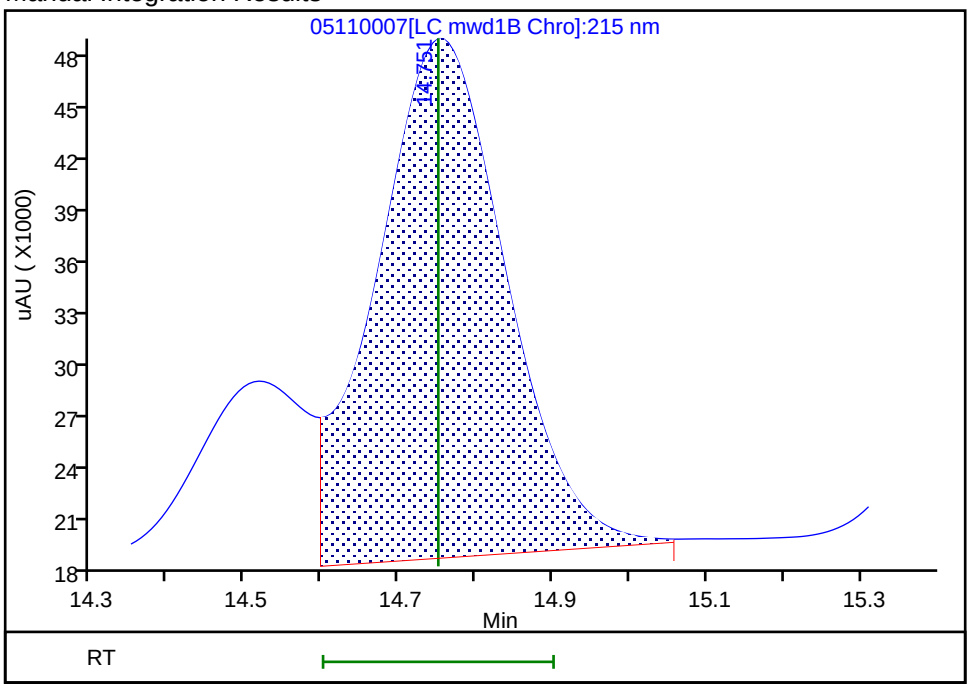
Processing Integration Results

RT: 14.75
Area: 424842
Amount: 3.137917
Amount Units: ug/ml



Manual Integration Results

RT: 14.75
Area: 346155
Amount: 2.556728
Amount Units: ug/ml



Reviewer: LV5D, 14-May-2024 18:06:46 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

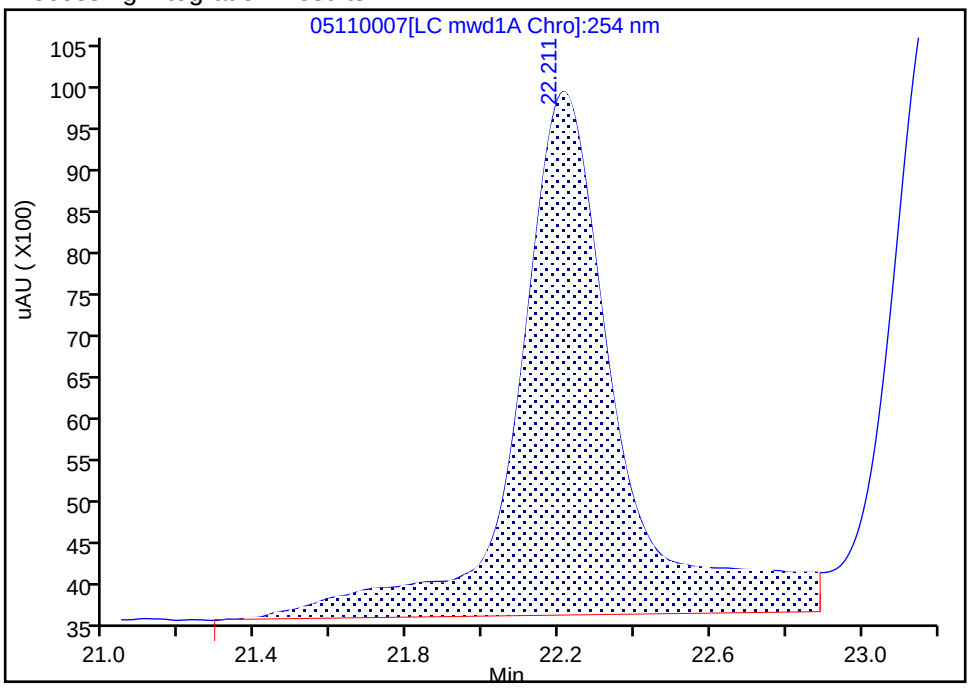
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110007.D				
Injection Date:	11-May-2024 17:27:22	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

23 Tetryl, CAS: 479-45-8

Signal: 1

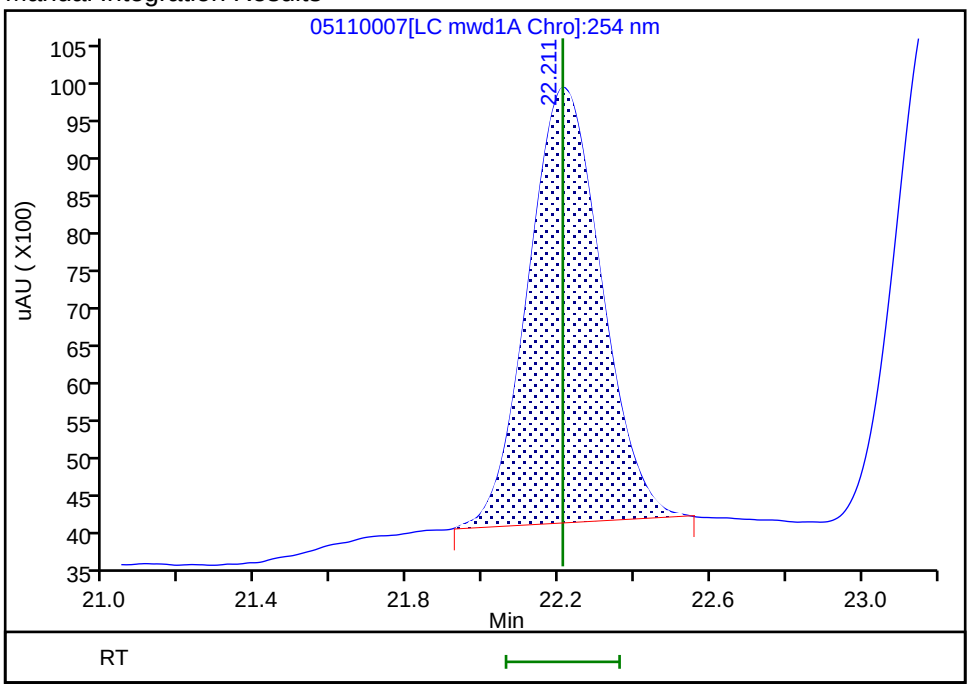
Processing Integration Results

RT: 22.21
Area: 115258
Amount: 0.342786
Amount Units: ug/ml



Manual Integration Results

RT: 22.21
Area: 77408
Amount: 0.230217
Amount Units: ug/ml



Reviewer: LV5D, 14-May-2024 18:06:51 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

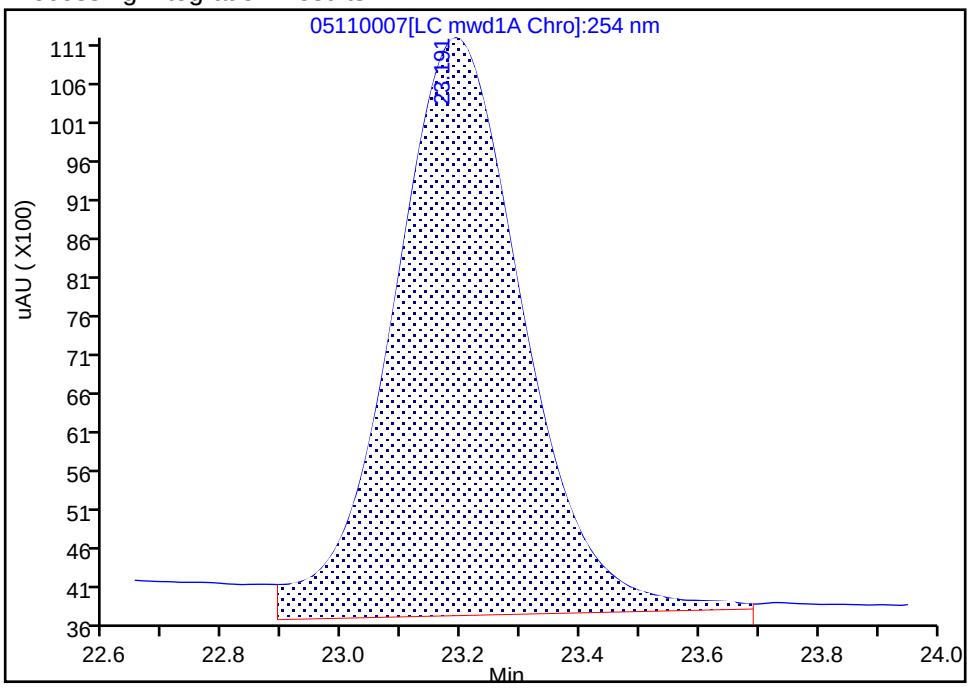
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110007.D				
Injection Date:	11-May-2024 17:27:22	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

24 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

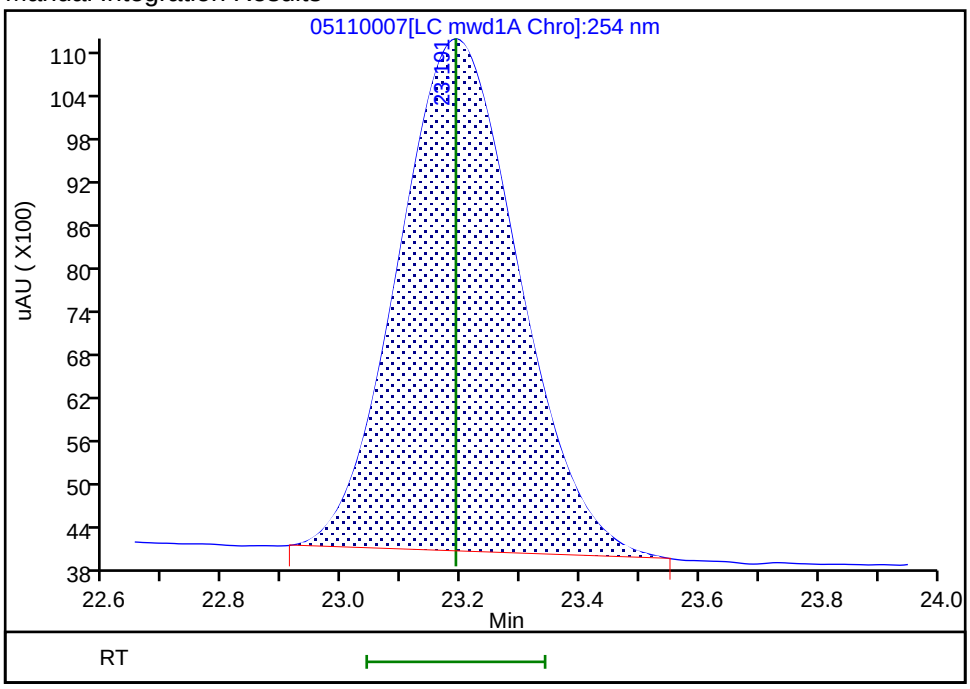
Processing Integration Results

RT: 23.19
Area: 113495
Amount: 0.272522
Amount Units: ug/ml



Manual Integration Results

RT: 23.19
Area: 100177
Amount: 0.240543
Amount Units: ug/ml



Reviewer: LV5D, 14-May-2024 18:06:53 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653069/20 Calibration Date: 05/11/2024 23:51

Instrument ID: CHHPLC_X5 Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/28/2024 00:38

Lab File ID: 05110020.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	191683	179356		234	250	-6.4	20.0
Picric acid	Ave	150420	158544		264	250	5.4	20.0
RDX	Ave	213594	208732		244	250	-2.3	20.0
Nitrobenzene	Ave	377742	373796		247	250	-1.0	20.0
3,5-Dinitroaniline	Lin2		448100		254	250	1.7	20.0
1,3-Dinitrobenzene	Ave	598366	621604		260	250	3.9	20.0
Nitroglycerin	Ave	135390	140257		2590	2500	3.6	20.0
2-Nitrotoluene	Ave	247354	251604		254	250	1.7	20.0
4-Nitrotoluene	Lin2		219940		250	250	0.0	20.0
4-Amino-2,6-dinitrotoluene	Lin2		283424		252	250	0.7	20.0
3-Nitrotoluene	Lin2		279420		253	250	1.2	20.0
2-Amino-4,6-dinitrotoluene	Lin2		402052		250	250	-0.1	20.0
1,3,5-Trinitrobenzene	Ave	429634	418464		244	250	-2.6	20.0
2,6-Dinitrotoluene	Ave	272831	275744		253	250	1.1	20.0
2,4-Dinitrotoluene	Ave	546523	549084		251	250	0.5	20.0
Tetryl	Ave	336239	309868		230	250	-7.8	20.0
2,4,6-Trinitrotoluene	Ave	416462	399968		240	250	-4.0	20.0
PETN	Lin2		125536		2430	2500	-2.6	20.0
1,2-Dinitrobenzene	Ave	264153	260544		247	250	-1.4	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653069/20 Calibration Date: 05/11/2024 23:51

Instrument ID: CHHPLC_X5 Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/28/2024 00:38

Lab File ID: 05110020.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.62	6.48	6.78
Picric acid	8.19	8.17	8.47
RDX	8.65	8.51	8.81
Nitrobenzene	11.32	11.17	11.47
3,5-Dinitroaniline	14.06	13.92	14.22
1,3-Dinitrobenzene	14.51	14.37	14.67
Nitroglycerin	14.75	14.60	14.90
2-Nitrotoluene	15.43	15.28	15.58
4-Nitrotoluene	15.69	15.54	15.84
4-Amino-2,6-dinitrotoluene	16.14	15.99	16.29
3-Nitrotoluene	16.54	16.39	16.69
2-Amino-4,6-dinitrotoluene	17.01	16.87	17.17
1,3,5-Trinitrobenzene	17.45	17.31	17.61
2,6-Dinitrotoluene	18.43	18.27	18.57
2,4-Dinitrotoluene	18.91	18.76	19.06
Tetryl	22.21	22.06	22.36
2,4,6-Trinitrotoluene	23.19	23.04	23.34
PETN	24.17	24.01	24.31
1,2-Dinitrobenzene	12.31	12.16	12.46

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110020.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 11-May-2024 23:51:55 ALS Bottle#: 7 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-May-2024 18:12:36 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 14-May-2024 18:10:16

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.621	6.631	-0.010	44839	0.2500	0.2339	
7 2,4,6-Trinitrophenol	1	8.188	8.317	-0.129	39636	0.2500	0.2635	
8 RDX	1	8.654	8.664	-0.010	52183	0.2500	0.2443	
9 Nitrobenzene	1	11.321	11.317	0.004	93449	0.2500	0.2474	
$ 10 1,2-Dinitrobenzene	1	12.308	12.311	-0.003	65136	0.2500	0.2466	
11 3,5-Dinitroaniline	1	14.061	14.071	-0.010	112025	0.2500	0.2541	
12 1,3-Dinitrobenzene	1	14.508	14.517	-0.009	155401	0.2500	0.2597	
13 Nitroglycerin	2	14.748	14.751	-0.003	350642	2.50	2.59	M
14 o-Nitrotoluene	1	15.428	15.431	-0.003	62901	0.2500	0.2543	
16 p-Nitrotoluene	1	15.694	15.691	0.003	54985	0.2500	0.2501	
17 4-Amino-2,6-dinitrotoluene	1	16.141	16.144	-0.003	70856	0.2500	0.2519	
18 m-Nitrotoluene	1	16.541	16.544	-0.003	69855	0.2500	0.2531	
19 2-Amino-4,6-dinitrotoluene	1	17.008	17.017	-0.009	100513	0.2500	0.2497	
20 1,3,5-Trinitrobenzene	1	17.454	17.464	-0.010	104616	0.2500	0.2435	
21 2,6-Dinitrotoluene	1	18.428	18.424	0.004	68936	0.2500	0.2527	
22 2,4-Dinitrotoluene	1	18.914	18.911	0.003	137271	0.2500	0.2512	
23 Tetryl	1	22.214	22.211	0.003	77467	0.2500	0.2304	M
24 2,4,6-Trinitrotoluene	1	23.188	23.191	-0.003	99992	0.2500	0.2401	M
25 PETN	2	24.174	24.164	0.010	313841	2.50	2.43	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080 Amount Added: 25.00 Units: uL

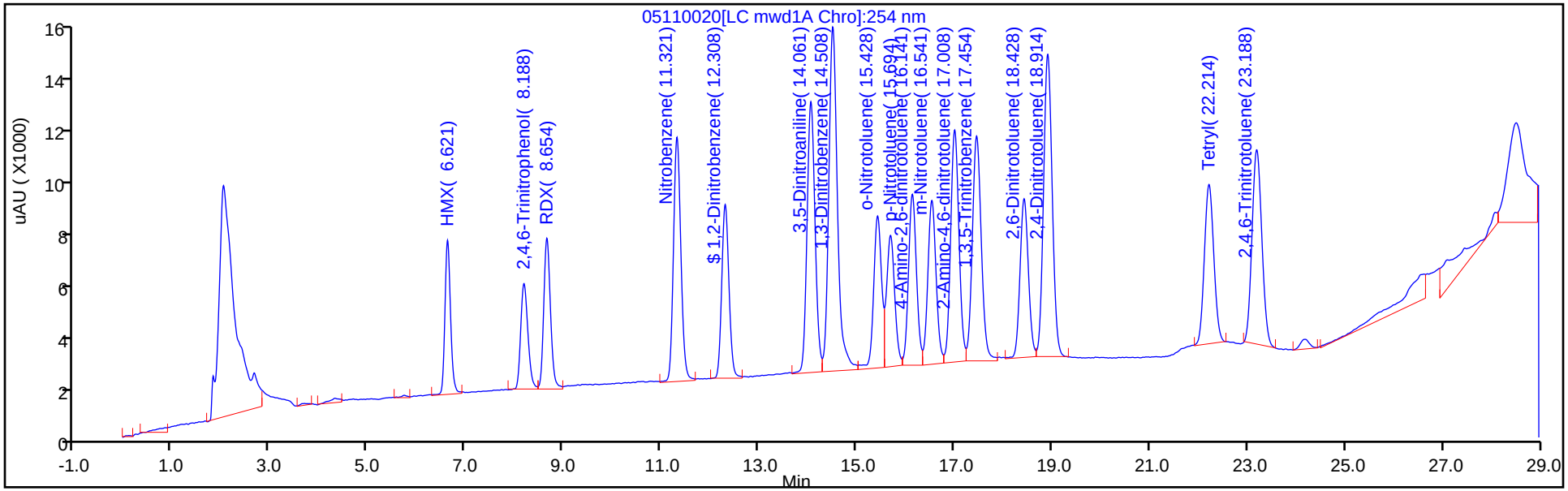
Report Date: 14-May-2024 18:12:37 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

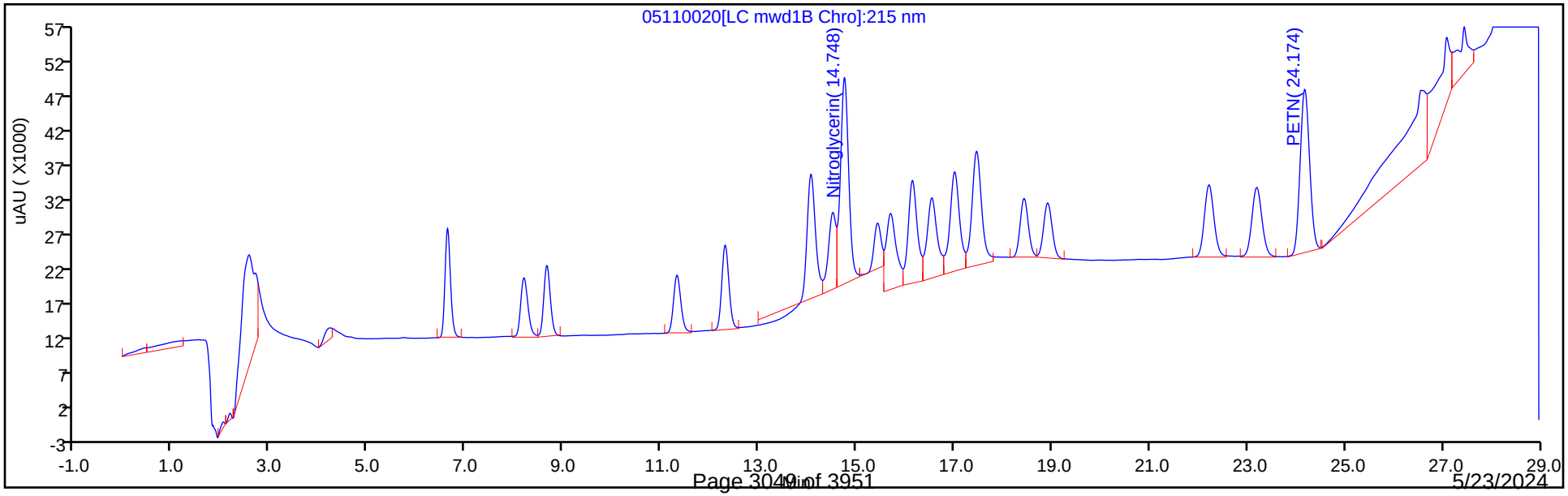
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110020.D

Injection Date:	11-May-2024 23:51:55	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	CCV			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

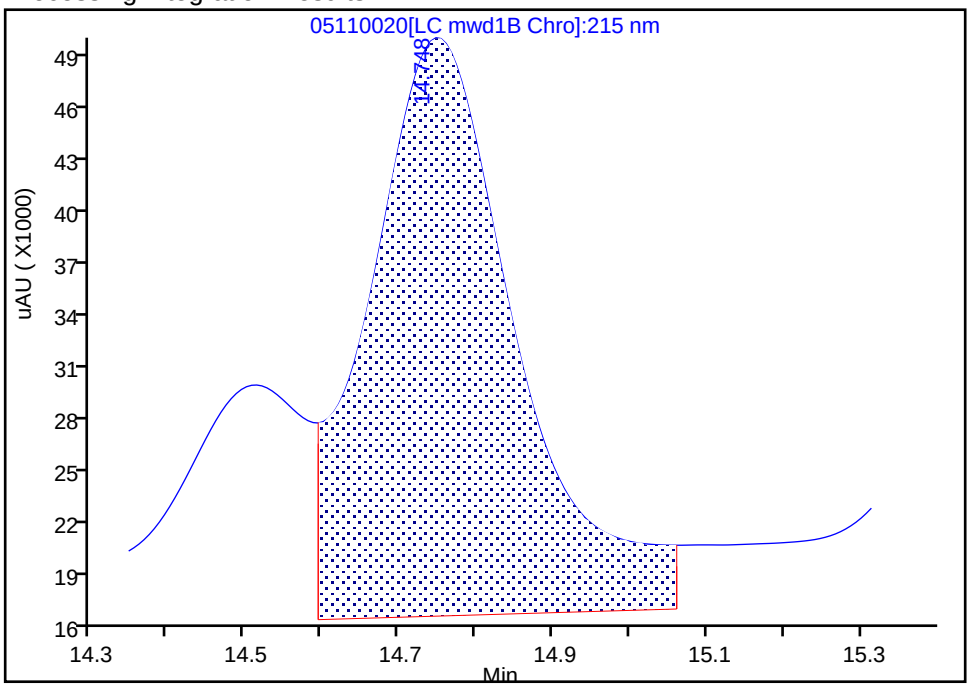
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110020.D				
Injection Date:	11-May-2024 23:51:55	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

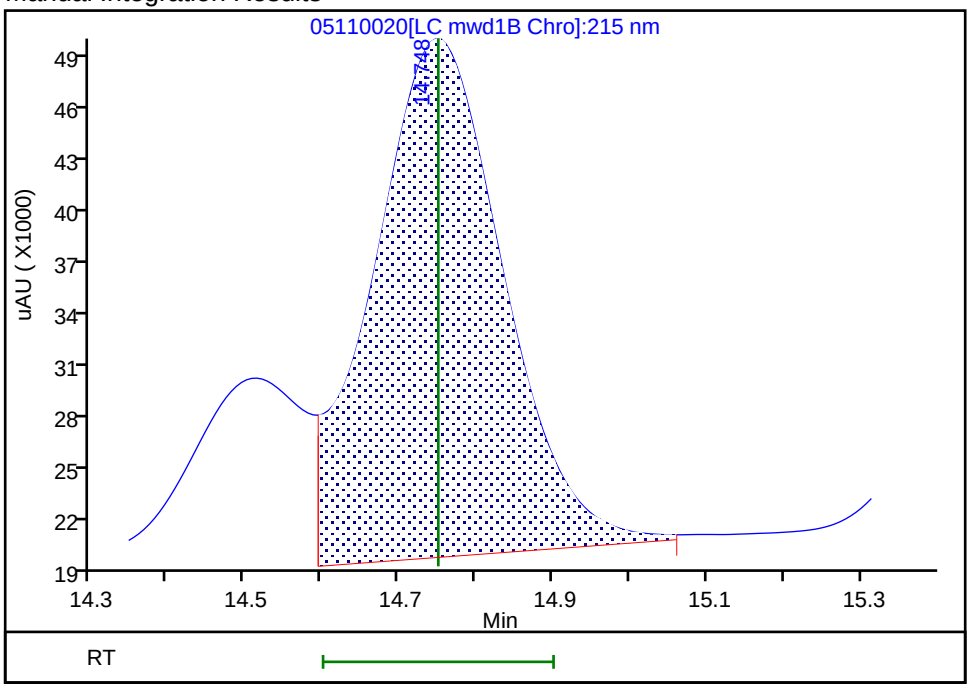
Processing Integration Results

RT: 14.75
Area: 430148
Amount: 3.177107
Amount Units: ug/ml



Manual Integration Results

RT: 14.75
Area: 350642
Amount: 2.589869
Amount Units: ug/ml



Reviewer: LV5D, 14-May-2024 18:10:08 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

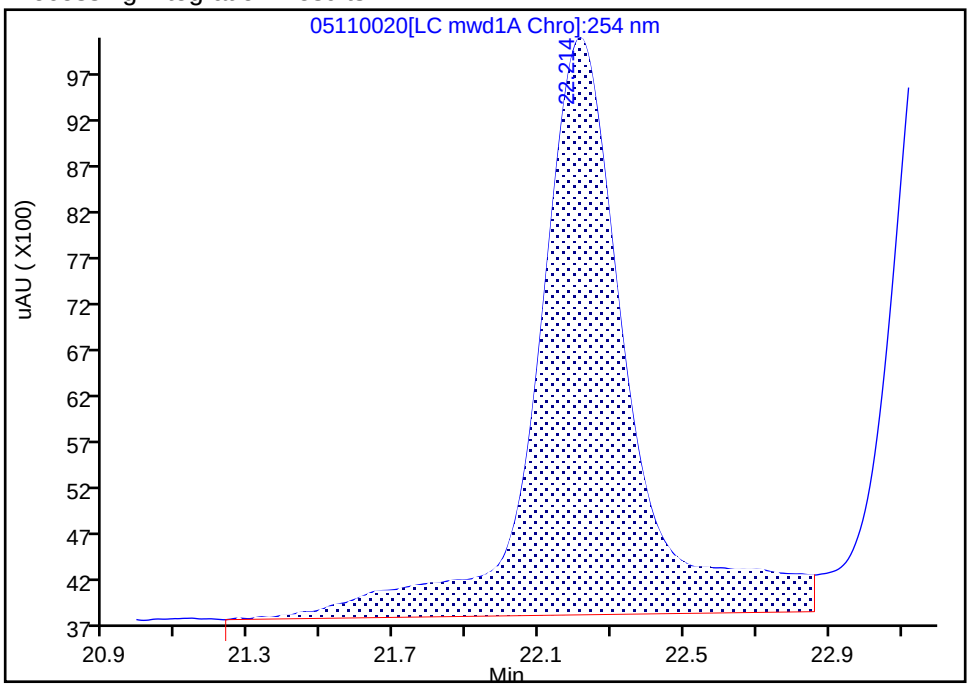
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110020.D				
Injection Date:	11-May-2024 23:51:55	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

23 Tetryl, CAS: 479-45-8

Signal: 1

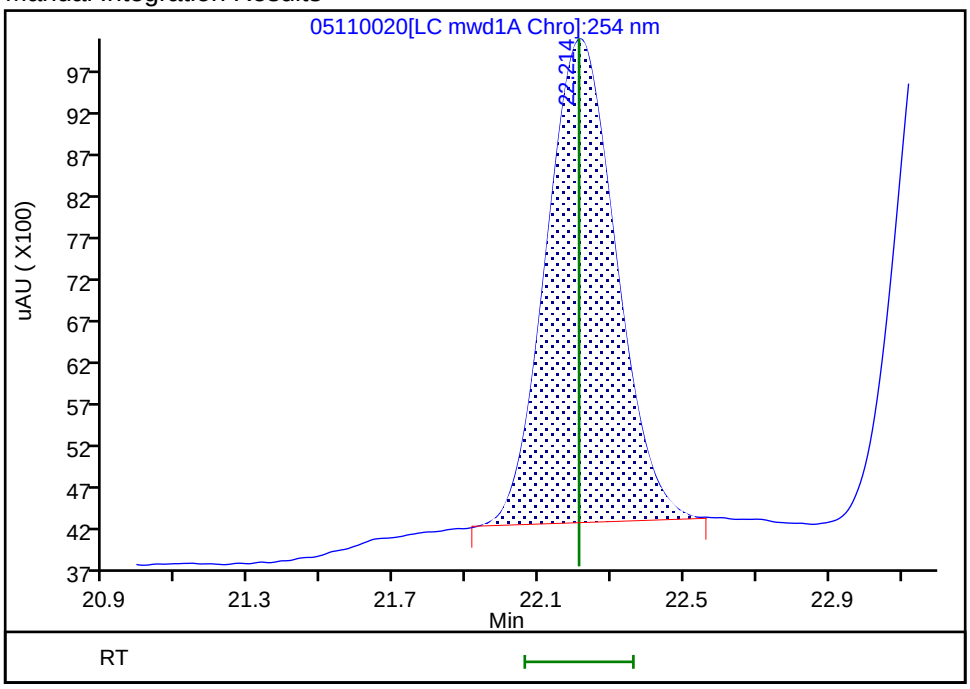
Processing Integration Results

RT: 22.21
Area: 110094
Amount: 0.327428
Amount Units: ug/ml



Manual Integration Results

RT: 22.21
Area: 77467
Amount: 0.230393
Amount Units: ug/ml



Reviewer: LV5D, 14-May-2024 18:10:12 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

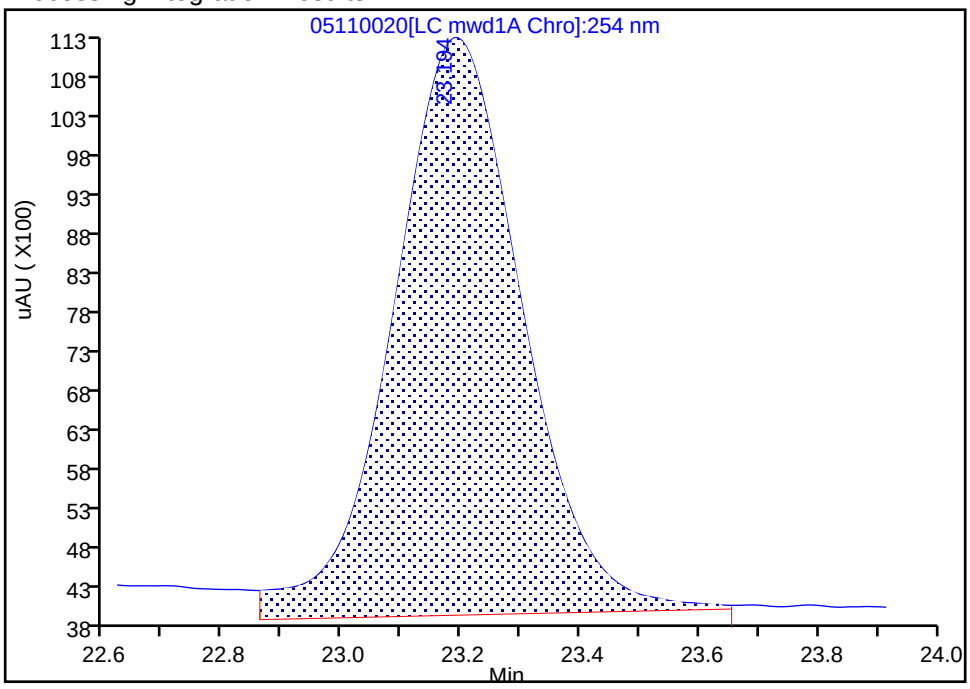
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240511-133288.b\05110020.D				
Injection Date:	11-May-2024 23:51:55	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

24 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

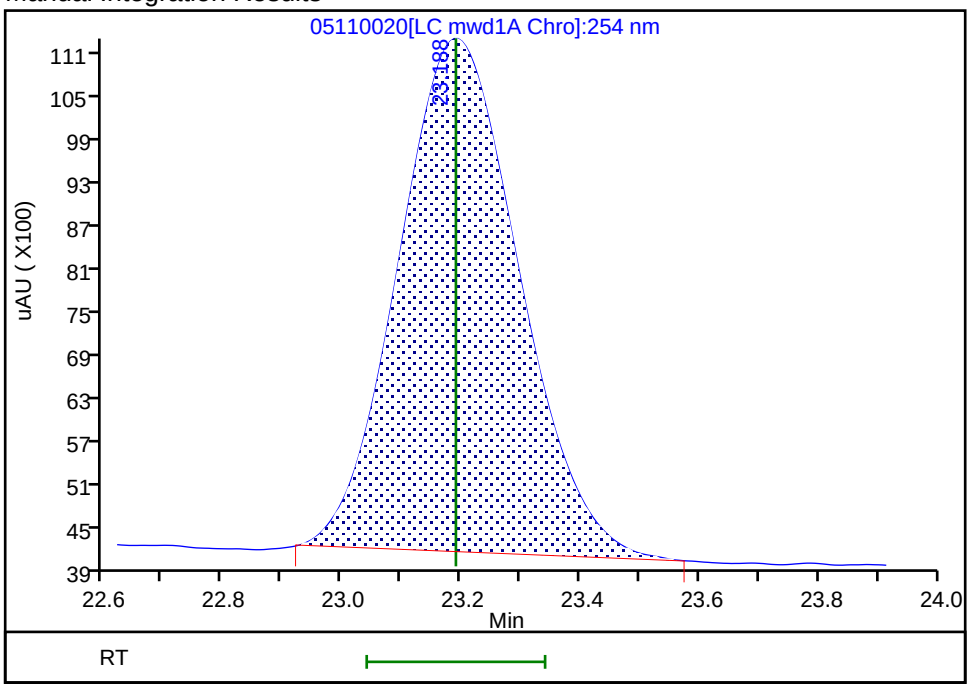
Processing Integration Results

RT: 23.19
Area: 111988
Amount: 0.268903
Amount Units: ug/ml



Manual Integration Results

RT: 23.19
Area: 99992
Amount: 0.240099
Amount Units: ug/ml



Reviewer: LV5D, 14-May-2024 18:10:15 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653380/7 | Calibration Date: 05/15/2024 00:39

Instrument ID: CHHPLC_X5 | Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 03/28/2024 00:38

Lab File ID: 05140007.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	191683	179556		234	250	-6.3	20.0
Picric acid	Ave	150420	152188		253	250	1.2	20.0
RDX	Ave	213594	206736		242	250	-3.2	20.0
Nitrobenzene	Ave	377742	370580		245	250	-1.9	20.0
3,5-Dinitroaniline	Lin2		444612		252	250	0.9	20.0
1,3-Dinitrobenzene	Ave	598366	617512		258	250	3.2	20.0
Nitroglycerin	Ave	135390	134700		2490	2500	-0.5	20.0
2-Nitrotoluene	Ave	247354	251976		255	250	1.9	20.0
4-Nitrotoluene	Lin2		217868		248	250	-0.9	20.0
4-Amino-2,6-dinitrotoluene	Lin2		280664		249	250	-0.2	20.0
3-Nitrotoluene	Lin2		279584		253	250	1.3	20.0
2-Amino-4,6-dinitrotoluene	Lin2		397872		247	250	-1.2	20.0
1,3,5-Trinitrobenzene	Ave	429634	413784		241	250	-3.7	20.0
2,6-Dinitrotoluene	Ave	272831	271392		249	250	-0.5	20.0
2,4-Dinitrotoluene	Ave	546523	543000		248	250	-0.6	20.0
Tetryl	Ave	336239	324392		241	250	-3.5	20.0
2,4,6-Trinitrotoluene	Ave	416462	402588		242	250	-3.3	20.0
PETN	Lin2		104465		2030	2500	-18.8	20.0
1,2-Dinitrobenzene	Ave	264153	256152		242	250	-3.0	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653380/7 Calibration Date: 05/15/2024 00:39

Instrument ID: CHHPLC_X5 Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/28/2024 00:38

Lab File ID: 05140007.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.58	6.43	6.73
Picric acid	8.28	8.13	8.43
RDX	8.60	8.45	8.75
Nitrobenzene	11.26	11.11	11.41
3,5-Dinitroaniline	13.96	13.81	14.11
1,3-Dinitrobenzene	14.42	14.27	14.57
Nitroglycerin	14.68	14.53	14.83
2-Nitrotoluene	15.35	15.20	15.50
4-Nitrotoluene	15.61	15.46	15.76
4-Amino-2,6-dinitrotoluene	16.04	15.89	16.19
3-Nitrotoluene	16.45	16.30	16.60
2-Amino-4,6-dinitrotoluene	16.90	16.75	17.05
1,3,5-Trinitrobenzene	17.36	17.21	17.51
2,6-Dinitrotoluene	18.32	18.17	18.47
2,4-Dinitrotoluene	18.81	18.66	18.96
Tetryl	22.10	21.95	22.25
2,4,6-Trinitrotoluene	23.09	22.94	23.24
PETN	24.10	23.95	24.25
1,2-Dinitrobenzene	12.24	12.09	12.39

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240514-133382.b\05140007.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 15-May-2024 00:39:50 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240514-133382.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2024 13:32:06 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1631

First Level Reviewer: LV5D Date: 15-May-2024 13:26:26

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	5 HMX	1	6.584	6.584	0.000	44889	0.2500	0.2342	
	7 2,4,6-Trinitrophenol	1	8.278	8.278	0.000	38047	0.2500	0.2529	
	8 RDX	1	8.604	8.604	0.000	51684	0.2500	0.2420	
	9 Nitrobenzene	1	11.264	11.264	0.000	92645	0.2500	0.2453	
$	10 1,2-Dinitrobenzene	1	12.237	12.237	0.000	64038	0.2500	0.2424	
	11 3,5-Dinitroaniline	1	13.964	13.964	0.000	111153	0.2500	0.2522	
	12 1,3-Dinitrobenzene	1	14.424	14.424	0.000	154378	0.2500	0.2580	
	13 Nitroglycerin	2	14.684	14.684	0.000	336751	2.50	2.49	M
	14 o-Nitrotoluene	1	15.351	15.351	0.000	62994	0.2500	0.2547	
	16 p-Nitrotoluene	1	15.611	15.611	0.000	54467	0.2500	0.2477	
	17 4-Amino-2,6-dinitrotoluene	1	16.044	16.044	0.000	70166	0.2500	0.2494	
	18 m-Nitrotoluene	1	16.451	16.451	0.000	69896	0.2500	0.2532	
	19 2-Amino-4,6-dinitrotoluene	1	16.897	16.897	0.000	99468	0.2500	0.2471	
	20 1,3,5-Trinitrobenzene	1	17.357	17.357	0.000	103446	0.2500	0.2408	
	21 2,6-Dinitrotoluene	1	18.324	18.324	0.000	67848	0.2500	0.2487	
	22 2,4-Dinitrotoluene	1	18.811	18.811	0.000	135750	0.2500	0.2484	
	23 Tetryl	1	22.104	22.104	0.000	81098	0.2500	0.2412	
	24 2,4,6-Trinitrotoluene	1	23.091	23.091	0.000	100647	0.2500	0.2417	
	25 PETN	2	24.104	24.104	0.000	261162	2.50	2.03	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00081 Amount Added: 25.00 Units: uL

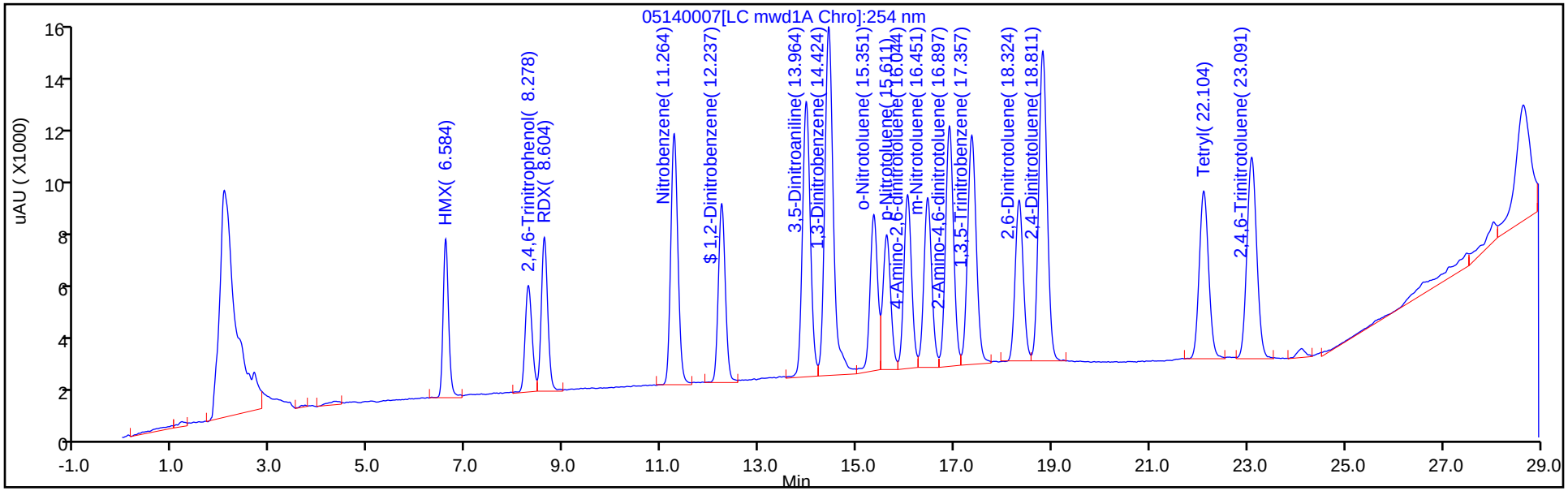
Report Date: 15-May-2024 13:32:07 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

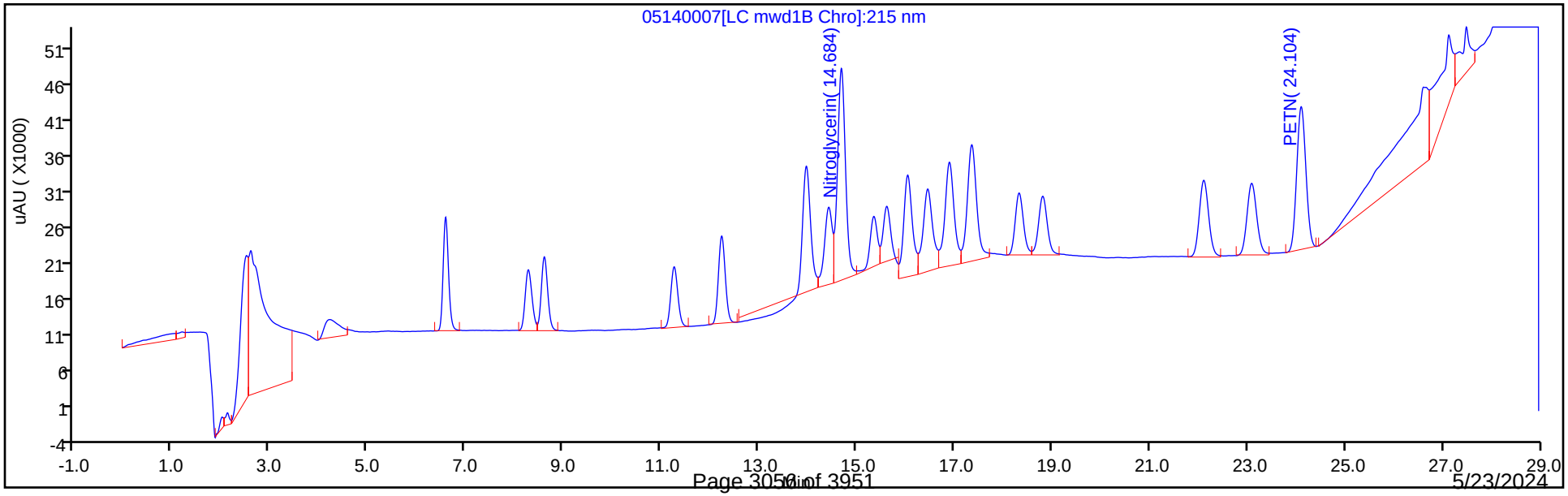
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240514-133382.b\05140007.D

Injection Date:	15-May-2024 00:39:50	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	CCV			Worklist Smp#:	7
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

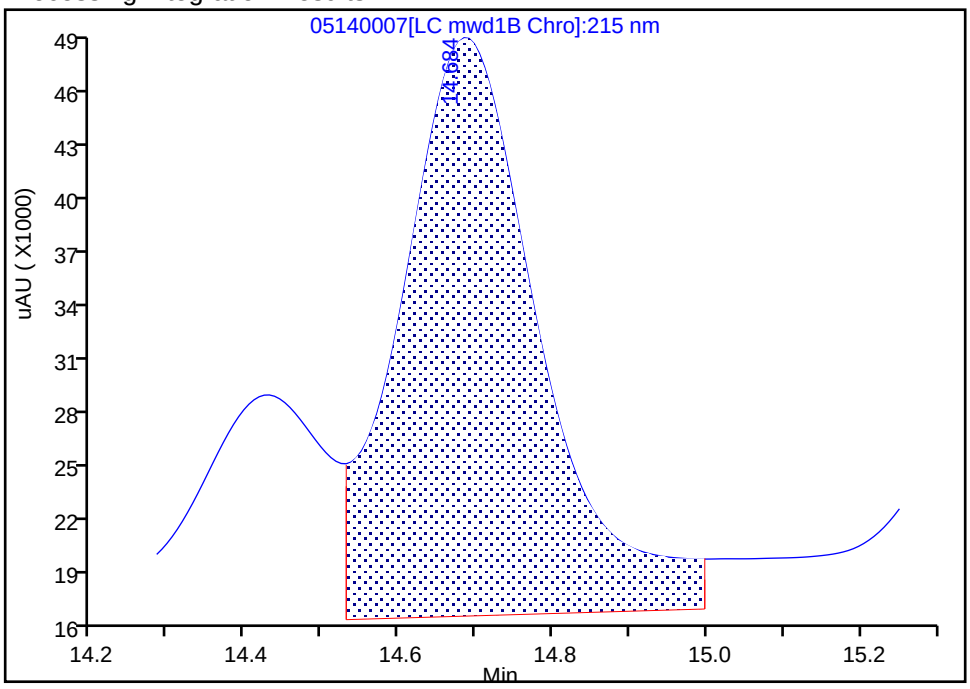
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240514-133382.b\05140007.D				
Injection Date:	15-May-2024 00:39:50	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

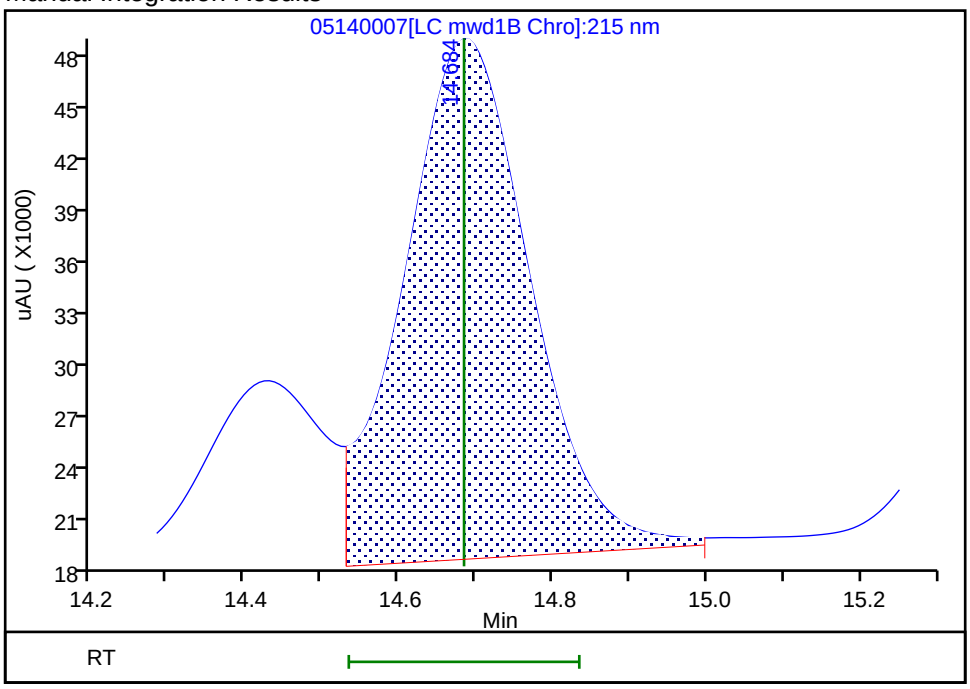
Processing Integration Results

RT: 14.68
Area: 394207
Amount: 2.911644
Amount Units: ug/ml



Manual Integration Results

RT: 14.68
Area: 336751
Amount: 2.487269
Amount Units: ug/ml



Reviewer: LV5D, 15-May-2024 13:26:22 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653380/11 | Calibration Date: 05/15/2024 01:49

Instrument ID: CHHPLC_X5 | Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 03/28/2024 00:38

Lab File ID: 05140011.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	191683	178976		233	250	-6.6	20.0
Picric acid	Ave	150420	152008		253	250	1.1	20.0
RDX	Ave	213594	205572		241	250	-3.8	20.0
Nitrobenzene	Ave	377742	366700		243	250	-2.9	20.0
3,5-Dinitroaniline	Lin2		440332		250	250	-0.1	20.0
1,3-Dinitrobenzene	Ave	598366	612088		256	250	2.3	20.0
Nitroglycerin	Ave	135390	131874		2440	2500	-2.6	20.0
2-Nitrotoluene	Ave	247354	251384		254	250	1.6	20.0
4-Nitrotoluene	Lin2		218292		248	250	-0.7	20.0
4-Amino-2,6-dinitrotoluene	Lin2		279184		248	250	-0.8	20.0
3-Nitrotoluene	Lin2		273820		248	250	-0.9	20.0
2-Amino-4,6-dinitrotoluene	Lin2		395172		245	250	-1.8	20.0
1,3,5-Trinitrobenzene	Ave	429634	412536		240	250	-4.0	20.0
2,6-Dinitrotoluene	Ave	272831	269352		247	250	-1.3	20.0
2,4-Dinitrotoluene	Ave	546523	537548		246	250	-1.6	20.0
Tetryl	Ave	336239	323180		240	250	-3.9	20.0
2,4,6-Trinitrotoluene	Ave	416462	409016		246	250	-1.8	20.0
PETN	Lin2		104896		2040	2500	-18.4	20.0
1,2-Dinitrobenzene	Ave	264153	255116		241	250	-3.4	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653380/11 Calibration Date: 05/15/2024 01:49

Instrument ID: CHHPLC_X5 Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/28/2024 00:38

Lab File ID: 05140011.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.58	6.43	6.73
Picric acid	8.25	8.13	8.43
RDX	8.60	8.45	8.75
Nitrobenzene	11.26	11.11	11.41
3,5-Dinitroaniline	13.98	13.81	14.11
1,3-Dinitrobenzene	14.44	14.27	14.57
Nitroglycerin	14.69	14.53	14.83
2-Nitrotoluene	15.35	15.20	15.50
4-Nitrotoluene	15.62	15.46	15.76
4-Amino-2,6-dinitrotoluene	16.04	15.89	16.19
3-Nitrotoluene	16.46	16.30	16.60
2-Amino-4,6-dinitrotoluene	16.90	16.75	17.05
1,3,5-Trinitrobenzene	17.36	17.21	17.51
2,6-Dinitrotoluene	18.32	18.17	18.47
2,4-Dinitrotoluene	18.81	18.66	18.96
Tetryl	22.10	21.95	22.25
2,4,6-Trinitrotoluene	23.09	22.94	23.24
PETN	24.10	23.95	24.25
1,2-Dinitrobenzene	12.23	12.09	12.39

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240514-133382.b\05140011.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 15-May-2024 01:49:48 ALS Bottle#: 7 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240514-133382.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2024 13:32:13 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1631

First Level Reviewer: LV5D Date: 15-May-2024 13:31:59

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.582	6.584	-0.002	44744	0.2500	0.2334	
7 2,4,6-Trinitrophenol	1	8.248	8.278	-0.030	38002	0.2500	0.2526	
8 RDX	1	8.602	8.604	-0.002	51393	0.2500	0.2406	
9 Nitrobenzene	1	11.262	11.264	-0.002	91675	0.2500	0.2427	
$ 10 1,2-Dinitrobenzene	1	12.228	12.237	-0.009	63779	0.2500	0.2414	
11 3,5-Dinitroaniline	1	13.975	13.964	0.011	110083	0.2500	0.2497	
12 1,3-Dinitrobenzene	1	14.435	14.424	0.011	153022	0.2500	0.2557	
13 Nitroglycerin	2	14.688	14.684	0.004	329686	2.50	2.44	M
14 o-Nitrotoluene	1	15.348	15.351	-0.003	62846	0.2500	0.2541	
16 p-Nitrotoluene	1	15.615	15.611	0.004	54573	0.2500	0.2482	
17 4-Amino-2,6-dinitrotoluene	1	16.035	16.044	-0.009	69796	0.2500	0.2481	
18 m-Nitrotoluene	1	16.455	16.451	0.004	68455	0.2500	0.2479	
19 2-Amino-4,6-dinitrotoluene	1	16.902	16.897	0.005	98793	0.2500	0.2454	
20 1,3,5-Trinitrobenzene	1	17.362	17.357	0.005	103134	0.2500	0.2401	
21 2,6-Dinitrotoluene	1	18.322	18.324	-0.002	67338	0.2500	0.2468	
22 2,4-Dinitrotoluene	1	18.808	18.811	-0.003	134387	0.2500	0.2459	
23 Tetryl	1	22.102	22.104	-0.002	80795	0.2500	0.2403	
24 2,4,6-Trinitrotoluene	1	23.088	23.091	-0.003	102254	0.2500	0.2455	
25 PETN	2	24.095	24.104	-0.009	262239	2.50	2.04	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00081 Amount Added: 25.00 Units: uL

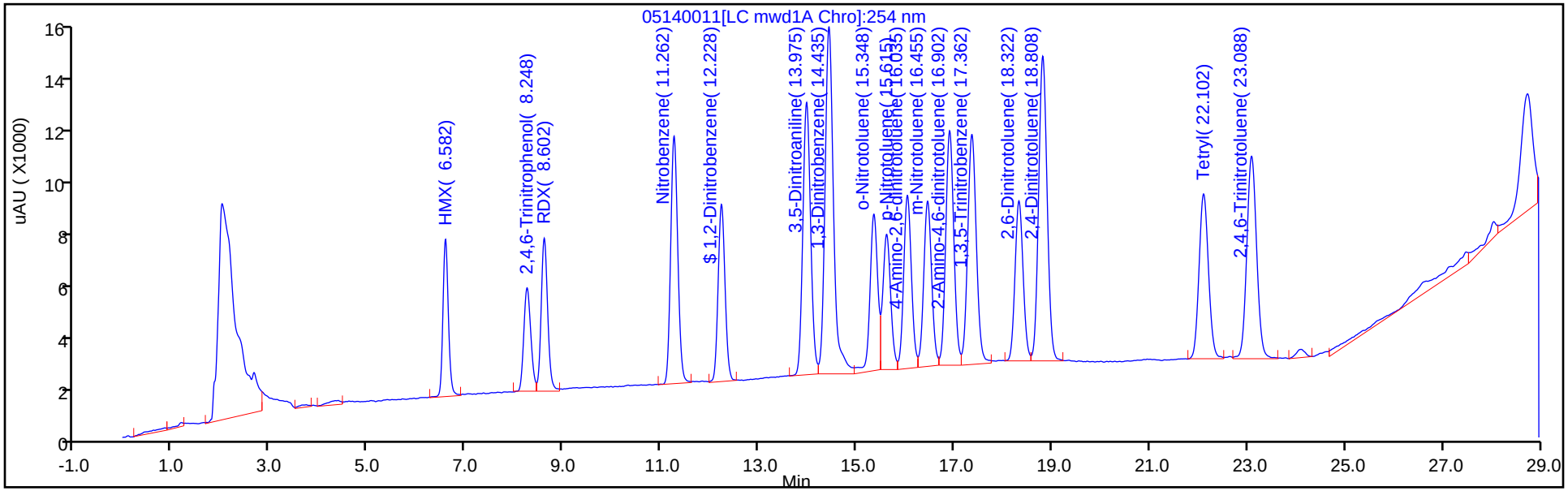
Report Date: 15-May-2024 13:32:14 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

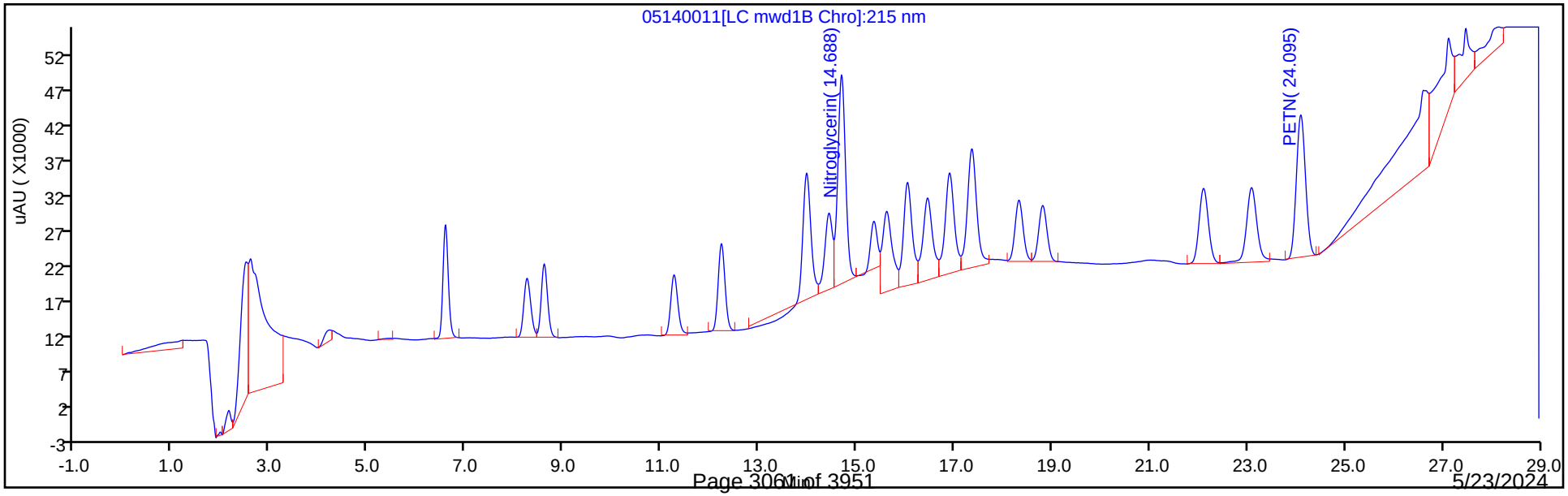
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240514-133382.b\05140011.D

Injection Date:	15-May-2024 01:49:48	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	CCV			Worklist Smp#:	11
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

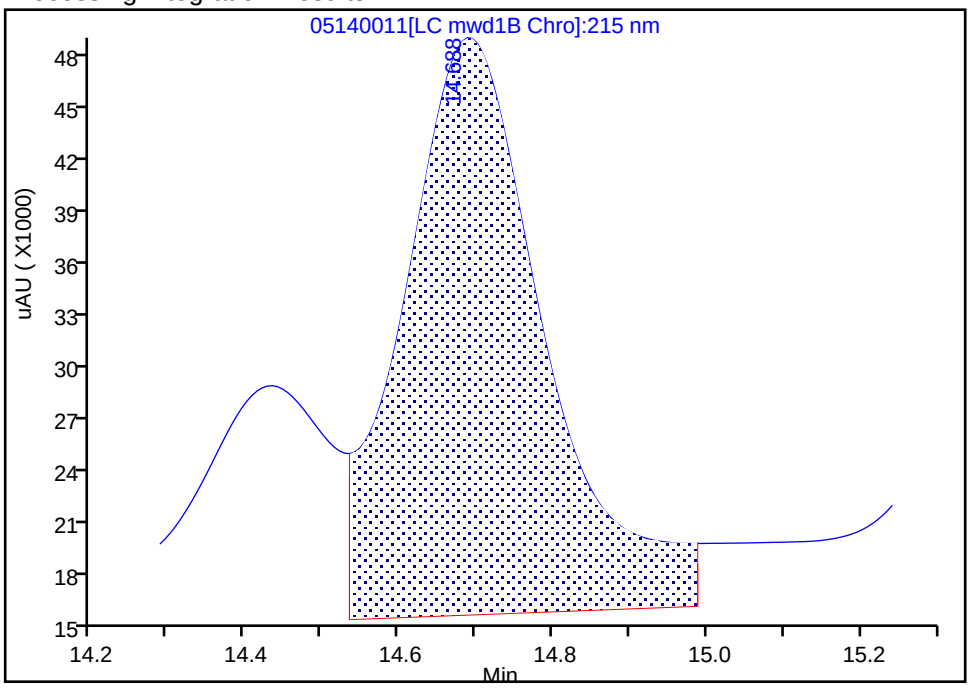
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240514-133382.b\05140011.D
Injection Date: 15-May-2024 01:49:48 Instrument ID: CHHPLC_X5
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

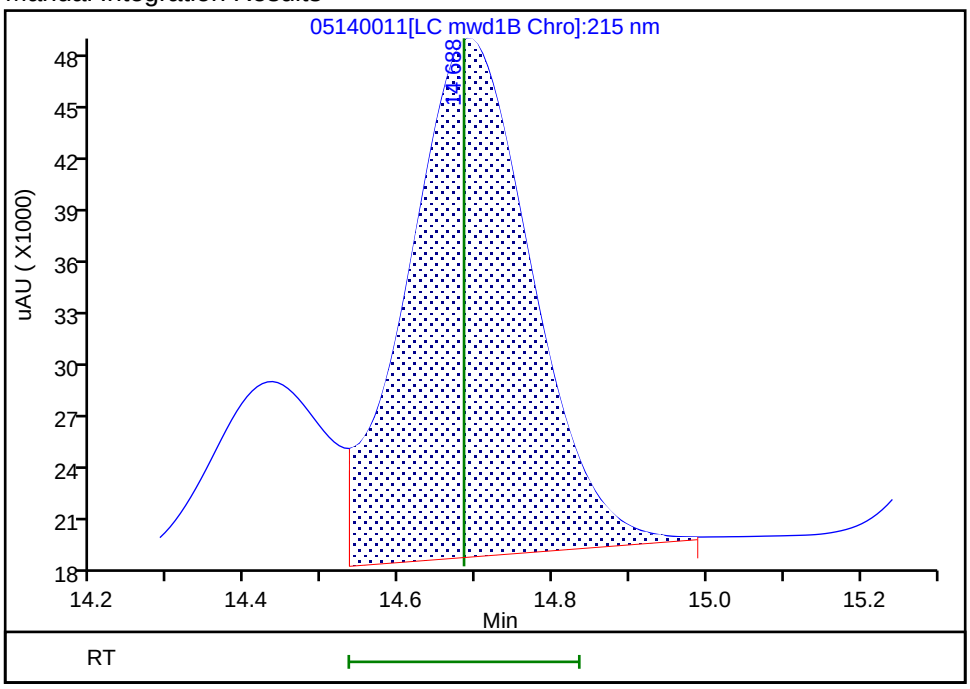
Processing Integration Results

RT: 14.69
Area: 412795
Amount: 3.048936
Amount Units: ug/ml



Manual Integration Results

RT: 14.69
Area: 329686
Amount: 2.435087
Amount Units: ug/ml



Reviewer: LV5D, 15-May-2024 13:31:55 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653873/7 Calibration Date: 05/17/2024 17:49

Instrument ID: CHHPLC_X5 Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/28/2024 00:38

Lab File ID: 05170007.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	191683	181140		236	250	-5.5	20.0
Picric acid	Ave	150420	156924		261	250	4.3	20.0
RDX	Ave	213594	209304		245	250	-2.0	20.0
Nitrobenzene	Ave	377742	379836		251	250	0.6	20.0
3,5-Dinitroaniline	Lin2		451252		256	250	2.4	20.0
1,3-Dinitrobenzene	Ave	598366	620076		259	250	3.6	20.0
Nitroglycerin	Ave	135390	140782		2600	2500	4.0	20.0
2-Nitrotoluene	Ave	247354	253692		256	250	2.6	20.0
4-Nitrotoluene	Lin2		223560		254	250	1.7	20.0
4-Amino-2,6-dinitrotoluene	Lin2		286568		255	250	1.9	20.0
3-Nitrotoluene	Lin2		283476		257	250	2.7	20.0
2-Amino-4,6-dinitrotoluene	Lin2		408224		254	250	1.4	20.0
1,3,5-Trinitrobenzene	Ave	429634	420296		245	250	-2.2	20.0
2,6-Dinitrotoluene	Ave	272831	275820		253	250	1.1	20.0
2,4-Dinitrotoluene	Ave	546523	549556		251	250	0.6	20.0
Tetryl	Ave	336239	307808		229	250	-8.5	20.0
2,4,6-Trinitrotoluene	Ave	416462	420460		252	250	1.0	20.0
PETN	Lin2		130788		2530	2500	1.4	20.0
1,2-Dinitrobenzene	Ave	264153	263760		250	250	-0.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653873/7 Calibration Date: 05/17/2024 17:49

Instrument ID: CHHPLC_X5 Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/28/2024 00:38

Lab File ID: 05170007.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.66	6.51	6.81
Picric acid	8.26	8.11	8.41
RDX	8.70	8.55	8.85
Nitrobenzene	11.36	11.21	11.51
3,5-Dinitroaniline	14.12	13.97	14.27
1,3-Dinitrobenzene	14.57	14.42	14.72
Nitroglycerin	14.78	14.63	14.93
2-Nitrotoluene	15.48	15.33	15.63
4-Nitrotoluene	15.74	15.59	15.89
4-Amino-2,6-dinitrotoluene	16.20	16.05	16.35
3-Nitrotoluene	16.59	16.44	16.74
2-Amino-4,6-dinitrotoluene	17.07	16.92	17.22
1,3,5-Trinitrobenzene	17.52	17.37	17.67
2,6-Dinitrotoluene	18.49	18.34	18.64
2,4-Dinitrotoluene	18.98	18.83	19.13
Tetryl	22.28	22.13	22.43
2,4,6-Trinitrotoluene	23.26	23.11	23.41
PETN	24.19	24.04	24.34
1,2-Dinitrobenzene	12.35	12.20	12.50

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170007.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2024 17:49:52 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 18-May-2024 16:47:03 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1674

First Level Reviewer: LV5D Date: 17-May-2024 18:26:32

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.664	6.664	0.000	45285	0.2500	0.2362	
7 2,4,6-Trinitrophenol	1	8.264	8.264	0.000	39231	0.2500	0.2608	
8 RDX	1	8.697	8.697	0.000	52326	0.2500	0.2450	
9 Nitrobenzene	1	11.364	11.364	0.000	94959	0.2500	0.2514	
$ 10 1,2-Dinitrobenzene	1	12.351	12.351	0.000	65940	0.2500	0.2496	
11 3,5-Dinitroaniline	1	14.124	14.124	0.000	112813	0.2500	0.2559	
12 1,3-Dinitrobenzene	1	14.571	14.571	0.000	155019	0.2500	0.2591	
13 Nitroglycerin	2	14.784	14.784	0.000	351954	2.50	2.60	M
14 o-Nitrotoluene	1	15.477	15.477	0.000	63423	0.2500	0.2564	
16 p-Nitrotoluene	1	15.737	15.737	0.000	55890	0.2500	0.2542	
17 4-Amino-2,6-dinitrotoluene	1	16.197	16.197	0.000	71642	0.2500	0.2547	
18 m-Nitrotoluene	1	16.591	16.591	0.000	70869	0.2500	0.2568	
19 2-Amino-4,6-dinitrotoluene	1	17.071	17.071	0.000	102056	0.2500	0.2536	
20 1,3,5-Trinitrobenzene	1	17.524	17.524	0.000	105074	0.2500	0.2446	
21 2,6-Dinitrotoluene	1	18.491	18.491	0.000	68955	0.2500	0.2527	
22 2,4-Dinitrotoluene	1	18.977	18.977	0.000	137389	0.2500	0.2514	
23 Tetryl	1	22.277	22.277	0.000	76952	0.2500	0.2289	M
24 2,4,6-Trinitrotoluene	1	23.257	23.257	0.000	105115	0.2500	0.2524	
25 PETN	2	24.191	24.191	0.000	326971	2.50	2.53	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00081 Amount Added: 25.00 Units: uL

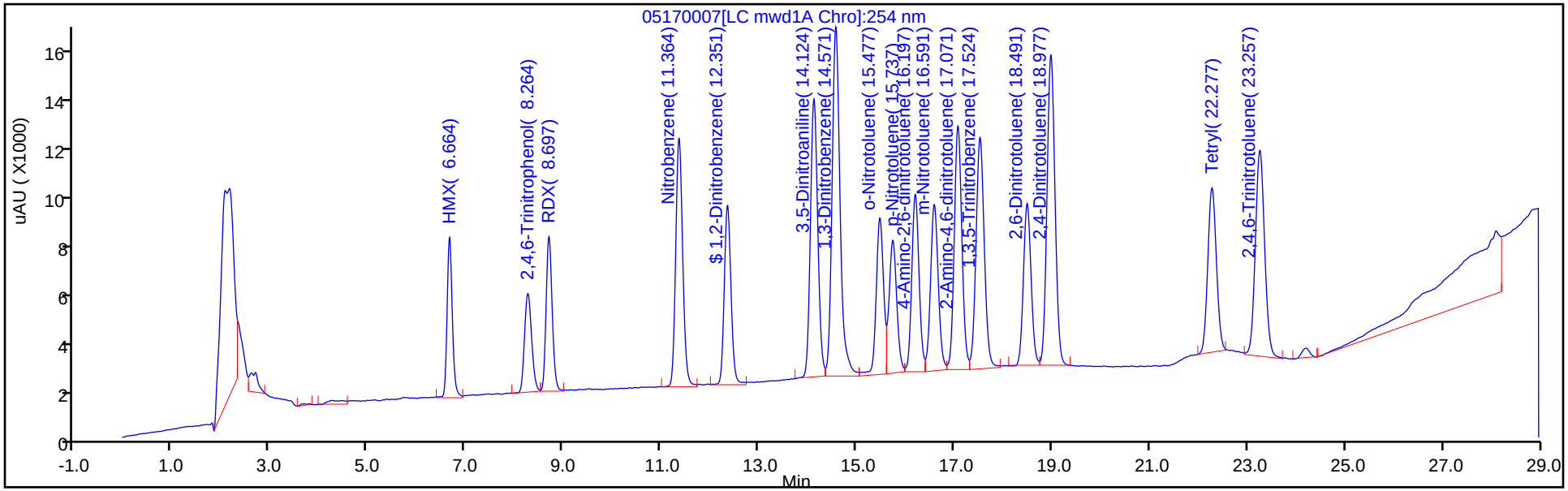
Report Date: 18-May-2024 16:47:03 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

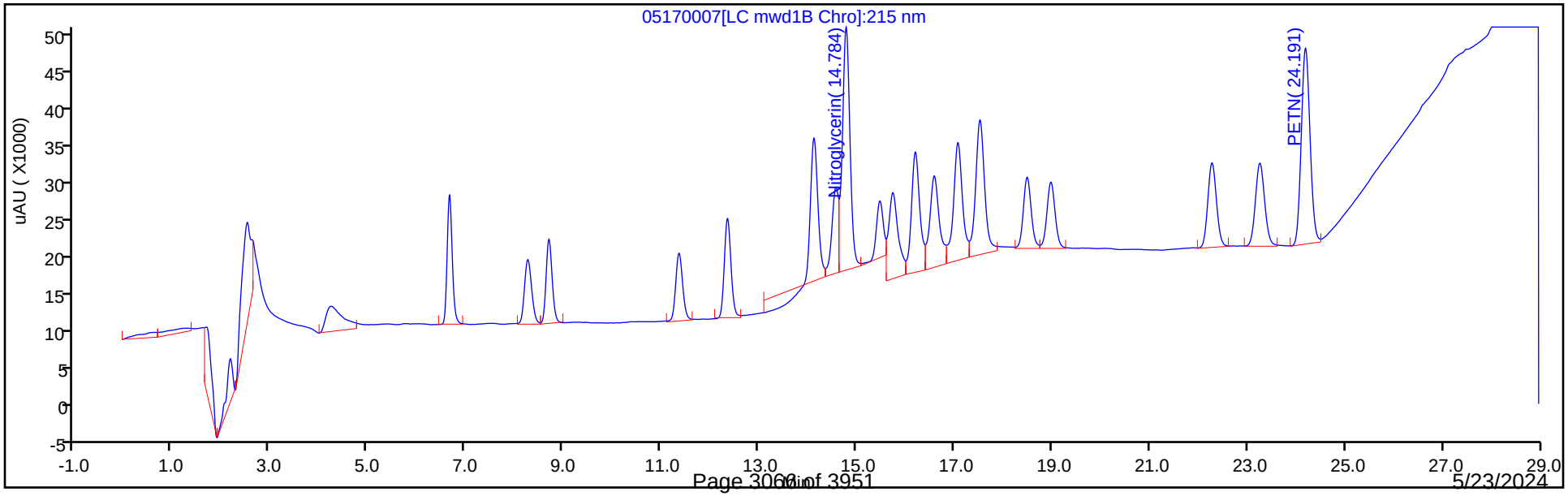
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170007.D

Injection Date:	17-May-2024 17:49:52	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	CCV			Worklist Smp#:	7
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

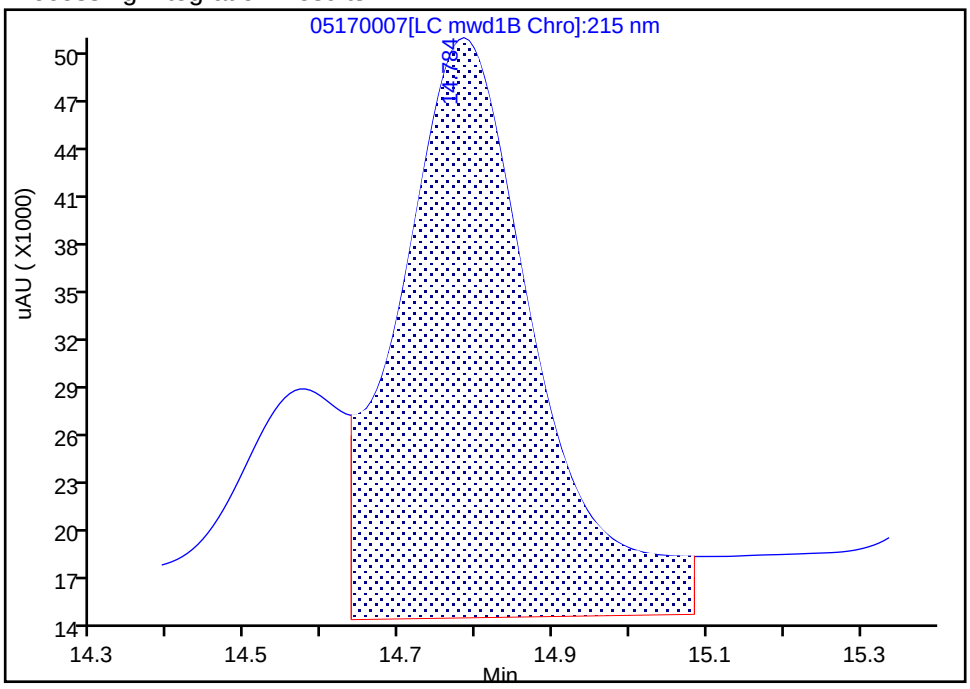
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170007.D				
Injection Date:	17-May-2024 17:49:52	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

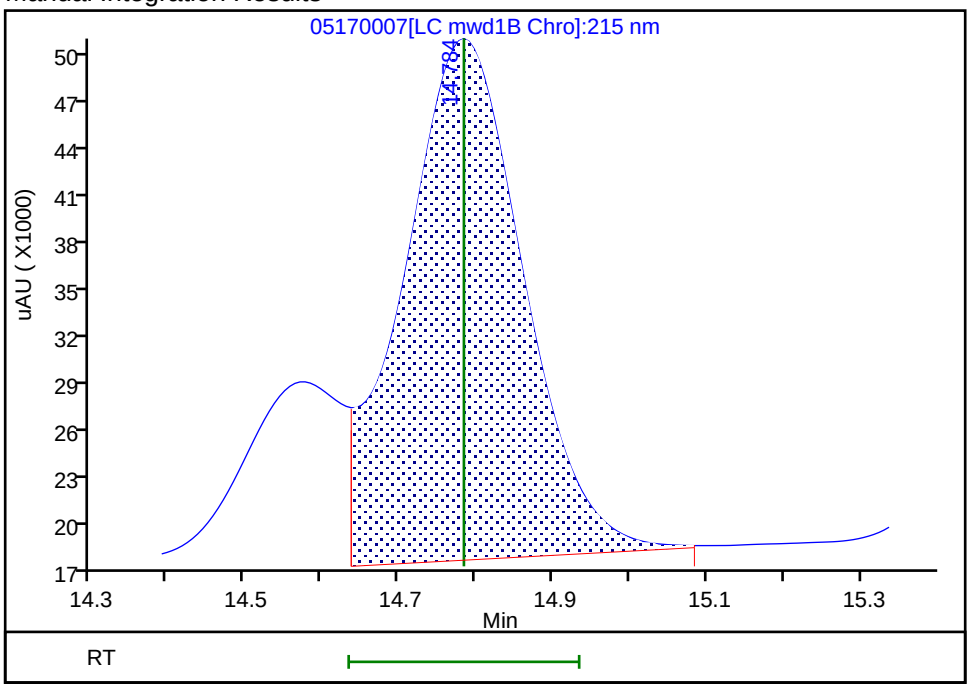
Processing Integration Results

RT: 14.78
Area: 431698
Amount: 3.188555
Amount Units: ug/ml



Manual Integration Results

RT: 14.78
Area: 351954
Amount: 2.599560
Amount Units: ug/ml



Reviewer: LV5D, 17-May-2024 18:26:22 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

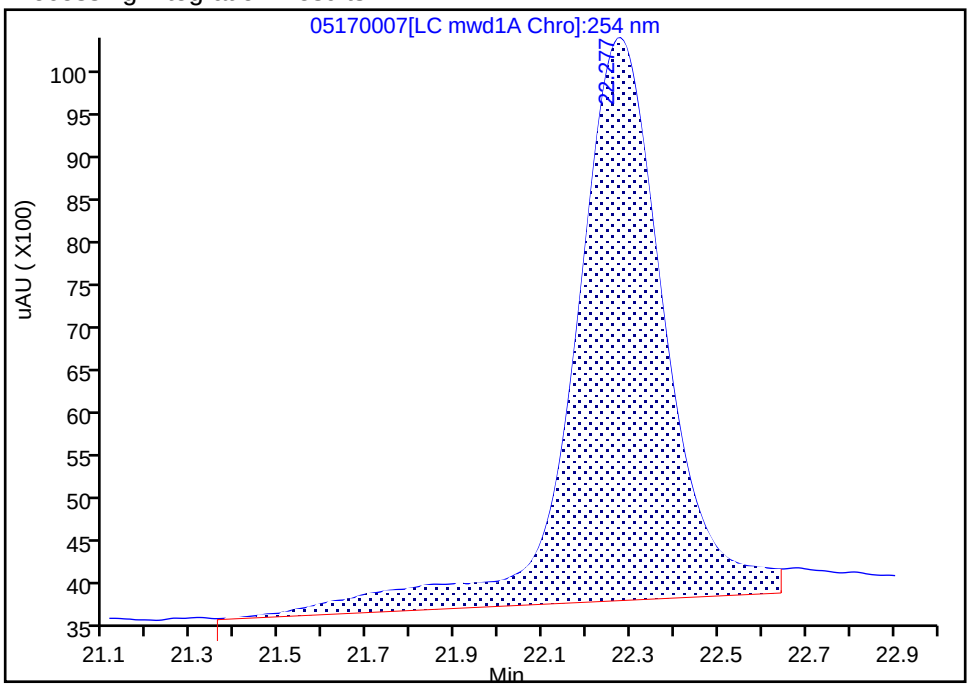
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170007.D				
Injection Date:	17-May-2024 17:49:52	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

23 Tetryl, CAS: 479-45-8

Signal: 1

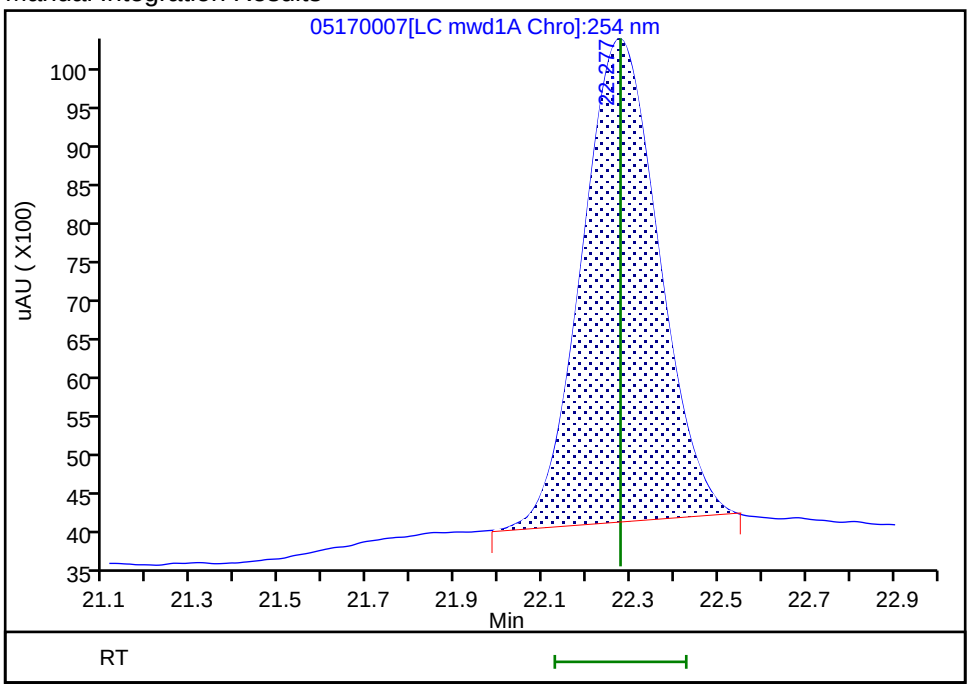
Processing Integration Results

RT: 22.28
Area: 96187
Amount: 0.286068
Amount Units: ug/ml



Manual Integration Results

RT: 22.28
Area: 76952
Amount: 0.228861
Amount Units: ug/ml



Reviewer: LV5D, 17-May-2024 18:26:27 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653873/20 | Calibration Date: 05/18/2024 00:14

Instrument ID: CHHPLC_X5 | Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 03/28/2024 00:38

Lab File ID: 05170020.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	191683	182360		238	250	-4.9	20.0
Picric acid	Ave	150420	158120		263	250	5.1	20.0
RDX	Ave	213594	209760		246	250	-1.8	20.0
Nitrobenzene	Ave	377742	374348		248	250	-0.9	20.0
3,5-Dinitroaniline	Lin2		452532		257	250	2.7	20.0
1,3-Dinitrobenzene	Ave	598366	626048		262	250	4.6	20.0
Nitroglycerin	Ave	135390	141284		2610	2500	4.4	20.0
2-Nitrotoluene	Ave	247354	245848		248	250	-0.6	20.0
4-Nitrotoluene	Lin2		224480		255	250	2.1	20.0
4-Amino-2,6-dinitrotoluene	Lin2		285088		253	250	1.3	20.0
3-Nitrotoluene	Lin2		279944		254	250	1.4	20.0
2-Amino-4,6-dinitrotoluene	Lin2		405984		252	250	0.9	20.0
1,3,5-Trinitrobenzene	Ave	429634	420316		245	250	-2.2	20.0
2,6-Dinitrotoluene	Ave	272831	275664		253	250	1.0	20.0
2,4-Dinitrotoluene	Ave	546523	552540		253	250	1.1	20.0
Tetryl	Ave	336239	311736		232	250	-7.3	20.0
2,4,6-Trinitrotoluene	Ave	416462	410288		246	250	-1.5	20.0
PETN	Lin2		132956		2580	2500	3.0	20.0
1,2-Dinitrobenzene	Ave	264153	262980		249	250	-0.4	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: CCV 280-653873/20 Calibration Date: 05/18/2024 00:14

Instrument ID: CHHPLC_X5 Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/28/2024 00:38

Lab File ID: 05170020.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.66	6.51	6.81
Picric acid	8.20	8.11	8.41
RDX	8.70	8.55	8.85
Nitrobenzene	11.36	11.21	11.51
3,5-Dinitroaniline	14.13	13.97	14.27
1,3-Dinitrobenzene	14.57	14.42	14.72
Nitroglycerin	14.78	14.63	14.93
2-Nitrotoluene	15.48	15.33	15.63
4-Nitrotoluene	15.75	15.59	15.89
4-Amino-2,6-dinitrotoluene	16.21	16.05	16.35
3-Nitrotoluene	16.59	16.44	16.74
2-Amino-4,6-dinitrotoluene	17.07	16.92	17.22
1,3,5-Trinitrobenzene	17.53	17.37	17.67
2,6-Dinitrotoluene	18.50	18.34	18.64
2,4-Dinitrotoluene	18.99	18.83	19.13
Tetryl	22.30	22.13	22.43
2,4,6-Trinitrotoluene	23.27	23.11	23.41
PETN	24.21	24.04	24.34
1,2-Dinitrobenzene	12.35	12.20	12.50

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170020.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 18-May-2024 00:14:19 ALS Bottle#: 7 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 18-May-2024 16:47:05 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1674

First Level Reviewer: LV5D Date: 18-May-2024 16:40:01

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.660	6.664	-0.004	45590	0.2500	0.2378	
7 2,4,6-Trinitrophenol	1	8.200	8.264	-0.064	39530	0.2500	0.2628	
8 RDX	1	8.700	8.697	0.003	52440	0.2500	0.2455	
9 Nitrobenzene	1	11.360	11.364	-0.004	93587	0.2500	0.2478	
$ 10 1,2-Dinitrobenzene	1	12.353	12.351	0.002	65745	0.2500	0.2489	
11 3,5-Dinitroaniline	1	14.127	14.124	0.003	113133	0.2500	0.2567	
12 1,3-Dinitrobenzene	1	14.573	14.571	0.002	156512	0.2500	0.2616	
13 Nitroglycerin	2	14.780	14.784	-0.004	353209	2.50	2.61	M
14 o-Nitrotoluene	1	15.480	15.477	0.003	61462	0.2500	0.2485	
16 p-Nitrotoluene	1	15.747	15.737	0.010	56120	0.2500	0.2553	
17 4-Amino-2,6-dinitrotoluene	1	16.207	16.197	0.010	71272	0.2500	0.2534	
18 m-Nitrotoluene	1	16.593	16.591	0.002	69986	0.2500	0.2535	
19 2-Amino-4,6-dinitrotoluene	1	17.073	17.071	0.002	101496	0.2500	0.2522	
20 1,3,5-Trinitrobenzene	1	17.527	17.524	0.003	105079	0.2500	0.2446	
21 2,6-Dinitrotoluene	1	18.500	18.491	0.009	68916	0.2500	0.2526	
22 2,4-Dinitrotoluene	1	18.987	18.977	0.010	138135	0.2500	0.2528	
23 Tetryl	1	22.300	22.277	0.023	77934	0.2500	0.2318	M
24 2,4,6-Trinitrotoluene	1	23.273	23.257	0.016	102572	0.2500	0.2463	
25 PETN	2	24.213	24.191	0.022	332389	2.50	2.58	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00081 Amount Added: 25.00 Units: uL

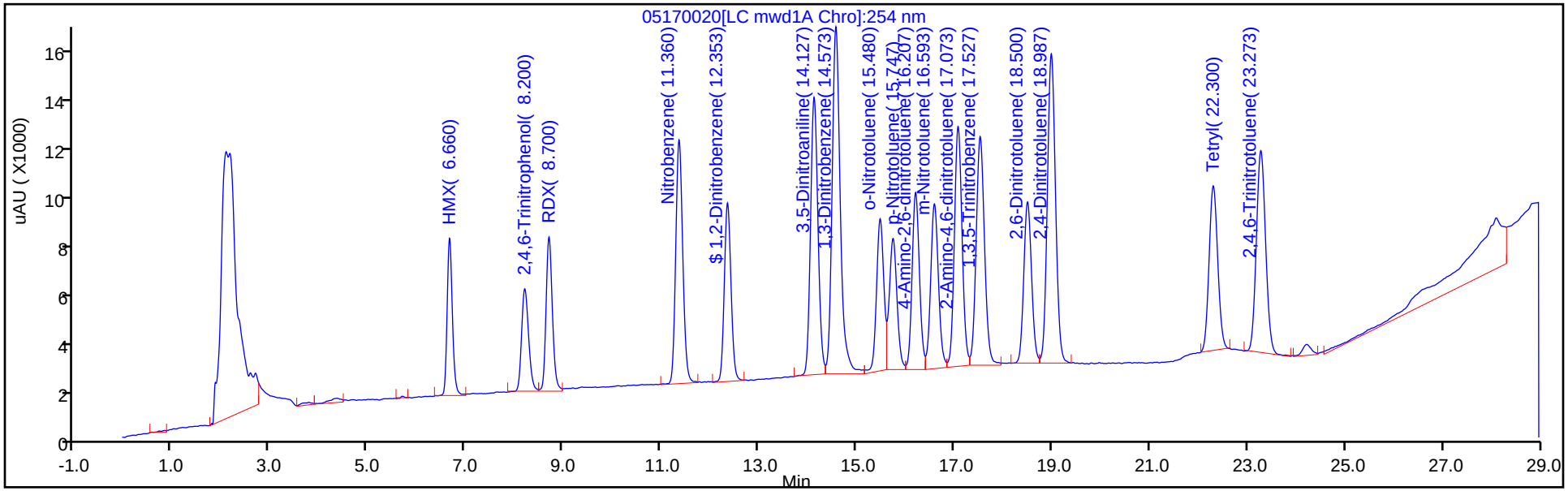
Report Date: 18-May-2024 16:47:05 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

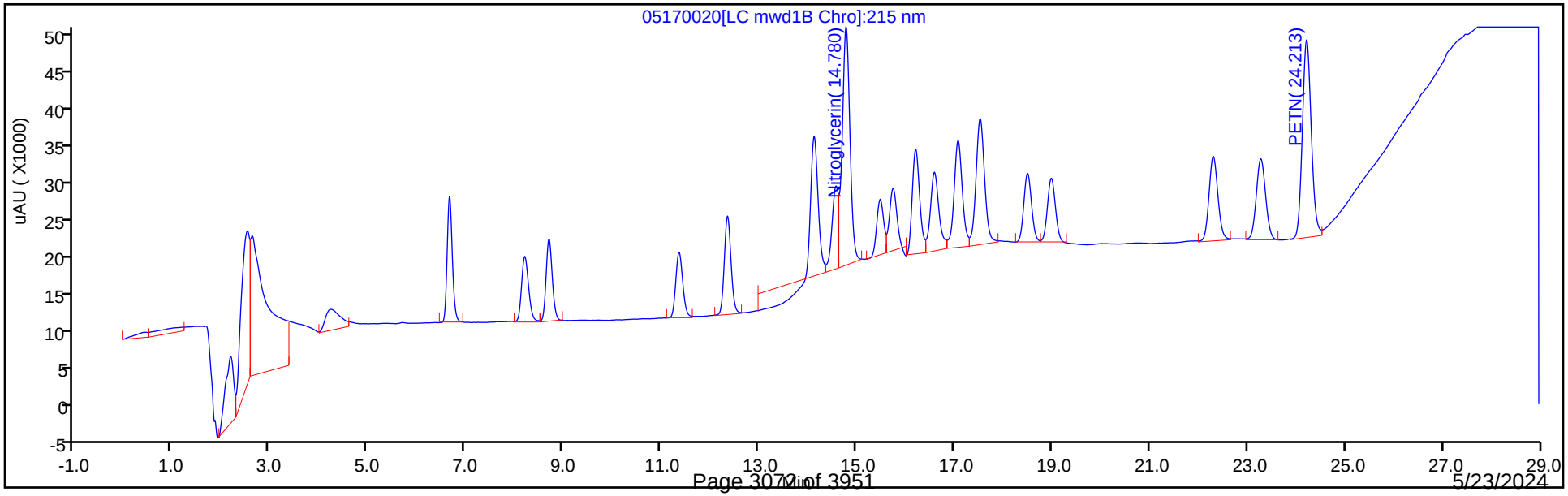
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170020.D

Injection Date:	18-May-2024 00:14:19	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	CCV			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

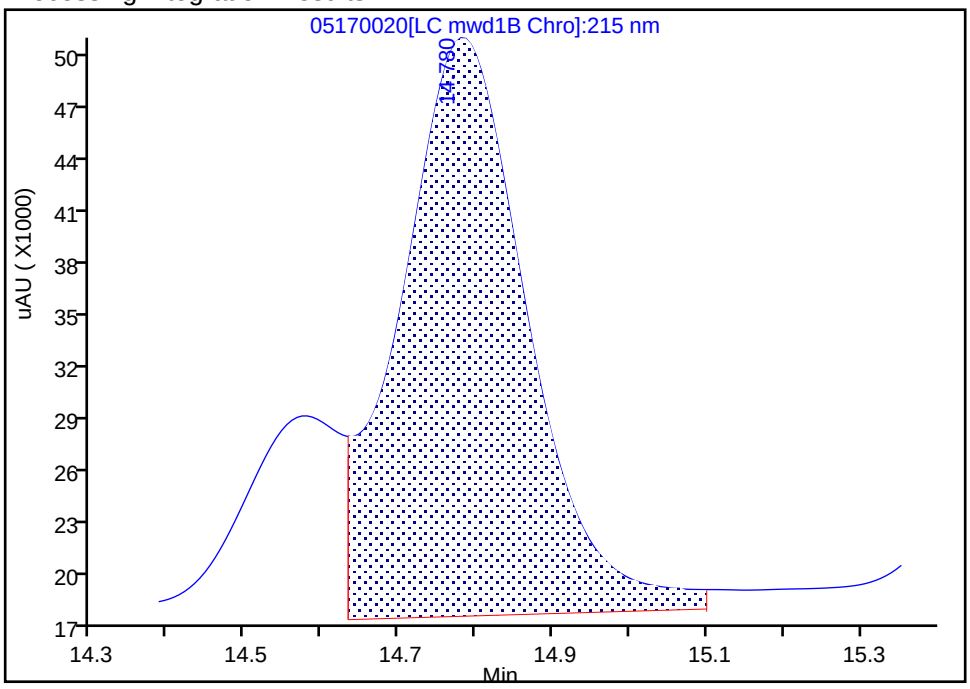
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170020.D
Injection Date: 18-May-2024 00:14:19 Instrument ID: CHHPLC_X5
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

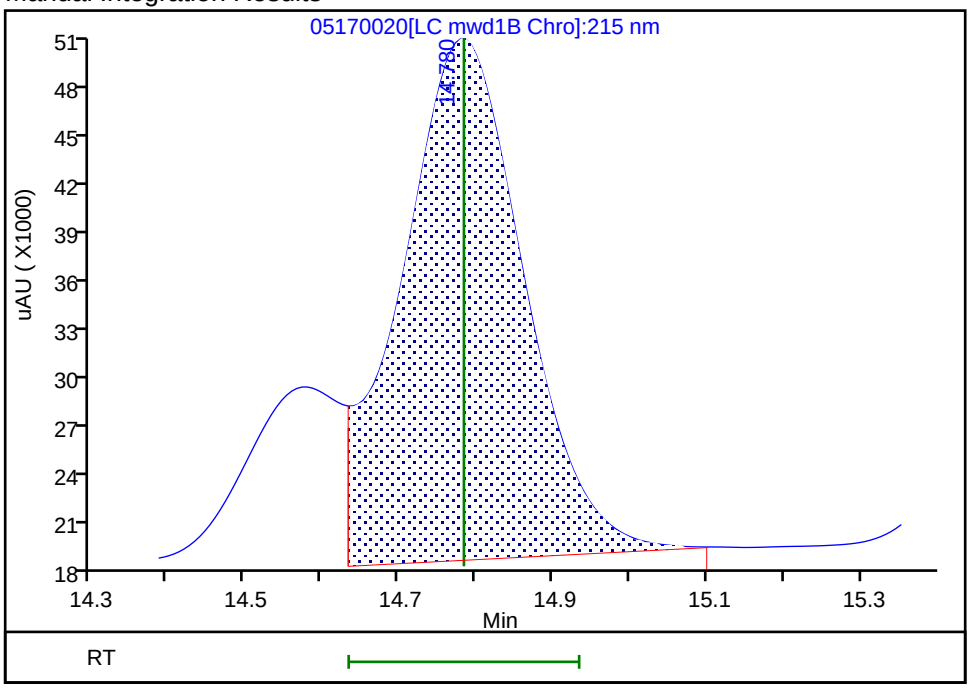
Processing Integration Results

RT: 14.78
Area: 376267
Amount: 2.779138
Amount Units: ug/ml



Manual Integration Results

RT: 14.78
Area: 353209
Amount: 2.608830
Amount Units: ug/ml



Reviewer: LV5D, 18-May-2024 16:39:56 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

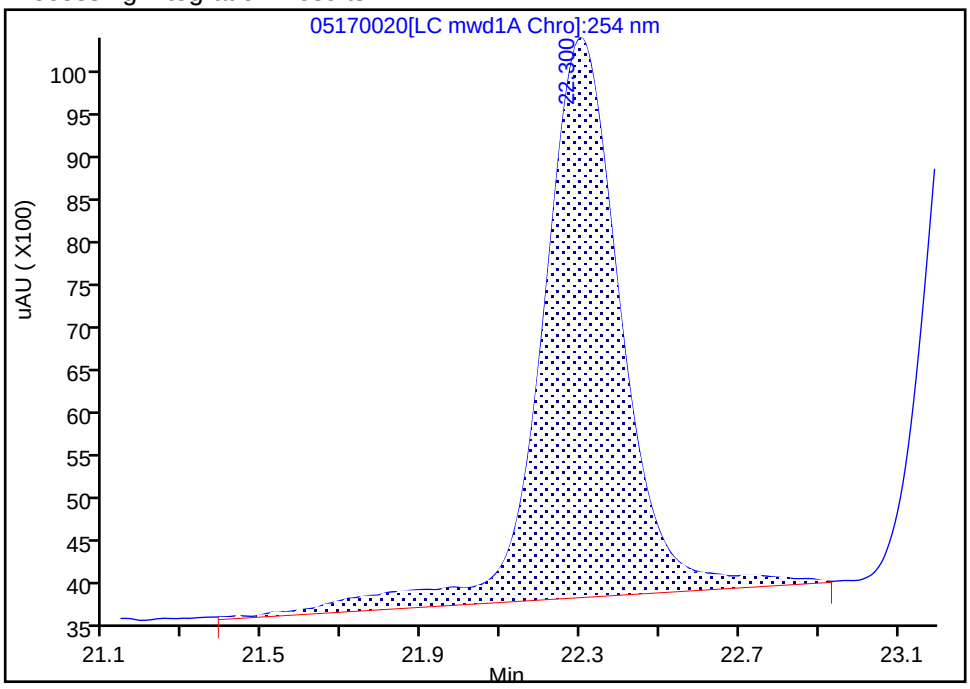
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240517-133520.b\05170020.D				
Injection Date:	18-May-2024 00:14:19	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

23 Tetryl, CAS: 479-45-8

Signal: 1

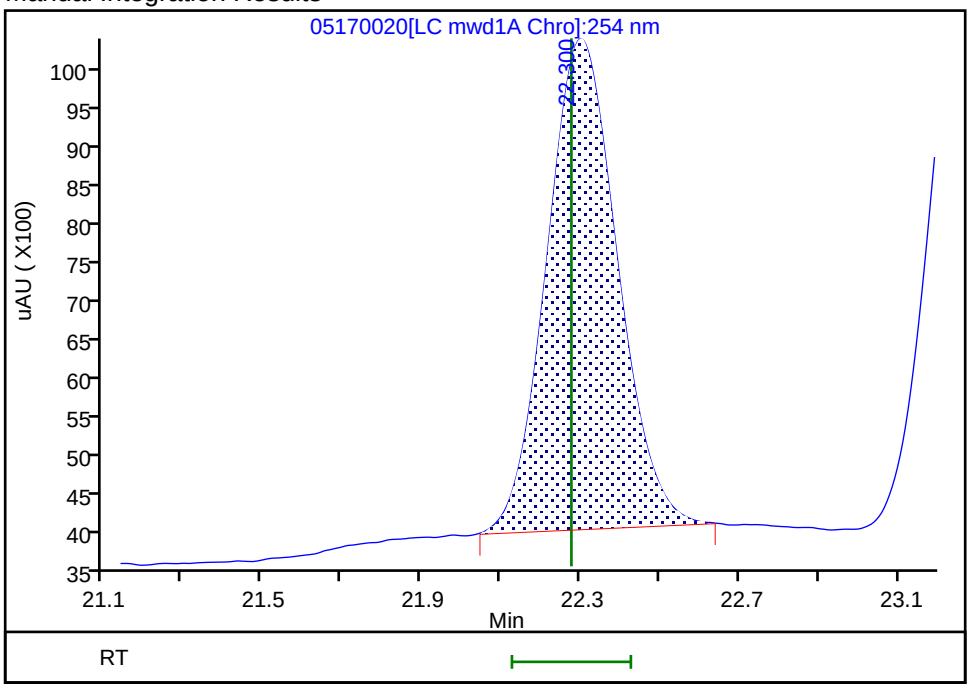
Processing Integration Results

RT: 22.30
Area: 90621
Amount: 0.269514
Amount Units: ug/ml



Manual Integration Results

RT: 22.30
Area: 77934
Amount: 0.231782
Amount Units: ug/ml



Reviewer: LV5D, 18-May-2024 16:40:00 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-652898/1-A

Matrix: Water | Lab File ID: 05010028.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/10/2024 10:58

Sample wt/vol: 500(mL) | Date Analyzed: 05/11/2024 15:16

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653063 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U M	0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051
88-72-2	2-Nitrotoluene	0.20	U	0.21	0.20	0.086
99-08-1	3-Nitrotoluene	0.35	U	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058
99-99-0	4-Nitrotoluene	0.40	U	0.41	0.40	0.10
2691-41-0	HMX	0.20	U	0.21	0.20	0.088
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.091
55-63-0	Nitroglycerin	2.0	U	2.1	2.0	0.92
78-11-5	PETN	1.0	U	1.1	1.0	0.45
121-82-4	RDX	0.20	U	0.21	0.20	0.052
479-45-8	Tetryl	0.10	U	0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	97	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\05010028.D
Lims ID: MB 280-652898/1-A
Client ID:
Sample Type: MB
Inject. Date: 11-May-2024 15:16:41 ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-652898/1-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 14-May-2024 14:09:25 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 14-May-2024 12:38:17

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
	1 Triamine Trinitrobenzene	1		2.444				ND	
	2 2,6-diamino-4-nitrotoluene	1		6.460				ND	7
	3 TNX	1		6.506				ND	
	4 HMX	1		6.611				ND	
	5 2,4-diamino-6-nitrotoluene	1		6.633				ND	
	6 DNX	1		6.892				ND	
	7 MNX	1		7.258				ND	U
	8 RDX	1		7.631				ND	
	9 2,4,6-Trinitrophenol	1		7.845				ND	
$	10 1,2-Dinitrobenzene	1	8.557	8.565	-0.008	25687	0.2000	0.1944	M
	11 1,3,5-Trinitrobenzene	1		8.705				ND	U
	12 1,3-Dinitrobenzene	1		9.318				ND	
	13 Nitrobenzene	1		9.671				ND	
	14 3,5-Dinitroaniline	1		9.904				ND	
	15 Tetryl	1		9.991				ND	
	16 Nitroglycerin	2		10.458				ND	
	17 2,4,6-Trinitrotoluene	1		10.891				ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.064				ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.318				ND	
	20 2,6-Dinitrotoluene	1		11.464				ND	
	21 2,4-Dinitrotoluene	1		11.638				ND	
	22 o-Nitrotoluene	1		12.418				ND	7
	23 p-Nitrotoluene	1		12.831				ND	
	24 m-Nitrotoluene	1		13.371				ND	
	25 PETN	2		14.418				ND	
	26 Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Review Flags
M - Manually Integrated
U - Marked Undetected

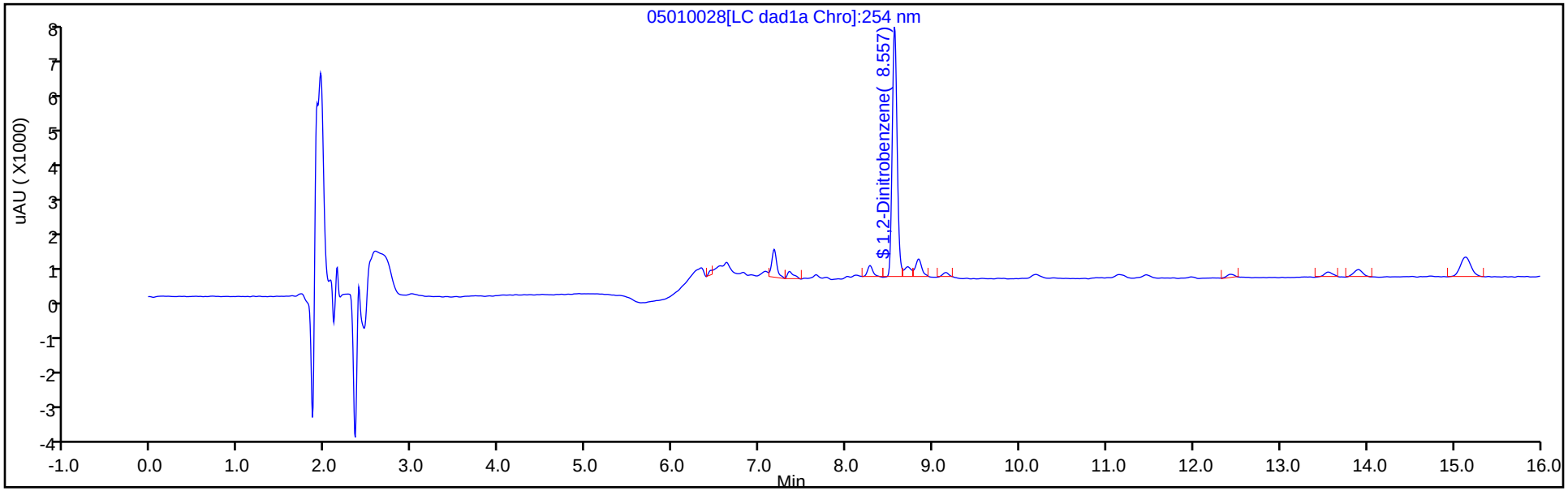
Report Date: 14-May-2024 14:09:26 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

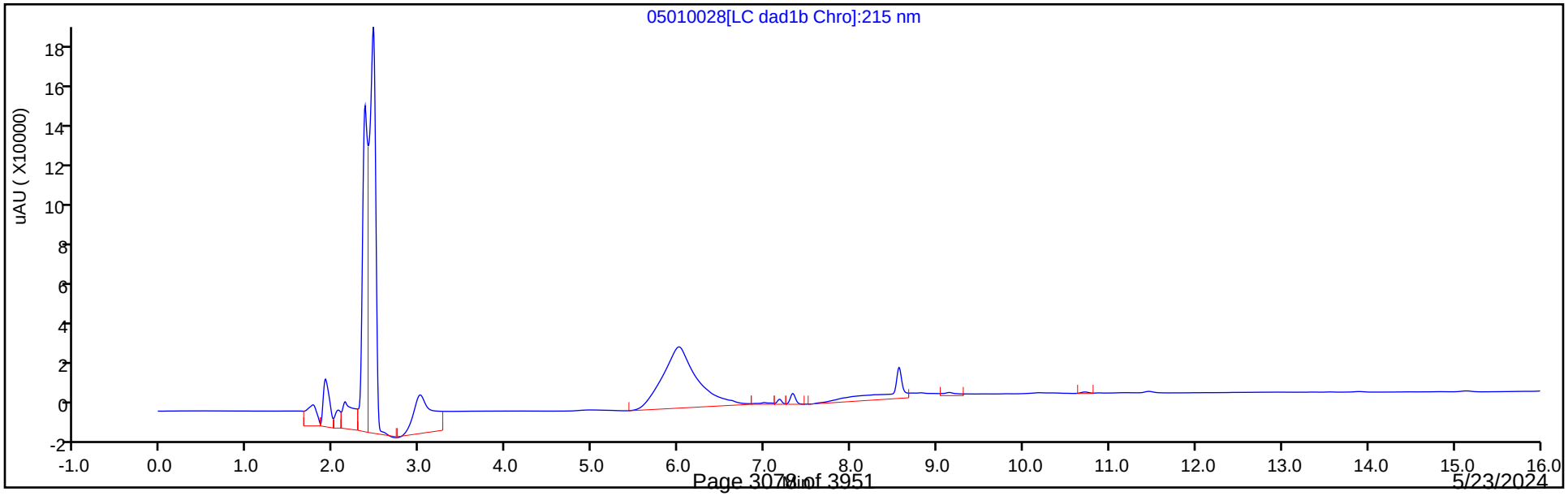
Data File: \\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010028.d

Injection Date:	11-May-2024 15:16:41	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	MB 280-652898/1-A			Worklist Smp#:	28
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	28
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\05010028.D				
Lims ID:	MB 280-652898/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	11-May-2024 15:16:41	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 280-652898/1-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	14-May-2024 14:09:25	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1620				

First Level Reviewer: LV5D Date: 14-May-2024 12:38:17

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1944	97.22

Manual Integration/User Assign Peak Report

Eurofins Denver

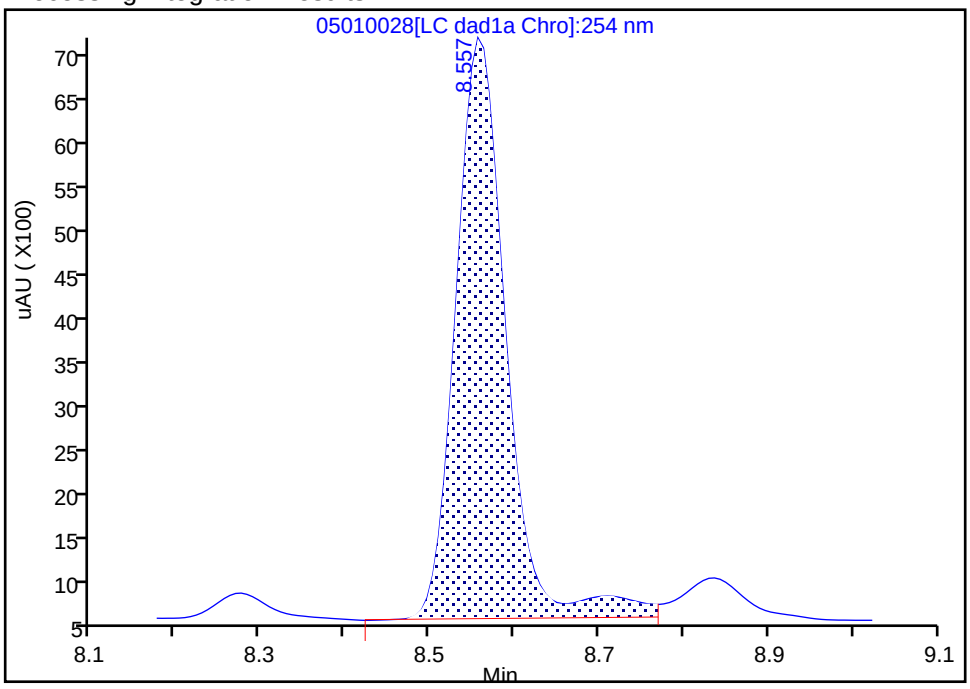
Data File: \\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010028.d
Injection Date: 11-May-2024 15:16:41 Instrument ID: CHHPLC_X3
Lims ID: MB 280-652898/1-A
Client ID:
Operator ID: JZ ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

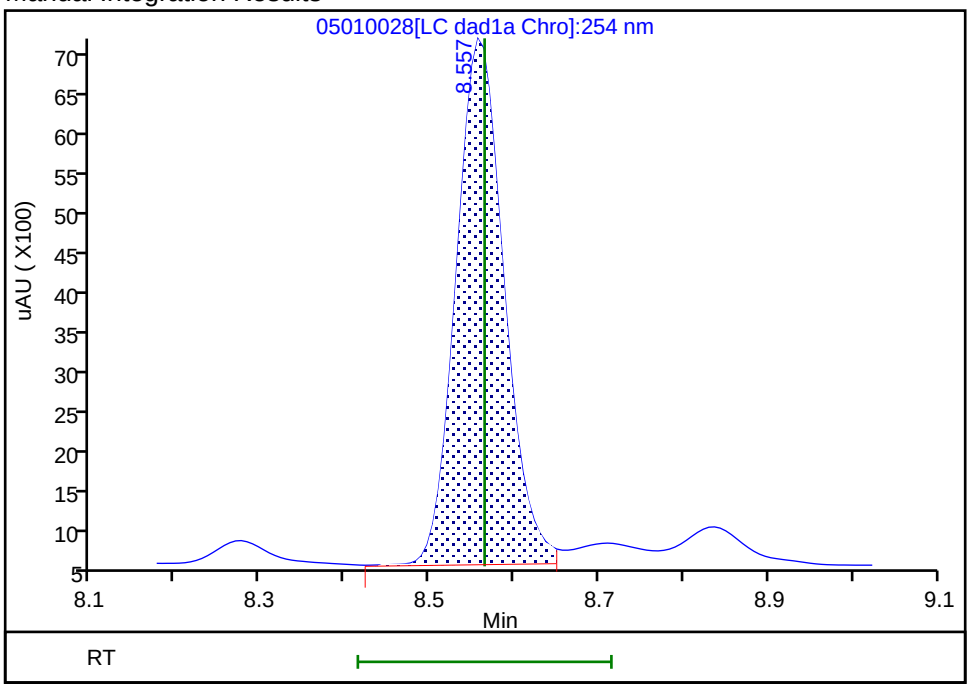
Processing Integration Results

RT: 8.56
Area: 27135
Amount: 0.205432
Amount Units: ug/mL



Manual Integration Results

RT: 8.56
Area: 25687
Amount: 0.194432
Amount Units: ug/mL



Reviewer: LV5D, 14-May-2024 12:38:15 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

User Disabled Compound Report

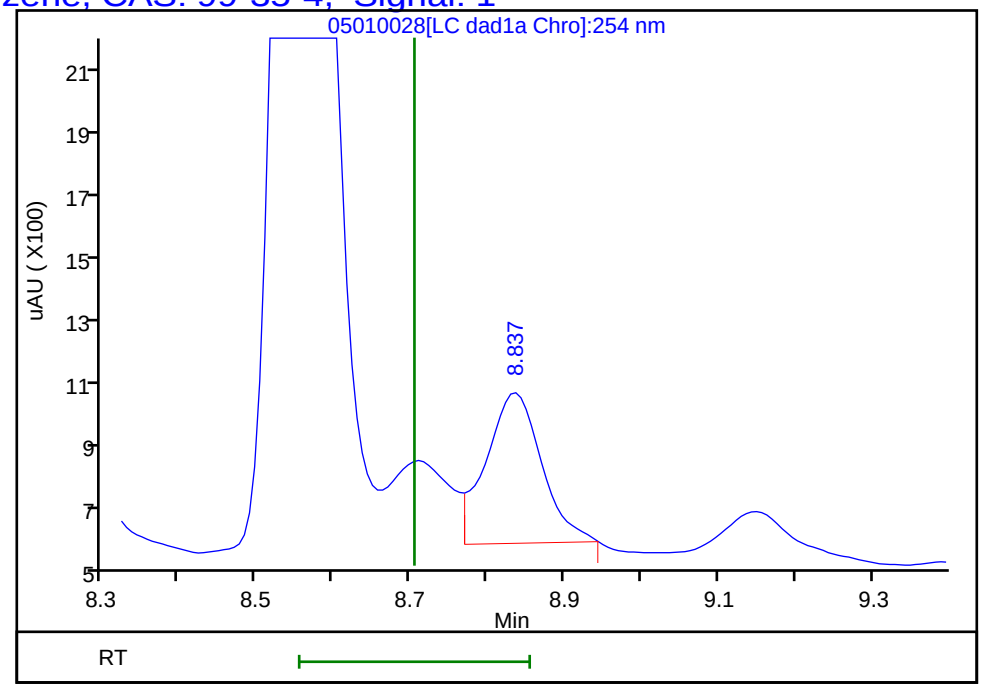
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010028.d
Injection Date: 11-May-2024 15:16:41 Instrument ID: CHHPLC_X3
Lims ID: MB 280-652898/1-A
Client ID:
Operator ID: JZ ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

11 1,3,5-Trinitrobenzene, CAS: 99-35-4, Signal: 1

RT: 8.84
Response: 2222
Amount: 0.009971



Reviewer: LV5D, 14-May-2024 12:38:17
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-653565/1-A

Matrix: Water | Lab File ID: 05170040.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/17/2024 13:10

Sample wt/vol: 500(mL) | Date Analyzed: 05/18/2024 02:06

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653871 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051
88-72-2	2-Nitrotoluene	0.20	U	0.21	0.20	0.086
99-08-1	3-Nitrotoluene	0.35	U	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058
99-99-0	4-Nitrotoluene	0.40	U	0.41	0.40	0.10
2691-41-0	HMX	0.20	U	0.21	0.20	0.088
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.091
55-63-0	Nitroglycerin	2.0	U	2.1	2.0	0.92
78-11-5	PETN	1.0	U	1.1	1.0	0.45
121-82-4	RDX	0.20	U	0.21	0.20	0.052
479-45-8	Tetryl	0.10	U	0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\05170040.D
Lims ID: MB 280-653565/1-A
Client ID:
Sample Type: MB
Inject. Date: 18-May-2024 02:06:19 ALS Bottle#: 40 Worklist Smp#: 40
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-653565/1-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-May-2024 10:51:45 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1674

First Level Reviewer: LV5D Date: 18-May-2024 10:34:40

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
	1 Triamine Trinitrobenzene	1		2.444				ND	
	2 2,6-diamino-4-nitrotoluene	1		6.460				ND	7
	3 TNX	1		6.506				ND	
	4 HMX	1		6.617				ND	
	5 2,4-diamino-6-nitrotoluene	1		6.633				ND	7
	6 DNX	1		6.892				ND	
	7 MNX	1		7.258				ND	U
	8 RDX	1		7.630				ND	
	9 2,4,6-Trinitrophenol	1		7.863				ND	
$	10 1,2-Dinitrobenzene	1	8.554	8.557	-0.003	25956	0.2000	0.1965	
	11 1,3,5-Trinitrobenzene	1	8.707	8.697	0.010	1244		0.005582	
	12 1,3-Dinitrobenzene	1		9.310				ND	
	13 Nitrobenzene	1		9.670				ND	
	14 3,5-Dinitroaniline	1		9.890				ND	
	15 Tetryl	1		9.983				ND	
	16 Nitroglycerin	2		10.457				ND	
	17 2,4,6-Trinitrotoluene	1		10.883				ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.043				ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.297				ND	
	20 2,6-Dinitrotoluene	1		11.450				ND	
	21 2,4-Dinitrotoluene	1		11.623				ND	
	22 o-Nitrotoluene	1		12.410				ND	7
	23 p-Nitrotoluene	1		12.823				ND	
	24 m-Nitrotoluene	1		13.370				ND	
	25 PETN	2		14.437				ND	
	26 Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Review Flags
U - Marked Undetected

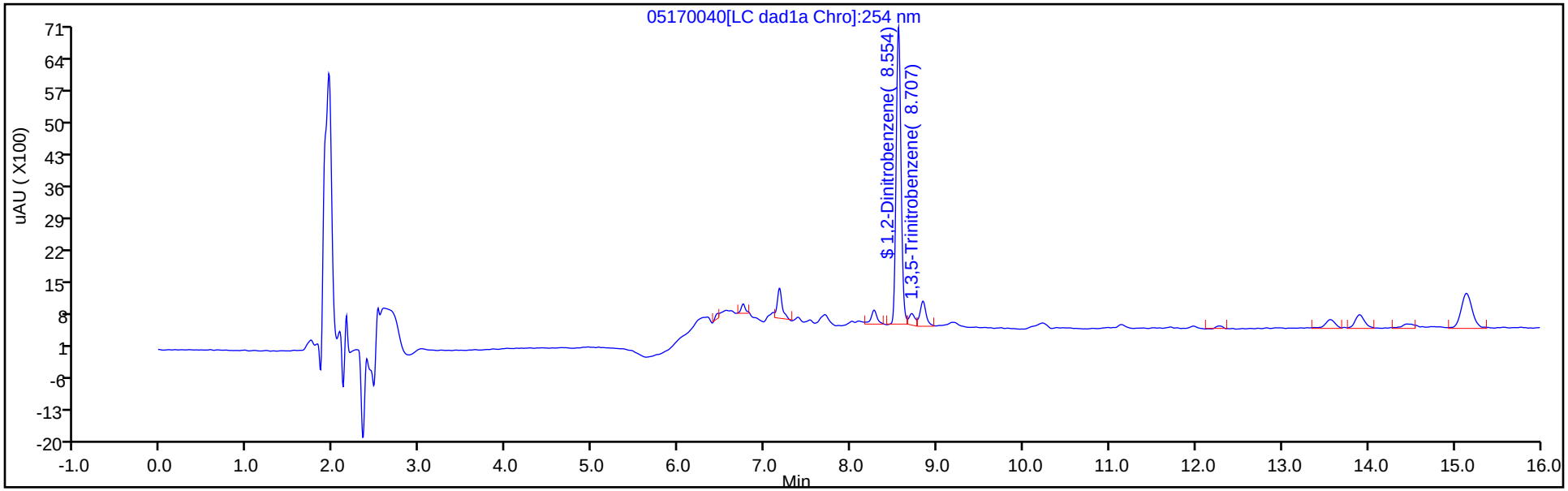
Report Date: 18-May-2024 10:51:46 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

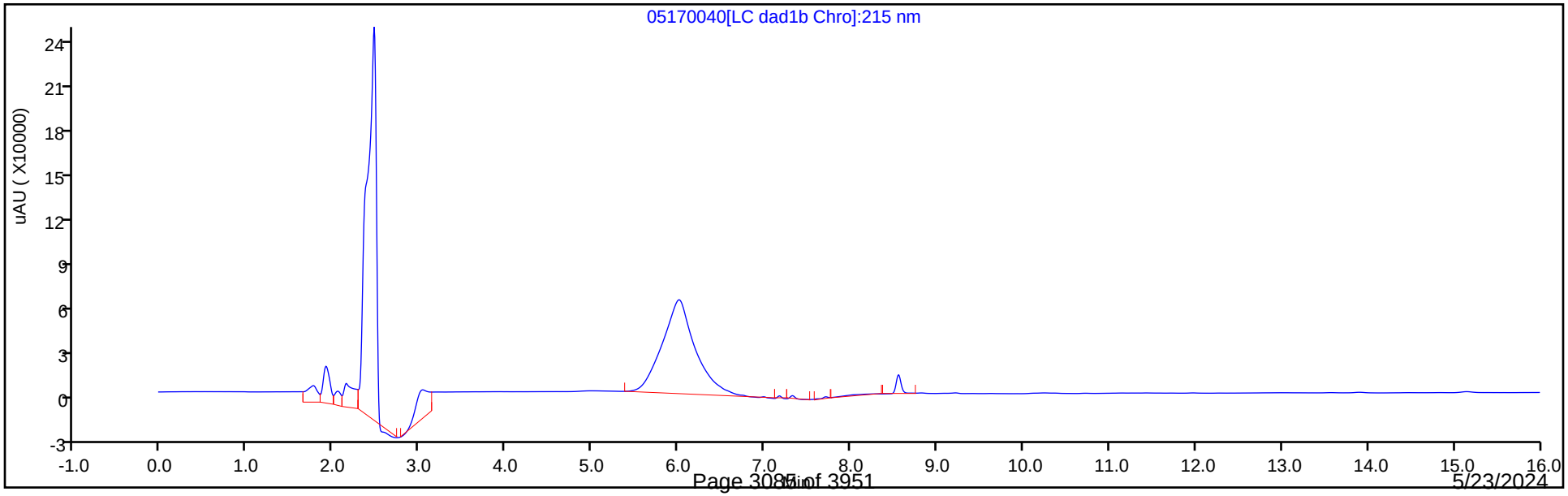
Data File: \\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170040.d

Injection Date:	18-May-2024 02:06:19	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	MB 280-653565/1-A			Worklist Smp#:	40
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	40
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\05170040.D				
Lims ID:	MB 280-653565/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	18-May-2024 02:06:19	ALS Bottle#:	40	Worklist Smp#:	40
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 280-653565/1-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	18-May-2024 10:51:45	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1674				

First Level Reviewer: LV5D Date: 18-May-2024 10:34:40

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1965	98.24

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-652898/2-A

Matrix: Water | Lab File ID: 05010029.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/10/2024 10:58

Sample wt/vol: 500(mL) | Date Analyzed: 05/11/2024 15:39

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653063 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.02		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	1.79		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	1.76		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	1.67		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	1.70		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	1.72		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.28	Q	0.21	0.20	0.086
99-08-1	3-Nitrotoluene	1.24	Q	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.76		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.24	Q	0.41	0.40	0.10
2691-41-0	HMX	1.77	M	0.21	0.20	0.088
98-95-3	Nitrobenzene	1.51		0.21	0.20	0.091
55-63-0	Nitroglycerin	19.4		2.1	2.0	0.92
78-11-5	PETN	20.1		1.1	1.0	0.45
121-82-4	RDX	1.78		0.21	0.20	0.052
479-45-8	Tetryl	1.74		0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	90		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\05010029.D
Lims ID: LCS 280-652898/2-A
Client ID:
Sample Type: LCS
Inject. Date: 11-May-2024 15:39:40 ALS Bottle#: 29 Worklist Smp#: 29
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-652898/2-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 14-May-2024 14:09:25 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 14-May-2024 12:41:46

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.615	6.611	0.004	16958	0.2000	0.1775	M
8 RDX	1	7.628	7.631	-0.003	19768	0.2000	0.1785	
9 2,4,6-Trinitrophenol	1	7.835	7.845	-0.010	15986	0.2000	0.2015	
$ 10 1,2-Dinitrobenzene	1	8.561	8.565	-0.004	23885	0.2000	0.1807	
11 1,3,5-Trinitrobenzene	1	8.695	8.705	-0.010	44918	0.2000	0.2016	
12 1,3-Dinitrobenzene	1	9.308	9.318	-0.010	53627	0.2000	0.1791	
13 Nitrobenzene	1	9.661	9.671	-0.010	29614	0.2000	0.1508	
14 3,5-Dinitroaniline	1	9.894	9.904	-0.010	37975	0.2000	0.1729	
15 Tetryl	1	9.974	9.991	-0.017	31543	0.2000	0.1737	
16 Nitroglycerin	2	10.441	10.458	-0.017	128974	2.00	1.94	
17 2,4,6-Trinitrotoluene	1	10.874	10.891	-0.017	37809	0.2000	0.1757	
18 4-Amino-2,6-dinitrotoluene	1	11.048	11.064	-0.016	26409	0.2000	0.1761	
19 2-Amino-4,6-dinitrotoluene	1	11.301	11.318	-0.017	34438	0.2000	0.1724	
20 2,6-Dinitrotoluene	1	11.448	11.464	-0.016	24919	0.2000	0.1696	
21 2,4-Dinitrotoluene	1	11.621	11.638	-0.017	48770	0.2000	0.1671	
22 o-Nitrotoluene	1	12.401	12.418	-0.017	16607	0.2000	0.1284	
23 p-Nitrotoluene	1	12.814	12.831	-0.017	14006	0.2000	0.1242	
24 m-Nitrotoluene	1	13.361	13.371	-0.010	17894	0.2000	0.1242	
25 PETN	2	14.408	14.418	-0.010	144676	2.00	2.01	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

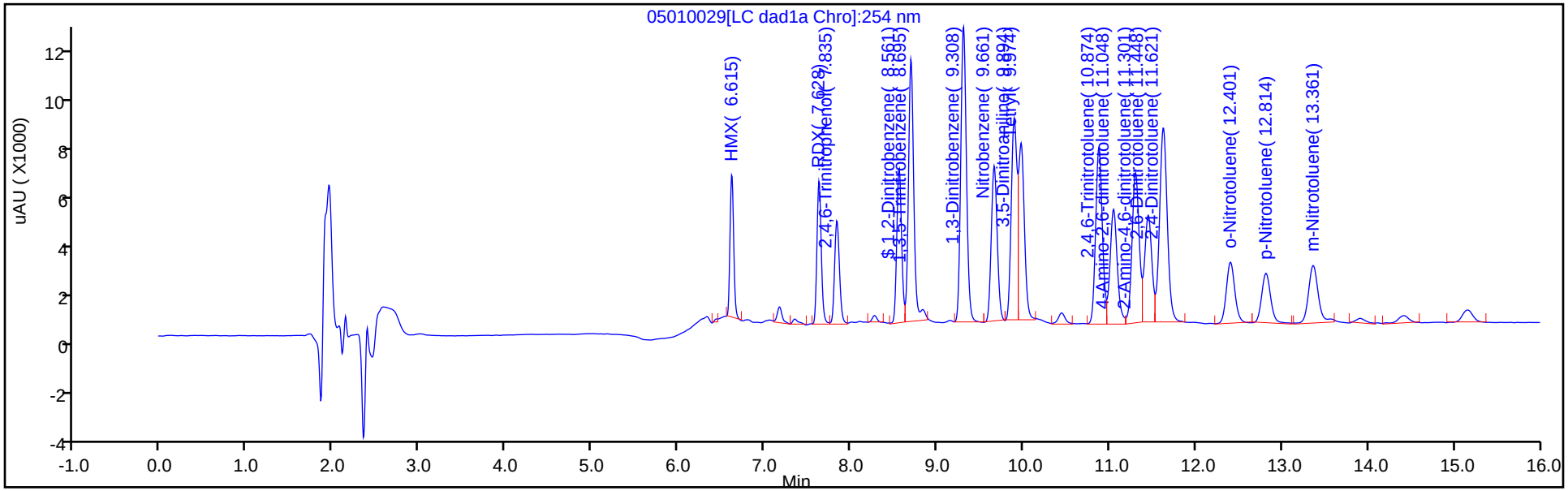
Report Date: 14-May-2024 14:09:27 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

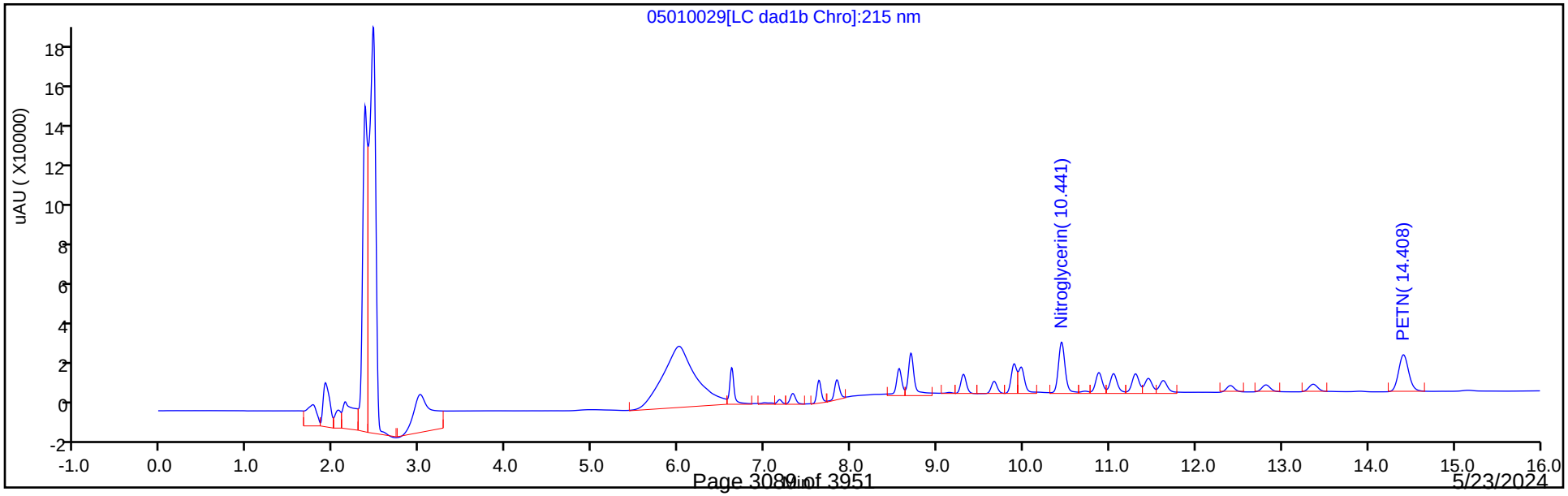
Data File: \\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010029.d

Injection Date:	11-May-2024 15:39:40	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	LCS 280-652898/2-A			Worklist Smp#:	29
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	29
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\05010029.D				
Lims ID:	LCS 280-652898/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	11-May-2024 15:39:40	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-652898/2-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	14-May-2024 14:09:25	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1620				
First Level Reviewer: LV5D		Date:	14-May-2024 12:41:46		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1807	90.37

Manual Integration/User Assign Peak Report

Eurofins Denver

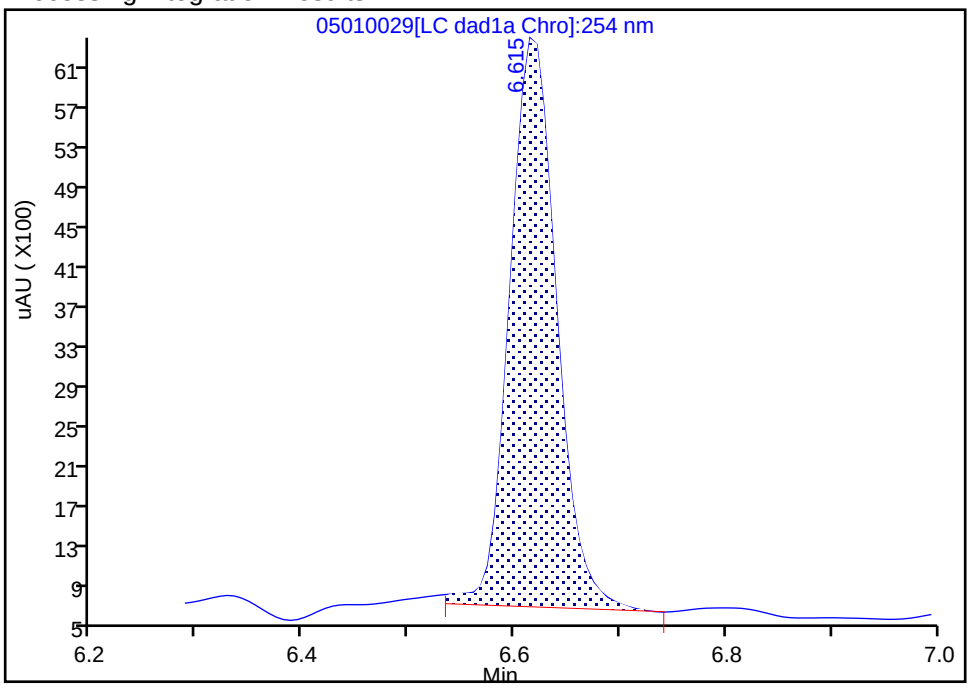
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010029.d				
Injection Date:	11-May-2024 15:39:40	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-652898/2-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

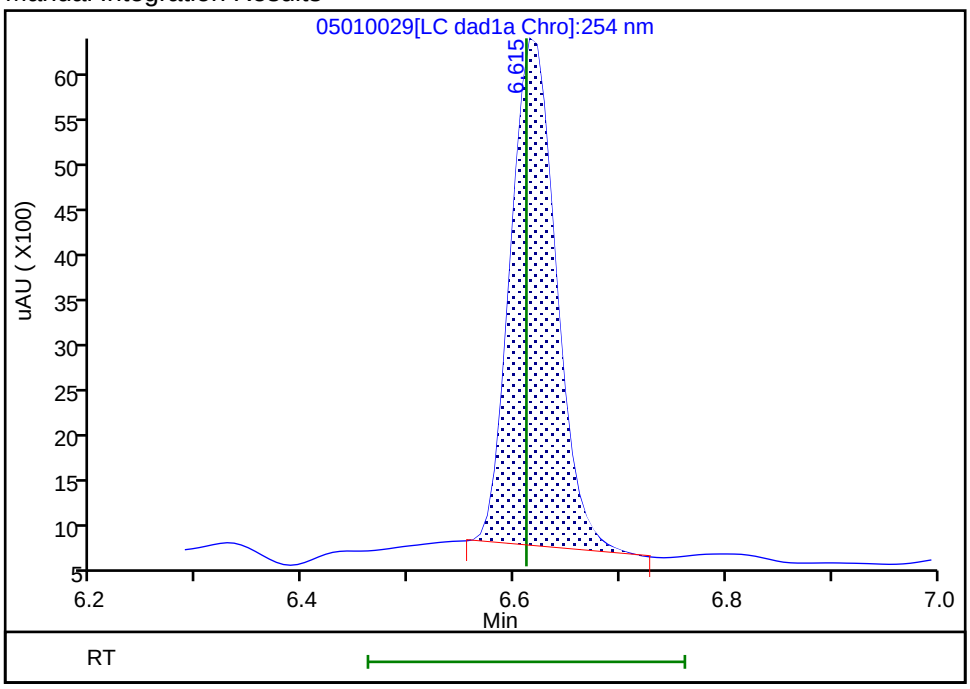
Processing Integration Results

RT: 6.61
Area: 17665
Amount: 0.184889
Amount Units: ug/mL



Manual Integration Results

RT: 6.61
Area: 16958
Amount: 0.177489
Amount Units: ug/mL



Reviewer: LV5D, 14-May-2024 12:41:45 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-653565/2-A

Matrix: Water | Lab File ID: 05170041.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/17/2024 13:10

Sample wt/vol: 500(mL) | Date Analyzed: 05/18/2024 02:29

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653871 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.12		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	2.00		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	1.95		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	1.95		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	1.93		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	2.00		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.63		0.21	0.20	0.086
99-08-1	3-Nitrotoluene	1.62		0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	2.02		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.60		0.41	0.40	0.10
2691-41-0	HMX	1.76	M	0.21	0.20	0.088
98-95-3	Nitrobenzene	1.81		0.21	0.20	0.091
55-63-0	Nitroglycerin	20.4		2.1	2.0	0.92
78-11-5	PETN	21.6		1.1	1.0	0.45
121-82-4	RDX	1.91		0.21	0.20	0.052
479-45-8	Tetryl	1.89		0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	104		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\05170041.D
Lims ID: LCS 280-653565/2-A
Client ID:
Sample Type: LCS
Inject. Date: 18-May-2024 02:29:18 ALS Bottle#: 41 Worklist Smp#: 41
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-653565/2-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-May-2024 10:51:45 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1674

First Level Reviewer: LV5D Date: 18-May-2024 10:34:46

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.619	6.617	0.002	16792	0.2000	0.1758	M
8 RDX	1	7.619	7.630	-0.011	21205	0.2000	0.1914	
9 2,4,6-Trinitrophenol	1	7.845	7.863	-0.018	16086	0.2000	0.2028	
$ 10 1,2-Dinitrobenzene	1	8.545	8.557	-0.012	27549	0.2000	0.2086	
11 1,3,5-Trinitrobenzene	1	8.685	8.697	-0.012	47237	0.2000	0.2120	
12 1,3-Dinitrobenzene	1	9.292	9.310	-0.018	59768	0.2000	0.1996	
13 Nitrobenzene	1	9.652	9.670	-0.018	35608	0.2000	0.1814	
14 3,5-Dinitroaniline	1	9.878	9.890	-0.012	43583	0.2000	0.1983	
15 Tetryl	1	9.958	9.983	-0.025	34323	0.2000	0.1890	
16 Nitroglycerin	2	10.432	10.457	-0.025	135518	2.00	2.04	
17 2,4,6-Trinitrotoluene	1	10.865	10.883	-0.018	41998	0.2000	0.1952	
18 4-Amino-2,6-dinitrotoluene	1	11.025	11.043	-0.018	30266	0.2000	0.2018	
19 2-Amino-4,6-dinitrotoluene	1	11.278	11.297	-0.019	39936	0.2000	0.1999	
20 2,6-Dinitrotoluene	1	11.432	11.450	-0.018	28401	0.2000	0.1933	
21 2,4-Dinitrotoluene	1	11.605	11.623	-0.018	56853	0.2000	0.1948	
22 o-Nitrotoluene	1	12.378	12.410	-0.032	21066	0.2000	0.1629	
23 p-Nitrotoluene	1	12.792	12.823	-0.031	18034	0.2000	0.1599	
24 m-Nitrotoluene	1	13.338	13.370	-0.032	23310	0.2000	0.1618	
25 PETN	2	14.385	14.437	-0.052	155447	2.00	2.16	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

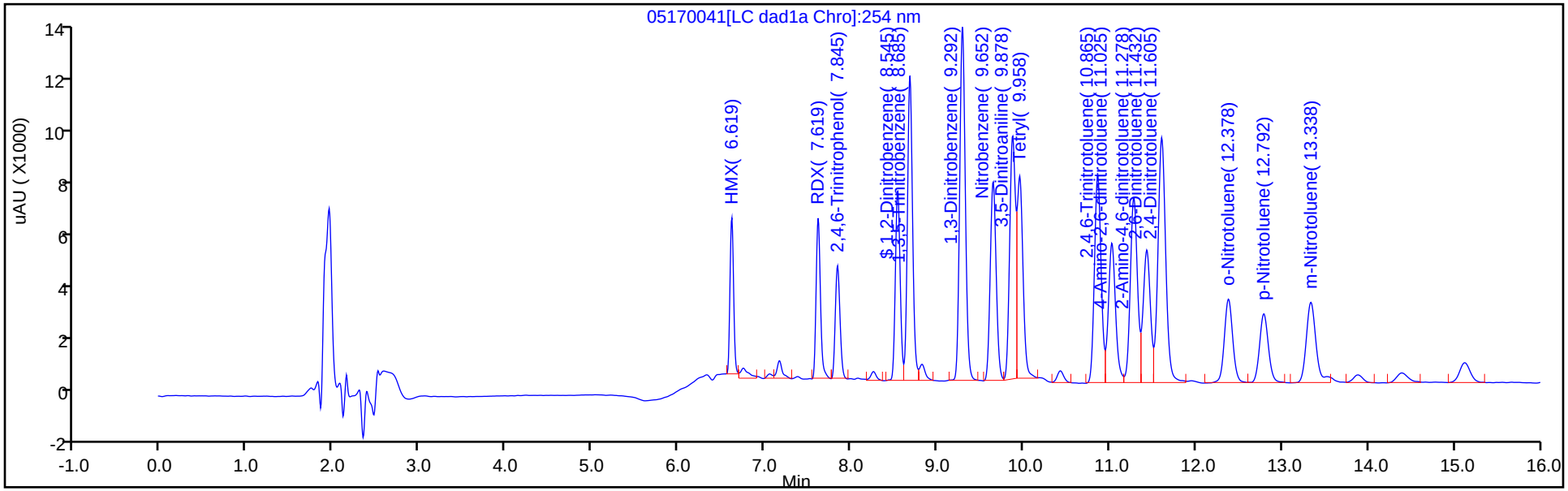
Report Date: 18-May-2024 10:51:46 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

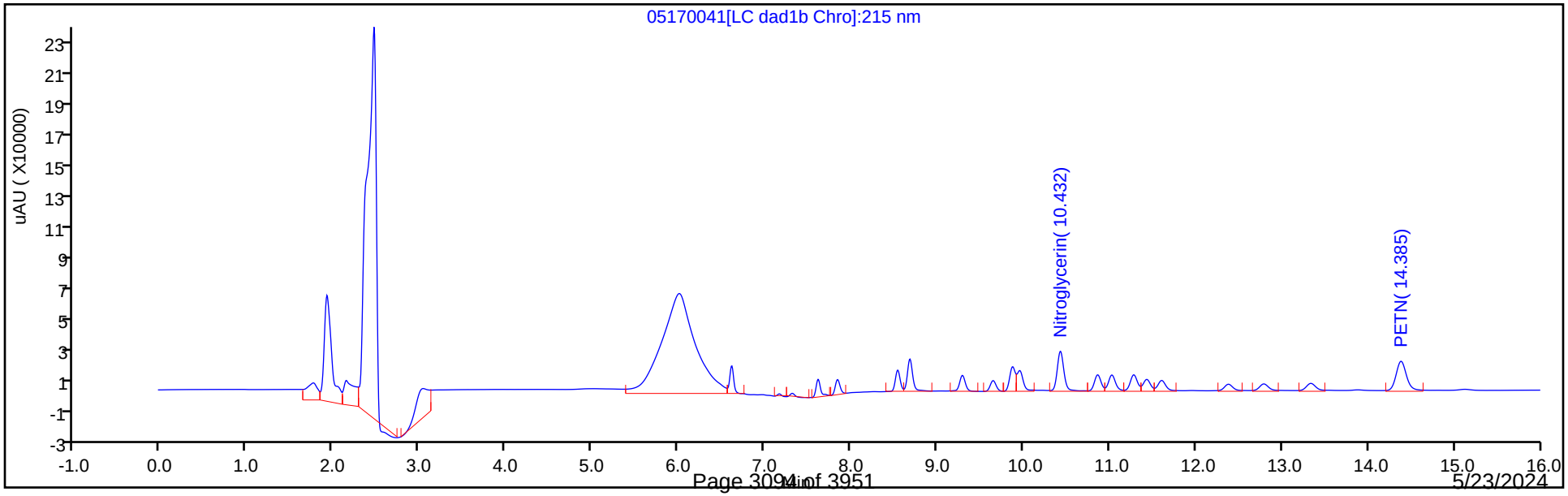
Data File: \\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170041.d

Injection Date:	18-May-2024 02:29:18	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	LCS 280-653565/2-A			Worklist Smp#:	41
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	41
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\05170041.D				
Lims ID:	LCS 280-653565/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	18-May-2024 02:29:18	ALS Bottle#:	41	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-653565/2-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	18-May-2024 10:51:45	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1674				

First Level Reviewer: LV5D Date: 18-May-2024 10:34:46

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2086	104.29

Manual Integration/User Assign Peak Report

Eurofins Denver

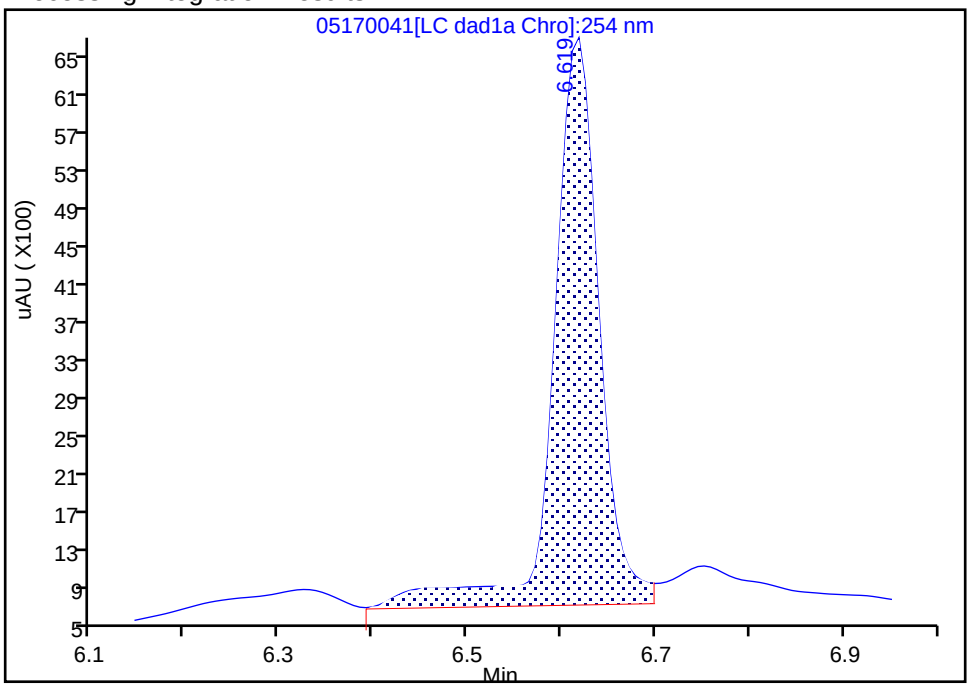
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170041.d				
Injection Date:	18-May-2024 02:29:18	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-653565/2-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	41	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

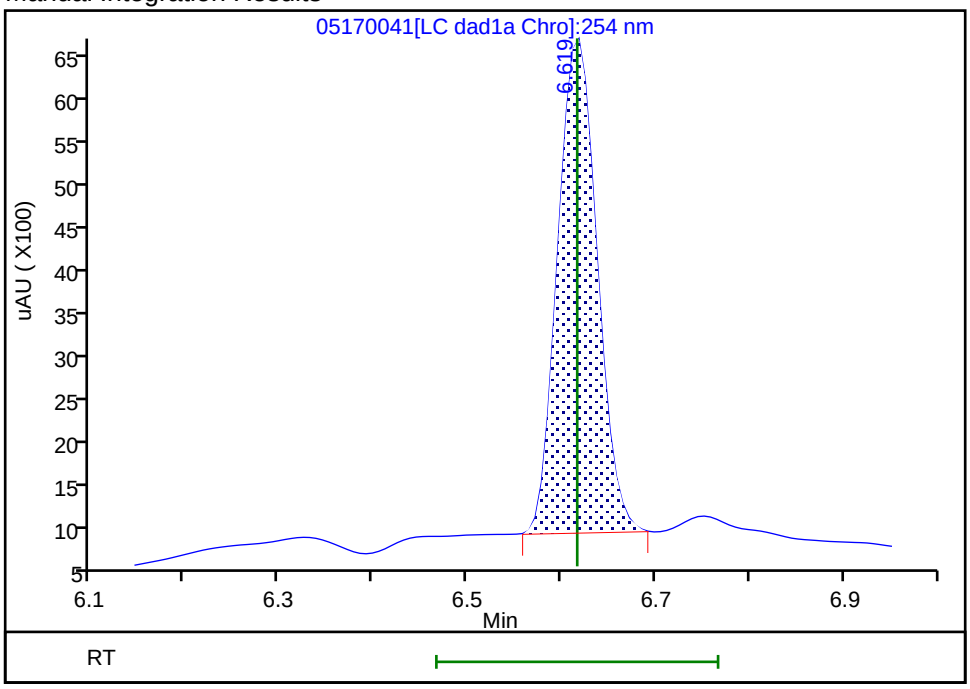
Processing Integration Results

RT: 6.62
Area: 20298
Amount: 0.212447
Amount Units: ug/mL



Manual Integration Results

RT: 6.62
Area: 16792
Amount: 0.175752
Amount Units: ug/mL



Reviewer: LV5D, 18-May-2024 10:34:45 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-652898/3-A

Matrix: Water | Lab File ID: 05010030.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/10/2024 10:58

Sample wt/vol: 500(mL) | Date Analyzed: 05/11/2024 16:02

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653063 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.05		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	1.85		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	1.81		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	1.77		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	1.78		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	1.81		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.40		0.21	0.20	0.086
99-08-1	3-Nitrotoluene	1.31	Q	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.86		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.33	Q	0.41	0.40	0.10
2691-41-0	HMX	1.74	M	0.21	0.20	0.088
98-95-3	Nitrobenzene	1.63		0.21	0.20	0.091
55-63-0	Nitroglycerin	19.6		2.1	2.0	0.92
78-11-5	PETN	20.4		1.1	1.0	0.45
121-82-4	RDX	1.78		0.21	0.20	0.052
479-45-8	Tetryl	1.83		0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	93		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\05010030.D
Lims ID: LCSD 280-652898/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 11-May-2024 16:02:37 ALS Bottle#: 30 Worklist Smp#: 30
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-652898/3-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 14-May-2024 14:09:25 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 14-May-2024 12:41:52

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.613	6.611	0.002	16593	0.2000	0.1737	M
8 RDX	1	7.633	7.631	0.002	19758	0.2000	0.1784	
9 2,4,6-Trinitrophenol	1	7.840	7.845	-0.005	16003	0.2000	0.2017	
$ 10 1,2-Dinitrobenzene	1	8.560	8.565	-0.005	24676	0.2000	0.1868	
11 1,3,5-Trinitrobenzene	1	8.700	8.705	-0.005	45661	0.2000	0.2049	
12 1,3-Dinitrobenzene	1	9.307	9.318	-0.011	55347	0.2000	0.1848	
13 Nitrobenzene	1	9.667	9.671	-0.004	31935	0.2000	0.1627	
14 3,5-Dinitroaniline	1	9.893	9.904	-0.011	39091	0.2000	0.1780	
15 Tetryl	1	9.973	9.991	-0.018	33238	0.2000	0.1830	
16 Nitroglycerin	2	10.440	10.458	-0.018	130584	2.00	1.96	
17 2,4,6-Trinitrotoluene	1	10.873	10.891	-0.018	38998	0.2000	0.1812	
18 4-Amino-2,6-dinitrotoluene	1	11.040	11.064	-0.024	27864	0.2000	0.1858	
19 2-Amino-4,6-dinitrotoluene	1	11.293	11.318	-0.025	36186	0.2000	0.1811	
20 2,6-Dinitrotoluene	1	11.440	11.464	-0.024	26224	0.2000	0.1785	
21 2,4-Dinitrotoluene	1	11.613	11.638	-0.025	51519	0.2000	0.1765	
22 o-Nitrotoluene	1	12.393	12.418	-0.025	18057	0.2000	0.1396	
23 p-Nitrotoluene	1	12.807	12.831	-0.024	15018	0.2000	0.1331	
24 m-Nitrotoluene	1	13.353	13.371	-0.018	18847	0.2000	0.1308	
25 PETN	2	14.393	14.418	-0.025	146487	2.00	2.04	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

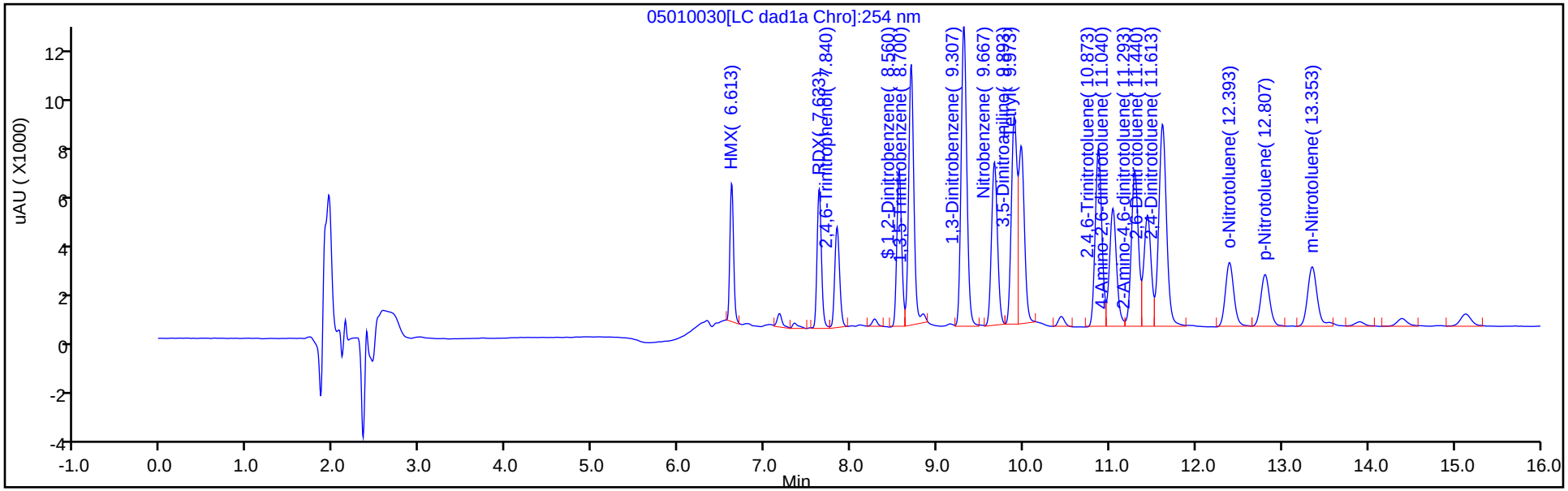
Report Date: 14-May-2024 14:09:28 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

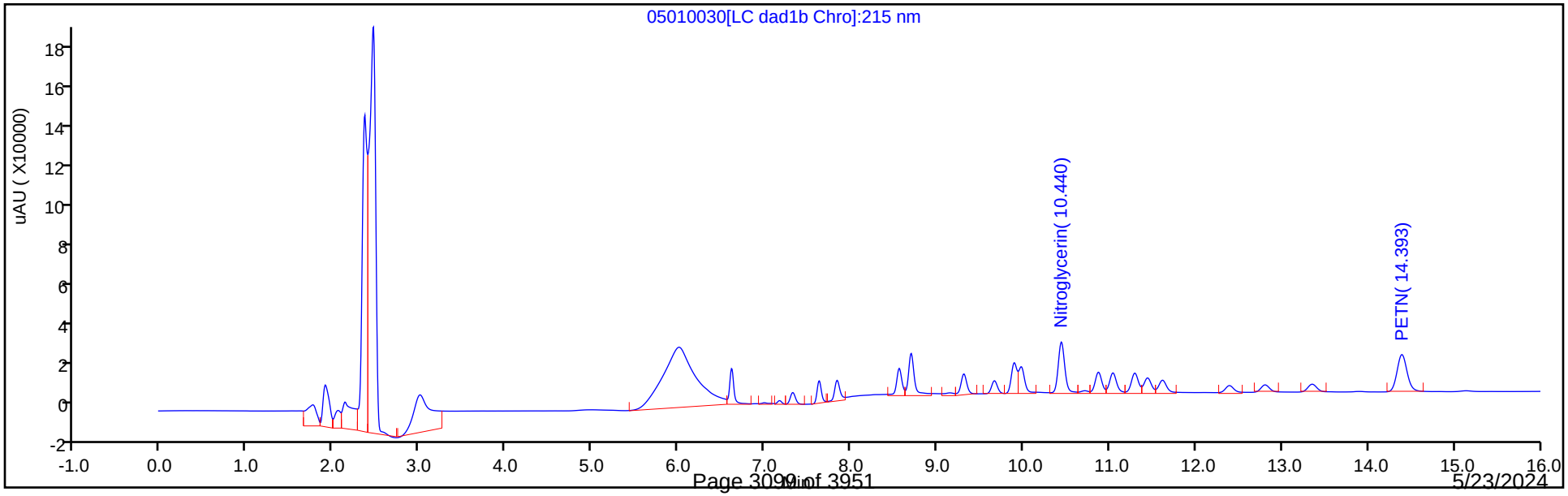
Data File: \\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010030.d

Injection Date:	11-May-2024 16:02:37	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	LCSD 280-652898/3-A			Worklist Smp#:	30
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	30
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



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Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\05010030.D				
Lims ID:	LCSD 280-652898/3-A				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	11-May-2024 16:02:37	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCSD 280-652898/3-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240511-133284.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	14-May-2024 14:09:25	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1620				

First Level Reviewer: LV5D Date: 14-May-2024 12:41:52

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1868	93.38

Manual Integration/User Assign Peak Report

Eurofins Denver

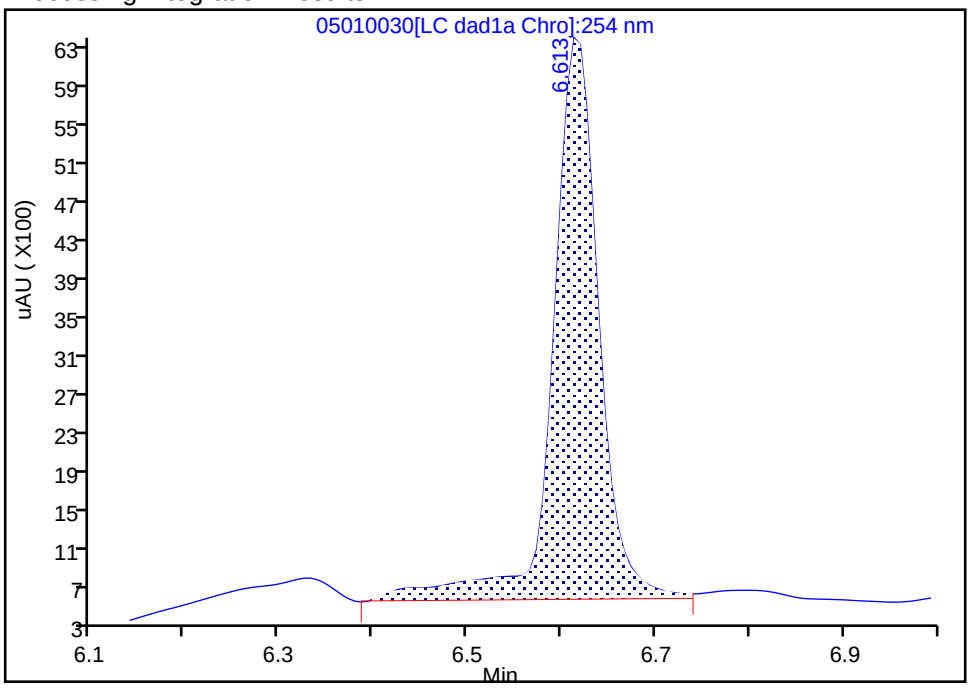
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240511-133284.b\05010030.d				
Injection Date:	11-May-2024 16:02:37	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-652898/3-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

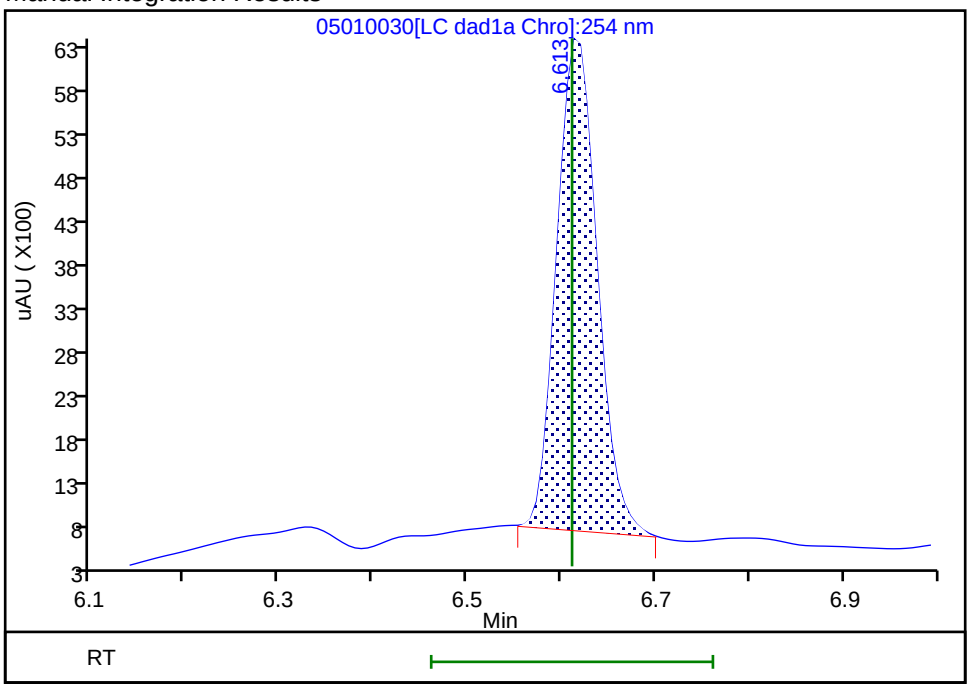
Processing Integration Results

RT: 6.61
Area: 19847
Amount: 0.207727
Amount Units: ug/mL



Manual Integration Results

RT: 6.61
Area: 16593
Amount: 0.173669
Amount Units: ug/mL



Reviewer: LV5D, 14-May-2024 12:41:50 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-653565/3-A

Matrix: Water | Lab File ID: 05170042.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/17/2024 13:10

Sample wt/vol: 500(mL) | Date Analyzed: 05/18/2024 02:52

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653871 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.12		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	1.95		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	1.91		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	1.86		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	1.89		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	1.88		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.49		0.21	0.20	0.086
99-08-1	3-Nitrotoluene	1.47		0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.94		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.46		0.41	0.40	0.10
2691-41-0	HMX	1.75	M	0.21	0.20	0.088
98-95-3	Nitrobenzene	1.73		0.21	0.20	0.091
55-63-0	Nitroglycerin	20.4		2.1	2.0	0.92
78-11-5	PETN	21.4		1.1	1.0	0.45
121-82-4	RDX	1.90		0.21	0.20	0.052
479-45-8	Tetryl	2.01		0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	95		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\05170042.D
Lims ID: LCSD 280-653565/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 18-May-2024 02:52:15 ALS Bottle#: 42 Worklist Smp#: 42
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-653565/3-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-May-2024 10:51:45 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1674

First Level Reviewer: LV5D Date: 18-May-2024 10:34:51

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.616	6.617	-0.001	16700	0.2000	0.1748	M
8 RDX	1	7.622	7.630	-0.008	21033	0.2000	0.1899	
9 2,4,6-Trinitrophenol	1	7.849	7.863	-0.014	16028	0.2000	0.2021	
$ 10 1,2-Dinitrobenzene	1	8.542	8.557	-0.015	24988	0.2000	0.1891	
11 1,3,5-Trinitrobenzene	1	8.682	8.697	-0.015	47214	0.2000	0.2119	
12 1,3-Dinitrobenzene	1	9.295	9.310	-0.015	58247	0.2000	0.1945	
13 Nitrobenzene	1	9.649	9.670	-0.021	34026	0.2000	0.1733	
14 3,5-Dinitroaniline	1	9.875	9.890	-0.015	39828	0.2000	0.1813	
15 Tetryl	1	9.955	9.983	-0.028	36463	0.2000	0.2008	
16 Nitroglycerin	2	10.422	10.457	-0.035	135897	2.00	2.04	
17 2,4,6-Trinitrotoluene	1	10.855	10.883	-0.028	41018	0.2000	0.1906	
18 4-Amino-2,6-dinitrotoluene	1	11.015	11.043	-0.028	29118	0.2000	0.1942	
19 2-Amino-4,6-dinitrotoluene	1	11.269	11.297	-0.028	37547	0.2000	0.1879	
20 2,6-Dinitrotoluene	1	11.422	11.450	-0.028	27737	0.2000	0.1888	
21 2,4-Dinitrotoluene	1	11.595	11.623	-0.028	54425	0.2000	0.1865	
22 o-Nitrotoluene	1	12.369	12.410	-0.041	19302	0.2000	0.1493	
23 p-Nitrotoluene	1	12.782	12.823	-0.041	16431	0.2000	0.1457	
24 m-Nitrotoluene	1	13.329	13.370	-0.041	21138	0.2000	0.1467	
25 PETN	2	14.375	14.437	-0.062	153945	2.00	2.14	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

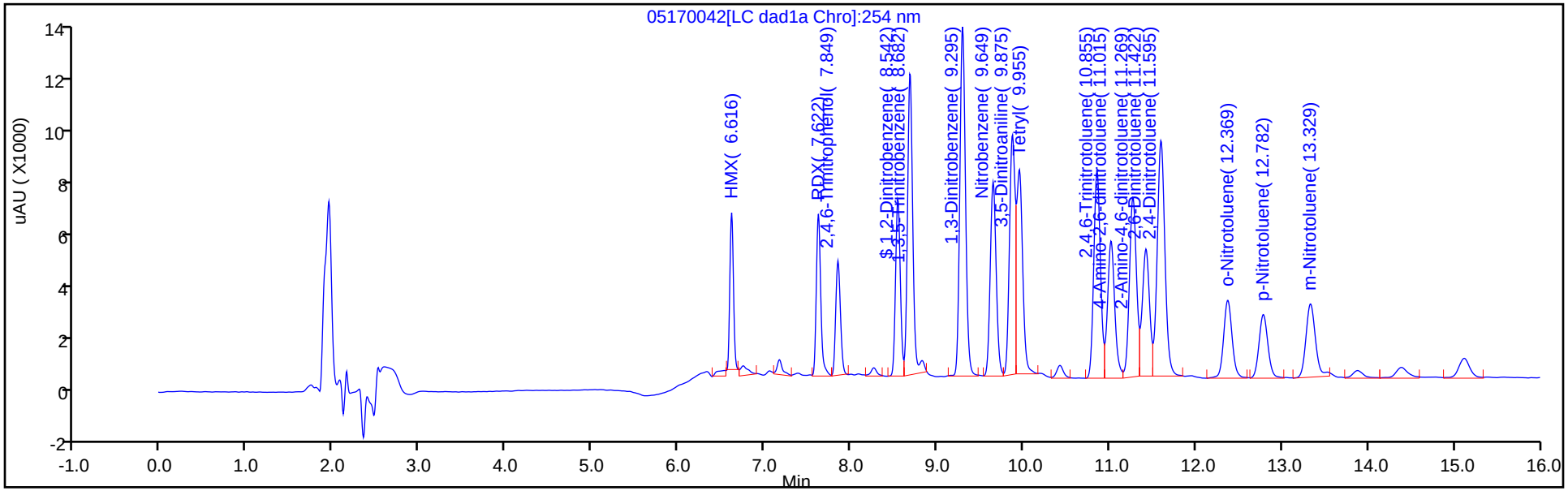
Report Date: 18-May-2024 10:51:47 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

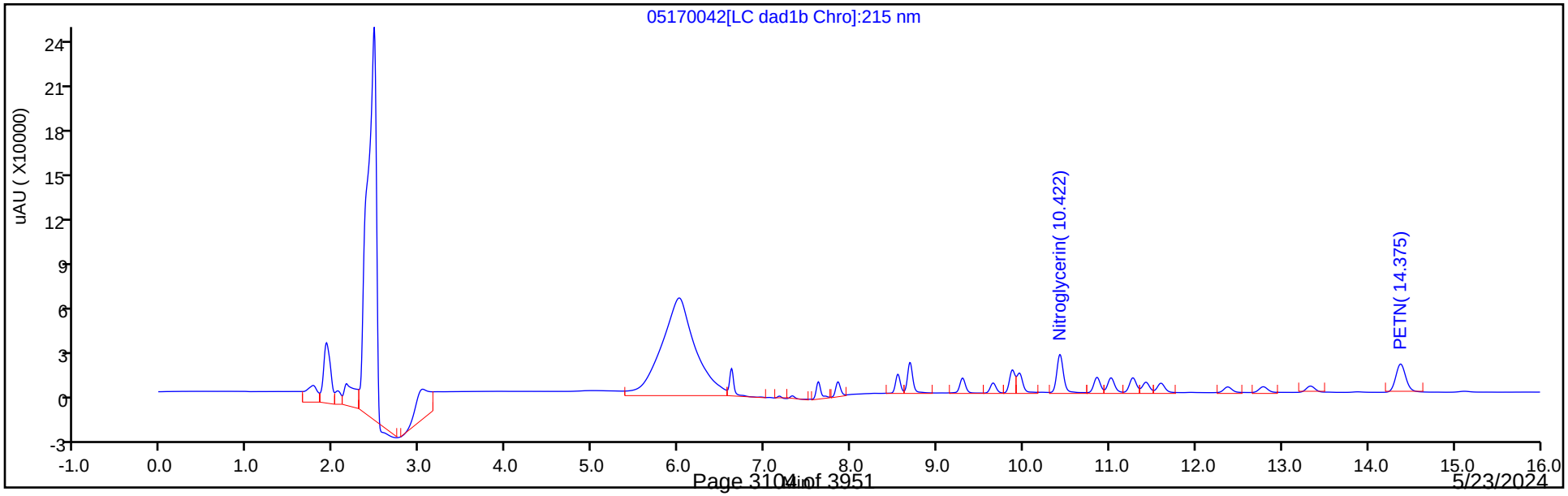
Data File: \\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170042.d

Injection Date:	18-May-2024 02:52:15	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	LCSD 280-653565/3-A			Worklist Smp#:	42
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	42
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2024
4:40:30 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\05170042.D				
Lims ID:	LCSD 280-653565/3-A				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	18-May-2024 02:52:15	ALS Bottle#:	42	Worklist Smp#:	42
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCSD 280-653565/3-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240517-133518.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	18-May-2024 10:51:45	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1674				

First Level Reviewer: LV5D Date: 18-May-2024 10:34:51

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1891	94.56

Manual Integration/User Assign Peak Report

Eurofins Denver

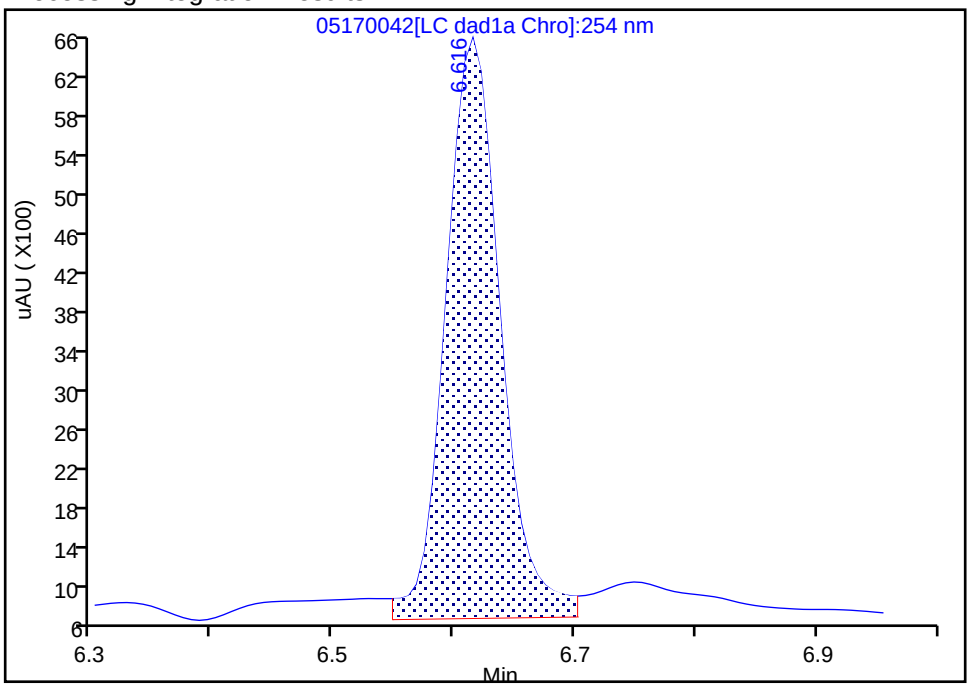
Data File: \\chromfs\denver\chromdata\chhplc_x\20240517-133518.b\05170042.d
Injection Date: 18-May-2024 02:52:15 Instrument ID: CHHPLC_X3
Lims ID: LCSD 280-653565/3-A
Client ID:
Operator ID: JZ ALS Bottle#: 42 Worklist Smp#: 42
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

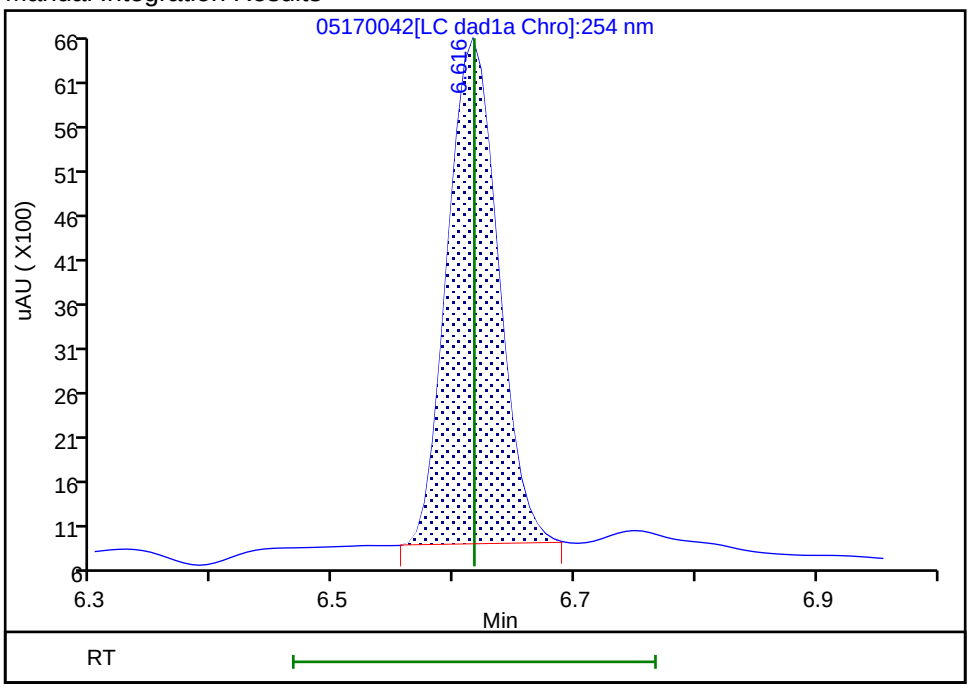
Processing Integration Results

RT: 6.62
Area: 18672
Amount: 0.195429
Amount Units: ug/mL



Manual Integration Results

RT: 6.62
Area: 16700
Amount: 0.174789
Amount Units: ug/mL



Reviewer: LV5D, 18-May-2024 10:34:50 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X5 Start Date: 03/27/2024 19:58

Analysis Batch Number: 647408 End Date: 03/28/2024 06:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-647408/10		03/27/2024 19:58	1	03270010.D	Luna-phenylhex 4.6(mm)
IC 280-647408/11		03/27/2024 20:33	1	03270011.D	Luna-phenylhex 4.6(mm)
IC 280-647408/12		03/27/2024 21:08	1	03270012.D	Luna-phenylhex 4.6(mm)
IC 280-647408/13		03/27/2024 21:43	1	03270013.D	Luna-phenylhex 4.6(mm)
IC 280-647408/14		03/27/2024 22:18	1	03270014.D	Luna-phenylhex 4.6(mm)
IC 280-647408/15		03/27/2024 22:53	1	03270015.D	Luna-phenylhex 4.6(mm)
IC 280-647408/16		03/27/2024 23:28	1	03270016.D	Luna-phenylhex 4.6(mm)
IC 280-647408/17		03/28/2024 00:03	1	03270017.D	Luna-phenylhex 4.6(mm)
IC 280-647408/18		03/28/2024 00:38	1	03270018.D	Luna-phenylhex 4.6(mm)
ICV 280-647408/19		03/28/2024 01:13	1	03270019.D	Luna-phenylhex 4.6(mm)
IC 280-647408/20		03/28/2024 01:48	1		Luna-phenylhex 4.6(mm)
IC 280-647408/21		03/28/2024 02:23	1		Luna-phenylhex 4.6(mm)
IC 280-647408/22		03/28/2024 02:58	1		Luna-phenylhex 4.6(mm)
IC 280-647408/23		03/28/2024 03:33	1		Luna-phenylhex 4.6(mm)
IC 280-647408/24		03/28/2024 04:08	1		Luna-phenylhex 4.6(mm)
IC 280-647408/25		03/28/2024 04:43	1		Luna-phenylhex 4.6(mm)
IC 280-647408/26		03/28/2024 05:18	1		Luna-phenylhex 4.6(mm)
IC 280-647408/27		03/28/2024 05:53	1		Luna-phenylhex 4.6(mm)
ICV 280-647408/28		03/28/2024 06:27	1		Luna-phenylhex 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 04/17/2024 20:37

Analysis Batch Number: 649950 End Date: 04/18/2024 03:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-649950/11		04/17/2024 20:37	1	04170011.D	UltraCarb5uODS 4.6(mm)
IC 280-649950/12		04/17/2024 21:00	1	04170012.D	UltraCarb5uODS 4.6(mm)
IC 280-649950/13		04/17/2024 21:23	1	04170013.D	UltraCarb5uODS 4.6(mm)
IC 280-649950/14		04/17/2024 21:46	1	04170014.D	UltraCarb5uODS 4.6(mm)
IC 280-649950/15		04/17/2024 22:09	1	04170015.D	UltraCarb5uODS 4.6(mm)
IC 280-649950/16		04/17/2024 22:32	1	04170016.D	UltraCarb5uODS 4.6(mm)
IC 280-649950/17		04/17/2024 22:55	1	04170017.D	UltraCarb5uODS 4.6(mm)
IC 280-649950/18		04/17/2024 23:18	1	04170018.D	UltraCarb5uODS 4.6(mm)
IC 280-649950/19		04/17/2024 23:41	1	04170019.D	UltraCarb5uODS 4.6(mm)
ICV 280-649950/20		04/18/2024 00:04	1	04170020.D	UltraCarb5uODS 4.6(mm)
IC 280-649950/21		04/18/2024 00:27	1		UltraCarb5uODS 4.6(mm)
IC 280-649950/22		04/18/2024 00:50	1		UltraCarb5uODS 4.6(mm)
IC 280-649950/23		04/18/2024 01:13	1		UltraCarb5uODS 4.6(mm)
IC 280-649950/24		04/18/2024 01:36	1		UltraCarb5uODS 4.6(mm)
IC 280-649950/25		04/18/2024 01:59	1		UltraCarb5uODS 4.6(mm)
IC 280-649950/26		04/18/2024 02:22	1		UltraCarb5uODS 4.6(mm)
IC 280-649950/27		04/18/2024 02:45	1		UltraCarb5uODS 4.6(mm)
IC 280-649950/28		04/18/2024 03:08	1		UltraCarb5uODS 4.6(mm)
ICV 280-649950/29		04/18/2024 03:30	1		UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 05/11/2024 14:53

Analysis Batch Number: 653063 End Date: 05/11/2024 22:56

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-653063/7		05/11/2024 14:53	1	05010007.D	UltraCarb5uODS 4.6(mm)
MB 280-652898/1-A		05/11/2024 15:16	1	05010028.D	UltraCarb5uODS 4.6(mm)
LCS 280-652898/2-A		05/11/2024 15:39	1	05010029.D	UltraCarb5uODS 4.6(mm)
LCSD 280-652898/3-A		05/11/2024 16:02	1	05010030.D	UltraCarb5uODS 4.6(mm)
280-191098-1	DET-003-240401-GW	05/11/2024 16:25	1	05010031.D	UltraCarb5uODS 4.6(mm)
280-191098-4	LL1mw-081-240401-GW	05/11/2024 16:48	1	05010032.D	UltraCarb5uODS 4.6(mm)
280-191098-5	DET-004-240401-GW	05/11/2024 17:11	1	05010033.D	UltraCarb5uODS 4.6(mm)
280-191098-7	LL3mw-247-240401-GW	05/11/2024 17:34	1	05010034.D	UltraCarb5uODS 4.6(mm)
280-191098-8	LL3mw-248-240401-GW	05/11/2024 17:57	1	05010035.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		05/11/2024 18:20	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/11/2024 18:43	1		UltraCarb5uODS 4.6(mm)
CCV 280-653063/38		05/11/2024 19:06	1	05010038.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		05/11/2024 19:29	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/11/2024 19:52	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/11/2024 20:15	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/11/2024 20:38	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/11/2024 21:01	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/11/2024 21:24	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/11/2024 21:47	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/11/2024 22:10	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/11/2024 22:33	1		UltraCarb5uODS 4.6(mm)
CCV 280-653063/48		05/11/2024 22:56	1	05010048.D	UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X5 Start Date: 05/11/2024 17:27

Analysis Batch Number: 653069 End Date: 05/12/2024 05:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-653069/7		05/11/2024 17:27	1	05110007.D	Luna-phenylhex 4.6(mm)
ZZZZZ		05/11/2024 18:02	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/11/2024 18:37	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/11/2024 19:12	1		Luna-phenylhex 4.6(mm)
280-191098-5	DET-004-240401-GW	05/11/2024 20:57	1	05110015.D	Luna-phenylhex 4.6(mm)
280-191098-7	LL3mw-247-240401-GW	05/11/2024 21:32	1	05110016.D	Luna-phenylhex 4.6(mm)
280-191098-8	LL3mw-248-240401-GW	05/11/2024 22:07	1	05110017.D	Luna-phenylhex 4.6(mm)
ZZZZZ		05/11/2024 22:42	1		Luna-phenylhex 4.6(mm)
CCV 280-653069/20		05/11/2024 23:51	1	05110020.D	Luna-phenylhex 4.6(mm)
ZZZZZ		05/12/2024 01:01	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/12/2024 01:36	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/12/2024 02:11	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/12/2024 02:46	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/12/2024 03:21	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/12/2024 03:56	1		Luna-phenylhex 4.6(mm)
CCV 280-653069/30		05/12/2024 05:41	1		Luna-phenylhex 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X5 Start Date: 05/15/2024 00:39

Analysis Batch Number: 653380 End Date: 05/15/2024 01:49

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-653380/7		05/15/2024 00:39	1	05140007.D	Luna-phenylhex 4.6(mm)
280-191098-4	LL1mw-081-240401-GW	05/15/2024 01:14	1	05140010.D	Luna-phenylhex 4.6(mm)
CCV 280-653380/11		05/15/2024 01:49	1	05140011.D	Luna-phenylhex 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 05/18/2024 01:43

Analysis Batch Number: 653871 End Date: 05/18/2024 08:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-653871/39		05/18/2024 01:43	1	05170039.D	UltraCarb5uODS 4.6(mm)
MB 280-653565/1-A		05/18/2024 02:06	1	05170040.D	UltraCarb5uODS 4.6(mm)
LCS 280-653565/2-A		05/18/2024 02:29	1	05170041.D	UltraCarb5uODS 4.6(mm)
LCSD 280-653565/3-A		05/18/2024 02:52	1	05170042.D	UltraCarb5uODS 4.6(mm)
280-191098-1 RE	DET-003-240401-GW RE	05/18/2024 03:15	1	05170043.D	UltraCarb5uODS 4.6(mm)
280-191098-4 RE	LL1mw-081-240401-GW RE	05/18/2024 03:38	1	05170044.D	UltraCarb5uODS 4.6(mm)
280-191098-5 RE	DET-004-240401-GW RE	05/18/2024 04:01	1	05170045.D	UltraCarb5uODS 4.6(mm)
280-191098-7 RE	LL3mw-247-240401-GW RE	05/18/2024 04:24	1	05170046.D	UltraCarb5uODS 4.6(mm)
280-191098-8 RE	LL3mw-248-240401-GW RE	05/18/2024 04:46	1	05170047.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		05/18/2024 05:09	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/18/2024 05:32	1		UltraCarb5uODS 4.6(mm)
CCV 280-653871/50		05/18/2024 05:55	1	05170050.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		05/18/2024 06:18	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/18/2024 06:41	20		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/18/2024 07:04	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/18/2024 07:27	20		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/18/2024 07:50	20		UltraCarb5uODS 4.6(mm)
CCV 280-653871/56		05/18/2024 08:13	1		UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: CHHPLC_X5 Start Date: 05/17/2024 17:49

Analysis Batch Number: 653873 End Date: 05/18/2024 03:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-653873/7		05/17/2024 17:49	1	05170007.D	Luna-phenylhex 4.6(mm)
ZZZZZ		05/17/2024 18:24	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/17/2024 18:59	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/17/2024 19:34	1		Luna-phenylhex 4.6(mm)
280-191098-4 RE	LL1mw-081-240401-GW RE	05/17/2024 20:44	1	05170014.D	Luna-phenylhex 4.6(mm)
280-191098-5 RE	DET-004-240401-GW RE	05/17/2024 21:19	1	05170015.D	Luna-phenylhex 4.6(mm)
280-191098-7 RE	LL3mw-247-240401-GW RE	05/17/2024 21:54	1	05170016.D	Luna-phenylhex 4.6(mm)
280-191098-8 RE	LL3mw-248-240401-GW RE	05/17/2024 22:29	1	05170017.D	Luna-phenylhex 4.6(mm)
ZZZZZ		05/17/2024 23:04	1		Luna-phenylhex 4.6(mm)
CCV 280-653873/20		05/18/2024 00:14	1	05170020.D	Luna-phenylhex 4.6(mm)
ZZZZZ		05/18/2024 01:24	20		Luna-phenylhex 4.6(mm)
ZZZZZ		05/18/2024 01:59	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/18/2024 02:34	20		Luna-phenylhex 4.6(mm)
ZZZZZ		05/18/2024 03:09	20		Luna-phenylhex 4.6(mm)
CCV 280-653873/26		05/18/2024 03:43	1		Luna-phenylhex 4.6(mm)

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 647408 Batch Start Date: 03/27/24 19:58 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	8330 LCS 00134	8330IntermStk 00079	8330Surrogate 00154		
IC 280-647408/10		8330B			1 mL		250 uL			
IC 280-647408/11		8330B			1 mL		100 uL			
IC 280-647408/12		8330B			1 mL		70 uL			
IC 280-647408/13		8330B			1 mL		40 uL			
IC 280-647408/14		8330B			1 mL		25 uL			
IC 280-647408/15		8330B			1 mL		10 uL			
IC 280-647408/16		8330B			1 mL		5 uL			
IC 280-647408/17		8330B			1 mL		2 uL			
IC 280-647408/18		8330B			1 mL		1 uL			
ICV 280-647408/19		8330B			1 mL	50 uL		50 uL		

Batch Notes	
Methanol ID	233990

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 649950 Batch Start Date: 04/17/24 20:37 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	8330 DMT 00016	8330 LCS 00134	8330_OP_DMT 00026	8330IntermStk 00080	8330Surrogate 00154
IC 280-649950/11		8330B			1 mL	125 uL			250 uL	
IC 280-649950/12		8330B			1 mL	50 uL			100 uL	
IC 280-649950/13		8330B			1 mL	35 uL			70 uL	
IC 280-649950/14		8330B			1 mL	20 uL			40 uL	
IC 280-649950/15		8330B			1 mL	12.5 uL			25 uL	
IC 280-649950/16		8330B			1 mL	5 uL			10 uL	
IC 280-649950/17		8330B			1 mL	2.5 uL			5 uL	
IC 280-649950/18		8330B			1 mL	1 uL			2 uL	
IC 280-649950/19		8330B			1 mL	0.5 uL			1 uL	
ICV 280-649950/20		8330B			1 mL		50 uL	50 uL		50 uL

Batch Notes	
Methanol ID	233990

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 652898 Batch Start Date: 05/10/24 10:58 Batch Analyst: Alwes, Ashley A

Batch Method: 3535 Batch End Date: 05/10/24 13:51

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	8330 LCS 00135	8330Surrogate 00155
MB 280-652898/1		3535, 8330B					500 mL	5 mL		0.1 mL
LCS 280-652898/2		3535, 8330B					500 mL	5 mL	0.1 mL	0.1 mL
LCSD 280-652898/3		3535, 8330B					500 mL	5 mL	0.1 mL	0.1 mL
280-191098-A-1	DET-003-240401-GW	3535, 8330B	Water	T	747.6 g	284.5 g	463.1 mL	5 mL		0.1 mL
280-191098-A-4	LL1mw-081-240401-GW	3535, 8330B	Water	T	755.1 g	284.7 g	470.4 mL	5 mL		0.1 mL
280-191098-A-5	DET-004-240401-GW	3535, 8330B	Water	T	737.7 g	282.7 g	455 mL	5 mL		0.1 mL
280-191098-B-7	LL3mw-247-240401-GW	3535, 8330B	Water	T	734.1 g	282.8 g	451.3 mL	5 mL		0.1 mL
280-191098-A-8	LL3mw-248-240401-GW	3535, 8330B	Water	T	748.2 g	282.5 g	465.7 mL	5 mL		0.1 mL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 652898 Batch Start Date: 05/10/24 10:58 Batch Analyst: Alwes, Ashley A

Batch Method: 3535 Batch End Date: 05/10/24 13:51

Batch Notes	
First Start time	05/10/2024 11:15
First End time	05/10/2024 13:02
SPE Cartridge Type	Sep-Pak Porapak Rdx
SPE Cartridge Lot ID	005434002A
Balance ID	24350888
Balance is Level? (Y/N)	yes
Manifold ID	Manifold: A
QC Bottle Lot ID	0202401I
Pipette/Syringe/Dispenser ID	Dobby/ DOD/ Pugsley
Solvent Name	CaCl2
Solvent Lot #	CaCl2_Sol_00092
Rinse Solvent Name	Acetonitrile
Rinse Solvent Lot	Acetonitrile_00087
Acid Name	0.2% AAinACN
Acid ID	0.2% AAinACN_00004
Analyst ID - Spike Analyst	AA
Analyst ID - Spike Witness Analyst	Reviewer: DL
Batch Comment	DV-OP-0017

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 653565 Batch Start Date: 05/17/24 13:10 Batch Analyst: Alwes, Ashley A

Batch Method: 3535 Batch End Date: 05/17/24 16:37

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	8330 LCS 00135	8330Surrogate 00155
MB 280-653565/1		3535, 8330B					500 mL	5 mL		0.1 mL
LCS 280-653565/2		3535, 8330B					500 mL	5 mL	0.1 mL	0.1 mL
LCSD 280-653565/3		3535, 8330B					500 mL	5 mL	0.1 mL	0.1 mL
280-191098-B-1	DET-003-240401-GW	3535, 8330B	Water	T	771.6 g	280.7 g	490.9 mL	5 mL		0.1 mL
280-191098-B-4	LL1mw-081-240401-GW	3535, 8330B	Water	T	733.0 g	282.7 g	450.3 mL	5 mL		0.1 mL
280-191098-B-5	DET-004-240401-GW	3535, 8330B	Water	T	768.5 g	283.9 g	484.6 mL	5 mL		0.1 mL
280-191098-A-7	LL3mw-247-240401-GW	3535, 8330B	Water	T	722.2 g	282.8 g	439.4 mL	5 mL		0.1 mL
280-191098-B-8	LL3mw-248-240401-GW	3535, 8330B	Water	T	733.7 g	282.3 g	451.4 mL	5 mL		0.1 mL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 653565 Batch Start Date: 05/17/24 13:10 Batch Analyst: Alwes, Ashley A

Batch Method: 3535 Batch End Date: 05/17/24 16:37

Batch Notes	
First Start time	05/17/2024 13:24
First End time	05/17/2024 15:29
SPE Cartridge Type	Sep-Pak Porapak Rdx
SPE Cartridge Lot ID	005434002A
Balance ID	834419814
Balance is Level? (Y/N)	yes
Manifold ID	Manifold: C
QC Bottle Lot ID	0202401I
Pipette/Syringe/Dispenser ID	Dobby/ DOD/ Pugsley
Solvent Name	CaCl2
Solvent Lot #	CaCl2_Sol_00092
Rinse Solvent Name	Acetonitrile
Rinse Solvent Lot	Acetonitrile_00087
Acid Name	0.2% AAinACN
Acid ID	0.2% AAinACN_00005
Analyst ID - Spike Analyst	MJ
Analyst ID - Spike Witness Analyst	Reviewer: EH
Batch Comment	DV-OP-0017; sodium chloride_29

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS

COVER PAGE
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG No.:

Project: RVAAP FWGW

Client Sample ID	Lab Sample ID
DET-003-240401-GW	280-191098-1
DET-003-240402-GW	280-191098-2
DET-004-240401-GW	280-191098-5

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DET-003-240401-GW
Lab Sample ID: 280-191098-1
Lab Name: Eurofins Denver
Job No.: 280-191098-1
SDG ID.:
Matrix: Water
Date Sampled: 05/06/2024 10:16
Reporting Basis: WET
Date Received: 05/07/2024 09:15

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	70	100	70	18	ug/L	U		1	6010D
Calcium	85000	200	64	24	ug/L		J1	1	6010D
Iron	1800	100	34	9.1	ug/L			1	6010D
Magnesium	32000	200	15	4.2	ug/L			1	6010D
Potassium	2100	3000	940	240	ug/L	J		1	6010D
Sodium	12000	1000	320	97	ug/L			1	6010D
Antimony	1.0	2.0	1.0	0.40	ug/L	U		1	6020B
Arsenic	10	5.0	2.0	0.50	ug/L			1	6020B
Barium	47	3.0	0.95	0.38	ug/L		J1	1	6020B
Beryllium	0.60	1.0	0.60	0.30	ug/L	U		1	6020B
Cadmium	0.75	1.0	0.75	0.19	ug/L	U		1	6020B
Chromium	1.8	3.0	1.8	0.50	ug/L	U		1	6020B
Cobalt	0.36	1.0	0.90	0.33	ug/L	J		1	6020B
Copper	0.76	2.0	1.8	0.71	ug/L	J		1	6020B
Lead	0.70	1.0	0.70	0.23	ug/L	U		1	6020B
Manganese	240	3.0	1.8	0.51	ug/L		J1	1	6020B
Nickel	1.9	3.0	1.9	0.83	ug/L	U		1	6020B
Selenium	4.0	5.0	4.0	1.0	ug/L	U		1	6020B
Silver	0.15	1.0	0.15	0.045	ug/L	U		1	6020B
Thallium	0.75	1.0	0.75	0.21	ug/L	U		1	6020B
Vanadium	1.1	5.0	3.0	1.1	ug/L	J		1	6020B
Zinc	8.0	10	8.0	2.0	ug/L	U		1	6020B
Mercury	0.080	0.20	0.080	0.061	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DET-003-240402-GW
Lab Sample ID: 280-191098-2
Lab Name: Eurofins Denver
Job No.: 280-191098-1
SDG ID.:
Matrix: Water
Date Sampled: 05/06/2024 10:16
Reporting Basis: WET
Date Received: 05/07/2024 09:15

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	70	100	70	18	ug/L	U		1	6010D
Calcium	90000	200	64	24	ug/L			1	6010D
Iron	1900	100	34	9.1	ug/L			1	6010D
Magnesium	34000	200	15	4.2	ug/L			1	6010D
Potassium	2200	3000	940	240	ug/L	J		1	6010D
Sodium	12000	1000	320	97	ug/L			1	6010D
Antimony	1.0	2.0	1.0	0.40	ug/L	U		1	6020B
Arsenic	10	5.0	2.0	0.50	ug/L			1	6020B
Barium	47	3.0	0.95	0.38	ug/L			1	6020B
Beryllium	0.60	1.0	0.60	0.30	ug/L	U		1	6020B
Cadmium	0.75	1.0	0.75	0.19	ug/L	U		1	6020B
Chromium	1.8	3.0	1.8	0.50	ug/L	U		1	6020B
Cobalt	0.36	1.0	0.90	0.33	ug/L	J		1	6020B
Copper	1.8	2.0	1.8	0.71	ug/L	U		1	6020B
Lead	0.70	1.0	0.70	0.23	ug/L	U		1	6020B
Manganese	240	3.0	1.8	0.51	ug/L			1	6020B
Nickel	1.9	3.0	1.9	0.83	ug/L	U		1	6020B
Selenium	4.0	5.0	4.0	1.0	ug/L	U		1	6020B
Silver	0.15	1.0	0.15	0.045	ug/L	U		1	6020B
Thallium	0.75	1.0	0.75	0.21	ug/L	U		1	6020B
Vanadium	1.1	5.0	3.0	1.1	ug/L	J		1	6020B
Zinc	8.0	10	8.0	2.0	ug/L	U		1	6020B
Mercury	0.080	0.20	0.080	0.061	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DET-004-240401-GW
Lab Sample ID: 280-191098-5
Lab Name: Eurofins Denver
Job No.: 280-191098-1
SDG ID.:
Matrix: Water
Date Sampled: 05/06/2024 10:35
Reporting Basis: WET
Date Received: 05/07/2024 09:15

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	70	100	70	18	ug/L	U		1	6010D
Calcium	120000	200	64	24	ug/L			1	6010D
Iron	35	100	34	9.1	ug/L	J		1	6010D
Magnesium	23000	200	15	4.2	ug/L			1	6010D
Potassium	1100	3000	940	240	ug/L	J		1	6010D
Sodium	2000	1000	320	97	ug/L			1	6010D
Antimony	1.0	2.0	1.0	0.40	ug/L	U		1	6020B
Arsenic	2.0	5.0	2.0	0.50	ug/L	U		1	6020B
Barium	58	3.0	0.95	0.38	ug/L			1	6020B
Beryllium	0.60	1.0	0.60	0.30	ug/L	U		1	6020B
Cadmium	0.75	1.0	0.75	0.19	ug/L	U		1	6020B
Chromium	1.8	3.0	1.8	0.50	ug/L	U		1	6020B
Cobalt	0.90	1.0	0.90	0.33	ug/L	U		1	6020B
Copper	1.1	2.0	1.8	0.71	ug/L	J		1	6020B
Lead	0.70	1.0	0.70	0.23	ug/L	U		1	6020B
Manganese	20	3.0	1.8	0.51	ug/L			1	6020B
Nickel	1.9	3.0	1.9	0.83	ug/L	U		1	6020B
Selenium	4.0	5.0	4.0	1.0	ug/L	U		1	6020B
Silver	0.15	1.0	0.15	0.045	ug/L	U		1	6020B
Thallium	0.75	1.0	0.75	0.21	ug/L	U		1	6020B
Vanadium	3.0	5.0	3.0	1.1	ug/L	U		1	6020B
Zinc	15	10	8.0	2.0	ug/L			1	6020B
Mercury	0.080	0.20	0.080	0.061	ug/L	U		1	7470A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

ICV Source: ICP ICVH_02029 Concentration Units: ug/L

CCV Source: ICP CCVH_00970

Analyte	ICVH 280-653318/6 05/13/2024 14:09				CCVH 280-653318/29 05/13/2024 22:57				CCVH 280-653318/42 05/13/2024 23:53			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	40100		40000	100	48400		50000	97	48000		50000	96
Iron	80900		80000	101	48800		50000	98	48200		50000	96
Sodium	77700		80000	97	235000		250000	94	230000		250000	92

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

ICV Source: ICP ICVH_02029 Concentration Units: ug/L

CCV Source: ICP CCVH_00970

Analyte	CCVH 280-653318/55 05/14/2024 00:43											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	48500		50000	97								
Iron	48800		50000	98								
Sodium	232000		250000	93								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

ICV Source: ICP ICV_01930 Concentration Units: ug/L

CCV Source: ICP CCV_00715

Analyte	ICV 280-653318/7 05/13/2024 14:14				CCV 280-653318/30 05/13/2024 23:02				CCV 280-653318/43 05/13/2024 23:57			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	269		250	108	516		500	103	511		500	102
Calcium	2560		2500	102	4950		5000	99	4880		5000	98
Iron	1280		1250	102	2450		2500	98	2430		2500	97
Magnesium	10000		10000	100	19900		20000	99	19700		20000	98
Potassium	24300		25000	97	51500		50000	103	51500		50000	103
Sodium	12300		12500	98	26100		25000	104	25700		25000	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

ICV Source: ICP ICV_01930 Concentration Units: ug/L

CCV Source: ICP CCV_00715

Analyte	CCV 280-653318/56 05/14/2024 00:47											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	520		500	104								
Calcium	4930		5000	99								
Iron	2460		2500	98								
Magnesium	19800		20000	99								
Potassium	51900		50000	104								
Sodium	25800		25000	103								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

ICV Source: ICP ICVH_02030 Concentration Units: ug/L

CCV Source: ICP CCVH_00970

Analyte	ICVH 280-653481/8 05/14/2024 12:41				CCVH 280-653481/17 05/14/2024 13:22				CCVH 280-653481/31 05/14/2024 17:08			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Sodium	80100		80000	100	246000		250000	98	250000		250000	100
Aluminum	39700		40000	99	50700		50000	101	49900		50000	100
Iron	79700		80000	100	51500		50000	103	50200		50000	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

ICV Source: ICP ICV_01931 Concentration Units: ug/L

CCV Source: ICP CCV_00715

Analyte	ICV 280-653481/9 05/14/2024 12:46				CCV 280-653481/18 05/14/2024 13:26				CCV 280-653481/32 05/14/2024 17:13			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Sodium	12500		12500	100	24900		25000	100	25300		25000	101
Aluminum	244		250	98	499		500	100	490		500	98
Calcium	2500		2500	100	5050		5000	101	4990		5000	100
Iron	1260		1250	101	2570		2500	103	2490		2500	100
Magnesium	9920		10000	99	20000		20000	100	19800		20000	99
Potassium	24700		25000	99	49500		50000	99	49600		50000	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

ICV Source: ms 77 icv_03236 Concentration Units: ug/L

CCV Source: ms 77 ccv_03232

Analyte	ICV 280-652887/15 05/09/2024 14:55				CCV 280-652887/24 05/09/2024 15:28				CCV 280-652887/36 05/09/2024 16:13			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	43.2		40.0	108	54.6		50.0	109	52.8		50.0	106
Arsenic	41.0		40.0	103	51.0		50.0	102	51.4		50.0	103
Barium	40.0		40.0	100	52.3		50.0	105	53.4		50.0	107
Beryllium	38.6		40.0	96	51.1		50.0	102	51.1		50.0	102
Cadmium	40.4		40.0	101	52.2		50.0	104	51.9		50.0	104
Chromium	40.6		40.0	102	52.0		50.0	104	50.8		50.0	102
Cobalt	39.5		40.0	99	50.0		50.0	100	48.8		50.0	98
Copper	39.3		40.0	98	50.9		50.0	102	50.8		50.0	102
Lead	40.8		40.0	102	50.8		50.0	102	51.5		50.0	103
Manganese	40.8		40.0	102	50.0		50.0	100	50.6		50.0	101
Nickel	39.5		40.0	99	50.0		50.0	100	50.4		50.0	101
Selenium	40.5		40.0	101	52.4		50.0	105	50.0		50.0	100
Silver	79.2		80.0	99	51.3		50.0	103	53.2		50.0	106
Thallium	40.5		40.0	101	50.8		50.0	102	51.7		50.0	103
Vanadium	41.7		40.0	104	49.7		50.0	99	50.9		50.0	102
Zinc	80.3		80.0	100	51.8		50.0	104	50.8		50.0	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

ICV Source: ms 77 icv_03236 Concentration Units: ug/L

CCV Source: ms 77 ccv_03232

Analyte	CCV 280-652887/47 05/09/2024 16:52											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	54.7		50.0	109								
Arsenic	51.3		50.0	103								
Barium	53.1		50.0	106								
Beryllium	50.3		50.0	101								
Cadmium	54.7		50.0	109								
Chromium	49.1		50.0	98								
Cobalt	49.6		50.0	99								
Copper	50.3		50.0	101								
Lead	51.6		50.0	103								
Manganese	48.7		50.0	97								
Nickel	48.7		50.0	97								
Selenium	49.6		50.0	99								
Silver	52.1		50.0	104								
Thallium	51.9		50.0	104								
Vanadium	49.2		50.0	98								
Zinc	51.7		50.0	103								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

ICV Source: Hg Biwk ICV_00420 Concentration Units: ug/L

CCV Source: Hg Daily Spk_03597

Analyte	ICV 280-654294/9-A 05/21/2024 23:27				CCV 280-654294/12-A 05/22/2024 02:37				CCV 280-654294/12-A 05/22/2024 03:08			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.04		4.00	101	5.18		5.00	104	5.18		5.00	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

ICV Source: Hg Biwk ICV_00420 Concentration Units: ug/L

CCV Source: Hg Daily Spk_03597

Analyte	CCV 280-654294/12-A 05/22/2024 03:38				CCV 280-654294/12-A 05/22/2024 04:09							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.16		5.00	103	5.15		5.00	103				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Method: 6010D Instrument ID: MT_051

Lab Sample ID: CRI 280-653318/11 Concentration Units: ug/L

CRQL Check Standard Source: ICP LLCCV_03915

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Aluminum	100	109		109	80-120
Calcium	200	210		105	80-120
Iron	100	105		105	80-120
Magnesium	200	209		105	80-120
Potassium	3000	2940	J	98	80-120
Sodium	1000	844	J	84	80-120

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Method: 6010D Instrument ID: MT_052

Lab Sample ID: CRI 280-653481/13 Concentration Units: ug/L

CRQL Check Standard Source: ICP LLCCV_03916

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Aluminum	100	92.3	J	92	80-120
Calcium	200	211		106	80-120
Iron	100	107		107	80-120
Magnesium	200	204		102	80-120
Potassium	3000	2990	J	100	80-120
Sodium	1000	1020		102	80-120

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Method: 6020B Instrument ID: MT_077

Lab Sample ID: CRI 280-652887/17 Concentration Units: ug/L

CRQL Check Standard Source: MS 77 LLCCV_03065

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	1.93	J	97	80-120
Arsenic	5.00	5.11		102	80-120
Barium	1.00	0.878	J	88	80-120
Beryllium	1.00	0.953	J	95	80-120
Cadmium	1.00	1.03		103	80-120
Chromium	2.00	1.88	J	94	80-120
Cobalt	1.00	1.01		101	80-120
Copper	2.00	2.04		102	80-120
Lead	1.00	0.971	J	97	80-120
Manganese	1.00	0.891	J	89	80-120
Nickel	2.00	1.88	J	94	80-120
Selenium	5.00	4.72	J	94	80-120
Silver	1.00	0.914	J	91	80-120
Thallium	1.00	0.957	J	96	80-120
Vanadium	5.00	5.17		103	80-120
Zinc	10.0	9.12	J	91	80-120

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Method: 7470A Instrument ID: MT_036

Lab Sample ID: CRA 280-654294/11-A Concentration Units: ug/L

CRQL Check Standard Source: Hg Daily Spk_03597

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.177	J	89	80-120

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 280-653318/10 05/13/2024 14:25		CCB 280-653318/31 05/13/2024 23:06		CCB 280-653318/44 05/14/2024 00:01		CCB 280-653318/57 05/14/2024 00:50	
		Found	C	Found	C	Found	C	Found	C
Aluminum	100	70	U	70	U	70	U	70	U
Calcium	200	64	U	64	U	64	U	64	U
Iron	100	34	U	34	U	34	U	34	U
Magnesium	200	15	U	15	U	15	U	15	U
Potassium	3000	940	U	940	U	940	U	940	U
Sodium	1000	320	U	222	J	320	U	320	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 280-653481/12 05/14/2024 12:59		CCB 280-653481/19 05/14/2024 13:31		CCB 280-653481/33 05/14/2024 17:18			
		Found	C	Found	C	Found	C	Found	C
Sodium	1000	320	U	320	U	320	U		
Aluminum	100	70	U	70	U	70	U		
Calcium	200	64	U	64	U	64	U		
Iron	100	34	U	34	U	34	U		
Magnesium	200	15	U	15	U	15	U		
Potassium	3000	940	U	940	U	940	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 280-652887/16 05/09/2024 15:00		CCB 280-652887/25 05/09/2024 15:34		CCB 280-652887/37 05/09/2024 16:16		CCB 280-652887/48 05/09/2024 16:56	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	1.0	U	0.529	J	1.0	U	1.0	U
Arsenic	5.0	2.0	U	2.0	U	2.0	U	2.0	U
Barium	3.0	0.95	U	0.95	U	0.95	U	0.95	U
Beryllium	1.0	0.60	U	0.396	J	0.60	U	0.60	U
Cadmium	1.0	0.75	U	0.75	U	0.75	U	0.75	U
Chromium	3.0	1.8	U	1.8	U	1.8	U	1.8	U
Cobalt	1.0	0.90	U	0.90	U	0.90	U	0.90	U
Copper	2.0	1.8	U	1.8	U	1.8	U	1.8	U
Lead	1.0	0.70	U	0.70	U	0.70	U	0.70	U
Manganese	3.0	1.8	U	1.8	U	1.8	U	1.8	U
Nickel	3.0	1.9	U	1.9	U	1.9	U	1.9	U
Selenium	5.0	4.0	U	4.0	U	4.0	U	4.0	U
Silver	1.0	0.15	U	0.15	U	0.15	U	0.15	U
Thallium	1.0	0.75	U	0.75	U	0.75	U	0.75	U
Vanadium	5.0	1.12	J	3.0	U	3.0	U	3.0	U
Zinc	10	8.0	U	8.0	U	8.0	U	8.0	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 280-654294/10-A 05/21/2024 23:29		CCB 280-654294/13-A 05/22/2024 02:40		CCB 280-654294/13-A 05/22/2024 03:10		CCB 280-654294/13-A 05/22/2024 03:41	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.080	U	0.080	U	0.080	U	0.080	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 280-654294/13-A 05/22/2024 04:11							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.080	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 280-652548/1-A

Instrument Code: MT_051 Batch No.: 653318

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	70	U		6010D_DOD5
7440-70-2	Calcium	30.0	J		6010D_DOD5
7439-89-6	Iron	9.32	J		6010D_DOD5
7439-95-4	Magnesium	5.86	J		6010D_DOD5
7440-09-7	Potassium	940	U		6010D_DOD5

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 280-652548/1-A

Instrument Code: MT_052 Batch No.: 653481

CAS No.	Analyte	Concentration	C	Q	Method
7440-23-5	Sodium	320	U		6010D_DOD5

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 280-652548/1-A

Instrument Code: MT_077 Batch No.: 652887

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	1.0	U		6020B_DOD5
7440-38-2	Arsenic	2.0	U		6020B_DOD5
7440-39-3	Barium	0.95	U		6020B_DOD5
7440-41-7	Beryllium	0.60	U		6020B_DOD5
7440-43-9	Cadmium	0.75	U		6020B_DOD5
7440-47-3	Chromium	1.8	U		6020B_DOD5
7440-48-4	Cobalt	0.90	U		6020B_DOD5
7440-50-8	Copper	1.8	U		6020B_DOD5
7439-92-1	Lead	0.70	U		6020B_DOD5
7439-96-5	Manganese	1.8	U		6020B_DOD5
7440-02-0	Nickel	1.9	U		6020B_DOD5
7782-49-2	Selenium	4.0	U		6020B_DOD5
7440-22-4	Silver	0.15	U		6020B_DOD5
7440-28-0	Thallium	0.75	U		6020B_DOD5
7440-62-2	Vanadium	3.0	U		6020B_DOD5
7440-66-6	Zinc	8.0	U		6020B_DOD5

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 280-654117/1-A

Instrument Code: MT_036 Batch No.: 654441

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.080	U		7470A_DOD5

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICSA 280-653318/12 Instrument ID: MT_051

Lab File ID: 51A051324A.csv ICS Source: ICP ICSA_00264

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	**500000**	**540380**	**108**
Calcium	**500000**	**522623**	**105**
Iron	**200000**	**200552**	**100**
Magnesium	**500000**	**533523**	**107**
Potassium		**-143**	
Sodium		**-85.5**	
Antimony		*6.61*	
Arsenic		*1.79*	
Barium		*3.47*	
Beryllium		*0.362*	
Bi		*7.60*	
Boron		*1.55*	
Cadmium		*-0.477*	
Chromium		*2.25*	
Cobalt		*-1.86*	
Copper		*0.766*	
Lead		*2.56*	
Lithium		*7.75*	
Manganese		*0.580*	
Molybdenum		*-0.551*	
Nickel		*0.976*	
Phosphorus		*7.02*	
Selenium		*-0.0640*	
Silicon		*18.8*	
Silver		*1.46*	
Strontium		*3.57*	
Sulfur		*-0.634*	
Thallium		*0.169*	
Tin		*1.70*	
Titanium		*0.823*	
Vanadium		*0.226*	
Zinc		*1.60*	
Zirconium		*-1.15*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICSAB 280-653318/13 Instrument ID: MT_051

Lab File ID: 51A051324A.csv ICS Source: ICP ICSAB_00292

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Aluminum	**500000**	**537917**	**108**
Calcium	**500000**	**518248**	**104**
Iron	**200000**	**199023**	**100**
Magnesium	**500000**	**532124**	**106**
Potassium	**10000**	**10556**	**106**
Sodium	**10000**	**10638**	**106**
Antimony	*1000*	*1096*	*110*
Arsenic	*1000*	*1041*	*104*
Barium	*1000*	*1020*	*102*
Beryllium	*500*	*521*	*104*
Bi		*5.62*	
Boron	*10000*	*10349*	*103*
Cadmium	*1000*	*1002*	*100*
Chromium	*1000*	*1039*	*104*
Cobalt	*1000*	*940*	*94*
Copper	*1000*	*996*	*100*
Lead	*1000*	*959*	*96*
Lithium	*1000*	*1059*	*106*
Manganese	*1000*	*999*	*100*
Molybdenum	*1000*	*1029*	*103*
Nickel	*1000*	*987*	*99*
Phosphorus	*10000*	*10366*	*104*
Selenium	*1000*	*1025*	*102*
Silicon	*10000*	*10881*	*109*
Silver	*1000*	*1101*	*110*
Strontium	*1000*	*980*	*98*
Sulfur	*10000*	*10930*	*109*
Th		*37.1*	
Thallium	*1000*	*1027*	*103*
Tin	*1000*	*1033*	*103*
Titanium	*1000*	*1045*	*105*
Vanadium	*1000*	*1021*	*102*
Zinc	*1000*	*945*	*95*
Zirconium	*1000*	*914*	*91*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICSA 280-653481/14 Instrument ID: MT_052

Lab File ID: 52A051424A.csv ICS Source: ICP ICSA_00264

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Sodium		**134**	
Aluminum	*500000*	*534473*	*107*
Antimony		*-0.132*	
Arsenic		*7.45*	
Barium		*-0.693*	
Beryllium		*-0.491*	
Bi		*4.68*	
Boron		*1.62*	
Cadmium		*-0.651*	
Calcium	*500000*	*502261*	*100*
Chromium		*3.78*	
Cobalt		*-1.37*	
Copper		*-5.04*	
Iron	*200000*	*196345*	*98*
Lead		*-0.294*	
Lithium		*7.09*	
Magnesium	*500000*	*532320*	*106*
Manganese		*-0.135*	
Molybdenum		*-0.0570*	
Nickel		*-2.76*	
Phosphorus		*-8.80*	
Potassium		*-1.82*	
Selenium		*0.491*	
Silicon		*13.5*	
Silver		*2.14*	
Strontium		*3.54*	
Sulfur		*-45.1*	
Th		*-8.34*	
Thallium		*-2.81*	
Tin		*0.953*	
Titanium		*-1.85*	
Vanadium		*3.33*	
Zinc		*4.25*	
Zirconium		*-0.240*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICSAB 280-653481/15 | Instrument ID: MT_052

Lab File ID: 52A051424A.csv | ICS Source: ICP ICSAB_00292

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Sodium	**10000**	**10742**	**107**
Aluminum	*500000*	*531591*	*106*
Antimony	*1000*	*1045*	*104*
Arsenic	*1000*	*1039*	*104*
Barium	*1000*	*1014*	*101*
Beryllium	*500*	*512*	*102*
Bi		*-0.422*	
Boron	*10000*	*10668*	*107*
Cadmium	*1000*	*957*	*96*
Calcium	*500000*	*500219*	*100*
Chromium	*1000*	*985*	*99*
Cobalt	*1000*	*944*	*94*
Copper	*1000*	*1085*	*108*
Iron	*200000*	*195988*	*98*
Lead	*1000*	*950*	*95*
Lithium	*1000*	*1099*	*110*
Magnesium	*500000*	*533833*	*107*
Manganese	*1000*	*973*	*97*
Molybdenum	*1000*	*987*	*99*
Nickel	*1000*	*942*	*94*
Phosphorus	*10000*	*10320*	*103*
Potassium	*10000*	*10792*	*108*
Selenium	*1000*	*1031*	*103*
Silicon	*10000*	*10500*	*105*
Silver	*1000*	*1104*	*110*
Strontium	*1000*	*1004*	*100*
Sulfur	*10000*	*10632*	*106*
Th		*-16.1*	
Thallium	*1000*	*953*	*95*
Tin	*1000*	*975*	*98*
Titanium	*1000*	*1024*	*102*
Vanadium	*1000*	*998*	*100*
Zinc	*1000*	*960*	*96*
Zirconium	*1000*	*992*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICSA 280-652887/18 Instrument ID: MT_077

Lab File ID: 018ICSA.d ICS Source: ms 77 icsa_00731

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.140**	
Arsenic		**0.0220**	
Barium		**0.722**	
Beryllium		**0.0050**	
Cadmium		**0.457**	
Chromium		**0.0320**	
Cobalt		**0.206**	
Copper		**-0.0190**	
Lead		**0.123**	
Manganese		**0.279**	
Nickel		**0.197**	
Selenium		**0.149**	
Silver		**0.0160**	
Thallium		**-0.0320**	
Vanadium		**0.204**	
Zinc		**0.746**	
Aluminum	*100000*	*102851*	*103*
Calcium	*100000*	*99744*	*100*
Iron	*100000*	*95635*	*96*
Magnesium	*100000*	*95074*	*95*
Molybdenum	*2000*	*2074*	*104*
Potassium	*100000*	*95534*	*96*
Sodium	*100000*	*97659*	*98*
Strontium		*0.721*	
Thorium		*0.279*	
Tin		*0.394*	
Uranium		*0.0460*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Lab Sample ID: ICSAB 280-652887/19 Instrument ID: MT_077

Lab File ID: 019ICSB.d ICS Source: ms 77 icsab_00730

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**108**	**108**
Arsenic	**100**	**95.0**	**95**
Barium	**100**	**107**	**107**
Beryllium	**100**	**99.0**	**99**
Cadmium	**100**	**99.8**	**100**
Chromium	**100**	**92.5**	**93**
Cobalt	**100**	**89.7**	**90**
Copper	**100**	**90.3**	**90**
Lead	**100**	**95.7**	**96**
Manganese	**100**	**92.2**	**92**
Nickel	**100**	**88.3**	**88**
Selenium	**100**	**91.6**	**92**
Silver	**100**	**105**	**105**
Thallium	**100**	**94.5**	**94**
Vanadium	**100**	**93.9**	**94**
Zinc	**100**	**89.5**	**89**
Aluminum	*102000*	*100914*	*99*
Calcium	*107000*	*104587*	*98*
Iron	*102000*	*93097*	*91*
Magnesium	*107000*	*98533*	*92*
Molybdenum	*2100*	*2139*	*102*
Potassium	*107000*	*100585*	*94*
Sodium	*107000*	*101545*	*95*
Strontium	*200*	*186*	*93*
Thorium	*100*	*102*	*102*
Tin	*100*	*106*	*106*
Uranium	*100*	*100*	*100*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: DET-003-240401-GW MS Lab ID: 280-191098-1 MS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	9110		70	U	10000	91	86-115		6010D
Calcium	126000		85000		50000	83	87-113	J1	6010D
Iron	10600		1800		10000	88	87-115		6010D
Magnesium	76900		32000		50000	89	85-113		6010D
Potassium	52400		2100	J	50000	101	86-114		6010D
Sodium	60000		12000		50000	97	87-115		6010D
Antimony	42.6		1.0	U	40.0	107	85-117		6020B
Arsenic	48.5		10		40.0	96	84-116		6020B
Barium	87.1		47		40.0	102	86-114		6020B
Beryllium	37.2		0.60	U	40.0	93	83-121		6020B
Cadmium	41.1		0.75	U	40.0	103	87-115		6020B
Chromium	37.2		1.8	U	40.0	93	85-116		6020B
Cobalt	36.3		0.36	J	40.0	90	86-115		6020B
Copper	37.4		0.76	J	40.0	92	85-118		6020B
Lead	38.7		0.70	U	40.0	97	88-115		6020B
Manganese	266		240		40.0	66	87-115	4	6020B
Nickel	35.9		1.9	U	40.0	90	85-117		6020B
Selenium	39.7		4.0	U	40.0	99	80-120		6020B
Silver	42.5		0.15	U	40.0	106	85-116		6020B
Thallium	38.8		0.75	U	40.0	97	82-116		6020B
Vanadium	38.1		1.1	J	40.0	95	86-115		6020B
Zinc	36.6		8.0	U	40.0	92	83-119		6020B
Mercury	5.14		0.080	U	5.00	103	82-119		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: DET-003-240401-GW MSD Lab ID: 280-191098-1 MSD

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Aluminum	9390		10000	94	86-115	3	20		6010D
Calcium	129000		50000	89	87-113	2	20		6010D
Iron	10900		10000	91	87-115	3	20		6010D
Magnesium	78900		50000	93	85-113	3	20		6010D
Potassium	53600		50000	103	86-114	2	20		6010D
Sodium	61400		50000	99	87-115	2	20		6010D
Antimony	43.7		40.0	109	85-117	2	20		6020B
Arsenic	50.9		40.0	102	84-116	5	20		6020B
Barium	93.6		40.0	118	86-114	7	20	J1	6020B
Beryllium	38.8		40.0	97	83-121	4	20		6020B
Cadmium	41.4		40.0	104	87-115	1	20		6020B
Chromium	40.8		40.0	102	85-116	9	20		6020B
Cobalt	38.1		40.0	94	86-115	5	20		6020B
Copper	38.9		40.0	95	85-118	4	20		6020B
Lead	40.7		40.0	102	88-115	5	20		6020B
Manganese	270		40.0	75	87-115	1	20	4	6020B
Nickel	37.0		40.0	92	85-117	3	20		6020B
Selenium	39.4		40.0	98	80-120	1	20		6020B
Silver	43.6		40.0	109	85-116	3	20		6020B
Thallium	40.3		40.0	101	82-116	4	20		6020B
Vanadium	40.4		40.0	101	86-115	6	20		6020B
Zinc	42.3		40.0	106	83-119	14	20		6020B
Mercury	5.07		5.00	101	82-119	1	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: DET-003-240401-GW PDS Lab ID: 280-191098-1 PDS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	1010		70	U	1000	101	80-120		6010D
Calcium	102000		85000		20000	87	80-120		6010D
Iron	2730		1800		1000	91	80-120		6010D
Magnesium	51100		32000		20000	94	80-120		6010D
Potassium	22900		2100	J	20000	104	80-120		6010D
Sodium	31800		12000		20000	100	80-120		6010D
Antimony	223		1.0	U	200	111	80-120		6020B
Arsenic	205		10		200	97	80-120		6020B
Barium	260		47		200	107	80-120		6020B
Beryllium	200		0.60	U	200	100	80-120		6020B
Cadmium	209		0.75	U	200	105	80-120		6020B
Chromium	196		1.8	U	200	98	80-120		6020B
Cobalt	189		0.36	J	200	94	80-120		6020B
Copper	192		0.76	J	200	95	80-120		6020B
Lead	200		0.70	U	200	100	80-120		6020B
Manganese	429		240		200	94	80-120		6020B
Nickel	186		1.9	U	200	93	80-120		6020B
Selenium	194		4.0	U	200	97	80-120		6020B
Silver	56.6		0.15	U	50.0	113	80-120		6020B
Thallium	200		0.75	U	200	100	80-120		6020B
Vanadium	194		1.1	J	200	97	80-120		6020B
Zinc	205		8.0	U	200	103	80-120		6020B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 280-652548/2-A

Lab Name: Eurofins Denver Job No.: 280-191098-1

Sample Matrix: Water LCS Source: Prep spike2IV_00017

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	10000	9080		91	86	115		6010D
Calcium	50000	45600		91	87	113		6010D
Iron	10000	9070		91	87	115		6010D
Magnesium	50000	46100		92	85	113		6010D
Potassium	50000	50200		100	86	114		6010D

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 280-652548/3-A

Lab Name: Eurofins Denver Job No.: 280-191098-1

Sample Matrix: Water LCS Source: Prep spike2IV_00017

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Aluminum	9000		10000	90	86-115	1	20		6010D
Calcium	44900		50000	90	87-113	1	20		6010D
Iron	9000		10000	90	87-115	1	20		6010D
Magnesium	45400		50000	91	85-113	2	20		6010D
Potassium	49400		50000	99	86-114	2	20		6010D

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 280-652548/2-A

Lab Name: Eurofins Denver Job No.: 280-191098-1

Sample Matrix: Water LCS Source: Prep spike2IV_00017

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Sodium	50000	51100		102	87	115		6010D

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 280-652548/3-A

Lab Name: Eurofins Denver Job No.: 280-191098-1

Sample Matrix: Water LCS Source: Prep spike2IV_00017

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Sodium	51600		50000	103	87-115	1	20		6010D

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 280-652548/17-A

Lab Name: Eurofins Denver Job No.: 280-191098-1

Sample Matrix: Water LCS Source: ms spike 1_00022

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	40.0	37.4		94	85	117		6020B
Arsenic	40.0	38.7		97	84	116		6020B
Barium	40.0	37.5		94	86	114		6020B
Beryllium	40.0	36.9		92	83	121		6020B
Cadmium	40.0	37.6		94	87	115		6020B
Chromium	40.0	38.4		96	85	116		6020B
Cobalt	40.0	38.0		95	86	115		6020B
Copper	40.0	38.1		95	85	118		6020B
Lead	40.0	38.6		96	88	115		6020B
Manganese	40.0	38.0		95	87	115		6020B
Nickel	40.0	36.2		91	85	117		6020B
Selenium	40.0	38.2		95	80	120		6020B
Silver	40.0	39.8		100	85	116		6020B
Thallium	40.0	38.1		95	82	116		6020B
Vanadium	40.0	38.0		95	86	115		6020B
Zinc	40.0	36.5		91	83	119		6020B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 280-652548/18-A

Lab Name: Eurofins Denver Job No.: 280-191098-1

Sample Matrix: Water LCS Source: ms spike 1_00022

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	38.9		40.0	97	85-117	4	20		6020B
Arsenic	38.0		40.0	95	84-116	2	20		6020B
Barium	36.4		40.0	91	86-114	3	20		6020B
Beryllium	36.3		40.0	91	83-121	2	20		6020B
Cadmium	37.7		40.0	94	87-115	0	20		6020B
Chromium	37.9		40.0	95	85-116	2	20		6020B
Cobalt	36.4		40.0	91	86-115	4	20		6020B
Copper	38.9		40.0	97	85-118	2	20		6020B
Lead	38.0		40.0	95	88-115	2	20		6020B
Manganese	37.1		40.0	93	87-115	2	20		6020B
Nickel	37.0		40.0	93	85-117	2	20		6020B
Selenium	36.8		40.0	92	80-120	4	20		6020B
Silver	39.7		40.0	99	85-116	0	20		6020B
Thallium	38.3		40.0	96	82-116	1	20		6020B
Vanadium	37.6		40.0	94	86-115	1	20		6020B
Zinc	35.6		40.0	89	83-119	3	20		6020B

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 280-654117/2-A

Lab Name: Eurofins Denver Job No.: 280-191098-1

Sample Matrix: Water LCS Source: Hg Daily Spk_03597

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.12		102	82	119		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 280-191098-1

SDG No:

Lab Name: Eurofins Denver Job No: 280-191098-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Aluminum	70	U	350	U	NC		6010D
Calcium	85000		87100		2.3	D	6010D
Iron	1800		2010		NC	D	6010D
Magnesium	32000		32700		1.3	D	6010D
Potassium	2100	J	2020	J	NC	D	6010D
Sodium	12000		11500		NC	D	6010D

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 280-191098-1

SDG No:

Lab Name: Eurofins Denver Job No: 280-191098-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	1.0	U	5.0	U	NC		6020B
Arsenic	10		9.80	J	NC	D	6020B
Barium	47		43.0		NC	D	6020B
Beryllium	0.60	U	3.0	U	NC		6020B
Cadmium	0.75	U	3.8	U	NC		6020B
Chromium	1.8	U	9.0	U	NC		6020B
Cobalt	0.36	J	4.5	U	NC		6020B
Copper	0.76	J	9.0	U	NC		6020B
Lead	0.70	U	3.5	U	NC		6020B
Manganese	240		232		3.6	D	6020B
Nickel	1.9	U	9.5	U	NC		6020B
Selenium	4.0	U	20	U	NC		6020B
Silver	0.15	U	0.75	U	NC		6020B
Thallium	0.75	U	3.8	U	NC		6020B
Vanadium	1.1	J	8.19	J	NC	D	6020B
Zinc	8.0	U	10.1	J	NC	D	6020B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG Number:

Matrix: Water Instrument ID: MT_051

Method: 6010D DL Date: 03/25/2022 17:35

Prep Method: 3010A

Analyte	Wavelength/ Mass	LOQ (ug/L)	DL (ug/L)
Aluminum	167	100	18
Calcium	317.9	200	24.1
Iron	259.9	100	9.1
Magnesium	279	200	4.2
Potassium	766.4	3000	237
Sodium	589.5	1000	97.2

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG Number:

Matrix: Water Instrument ID: MT_051

Method: 6010D XMDL Date: 03/25/2022 17:43

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Aluminum	167	100	18
Calcium	317.9	200	24.1
Iron	259.9	100	9.1
Magnesium	279	200	4.2
Potassium	766.4	3000	237
Sodium	589.5	1000	97.2

9-IN
DETECTION LIMITS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG Number:

Matrix: Water Instrument ID: MT_052

Method: 6010D DL Date: 03/25/2022 17:35

Prep Method: 3010A

Analyte	Wavelength/ Mass	LOQ (ug/L)	DL (ug/L)
Sodium	589.5	1000	97.2

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG Number:

Matrix: Water Instrument ID: MT_052

Method: 6010D XMDL Date: 03/25/2022 17:43

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Sodium	589.5	1000	97.2

9-IN
DETECTION LIMITS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG Number:

Matrix: Water Instrument ID: MT_077

Method: 6020B DL Date: 09/01/2022 00:00

Prep Method: 3020A

Analyte	Wavelength/ Mass	LOQ (ug/L)	DL (ug/L)
Antimony		2	0.4
Arsenic		5	0.5
Barium		3	0.38
Beryllium		1	0.303
Cadmium		1	0.19
Chromium		3	0.5
Cobalt		1	0.33
Copper		2	0.71
Lead		1	0.23
Manganese		3	0.51
Nickel		3	0.83
Selenium		5	1
Silver		1	0.045
Thallium		1	0.21
Vanadium		5	1.12
Zinc		10	2

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG Number:

Matrix: Water Instrument ID: MT_077

Method: 6020B XMDL Date: 01/03/2023 12:35

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony		2	0.4
Arsenic		5	0.5
Barium		3	0.38
Beryllium		1	0.303
Cadmium		1	0.19
Chromium		3	0.5
Cobalt		1	0.33
Copper		2	0.71
Lead		1	0.23
Manganese		3	0.51
Nickel		3	0.83
Selenium		5	1
Silver		1	0.045
Thallium		1	0.21
Vanadium		5	1.12
Zinc		10	2

9-IN
DETECTION LIMITS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG Number:

Matrix: Water Instrument ID: MT_036

Method: 7470A DL Date: 04/11/2022 16:39

Prep Method: 7470A

Analyte	Wavelength/ Mass	LOQ (ug/L)	DL (ug/L)
Mercury	253.7	0.2	0.061

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG Number:

Matrix: Water Instrument ID: MT_036

Method: 7470A XMDL Date: 04/11/2022 16:39

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury		0.2	0.061

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG No.:

ICP-AES Instrument ID: MT_051 Date: 07/21/2023

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Aluminum	167.019													0.0012	
Aluminum	396.152								0.000173						
Antimony	206.834											0.0146		-0.000077	
Arsenic	188.98													-0.000022	
Barium	493.408			-0.000045											
Beryllium	234.861							0.000015						0.000046	
Bismuth	223.061														
Boron	249.678		.0								0.001755			-0.000067	
Cadmium	214.439										0.000016			0.000016	
Calcium	315.887									0.010473					
Chromium	205.56						-0.000571							-0.000018	
Cobalt	237.863					0.000177									
Copper	324.754								-0.000022					0.000016	
Iron	238.204														
Iron	259.94														
Lead	220.353		-0.000128											0.000026	
Lithium	670.783														
Magnesium	279.078													-0.000291	
Manganese	257.61														
Molybdenum	202.032														
Nickel	231.604														
Phosphorus	213.618												-0.037		
Potassium	766.491														
Selenium	196.026													-0.00016	
Silicon	288.158													0.000011	
Silver	328.066														
Sodium	589.592					0.5857						0.001617			
Sodium	589.593					0.5857									
Strontium	407.771														
Sulfur	181.972														

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG No.:

ICP-AES Instrument ID: MT_051 Date: 07/21/2023

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Thallium	190.794										0.00146			-0.000012	
Thorium	288.505						-0.0125							-0.00002	
Tin	189.925														
Titanium	336.122								0.000021						
Uranium	409.013								-0.000042					0.000203	
Vanadium	292.401											-0.008			
Zinc	206.2														
Zirconium	343.823													0.000022	

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG No.:

ICP-AES Instrument ID: MT_051 Date: 07/21/2023

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Se	Si	Sn	Sr
Aluminum	396.152				0.031769										
Aluminum	167.019														
Antimony	206.834				-0.00208									0.000337	
Arsenic	188.98														
Barium	493.408		0.000022												
Beryllium	234.861				-0.000223										
Bismuth	223.061														
Boron	249.678														
Cadmium	214.439														
Calcium	315.887														
Chromium	205.56				-0.000124										
Cobalt	237.863														
Copper	324.754				0.000505										
Iron	238.204														
Iron	259.94														
Lead	220.353				-0.001578										
Lithium	670.783														
Magnesium	279.078														
Manganese	257.61														
Molybdenum	202.032														
Nickel	231.604														
Phosphorus	213.618														
Potassium	766.491														
Selenium	196.026			0.00086											
Silicon	288.158													0.05407	
Silver	328.066														
Sodium	589.593														
Sodium	589.592														
Strontium	407.771														
Sulfur	181.972			0.00474					0.00366						

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG No.:

ICP-AES Instrument ID: MT_051 Date: 07/21/2023

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Se	Si	Sn	Sr
Thallium	190.794			0.000318	-0.00112										
Thorium	288.505			0.00783											
Tin	189.925														
Titanium	336.122														
Uranium	409.013														
Vanadium	292.401				-0.000582										
Zinc	206.2														
Zirconium	343.823														

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG No.:

ICP-AES Instrument ID: MT_051 Date: 07/21/2023

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Aluminum	167.019														
Aluminum	396.152														
Antimony	206.834		0.00028		-0.001104			-0.00142							
Arsenic	188.98														
Barium	493.408														
Beryllium	234.861														
Bismuth	223.061														
Boron	249.678														
Cadmium	214.439														
Calcium	315.887														
Chromium	205.56														
Cobalt	237.863	0.002641	0.001949												
Copper	324.754	0.00368	-0.000326		-0.001359										
Iron	238.204														
Iron	259.94														
Lead	220.353				0.0010										
Lithium	670.783														
Magnesium	279.078				-0.004685										
Manganese	257.61														
Molybdenum	202.032														
Nickel	231.604			0.000176											
Phosphorus	213.618														
Potassium	766.491														
Selenium	196.026														
Silicon	288.158		0.038												
Silver	328.066				-0.00059	-0.00504		0.0046							
Sodium	589.592														
Sodium	589.593														
Strontium	407.771														
Sulfur	181.972					0.00535									

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG No.:

ICP-AES Instrument ID: MT_051 Date: 07/21/2023

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Thallium	190.794		-0.002												
Thorium	288.505		0.0063		0.007837	0.00835									
Tin	189.925														
Titanium	336.122														
Uranium	409.013							-0.017071							
Vanadium	292.401	0.002372	0.000675		-0.001637										
Zinc	206.2														
Zirconium	343.823														

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG No.:

ICP-AES Instrument ID: MT_051 Date: 04/26/2024

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Aluminum	167.019													0.00151	
Aluminum	396.152								0.000173						
Antimony	206.834											0.0146		-0.000077	
Arsenic	188.98													-0.000022	
Barium	493.408			-0.000045											
Beryllium	234.861							0.000015						0.000043	
Bismuth	223.061														
Boron	249.678		.0								0.001755			-0.000067	
Cadmium	214.439										0.000016			0.000016	
Calcium	315.887														
Chromium	205.56						-0.000571							-0.000018	
Cobalt	237.863					0.000177									
Copper	324.754								-0.000013					0.000016	
Iron	238.204														
Iron	259.94														
Lead	220.353		-0.000151											0.000026	
Lithium	670.783														
Magnesium	279.078													-0.000291	
Manganese	257.61														
Molybdenum	202.032														
Nickel	231.604														
Phosphorus	213.618												-0.037		
Potassium	766.491														
Selenium	196.026													-0.00013	
Silicon	288.158													0.000011	
Silver	328.066														
Sodium	589.592					0.5857						0.001876			
Sodium	589.593					0.5857									
Strontium	407.771														
Sulfur	181.972														

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG No.:

ICP-AES Instrument ID: MT_051 Date: 04/26/2024

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Thallium	190.794										0.00146			-0.000012	
Thorium	288.505						-0.0125							-0.00002	
Tin	189.925													0.000011	
Titanium	336.122								0.000021						
Uranium	409.013								-0.000042					0.000203	
Vanadium	292.401											-0.008			
Zinc	206.2														
Zirconium	343.823													0.000022	

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG No.:

ICP-AES Instrument ID: MT_051 Date: 04/26/2024

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Se	Si	Sn	Sr
Aluminum	396.152				0.031769										
Aluminum	167.019														
Antimony	206.834				-0.00208									0.000337	
Arsenic	188.98														
Barium	493.408														
Beryllium	234.861				-0.000223										
Bismuth	223.061														
Boron	249.678														
Cadmium	214.439														
Calcium	315.887														
Chromium	205.56				-0.000124										
Cobalt	237.863														
Copper	324.754				0.000505										0.002
Iron	238.204														
Iron	259.94														
Lead	220.353				-0.001578										
Lithium	670.783														
Magnesium	279.078														
Manganese	257.61														
Molybdenum	202.032														
Nickel	231.604														
Phosphorus	213.618														
Potassium	766.491														
Selenium	196.026			0.00086									0.000055		
Silicon	288.158													0.05407	
Silver	328.066														
Sodium	589.593														
Sodium	589.592														
Strontium	407.771														
Sulfur	181.972			0.00474					0.00108			0.005336			

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG No.:

ICP-AES Instrument ID: MT_051 Date: 04/26/2024

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Se	Si	Sn	Sr
Thallium	190.794				-0.00112										
Thorium	288.505			0.00783											
Tin	189.925														
Titanium	336.122														
Uranium	409.013														
Vanadium	292.401				-0.000582										
Zinc	206.2														
Zirconium	343.823												0.000047		

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG No.:

ICP-AES Instrument ID: MT_051 Date: 04/26/2024

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Aluminum	167.019														
Aluminum	396.152														
Antimony	206.834		0.00028		-0.001104			-0.00142							
Arsenic	188.98														
Barium	493.408														
Beryllium	234.861														
Bismuth	223.061														
Boron	249.678														
Cadmium	214.439														
Calcium	315.887														
Chromium	205.56							0.000168							
Cobalt	237.863		0.001949												
Copper	324.754	0.00368	-0.000326		-0.001359										
Iron	238.204														
Iron	259.94														
Lead	220.353				0.0010										
Lithium	670.783														
Magnesium	279.078				-0.004685										
Manganese	257.61														
Molybdenum	202.032														
Nickel	231.604			0.000176											
Phosphorus	213.618														
Potassium	766.491														
Selenium	196.026														
Silicon	288.158		0.008979												
Silver	328.066				-0.00059	-0.00504		0.0046							
Sodium	589.592														
Sodium	589.593														
Strontium	407.771														
Sulfur	181.972					0.00535									

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG No.:

ICP-AES Instrument ID: MT_051 Date: 04/26/2024

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Thallium	190.794		-0.002												
Thorium	288.505		0.0063		0.007837	0.00835									
Tin	189.925														
Titanium	336.122														
Uranium	409.013							-0.017071							
Vanadium	292.401	0.002372	0.000675		-0.001637										
Zinc	206.2														
Zirconium	343.823														

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 04/26/2024

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Aluminum	394.401								0.000036						
Aluminum	396.152														
Antimony	206.834											0.003887		0.000058	
Arsenic	188.980								0.000004					-0.000011	
Barium	493.408						0.002093			0.000379				0.000019	
Beryllium	234.861			0.000073										0.000064	
Bismuth	223.061														
Boron	249.678														
Cadmium	214.439										0.000886			0.000014	
Calcium	315.887														
Chromium	205.560														
Cobalt	228.615														
Copper	324.754								-0.000007					0.000027	
Iron	238.204									0.00316					
Iron	259.940														
Lead	220.353		-0.000052								-0.000612				
Lithium	670.783								0.000007						
Magnesium	279.078													-0.000195	0.000331
Manganese	257.610														
Molybdenum	202.032														
Nickel	231.604														
Phosphorus	213.618												-0.0443		
Potassium	766.491														
Selenium	196.026													-0.000175	
Silicon	288.158														
Silver	328.068														
Sodium	589.592					0.676718									
Sodium	589.593					0.536579									
Strontium	421.552														
Sulfur	181.972	0.005924		0.0053			0.011836		0.000026		0.020108			0.000152	

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 04/26/2024

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Thallium	190.794										0.00178			-0.000017	
Thorium	288.505			0.00333			-0.000347							-0.000016	
Tin	189.925														
Titanium	336.122								0.00002						
Uranium	409.013													0.000227	
Vanadium	292.401								0.000002			-0.00714			
Zinc	206.200														
Zirconium	343.823													0.000017	

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 04/26/2024

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Se	Si	Sn	Sr
Aluminum	396.152														
Aluminum	394.401														
Antimony	206.834				-0.003886									-0.000291	
Arsenic	188.980														
Barium	493.408														
Beryllium	234.861		0.000002		-0.000053		-0.000019								
Bismuth	223.061														
Boron	249.678														
Cadmium	214.439														
Calcium	315.887														
Chromium	205.560				-0.00075		-0.00025								
Cobalt	228.615						0.000101								
Copper	324.754														
Iron	238.204														
Iron	259.940														
Lead	220.353				-0.000822										
Lithium	670.783					0.000012									
Magnesium	279.078														
Manganese	257.610														
Molybdenum	202.032														
Nickel	231.604														
Phosphorus	213.618				-0.02399										
Potassium	766.491														
Selenium	196.026			0.00108									0.000057		
Silicon	288.158													0.108105	
Silver	328.068														
Sodium	589.593														
Sodium	589.592														
Strontium	421.552														
Sulfur	181.972			0.0051	-0.00525							0.0061			

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 04/26/2024

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Se	Si	Sn	Sr
Thallium	190.794				-0.002337										
Thorium	288.505		0.00001	0.0108							0.00103				
Tin	189.925														
Titanium	336.122						0.000115								
Uranium	409.013														
Vanadium	292.401				-0.000587										
Zinc	206.200														
Zirconium	343.823														

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 04/26/2024

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Aluminum	396.152														
Aluminum	394.401	-0.0221			0.016545										
Antimony	206.834		-0.002229												
Arsenic	188.980														
Barium	493.408														
Beryllium	234.861														
Bismuth	223.061														
Boron	249.678														
Cadmium	214.439														
Calcium	315.887														
Chromium	205.560														
Cobalt	228.615		0.00211												
Copper	324.754	0.004517	-0.000232		-0.001247										
Iron	238.204														
Iron	259.940														
Lead	220.353		-0.0002		0.000755										
Lithium	670.783														
Magnesium	279.078	-0.00717			-0.004857		0.002499								
Manganese	257.610														
Molybdenum	202.032														
Nickel	231.604			0.000222											
Phosphorus	213.618														
Potassium	766.491														
Selenium	196.026														
Silicon	288.158		0.012222												
Silver	328.068	0.00086			-0.000575	-0.014012		0.0056							
Sodium	589.592														
Sodium	589.593														
Strontium	421.552														
Sulfur	181.972														

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG No.:

ICP-AES Instrument ID: MT_052 Date: 04/26/2024

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Thallium	190.794		-0.00154												
Thorium	288.505				0.00212	-0.024551									
Tin	189.925														
Titanium	336.122														
Uranium	409.013	0.0035						-0.0071							
Vanadium	292.401	0.00205	0.0005		-0.001315										
Zinc	206.200														
Zirconium	343.823														

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins Denver Job No: 280-191098-1

SDG No.:

Instrument ID: MT_051 Date: 02/19/2024 08:44

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Aluminum		500	6010D
Calcium		2000	6010D
Iron		500	6010D
Magnesium		1000	6010D
Potassium		500	6010D
Sodium		2000	6010D

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins Denver Job No: 280-191098-1

SDG No.:

Instrument ID: MT_052 Date: 02/19/2024 08:42

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Sodium		2000	6010D

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins Denver Job No: 280-191098-1

SDG No.:

Instrument ID: MT_077 Date: 07/03/2023 10:58

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Antimony		5000	6020B
Arsenic		5000	6020B
Barium		5000	6020B
Beryllium		5000	6020B
Cadmium		5000	6020B
Chromium		5000	6020B
Cobalt		5000	6020B
Copper		5000	6020B
Lead		5000	6020B
Manganese		20000	6020B
Nickel		5000	6020B
Selenium		5000	6020B
Silver		1000	6020B
Thallium		5000	6020B
Vanadium		5000	6020B
Zinc		5000	6020B

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 280-652548/1-A	05/08/2024 15:03	652548		50	50
LCS 280-652548/2-A	05/08/2024 15:03	652548		50	50
LCSD 280-652548/3-A	05/08/2024 15:03	652548		50	50
280-191098-1	05/08/2024 15:03	652548		50	50
280-191098-1 MS	05/08/2024 15:03	652548		50	50
280-191098-1 MSD	05/08/2024 15:03	652548		50	50
280-191098-2	05/08/2024 15:03	652548		50	50
280-191098-5	05/08/2024 15:03	652548		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Prep Method: 3020A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 280-652548/1-A	05/08/2024 15:03	652548		50	50
280-191098-2	05/08/2024 15:03	652548		50	50
280-191098-5	05/08/2024 15:03	652548		50	50
LCS 280-652548/17-A	05/08/2024 15:03	652548		50	50
LCSD 280-652548/18-A	05/08/2024 15:03	652548		50	50
280-191098-1	05/08/2024 15:03	652548		50	50
280-191098-1 MS	05/08/2024 15:03	652548		50	50
280-191098-1 MSD	05/08/2024 15:03	652548		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 280-654117/1-A	05/21/2024 19:15	654117		30	50
LCS 280-654117/2-A	05/21/2024 19:15	654117		30	50
280-191098-1	05/21/2024 19:15	654117		30	50
280-191098-1 MS	05/21/2024 19:15	654117		30	50
280-191098-1 MSD	05/21/2024 19:15	654117		30	50
280-191098-2	05/21/2024 19:15	654117		30	50
280-191098-5	05/21/2024 19:15	654117		30	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: MT_051 Analysis Method: 6010D

Start Date: 05/13/2024 13:49 End Date: 05/14/2024 07:45

Lab Sample Id	D/F	Type	Time	Analytes																										
				Al	Ca	Fe	K	Mg	Na																						
ICIS 280-653318/1	1		13:49	X	X	X	X	X	X																					
IC 280-653318/2			13:53	X	X	X	X	X	X																					
IC 280-653318/3			13:57	X	X	X	X	X	X																					
ZZZZZZ			14:01																											
ZZZZZZ			14:05																											
ICVH 280-653318/6	1		14:09	X	X	X	X	X	X																					
ICV 280-653318/7	1		14:14	X	X	X	X	X	X																					
CCVH 280-653318/8			14:18																											
CCV 280-653318/9			14:22																											
ICB 280-653318/10	1		14:25	X	X	X	X	X	X																					
CRI 280-653318/11	1		14:29	X	X	X	X	X	X																					
ICSA 280-653318/12	1		14:33	X	X	X	X	X	X																					
ICSAB 280-653318/13	1		14:37	X	X	X	X	X	X																					
LRA 280-653318/14			14:40																											
CCVH 280-653318/15			14:45																											
CCV 280-653318/16			14:48																											
CCB 280-653318/17			14:52																											
CCVL 280-653318/18			14:56																											
ZZZZZZ			19:05																											
ZZZZZZ			22:18																											
ZZZZZZ			22:22																											
ZZZZZZ			22:27																											
ZZZZZZ			22:31																											
ZZZZZZ			22:36																											
ZZZZZZ			22:40																											
ZZZZZZ			22:44																											
ZZZZZZ			22:49																											
ZZZZZZ			22:53																											
CCVH 280-653318/29	1		22:57	X	X	X	X	X	X																					
CCV 280-653318/30	1		23:02	X	X	X	X	X	X																					
CCB 280-653318/31	1		23:06	X	X	X	X	X	X																					
ZZZZZZ			23:10																											
ZZZZZZ			23:14																											
ZZZZZZ			23:18																											
ZZZZZZ			23:23																											
ZZZZZZ			23:27																											
MB 280-652548/1-A	1	T	23:31	X	X	X	X	X																						
LCS 280-652548/2-A	1	T	23:36	X	X	X	X	X																						
LCSD 280-652548/3-A	1	T	23:40	X	X	X	X	X																						
ZZZZZZ			23:44																											
280-191098-1	1	T	23:49	X	X	X	X	X	X																					

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: MT_051 Analysis Method: 6010D

Start Date: 05/13/2024 13:49 End Date: 05/14/2024 07:45

Lab Sample Id	D/F	Type	Time	Analytes																									
				Al	Ca	Fe	K	Mg	Na																					
CCVH 280-653318/42	1		23:53	X	X	X	X	X	X																				
CCV 280-653318/43	1		23:57	X	X	X	X	X	X																				
CCB 280-653318/44	1		00:01	X	X	X	X	X	X																				
280-191098-1 SD	5	T	00:04	X	X	X	X	X	X																				
280-191098-1 MS	1	T	00:08	X	X	X	X	X	X																				
280-191098-1 MSD	1	T	00:12	X	X	X	X	X	X																				
280-191098-1 PDS	1	T	00:16	X	X	X	X	X	X																				
280-191098-2	1	T	00:20	X	X	X	X	X	X																				
280-191098-5	1	T	00:24	X	X	X	X	X																					
ZZZZZZ			00:27																										
ZZZZZZ			00:31																										
ZZZZZZ			00:35																										
ZZZZZZ			00:39																										
CCVH 280-653318/55	1		00:43	X	X	X	X	X	X																				
CCV 280-653318/56	1		00:47	X	X	X	X	X	X																				
CCB 280-653318/57	1		00:50	X	X	X	X	X	X																				
ZZZZZZ			00:54																										
ZZZZZZ			00:58																										
ZZZZZZ			01:02																										
ZZZZZZ			01:05																										
ZZZZZZ			01:09																										
ZZZZZZ			01:13																										
ZZZZZZ			01:17																										
ZZZZZZ			01:21																										
ZZZZZZ			01:24																										
ZZZZZZ			01:28																										
CCVH 280-653318/68			01:32																										
CCV 280-653318/69			01:36																										
CCB 280-653318/70			01:40																										
ZZZZZZ			01:43																										
ZZZZZZ			01:47																										
ZZZZZZ			01:51																										
ZZZZZZ			01:55																										
ZZZZZZ			01:59																										
ZZZZZZ			02:03																										
ZZZZZZ			02:06																										
ZZZZZZ			02:10																										
ZZZZZZ			02:14																										
ZZZZZZ			02:18																										
CCVH 280-653318/81			02:21																										
CCV 280-653318/82			02:25																										

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: MT_051 Analysis Method: 6010D

Start Date: 05/13/2024 13:49 End Date: 05/14/2024 07:45

Lab Sample Id	D/F	Type	Time	Analytes																									
				Al	Ca	Fe	K	Mg	Na																					
CCB 280-653318/83			02:29																										
ZZZZZZ			02:33																										
ZZZZZZ			02:36																										
ZZZZZZ			02:40																										
ZZZZZZ			02:44																										
ZZZZZZ			02:48																										
ZZZZZZ			02:52																										
ZZZZZZ			02:55																										
ZZZZZZ			02:59																										
ZZZZZZ			03:03																										
ZZZZZZ			03:07																										
CCVH 280-653318/94			03:11																										
CCV 280-653318/95			03:15																										
CCB 280-653318/96			03:18																										
ZZZZZZ			03:22																										
ZZZZZZ			03:26																										
ZZZZZZ			03:29																										
ZZZZZZ			03:33																										
ZZZZZZ			03:37																										
ZZZZZZ			03:40																										
ZZZZZZ			03:44																										
ZZZZZZ			03:48																										
ZZZZZZ			03:52																										
ZZZZZZ			03:56																										
CCVH 280-653318/107			03:59																										
CCV 280-653318/108			04:03																										
CCB 280-653318/109			04:07																										
ZZZZZZ			04:11																										
ZZZZZZ			04:14																										
ZZZZZZ			04:18																										
ZZZZZZ			04:22																										
ZZZZZZ			04:25																										
ZZZZZZ			04:29																										
ZZZZZZ			04:33																										
ZZZZZZ			04:37																										
ZZZZZZ			04:40																										
ZZZZZZ			04:44																										
CCVH 280-653318/120			04:48																										
CCV 280-653318/121			04:52																										
CCB 280-653318/122			04:56																										
ZZZZZZ			04:59																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Instrument ID: MT_051 | Analysis Method: 6010D

Start Date: 05/13/2024 13:49 | End Date: 05/14/2024 07:45

Lab Sample Id	D/F	Type	Time	Analytes																									
				Al	Ca	Fe	K	Mg	Na																					
ZZZZZZ			05:03																										
ZZZZZZ			05:06																										
ZZZZZZ			05:10																										
ZZZZZZ			05:13																										
ZZZZZZ			05:17																										
ZZZZZZ			05:21																										
ZZZZZZ			05:25																										
ZZZZZZ			05:28																										
ZZZZZZ			05:32																										
CCVH 280-653318/133			05:36																										
CCV 280-653318/134			05:40																										
CCB 280-653318/135			05:44																										
ZZZZZZ			05:47																										
ZZZZZZ			05:51																										
ZZZZZZ			05:55																										
ZZZZZZ			05:58																										
ZZZZZZ			06:02																										
ZZZZZZ			06:06																										
ZZZZZZ			06:10																										
ZZZZZZ			06:13																										
ZZZZZZ			06:17																										
ZZZZZZ			06:21																										
CCVH 280-653318/146			06:25																										
CCV 280-653318/147			06:29																										
CCB 280-653318/148			06:32																										
ZZZZZZ			06:36																										
ZZZZZZ			06:40																										
ZZZZZZ			06:43																										
ZZZZZZ			06:47																										
ZZZZZZ			06:51																										
ZZZZZZ			06:55																										
ZZZZZZ			06:59																										
ZZZZZZ			07:03																										
ZZZZZZ			07:07																										
ZZZZZZ			07:11																										
CCVH 280-653318/159			07:15																										
CCV 280-653318/160			07:19																										
CCB 280-653318/161			07:22																										
ZZZZZZ			07:26																										
ZZZZZZ			07:30																										
ZZZZZZ			07:33																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: MT_051 Analysis Method: 6010D

Start Date: 05/13/2024 13:49 End Date: 05/14/2024 07:45

Lab Sample Id	D/F	Type	Time	Analytes																									
				Al	Ca	Fe	K	Mg	Na																					
CCVH 280-653318/165			07:37																										
CCV 280-653318/166			07:41																										
CCB 280-653318/167			07:45																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010D

Start Date: 05/14/2024 12:09 End Date: 05/15/2024 00:22

Lab Sample Id	D/F	Type	Time	Analytes
				Na
ICIS 280-653481/1	1		12:09	X
IC 280-653481/2			12:13	X
IC 280-653481/3			12:17	X
IC 280-653481/4			12:22	X
ZZZZZZ			12:27	
ZZZZZZ			12:31	
ZZZZZZ			12:35	
ICVH 280-653481/8	1		12:41	X
ICV 280-653481/9	1		12:46	X
CCVH 280-653481/10			12:50	
CCV 280-653481/11			12:55	
ICB 280-653481/12	1		12:59	X
CRI 280-653481/13	1		13:03	X
ICSA 280-653481/14	1		13:08	X
ICSAB 280-653481/15	1		13:13	X
LRA 280-653481/16			13:17	
CCVH 280-653481/17	1		13:22	X
CCV 280-653481/18	1		13:26	X
CCB 280-653481/19	1		13:31	X
CCVL 280-653481/20			13:35	
MB 280-652548/1-A	1	T	16:24	X
LCS 280-652548/2-A	1	T	16:28	X
LCSD 280-652548/3-A	1	T	16:33	X
ZZZZZZ			16:37	
ZZZZZZ			16:42	
ZZZZZZ			16:46	
ZZZZZZ			16:50	
ZZZZZZ			16:55	
280-191098-5	1	T	16:59	X
ZZZZZZ			17:04	
CCVH 280-653481/31	1		17:08	X
CCV 280-653481/32	1		17:13	X
CCB 280-653481/33	1		17:18	X
ZZZZZZ			17:22	
ZZZZZZ			17:26	
ZZZZZZ			17:31	
ZZZZZZ			17:35	
ZZZZZZ			17:39	
ZZZZZZ			17:44	
ZZZZZZ			17:48	
ZZZZZZ			17:53	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010D

Start Date: 05/14/2024 12:09 End Date: 05/15/2024 00:22

Lab Sample Id	D/F	Type	Time	Analytes
				Na
ZZZZZZ			17:57	
ZZZZZZ			18:01	
CCVH 280-653481/44			18:05	
CCV 280-653481/45			18:10	
CCB 280-653481/46			18:14	
ZZZZZZ			18:18	
ZZZZZZ			18:23	
ZZZZZZ			18:27	
ZZZZZZ			18:32	
ZZZZZZ			18:36	
ZZZZZZ			18:40	
ZZZZZZ			18:45	
ZZZZZZ			18:49	
ZZZZZZ			18:53	
ZZZZZZ			18:58	
CCVH 280-653481/57			19:02	
CCV 280-653481/58			19:07	
CCB 280-653481/59			19:11	
ZZZZZZ			19:15	
ZZZZZZ			19:20	
ZZZZZZ			19:25	
ZZZZZZ			19:30	
ZZZZZZ			19:34	
ZZZZZZ			19:38	
ZZZZZZ			19:43	
ZZZZZZ			19:47	
ZZZZZZ			19:52	
ZZZZZZ			19:56	
CCVH 280-653481/70			20:00	
CCV 280-653481/71			20:05	
CCB 280-653481/72			20:09	
ZZZZZZ			20:13	
ZZZZZZ			20:18	
ZZZZZZ			20:22	
ZZZZZZ			20:27	
ZZZZZZ			20:32	
ZZZZZZ			20:36	
ZZZZZZ			20:40	
ZZZZZZ			20:45	
ZZZZZZ			20:49	
ZZZZZZ			20:54	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Instrument ID: MT_052 | Analysis Method: 6010D

Start Date: 05/14/2024 12:09 | End Date: 05/15/2024 00:22

Lab Sample Id	D/F	Type	Time	Analytes
				Na
CCVH 280-653481/83			20:58	
CCV 280-653481/84			21:03	
CCB 280-653481/85			21:07	
ZZZZZZ			21:11	
ZZZZZZ			21:15	
ZZZZZZ			21:19	
ZZZZZZ			21:24	
ZZZZZZ			21:28	
ZZZZZZ			21:33	
ZZZZZZ			21:37	
ZZZZZZ			21:41	
ZZZZZZ			21:45	
ZZZZZZ			21:50	
CCVH 280-653481/96			21:54	
CCV 280-653481/97			21:59	
CCB 280-653481/98			22:03	
ZZZZZZ			22:07	
ZZZZZZ			22:11	
ZZZZZZ			22:16	
ZZZZZZ			22:20	
ZZZZZZ			22:24	
ZZZZZZ			22:29	
ZZZZZZ			22:33	
ZZZZZZ			22:37	
ZZZZZZ			22:42	
ZZZZZZ			22:46	
CCVH 280-653481/109			22:51	
CCV 280-653481/110			22:55	
CCB 280-653481/111			22:59	
ZZZZZZ			23:03	
ZZZZZZ			23:08	
ZZZZZZ			23:12	
ZZZZZZ			23:17	
ZZZZZZ			23:21	
ZZZZZZ			23:25	
ZZZZZZ			23:30	
ZZZZZZ			23:34	
ZZZZZZ			23:38	
ZZZZZZ			23:43	
CCVH 280-653481/122			23:47	
CCV 280-653481/123			23:51	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: MT_052 Analysis Method: 6010D

Start Date: 05/14/2024 12:09 End Date: 05/15/2024 00:22

Lab Sample Id	D/F	Type	Time	Analytes																								
				Na																								
CCB 280-653481/124			23:56																									
ZZZZZZ			00:00																									
ZZZZZZ			00:04																									
ZZZZZZ			00:09																									
CCVH 280-653481/128			00:13																									
CCV 280-653481/129			00:18																									
CCB 280-653481/130			00:22																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: MT_077 Analysis Method: 6020B

Start Date: 05/09/2024 14:05 End Date: 05/10/2024 07:32

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Ni	Pb	Sb	Se	Tl	V	Zn												
RINSE 280-652887/1			14:05																												
RINSE 280-652887/2			14:09																												
RINSE 280-652887/3			14:13																												
RINSE 280-652887/4			14:16																												
RINSE 280-652887/5			14:20																												
RINSE 280-652887/6			14:23																												
RINSE 280-652887/7			14:27																												
RINSE 280-652887/8			14:30																												
RINSE 280-652887/9			14:34																												
RINSE 280-652887/10			14:38																												
RINSE 280-652887/11			14:41																												
ICIS 280-652887/12			14:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
IC 280-652887/13	1		14:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
IC 280-652887/14	1		14:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ICV 280-652887/15	1		14:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ICB 280-652887/16	1		15:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CRI 280-652887/17	1		15:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ICSA 280-652887/18	1		15:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ICSAB 280-652887/19	1		15:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
RINSE 280-652887/20			15:14																												
LRA 280-652887/21			15:18																												
RINSE 280-652887/22			15:21																												
ZZZZZZ			15:25																												
CCV 280-652887/24	1		15:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CCB 280-652887/25	1		15:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ZZZZZZ			15:37																												
MB 280-652548/1-A	1	T	15:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
LCS 280-652548/17-A	1	T	15:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
LCSD 280-652548/18-A	1	T	15:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ZZZZZZ			15:51																												
280-191098-1	1	T	15:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
280-191098-1 SD	5	T	15:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
280-191098-1 MS	1	T	16:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
280-191098-1 MSD	1	T	16:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
280-191098-1 PDS	1	T	16:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CCV 280-652887/36	1		16:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CCB 280-652887/37	1		16:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
280-191098-2	1	T	16:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
280-191098-5	1	T	16:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ZZZZZZ			16:27																												
ZZZZZZ			16:31																												

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: MT_077 Analysis Method: 6020B

Start Date: 05/09/2024 14:05 End Date: 05/10/2024 07:32

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Ni	Pb	Sb	Se	Tl	V	Zn										
ZZZZZZ			16:34																										
ZZZZZZ			16:38																										
ZZZZZZ			16:41																										
ZZZZZZ			16:45																										
ZZZZZZ			16:48																										
CCV 280-652887/47	1		16:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCB 280-652887/48	1		16:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ZZZZZZ			17:00																										
ZZZZZZ			17:03																										
ZZZZZZ			17:07																										
ZZZZZZ			17:10																										
ZZZZZZ			17:14																										
ZZZZZZ			17:17																										
ZZZZZZ			17:21																										
ZZZZZZ			17:24																										
ZZZZZZ			17:28																										
CCV 280-652887/58			17:32																										
CCB 280-652887/59			17:35																										
ZZZZZZ			17:39																										
ZZZZZZ			17:42																										
ZZZZZZ			17:46																										
ZZZZZZ			17:49																										
ZZZZZZ			17:53																										
ZZZZZZ			17:57																										
ZZZZZZ			18:00																										
ZZZZZZ			18:04																										
ZZZZZZ			18:07																										
CCV 280-652887/69			18:11																										
CCB 280-652887/70			18:14																										
ZZZZZZ			18:18																										
ZZZZZZ			18:22																										
ZZZZZZ			18:25																										
ZZZZZZ			18:29																										
ZZZZZZ			18:32																										
ZZZZZZ			18:36																										
ZZZZZZ			18:39																										
ZZZZZZ			18:43																										
ZZZZZZ			18:47																										
CCV 280-652887/80			18:50																										
CCB 280-652887/81			18:54																										
ZZZZZZ			18:57																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: MT_077 Analysis Method: 6020B

Start Date: 05/09/2024 14:05 End Date: 05/10/2024 07:32

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Ni	Pb	Sb	Se	Tl	V	Zn										
ZZZZZZ			19:01																										
ZZZZZZ			19:04																										
ZZZZZZ			19:08																										
ZZZZZZ			19:12																										
ZZZZZZ			19:15																										
ZZZZZZ			19:19																										
ZZZZZZ			19:22																										
ZZZZZZ			19:26																										
CCV 280-652887/91			19:29																										
CCB 280-652887/92			19:33																										
ZZZZZZ			19:37																										
ZZZZZZ			19:40																										
ZZZZZZ			19:44																										
ZZZZZZ			19:47																										
ZZZZZZ			19:51																										
ZZZZZZ			19:54																										
ZZZZZZ			19:58																										
ZZZZZZ			20:01																										
CCV 280-652887/101			20:05																										
CCB 280-652887/102			20:09																										
ZZZZZZ			20:12																										
ZZZZZZ			20:16																										
ZZZZZZ			20:19																										
ZZZZZZ			20:23																										
ZZZZZZ			20:27																										
ZZZZZZ			20:30																										
ZZZZZZ			20:34																										
CCV 280-652887/110			20:37																										
CCB 280-652887/111			20:41																										
ZZZZZZ			20:44																										
ZZZZZZ			20:48																										
ZZZZZZ			20:52																										
ZZZZZZ			20:55																										
ZZZZZZ			20:59																										
ZZZZZZ			21:02																										
CCV 280-652887/118			21:06																										
CCB 280-652887/119			21:10																										
ZZZZZZ			21:13																										
ZZZZZZ			21:17																										
ZZZZZZ			21:20																										
ZZZZZZ			21:24																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: MT_077 Analysis Method: 6020B

Start Date: 05/09/2024 14:05 End Date: 05/10/2024 07:32

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Ni	Pb	Sb	Se	Tl	V	Zn											
ZZZZZZ			21:27																											
ZZZZZZ			21:31																											
ZZZZZZ			21:35																											
ZZZZZZ			21:38																											
ZZZZZZ			21:42																											
CCV 280-652887/129			21:45																											
CCB 280-652887/130			21:49																											
ZZZZZZ			21:53																											
ZZZZZZ			21:56																											
ZZZZZZ			22:00																											
ZZZZZZ			22:03																											
ZZZZZZ			22:07																											
CCV 280-652887/136			22:10																											
CCB 280-652887/137			22:14																											
RINSE 280-652887/138			07:22																											
RINSE 280-652887/139			07:25																											
RINSE 280-652887/140			07:29																											
RINSE 280-652887/141			07:32																											

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: MT_036 Analysis Method: 7470A

Start Date: 05/21/2024 23:04 End Date: 05/22/2024 04:34

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
STD0 280-654441/1 IC			23:04	X
STD1 280-654441/2 IC			23:06	X
STD2 280-654441/3 IC			23:09	X
STD3 280-654441/4 IC			23:11	X
STD4 280-654441/5 IC			23:14	X
STD5 280-654441/6 IC			23:16	X
STD6 280-654441/7 IC			23:19	X
STD7 280-654441/8 IC			23:22	X
ICV 280-654294/9-A	1		23:27	X
ICB 280-654294/10-A	1		23:29	X
CRA 280-654294/11-A	1		23:32	X
CCV 280-654294/12-A			23:34	
CCB 280-654294/13-A			23:37	
ZZZZZZ			23:39	
ZZZZZZ			23:42	
ZZZZZZ			23:45	
ZZZZZZ			23:47	
ZZZZZZ			23:50	
ZZZZZZ			23:52	
ZZZZZZ			23:55	
ZZZZZZ			23:57	
ZZZZZZ			00:00	
ZZZZZZ			00:02	
CCV 280-654294/12-A			00:05	
CCB 280-654294/13-A			00:07	
ZZZZZZ			00:10	
ZZZZZZ			00:12	
ZZZZZZ			00:15	
ZZZZZZ			00:17	
ZZZZZZ			00:20	
ZZZZZZ			00:23	
ZZZZZZ			00:25	
ZZZZZZ			00:28	
ZZZZZZ			00:30	
ZZZZZZ			00:33	
CCV 280-654294/12-A			00:35	
CCB 280-654294/13-A			00:38	
ZZZZZZ			00:40	
ZZZZZZ			00:43	
ZZZZZZ			00:45	
ZZZZZZ			00:48	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: MT_036 Analysis Method: 7470A

Start Date: 05/21/2024 23:04 End Date: 05/22/2024 04:34

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			00:50	
ZZZZZZ			00:53	
ZZZZZZ			00:56	
ZZZZZZ			00:58	
ZZZZZZ			01:01	
ZZZZZZ			01:03	
CCV 280-654294/12-A			01:06	
CCB 280-654294/13-A			01:08	
ZZZZZZ			01:11	
ZZZZZZ			01:13	
ZZZZZZ			01:16	
ZZZZZZ			01:18	
ZZZZZZ			01:21	
ZZZZZZ			01:23	
ZZZZZZ			01:26	
ZZZZZZ			01:29	
ZZZZZZ			01:31	
ZZZZZZ			01:34	
CCV 280-654294/12-A			01:36	
CCB 280-654294/13-A			01:39	
ZZZZZZ			01:41	
ZZZZZZ			01:44	
ZZZZZZ			01:46	
ZZZZZZ			01:49	
ZZZZZZ			01:51	
ZZZZZZ			01:54	
ZZZZZZ			01:56	
ZZZZZZ			01:59	
ZZZZZZ			02:02	
ZZZZZZ			02:04	
CCV 280-654294/12-A			02:07	
CCB 280-654294/13-A			02:09	
ZZZZZZ			02:12	
ZZZZZZ			02:14	
ZZZZZZ			02:17	
ZZZZZZ			02:19	
ZZZZZZ			02:22	
ZZZZZZ			02:24	
ZZZZZZ			02:27	
ZZZZZZ			02:29	
ZZZZZZ			02:32	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: MT_036 Analysis Method: 7470A

Start Date: 05/21/2024 23:04 End Date: 05/22/2024 04:34

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			02:35	
CCV 280-654294/12-A	1		02:37	X
CCB 280-654294/13-A	1		02:40	X
ZZZZZZ			02:42	
ZZZZZZ			02:45	
ZZZZZZ			02:47	
ZZZZZZ			02:50	
ZZZZZZ			02:52	
ZZZZZZ			02:55	
ZZZZZZ			02:57	
ZZZZZZ			03:00	
ZZZZZZ			03:02	
MB 280-654117/1-A	1	T	03:05	X
CCV 280-654294/12-A	1		03:08	X
CCB 280-654294/13-A	1		03:10	X
LCS 280-654117/2-A	1	T	03:13	X
ZZZZZZ			03:15	
ZZZZZZ			03:18	
ZZZZZZ			03:20	
ZZZZZZ			03:23	
ZZZZZZ			03:25	
ZZZZZZ			03:28	
ZZZZZZ			03:30	
ZZZZZZ			03:33	
ZZZZZZ			03:35	
CCV 280-654294/12-A	1		03:38	X
CCB 280-654294/13-A	1		03:41	X
ZZZZZZ			03:43	
ZZZZZZ			03:46	
280-191098-1	1	T	03:48	X
280-191098-1 MS	1	T	03:51	X
280-191098-1 MSD	1	T	03:53	X
280-191098-2	1	T	03:56	X
280-191098-5	1	T	03:58	X
ZZZZZZ			04:01	
ZZZZZZ			04:03	
ZZZZZZ			04:06	
CCV 280-654294/12-A	1		04:09	X
CCB 280-654294/13-A	1		04:11	X
ZZZZZZ			04:14	
ZZZZZZ			04:16	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: MT_036 Analysis Method: 7470A

Start Date: 05/21/2024 23:04 End Date: 05/22/2024 04:34

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			04:19																									
ZZZZZZ			04:21																									
ZZZZZZ			04:24																									
ZZZZZZ			04:26																									
ZZZZZZ			04:29																									
CCV 280-654294/12-A			04:31																									
CCB 280-654294/13-A			04:34																									

Prep Types:
T = Total/NA

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.: Analysis Batch No.: 653318

ICP Instrument ID: MT_051 Start Date: 05/13/2024 End Date: 05/14/2024

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y 242.219	Q	Element Y 377.433	Q	Element Y 488.368	Q	Element	Q	Element	Q
ICIS 280-653318/1	13:49										
ICVH 280-653318/6	14:09	102		99		103					
ICV 280-653318/7	14:14	100		96		100					
ICB 280-653318/10	14:25	98		95		97					
CRI 280-653318/11	14:29	100		96		100					
ICSA 280-653318/12	14:33	91		88		95					
ICSAB 280-653318/13	14:37	92		89		96					
CCVH 280-653318/29	22:57	106		100		109					
CCV 280-653318/30	23:02	105		100		107					
CCB 280-653318/31	23:06	102		98		104					
MB 280-652548/1-A	23:31	107		102		111					
LCS 280-652548/2-A	23:36	109		104		113					
LCSD 280-652548/3-A	23:40	110		105		114					
280-191098-1	23:49	106		102		112					
CCVH 280-653318/42	23:53	108		103		113					
CCV 280-653318/43	23:57	107		102		111					
CCB 280-653318/44	00:01	105		100		108					
280-191098-1 SD	00:04	108		103		113					
280-191098-1 MS	00:08	107		102		112					
280-191098-1 MSD	00:12	106		102		111					
280-191098-1 PDS	00:16	106		102		112					
280-191098-2	00:20	107		103		113					
280-191098-5	00:24	106		102		110					
CCVH 280-653318/55	00:43	108		103		110					
CCV 280-653318/56	00:47	106		101		109					
CCB 280-653318/57	00:50	104		99		109					
IS Name on Instrument											

15A-IN
ICP INTERNAL STANDARDS RELATIONS
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.: Analysis Batch No.: 653318

ICP Instrument ID: MT_051 Start Date: 05/13/2024 End Date: 05/14/2024

Analyte	Wavelength	Internal Standard Used:				
		Element Y 242.219	Element Y 377.433	Element Y 377.433	Element Y 488.368	Element Y 488.368
Aluminum	167.019			X		
Aluminum	396.152			X		
Calcium	315.887			X		
Iron	238.204			X		
Iron	259.940			X		
Magnesium	279.078		X			
Potassium	766.491					X
Sodium	589.592					X
Sodium	589.593				X	
Antimony	206.834		X			
Arsenic	188.980	X				
Barium	493.408				X	
Beryllium	234.861				X	
Bi	223.061		X			
Boron	249.678	X				
Cadmium	214.439		X			
Chromium	205.560		X			
Cobalt	228.615	X				
Copper	324.754		X			
Lead	220.353	X				
Lithium	670.783					X
Manganese	257.610		X			
Molybdenum	202.032		X			
Nickel	231.604		X			
Phosphorus	213.618	X				
Selenium	196.026	X				
Silicon	288.158		X			
Silver	328.068		X			
Strontium	421.552				X	
Sulfur	181.972		X			
Th	288.505		X			
Thallium	190.794		X			
Tin	189.925		X			
Titanium	336.122		X			
Vanadium	292.401		X			
Zinc	206.200		X			
Zirconium	343.823		X			
Internal Standard Name on Instrument		Y 242.219	Y 377.433	Y_R 377.433	Y_R 488.368	Y_R2 488.368

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.: Analysis Batch No.: 653481

ICP Instrument ID: MT_052 Start Date: 05/14/2024 End Date: 05/14/2024

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y 242.219	Q	Element Y 377.433	Q	Element Y 488.368	Q	Element	Q	Element	Q
ICIS 280-653481/1	12:09										
ICVH 280-653481/8	12:41	102		102		105					
ICV 280-653481/9	12:46	103		104		106					
ICB 280-653481/12	12:59	103		102		106					
CRI 280-653481/13	13:03	104		104		107					
ICSA 280-653481/14	13:08	90		91		100					
ICSAB 280-653481/15	13:13	90		91		101					
CCVH 280-653481/17	13:22	100		99		101					
CCV 280-653481/18	13:26	100		100		104					
CCB 280-653481/19	13:31	102		102		106					
MB 280-652548/1-A	16:24	100		101		100					
LCS 280-652548/2-A	16:28	98		99		100					
LCSD 280-652548/3-A	16:33	98		98		102					
280-191098-5	16:59	99		100		105					
CCVH 280-653481/31	17:08	100		100		102					
CCV 280-653481/32	17:13	100		101		103					
CCB 280-653481/33	17:18	101		102		104					
IS Name on Instrument											

15A-IN
ICP INTERNAL STANDARDS RELATIONS
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.: Analysis Batch No.: 653481

ICP Instrument ID: MT_052 Start Date: 05/14/2024 End Date: 05/14/2024

Analyte	Wavelength	Internal Standard Used:				
		Element Y 242.219	Element Y 377.433	Element Y 377.433	Element Y 488.368	Element Y 488.368
Aluminum	394.401		X			
Aluminum	396.152			X		
Calcium	315.887			X		
Iron	238.204			X		
Iron	259.940			X		
Magnesium	279.078		X			
Potassium	766.491					X
Sodium	589.592					X
Sodium	589.593					
Antimony	206.834		X			
Arsenic	188.980	X				
Barium	493.408				X	
Beryllium	234.861				X	
Bi	223.061		X			
Boron	249.678	X				
Cadmium	214.439		X			
Chromium	205.560		X			
Cobalt	228.615	X				
Copper	324.754		X			
Lead	220.353	X				
Lithium	670.783					X
Manganese	257.610		X			
Molybdenum	202.032		X			
Nickel	231.604		X			
Phosphorus	213.618	X				
Selenium	196.026	X				
Silicon	288.158		X			
Silver	328.068		X			
Strontium	421.552				X	
Sulfur	181.972		X			
Th	288.505		X			
Thallium	190.794		X			
Tin	189.925		X			
Titanium	336.122		X			
Vanadium	292.401		X			
Zinc	206.200		X			
Zirconium	343.823		X			
Internal Standard Name on Instrument		Y 242.219	Y 377.433	Y_R 377.433	Y_R 488.368	Y_R2 488.368

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.: Analysis Batch No.: 652887

ICP-MS Instrument ID: MT_077 Start Date: 05/09/2024 End Date: 05/09/2024

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6/1	Q	Element Li-6/2	Q	Element Li-6/3	Q	Element Sc/2	Q	Element Sc/3	Q
IC 280-652887/13	14:48	98		102		100		102		101	
IC 280-652887/14	14:52	102		104		102		105		102	
ICV 280-652887/15	14:55	99		103		98		102		100	
ICB 280-652887/16	15:00	100		105		100		103		101	
CRI 280-652887/17	15:04	101		104		100		102		101	
ICSA 280-652887/18	15:07	96		99		93		99		97	
ICSAB 280-652887/19	15:11	93		95		93		100		97	
CCV 280-652887/24	15:28	96		98		96		101		100	
CCB 280-652887/25	15:34	96		97		97		103		101	
MB 280-652548/1-A	15:41	98		99		97		102		102	
LCS 280-652548/17-A	15:44	98		101		95		102		100	
LCSD	15:48	98		103		97		102		102	
280-652548/18-A 280-191098-1	15:55	95		98		93		97		96	
280-191098-1 SD	15:59	94		98		92		94		94	
280-191098-1 MS	16:02	93		98		89		93		92	
280-191098-1 MSD	16:06	92		95		88		91		92	
280-191098-1 PDS	16:09	89		91		87		91		90	
CCV 280-652887/36	16:13	89		91		88		91		91	
CCB 280-652887/37	16:16	91		96		90		91		93	
280-191098-2	16:20	91		94		87		90		90	
280-191098-5	16:24	89		95		86		89		89	
CCV 280-652887/47	16:52	81		82		83		83		83	
CCB 280-652887/48	16:56	83		90		85		85		84	
IS Name on Instrument											

15A-IN
ICP-MS INTERNAL STANDARDS RELATIONS
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.: Analysis Batch No.: 652887

ICP-MS Instrument ID: MT_077 Start Date: 05/09/2024 End Date: 05/09/2024

Analyte	Mass	Internal Standard Used:				
		Element In 115	Element Ho-165 165	Element Ir 193	Element Sc/2 45	Element Sc/3 45
Antimony	121	X				
Arsenic	75					
Barium	137	X				
Beryllium	9					
Cadmium	111	X				
Chromium	52					
Cobalt	59					
Copper	63					
Lead	208		X			
Manganese	55					
Nickel	60					
Selenium	78					
Silver	107	X				
Thallium	205		X			
Vanadium	51					
Zinc	66					
Aluminum	27				X	
Calcium	40					
Iron	56					
Magnesium	24				X	
Molybdenum	95	X				
Potassium	39				X	
Sodium	23				X	
Strontium	88					
Thorium	232			X		
Tin	120	X				
Uranium	238			X		
Internal Standard Name on Instrument		In Internal standard	Ho-165	Ir (IS)	Sc (IS)	Sc (IS)

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.: Analysis Batch No.: 652887

ICP-MS Instrument ID: MT_077 Start Date: 05/09/2024 End Date: 05/09/2024

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ge/1	Q	Element Ge/2	Q	Element In	Q	Element Ho-165	Q	Element Ir	Q
IC 280-652887/13	14:48	100		101		104		102		100	
IC 280-652887/14	14:52	106		106		105		103		100	
ICV 280-652887/15	14:55	103		104		104		101		100	
ICB 280-652887/16	15:00	104		106		104		102		101	
CRI 280-652887/17	15:04	104		104		103		102		102	
ICSA 280-652887/18	15:07	103		101		93		101		97	
ICSAB 280-652887/19	15:11	104		104		93		100		96	
CCV 280-652887/24	15:28	102		102		100		101		98	
CCB 280-652887/25	15:34	100		102		102		101		100	
MB 280-652548/1-A	15:41	103		104		104		101		100	
LCS 280-652548/17-A	15:44	104		104		103		102		102	
LCSD	15:48	103		104		101		101		102	
280-652548/18-A 280-191098-1	15:55	101		101		93		100		98	
280-191098-1 SD	15:59	100		100		93		97		97	
280-191098-1 MS	16:02	97		96		87		96		95	
280-191098-1 MSD	16:06	96		95		86		96		96	
280-191098-1 PDS	16:09	94		94		86		96		96	
CCV 280-652887/36	16:13	93		93		89		95		95	
CCB 280-652887/37	16:16	92		92		89		97		99	
280-191098-2	16:20	95		93		86		95		96	
280-191098-5	16:24	93		93		86		95		97	
CCV 280-652887/47	16:52	86		87		83		90		90	
CCB 280-652887/48	16:56	85		86		84		91		92	
IS Name on Instrument											

15A-IN
ICP-MS INTERNAL STANDARDS RELATIONS
METALS

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.: Analysis Batch No.: 652887

ICP-MS Instrument ID: MT_077 Start Date: 05/09/2024 End Date: 05/09/2024

Analyte	Mass	Internal Standard Used:				
		Element Li-6/1 6	Element Li-6/2 6	Element Li-6/3 6	Element Ge/1 72	Element Ge/2 72
Antimony	121					
Arsenic	75					X
Barium	137					
Beryllium	9	X				
Cadmium	111					
Chromium	52					X
Cobalt	59					X
Copper	63					X
Lead	208					
Manganese	55					X
Nickel	60					X
Selenium	78				X	
Silver	107					
Thallium	205					
Vanadium	51					X
Zinc	66					X
Aluminum	27					
Calcium	40					
Iron	56				X	
Magnesium	24					
Molybdenum	95					
Potassium	39					
Sodium	23					
Strontium	88					X
Thorium	232					
Tin	120					
Uranium	238					
Internal Standard Name on Instrument		Li-6 Internal standard	Li-6 Internal standard	Li-6 Internal standard	Ge Internal standard	Ge Internal standard

METALS BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 652548 Batch Start Date: 05/08/24 15:03 Batch Analyst: Gonzalez, Kendal L

Batch Method: 3010A Batch End Date: 05/08/24 20:34

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	Initial pH	InitialAmount	FinalAmount	Prep spike1IV 00018	Prep spike2IV 00017	
MB 280-652548/1		3010A, 6010D			<2 SU	50 mL	50 mL			
LCS 280-652548/2		3010A, 6010D			<2 SU	50 mL	50 mL	0.5 mL	0.5 mL	
LCSD 280-652548/3		3010A, 6010D			<2 SU	50 mL	50 mL	0.5 mL	0.5 mL	
280-191098-C-1	DET-003-240401-GW	3010A, 6010D	Water	T	<2 SU	50 mL	50 mL			
280-191098-C-1 MS	DET-003-240401-GW	3010A, 6010D	Water	T	<2 SU	50 mL	50 mL	0.5 mL	0.5 mL	
280-191098-C-1 MSD	DET-003-240401-GW	3010A, 6010D	Water	T	<2 SU	50 mL	50 mL	0.5 mL	0.5 mL	
280-191098-A-2	DET-003-240402-GW	3010A, 6010D	Water	T	<2 SU	50 mL	50 mL			
280-191098-C-5	DET-004-240401-GW	3010A, 6010D	Water	T	<2 SU	50 mL	50 mL			

Batch Notes	
Digestion Tube/Cup ID	LV24010607
Pipette/Syringe/Dispenser ID	MET209+MET88
Analyst ID - Spike Analyst	KO
Sufficient Volume for Batch QC	YES
Hydrochloric Acid ID	231497
Nitric Acid ID	235279
Digestion Unit ID	05
Thermometer ID	940857
Thermometer Location ID	D5
Temperature - Uncorrected - Start	94 Degrees C
Temperature - Corrected - Start	94 Degrees C
Temperature - Uncorrected - End	93 Degrees C
Temperature - Corrected - End	93 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 652548 Batch Start Date: 05/08/24 15:03 Batch Analyst: Gonzalez, Kendal L

Batch Method: 3010A Batch End Date: 05/08/24 20:34

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	Initial pH	InitialAmount	FinalAmount	ms spike 1 00022	MS spike 2 00111	
MB 280-652548/1		3010A, 6020B			<2 SU	50 mL	50 mL			
280-191098-A-2	DET-003-240402-GW	3010A, 6020B	Water	T	<2 SU	50 mL	50 mL			
280-191098-C-5	DET-004-240401-GW	3010A, 6020B	Water	T	<2 SU	50 mL	50 mL			
LCS 280-652548/17		3010A, 6020B			<2 SU	50 mL	50 mL	0.1 mL	0.1 mL	
LCSD 280-652548/18		3010A, 6020B			<2 SU	50 mL	50 mL	0.1 mL	0.1 mL	

Batch Notes	
Digestion Tube/Cup ID	LV24010607
Pipette/Syringe/Dispenser ID	MET209+MET88
Analyst ID - Spike Analyst	KO
Sufficient Volume for Batch QC	YES
Hydrochloric Acid ID	231497
Nitric Acid ID	235279
Digestion Unit ID	05
Thermometer ID	940857
Thermometer Location ID	D5
Temperature - Uncorrected - Start	94 Degrees C
Temperature - Corrected - Start	94 Degrees C
Temperature - Uncorrected - End	93 Degrees C
Temperature - Corrected - End	93 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 652548 Batch Start Date: 05/08/24 15:03 Batch Analyst: Gonzalez, Kendal L

Batch Method: 3020A Batch End Date: 05/08/24 20:34

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	Initial pH	InitialAmount	FinalAmount	ms spike 1 00022	MS spike 2 00111	
280-191098-C-1	DET-003-240401-GW	3020A, 6020B	Water	T	<2 SU	50 mL	50 mL			
280-191098-C-1 MS	DET-003-240401-GW	3020A, 6020B	Water	T	<2 SU	50 mL	50 mL	0.1 mL	0.1 mL	
280-191098-C-1 MSD	DET-003-240401-GW	3020A, 6020B	Water	T	<2 SU	50 mL	50 mL	0.1 mL	0.1 mL	

Batch Notes	
Digestion Tube/Cup ID	LV24010607
Pipette/Syringe/Dispenser ID	MET209+MET88
Analyst ID - Spike Analyst	KO
Sufficient Volume for Batch QC	YES
Hydrochloric Acid ID	231497
Nitric Acid ID	235279
Digestion Unit ID	05
Thermometer ID	940857
Thermometer Location ID	D5
Temperature - Uncorrected - Start	94 Degrees C
Temperature - Corrected - Start	94 Degrees C
Temperature - Uncorrected - End	93 Degrees C
Temperature - Corrected - End	93 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 654117 Batch Start Date: 05/21/24 19:15 Batch Analyst: Fisher, Cadence A

Batch Method: 7470A Batch End Date: 05/21/24 21:15

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	Hg Daily Spk 03597			
MB 280-654117/1		7470A, 7470A			30 mL	50 mL				
LCS 280-654117/2		7470A, 7470A			30 mL	50 mL	1.5 mL			
280-191098-C-1	DET-003-240401-GW	7470A, 7470A	Water	T	30 mL	50 mL				
280-191098-C-1 MS	DET-003-240401-GW	7470A, 7470A	Water	T	30 mL	50 mL	1.5 mL			
280-191098-C-1 MSD	DET-003-240401-GW	7470A, 7470A	Water	T	30 mL	50 mL	1.5 mL			
280-191098-A-2	DET-003-240402-GW	7470A, 7470A	Water	T	30 mL	50 mL				
280-191098-C-5	DET-004-240401-GW	7470A, 7470A	Water	T	30 mL	50 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 654117 Batch Start Date: 05/21/24 19:15 Batch Analyst: Fisher, Cadence A

Batch Method: 7470A Batch End Date: 05/21/24 21:15

Batch Notes	
Digestion Tube/Cup ID	LV24010607
Pipette/Syringe/Dispenser ID	MET206/81/122
Analyst ID - Spike Analyst	CF
Sufficient Volume for Batch QC	YES
Nitric Acid ID	221625
Sulfuric Acid ID	225553
Potassium Permanganate ID	8350368
Potassium Persulfate ID	8325874
Digestion Unit ID	13
Thermometer ID	91777
Temperature - Uncorrected - Start	95 Degrees C
Temperature - Corrected - Start	95 Degrees C
Digestion Start Time	05/21/24 19:15
Digestion End Time	05/21/24 21:15
Temperature - Uncorrected - End	92 Degrees C
Temperature - Corrected - End	93 Degrees C
Hydroxylamine ID	8311606
Pipette Verification	YES

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 654294 Batch Start Date: 05/21/24 16:46 Batch Analyst: Fisher, Cadence A

Batch Method: 245.1 Batch End Date: 05/21/24 18:46

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	Hg Biwk ICV 00420	Hg Daily Spk 03597		
ICV 280-654294/9		245.1, 7470A			30 mL	50 mL	0.3 mL			
ICB 280-654294/10		245.1, 7470A			30 mL	50 mL				
CRA 280-654294/11		245.1, 7470A			30 mL	50 mL		0.06 mL		
CCV 280-654294/12		245.1, 7470A			30 mL	50 mL		1.5 mL		
CCB 280-654294/13		245.1, 7470A			30 mL	50 mL				

Batch Notes	
Digestion Tube/Cup ID	LV24010607
Pipette/Syringe/Dispenser ID	MET206/81/122
Analyst ID - Spike Analyst	CF
Sufficient Volume for Batch QC	YES
Nitric Acid ID	221625
Sulfuric Acid Lot Number	225553
Potassium Permanganate ID	8350368
Potassium Persulfate ID	8325874
Digestion Unit ID	13
Thermometer ID	917776
Temperature - Uncorrected - Start	91 Degrees C
Temperature - Corrected - Start	92 Degrees C
Digestion Start Time	05/21/2024 16:46
Digestion End Time	05/21/2024 18:46
Temperature - Uncorrected - End	92 Degrees C
Temperature - Corrected - End	93 Degrees C
Hydroxylamine ID	8311606
Pipette Verification	YES

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 654294 Batch Start Date: 05/21/24 16:46 Batch Analyst: Fisher, Cadence A

Batch Method: 245.1 Batch End Date: 05/21/24 18:46

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Solution Name: icis

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
icis	5/13/2024 1:49:08 PM	S1:5	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000000 !	ppm	N/A	N/A	-2947.154734 !	0.000000 !
Ag (328.068 nm)	0.000000 !	ppm	N/A	N/A	-32.167400 !	0.000000 !
Al (167.019 nm)	0.000000 !	ppm	N/A	N/A	1.037100 !	0.000000 !
Al H (396.152 nm)	0.000000 !	ppm	N/A	N/A	33.602910 !	0.000000 !
As (188.980 nm)	0.000000 !	ppm	N/A	N/A	0.201717 !	0.000000 !
B (249.678 nm)	0.000000 !	ppm	N/A	N/A	90.951800 !	0.000000 !
Ba (493.408 nm)	0.000000 !	ppm	N/A	N/A	-33.414400 !	0.000000 !
Be (234.861 nm)	0.000000 !	ppm	N/A	N/A	-30.994700 !	0.000000 !
Bi (223.061 nm)	0.000000 !	ppm	N/A	N/A	1.629660 !	0.000000 !
Ca (315.887 nm)	0.000000 !	ppm	N/A	N/A	-41.301618 !	0.000000 !
Cd (214.439 nm)	0.000000 !	ppm	N/A	N/A	-13.395700 !	0.000000 !
Co (228.615 nm)	0.000000 !	ppm	N/A	N/A	-15.822700 !	0.000000 !
Cr (205.560 nm)	0.000000 !	ppm	N/A	N/A	17.862000 !	0.000000 !
Cu (324.754 nm)	0.000000 !	ppm	N/A	N/A	1257.620000 !	0.000000 !
Fe (238.204 nm)	0.000000 !	ppm	N/A	N/A	32.745095 !	0.000000 !
Fe H (259.940 nm)	0.000000 !	ppm	N/A	N/A	22.550500 !	0.000000 !
K (766.491 nm)	0.000000 !	ppm	N/A	N/A	-1414.650000 !	0.000000 !
Li (670.783 nm)	0.000000 !	ppm	N/A	N/A	-761.554000 !	0.000000 !
Mg (279.078 nm)	0.000000 !	ppm	N/A	N/A	14.317700 !	0.000000 !
Mn (257.610 nm)	0.000000 !	ppm	N/A	N/A	32.452700 !	0.000000 !
Mo (202.032 nm)	0.000000 !	ppm	N/A	N/A	7.147380 !	0.000000 !
Na (589.592 nm)	0.000000 !	ppm	N/A	N/A	2584.370000 !	0.000000 !
Na H (589.593 nm)	0.000000 !	ppm	N/A	N/A	6035.189420 !	0.000000 !
Ni (231.604 nm)	0.000000 !	ppm	N/A	N/A	20.010000 !	0.000000 !
P (213.618 nm)	0.000000 !	ppm	N/A	N/A	10.249700 !	0.000000 !
Pb (220.353 nm)	0.000000 !	ppm	N/A	N/A	-6.177470 !	0.000000 !
S (181.972 nm)	0.000000 !	ppm	N/A	N/A	19.924931 !	0.000000 !
Sb (206.834 nm)	0.000000 !	ppm	N/A	N/A	7.161510 !	0.000000 !
Se (196.026 nm)	0.000000 !	ppm	N/A	N/A	8.133840 !	0.000000 !
Si (288.158 nm)	0.000000 !	ppm	N/A	N/A	821.643000 !	0.000000 !
Sn (189.925 nm)	0.000000 !	ppm	N/A	N/A	7.895910 !	0.000000 !
Sr (421.552 nm)	0.000000 !	ppm	N/A	N/A	18.870146 !	0.000000 !
Th (288.505 nm)	0.000000 !	ppm	N/A	N/A	98.777800 !	0.000000 !
Ti (336.122 nm)	0.000000 !	ppm	N/A	N/A	-117.305000 !	0.000000 !
Tl (190.794 nm)	0.000000 !	ppm	N/A	N/A	-7.448380 !	0.000000 !
U (409.013 nm)	0.000000 !	ppm	N/A	N/A	85.187200 !	0.000000 !
V (292.401 nm)	0.000000 !	ppm	N/A	N/A	37.126500 !	0.000000 !
Zn (206.200 nm)	0.000000 !	ppm	N/A	N/A	8.168240 !	0.000000 !
Zr (343.823 nm)	0.000000 !	ppm	N/A	N/A	5.250790 !	0.000000 !

Solution Name: ic1

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
ic1	5/13/2024 1:53:34 PM	3:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.000000 !	ppm	N/A	N/A	1292097.463151 !	1.000000 !
Ag (328.068 nm)	1.000000 !	ppm	N/A	N/A	38133.900000 !	1.000000 !
Al (167.019 nm)	1.000000 !	ppm	N/A	N/A	490.369000 !	1.000000 !
Al H (396.152 nm)	1.000000 !	ppm	N/A	N/A	2186.339691 !	1.000000 !
As (188.980 nm)	1.000000 !	ppm	N/A	N/A	1069.060000 !	1.000000 !
B (249.678 nm)	1.000000 !	ppm	N/A	N/A	22328.300000 !	1.000000 !
Ba (493.408 nm)	1.000000 !	ppm	N/A	N/A	86840.800000 !	1.000000 !
Be (234.861 nm)	1.000000 !	ppm	N/A	N/A	251415.000000 !	1.000000 !
Bi (223.061 nm)	2.000000 !	ppm	N/A	N/A	3644.220000 !	2.000000 !
Ca (315.887 nm)	10.000000 !	ppm	N/A	N/A	8906.476497 !	10.000000 !
Cd (214.439 nm)	1.000000 !	ppm	N/A	N/A	51668.900000 !	1.000000 !
Co (228.615 nm)	1.000000 !	ppm	N/A	N/A	15220.900000 !	1.000000 !
Cr (205.560 nm)	1.000000 !	ppm	N/A	N/A	11793.900000 !	1.000000 !
Cu (324.754 nm)	1.000000 !	ppm	N/A	N/A	51702.700000 !	1.000000 !
Fe (238.204 nm)	5.000000 !	ppm	N/A	N/A	17130.417421 !	5.000000 !
Fe H (259.940 nm)	5.000000 !	ppm	N/A	N/A	9382.560000 !	5.000000 !
K (766.491 nm)	100.000000 !	ppm	N/A	N/A	65833.900000 !	100.000000 !
Li (670.783 nm)	1.000000 !	ppm	N/A	N/A	17085.500000 !	1.000000 !
Mg (279.078 nm)	40.000000 !	ppm	N/A	N/A	192001.000000 !	40.000000 !
Mn (257.610 nm)	1.000000 !	ppm	N/A	N/A	192283.000000 !	1.000000 !
Mo (202.032 nm)	1.000000 !	ppm	N/A	N/A	6808.180000 !	1.000000 !
Na (589.592 nm)	50.000000 !	ppm	N/A	N/A	224643.000000 !	50.000000 !
Na H (589.593 nm)	50.000000 !	ppm	N/A	N/A	156402.993255 !	50.000000 !
Ni (231.604 nm)	1.000000 !	ppm	N/A	N/A	5884.530000 !	1.000000 !
P (213.618 nm)		ppm	N/A	N/A	27.367900 !	
Pb (220.353 nm)	1.000000 !	ppm	N/A	N/A	2353.220000 !	1.000000 !
S (181.972 nm)		ppm	N/A	N/A	23.133954 !	
Sb (206.834 nm)	1.000000 !	ppm	N/A	N/A	2161.040000 !	1.000000 !
Se (196.026 nm)	1.000000 !	ppm	N/A	N/A	876.431000 !	1.000000 !
Si (288.158 nm)	10.000000 !	ppm	N/A	N/A	68518.800000 !	10.000000 !
Sn (189.925 nm)	1.000000 !	ppm	N/A	N/A	1622.580000 !	1.000000 !
Sr (421.552 nm)	1.000000 !	ppm	N/A	N/A	183137.283926 !	1.000000 !
Th (288.505 nm)		ppm	N/A	N/A	142.161000 !	
Ti (336.122 nm)	1.000000 !	ppm	N/A	N/A	107681.000000 !	1.000000 !
Tl (190.794 nm)	1.000000 !	ppm	N/A	N/A	1639.890000 !	1.000000 !
U (409.013 nm)		ppm	N/A	N/A	26.692500 !	
V (292.401 nm)	1.000000 !	ppm	N/A	N/A	29260.200000 !	1.000000 !
Zn (206.200 nm)	1.000000 !	ppm	N/A	N/A	4729.560000 !	1.000000 !
Zr (343.823 nm)	1.000000 !	ppm	N/A	N/A	93440.200000 !	1.000000 !

Solution Name: ic2

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
ic2	5/13/2024 1:57:34 PM	3:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)		ppm	N/A	N/A	-1777.615682 !	
Ag (328.068 nm)		ppm	N/A	N/A	-92.319400 !	
Al (167.019 nm)	100.000000 !	ppm	N/A	N/A	44783.900000 !	100.000000 !
Al H (396.152 nm)	100.000000 !	ppm	N/A	N/A	210562.173142 !	100.000000 !
As (188.980 nm)		ppm	N/A	N/A	-1.580880 !	
B (249.678 nm)		ppm	N/A	N/A	17.426200 !	
Ba (493.408 nm)		ppm	N/A	N/A	144.030000 !	
Be (234.861 nm)		ppm	N/A	N/A	1141.610000 !	
Bi (223.061 nm)		ppm	N/A	N/A	13.692300 !	
Ca (315.887 nm)		ppm	N/A	N/A	-73.064262 !	
Cd (214.439 nm)		ppm	N/A	N/A	46.256400 !	
Co (228.615 nm)		ppm	N/A	N/A	-30.641500 !	
Cr (205.560 nm)		ppm	N/A	N/A	4.761330 !	
Cu (324.754 nm)		ppm	N/A	N/A	2984.190000 !	
Fe (238.204 nm)	100.000000 !	ppm	N/A	N/A	346980.751037 !	100.000000 !
Fe H (259.940 nm)	100.000000 !	ppm	N/A	N/A	189787.000000 !	100.000000 !
K (766.491 nm)		ppm	N/A	N/A	-1394.040000 !	
Li (670.783 nm)		ppm	N/A	N/A	-729.732000 !	
Mg (279.078 nm)		ppm	N/A	N/A	-375.128000 !	
Mn (257.610 nm)		ppm	N/A	N/A	46.981100 !	
Mo (202.032 nm)		ppm	N/A	N/A	13.025600 !	
Na (589.592 nm)	500.000000 !	ppm	N/A	N/A	2124950.000000 !	500.000000 !
Na H (589.593 nm)	500.000000 !	ppm	N/A	N/A	1479851.857256 !	500.000000 !
Ni (231.604 nm)		ppm	N/A	N/A	26.962600 !	
P (213.618 nm)	10.000000 !	ppm	N/A	N/A	21210.900000 !	10.000000 !
Pb (220.353 nm)		ppm	N/A	N/A	-46.405200 !	
S (181.972 nm)	10.000000 !	ppm	N/A	N/A	4151.282523 !	10.000000 !
Sb (206.834 nm)		ppm	N/A	N/A	-10.244500 !	
Se (196.026 nm)		ppm	N/A	N/A	4.253630 !	
Si (288.158 nm)		ppm	N/A	N/A	965.833000 !	
Sn (189.925 nm)		ppm	N/A	N/A	8.660450 !	
Sr (421.552 nm)		ppm	N/A	N/A	78.121016 !	
Th (288.505 nm)	10.000000 !	ppm	N/A	N/A	19424.200000 !	10.000000 !
Ti (336.122 nm)		ppm	N/A	N/A	86.224000 !	
Tl (190.794 nm)		ppm	N/A	N/A	-21.850200 !	
U (409.013 nm)	5.000000 !	ppm	N/A	N/A	16624.700000 !	5.000000 !
V (292.401 nm)		ppm	N/A	N/A	460.785000 !	
Zn (206.200 nm)		ppm	N/A	N/A	22.398500 !	
Zr (343.823 nm)		ppm	N/A	N/A	544.378000 !	

Solution Name: S1-8314993

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
S1-8314993	5/13/2024 2:01:28 PM	3:3	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.002399	ppm	0.001130	0.11	1295204.844655	1.002399
Ag (328.068 nm)	1.004480	ppm	0.002358	0.23	38287.000000	1.004480
Al (167.019 nm)	1.037160	ppm	0.010609	1.02	512.261000	1.037160
Al H (396.152 nm)	0.997431	ppm	0.005910	0.59	2252.904590	0.997431
As (188.980 nm)	1.002450	ppm	0.003062	0.31	1071.560000	1.002450
B (249.678 nm)	0.994881	ppm	0.002337	0.23	22246.300000	0.994881
Ba (493.408 nm)	1.002840	ppm	0.005914	0.59	87083.300000	1.002840
Be (234.861 nm)	1.014840	ppm	0.007068	0.70	255150.000000	1.014840
Bi (223.061 nm)	2.040200	ppm	0.004436	0.22	3717.430000	2.040200
Ca (315.887 nm)	10.131125	ppm	0.056892	0.56	9023.804145	10.131125
Cd (214.439 nm)	1.021730	ppm	0.001275	0.12	52797.100000	1.021730
Co (228.615 nm)	1.005770	ppm	0.002872	0.29	15341.400000	1.005770
Cr (205.560 nm)	1.023630	ppm	0.000545	0.05	12064.700000	1.023630
Cu (324.754 nm)	0.930898 Q	ppm	0.002384	0.26	48329.600000 Q	0.930898 Q
Fe (238.204 nm)	5.094207	ppm	0.028673	0.56	17452.561085	5.094207
Fe H (259.940 nm)	5.096930	ppm	0.045138	0.89	9566.630000	5.096930
K (766.491 nm)	99.461300	ppm	0.393521	0.40	65471.700000	99.461300
Li (670.783 nm)	0.996448	ppm	0.003674	0.37	17022.100000	0.996448
Mg (279.078 nm)	40.336700	ppm	0.035506	0.09	193610.000000	40.336700
Mn (257.610 nm)	1.013100	ppm	0.001277	0.13	194800.000000	1.013100
Mo (202.032 nm)	1.022760	ppm	0.000936	0.09	6963.000000	1.022760
Na (589.592 nm)	51.232400	ppm	0.189503	0.37	222653.000000	51.232400
Na H (589.593 nm)	48.845283	ppm	0.285257	0.58	154733.986486	48.845283
Ni (231.604 nm)	1.021020	ppm	0.001803	0.18	6008.880000	1.021020
P (213.618 nm)	0.043148 S	ppm	0.001346	3.12	28.620400 S	0.043148 S
Pb (220.353 nm)	0.991268	ppm	0.003053	0.31	2328.710000	0.991268
S (181.972 nm)	-0.010330 u	ppm	0.001772	17.16	22.522211	-0.010330 u
Sb (206.834 nm)	1.022210	ppm	0.001167	0.11	2233.910000	1.022210
Se (196.026 nm)	0.998641	ppm	0.006505	0.65	875.919000	0.998641
Si (288.158 nm)	10.085500	ppm	0.013815	0.14	69532.700000	10.085500
Sn (189.925 nm)	1.022760	ppm	0.002297	0.22	1659.420000	1.022760
Sr (421.552 nm)	0.988738	ppm	0.006223	0.63	181074.987135	0.988738
Th (288.505 nm)	0.055882	ppm	0.029527	52.84	225.758000	0.055882
Ti (336.122 nm)	1.007460	ppm	0.001825	0.18	108508.000000	1.007460
Tl (190.794 nm)	1.021160	ppm	0.002228	0.22	1671.870000	1.021160
U (409.013 nm)	0.002427 u	ppm	0.002187	90.08	38.339400	0.002427 u
V (292.401 nm)	1.012920	ppm	0.001292	0.13	29404.100000	1.012920
Zn (206.200 nm)	0.953123	ppm	0.001241	0.13	4508.230000	0.953123
Zr (343.823 nm)	1.007580	ppm	0.001016	0.10	94202.900000	1.007580

Solution Name: S2-8314997

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
S2-8314997	5/13/2024 2:05:25 PM	3:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000851	ppm	0.000019	2.24	-1844.968488	0.000851
Ag (328.068 nm)	0.000867	ppm	0.000587	67.71	-113.982000	0.000867
Al (167.019 nm)	93.953100 o	ppm	0.580550	0.62	46050.300000	93.953100 o
Al H (396.152 nm)	101.118348	ppm	0.651271	0.64	212916.154861	101.118348
As (188.980 nm)	-0.000869 u	ppm	0.000732	84.21	-3.115470	-0.000869 u
B (249.678 nm)	0.004360	ppm	0.000331	7.60	36.623700	0.004360
Ba (493.408 nm)	0.002228	ppm	0.000543	24.37	160.169000	0.002228
Be (234.861 nm)	0.000320	ppm	0.000073	22.85	1147.440000	0.000320
Bi (223.061 nm)	0.004868 S	ppm	0.002859	58.74	10.495900 S	0.004868 S
Ca (315.887 nm)	-0.031697 u	ppm	0.005865	18.50	-69.663724	-0.031697 u
Cd (214.439 nm)	-0.000496 u	ppm	0.000078	15.71	44.947800	-0.000496 u
Co (228.615 nm)	-0.000582 u	ppm	0.000337	57.92	-24.679100	-0.000582 u
Cr (205.560 nm)	0.000755	ppm	0.000224	29.63	5.247160	0.000755
Cu (324.754 nm)	0.003666	ppm	0.000120	3.27	3049.970000	0.003666
Fe (238.204 nm)	103.122531 o	ppm	0.610933	0.59	352663.792663	103.122531 o
Fe H (259.940 nm)	101.813000	ppm	0.593009	0.58	193230.000000	101.813000
K (766.491 nm)	-0.116262 u	ppm	0.151862	> 100.00	-1492.840000	-0.116262 u
Li (670.783 nm)	-0.001028 u	ppm	0.003831	> 100.00	-779.906000	-0.001028 u
Mg (279.078 nm)	-0.029622 u	ppm	0.001347	4.55	-382.720000	-0.029622 u
Mn (257.610 nm)	-0.000059 u	ppm	0.000055	92.18	21.073600	-0.000059 u
Mo (202.032 nm)	0.000870 u	ppm	0.000833	95.76	13.062200	0.000870 u
Na (589.592 nm)	494.349000	ppm	1.597360	0.32	2101920.000000	494.349000
Na H (589.593 nm)	493.594351	ppm	8.917823	1.81	1461015.853299	493.594351
Ni (231.604 nm)	0.001003	ppm	0.000700	69.78	25.895700	0.001003
P (213.618 nm)	10.043800	ppm	0.001405	0.01	21300.800000	10.043800
Pb (220.353 nm)	-0.010137 u	ppm	0.001623	16.01	-48.042100	-0.010137 u
S (181.972 nm)	10.226857	ppm	0.015624	0.15	4245.027007	10.226857
Sb (206.834 nm)	0.001117 u	ppm	0.001881	> 100.00	-19.226900	0.001117 u
Se (196.026 nm)	0.001811 u	ppm	0.002048	> 100.00	-1.755380	0.001811 u
Si (288.158 nm)	0.024426	ppm	0.002986	12.23	987.711000	0.024426
Sn (189.925 nm)	0.000836	ppm	0.000679	81.13	11.050400	0.000836
Sr (421.552 nm)	0.000313	ppm	0.000093	29.65	76.205431	0.000313
Th (288.505 nm)	10.080700	ppm	0.054556	0.54	19652.600000	10.080700
Ti (336.122 nm)	0.001876	ppm	0.000139	7.39	85.033900	0.001876
Tl (190.794 nm)	-0.009462 u	ppm	0.001621	17.14	-25.044800	-0.009462 u
U (409.013 nm)	5.023730 Q	ppm	0.015731	0.31	16771.000000 Q	5.023730 Q
V (292.401 nm)	-0.000800 u	ppm	0.000295	36.83	471.399000	-0.000800 u
Zn (206.200 nm)	0.003383	ppm	0.000440	13.01	24.140300	0.003383
Zr (343.823 nm)	0.003495	ppm	0.000230	6.57	540.668000	0.003495

Solution Name: ICVH-8338323

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
ICVH-8338323	5/13/2024 2:09:59 PM	3:5	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000336	ppm	0.000009	2.57	-2511.623854	0.000336
Ag (328.068 nm)	-0.000252 u	ppm	0.000168	66.71	-50.311500	-0.000252 u
Al (167.019 nm)	40.512800 o	ppm	0.221964	0.55	19884.800000	40.512800 o
Al H (396.152 nm)	40.117959	ppm	0.221644	0.55	84522.070712	40.117959
As (188.980 nm)	0.000960 u	ppm	0.002477	> 100.00	-0.667441	0.000960 u
B (249.678 nm)	0.000887	ppm	0.000614	69.22	-9.404640	0.000887
Ba (493.408 nm)	0.001385	ppm	0.000209	15.12	86.897500	0.001385
Be (234.861 nm)	0.000157	ppm	0.000058	36.87	879.985000	0.000157
Bi (223.061 nm)	0.000287 u	ppm	0.002583	> 100.00	2.152760	0.000287 u
Ca (315.887 nm)	0.009888	ppm	0.005669	57.34	-32.453977	0.009888
Cd (214.439 nm)	-0.000133 u	ppm	0.000034	25.65	46.398700	-0.000133 u
Co (228.615 nm)	0.000193 u	ppm	0.000373	> 100.00	-12.879100	0.000193 u
Cr (205.560 nm)	-0.000128 u	ppm	0.000367	> 100.00	-0.730241	-0.000128 u
Cu (324.754 nm)	0.000701	ppm	0.000483	68.90	1347.790000	0.000701
Fe (238.204 nm)	81.855004 o	ppm	0.447888	0.55	279938.751672	81.855004 o
Fe H (259.940 nm)	80.934700	ppm	0.413197	0.51	153582.000000	80.934700
K (766.491 nm)	-0.027468 u	ppm	0.085617	> 100.00	-1433.120000	-0.027468 u
Li (670.783 nm)	0.000006 u	ppm	0.002977	> 100.00	-761.451000	0.000006 u
Mg (279.078 nm)	-0.000186 u	ppm	0.001614	> 100.00	-107.963000	-0.000186 u
Mn (257.610 nm)	0.000669	ppm	0.000040	6.00	160.973000	0.000669
Mo (202.032 nm)	-0.000152 u	ppm	0.000493	> 100.00	6.111470	-0.000152 u
Na (589.592 nm)	78.876600	ppm	0.491593	0.62	337549.000000	78.876600
Na H (589.593 nm)	77.690480	ppm	1.311013	1.69	237842.365425	77.690480
Ni (231.604 nm)	0.000195 u	ppm	0.000438	> 100.00	21.155400	0.000195 u
P (213.618 nm)	3.963870	ppm	0.008938	0.23	8413.990000	3.963870
Pb (220.353 nm)	-0.005237 u	ppm	0.001050	20.05	-26.959900	-0.005237 u
S (181.972 nm)	4.021117	ppm	0.017017	0.42	1681.176412	4.021117
Sb (206.834 nm)	0.002257	ppm	0.001055	46.76	-2.281760	0.002257
Se (196.026 nm)	0.002962	ppm	0.002384	80.49	1.607450	0.002962
Si (288.158 nm)	0.007345	ppm	0.001876	25.54	871.357000	0.007345
Sn (189.925 nm)	-0.001002 u	ppm	0.000923	92.15	7.710200	-0.001002 u
Sr (421.552 nm)	-0.000008 u	ppm	0.000054	> 100.00	17.379563	-0.000008 u
Th (288.505 nm)	0.088939	ppm	0.027699	31.14	273.506000	0.088939
Ti (336.122 nm)	0.000580	ppm	0.000135	23.23	-54.770000	0.000580
Tl (190.794 nm)	0.000006 u	ppm	0.002461	> 100.00	-9.031540	0.000006 u
U (409.013 nm)	0.384811	ppm	0.004195	1.09	1412.080000	0.384811
V (292.401 nm)	0.000050 u	ppm	0.000247	> 100.00	26.047100	0.000050 u
Zn (206.200 nm)	0.000112 Su	ppm	0.000327	> 100.00	8.695630 S	0.000112 Su
Zr (343.823 nm)	0.000229 S	ppm	0.000117	51.04	192.402000 S	0.000229 S

Solution Name: ICV-8338321

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
ICV-8338321	5/13/2024 2:14:28 PM	3:6	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.214163 S	ppm	0.000575	0.27	274403.927541 S	0.214163 S
Ag (328.068 nm)	0.249566	ppm	0.000787	0.32	9484.730000	0.249566
Al (167.019 nm)	0.269430 Q	ppm	0.003059	1.14	133.807000 Q	0.269430 Q
Al H (396.152 nm)	0.225871 Qu	ppm	0.002953	1.31	575.543217 Q	0.225871 Qu
As (188.980 nm)	0.253522	ppm	0.003343	1.32	271.150000	0.253522
B (249.678 nm)	0.245773	ppm	0.001511	0.61	5564.440000	0.245773
Ba (493.408 nm)	0.252800	ppm	0.001599	0.63	21927.400000	0.252800
Be (234.861 nm)	0.253464	ppm	0.003101	1.22	63702.300000	0.253464
Bi (223.061 nm)	0.519246	ppm	0.003846	0.74	947.330000	0.519246
Ca (315.887 nm)	2.555802	ppm	0.018134	0.71	2245.573547	2.555802
Cd (214.439 nm)	0.267745 Q	ppm	0.000999	0.37	13825.500000 Q	0.267745 Q
Co (228.615 nm)	0.257042	ppm	0.000982	0.38	3908.760000	0.257042
Cr (205.560 nm)	0.265271 Q	ppm	0.000893	0.34	3139.790000 Q	0.265271 Q
Cu (324.754 nm)	0.240776	ppm	0.000997	0.41	13437.700000	0.240776
Fe (238.204 nm)	1.278633	ppm	0.006198	0.48	4405.076206	1.278633
Fe H (259.940 nm)	1.354770 Qu	ppm	0.007416	0.55	2460.270000 Q	1.354770 Qu
K (766.491 nm)	24.289100	ppm	0.073661	0.30	14919.400000	24.289100
Li (670.783 nm)	0.251658	ppm	0.003375	1.34	3729.790000	0.251658
Mg (279.078 nm)	10.032600	ppm	0.026398	0.26	48166.000000	10.032600
Mn (257.610 nm)	0.260164	ppm	0.000678	0.26	50049.000000	0.260164
Mo (202.032 nm)	0.265091 Q	ppm	0.000997	0.38	1810.040000 Q	0.265091 Q
Na (589.592 nm)	12.294500	ppm	0.024633	0.20	55425.900000	12.294500
Na H (589.593 nm)	10.413734 Q	ppm	0.157515	1.51	40415.349914 Q	10.413734 Q
Ni (231.604 nm)	0.265309 Q	ppm	0.001231	0.46	1576.190000 Q	0.265309 Q
P (213.618 nm)	-0.001802 Su	ppm	0.001800	99.90	-12.483000 S	-0.001802 Su
Pb (220.353 nm)	0.256418	ppm	0.004279	1.67	597.798000	0.256418
S (181.972 nm)	-0.003151 Qu	ppm	0.005533	> 100.00	20.371840 Q	-0.003151 Qu
Sb (206.834 nm)	0.256091	ppm	0.004076	1.59	565.277000	0.256091
Se (196.026 nm)	0.255152	ppm	0.003497	1.37	229.851000	0.255152
Si (288.158 nm)	2.468270	ppm	0.006289	0.25	17642.200000	2.468270
Sn (189.925 nm)	0.262554 Q	ppm	0.000996	0.38	431.862000 Q	0.262554 Q
Sr (421.552 nm)	0.243467	ppm	0.001534	0.63	44602.166372	0.243467
Th (288.505 nm)	0.028675 S	ppm	0.007349	25.63	159.046000 S	0.028675 S
Ti (336.122 nm)	0.251096	ppm	0.000548	0.22	26956.100000	0.251096
Tl (190.794 nm)	0.267503 Q	ppm	0.003002	1.12	432.502000 Q	0.267503 Q
U (409.013 nm)	-0.001392 Su	ppm	0.005479	> 100.00	67.754200 S	-0.001392 Su
V (292.401 nm)	0.257643	ppm	0.000813	0.32	7508.120000	0.257643
Zn (206.200 nm)	0.246393	ppm	0.000334	0.14	1171.490000	0.246393
Zr (343.823 nm)	0.236446 Q	ppm	0.004141	1.75	22110.900000 Q	0.236446 Q

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/13/2024 2:18:17 PM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000419	ppm	0.000004	0.93	-2404.293845	0.000419
Ag (328.068 nm)	0.000536	ppm	0.000253	47.32	-68.430500	0.000536
Al (167.019 nm)	50.964500 o	ppm	0.470439	0.92	24977.300000	50.964500 o
Al H (396.152 nm)	50.709399	ppm	0.440881	0.87	106815.028788	50.709399
As (188.980 nm)	-0.000392 u	ppm	0.001199	> 100.00	-1.417010	-0.000392 u
B (249.678 nm)	0.001374	ppm	0.000519	37.82	45.488600	0.001374
Ba (493.408 nm)	0.001031	ppm	0.000291	28.22	56.182100	0.001031
Be (234.861 nm)	0.000105	ppm	0.000030	28.32	546.933000	0.000105
Bi (223.061 nm)	0.005056	ppm	0.002098	41.49	10.838000	0.005056
Ca (315.887 nm)	-0.011928 u	ppm	0.009320	78.13	-51.974800	-0.011928 u
Cd (214.439 nm)	-0.000178 u	ppm	0.000041	22.99	19.583300	-0.000178 u
Co (228.615 nm)	-0.000409 u	ppm	0.000131	31.93	-22.055600	-0.000409 u
Cr (205.560 nm)	0.000245	ppm	0.000349	> 100.00	9.946240	0.000245
Cu (324.754 nm)	0.002697	ppm	0.000335	12.42	2194.750000	0.002697
Fe (238.204 nm)	51.847094 o	ppm	0.431491	0.83	177325.671194	51.847094 o
Fe H (259.940 nm)	51.410100	ppm	0.412661	0.80	97515.100000	51.410100
K (766.491 nm)	0.002540 u	ppm	0.098723	> 100.00	-1412.940000	0.002540 u
Li (670.783 nm)	-0.001198 u	ppm	0.003336	> 100.00	-782.944000	-0.001198 u
Mg (279.078 nm)	-0.014565 u	ppm	0.003176	21.80	-183.148000	-0.014565 u
Mn (257.610 nm)	-0.000015 u	ppm	0.000024	> 100.00	29.495100	-0.000015 u
Mo (202.032 nm)	0.000262 u	ppm	0.000392	> 100.00	8.929730	0.000262 u
Na (589.592 nm)	244.947000	ppm	0.686383	0.28	1042790.000000	244.947000
Na H (589.593 nm)	239.561853	ppm	1.935434	0.81	713905.639698	239.561853
Ni (231.604 nm)	-0.001059 u	ppm	0.000226	21.34	13.799000	-0.001059 u
P (213.618 nm)	5.020140	ppm	0.009293	0.19	10651.900000	5.020140
Pb (220.353 nm)	-0.006505 u	ppm	0.000749	11.51	-30.562100	-0.006505 u
S (181.972 nm)	5.214916	ppm	0.000181	0.00	2174.399765	5.214916
Sb (206.834 nm)	-0.000347 u	ppm	0.003679	> 100.00	-8.018150	-0.000347 u
Se (196.026 nm)	0.002563	ppm	0.003203	> 100.00	4.601840	0.002563
Si (288.158 nm)	0.008324	ppm	0.000828	9.95	878.456000	0.008324
Sn (189.925 nm)	0.000977	ppm	0.001033	> 100.00	10.379000	0.000977
Sr (421.552 nm)	0.000242	ppm	0.000030	12.33	63.243114	0.000242
Th (288.505 nm)	5.037250	ppm	0.042586	0.85	9869.570000	5.037250
Ti (336.122 nm)	0.000984	ppm	0.000077	7.80	-11.135800	0.000984
Tl (190.794 nm)	-0.004197 u	ppm	0.001059	25.24	-15.370300	-0.004197 u
U (409.013 nm)	2.515300	ppm	0.001780	0.07	8439.390000	2.515300
V (292.401 nm)	-0.000389 u	ppm	0.000443	> 100.00	253.736000	-0.000389 u
Zn (206.200 nm)	0.000955	ppm	0.000423	44.36	12.675200	0.000955
Zr (343.823 nm)	0.005285	ppm	0.000533	10.08	603.913000	0.005285

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/13/2024 2:22:07 PM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.462859	ppm	0.001020	0.22	596476.396868	0.462859
Ag (328.068 nm)	0.508502	ppm	0.001395	0.27	19366.200000	0.508502
Al (167.019 nm)	0.538201	ppm	0.006564	1.22	266.269000	0.538201
Al H (396.152 nm)	0.487721 u	ppm	0.010419	2.14	1145.159248	0.487721 u
As (188.980 nm)	0.502820	ppm	0.001762	0.35	537.584000	0.502820
B (249.678 nm)	0.492130	ppm	0.000615	0.12	11050.800000	0.492130
Ba (493.408 nm)	0.506013	ppm	0.002120	0.42	43924.100000	0.506013
Be (234.861 nm)	0.502655	ppm	0.001979	0.39	126362.000000	0.502655
Bi (223.061 nm)	1.045860	ppm	0.002294	0.22	1906.450000	1.045860
Ca (315.887 nm)	5.122845	ppm	0.032041	0.63	4542.506616	5.122845
Cd (214.439 nm)	0.535795	ppm	0.001156	0.22	27680.200000	0.535795
Co (228.615 nm)	0.512290	ppm	0.000315	0.06	7806.200000	0.512290
Cr (205.560 nm)	0.532072	ppm	0.001359	0.26	6279.850000	0.532072
Cu (324.754 nm)	0.475517	ppm	0.001372	0.29	25311.100000	0.475517
Fe (238.204 nm)	2.577350	ppm	0.011964	0.46	8846.083467	2.577350
Fe H (259.940 nm)	2.634400 u	ppm	0.013629	0.52	4890.300000	2.634400 u
K (766.491 nm)	49.460500	ppm	0.259884	0.53	31846.800000	49.460500
Li (670.783 nm)	0.500734	ppm	0.004385	0.88	8175.050000	0.500734
Mg (279.078 nm)	20.323600	ppm	0.033682	0.17	97557.700000	20.323600
Mn (257.610 nm)	0.519381	ppm	0.000646	0.12	99883.400000	0.519381
Mo (202.032 nm)	0.528668	ppm	0.001137	0.22	3602.630000	0.528668
Na (589.592 nm)	25.057200	ppm	0.110621	0.44	110256.000000	25.057200
Na H (589.593 nm)	22.895200	ppm	0.102872	0.45	77558.917454	22.895200
Ni (231.604 nm)	0.533489	ppm	0.001932	0.36	3149.220000	0.533489
P (213.618 nm)	0.018068	ppm	0.003401	18.82	11.173300	0.018068
Pb (220.353 nm)	0.507552	ppm	0.001215	0.24	1189.330000	0.507552
S (181.972 nm)	-0.011799 u	ppm	0.006931	58.75	18.531581	-0.011799 u
Sb (206.834 nm)	0.532655	ppm	0.003922	0.74	1167.430000	0.532655
Se (196.026 nm)	0.501455	ppm	0.003637	0.73	443.889000	0.501455
Si (288.158 nm)	5.116450	ppm	0.009974	0.19	35684.100000	5.116450
Sn (189.925 nm)	0.533751	ppm	0.002195	0.41	869.781000	0.533751
Sr (421.552 nm)	0.487818	ppm	0.002299	0.47	89347.307537	0.487818
Th (288.505 nm)	0.050612	ppm	0.018346	36.25	206.528000	0.050612
Ti (336.122 nm)	0.507560	ppm	0.000982	0.19	54608.400000	0.507560
Tl (190.794 nm)	0.533016	ppm	0.001099	0.21	869.150000	0.533016
U (409.013 nm)	-0.003092 u	ppm	0.004053	> 100.00	47.158700	-0.003092 u
V (292.401 nm)	0.513486	ppm	0.001597	0.31	14925.300000	0.513486
Zn (206.200 nm)	0.496918	ppm	0.000481	0.10	2354.310000	0.496918
Zr (343.823 nm)	0.511171	ppm	0.003420	0.67	47794.100000	0.511171

Solution Name: ICB-8200241

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
ICB-8200241	5/13/2024 2:25:59 PM	S1:5	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000012 u	ppm	0.000088	> 100.00	-2932.160163	0.000012 u
Ag (328.068 nm)	0.000204	ppm	0.000163	80.28	-24.610600	0.000204
Al (167.019 nm)	-0.002528 u	ppm	0.001915	75.76	-0.200142	-0.002528 u
Al H (396.152 nm)	-0.037019 u	ppm	0.002147	5.80	3.707224	-0.037019 u
As (188.980 nm)	-0.003063 u	ppm	0.000184	6.01	-3.071930	-0.003063 u
B (249.678 nm)	0.000873	ppm	0.000441	50.51	110.357000	0.000873
Ba (493.408 nm)	0.000283	ppm	0.000113	39.81	-8.831900	0.000283
Be (234.861 nm)	0.000010 u	ppm	0.000020	> 100.00	-28.670400	0.000010 u
Bi (223.061 nm)	-0.001261 u	ppm	0.000510	40.46	-0.667687	-0.001261 u
Ca (315.887 nm)	0.003350 u	ppm	0.005350	> 100.00	-38.303769	0.003350 u
Cd (214.439 nm)	0.000100	ppm	0.000092	91.96	-8.247810	0.000100
Co (228.615 nm)	-0.000056 u	ppm	0.000199	> 100.00	-16.678300	-0.000056 u
Cr (205.560 nm)	0.000192 u	ppm	0.000346	> 100.00	20.123800	0.000192 u
Cu (324.754 nm)	0.001338	ppm	0.000350	26.14	1325.600000	0.001338
Fe (238.204 nm)	-0.000060 u	ppm	0.002601	> 100.00	32.541288	-0.000060 u
Fe H (259.940 nm)	0.074519 u	ppm	0.000295	0.40	29.083700	0.074519 u
K (766.491 nm)	-0.220389 u	ppm	0.060343	27.38	-1562.860000	-0.220389 u
Li (670.783 nm)	0.000552 Su	ppm	0.004178	> 100.00	-751.706000 S	0.000552 Su
Mg (279.078 nm)	0.001288 u	ppm	0.002249	> 100.00	20.349600	0.001288 u
Mn (257.610 nm)	-0.000014 u	ppm	0.000017	> 100.00	29.756400	-0.000014 u
Mo (202.032 nm)	0.001272	ppm	0.000657	51.64	15.799900	0.001272
Na (589.592 nm)	-0.178002 u	ppm	0.001080	0.61	1829.050000	-0.178002 u
Na H (589.593 nm)	-2.030603 u	ppm	0.065298	3.22	3381.534512	-2.030603 u
Ni (231.604 nm)	-0.000579 u	ppm	0.000647	> 100.00	16.618100	-0.000579 u
P (213.618 nm)	-0.001181 u	ppm	0.002753	> 100.00	7.619230	-0.001181 u
Pb (220.353 nm)	-0.000293 u	ppm	0.002122	> 100.00	-6.850960	-0.000293 u
S (181.972 nm)	-0.004595 u	ppm	0.005181	> 100.00	18.025236	-0.004595 u
Sb (206.834 nm)	-0.005750 u	ppm	0.002280	39.65	-5.238210	-0.005750 u
Se (196.026 nm)	0.001626 u	ppm	0.003511	> 100.00	9.545930	0.001626 u
Si (288.158 nm)	0.002839	ppm	0.002519	88.76	841.210000	0.002839
Sn (189.925 nm)	0.000973 u	ppm	0.001576	> 100.00	9.466520	0.000973 u
Sr (421.552 nm)	0.000335	ppm	0.000081	24.29	80.146056	0.000335
Th (288.505 nm)	0.005209	ppm	0.001647	31.62	108.952000	0.005209
Ti (336.122 nm)	0.000147 u	ppm	0.000263	> 100.00	-101.392000	0.000147 u
Tl (190.794 nm)	0.000789 u	ppm	0.001959	> 100.00	-6.150850	0.000789 u
U (409.013 nm)	-0.003646 u	ppm	0.010572	> 100.00	73.128200	-0.003646 u
V (292.401 nm)	-0.000009 u	ppm	0.000176	> 100.00	36.798400	-0.000009 u
Zn (206.200 nm)	-0.000429 u	ppm	0.000814	> 100.00	6.142910	-0.000429 u
Zr (343.823 nm)	0.000146 u	ppm	0.000198	> 100.00	18.903500	0.000146 u

Solution Name: CRI-8338326

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CRI-8338326	5/13/2024 2:29:34 PM	S1:3	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.015023 Q	ppm	0.000036	0.24	16507.976835 Q	0.015023 Q
Ag (328.068 nm)	0.009854	ppm	0.000129	1.31	343.825000	0.009854
Al (167.019 nm)	0.108595	ppm	0.006004	5.53	54.252200	0.108595
Al H (396.152 nm)	0.077444 u	ppm	0.013371	17.27	246.013725	0.077444 u
As (188.980 nm)	0.014626	ppm	0.002243	15.34	15.832800	0.014626
B (249.678 nm)	0.099197	ppm	0.000159	0.16	2297.090000	0.099197
Ba (493.408 nm)	0.010596	ppm	0.000418	3.95	887.058000	0.010596
Be (234.861 nm)	0.001010	ppm	0.000018	1.76	222.822000	0.001010
Bi (223.061 nm)	-0.001375 Qu	ppm	0.001900	> 100.00	-0.874327 Q	-0.001375 Qu
Ca (315.887 nm)	0.210090	ppm	0.004835	2.30	146.682621	0.210090
Cd (214.439 nm)	0.005617	ppm	0.000085	1.52	277.005000	0.005617
Co (228.615 nm)	0.010841	ppm	0.000300	2.77	149.644000	0.010841
Cr (205.560 nm)	0.010948	ppm	0.000411	3.76	146.764000	0.010948
Cu (324.754 nm)	0.016295	ppm	0.000327	2.01	2077.640000	0.016295
Fe (238.204 nm)	0.105022	ppm	0.002707	2.58	391.870562	0.105022
Fe H (259.940 nm)	0.181102 u	ppm	0.000924	0.51	231.485000	0.181102 u
K (766.491 nm)	2.944630	ppm	0.072489	2.46	565.573000	2.944630
Li (670.783 nm)	0.019048	ppm	0.000697	3.66	-421.601000	0.019048
Mg (279.078 nm)	0.209142	ppm	0.000650	0.31	1016.650000	0.209142
Mn (257.610 nm)	0.010745	ppm	0.000016	0.15	2098.090000	0.010745
Mo (202.032 nm)	0.020965	ppm	0.000019	0.09	149.729000	0.020965
Na (589.592 nm)	0.844441	ppm	0.014620	1.73	6196.490000	0.844441
Na H (589.593 nm)	-1.126574 u	ppm	0.031202	2.77	6057.861617	-1.126574 u
Ni (231.604 nm)	0.043548	ppm	0.001204	2.76	275.417000	0.043548
P (213.618 nm)	2.999160	ppm	0.001067	0.04	6367.340000	2.999160
Pb (220.353 nm)	0.009400	ppm	0.002488	26.46	16.038300	0.009400
S (181.972 nm)	0.102245	ppm	0.007188	7.03	62.253423	0.102245
Sb (206.834 nm)	0.019420	ppm	0.002975	15.32	49.101200	0.019420
Se (196.026 nm)	0.019194	ppm	0.004460	23.24	24.819800	0.019194
Si (288.158 nm)	0.502785	ppm	0.002599	0.52	4264.750000	0.502785
Sn (189.925 nm)	0.106661	ppm	0.000729	0.68	180.122000	0.106661
Sr (421.552 nm)	0.009712	ppm	0.000130	1.34	1797.405973	0.009712
Th (288.505 nm)	0.004796 Q	ppm	0.003282	68.43	109.346000 Q	0.004796 Q
Ti (336.122 nm)	0.010252	ppm	0.000065	0.64	988.318000	0.010252
Tl (190.794 nm)	0.016860	ppm	0.000597	3.54	20.280800	0.016860
U (409.013 nm)	0.054476	ppm	0.005035	9.24	264.420000	0.054476
V (292.401 nm)	0.010180	ppm	0.000377	3.70	329.404000	0.010180
Zn (206.200 nm)	0.021629	ppm	0.000414	1.91	110.289000	0.021629
Zr (343.823 nm)	0.017664 Q	ppm	0.001002	5.67	1658.120000 Q	0.017664 Q

Solution Name: ICSA-8216097

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
ICSA-8216097	5/13/2024 2:33:12 PM	3:7	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.002221	ppm	0.000011	0.51	-71.122697	0.002221
Ag (328.068 nm)	0.001458	ppm	0.000080	5.49	23.262600	0.001458
Al (167.019 nm)	307.959000 o	ppm	1.552100	0.50	150840.000000	307.959000 o
Al H (396.152 nm)	540.379649 o	ppm	2.098690	0.39	1137666.258120	540.379649 o
As (188.980 nm)	0.001793 u	ppm	0.003828	> 100.00	-2.481190	0.001793 u
B (249.678 nm)	0.001550	ppm	0.000200	12.89	-165.977000	0.001550
Ba (493.408 nm)	0.003468 K	ppm	0.000127	3.66	267.856000 K	0.003468 K
Be (234.861 nm)	0.000362	ppm	0.000118	32.53	2174.860000	0.000362
Bi (223.061 nm)	0.007599	ppm	0.001704	22.43	15.469000	0.007599
Ca (315.887 nm)	522.623005 o	ppm	1.904714	0.36	467590.166926	522.623005 o
Cd (214.439 nm)	-0.000477 u	ppm	0.000113	23.67	123.685000	-0.000477 u
Co (228.615 nm)	-0.001858 u	ppm	0.000072	3.89	-44.138300	-0.001858 u
Cr (205.560 nm)	0.002246	ppm	0.000678	30.17	2.870160	0.002246
Cu (324.754 nm)	0.000766	ppm	0.000298	38.88	1123.970000	0.000766
Fe (238.204 nm)	198.887852 o	ppm	0.920012	0.46	680136.609830	198.887852 o
Fe H (259.940 nm)	200.552000	ppm	0.821565	0.41	380735.000000	200.552000
K (766.491 nm)	-0.143480 u	ppm	0.093495	65.16	-1511.140000	-0.143480 u
Li (670.783 nm)	0.007746 S	ppm	0.005695	73.52	-623.305000 S	0.007746 S
Mg (279.078 nm)	533.523000 o	ppm	0.566177	0.11	2560470.000000	533.523000 o
Mn (257.610 nm)	0.000580	ppm	0.000032	5.56	143.958000	0.000580
Mo (202.032 nm)	-0.000551 u	ppm	0.000494	89.65	3.402070	-0.000551 u
Na (589.592 nm)	-0.085455 u	ppm	0.004331	5.07	2228.560000	-0.085455 u
Na H (589.593 nm)	-1.374199 u	ppm	0.010159	0.74	5316.496188	-1.374199 u
Ni (231.604 nm)	0.000976	ppm	0.001485	> 100.00	25.735300	0.000976
P (213.618 nm)	0.007017 u	ppm	0.006571	93.65	25.297200	0.007017 u
Pb (220.353 nm)	0.002564	ppm	0.001007	39.28	-180.672000	0.002564
S (181.972 nm)	-0.000634 u	ppm	0.006707	> 100.00	19.648206	-0.000634 u
Sb (206.834 nm)	0.006611	ppm	0.002179	32.96	-11.061700	0.006611
Se (196.026 nm)	-0.000064 u	ppm	0.006581	> 100.00	-13.998300	-0.000064 u
Si (288.158 nm)	0.018766	ppm	0.001715	9.14	950.036000	0.018766
Sn (189.925 nm)	0.001695	ppm	0.001619	95.51	14.106700	0.001695
Sr (421.552 nm)	0.003569 K	ppm	0.000115	3.22	672.330103 K	0.003569 K
Th (288.505 nm)	0.038257 K	ppm	0.003621	9.46	165.933000 K	0.038257 K
Ti (336.122 nm)	0.000823	ppm	0.000132	15.98	1153.900000	0.000823
Tl (190.794 nm)	0.000169 u	ppm	0.002906	> 100.00	-11.033600	0.000169 u
U (409.013 nm)	0.023789	ppm	0.003813	16.03	222.332000	0.023789
V (292.401 nm)	0.000226 u	ppm	0.000349	> 100.00	46.297600	0.000226 u
Zn (206.200 nm)	0.001595	ppm	0.001263	79.21	15.698300	0.001595
Zr (343.823 nm)	-0.001152 u	ppm	0.000092	8.00	299.768000	-0.001152 u

Solution Name: ICSAB-8232371

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
ICSAB-8232371	5/13/2024 2:37:01 PM	3:8	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.178972	ppm	0.001986	0.17	1523874.795571	1.178972
Ag (328.068 nm)	1.101320 o	ppm	0.002183	0.20	41964.400000	1.101320 o
Al (167.019 nm)	305.360000 o	ppm	0.699138	0.23	149567.000000	305.360000 o
Al H (396.152 nm)	537.916535 o	ppm	2.650022	0.49	1132548.867595	537.916535 o
As (188.980 nm)	1.041220	ppm	0.009441	0.91	1108.540000	1.041220
B (249.678 nm)	10.349000 o	ppm	0.024525	0.24	229973.000000	10.349000 o
Ba (493.408 nm)	1.019600	ppm	0.004347	0.43	88539.300000	1.019600
Be (234.861 nm)	0.520605	ppm	0.000772	0.15	132917.000000	0.520605
Bi (223.061 nm)	0.005617 G	ppm	0.002315	41.22	11.860200 G	0.005617 G
Ca (315.887 nm)	518.247722 o	ppm	0.890222	0.17	463675.261186	518.247722 o
Cd (214.439 nm)	1.001740	ppm	0.003505	0.35	51920.100000	1.001740
Co (228.615 nm)	0.939907	ppm	0.003631	0.39	14338.800000	0.939907
Cr (205.560 nm)	1.038760	ppm	0.002512	0.24	12206.000000	1.038760
Cu (324.754 nm)	0.995567	ppm	0.002506	0.25	51417.800000	0.995567
Fe (238.204 nm)	197.621041 o	ppm	0.577735	0.29	675804.705563	197.621041 o
Fe H (259.940 nm)	199.023000	ppm	0.293935	0.15	377831.000000	199.023000
K (766.491 nm)	10.555500	ppm	0.114821	1.09	5683.760000	10.555500
Li (670.783 nm)	1.058900 S	ppm	0.004857	0.46	18136.700000 S	1.058900 S
Mg (279.078 nm)	532.124000 o	ppm	0.303121	0.06	2553760.000000	532.124000 o
Mn (257.610 nm)	0.998765	ppm	0.001535	0.15	192045.000000	0.998765
Mo (202.032 nm)	1.028900	ppm	0.003597	0.35	7004.730000	1.028900
Na (589.592 nm)	10.637600	ppm	0.005364	0.05	50299.300000	10.637600
Na H (589.593 nm)	9.375808	ppm	0.100155	1.07	38681.097605	9.375808
Ni (231.604 nm)	0.986799	ppm	0.002808	0.28	5808.180000	0.986799
P (213.618 nm)	10.366100	ppm	0.042150	0.41	21908.800000	10.366100
Pb (220.353 nm)	0.958569	ppm	0.002780	0.29	2071.840000	0.958569
S (181.972 nm)	10.929812	ppm	0.051140	0.47	4542.263188	10.929812
Sb (206.834 nm)	1.095740	ppm	0.002012	0.18	2361.450000	1.095740
Se (196.026 nm)	1.024640	ppm	0.000629	0.06	877.141000	1.024640
Si (288.158 nm)	10.880600	ppm	0.037219	0.34	74921.300000	10.880600
Sn (189.925 nm)	1.033480	ppm	0.003375	0.33	1680.090000	1.033480
Sr (421.552 nm)	0.980188	ppm	0.004098	0.42	179509.422983	0.980188
Th (288.505 nm)	0.037117 G	ppm	0.004287	11.55	195.474000 G	0.037117 G
Ti (336.122 nm)	1.045430	ppm	0.002245	0.21	113750.000000	1.045430
Tl (190.794 nm)	1.026700	ppm	0.000835	0.08	1676.970000	1.026700
U (409.013 nm)	0.029934	ppm	0.003766	12.58	190.794000	0.029934
V (292.401 nm)	1.021450	ppm	0.002170	0.21	29652.600000	1.021450
Zn (206.200 nm)	0.945222	ppm	0.001296	0.14	4470.930000	0.945222
Zr (343.823 nm)	0.913853	ppm	0.019389	2.12	85838.000000	0.913853

Solution Name: LRA-8254108

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LRA-8254108	5/13/2024 2:40:54 PM	3:9	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000341	ppm	0.000045	13.12	-2505.083589	0.000341
Ag (328.068 nm)	-0.000589 u	ppm	0.000179	30.34	-2034.580000	-0.000589 u
Al (167.019 nm)	-0.019455 u	ppm	0.006788	34.89	361.430000	-0.019455 u
Al H (396.152 nm)	-0.023580 u	ppm	0.004085	17.32	383.624797	-0.023580 u
As (188.980 nm)	9.892070 o	ppm	0.042840	0.43	10561.600000	9.892070 o
B (249.678 nm)	9.923430 o	ppm	0.029404	0.30	220217.000000	9.923430 o
Ba (493.408 nm)	12.396700 o	ppm	0.114665	0.92	1076880.000000	12.396700 o
Be (234.861 nm)	0.000293	ppm	0.000331	> 100.00	5160.770000	0.000293
Bi (223.061 nm)	0.002319 u	ppm	0.004038	> 100.00	5.853150	0.002319 u
Ca (315.887 nm)	0.023650	ppm	0.001636	6.92	-20.139815	0.023650
Cd (214.439 nm)	2.159600 o	ppm	0.006565	0.30	112018.000000	2.159600 o
Co (228.615 nm)	5.138140 o	ppm	0.018298	0.36	78602.700000	5.138140 o
Cr (205.560 nm)	10.680900 o	ppm	0.028836	0.27	125683.000000	10.680900 o
Cu (324.754 nm)	9.894560 o	ppm	0.045957	0.46	501765.000000	9.894560 o
Fe (238.204 nm)	509.092242 o	ppm	3.425124	0.67	1740891.213699	509.092242 o
Fe H (259.940 nm)	506.194000	ppm	4.275810	0.84	961149.000000	506.194000
K (766.491 nm)	-0.112316 u	ppm	0.117984	> 100.00	-1490.180000	-0.112316 u
Li (670.783 nm)	0.002300 u	ppm	0.003907	> 100.00	-720.508000	0.002300 u
Mg (279.078 nm)	-0.002766 u	ppm	0.000627	22.65	-698.451000	-0.002766 u
Mn (257.610 nm)	10.224500 o	ppm	0.021465	0.21	1965700.000000	10.224500 o
Mo (202.032 nm)	5.285650 o	ppm	0.014600	0.28	35955.000000	5.285650 o
Na (589.592 nm)	2.762830	ppm	0.050615	1.83	45217.300000	2.762830
Na H (589.593 nm)	2.467252 u	ppm	0.073094	2.96	37950.279747	2.467252 u
Ni (231.604 nm)	10.761400 o	ppm	0.030476	0.28	63136.100000	10.761400 o
P (213.618 nm)	25.147400 o	ppm	0.100221	0.40	52548.300000	25.147400 o
Pb (220.353 nm)	9.956300 o	ppm	0.039511	0.40	23495.800000	9.956300 o
S (181.972 nm)	20.489241 o	ppm	0.094939	0.46	8542.714902	20.489241 o
Sb (206.834 nm)	0.003646 u	ppm	0.005325	> 100.00	248.704000	0.003646 u
Se (196.026 nm)	4.885640 o	ppm	0.026032	0.53	4203.720000	4.885640 o
Si (288.158 nm)	48.623900 o	ppm	0.141903	0.29	330599.000000	48.623900 o
Sn (189.925 nm)	-0.003598 u	ppm	0.000352	9.77	10.978000	-0.003598 u
Sr (421.552 nm)	9.787505 o	ppm	0.071563	0.73	1792291.236284	9.787505 o
Th (288.505 nm)	0.001577	ppm	0.001403	88.96	525.333000	0.001577
Ti (336.122 nm)	9.978220 o	ppm	0.030914	0.31	1075520.000000	9.978220 o
Tl (190.794 nm)	5.334680 o	ppm	0.020380	0.38	8740.460000	5.334680 o
U (409.013 nm)	-0.028751 u	ppm	0.007807	27.15	323.774000	-0.028751 u
V (292.401 nm)	10.288800 o	ppm	0.022713	0.22	298334.000000	10.288800 o
Zn (206.200 nm)	9.890170 o	ppm	0.025900	0.26	46703.500000	9.890170 o
Zr (343.823 nm)	0.024487	ppm	0.015300	62.48	3533.700000	0.024487

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/13/2024 2:45:04 PM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000322	ppm	0.000011	3.47	-2529.820947	0.000322
Ag (328.068 nm)	0.000612	ppm	0.000138	22.51	-66.231900	0.000612
Al (167.019 nm)	52.100900 o	ppm	0.288618	0.55	25533.600000	52.100900 o
Al H (396.152 nm)	50.780624	ppm	0.296753	0.58	106965.454539	50.780624
As (188.980 nm)	0.000531 u	ppm	0.000912	> 100.00	-0.436301	0.000531 u
B (249.678 nm)	0.020828	ppm	0.002297	11.03	477.721000	0.020828
Ba (493.408 nm)	0.001489	ppm	0.000197	13.21	95.941700	0.001489
Be (234.861 nm)	0.000092	ppm	0.000058	63.40	546.218000	0.000092
Bi (223.061 nm)	0.003900	ppm	0.000324	8.32	8.732310	0.003900
Ca (315.887 nm)	-0.004374 u	ppm	0.018913	> 100.00	-45.214994	-0.004374 u
Cd (214.439 nm)	-0.000216 u	ppm	0.000071	32.74	17.866600	-0.000216 u
Co (228.615 nm)	-0.000347 u	ppm	0.000453	> 100.00	-21.089600	-0.000347 u
Cr (205.560 nm)	0.000789	ppm	0.000277	35.07	16.270400	0.000789
Cu (324.754 nm)	0.004076	ppm	0.000289	7.09	2248.100000	0.004076
Fe (238.204 nm)	52.184700 o	ppm	0.363921	0.70	178480.123882	52.184700 o
Fe H (259.940 nm)	51.646200	ppm	0.318386	0.62	97963.600000	51.646200
K (766.491 nm)	-0.177747 u	ppm	0.156870	88.25	-1534.180000	-0.177747 u
Li (670.783 nm)	0.003356	ppm	0.001505	44.84	-701.660000	0.003356
Mg (279.078 nm)	-0.011404 u	ppm	0.003019	26.47	-168.040000	-0.011404 u
Mn (257.610 nm)	0.000112	ppm	0.000060	53.35	53.892200	0.000112
Mo (202.032 nm)	0.007875	ppm	0.003029	38.46	60.706300	0.007875
Na (589.592 nm)	240.900000	ppm	0.896514	0.37	1025610.000000	240.900000
Na H (589.593 nm)	235.540284	ppm	1.941303	0.82	702078.344502	235.540284
Ni (231.604 nm)	-0.000354 u	ppm	0.000363	> 100.00	17.937100	-0.000354 u
P (213.618 nm)	5.004360	ppm	0.003690	0.07	10618.300000	5.004360
Pb (220.353 nm)	-0.005158 u	ppm	0.001465	28.41	-27.451600	-0.005158 u
S (181.972 nm)	5.235474	ppm	0.010422	0.20	2182.896267	5.235474
Sb (206.834 nm)	0.000276 u	ppm	0.002071	> 100.00	-6.682260	0.000276 u
Se (196.026 nm)	0.003614	ppm	0.001632	45.15	5.484910	0.003614
Si (288.158 nm)	0.028300	ppm	0.005885	20.79	1013.680000	0.028300
Sn (189.925 nm)	0.000455 u	ppm	0.001054	> 100.00	9.540760	0.000455 u
Sr (421.552 nm)	0.000306	ppm	0.000109	35.48	74.926550	0.000306
Th (288.505 nm)	4.944800	ppm	0.066038	1.34	9690.680000	4.944800
Ti (336.122 nm)	0.001655	ppm	0.000233	14.08	61.204300	0.001655
Tl (190.794 nm)	-0.005388 u	ppm	0.000909	16.87	-17.352700	-0.005388 u
U (409.013 nm)	2.503220	ppm	0.006020	0.24	8399.970000	2.503220
V (292.401 nm)	-0.000037 u	ppm	0.000138	> 100.00	257.871000	-0.000037 u
Zn (206.200 nm)	0.001499	ppm	0.000214	14.28	15.243500	0.001499
Zr (343.823 nm)	-0.000768 u	ppm	0.000264	34.33	39.047200	-0.000768 u

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/13/2024 2:48:54 PM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.462524	ppm	0.001088	0.24	596042.666070	0.462524
Ag (328.068 nm)	0.508240	ppm	0.000520	0.10	19348.000000	0.508240
Al (167.019 nm)	0.547817	ppm	0.005599	1.02	270.979000	0.547817
Al H (396.152 nm)	0.489977 u	ppm	0.010820	2.21	1150.053134	0.489977 u
As (188.980 nm)	0.501464	ppm	0.000787	0.16	536.134000	0.501464
B (249.678 nm)	0.498933	ppm	0.001478	0.30	11202.100000	0.498933
Ba (493.408 nm)	0.504584	ppm	0.004372	0.87	43800.000000	0.504584
Be (234.861 nm)	0.504066	ppm	0.003150	0.62	126716.000000	0.504066
Bi (223.061 nm)	1.045490	ppm	0.006629	0.63	1905.770000	1.045490
Ca (315.887 nm)	5.152842	ppm	0.022076	0.43	4569.347266	5.152842
Cd (214.439 nm)	0.539353	ppm	0.000419	0.08	27864.100000	0.539353
Co (228.615 nm)	0.511801	ppm	0.001081	0.21	7798.750000	0.511801
Cr (205.560 nm)	0.535531	ppm	0.000171	0.03	6320.480000	0.535531
Cu (324.754 nm)	0.476013	ppm	0.001199	0.25	25344.600000	0.476013
Fe (238.204 nm)	2.585523	ppm	0.013110	0.51	8874.028958	2.585523
Fe H (259.940 nm)	2.638400 u	ppm	0.019061	0.72	4897.890000	2.638400 u
K (766.491 nm)	49.742100	ppm	0.333568	0.67	32036.200000	49.742100
Li (670.783 nm)	0.491882	ppm	0.003537	0.72	8017.070000	0.491882
Mg (279.078 nm)	20.430200	ppm	0.015527	0.08	98069.400000	20.430200
Mn (257.610 nm)	0.521542	ppm	0.000734	0.14	100299.000000	0.521542
Mo (202.032 nm)	0.531424	ppm	0.001603	0.30	3621.380000	0.531424
Na (589.592 nm)	24.793700	ppm	0.160903	0.65	109134.000000	24.793700
Na H (589.593 nm)	22.272080	ppm	0.241168	1.08	75723.854156	22.272080
Ni (231.604 nm)	0.537090	ppm	0.000529	0.10	3170.340000	0.537090
P (213.618 nm)	0.020885	ppm	0.002327	11.14	16.968200	0.020885
Pb (220.353 nm)	0.506358	ppm	0.002560	0.51	1186.490000	0.506358
S (181.972 nm)	-0.012234 u	ppm	0.000595	4.86	18.352568	-0.012234 u
Sb (206.834 nm)	0.534244	ppm	0.001326	0.25	1171.070000	0.534244
Se (196.026 nm)	0.499058	ppm	0.002812	0.56	441.810000	0.499058
Si (288.158 nm)	5.151100	ppm	0.017109	0.33	35919.200000	5.151100
Sn (189.925 nm)	0.535937	ppm	0.000420	0.08	873.311000	0.535937
Sr (421.552 nm)	0.482815	ppm	0.004474	0.93	88431.227143	0.482815
Th (288.505 nm)	0.107694	ppm	0.051190	47.53	316.827000	0.107694
Ti (336.122 nm)	0.507911	ppm	0.000371	0.07	54646.300000	0.507911
Tl (190.794 nm)	0.534145	ppm	0.001080	0.20	871.004000	0.534145
U (409.013 nm)	-0.003283 u	ppm	0.011236	> 100.00	49.084300	-0.003283 u
V (292.401 nm)	0.514944	ppm	0.000448	0.09	14970.700000	0.514944
Zn (206.200 nm)	0.501463	ppm	0.001680	0.34	2375.770000	0.501463
Zr (343.823 nm)	0.466080	ppm	0.010315	2.21	43581.200000	0.466080

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/13/2024 2:52:40 PM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	-0.000089 u	ppm	0.000029	32.92	-3062.585405	-0.000089 u
Ag (328.068 nm)	0.000017 u	ppm	0.000331	> 100.00	-31.506200	0.000017 u
Al (167.019 nm)	-0.001763 u	ppm	0.002676	> 100.00	0.176394	-0.001763 u
Al H (396.152 nm)	-0.033356 u	ppm	0.007690	23.05	11.437519	-0.033356 u
As (188.980 nm)	-0.002268 u	ppm	0.002230	98.32	-2.222340	-0.002268 u
B (249.678 nm)	0.007510	ppm	0.000349	4.65	257.955000	0.007510
Ba (493.408 nm)	0.000291 u	ppm	0.000280	96.18	-8.096680	0.000291 u
Be (234.861 nm)	0.000012 u	ppm	0.000024	> 100.00	-28.156100	0.000012 u
Bi (223.061 nm)	0.000660 u	ppm	0.002201	> 100.00	2.831880	0.000660 u
Ca (315.887 nm)	0.002053 u	ppm	0.009092	> 100.00	-39.464854	0.002053 u
Cd (214.439 nm)	0.000084 u	ppm	0.000085	> 100.00	-9.068620	0.000084 u
Co (228.615 nm)	0.000245	ppm	0.000161	65.97	-12.088100	0.000245
Cr (205.560 nm)	0.000332	ppm	0.000140	42.28	21.766700	0.000332
Cu (324.754 nm)	0.002614	ppm	0.000425	16.26	1389.840000	0.002614
Fe (238.204 nm)	0.002964	ppm	0.000713	24.04	42.881397	0.002964
Fe H (259.940 nm)	0.074273 u	ppm	0.001445	1.95	28.617900	0.074273 u
K (766.491 nm)	-0.112815 u	ppm	0.090371	80.11	-1490.520000	-0.112815 u
Li (670.783 nm)	-0.003523 Su	ppm	0.000610	17.32	-824.428000 S	-0.003523 Su
Mg (279.078 nm)	0.002163 u	ppm	0.001972	91.18	24.685900	0.002163 u
Mn (257.610 nm)	0.000088	ppm	0.000031	35.57	49.370900	0.000088
Mo (202.032 nm)	0.001647	ppm	0.000519	31.48	18.351200	0.001647
Na (589.592 nm)	-0.168300 u	ppm	0.011947	7.10	1870.400000	-0.168300 u
Na H (589.593 nm)	-2.362348 u	ppm	0.019106	0.81	2405.975123	-2.362348 u
Ni (231.604 nm)	-0.000388 u	ppm	0.001486	> 100.00	17.733800	-0.000388 u
P (213.618 nm)	-0.000039 u	ppm	0.001871	> 100.00	9.932630	-0.000039 u
Pb (220.353 nm)	-0.000626 u	ppm	0.001829	> 100.00	-7.652260	-0.000626 u
S (181.972 nm)	-0.005359 u	ppm	0.005744	> 100.00	17.700525	-0.005359 u
Sb (206.834 nm)	0.000398 u	ppm	0.003350	> 100.00	8.016640	0.000398 u
Se (196.026 nm)	-0.001077 u	ppm	0.001566	> 100.00	7.198510	-0.001077 u
Si (288.158 nm)	0.005285	ppm	0.001473	27.87	857.382000	0.005285
Sn (189.925 nm)	0.000068 u	ppm	0.003071	> 100.00	8.005410	0.000068 u
Sr (421.552 nm)	0.000180	ppm	0.000049	27.43	51.869394	0.000180
Th (288.505 nm)	-0.003692 u	ppm	0.000878	23.78	91.656800	-0.003692 u
Ti (336.122 nm)	0.000283	ppm	0.000026	9.15	-86.786200	0.000283
Tl (190.794 nm)	0.001271 u	ppm	0.001860	> 100.00	-5.357880	0.001271 u
U (409.013 nm)	-0.003831 u	ppm	0.010313	> 100.00	72.495000	-0.003831 u
V (292.401 nm)	0.000103 u	ppm	0.000245	> 100.00	40.141200	0.000103 u
Zn (206.200 nm)	-0.000109 u	ppm	0.000317	> 100.00	7.655600	-0.000109 u
Zr (343.823 nm)	0.000187	ppm	0.000082	43.55	22.770000	0.000187

Solution Name: CCVL-8338326

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVL-8338326	5/13/2024 2:56:16 PM	S1:3	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.014947	ppm	0.000032	0.21	16409.740903	0.014947
Ag (328.068 nm)	0.009834	ppm	0.000299	3.04	342.775000	0.009834
Al (167.019 nm)	0.105977	ppm	0.004047	3.82	52.973800	0.105977
Al H (396.152 nm)	0.074657 u	ppm	0.005453	7.30	240.154798	0.074657 u
As (188.980 nm)	0.013705	ppm	0.002994	21.84	14.848100	0.013705
B (249.678 nm)	0.102599	ppm	0.000437	0.43	2372.710000	0.102599
Ba (493.408 nm)	0.010742	ppm	0.000264	2.46	899.695000	0.010742
Be (234.861 nm)	0.001019	ppm	0.000028	2.70	225.237000	0.001019
Bi (223.061 nm)	-0.001061 Qu	ppm	0.001215	> 100.00	-0.302789 Q	-0.001061 Qu
Ca (315.887 nm)	0.217958	ppm	0.004412	2.02	153.721985	0.217958
Cd (214.439 nm)	0.005596	ppm	0.000059	1.06	275.921000	0.005596
Co (228.615 nm)	0.010518	ppm	0.000305	2.90	144.724000	0.010518
Cr (205.560 nm)	0.011032	ppm	0.000255	2.32	147.753000	0.011032
Cu (324.754 nm)	0.016347	ppm	0.000335	2.05	2080.570000	0.016347
Fe (238.204 nm)	0.109034	ppm	0.003860	3.54	405.590293	0.109034
Fe H (259.940 nm)	0.175615 u	ppm	0.003035	1.73	221.065000	0.175615 u
K (766.491 nm)	2.863090	ppm	0.136489	4.77	510.738000	2.863090
Li (670.783 nm)	0.023575	ppm	0.002775	11.77	-340.816000	0.023575
Mg (279.078 nm)	0.208526	ppm	0.002179	1.04	1013.600000	0.208526
Mn (257.610 nm)	0.010713	ppm	0.000071	0.66	2092.010000	0.010713
Mo (202.032 nm)	0.021166	ppm	0.000383	1.81	151.095000	0.021166
Na (589.592 nm)	0.811151	ppm	0.016173	1.99	6055.580000	0.811151
Na H (589.593 nm)	-1.386914 u	ppm	0.033122	2.39	5292.516630	-1.386914 u
Ni (231.604 nm)	0.043737	ppm	0.000583	1.33	276.518000	0.043737
P (213.618 nm)	2.952390	ppm	0.009286	0.31	6268.190000	2.952390
Pb (220.353 nm)	0.009797	ppm	0.002769	28.26	16.982400	0.009797
S (181.972 nm)	0.086266	ppm	0.008146	9.44	55.658039	0.086266
Sb (206.834 nm)	0.020013	ppm	0.002430	12.14	50.381000	0.020013
Se (196.026 nm)	0.020649	ppm	0.002272	11.00	26.082500	0.020649
Si (288.158 nm)	0.500373	ppm	0.001667	0.33	4249.210000	0.500373
Sn (189.925 nm)	0.108871	ppm	0.001433	1.32	183.690000	0.108871
Sr (421.552 nm)	0.009668	ppm	0.000115	1.19	1789.286366	0.009668
Th (288.505 nm)	0.004286 Q	ppm	0.002201	51.35	108.422000 Q	0.004286 Q
Ti (336.122 nm)	0.010198	ppm	0.000163	1.59	982.529000	0.010198
Tl (190.794 nm)	0.015780	ppm	0.001385	8.78	18.501700	0.015780
U (409.013 nm)	0.063440	ppm	0.008023	12.65	294.121000	0.063440
V (292.401 nm)	0.010147	ppm	0.000225	2.22	328.406000	0.010147
Zn (206.200 nm)	0.020818	ppm	0.000241	1.16	106.456000	0.020818
Zr (343.823 nm)	0.016566 Q	ppm	0.000696	4.20	1555.530000 Q	0.016566 Q

Solution Name: 550-217859-D-2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217859-D-2-A	5/13/2024 7:05:25 PM	1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.244088	ppm	0.000657	0.27	313157.936278	0.244088
Ag (328.068 nm)	0.001511	ppm	0.000248	16.39	24.597100	0.001511
Al (167.019 nm)	0.130694	ppm	0.005203	3.98	65.123100	0.130694
Al H (396.152 nm)	0.284994 u	ppm	0.016569	5.81	924.662250	0.284994 u
As (188.980 nm)	-0.004629 u	ppm	0.003372	72.84	-4.749930	-0.004629 u
B (249.678 nm)	3.485690 o	ppm	0.013162	0.38	77603.700000	3.485690 o
Ba (493.408 nm)	0.014734	ppm	0.000234	1.59	1246.600000	0.014734
Be (234.861 nm)	-0.000257 u	ppm	0.000008	3.09	-95.268000	-0.000257 u
Bi (223.061 nm)	-0.001137 u	ppm	0.002357	> 100.00	-0.440916	-0.001137 u
Ca (315.887 nm)	662.734431 o	ppm	3.777971	0.57	592958.761816	662.734431 o
Cd (214.439 nm)	0.000242	ppm	0.000115	47.54	-0.726430	0.000242
Co (228.615 nm)	0.012302	ppm	0.000033	0.27	172.260000	0.012302
Cr (205.560 nm)	0.002682	ppm	0.000466	17.37	49.363700	0.002682
Cu (324.754 nm)	-0.012875 u	ppm	0.000733	5.70	1161.990000	-0.012875 u
Fe (238.204 nm)	0.183616	ppm	0.001649	0.90	660.626737	0.183616
Fe H (259.940 nm)	0.248527 u	ppm	0.001223	0.49	359.526000	0.248527 u
K (766.491 nm)	16.122300	ppm	0.159237	0.99	9427.370000	16.122300
Li (670.783 nm)	0.188771	ppm	0.003229	1.71	2607.440000	0.188771
Mg (279.078 nm)	242.203000 o	ppm	0.560156	0.23	1162510.000000	242.203000 o
Mn (257.610 nm)	5.987660 o	ppm	0.005823	0.10	1151160.000000	5.987660 o
Mo (202.032 nm)	0.030715	ppm	0.000499	1.62	216.038000	0.030715
Na (589.592 nm)	1483.620000 bo	ppm	11.551300	0.78	6303040.000000	1483.620000 bo
Na H (589.593 nm)	1570.813189 bo	ppm	27.461107	1.75	4629135.732937	1570.813189 bo
Ni (231.604 nm)	0.016918	ppm	0.000728	4.30	119.238000	0.016918
P (213.618 nm)	0.018959	ppm	0.000936	4.94	49.649700	0.018959
Pb (220.353 nm)	-0.000706 u	ppm	0.001453	> 100.00	-8.105360	-0.000706 u
S (181.972 nm)	983.165515 bo	ppm	1.339689	0.14	406212.477587	983.165515 bo
Sb (206.834 nm)	0.002275 u	ppm	0.003748	> 100.00	12.013200	0.002275 u
Se (196.026 nm)	0.000655 u	ppm	0.006836	> 100.00	13.376600	0.000655 u
Si (288.158 nm)	5.075150	ppm	0.017417	0.34	35179.700000	5.075150
Sn (189.925 nm)	-0.001365 u	ppm	0.001295	94.87	5.695880	-0.001365 u
Sr (421.552 nm)	9.515322 o	ppm	0.130913	1.38	1742449.544202	9.515322 o
Th (288.505 nm)	0.088441	ppm	0.003715	4.20	360.207000	0.088441
Ti (336.122 nm)	0.024540	ppm	0.000152	0.62	4027.660000	0.024540
Tl (190.794 nm)	0.003891	ppm	0.003055	78.50	-1.135760	0.003891
U (409.013 nm)	-0.016810 u	ppm	0.005999	35.68	-62.438900	-0.016810 u
V (292.401 nm)	0.006825	ppm	0.000516	7.56	247.170000	0.006825
Zn (206.200 nm)	0.001609	ppm	0.000903	56.11	15.763500	0.001609
Zr (343.823 nm)	0.000931	ppm	0.000057	6.17	114.580000	0.000931

Solution Name: 550-217859-D-2-A SD@5

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217859-D-2-A SD@5	5/13/2024 10:18:27 PM	1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.039848	ppm	0.000063	0.16	48657.620187	0.039848
Ag (328.068 nm)	0.000973	ppm	0.000246	25.26	4.978480	0.000973
Al (167.019 nm)	0.024690	ppm	0.002641	10.70	13.185800	0.024690
Al H (396.152 nm)	0.046328 u	ppm	0.006241	13.47	228.512419	0.046328 u
As (188.980 nm)	-0.003871 u	ppm	0.001496	38.64	-3.938200	-0.003871 u
B (249.678 nm)	0.682809	ppm	0.001190	0.17	15274.800000	0.682809
Ba (493.408 nm)	0.003030	ppm	0.000223	7.37	229.816000	0.003030
Be (234.861 nm)	-0.000042 u	ppm	0.000026	62.16	-40.854200	-0.000042 u
Bi (223.061 nm)	-0.002783 u	ppm	0.001066	38.31	-3.438310	-0.002783 u
Ca (315.887 nm)	134.828819 o	ppm	1.173228	0.87	120600.533659	134.828819 o
Cd (214.439 nm)	0.000103	ppm	0.000040	38.59	-7.990280	0.000103
Co (228.615 nm)	0.002273	ppm	0.000098	4.29	18.933900	0.002273
Cr (205.560 nm)	0.000424 u	ppm	0.000383	90.31	22.826500	0.000424 u
Cu (324.754 nm)	-0.001854 u	ppm	0.000133	7.15	1282.670000	-0.001854 u
Fe (238.204 nm)	0.092570	ppm	0.001311	1.42	349.291094	0.092570
Fe H (259.940 nm)	0.160085 u	ppm	0.003879	2.42	191.575000	0.160085 u
K (766.491 nm)	3.099900	ppm	0.069081	2.23	669.988000	3.099900
Li (670.783 nm)	0.051460	ppm	0.001224	2.38	156.843000	0.051460
Mg (279.078 nm)	48.870000 o	ppm	0.021013	0.04	234574.000000	48.870000 o
Mn (257.610 nm)	1.227750 o	ppm	0.000629	0.05	236068.000000	1.227750 o
Mo (202.032 nm)	0.005342	ppm	0.001735	32.48	43.481700	0.005342
Na (589.592 nm)	326.798000	ppm	1.458440	0.45	1390390.000000	326.798000
Na H (589.593 nm)	310.419250	ppm	3.359607	1.08	922300.629713	310.419250
Ni (231.604 nm)	0.001023 u	ppm	0.001132	> 100.00	26.013900	0.001023 u
P (213.618 nm)	0.004145	ppm	0.001129	27.23	18.794400	0.004145
Pb (220.353 nm)	-0.001384 u	ppm	0.002335	> 100.00	-9.513220	-0.001384 u
S (181.972 nm)	202.798121 bo	ppm	0.108269	0.05	83805.479825	202.798121 bo
Sb (206.834 nm)	0.000396 u	ppm	0.001453	> 100.00	8.017320	0.000396 u
Se (196.026 nm)	-0.000176 u	ppm	0.005618	> 100.00	8.929910	-0.000176 u
Si (288.158 nm)	0.991032	ppm	0.001962	0.20	7530.330000	0.991032
Sn (189.925 nm)	-0.001605 u	ppm	0.001668	> 100.00	5.306740	-0.001605 u
Sr (421.552 nm)	1.929982 o	ppm	0.023725	1.23	353434.060902	1.929982 o
Th (288.505 nm)	0.030820	ppm	0.005133	16.65	176.769000	0.030820
Ti (336.122 nm)	0.004776	ppm	0.000078	1.64	702.852000	0.004776
Tl (190.794 nm)	0.002818	ppm	0.002883	> 100.00	-2.825730	0.002818
U (409.013 nm)	-0.009482 u	ppm	0.007582	79.96	35.108800	-0.009482 u
V (292.401 nm)	0.000627	ppm	0.000292	46.61	60.320100	0.000627
Zn (206.200 nm)	0.001127	ppm	0.000646	57.35	13.488100	0.001127
Zr (343.823 nm)	0.000027 u	ppm	0.000180	> 100.00	12.289300	0.000027 u

Solution Name: 550-217859-D-2-B MS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217859-D-2-B MS	5/13/2024 10:22:51 PM	1:3	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.654840	ppm	0.003468	0.21	2140144.166567	1.654840
Ag (328.068 nm)	0.053206	ppm	0.000134	0.25	1905.760000	0.053206
Al (167.019 nm)	10.040300 o	ppm	0.047503	0.47	4921.510000	10.040300 o
Al H (396.152 nm)	10.704197	ppm	0.071649	0.67	22913.522710	10.704197
As (188.980 nm)	1.063610	ppm	0.006051	0.57	1136.810000	1.063610
B (249.678 nm)	5.571230 o	ppm	0.018744	0.34	124003.000000	5.571230 o
Ba (493.408 nm)	1.012200	ppm	0.005628	0.56	87896.700000	1.012200
Be (234.861 nm)	1.014950	ppm	0.009676	0.95	255245.000000	1.014950
Bi (223.061 nm)	0.003217	ppm	0.001125	34.96	7.488580	0.003217
Ca (315.887 nm)	706.218404 o	ppm	3.911892	0.55	631867.256564	706.218404 o
Cd (214.439 nm)	0.976469	ppm	0.000761	0.08	50461.800000	0.976469
Co (228.615 nm)	0.975022	ppm	0.002476	0.25	14862.600000	0.975022
Cr (205.560 nm)	1.013460	ppm	0.001085	0.11	11943.600000	1.013460
Cu (324.754 nm)	0.967887	ppm	0.006100	0.63	50726.800000	0.967887
Fe (238.204 nm)	10.278589 o	ppm	0.046830	0.46	35180.735568	10.278589 o
Fe H (259.940 nm)	10.319900	ppm	0.058800	0.57	19485.000000	10.319900
K (766.491 nm)	82.119200	ppm	0.612995	0.75	53809.400000	82.119200
Li (670.783 nm)	1.431060 o	ppm	0.012153	0.85	24778.500000	1.431060 o
Mg (279.078 nm)	295.736000 o	ppm	0.333176	0.11	1419440.000000	295.736000 o
Mn (257.610 nm)	6.912480 o	ppm	0.008118	0.12	1328960.000000	6.912480 o
Mo (202.032 nm)	0.674994	ppm	0.002037	0.30	4597.800000	0.674994
Na (589.592 nm)	1624.400000 bo	ppm	12.880100	0.79	6903400.000000	1624.400000 bo
Na H (589.593 nm)	1612.511849 bo	ppm	19.710713	1.22	4753486.400240	1612.511849 bo
Ni (231.604 nm)	1.010530	ppm	0.002036	0.20	5947.270000	1.010530
P (213.618 nm)	21.176000 o	ppm	0.054956	0.26	44826.200000	21.176000 o
Pb (220.353 nm)	0.943396	ppm	0.002245	0.24	2213.820000	0.943396
S (181.972 nm)	1002.014987 bo	ppm	0.770148	0.08	414006.597089	1002.014987 bo
Sb (206.834 nm)	0.669429	ppm	0.001631	0.24	1475.110000	0.669429
Se (196.026 nm)	1.026360	ppm	0.005101	0.50	903.864000	1.026360
Si (288.158 nm)	11.575200 o	ppm	0.055477	0.48	79453.500000	11.575200 o
Sn (189.925 nm)	0.633020	ppm	0.002473	0.39	1030.200000	0.633020
Sr (421.552 nm)	10.556249 o	ppm	0.045313	0.43	1933062.358468	10.556249 o
Th (288.505 nm)	0.090286	ppm	0.003247	3.60	376.862000	0.090286
Ti (336.122 nm)	0.669374	ppm	0.001370	0.20	73637.600000	0.669374
Tl (190.794 nm)	0.962763	ppm	0.002886	0.30	1577.270000	0.962763
U (409.013 nm)	-0.011927 u	ppm	0.003086	25.88	-79.324500	-0.011927 u
V (292.401 nm)	1.024880	ppm	0.000260	0.03	29765.700000	1.024880
Zn (206.200 nm)	0.920129	ppm	0.001142	0.12	4352.450000	0.920129
Zr (343.823 nm)	0.599615	ppm	0.008856	1.48	56101.200000	0.599615

Solution Name: 550-217859-D-2-C MSD

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217859-D-2-C MSD	5/13/2024 10:27:15 PM	1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.660903	ppm	0.002983	0.18	2147996.262605	1.660903
Ag (328.068 nm)	0.054126	ppm	0.000197	0.36	2073.170000	0.054126
Al (167.019 nm)	10.094900 o	ppm	0.048009	0.48	4948.270000	10.094900 o
Al H (396.152 nm)	10.796393	ppm	0.048991	0.45	23157.829885	10.796393
As (188.980 nm)	1.057830	ppm	0.008615	0.81	1130.640000	1.057830
B (249.678 nm)	5.576120 o	ppm	0.015188	0.27	124112.000000	5.576120 o
Ba (493.408 nm)	1.019750	ppm	0.003444	0.34	88552.700000	1.019750
Be (234.861 nm)	1.001390	ppm	0.003762	0.38	251795.000000	1.001390
Bi (223.061 nm)	0.000475 u	ppm	0.001637	> 100.00	2.494070	0.000475 u
Ca (315.887 nm)	707.652751 o	ppm	2.455733	0.35	633150.677812	707.652751 o
Cd (214.439 nm)	0.985708	ppm	0.000854	0.09	50939.400000	0.985708
Co (228.615 nm)	0.978412	ppm	0.002665	0.27	14936.000000	0.978412
Cr (205.560 nm)	1.021770	ppm	0.000461	0.05	12041.900000	1.021770
Cu (324.754 nm)	0.968148	ppm	0.001626	0.17	50742.900000	0.968148
Fe (238.204 nm)	10.340300 o	ppm	0.049028	0.47	35391.757162	10.340300 o
Fe H (259.940 nm)	10.371000	ppm	0.034581	0.33	19582.000000	10.371000
K (766.491 nm)	82.461900	ppm	0.192681	0.23	54039.800000	82.461900
Li (670.783 nm)	1.431330 o	ppm	0.008908	0.62	24783.400000	1.431330 o
Mg (279.078 nm)	297.544000 o	ppm	0.457393	0.15	1428110.000000	297.544000 o
Mn (257.610 nm)	6.962410 o	ppm	0.011399	0.16	1338560.000000	6.962410 o
Mo (202.032 nm)	1.424600 o	ppm	0.004891	0.34	9695.890000	1.424600 o
Na (589.592 nm)	1588.540000 bo	ppm	5.089190	0.32	6751100.000000	1588.540000 bo
Na H (589.593 nm)	1548.557957 bo	ppm	7.358437	0.48	4565410.640992	1548.557957 bo
Ni (231.604 nm)	1.016640	ppm	0.000383	0.04	5983.130000	1.016640
P (213.618 nm)	21.150200 o	ppm	0.047047	0.22	44771.500000	21.150200 o
Pb (220.353 nm)	0.947015	ppm	0.004976	0.53	2219.540000	0.947015
S (181.972 nm)	1008.403119 bo	ppm	0.347499	0.03	416645.863289	1008.403119 bo
Sb (206.834 nm)	1.423200 o	ppm	0.001635	0.11	3094.260000	1.423200 o
Se (196.026 nm)	1.024080	ppm	0.005227	0.51	902.242000	1.024080
Si (288.158 nm)	18.633100 o	ppm	0.094833	0.51	127550.000000	18.633100 o
Sn (189.925 nm)	1.376370 o	ppm	0.005098	0.37	2230.480000	1.376370 o
Sr (421.552 nm)	10.560153 o	ppm	0.051557	0.49	1933777.418688	10.560153 o
Th (288.505 nm)	0.088954	ppm	0.006985	7.85	384.173000	0.088954
Ti (336.122 nm)	1.401910 o	ppm	0.002061	0.15	152608.000000	1.401910 o
Tl (190.794 nm)	0.970356	ppm	0.005678	0.59	1586.010000	0.970356
U (409.013 nm)	-0.008934 u	ppm	0.004612	51.63	-112.165000	-0.008934 u
V (292.401 nm)	1.030630	ppm	0.000594	0.06	29932.600000	1.030630
Zn (206.200 nm)	0.928167	ppm	0.002584	0.28	4390.410000	0.928167
Zr (343.823 nm)	1.356360 o	ppm	0.004247	0.31	126839.000000	1.356360 o

Solution Name: 550-217859-D-2-A PDS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217859-D-2-A PDS	5/13/2024 10:31:39 PM	1:5	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.372583	ppm	0.000690	0.19	479564.473280	0.372583
Ag (328.068 nm)	0.054013	ppm	0.000175	0.32	2022.150000	0.054013
Al (167.019 nm)	1.093510	ppm	0.006970	0.64	536.971000	1.093510
Al H (396.152 nm)	1.287949	ppm	0.006483	0.50	3037.362888	1.287949
As (188.980 nm)	0.200467	ppm	0.001861	0.93	214.445000	0.200467
B (249.678 nm)	3.505150 o	ppm	0.004310	0.12	78037.000000	3.505150 o
Ba (493.408 nm)	0.110923	ppm	0.001470	1.32	9602.180000	0.110923
Be (234.861 nm)	0.048206	ppm	0.000192	0.40	12098.100000	0.048206
Bi (223.061 nm)	-0.000242 u	ppm	0.001536	> 100.00	1.189250	-0.000242 u
Ca (315.887 nm)	658.250362 o	ppm	5.387963	0.82	588946.517103	658.250362 o
Cd (214.439 nm)	0.048596	ppm	0.000077	0.16	2499.170000	0.048596
Co (228.615 nm)	0.059902	ppm	0.000226	0.38	899.199000	0.059902
Cr (205.560 nm)	0.051889	ppm	0.000255	0.49	628.377000	0.051889
Cu (324.754 nm)	0.035255	ppm	0.000442	1.25	3574.090000	0.035255
Fe (238.204 nm)	1.170300	ppm	0.011701	1.00	4034.627982	1.170300
Fe H (259.940 nm)	1.247500 u	ppm	0.009223	0.74	2256.570000	1.247500 u
K (766.491 nm)	43.521000	ppm	0.162975	0.37	27852.600000	43.521000
Li (670.783 nm)	0.334733	ppm	0.002748	0.82	5212.420000	0.334733
Mg (279.078 nm)	256.361000 o	ppm	0.217514	0.08	1230450.000000	256.361000 o
Mn (257.610 nm)	5.842450 o	ppm	0.006541	0.11	1123240.000000	5.842450 o
Mo (202.032 nm)	0.081451	ppm	0.000844	1.04	561.096000	0.081451
Na (589.592 nm)	1513.810000 bo	ppm	6.088120	0.40	6431530.000000	1513.810000 bo
Na H (589.593 nm)	1445.178044 bo	ppm	15.8439 18	1.10	4259808.258048	1445.178044 bo
Ni (231.604 nm)	0.065385	ppm	0.000421	0.64	403.658000	0.065385
P (213.618 nm)	2.035820	ppm	0.002328	0.11	4321.730000	2.035820
Pb (220.353 nm)	0.091597	ppm	0.000247	0.27	210.280000	0.091597
S (181.972 nm)	962.081136 bo	ppm	0.707982	0.07	397502.045302	962.081136 bo
Sb (206.834 nm)	0.106443	ppm	0.003034	2.85	236.230000	0.106443
Se (196.026 nm)	0.196041	ppm	0.003342	1.70	183.028000	0.196041
Si (288.158 nm)	9.829560	ppm	0.015356	0.16	67405.200000	9.829560
Sn (189.925 nm)	0.099073	ppm	0.003220	3.25	167.888000	0.099073
Sr (421.552 nm)	9.325419 o	ppm	0.095338	1.02	1707674.888735	9.325419 o
Th (288.505 nm)	0.282800	ppm	0.005227	1.85	740.985000	0.282800
Ti (336.122 nm)	0.074258	ppm	0.000248	0.33	9376.790000	0.074258
Tl (190.794 nm)	0.188584	ppm	0.001434	0.76	302.961000	0.188584
U (409.013 nm)	0.491364	ppm	0.003671	0.75	1615.350000	0.491364
V (292.401 nm)	0.055602	ppm	0.000317	0.57	1650.780000	0.055602
Zn (206.200 nm)	0.183553	ppm	0.000457	0.25	874.793000	0.183553
Zr (343.823 nm)	0.080925	ppm	0.008295	10.25	7611.280000	0.080925

Solution Name: 550-217859-D-6-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217859-D-6-A	5/13/2024 10:36:04 PM	1:6	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.199700	ppm	0.000529	0.26	255673.877450	0.199700
Ag (328.068 nm)	0.000905	ppm	0.000312	34.45	2.188530	0.000905
Al (167.019 nm)	-0.004897 u	ppm	0.004376	89.34	-1.330840	-0.004897 u
Al H (396.152 nm)	0.155384 u	ppm	0.002519	1.62	686.293253	0.155384 u
As (188.980 nm)	0.000065 u	ppm	0.002618	> 100.00	0.269945	0.000065 u
B (249.678 nm)	0.351053	ppm	0.001080	0.31	7897.760000	0.351053
Ba (493.408 nm)	0.010726	ppm	0.000523	4.88	898.360000	0.010726
Be (234.861 nm)	-0.000151 u	ppm	0.000028	18.77	-69.210300	-0.000151 u
Bi (223.061 nm)	-0.001134 u	ppm	0.000692	60.99	-0.435938	-0.001134 u
Ca (315.887 nm)	760.594002 o	ppm	7.780524	1.02	680521.335030	760.594002 o
Cd (214.439 nm)	0.000083	ppm	0.000125	> 100.00	-9.076710	0.000083
Co (228.615 nm)	0.009736	ppm	0.000467	4.79	132.495000	0.009736
Cr (205.560 nm)	0.001186	ppm	0.000138	11.60	31.801900	0.001186
Cu (324.754 nm)	-0.024839 bu	ppm	0.000350	1.41	919.304000	-0.024839 bu
Fe (238.204 nm)	0.039440	ppm	0.001273	3.23	167.611540	0.039440
Fe H (259.940 nm)	0.108515 u	ppm	0.003176	2.93	93.642800	0.108515 u
K (766.491 nm)	13.516500	ppm	0.107593	0.80	7674.990000	13.516500
Li (670.783 nm)	0.189005	ppm	0.001028	0.54	2611.630000	0.189005
Mg (279.078 nm)	94.415800 o	ppm	0.087304	0.09	453179.000000	94.415800 o
Mn (257.610 nm)	4.115620 o	ppm	0.005413	0.13	791260.000000	4.115620 o
Mo (202.032 nm)	0.014112	ppm	0.000421	2.98	103.125000	0.014112
Na (589.592 nm)	1526.610000 bo	ppm	12.329400	0.81	6485630.000000	1526.610000 bo
Na H (589.593 nm)	1436.249702 bo	ppm	30.706353	2.14	4233377.607257	1436.249702 bo
Ni (231.604 nm)	0.038981	ppm	0.000849	2.18	248.623000	0.038981
P (213.618 nm)	0.009001	ppm	0.000793	8.81	28.817300	0.009001
Pb (220.353 nm)	0.000424 u	ppm	0.000398	93.91	-5.350120	0.000424 u
S (181.972 nm)	778.692809 bo	ppm	0.847649	0.11	321733.806538	778.692809 bo
Sb (206.834 nm)	-0.002971 u	ppm	0.003144	> 100.00	0.723999	-0.002971 u
Se (196.026 nm)	-0.000549 u	ppm	0.002371	> 100.00	10.918100	-0.000549 u
Si (288.158 nm)	4.427720	ppm	0.019480	0.44	30795.700000	4.427720
Sn (189.925 nm)	-0.002276 u	ppm	0.002342	> 100.00	4.221110	-0.002276 u
Sr (421.552 nm)	13.830091 bo	ppm	0.246586	1.78	2532563.233145	13.830091 bo
Th (288.505 nm)	0.070136	ppm	0.000671	0.96	296.291000	0.070136
Ti (336.122 nm)	0.001239	ppm	0.000159	12.87	1736.870000	0.001239
Tl (190.794 nm)	0.003501	ppm	0.000394	11.25	-1.679410	0.003501
U (409.013 nm)	0.003519	ppm	0.002602	73.95	-8.746630	0.003519
V (292.401 nm)	0.001143	ppm	0.000161	14.11	78.566600	0.001143
Zn (206.200 nm)	0.007533	ppm	0.000359	4.77	43.733500	0.007533
Zr (343.823 nm)	-0.000551 u	ppm	0.000088	15.92	-27.035600	-0.000551 u

Solution Name: 550-217859-D-8-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217859-D-8-A	5/13/2024 10:40:29 PM	1:7	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.195944	ppm	0.000676	0.34	250808.809546	0.195944
Ag (328.068 nm)	0.001121	ppm	0.000401	35.78	10.279600	0.001121
Al (167.019 nm)	-0.001289 u	ppm	0.003231	> 100.00	0.434157	-0.001289 u
Al H (396.152 nm)	0.149830 u	ppm	0.002911	1.94	668.424447	0.149830 u
As (188.980 nm)	-0.003800 u	ppm	0.002092	55.06	-3.860470	-0.003800 u
B (249.678 nm)	0.340141	ppm	0.000334	0.10	7655.120000	0.340141
Ba (493.408 nm)	0.010333	ppm	0.000299	2.90	864.247000	0.010333
Be (234.861 nm)	-0.000135 u	ppm	0.000025	18.31	-65.282200	-0.000135 u
Bi (223.061 nm)	-0.003458 u	ppm	0.000993	28.72	-4.667920	-0.003458 u
Ca (315.887 nm)	743.546579 o	ppm	5.984247	0.80	665267.678884	743.546579 o
Cd (214.439 nm)	0.000021 u	ppm	0.000105	> 100.00	-12.246100	0.000021 u
Co (228.615 nm)	0.009525	ppm	0.000095	1.00	129.287000	0.009525
Cr (205.560 nm)	0.001212	ppm	0.000321	26.51	32.108300	0.001212
Cu (324.754 nm)	-0.024522 bu	ppm	0.000411	1.68	911.703000	-0.024522 bu
Fe (238.204 nm)	0.038528	ppm	0.001742	4.52	164.493008	0.038528
Fe H (259.940 nm)	0.106025 u	ppm	0.003361	3.17	88.914800	0.106025 u
K (766.491 nm)	13.193700	ppm	0.125435	0.95	7457.930000	13.193700
Li (670.783 nm)	0.180512	ppm	0.005436	3.01	2460.050000	0.180512
Mg (279.078 nm)	92.068500 o	ppm	0.209938	0.23	441912.000000	92.068500 o
Mn (257.610 nm)	4.028620 o	ppm	0.008796	0.22	774535.000000	4.028620 o
Mo (202.032 nm)	0.013873	ppm	0.000437	3.15	101.495000	0.013873
Na (589.592 nm)	1492.230000 bo	ppm	5.526430	0.37	6339600.000000	1492.230000 bo
Na H (589.593 nm)	1387.109201 bo	ppm	6.194559	0.45	4088854.867028	1387.109201 bo
Ni (231.604 nm)	0.037817	ppm	0.000127	0.34	241.795000	0.037817
P (213.618 nm)	0.007809	ppm	0.001772	22.69	26.335600	0.007809
Pb (220.353 nm)	-0.001168 u	ppm	0.000979	83.83	-9.092860	-0.001168 u
S (181.972 nm)	763.735511 bo	ppm	1.581860	0.21	315554.244723	763.735511 bo
Sb (206.834 nm)	0.000133 u	ppm	0.002083	> 100.00	7.405520	0.000133 u
Se (196.026 nm)	0.000205 u	ppm	0.006630	> 100.00	11.503200	0.000205 u
Si (288.158 nm)	4.322940	ppm	0.020966	0.49	30086.600000	4.322940
Sn (189.925 nm)	0.001218	ppm	0.000535	43.90	9.863750	0.001218
Sr (421.552 nm)	13.501896 bo	ppm	0.097134	0.72	2472464.700133	13.501896 bo
Th (288.505 nm)	0.062500	ppm	0.004519	7.23	280.289000	0.062500
Ti (336.122 nm)	0.001463	ppm	0.000034	2.36	1722.700000	0.001463
Tl (190.794 nm)	0.003949	ppm	0.002532	64.13	-0.941486	0.003949
U (409.013 nm)	0.000590 u	ppm	0.015717	> 100.00	-16.091000	0.000590 u
V (292.401 nm)	0.000647	ppm	0.000178	27.45	63.229100	0.000647
Zn (206.200 nm)	0.006923	ppm	0.000147	2.12	40.855400	0.006923
Zr (343.823 nm)	-0.000493 u	ppm	0.000160	32.38	-22.046700	-0.000493 u

Solution Name: 550-217859-D-10-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217859-D-10-A	5/13/2024 10:44:53 PM	1:8	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.293417	ppm	0.000257	0.09	377040.751868	0.293417
Ag (328.068 nm)	0.001157	ppm	0.000152	13.13	11.269300	0.001157
Al (167.019 nm)	-0.002107 u	ppm	0.003022	> 100.00	0.211479	-0.002107 u
Al H (396.152 nm)	0.140366 u	ppm	0.003675	2.62	636.515809	0.140366 u
As (188.980 nm)	0.000711 u	ppm	0.002032	> 100.00	0.954908	0.000711 u
B (249.678 nm)	0.457533	ppm	0.000154	0.03	10265.500000	0.457533
Ba (493.408 nm)	0.011221	ppm	0.000082	0.73	941.405000	0.011221
Be (234.861 nm)	-0.000248 u	ppm	0.000020	7.92	-91.547200	-0.000248 u
Bi (223.061 nm)	-0.002478 u	ppm	0.000764	30.84	-2.883020	-0.002478 u
Ca (315.887 nm)	709.166787 o	ppm	4.650389	0.66	634505.404375	709.166787 o
Cd (214.439 nm)	0.000226	ppm	0.000073	32.15	-1.450990	0.000226
Co (228.615 nm)	0.016220	ppm	0.000489	3.01	231.291000	0.016220
Cr (205.560 nm)	0.001050	ppm	0.000175	16.63	30.133700	0.001050
Cu (324.754 nm)	-0.028913 bu	ppm	0.000086	0.30	801.936000	-0.028913 bu
Fe (238.204 nm)	0.283840	ppm	0.004653	1.64	1003.346294	0.283840
Fe H (259.940 nm)	0.347003 u	ppm	0.001745	0.50	546.531000	0.347003 u
K (766.491 nm)	4.639060	ppm	0.098363	2.12	1705.050000	4.639060
Li (670.783 nm)	0.263473	ppm	0.001748	0.66	3940.660000	0.263473
Mg (279.078 nm)	115.773000 o	ppm	0.655574	0.57	555684.000000	115.773000 o
Mn (257.610 nm)	6.509950 o	ppm	0.029714	0.46	1251570.000000	6.509950 o
Mo (202.032 nm)	0.022211	ppm	0.000369	1.66	158.205000	0.022211
Na (589.592 nm)	1581.610000 bo	ppm	9.782400	0.62	6719170.000000	1581.610000 bo
Na H (589.593 nm)	1471.030347 bo	ppm	10.799803	0.73	4335668.101691	1471.030347 bo
Ni (231.604 nm)	0.095167	ppm	0.000804	0.84	578.130000	0.095167
P (213.618 nm)	0.008774	ppm	0.001843	21.01	28.600400	0.008774
Pb (220.353 nm)	0.001874	ppm	0.002089	> 100.00	-1.886630	0.001874
S (181.972 nm)	809.646438 bo	ppm	2.567974	0.32	334526.523197	809.646438 bo
Sb (206.834 nm)	-0.000881 u	ppm	0.000499	56.66	5.095660	-0.000881 u
Se (196.026 nm)	-0.003700 u	ppm	0.003830	> 100.00	9.982710	-0.003700 u
Si (288.158 nm)	5.439680	ppm	0.030868	0.57	37646.200000	5.439680
Sn (189.925 nm)	-0.002001 u	ppm	0.001248	62.39	4.670590	-0.002001 u
Sr (421.552 nm)	14.332516 bo	ppm	0.125988	0.88	2624566.399709	14.332516 bo
Th (288.505 nm)	0.087954	ppm	0.008414	9.57	367.125000	0.087954
Ti (336.122 nm)	0.001167	ppm	0.000040	3.43	1612.830000	0.001167
Tl (190.794 nm)	0.002172 u	ppm	0.002142	98.59	-3.872010	0.002172 u
U (409.013 nm)	0.031662	ppm	0.007874	24.87	91.655200	0.031662
V (292.401 nm)	0.000037 u	ppm	0.000243	> 100.00	46.909100	0.000037 u
Zn (206.200 nm)	0.003311	ppm	0.000481	14.54	23.798900	0.003311
Zr (343.823 nm)	-0.000654 u	ppm	0.000060	9.19	-31.772600	-0.000654 u

Solution Name: 550-217859-D-12-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217859-D-12-A	5/13/2024 10:49:18 PM	1:9	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.341333	ppm	0.000846	0.25	439094.432757	0.341333
Ag (328.068 nm)	0.000836	ppm	0.000135	16.20	-4.873810	0.000836
Al (167.019 nm)	-0.004846 u	ppm	0.004534	93.57	-1.290650	-0.004846 u
Al H (396.152 nm)	0.140407 u	ppm	0.004962	3.53	613.196197	0.140407 u
As (188.980 nm)	-0.002948 u	ppm	0.004526	> 100.00	-2.951180	-0.002948 u
B (249.678 nm)	1.492480 o	ppm	0.003143	0.21	33281.300000	1.492480 o
Ba (493.408 nm)	0.009480	ppm	0.000195	2.05	790.171000	0.009480
Be (234.861 nm)	0.000040	ppm	0.000022	54.61	-21.169300	0.000040
Bi (223.061 nm)	-0.000720 u	ppm	0.002266	> 100.00	0.319010	-0.000720 u
Ca (315.887 nm)	645.811037 o	ppm	1.761550	0.27	577816.084996	645.811037 o
Cd (214.439 nm)	0.000760	ppm	0.000103	13.53	25.945500	0.000760
Co (228.615 nm)	0.043089	ppm	0.000216	0.50	640.690000	0.043089
Cr (205.560 nm)	0.009259	ppm	0.000129	1.39	126.862000	0.009259
Cu (324.754 nm)	0.103076 b	ppm	0.000839	0.81	7449.380000	0.103076 b
Fe (238.204 nm)	0.059778	ppm	0.002829	4.73	237.157967	0.059778
Fe H (259.940 nm)	0.126144 u	ppm	0.002828	2.24	127.119000	0.126144 u
K (766.491 nm)	2.587140	ppm	0.072466	2.80	325.163000	2.587140
Li (670.783 nm)	0.312402	ppm	0.002890	0.93	4813.890000	0.312402
Mg (279.078 nm)	161.030000 o	ppm	0.536843	0.33	772902.000000	161.030000 o
Mn (257.610 nm)	0.310360	ppm	0.000987	0.32	59699.200000	0.310360
Mo (202.032 nm)	0.016584	ppm	0.000312	1.88	119.937000	0.016584
Na (589.592 nm)	1560.270000 bo	ppm	3.374490	0.22	6628560.000000	1560.270000 bo
Na H (589.593 nm)	1430.143121 bo	ppm	9.324130	0.65	4215416.156987	1430.143121 bo
Ni (231.604 nm)	0.051129	ppm	0.001128	2.21	319.857000	0.051129
P (213.618 nm)	0.012091	ppm	0.002780	23.00	25.288300	0.012091
Pb (220.353 nm)	-0.000895 u	ppm	0.002512	> 100.00	-8.046650	-0.000895 u
S (181.972 nm)	858.487462 bo	ppm	1.921713	0.22	354692.422399	858.487462 bo
Sb (206.834 nm)	-0.004852 u	ppm	0.003022	62.29	-3.506100	-0.004852 u
Se (196.026 nm)	0.004370	ppm	0.001001	22.91	12.365700	0.004370
Si (288.158 nm)	4.561480	ppm	0.018136	0.40	31701.600000	4.561480
Sn (189.925 nm)	0.000387 u	ppm	0.001773	> 100.00	8.522300	0.000387 u
Sr (421.552 nm)	14.024541 bo	ppm	0.107731	0.77	2568170.578389	14.024541 bo
Th (288.505 nm)	0.038415	ppm	0.005288	13.77	180.392000	0.038415
Ti (336.122 nm)	0.001216	ppm	0.000189	15.53	1474.910000	0.001216
Tl (190.794 nm)	0.004519	ppm	0.001916	42.39	0.071708	0.004519
U (409.013 nm)	0.162937	ppm	0.005725	3.51	534.539000	0.162937
V (292.401 nm)	0.003200	ppm	0.000737	23.04	125.907000	0.003200
Zn (206.200 nm)	0.009110	ppm	0.000758	8.32	51.180600	0.009110
Zr (343.823 nm)	-0.000451 u	ppm	0.000071	15.65	-17.072100	-0.000451 u

Solution Name: 550-217859-H-14-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217859-H-14-A	5/13/2024 10:53:41 PM	1:10	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.213501	ppm	0.000417	0.20	273546.535499	0.213501
Ag (328.068 nm)	0.000903	ppm	0.000536	59.31	1.935080	0.000903
Al (167.019 nm)	0.187332	ppm	0.003027	1.62	92.851900	0.187332
Al H (396.152 nm)	0.311132 u	ppm	0.004093	1.32	933.318197	0.311132 u
As (188.980 nm)	0.004491	ppm	0.003014	67.12	4.996850	0.004491
B (249.678 nm)	3.335310 o	ppm	0.003818	0.11	74259.300000	3.335310 o
Ba (493.408 nm)	0.059810	ppm	0.000058	0.10	5162.510000	0.059810
Be (234.861 nm)	0.000079	ppm	0.000044	55.44	-10.240900	0.000079
Bi (223.061 nm)	-0.001525 u	ppm	0.001522	99.75	-1.148460	-0.001525 u
Ca (315.887 nm)	537.555144 o	ppm	1.996564	0.37	480951.113523	537.555144 o
Cd (214.439 nm)	0.000132	ppm	0.000033	25.11	-6.387390	0.000132
Co (228.615 nm)	0.000396	ppm	0.000066	16.70	-9.371940	0.000396
Cr (205.560 nm)	0.001193	ppm	0.000185	15.52	31.836300	0.001193
Cu (324.754 nm)	-0.007814 u	ppm	0.000148	1.90	970.819000	-0.007814 u
Fe (238.204 nm)	0.203228	ppm	0.000411	0.20	727.691535	0.203228
Fe H (259.940 nm)	0.267160 u	ppm	0.000721	0.27	394.909000	0.267160 u
K (766.491 nm)	32.209000	ppm	0.131332	0.41	20245.400000	32.209000
Li (670.783 nm)	0.202455	ppm	0.002011	0.99	2851.670000	0.202455
Mg (279.078 nm)	267.373000 o	ppm	0.219281	0.08	1283320.000000	267.373000 o
Mn (257.610 nm)	0.148134	ppm	0.000085	0.06	28511.300000	0.148134
Mo (202.032 nm)	0.020598	ppm	0.000731	3.55	147.232000	0.020598
Na (589.592 nm)	1342.960000 bo	ppm	2.749380	0.20	5705840.000000	1342.960000 bo
Na H (589.593 nm)	1247.424204 bo	ppm	4.804681	0.39	3678127.220742	1247.424204 bo
Ni (231.604 nm)	0.003232	ppm	0.000881	27.27	38.963500	0.003232
P (213.618 nm)	0.507385	ppm	0.004352	0.86	1085.640000	0.507385
Pb (220.353 nm)	-0.000336 u	ppm	0.002143	> 100.00	-7.244930	-0.000336 u
S (181.972 nm)	897.481471 bo	ppm	0.703542	0.08	370801.925767	897.481471 bo
Sb (206.834 nm)	-0.000879 u	ppm	0.002437	> 100.00	5.224230	-0.000879 u
Se (196.026 nm)	0.003369	ppm	0.000248	7.37	11.540800	0.003369
Si (288.158 nm)	8.426590	ppm	0.046440	0.55	57867.400000	8.426590
Sn (189.925 nm)	-0.000952 u	ppm	0.001262	> 100.00	6.362440	-0.000952 u
Sr (421.552 nm)	4.394422 o	ppm	0.012582	0.29	804718.409138	4.394422 o
Th (288.505 nm)	0.039036	ppm	0.001512	3.87	176.372000	0.039036
Ti (336.122 nm)	0.011821	ppm	0.000152	1.28	2372.670000	0.011821
Tl (190.794 nm)	0.003061	ppm	0.002217	72.42	-2.473710	0.003061
U (409.013 nm)	-0.025704 u	ppm	0.000901	3.51	-74.347100	-0.025704 u
V (292.401 nm)	0.003712	ppm	0.000356	9.60	151.883000	0.003712
Zn (206.200 nm)	0.040735	ppm	0.000866	2.13	200.493000	0.040735
Zr (343.823 nm)	0.000170	ppm	0.000045	26.70	57.927000	0.000170

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/13/2024 10:57:51 PM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000568	ppm	0.000014	2.40	-2211.436787	0.000568
Ag (328.068 nm)	0.000764	ppm	0.000180	23.59	-58.220500	0.000764
Al (167.019 nm)	49.334000 o	ppm	0.385267	0.78	24177.500000	49.334000 o
Al H (396.152 nm)	48.418441	ppm	0.297180	0.61	101992.953318	48.418441
As (188.980 nm)	-0.001170 u	ppm	0.002200	> 100.00	-2.185970	-0.001170 u
B (249.678 nm)	0.007895	ppm	0.000833	10.55	194.445000	0.007895
Ba (493.408 nm)	0.001126	ppm	0.000162	14.36	64.377300	0.001126
Be (234.861 nm)	0.000082	ppm	0.000030	36.29	512.826000	0.000082
Bi (223.061 nm)	0.003693	ppm	0.002978	80.65	8.355920	0.003693
Ca (315.887 nm)	0.004329 u	ppm	0.005403	> 100.00	-37.427910	0.004329 u
Cd (214.439 nm)	-0.000136 u	ppm	0.000004	2.99	19.599700	-0.000136 u
Co (228.615 nm)	-0.000058 u	ppm	0.000136	> 100.00	-16.703900	-0.000058 u
Cr (205.560 nm)	0.000633	ppm	0.000322	50.83	15.063200	0.000633
Cu (324.754 nm)	0.002135	ppm	0.000222	10.38	2125.340000	0.002135
Fe (238.204 nm)	49.339448 o	ppm	0.315770	0.64	168750.688308	49.339448 o
Fe H (259.940 nm)	48.812800	ppm	0.297480	0.61	92583.000000	48.812800
K (766.491 nm)	-0.010467 u	ppm	0.040068	> 100.00	-1421.690000	-0.010467 u
Li (670.783 nm)	0.008898	ppm	0.000456	5.13	-602.744000	0.008898
Mg (279.078 nm)	-0.008972 u	ppm	0.000899	10.02	-150.279000	-0.008972 u
Mn (257.610 nm)	0.000074	ppm	0.000028	38.20	46.712900	0.000074
Mo (202.032 nm)	-0.000543 u	ppm	0.000159	29.32	3.451390	-0.000543 u
Na (589.592 nm)	249.057000	ppm	0.733657	0.29	1060250.000000	249.057000
Na H (589.593 nm)	234.697954	ppm	0.929283	0.40	699600.716275	234.697954
Ni (231.604 nm)	-0.000098 u	ppm	0.000577	> 100.00	19.434900	-0.000098 u
P (213.618 nm)	4.759880	ppm	0.004551	0.10	10100.100000	4.759880
Pb (220.353 nm)	-0.005091 u	ppm	0.000685	13.45	-26.813500	-0.005091 u
S (181.972 nm)	5.185007	ppm	0.015177	0.29	2162.044969	5.185007
Sb (206.834 nm)	0.000269 u	ppm	0.001318	> 100.00	-5.975650	0.000269 u
Se (196.026 nm)	-0.000422 u	ppm	0.003322	> 100.00	2.306740	-0.000422 u
Si (288.158 nm)	0.002551 u	ppm	0.002477	97.12	839.685000	0.002551 u
Sn (189.925 nm)	0.001612	ppm	0.000608	37.75	11.357300	0.001612
Sr (421.552 nm)	0.000306	ppm	0.000041	13.28	74.864436	0.000306
Th (288.505 nm)	4.812610	ppm	0.053638	1.11	9433.960000	4.812610
Ti (336.122 nm)	0.001097	ppm	0.000072	6.58	1.014740	0.001097
Tl (190.794 nm)	-0.004506 u	ppm	0.002192	48.65	-15.825700	-0.004506 u
U (409.013 nm)	2.428810	ppm	0.011322	0.47	8151.800000	2.428810
V (292.401 nm)	-0.000389 u	ppm	0.000140	35.90	241.486000	-0.000389 u
Zn (206.200 nm)	0.001721	ppm	0.000829	48.15	16.296000	0.001721
Zr (343.823 nm)	0.000617	ppm	0.000282	45.74	162.348000	0.000617

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/13/2024 11:02:16 PM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.451723	ppm	0.000688	0.15	582054.811925	0.451723
Ag (328.068 nm)	0.491771	ppm	0.000487	0.10	18724.600000	0.491771
Al (167.019 nm)	0.516188	ppm	0.008289	1.61	255.402000	0.516188
Al H (396.152 nm)	0.469259 u	ppm	0.012580	2.68	1104.669525	0.469259 u
As (188.980 nm)	0.477015	ppm	0.001776	0.37	510.005000	0.477015
B (249.678 nm)	0.474037	ppm	0.000665	0.14	10647.700000	0.474037
Ba (493.408 nm)	0.485864	ppm	0.004401	0.91	42173.800000	0.485864
Be (234.861 nm)	0.473890	ppm	0.002061	0.43	119128.000000	0.473890
Bi (223.061 nm)	1.002370	ppm	0.006255	0.62	1827.230000	1.002370
Ca (315.887 nm)	4.950933	ppm	0.033251	0.67	4388.683287	4.950933
Cd (214.439 nm)	0.516735	ppm	0.000392	0.08	26695.000000	0.516735
Co (228.615 nm)	0.489139	ppm	0.000626	0.13	7452.890000	0.489139
Cr (205.560 nm)	0.511501	ppm	0.000375	0.07	6037.790000	0.511501
Cu (324.754 nm)	0.454727	ppm	0.000802	0.18	24260.200000	0.454727
Fe (238.204 nm)	2.453571	ppm	0.014370	0.59	8422.814644	2.453571
Fe H (259.940 nm)	2.504360 u	ppm	0.016443	0.66	4643.350000	2.504360 u
K (766.491 nm)	51.515000	ppm	0.158543	0.31	33228.500000	51.515000
Li (670.783 nm)	0.539241	ppm	0.003168	0.59	8862.290000	0.539241
Mg (279.078 nm)	19.872200	ppm	0.011929	0.06	95391.300000	19.872200
Mn (257.610 nm)	0.500818	ppm	0.000153	0.03	96314.700000	0.500818
Mo (202.032 nm)	0.508209	ppm	0.001623	0.32	3463.490000	0.508209
Na (589.592 nm)	26.098900	ppm	0.095211	0.36	114627.000000	26.098900
Na H (589.593 nm)	24.530755	ppm	0.295753	1.21	82332.889332	24.530755
Ni (231.604 nm)	0.513965	ppm	0.001200	0.23	3034.690000	0.513965
P (213.618 nm)	0.018092	ppm	0.003129	17.30	12.728800	0.018092
Pb (220.353 nm)	0.481208	ppm	0.002582	0.54	1127.250000	0.481208
S (181.972 nm)	0.076780	ppm	0.007157	9.32	54.981907	0.076780
Sb (206.834 nm)	0.509798	ppm	0.002346	0.46	1117.690000	0.509798
Se (196.026 nm)	0.476236	ppm	0.002444	0.51	421.979000	0.476236
Si (288.158 nm)	4.892150	ppm	0.012678	0.26	34157.000000	4.892150
Sn (189.925 nm)	0.514223	ppm	0.002589	0.50	838.249000	0.514223
Sr (421.552 nm)	0.468282	ppm	0.003521	0.75	85769.925433	0.468282
Th (288.505 nm)	0.053597	ppm	0.028339	52.87	212.162000	0.053597
Ti (336.122 nm)	0.491045	ppm	0.000403	0.08	52827.600000	0.491045
Tl (190.794 nm)	0.511351	ppm	0.001452	0.28	833.502000	0.511351
U (409.013 nm)	0.002415 u	ppm	0.004912	> 100.00	67.408200	0.002415 u
V (292.401 nm)	0.495155	ppm	0.000279	0.06	14395.300000	0.495155
Zn (206.200 nm)	0.479289	ppm	0.000451	0.09	2271.080000	0.479289
Zr (343.823 nm)	0.476078	ppm	0.005277	1.11	44513.800000	0.476078

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/13/2024 11:06:23 PM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000190	ppm	0.000022	11.79	-2701.237536	0.000190
Ag (328.068 nm)	0.000069 u	ppm	0.000279	> 100.00	-29.579600	0.000069 u
Al (167.019 nm)	-0.002688 u	ppm	0.000689	25.62	-0.278439	-0.002688 u
Al H (396.152 nm)	-0.036949 u	ppm	0.003932	10.64	3.769417	-0.036949 u
As (188.980 nm)	-0.001566 u	ppm	0.000184	11.77	-1.472470	-0.001566 u
B (249.678 nm)	0.003000	ppm	0.000734	24.46	157.659000	0.003000
Ba (493.408 nm)	0.000245 u	ppm	0.000406	> 100.00	-12.087600	0.000245 u
Be (234.861 nm)	0.000029 u	ppm	0.000034	> 100.00	-23.803100	0.000029 u
Bi (223.061 nm)	-0.000870 u	ppm	0.002153	> 100.00	0.045159	-0.000870 u
Ca (315.887 nm)	-0.000308 u	ppm	0.002258	> 100.00	-41.576888	-0.000308 u
Cd (214.439 nm)	0.000108	ppm	0.000068	62.66	-7.822000	0.000108
Co (228.615 nm)	0.000138 u	ppm	0.000305	> 100.00	-13.725500	0.000138 u
Cr (205.560 nm)	0.000182	ppm	0.000148	81.14	20.004100	0.000182
Cu (324.754 nm)	0.000760	ppm	0.000152	20.05	1296.520000	0.000760
Fe (238.204 nm)	0.000095 u	ppm	0.001597	> 100.00	33.069385	0.000095 u
Fe H (259.940 nm)	0.070854 u	ppm	0.001404	1.98	22.124000	0.070854 u
K (766.491 nm)	-0.119975 u	ppm	0.089869	74.91	-1495.330000	-0.119975 u
Li (670.783 nm)	0.007682 S	ppm	0.003599	46.85	-624.453000 S	0.007682 S
Mg (279.078 nm)	0.001141	ppm	0.000524	45.94	19.711600	0.001141
Mn (257.610 nm)	0.000026	ppm	0.000015	59.46	37.385900	0.000026
Mo (202.032 nm)	0.000291 u	ppm	0.000264	90.49	9.129020	0.000291 u
Na (589.592 nm)	0.222059	ppm	0.011507	5.18	3527.770000	0.222059
Na H (589.593 nm)	-0.441583 u	ppm	0.026594	6.02	8054.694625	-0.441583 u
Ni (231.604 nm)	-0.001585 u	ppm	0.000276	17.42	10.714600	-0.001585 u
P (213.618 nm)	-0.001861 u	ppm	0.000499	26.81	6.224310	-0.001861 u
Pb (220.353 nm)	0.000097 u	ppm	0.002107	> 100.00	-5.928430	0.000097 u
S (181.972 nm)	0.067245 Z	ppm	0.002772	4.12	47.693861 Z	0.067245 Z
Sb (206.834 nm)	-0.000471 u	ppm	0.004589	> 100.00	6.140480	-0.000471 u
Se (196.026 nm)	-0.004447 u	ppm	0.001790	40.25	4.271910	-0.004447 u
Si (288.158 nm)	-0.005370 u	ppm	0.001633	30.40	785.248000	-0.005370 u
Sn (189.925 nm)	-0.000108 u	ppm	0.001955	> 100.00	7.721680	-0.000108 u
Sr (421.552 nm)	0.000048 u	ppm	0.000083	> 100.00	27.652992	0.000048 u
Th (288.505 nm)	0.001679	ppm	0.002035	> 100.00	102.076000	0.001679
Ti (336.122 nm)	0.000067 u	ppm	0.000303	> 100.00	-110.033000	0.000067 u
Tl (190.794 nm)	0.002142	ppm	0.001496	69.86	-3.920310	0.002142
U (409.013 nm)	0.000616 u	ppm	0.003200	> 100.00	87.220900	0.000616 u
V (292.401 nm)	-0.000374 u	ppm	0.000141	37.61	26.301100	-0.000374 u
Zn (206.200 nm)	-0.000468 u	ppm	0.000401	85.67	5.957360	-0.000468 u
Zr (343.823 nm)	0.000126 u	ppm	0.000203	> 100.00	17.040200	0.000126 u

Solution Name: 550-217859-H-16-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217859-H-16-A	5/13/2024 11:10:02 PM	1:11	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.244950	ppm	0.000254	0.10	314273.517309	0.244950
Ag (328.068 nm)	0.001015	ppm	0.000149	14.63	6.422790	0.001015
Al (167.019 nm)	0.009613	ppm	0.002376	24.71	5.774100	0.009613
Al H (396.152 nm)	0.142793 u	ppm	0.004840	3.39	615.694658	0.142793 u
As (188.980 nm)	-0.000477 u	ppm	0.002219	> 100.00	-0.309295	-0.000477 u
B (249.678 nm)	3.517800 o	ppm	0.005374	0.15	78318.100000	3.517800 o
Ba (493.408 nm)	0.023250	ppm	0.000404	1.74	1986.360000	0.023250
Be (234.861 nm)	-0.000007 u	ppm	0.000005	61.56	-34.047000	-0.000007 u
Bi (223.061 nm)	-0.000068 u	ppm	0.001050	> 100.00	1.505260	-0.000068 u
Ca (315.887 nm)	636.573681 o	ppm	4.568632	0.72	569550.703121	636.573681 o
Cd (214.439 nm)	0.000225	ppm	0.000060	26.57	-1.735870	0.000225
Co (228.615 nm)	0.012146	ppm	0.000197	1.62	169.287000	0.012146
Cr (205.560 nm)	0.001462	ppm	0.000259	17.71	35.034500	0.001462
Cu (324.754 nm)	-0.009209 u	ppm	0.000213	2.31	1313.970000	-0.009209 u
Fe (238.204 nm)	0.045634	ppm	0.000436	0.95	188.792196	0.045634
Fe H (259.940 nm)	0.112689 u	ppm	0.002272	2.02	101.569000	0.112689 u
K (766.491 nm)	23.341000	ppm	0.302711	1.30	14281.900000	23.341000
Li (670.783 nm)	0.230065	ppm	0.004269	1.86	3344.410000	0.230065
Mg (279.078 nm)	241.773000 o	ppm	0.329239	0.14	1160440.000000	241.773000 o
Mn (257.610 nm)	1.468120 o	ppm	0.001977	0.13	282279.000000	1.468120 o
Mo (202.032 nm)	0.030072	ppm	0.000520	1.73	211.668000	0.030072
Na (589.592 nm)	1503.140000 bo	ppm	10.694300	0.71	6385990.000000	1503.140000 bo
Na H (589.593 nm)	1418.009643 bo	ppm	23.953349	1.69	4179754.944719	1418.009643 bo
Ni (231.604 nm)	0.022596	ppm	0.000043	0.19	152.528000	0.022596
P (213.618 nm)	0.009280	ppm	0.001924	20.73	28.952100	0.009280
Pb (220.353 nm)	0.000030 u	ppm	0.001382	> 100.00	-6.292750	0.000030 u
S (181.972 nm)	970.233393 bo	ppm	1.122814	0.12	400860.914272	970.233393 bo
Sb (206.834 nm)	0.000303 u	ppm	0.001335	> 100.00	7.704280	0.000303 u
Se (196.026 nm)	0.000993 u	ppm	0.005329	> 100.00	10.323500	0.000993 u
Si (288.158 nm)	5.173340	ppm	0.024290	0.47	35843.400000	5.173340
Sn (189.925 nm)	-0.000656 u	ppm	0.000647	98.56	6.837530	-0.000656 u
Sr (421.552 nm)	9.137195 o	ppm	0.119316	1.31	1673207.604652	9.137195 o
Th (288.505 nm)	0.053312	ppm	0.002611	4.90	223.987000	0.053312
Ti (336.122 nm)	0.002437	ppm	0.000194	7.94	1585.280000	0.002437
Tl (190.794 nm)	0.003875	ppm	0.001069	27.58	-1.090280	0.003875
U (409.013 nm)	-0.008829 u	ppm	0.005442	61.64	-32.492300	-0.008829 u
V (292.401 nm)	0.002262	ppm	0.000041	1.83	109.386000	0.002262
Zn (206.200 nm)	0.043610	ppm	0.000728	1.67	214.067000	0.043610
Zr (343.823 nm)	0.001855	ppm	0.000188	10.14	200.990000	0.001855

Solution Name: 550-217859-H-18-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217859-H-18-A	5/13/2024 11:14:26 PM	1:12	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.250980	ppm	0.000423	0.17	322082.816724	0.250980
Ag (328.068 nm)	0.001100	ppm	0.000274	24.88	8.699090	0.001100
Al (167.019 nm)	0.009449	ppm	0.004662	49.34	5.721230	0.009449
Al H (396.152 nm)	0.150179 u	ppm	0.007844	5.22	627.723850	0.150179 u
As (188.980 nm)	-0.002851 u	ppm	0.000348	12.20	-2.847960	-0.002851 u
B (249.678 nm)	3.796920 o	ppm	0.002925	0.08	84524.800000	3.796920 o
Ba (493.408 nm)	0.011748	ppm	0.000163	1.39	987.146000	0.011748
Be (234.861 nm)	-0.000101 u	ppm	0.000002	2.35	-57.005700	-0.000101 u
Bi (223.061 nm)	-0.000894 u	ppm	0.002436	> 100.00	0.001178	-0.000894 u
Ca (315.887 nm)	627.241421 o	ppm	4.463376	0.71	561200.404583	627.241421 o
Cd (214.439 nm)	0.000549	ppm	0.000049	8.96	15.036500	0.000549
Co (228.615 nm)	0.011539	ppm	0.000423	3.66	159.986000	0.011539
Cr (205.560 nm)	0.001688	ppm	0.000269	15.93	37.681700	0.001688
Cu (324.754 nm)	0.022930	ppm	0.000153	0.67	2815.490000	0.022930
Fe (238.204 nm)	0.083618	ppm	0.001842	2.20	318.678940	0.083618
Fe H (259.940 nm)	0.153718 u	ppm	0.004194	2.73	179.482000	0.153718 u
K (766.491 nm)	22.759100	ppm	0.240272	1.06	13890.500000	22.759100
Li (670.783 nm)	0.235475	ppm	0.003490	1.48	3440.960000	0.235475
Mg (279.078 nm)	262.437000 o	ppm	0.652864	0.25	1259630.000000	262.437000 o
Mn (257.610 nm)	3.585560 o	ppm	0.004206	0.12	689357.000000	3.585560 o
Mo (202.032 nm)	0.029017	ppm	0.000277	0.95	204.491000	0.029017
Na (589.592 nm)	1510.960000 bo	ppm	2.681560	0.18	6419170.000000	1510.960000 bo
Na H (589.593 nm)	1385.416177 bo	ppm	12.3954 41	0.89	4083878.095948	1385.416177 bo
Ni (231.604 nm)	0.012096	ppm	0.000556	4.60	90.949700	0.012096
P (213.618 nm)	0.006271	ppm	0.000854	13.62	20.253200	0.006271
Pb (220.353 nm)	0.001746	ppm	0.000979	56.07	-2.299200	0.001746
S (181.972 nm)	998.366833 bo	ppm	0.141717	0.01	412487.982198	998.366833 bo
Sb (206.834 nm)	0.000951 u	ppm	0.001719	> 100.00	9.159840	0.000951 u
Se (196.026 nm)	-0.002182 u	ppm	0.003853	> 100.00	9.128780	-0.002182 u
Si (288.158 nm)	5.015750	ppm	0.021687	0.43	34776.400000	5.015750
Sn (189.925 nm)	-0.000949 u	ppm	0.002106	> 100.00	6.364230	-0.000949 u
Sr (421.552 nm)	7.824451 o	ppm	0.014976	0.19	1432820.008356	7.824451 o
Th (288.505 nm)	0.070141	ppm	0.003760	5.36	288.172000	0.070141
Ti (336.122 nm)	0.001794	ppm	0.000045	2.50	1494.590000	0.001794
Tl (190.794 nm)	0.003391	ppm	0.000641	18.91	-1.884230	0.003391
U (409.013 nm)	-0.014200 u	ppm	0.008056	56.74	-48.897100	-0.014200 u
V (292.401 nm)	0.009247	ppm	0.000422	4.57	316.121000	0.009247
Zn (206.200 nm)	0.165804	ppm	0.000812	0.49	790.992000	0.165804
Zr (343.823 nm)	0.001473	ppm	0.000193	13.09	164.748000	0.001473

Solution Name: 550-217859-H-20-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217859-H-20-A	5/13/2024 11:18:51 PM	1:13	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.256271	ppm	0.000383	0.15	328935.523007	0.256271
Ag (328.068 nm)	0.000768	ppm	0.000284	36.94	-4.480950	0.000768
Al (167.019 nm)	0.009872	ppm	0.002515	25.48	5.991960	0.009872
Al H (396.152 nm)	0.154216 u	ppm	0.002987	1.94	636.117780	0.154216 u
As (188.980 nm)	0.000309 u	ppm	0.001215	> 100.00	0.527903	0.000309 u
B (249.678 nm)	3.506480 o	ppm	0.004787	0.14	78066.200000	3.506480 o
Ba (493.408 nm)	0.008095	ppm	0.000107	1.32	669.831000	0.008095
Be (234.861 nm)	-0.000137 u	ppm	0.000001	1.02	-66.138600	-0.000137 u
Bi (223.061 nm)	-0.001975 u	ppm	0.000515	26.07	-1.968130	-0.001975 u
Ca (315.887 nm)	624.006220 o	ppm	1.600109	0.26	558305.618520	624.006220 o
Cd (214.439 nm)	0.000499	ppm	0.000146	29.17	12.546500	0.000499
Co (228.615 nm)	0.012470	ppm	0.000430	3.45	174.173000	0.012470
Cr (205.560 nm)	0.010489	ppm	0.000371	3.54	141.281000	0.010489
Cu (324.754 nm)	0.002192	ppm	0.000430	19.61	1981.550000	0.002192
Fe (238.204 nm)	0.171584	ppm	0.002087	1.22	619.482972	0.171584
Fe H (259.940 nm)	0.236168 u	ppm	0.001857	0.79	336.055000	0.236168 u
K (766.491 nm)	19.948100	ppm	0.171968	0.86	12000.200000	19.948100
Li (670.783 nm)	0.238710	ppm	0.002013	0.84	3498.710000	0.238710
Mg (279.078 nm)	239.722000 o	ppm	0.194569	0.08	1150600.000000	239.722000 o
Mn (257.610 nm)	3.860900 o	ppm	0.004360	0.11	742290.000000	3.860900 o
Mo (202.032 nm)	0.044141	ppm	0.000483	1.09	307.352000	0.044141
Na (589.592 nm)	1504.570000 bo	ppm	7.811950	0.52	6392010.000000	1504.570000 bo
Na H (589.593 nm)	1385.639181 bo	ppm	14.539341	1.05	4084527.482126	1385.639181 bo
Ni (231.604 nm)	0.017642	ppm	0.002068	11.72	123.477000	0.017642
P (213.618 nm)	0.013508	ppm	0.003588	26.56	36.884900	0.013508
Pb (220.353 nm)	0.002361	ppm	0.000962	40.77	-0.886333	0.002361
S (181.972 nm)	984.560992 bo	ppm	1.527644	0.16	406784.845127	984.560992 bo
Sb (206.834 nm)	-0.003577 u	ppm	0.001176	32.89	-0.412167	-0.003577 u
Se (196.026 nm)	0.000123 u	ppm	0.004304	> 100.00	11.302700	0.000123 u
Si (288.158 nm)	4.558090	ppm	0.010721	0.24	31678.200000	4.558090
Sn (189.925 nm)	-0.000409 u	ppm	0.000657	> 100.00	7.237740	-0.000409 u
Sr (421.552 nm)	9.911442 o	ppm	0.108574	1.10	1814986.480511	9.911442 o
Th (288.505 nm)	0.070363	ppm	0.003774	5.36	292.836000	0.070363
Ti (336.122 nm)	0.001882	ppm	0.000205	10.89	1497.160000	0.001882
Tl (190.794 nm)	0.004410	ppm	0.001138	25.80	-0.234622	0.004410
U (409.013 nm)	-0.013260 u	ppm	0.000767	5.79	-45.271000	-0.013260 u
V (292.401 nm)	0.010851	ppm	0.000165	1.52	360.717000	0.010851
Zn (206.200 nm)	0.023627	ppm	0.000083	0.35	119.719000	0.023627
Zr (343.823 nm)	0.000853	ppm	0.000192	22.44	105.007000	0.000853

Solution Name: 550-217859-H-22-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217859-H-22-A	5/13/2024 11:23:02 PM	1:14	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.244937	ppm	0.000428	0.17	314257.812608	0.244937
Ag (328.068 nm)	0.001101	ppm	0.000247	22.40	8.591770	0.001101
Al (167.019 nm)	0.009304	ppm	0.005597	60.16	5.668450	0.009304
Al H (396.152 nm)	0.146488 u	ppm	0.003470	2.37	617.034441	0.146488 u
As (188.980 nm)	-0.001398 u	ppm	0.003165	> 100.00	-1.294610	-0.001398 u
B (249.678 nm)	3.467070 o	ppm	0.002830	0.08	77189.700000	3.467070 o
Ba (493.408 nm)	0.007012	ppm	0.000348	4.97	575.715000	0.007012
Be (234.861 nm)	-0.000128 u	ppm	0.000016	12.22	-64.850600	-0.000128 u
Bi (223.061 nm)	-0.001065 u	ppm	0.000360	33.76	-0.310405	-0.001065 u
Ca (315.887 nm)	615.131200 o	ppm	5.170835	0.84	550364.446981	615.131200 o
Cd (214.439 nm)	0.000225	ppm	0.000135	60.06	-1.645740	0.000225
Co (228.615 nm)	0.010508	ppm	0.000512	4.87	144.262000	0.010508
Cr (205.560 nm)	0.007457	ppm	0.000144	1.93	105.583000	0.007457
Cu (324.754 nm)	-0.004286 u	ppm	0.000270	6.29	1531.460000	-0.004286 u
Fe (238.204 nm)	0.108680	ppm	0.001153	1.06	404.381598	0.108680
Fe H (259.940 nm)	0.175215 u	ppm	0.003322	1.90	220.306000	0.175215 u
K (766.491 nm)	20.121400	ppm	0.059954	0.30	12116.700000	20.121400
Li (670.783 nm)	0.226710	ppm	0.003007	1.33	3284.550000	0.226710
Mg (279.078 nm)	252.688000 o	ppm	0.241115	0.10	1212830.000000	252.688000 o
Mn (257.610 nm)	3.886690 o	ppm	0.002820	0.07	747250.000000	3.886690 o
Mo (202.032 nm)	0.050918	ppm	0.000525	1.03	353.445000	0.050918
Na (589.592 nm)	1471.280000 bo	ppm	10.071800	0.68	6250650.000000	1471.280000 bo
Na H (589.593 nm)	1344.988511 bo	ppm	2.871574	0.21	3964972.297924	1344.988511 bo
Ni (231.604 nm)	0.023126	ppm	0.000850	3.68	155.638000	0.023126
P (213.618 nm)	0.011746	ppm	0.001804	15.36	33.879500	0.011746
Pb (220.353 nm)	0.018969	ppm	0.000913	4.82	38.268100	0.018969
S (181.972 nm)	982.443557 bo	ppm	1.692925	0.17	405910.117184	982.443557 bo
Sb (206.834 nm)	-0.001335 u	ppm	0.002004	> 100.00	4.303430	-0.001335 u
Se (196.026 nm)	0.000444 u	ppm	0.002793	> 100.00	11.607100	0.000444 u
Si (288.158 nm)	4.535840	ppm	0.018519	0.41	31528.300000	4.535840
Sn (189.925 nm)	-0.000841 u	ppm	0.001605	> 100.00	6.540200	-0.000841 u
Sr (421.552 nm)	8.642404 o	ppm	0.016725	0.19	1582602.099534	8.642404 o
Th (288.505 nm)	0.069470	ppm	0.001304	1.88	291.532000	0.069470
Ti (336.122 nm)	0.001845	ppm	0.000111	5.99	1472.910000	0.001845
Tl (190.794 nm)	0.003731	ppm	0.002677	71.75	-1.368840	0.003731
U (409.013 nm)	-0.008106 u	ppm	0.005502	67.88	-27.020900	-0.008106 u
V (292.401 nm)	0.008806	ppm	0.000506	5.75	300.742000	0.008806
Zn (206.200 nm)	0.697119	ppm	0.002097	0.30	3299.540000	0.697119
Zr (343.823 nm)	0.000860	ppm	0.000010	1.20	105.431000	0.000860

Solution Name: 550-217859-H-24-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217859-H-24-A	5/13/2024 11:27:27 PM	1:15	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.263757	ppm	0.000425	0.16	338630.286480	0.263757
Ag (328.068 nm)	0.000935	ppm	0.000305	32.61	1.419700	0.000935
Al (167.019 nm)	0.113566	ppm	0.003877	3.41	56.853800	0.113566
Al H (396.152 nm)	0.251754 u	ppm	0.003536	1.40	848.559032	0.251754 u
As (188.980 nm)	0.000471 u	ppm	0.002601	> 100.00	0.697214	0.000471 u
B (249.678 nm)	3.481610 o	ppm	0.004214	0.12	77513.000000	3.481610 o
Ba (493.408 nm)	0.009496	ppm	0.000148	1.56	791.538000	0.009496
Be (234.861 nm)	-0.000062 u	ppm	0.000001	1.95	-45.385700	-0.000062 u
Bi (223.061 nm)	-0.001721 u	ppm	0.001192	69.24	-1.505160	-0.001721 u
Ca (315.887 nm)	643.683911 o	ppm	3.661405	0.57	575912.779360	643.683911 o
Cd (214.439 nm)	0.000519	ppm	0.000109	21.03	13.732500	0.000519
Co (228.615 nm)	0.015580	ppm	0.000688	4.42	221.614000	0.015580
Cr (205.560 nm)	0.034799	ppm	0.000132	0.38	427.519000	0.034799
Cu (324.754 nm)	0.029096 b	ppm	0.000310	1.07	3501.530000	0.029096 b
Fe (238.204 nm)	0.338474	ppm	0.002767	0.82	1190.169217	0.338474
Fe H (259.940 nm)	0.401228 u	ppm	0.001038	0.26	649.505000	0.401228 u
K (766.491 nm)	16.101800	ppm	0.026484	0.16	9413.580000	16.101800
Li (670.783 nm)	0.246263	ppm	0.000561	0.23	3633.510000	0.246263
Mg (279.078 nm)	229.121000 o	ppm	0.167190	0.07	1099720.000000	229.121000 o
Mn (257.610 nm)	2.871050 o	ppm	0.004430	0.15	551993.000000	2.871050 o
Mo (202.032 nm)	0.044344	ppm	0.000372	0.84	308.729000	0.044344
Na (589.592 nm)	1531.650000 bo	ppm	8.326610	0.54	6507000.000000	1531.650000 bo
Na H (589.593 nm)	1397.295360 bo	ppm	8.708167	0.62	4118810.927680	1397.295360 bo
Ni (231.604 nm)	0.051056	ppm	0.000980	1.92	319.432000	0.051056
P (213.618 nm)	0.013054	ppm	0.001699	13.02	33.524300	0.013054
Pb (220.353 nm)	0.004370	ppm	0.001517	34.71	3.779220	0.004370
S (181.972 nm)	983.621299 bo	ppm	1.879884	0.19	406394.702682	983.621299 bo
Sb (206.834 nm)	0.000972 u	ppm	0.001638	> 100.00	10.136700	0.000972 u
Se (196.026 nm)	0.001808 u	ppm	0.003920	> 100.00	12.011300	0.001808 u
Si (288.158 nm)	4.533980	ppm	0.020225	0.45	31515.700000	4.533980
Sn (189.925 nm)	0.000580 u	ppm	0.000735	> 100.00	8.838570	0.000580 u
Sr (421.552 nm)	11.671820 bo	ppm	0.059484	0.51	2137344.001662	11.671820 bo
Th (288.505 nm)	0.060384	ppm	0.002781	4.61	258.633000	0.060384
Ti (336.122 nm)	0.003912	ppm	0.000107	2.75	1760.340000	0.003912
Tl (190.794 nm)	0.003621	ppm	0.001896	52.36	-1.535870	0.003621
U (409.013 nm)	-0.017776 u	ppm	0.004323	24.32	-62.792800	-0.017776 u
V (292.401 nm)	0.013151	ppm	0.000182	1.38	421.767000	0.013151
Zn (206.200 nm)	0.342104	ppm	0.001372	0.40	1623.370000	0.342104
Zr (343.823 nm)	0.000522	ppm	0.000035	6.75	74.257200	0.000522

Solution Name: MB 280-652548/1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
MB 280-652548/1-A	5/13/2024 11:31:53 PM	1:16	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000305	ppm	0.000010	3.24	-2552.750935	0.000305
Ag (328.068 nm)	0.000229	ppm	0.000173	75.45	-23.369200	0.000229
Al (167.019 nm)	0.003520	ppm	0.002523	71.66	2.766250	0.003520
Al H (396.152 nm)	-0.028160 u	ppm	0.004031	14.31	22.265165	-0.028160 u
As (188.980 nm)	-0.002471 u	ppm	0.002439	98.70	-2.439270	-0.002471 u
B (249.678 nm)	0.008660	ppm	0.001162	13.42	283.509000	0.008660
Ba (493.408 nm)	0.000619	ppm	0.000603	97.38	20.416000	0.000619
Be (234.861 nm)	0.000013 u	ppm	0.000032	> 100.00	-27.638700	0.000013 u
Bi (223.061 nm)	-0.001892 u	ppm	0.002116	> 100.00	-1.816130	-0.001892 u
Ca (315.887 nm)	0.030048	ppm	0.011112	36.98	-14.414991	0.030048
Cd (214.439 nm)	0.000077	ppm	0.000075	97.74	-9.397070	0.000077
Co (228.615 nm)	0.000412	ppm	0.000488	> 100.00	-9.560180	0.000412
Cr (205.560 nm)	0.000015 u	ppm	0.000194	> 100.00	18.033300	0.000015 u
Cu (324.754 nm)	0.000642	ppm	0.000345	53.68	1290.470000	0.000642
Fe (238.204 nm)	0.009316	ppm	0.000672	7.22	64.601553	0.009316
Fe H (259.940 nm)	0.080178 u	ppm	0.001210	1.51	39.831000	0.080178 u
K (766.491 nm)	0.038546 u	ppm	0.123941	> 100.00	-1388.730000	0.038546 u
Li (670.783 nm)	0.014107	ppm	0.002359	16.72	-509.788000	0.014107
Mg (279.078 nm)	0.005861	ppm	0.001786	30.47	42.523000	0.005861
Mn (257.610 nm)	0.000163	ppm	0.000037	22.77	63.791600	0.000163
Mo (202.032 nm)	-0.000143 u	ppm	0.000396	> 100.00	6.176770	-0.000143 u
Na (589.592 nm)	0.635479	ppm	0.062459	9.83	5284.030000	0.635479
Na H (589.593 nm)	1.114984 u	ppm	0.243752	21.86	12632.972428	1.114984 u
Ni (231.604 nm)	-0.001365 u	ppm	0.000606	44.38	12.005700	-0.001365 u
P (213.618 nm)	-0.000891 u	ppm	0.000844	94.80	8.308940	-0.000891 u
Pb (220.353 nm)	-0.000563 u	ppm	0.001651	> 100.00	-7.506080	-0.000563 u
S (181.972 nm)	0.141856	ppm	0.012348	8.70	78.523586	0.141856
Sb (206.834 nm)	-0.001379 u	ppm	0.003283	> 100.00	4.199810	-0.001379 u
Se (196.026 nm)	-0.000071 u	ppm	0.004340	> 100.00	8.071400	-0.000071 u
Si (288.158 nm)	-0.004183 u	ppm	0.000573	13.69	792.847000	-0.004183 u
Sn (189.925 nm)	-0.001188 u	ppm	0.000327	27.51	5.978220	-0.001188 u
Sr (421.552 nm)	0.000056 u	ppm	0.000064	> 100.00	29.123531	0.000056 u
Th (288.505 nm)	0.001383 u	ppm	0.002059	> 100.00	101.391000	0.001383 u
Ti (336.122 nm)	0.000302	ppm	0.000055	18.23	-84.650500	0.000302
Tl (190.794 nm)	0.000505 u	ppm	0.002110	> 100.00	-6.614830	0.000505 u
U (409.013 nm)	-0.004439 u	ppm	0.002999	67.55	70.511200	-0.004439 u
V (292.401 nm)	-0.000464 u	ppm	0.000311	67.08	23.816300	-0.000464 u
Zn (206.200 nm)	0.000153 u	ppm	0.000615	> 100.00	8.889780	0.000153 u
Zr (343.823 nm)	0.000092	ppm	0.000080	86.66	13.882200	0.000092

Solution Name: LCS 280-652548/2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LCS 280-652548/2-A	5/13/2024 11:36:00 PM	1:17	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.888926	ppm	0.002377	0.27	1148252.015020	0.888926
Ag (328.068 nm)	0.045786	ppm	0.000346	0.76	1689.360000	0.045786
Al (167.019 nm)	9.258470 o	ppm	0.088984	0.96	4538.070000	9.258470 o
Al H (396.152 nm)	9.078561	ppm	0.074968	0.83	19268.136891	9.078561
As (188.980 nm)	0.933179	ppm	0.003149	0.34	997.426000	0.933179
B (249.678 nm)	1.824130 o	ppm	0.003362	0.18	40675.400000	1.824130 o
Ba (493.408 nm)	0.914123	ppm	0.007882	0.86	79376.800000	0.914123
Be (234.861 nm)	0.872445	ppm	0.004785	0.55	219386.000000	0.872445
Bi (223.061 nm)	0.000875 u	ppm	0.000902	> 100.00	3.223020	0.000875 u
Ca (315.887 nm)	45.557991 o	ppm	0.418781	0.92	40722.977469	45.557991 o
Cd (214.439 nm)	0.953013	ppm	0.003136	0.33	49248.500000	0.953013
Co (228.615 nm)	0.872047	ppm	0.003882	0.45	13300.000000	0.872047
Cr (205.560 nm)	0.922533	ppm	0.003792	0.41	10874.200000	0.922533
Cu (324.754 nm)	0.822908	ppm	0.004356	0.53	42846.700000	0.822908
Fe (238.204 nm)	9.074725 o	ppm	0.072398	0.80	31064.078703	9.074725 o
Fe H (259.940 nm)	9.062110	ppm	0.062092	0.69	17096.500000	9.062110
K (766.491 nm)	50.174100	ppm	0.160591	0.32	32326.800000	50.174100
Li (670.783 nm)	0.999978	ppm	0.003079	0.31	17085.100000	0.999978
Mg (279.078 nm)	46.085800 o	ppm	0.124335	0.27	221199.000000	46.085800 o
Mn (257.610 nm)	0.917097	ppm	0.002705	0.29	176344.000000	0.917097
Mo (202.032 nm)	0.928356	ppm	0.000237	0.03	6320.930000	0.928356
Na (589.592 nm)	49.050400	ppm	0.103095	0.21	213160.000000	49.050400
Na H (589.593 nm)	44.747243	ppm	0.496583	1.11	142525.123502	44.747243
Ni (231.604 nm)	0.906310	ppm	0.001791	0.20	5336.100000	0.906310
P (213.618 nm)	18.469800 o	ppm	0.061977	0.34	39102.500000	18.469800 o
Pb (220.353 nm)	0.893883	ppm	0.004507	0.50	2096.650000	0.893883
S (181.972 nm)	19.550622 o	ppm	0.074546	0.38	8103.218602	19.550622 o
Sb (206.834 nm)	0.927764	ppm	0.002653	0.29	2027.180000	0.927764
Se (196.026 nm)	0.912067	ppm	0.003289	0.36	800.173000	0.912067
Si (288.158 nm)	8.833100	ppm	0.033030	0.37	61010.400000	8.833100
Sn (189.925 nm)	0.926846	ppm	0.003448	0.37	1504.620000	0.926846
Sr (421.552 nm)	0.875890	ppm	0.008267	0.94	160410.466667	0.875890
Th (288.505 nm)	0.015292	ppm	0.005931	38.78	146.115000	0.015292
Ti (336.122 nm)	0.885938	ppm	0.002606	0.29	95488.300000	0.885938
Tl (190.794 nm)	0.978950	ppm	0.002573	0.26	1602.520000	0.978950
U (409.013 nm)	-0.005089 u	ppm	0.004128	81.13	19.263600	-0.005089 u
V (292.401 nm)	0.923551	ppm	0.002505	0.27	26816.400000	0.923551
Zn (206.200 nm)	0.874462	ppm	0.002508	0.29	4136.840000	0.874462
Zr (343.823 nm)	0.868751	ppm	0.007481	0.86	81233.600000	0.868751

Solution Name: LCSD 280-652548/3-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LCSD 280-652548/3-A	5/13/2024 11:40:24 PM	1:18	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.875994	ppm	0.002681	0.31	1131503.974888	0.875994
Ag (328.068 nm)	0.045317	ppm	0.000468	1.03	1675.300000	0.045317
Al (167.019 nm)	9.154990 o	ppm	0.056147	0.61	4487.380000	9.154990 o
Al H (396.152 nm)	8.999026	ppm	0.045586	0.51	19099.639995	8.999026
As (188.980 nm)	0.917551	ppm	0.005726	0.62	980.724000	0.917551
B (249.678 nm)	1.799120 o	ppm	0.005786	0.32	40118.900000	1.799120 o
Ba (493.408 nm)	0.901007	ppm	0.005541	0.61	78237.400000	0.901007
Be (234.861 nm)	0.861992	ppm	0.003234	0.38	216758.000000	0.861992
Bi (223.061 nm)	-0.004495 u	ppm	0.001407	31.31	-6.557060	-0.004495 u
Ca (315.887 nm)	44.943726 o	ppm	0.209517	0.47	40173.347349	44.943726 o
Cd (214.439 nm)	0.940398	ppm	0.002194	0.23	48596.500000	0.940398
Co (228.615 nm)	0.861217	ppm	0.003151	0.37	13134.600000	0.861217
Cr (205.560 nm)	0.912142	ppm	0.002903	0.32	10752.000000	0.912142
Cu (324.754 nm)	0.817632	ppm	0.002637	0.32	42579.900000	0.817632
Fe (238.204 nm)	8.999267 o	ppm	0.050915	0.57	30806.047737	8.999267 o
Fe H (259.940 nm)	8.975920	ppm	0.050283	0.56	16932.800000	8.975920
K (766.491 nm)	49.392900	ppm	0.350931	0.71	31801.400000	49.392900
Li (670.783 nm)	0.986523	ppm	0.010501	1.06	16844.900000	0.986523
Mg (279.078 nm)	45.388800 o	ppm	0.087902	0.19	217854.000000	45.388800 o
Mn (257.610 nm)	0.905169	ppm	0.002512	0.28	174051.000000	0.905169
Mo (202.032 nm)	0.915328	ppm	0.001252	0.14	6232.320000	0.915328
Na (589.592 nm)	48.197100	ppm	0.352834	0.73	209504.000000	48.197100
Na H (589.593 nm)	43.582500	ppm	0.281781	0.65	139077.400557	43.582500
Ni (231.604 nm)	0.893460	ppm	0.001457	0.16	5260.720000	0.893460
P (213.618 nm)	18.195200 o	ppm	0.056450	0.31	38520.700000	18.195200 o
Pb (220.353 nm)	0.882319	ppm	0.003316	0.38	2069.440000	0.882319
S (181.972 nm)	19.229476 o	ppm	0.118306	0.62	7970.462040	19.229476 o
Sb (206.834 nm)	0.909171	ppm	0.007882	0.87	1986.830000	0.909171
Se (196.026 nm)	0.898917	ppm	0.007637	0.85	788.748000	0.898917
Si (288.158 nm)	8.715040	ppm	0.023650	0.27	60206.100000	8.715040
Sn (189.925 nm)	0.914640	ppm	0.003094	0.34	1484.910000	0.914640
Sr (421.552 nm)	0.862801	ppm	0.005461	0.63	158013.662421	0.862801
Th (288.505 nm)	0.013014	ppm	0.004880	37.50	141.453000	0.013014
Ti (336.122 nm)	0.872631	ppm	0.002824	0.32	94052.400000	0.872631
Tl (190.794 nm)	0.966955	ppm	0.004144	0.43	1582.800000	0.966955
U (409.013 nm)	-0.003565 u	ppm	0.006807	> 100.00	23.716100	-0.003565 u
V (292.401 nm)	0.913680	ppm	0.002344	0.26	26530.500000	0.913680
Zn (206.200 nm)	0.859818	ppm	0.000594	0.07	4067.700000	0.859818
Zr (343.823 nm)	0.879544	ppm	0.004382	0.50	82241.500000	0.879544

Solution Name: 280-191106-E-1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191106-E-1-A	5/13/2024 11:44:48 PM	1:19	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.039359	ppm	0.000056	0.14	48025.106890	0.039359
Ag (328.068 nm)	0.000428	ppm	0.000366	85.66	-16.072500	0.000428
Al (167.019 nm)	0.010695	ppm	0.001049	9.81	6.887400	0.010695
Al H (396.152 nm)	0.004550 u	ppm	0.004299	94.48	118.090272	0.004550 u
As (188.980 nm)	0.008734	ppm	0.001976	22.62	9.517490	0.008734
B (249.678 nm)	1.398160 o	ppm	0.003237	0.23	31181.200000	1.398160 o
Ba (493.408 nm)	0.212912	ppm	0.001632	0.77	18463.100000	0.212912
Be (234.861 nm)	0.000063	ppm	0.000029	45.44	-6.225400	0.000063
Bi (223.061 nm)	-0.001626 u	ppm	0.000816	50.18	-1.331630	-0.001626 u
Ca (315.887 nm)	73.707395 o	ppm	0.563885	0.77	65910.440098	73.707395 o
Cd (214.439 nm)	0.000223	ppm	0.000007	3.01	-1.175460	0.000223
Co (228.615 nm)	0.003299	ppm	0.000134	4.06	35.022900	0.003299
Cr (205.560 nm)	0.002865	ppm	0.000145	5.06	51.418500	0.002865
Cu (324.754 nm)	-0.007058 u	ppm	0.000101	1.43	1225.160000	-0.007058 u
Fe (238.204 nm)	0.852238	ppm	0.006132	0.72	2947.001010	0.852238
Fe H (259.940 nm)	0.927948 u	ppm	0.005772	0.62	1649.740000	0.927948 u
K (766.491 nm)	23.204200	ppm	0.102157	0.44	14189.800000	23.204200
Li (670.783 nm)	0.053906	ppm	0.004071	7.55	200.497000	0.053906
Mg (279.078 nm)	17.565000	ppm	0.030983	0.18	84319.400000	17.565000
Mn (257.610 nm)	0.036145	ppm	0.000090	0.25	6981.360000	0.036145
Mo (202.032 nm)	0.002201	ppm	0.000305	13.86	22.114900	0.002201
Na (589.592 nm)	211.703000	ppm	0.563867	0.27	902143.000000	211.703000
Na H (589.593 nm)	195.539605	ppm	1.598035	0.82	584799.929338	195.539605
Ni (231.604 nm)	0.014675	ppm	0.000360	2.45	106.073000	0.014675
P (213.618 nm)	0.425063	ppm	0.003772	0.89	911.364000	0.425063
Pb (220.353 nm)	-0.000929 u	ppm	0.000576	62.01	-8.379040	-0.000929 u
S (181.972 nm)	24.107608 o	ppm	0.016977	0.07	9979.707188	24.107608 o
Sb (206.834 nm)	0.004655	ppm	0.001693	36.37	17.160300	0.004655
Se (196.026 nm)	-0.004815 u	ppm	0.001305	27.10	4.398730	-0.004815 u
Si (288.158 nm)	10.988700	ppm	0.010964	0.10	75211.700000	10.988700
Sn (189.925 nm)	-0.001289 u	ppm	0.001126	87.33	5.828890	-0.001289 u
Sr (421.552 nm)	3.635387 o	ppm	0.023754	0.65	665725.218879	3.635387 o
Th (288.505 nm)	0.007540	ppm	0.003515	46.62	113.707000	0.007540
Ti (336.122 nm)	0.001499	ppm	0.000130	8.69	211.055000	0.001499
Tl (190.794 nm)	0.004338	ppm	0.001039	23.95	-0.316644	0.004338
U (409.013 nm)	-0.014157 u	ppm	0.005214	36.83	28.572300	-0.014157 u
V (292.401 nm)	0.004188	ppm	0.000153	3.66	161.336000	0.004188
Zn (206.200 nm)	0.001873	ppm	0.000130	6.93	17.012600	0.001873
Zr (343.823 nm)	0.001295	ppm	0.000115	8.89	175.468000	0.001295

Solution Name: 280-191098-C-1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191098-C-1-A	5/13/2024 11:49:13 PM	1:20	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.017761	ppm	0.000032	0.18	20054.704232	0.017761
Ag (328.068 nm)	0.000448	ppm	0.000080	17.93	-14.993700	0.000448
Al (167.019 nm)	-0.001509 u	ppm	0.002755	> 100.00	1.612700	-0.001509 u
Al H (396.152 nm)	-0.007012 u	ppm	0.007200	> 100.00	97.851907	-0.007012 u
As (188.980 nm)	0.006788	ppm	0.002967	43.70	7.415200	0.006788
B (249.678 nm)	0.030613	ppm	0.000604	1.97	769.063000	0.030613
Ba (493.408 nm)	0.045400	ppm	0.000717	1.58	3910.630000	0.045400
Be (234.861 nm)	0.000049	ppm	0.000022	44.81	0.539879	0.000049
Bi (223.061 nm)	-0.000986 u	ppm	0.001761	> 100.00	-0.166372	-0.000986 u
Ca (315.887 nm)	85.160747 o	ppm	0.402560	0.47	76158.645088	85.160747 o
Cd (214.439 nm)	0.000064	ppm	0.000053	82.66	-8.606150	0.000064
Co (228.615 nm)	0.000302	ppm	0.000037	12.28	-11.106800	0.000302
Cr (205.560 nm)	-0.000097 u	ppm	0.000155	> 100.00	16.339600	-0.000097 u
Cu (324.754 nm)	-0.000147 u	ppm	0.000298	> 100.00	1215.980000	-0.000147 u
Fe (238.204 nm)	1.815149	ppm	0.009856	0.54	6239.707974	1.815149
Fe H (259.940 nm)	1.872950 u	ppm	0.009797	0.52	3444.310000	1.872950 u
K (766.491 nm)	2.104250	ppm	0.063520	3.02	0.427214	2.104250
Li (670.783 nm)	0.033094	ppm	0.003022	9.13	-170.920000	0.033094
Mg (279.078 nm)	32.258300	ppm	0.046321	0.14	154841.000000	32.258300
Mn (257.610 nm)	0.244723	ppm	0.000641	0.26	47080.400000	0.244723
Mo (202.032 nm)	0.000970	ppm	0.000242	24.97	13.744800	0.000970
Na (589.592 nm)	11.733700	ppm	0.029725	0.25	52525.200000	11.733700
Na H (589.593 nm)	9.752275	ppm	0.315663	3.24	38112.074530	9.752275
Ni (231.604 nm)	-0.002909 u	ppm	0.000827	28.43	2.950530	-0.002909 u
P (213.618 nm)	0.003712	ppm	0.002001	53.91	18.074900	0.003712
Pb (220.353 nm)	0.000852 u	ppm	0.002293	> 100.00	-4.068850	0.000852 u
S (181.972 nm)	31.675038 o	ppm	0.116810	0.37	13106.480098	31.675038 o
Sb (206.834 nm)	-0.001496 u	ppm	0.001123	75.09	3.630760	-0.001496 u
Se (196.026 nm)	-0.004327 u	ppm	0.001138	26.30	4.712970	-0.004327 u
Si (288.158 nm)	7.602530	ppm	0.041057	0.54	52288.300000	7.602530
Sn (189.925 nm)	-0.001281 u	ppm	0.001316	> 100.00	5.859730	-0.001281 u
Sr (421.552 nm)	0.131428	ppm	0.002018	1.54	24085.707399	0.131428
Th (288.505 nm)	0.012707	ppm	0.002382	18.75	126.948000	0.012707
Ti (336.122 nm)	0.000406	ppm	0.000090	22.09	119.197000	0.000406
Tl (190.794 nm)	0.001543 u	ppm	0.003137	> 100.00	-4.941780	0.001543 u
U (409.013 nm)	0.005510	ppm	0.003578	64.94	92.747600	0.005510
V (292.401 nm)	-0.000632 u	ppm	0.000383	60.69	21.280400	-0.000632 u
Zn (206.200 nm)	-0.000180 u	ppm	0.000237	> 100.00	7.317360	-0.000180 u
Zr (343.823 nm)	-0.000283 u	ppm	0.000191	67.56	15.277500	-0.000283 u

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/13/2024 11:53:13 PM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000658	ppm	0.000009	1.36	-2095.363341	0.000658
Ag (328.068 nm)	0.000996	ppm	0.000213	21.43	-47.780200	0.000996
Al (167.019 nm)	48.252900 o	ppm	0.249197	0.52	23647.900000	48.252900 o
Al H (396.152 nm)	47.962752	ppm	0.311886	0.65	101033.840894	47.962752
As (188.980 nm)	-0.001707 u	ppm	0.001301	76.18	-2.742440	-0.001707 u
B (249.678 nm)	0.003670	ppm	0.000432	11.76	101.660000	0.003670
Ba (493.408 nm)	0.001245	ppm	0.000150	12.08	74.741600	0.001245
Be (234.861 nm)	0.000079	ppm	0.000030	38.29	503.371000	0.000079
Bi (223.061 nm)	0.004783	ppm	0.000921	19.25	10.341300	0.004783
Ca (315.887 nm)	-0.004765 u	ppm	0.008300	> 100.00	-45.565563	-0.004765 u
Cd (214.439 nm)	-0.000078 u	ppm	0.000051	64.76	21.913700	-0.000078 u
Co (228.615 nm)	0.000000 u	ppm	0.000291	> 100.00	-15.841700	0.000000 u
Cr (205.560 nm)	0.000190 u	ppm	0.000176	92.26	10.031800	0.000190 u
Cu (324.754 nm)	0.002087	ppm	0.000327	15.68	2124.250000	0.002087
Fe (238.204 nm)	48.570290 o	ppm	0.223066	0.46	166120.524130	48.570290 o
Fe H (259.940 nm)	48.192000	ppm	0.227566	0.47	91404.000000	48.192000
K (766.491 nm)	0.156080	ppm	0.080315	51.46	-1309.690000	0.156080
Li (670.783 nm)	0.012907	ppm	0.002732	21.16	-531.195000	0.012907
Mg (279.078 nm)	-0.011453 u	ppm	0.000967	8.44	-160.574000	-0.011453 u
Mn (257.610 nm)	0.000018 u	ppm	0.000039	> 100.00	35.852500	0.000018 u
Mo (202.032 nm)	-0.000142 u	ppm	0.000479	> 100.00	6.181430	-0.000142 u
Na (589.592 nm)	247.604000	ppm	1.312880	0.53	1054080.000000	247.604000
Na H (589.593 nm)	230.372166	ppm	0.878160	0.38	686878.489867	230.372166
Ni (231.604 nm)	-0.000021 u	ppm	0.000843	> 100.00	19.887000	-0.000021 u
P (213.618 nm)	4.700850	ppm	0.008182	0.17	9975.060000	4.700850
Pb (220.353 nm)	-0.004598 u	ppm	0.002196	47.75	-25.592600	-0.004598 u
S (181.972 nm)	5.038693	ppm	0.017232	0.34	2101.598880	5.038693
Sb (206.834 nm)	0.000008 u	ppm	0.001078	> 100.00	-6.385730	0.000008 u
Se (196.026 nm)	0.002256 u	ppm	0.003125	> 100.00	4.721160	0.002256 u
Si (288.158 nm)	0.003832	ppm	0.001716	44.78	847.517000	0.003832
Sn (189.925 nm)	0.000720	ppm	0.000564	78.25	9.904620	0.000720
Sr (421.552 nm)	0.000246	ppm	0.000109	44.38	63.860968	0.000246
Th (288.505 nm)	4.818270	ppm	0.029075	0.60	9444.570000	4.818270
Ti (336.122 nm)	0.001009	ppm	0.000127	12.61	-8.488230	0.001009
Tl (190.794 nm)	-0.002467 u	ppm	0.002021	81.93	-12.451400	-0.002467 u
U (409.013 nm)	2.416190	ppm	0.005732	0.24	8109.210000	2.416190
V (292.401 nm)	-0.000014 u	ppm	0.000112	> 100.00	253.741000	-0.000014 u
Zn (206.200 nm)	0.001372	ppm	0.000569	41.49	14.647300	0.001372
Zr (343.823 nm)	0.006323	ppm	0.000213	3.37	693.934000	0.006323

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/13/2024 11:57:11 PM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.448559 Q	ppm	0.000628	0.14	577957.245968 Q	0.448559 Q
Ag (328.068 nm)	0.489477	ppm	0.001044	0.21	18642.000000	0.489477
Al (167.019 nm)	0.511174	ppm	0.005322	1.04	252.927000	0.511174
Al H (396.152 nm)	0.462264 u	ppm	0.011368	2.46	1089.628197	0.462264 u
As (188.980 nm)	0.476760	ppm	0.002927	0.61	509.734000	0.476760
B (249.678 nm)	0.469865	ppm	0.000338	0.07	10554.900000	0.469865
Ba (493.408 nm)	0.484295	ppm	0.003421	0.71	42037.500000	0.484295
Be (234.861 nm)	0.462261	ppm	0.002858	0.62	116204.000000	0.462261
Bi (223.061 nm)	0.996776	ppm	0.004082	0.41	1817.050000	0.996776
Ca (315.887 nm)	4.877644	ppm	0.026526	0.54	4323.106054	4.877644
Cd (214.439 nm)	0.513010	ppm	0.000624	0.12	26502.500000	0.513010
Co (228.615 nm)	0.487087	ppm	0.000696	0.14	7421.560000	0.487087
Cr (205.560 nm)	0.508711	ppm	0.000573	0.11	6005.070000	0.508711
Cu (324.754 nm)	0.453104	ppm	0.001459	0.32	24174.500000	0.453104
Fe (238.204 nm)	2.425631	ppm	0.014949	0.62	8327.272730	2.425631
Fe H (259.940 nm)	2.478260 u	ppm	0.014847	0.60	4593.780000	2.478260 u
K (766.491 nm)	51.493800	ppm	0.301541	0.59	33214.200000	51.493800
Li (670.783 nm)	0.538060	ppm	0.006605	1.23	8841.200000	0.538060
Mg (279.078 nm)	19.685500	ppm	0.029976	0.15	94495.200000	19.685500
Mn (257.610 nm)	0.497529	ppm	0.000629	0.13	95682.400000	0.497529
Mo (202.032 nm)	0.504359	ppm	0.001073	0.21	3437.310000	0.504359
Na (589.592 nm)	25.675300	ppm	0.202379	0.79	112824.000000	25.675300
Na H (589.593 nm)	22.651803	ppm	0.185984	0.82	76803.845844	22.651803
Ni (231.604 nm)	0.511559	ppm	0.001260	0.25	3020.580000	0.511559
P (213.618 nm)	0.019625	ppm	0.001454	7.41	16.176700	0.019625
Pb (220.353 nm)	0.478998	ppm	0.001831	0.38	1122.050000	0.478998
S (181.972 nm)	0.020359	ppm	0.006555	32.20	31.638262	0.020359
Sb (206.834 nm)	0.504820	ppm	0.001807	0.36	1106.820000	0.504820
Se (196.026 nm)	0.469811	ppm	0.004876	1.04	416.401000	0.469811
Si (288.158 nm)	4.886140	ppm	0.013185	0.27	34115.700000	4.886140
Sn (189.925 nm)	0.513034	ppm	0.000854	0.17	836.328000	0.513034
Sr (421.552 nm)	0.465779	ppm	0.002670	0.57	85311.650760	0.465779
Th (288.505 nm)	0.039699	ppm	0.019331	48.69	185.455000	0.039699
Ti (336.122 nm)	0.489161	ppm	0.000802	0.16	52624.300000	0.489161
Tl (190.794 nm)	0.506938	ppm	0.002535	0.50	826.242000	0.506938
U (409.013 nm)	-0.002107 u	ppm	0.007851	> 100.00	51.038300	-0.002107 u
V (292.401 nm)	0.492272	ppm	0.000526	0.11	14310.600000	0.492272
Zn (206.200 nm)	0.474814	ppm	0.000435	0.09	2249.950000	0.474814
Zr (343.823 nm)	0.501167	ppm	0.004490	0.90	46857.900000	0.501167

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/14/2024 12:01:05 AM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000253	ppm	0.000031	12.33	-2619.674006	0.000253
Ag (328.068 nm)	-0.000190 u	ppm	0.000271	> 100.00	-39.475100	-0.000190 u
Al (167.019 nm)	-0.003685 u	ppm	0.001429	38.78	-0.765258	-0.003685 u
Al H (396.152 nm)	-0.037824 u	ppm	0.005352	14.15	1.993996	-0.037824 u
As (188.980 nm)	-0.002370 u	ppm	0.003340	> 100.00	-2.331740	-0.002370 u
B (249.678 nm)	0.002239	ppm	0.000368	16.42	140.754000	0.002239
Ba (493.408 nm)	0.000338	ppm	0.000261	77.38	-4.080960	0.000338
Be (234.861 nm)	0.000027	ppm	0.000013	48.45	-24.222600	0.000027
Bi (223.061 nm)	-0.002423 u	ppm	0.001016	41.92	-2.783310	-0.002423 u
Ca (315.887 nm)	0.002272 u	ppm	0.003331	> 100.00	-39.268484	0.002272 u
Cd (214.439 nm)	0.000095	ppm	0.000007	7.34	-8.497200	0.000095
Co (228.615 nm)	0.000132 u	ppm	0.000416	> 100.00	-13.818900	0.000132 u
Cr (205.560 nm)	0.000262	ppm	0.000350	> 100.00	20.945800	0.000262
Cu (324.754 nm)	0.000511	ppm	0.000298	58.25	1284.090000	0.000511
Fe (238.204 nm)	0.001323	ppm	0.001181	89.32	37.267584	0.001323
Fe H (259.940 nm)	0.071932 u	ppm	0.001293	1.80	24.171100	0.071932 u
K (766.491 nm)	-0.022456 u	ppm	0.011543	51.40	-1429.750000	-0.022456 u
Li (670.783 nm)	0.008256 S	ppm	0.002929	35.48	-614.218000 S	0.008256 S
Mg (279.078 nm)	0.000884 u	ppm	0.000947	> 100.00	18.517200	0.000884 u
Mn (257.610 nm)	-0.000037 u	ppm	0.000009	24.57	25.301700	-0.000037 u
Mo (202.032 nm)	0.001066	ppm	0.000270	25.37	14.394000	0.001066
Na (589.592 nm)	0.033968	ppm	0.006518	19.19	2729.150000	0.033968
Na H (589.593 nm)	-1.460109 u	ppm	0.060771	4.16	5059.310716	-1.460109 u
Ni (231.604 nm)	-0.001039 u	ppm	0.000440	42.36	13.919600	-0.001039 u
P (213.618 nm)	-0.000461 u	ppm	0.003131	> 100.00	9.230730	-0.000461 u
Pb (220.353 nm)	-0.000142 u	ppm	0.001393	> 100.00	-6.502980	-0.000142 u
S (181.972 nm)	0.028853	ppm	0.002607	9.04	31.833297	0.028853
Sb (206.834 nm)	-0.000911 u	ppm	0.000904	99.23	5.200220	-0.000911 u
Se (196.026 nm)	-0.000475 u	ppm	0.000423	89.13	7.721070	-0.000475 u
Si (288.158 nm)	-0.005307 u	ppm	0.002650	49.94	785.848000	-0.005307 u
Sn (189.925 nm)	0.000316 u	ppm	0.001676	> 100.00	8.406150	0.000316 u
Sr (421.552 nm)	0.000103	ppm	0.000014	13.44	37.751319	0.000103
Th (288.505 nm)	0.003104 u	ppm	0.004595	> 100.00	104.806000	0.003104 u
Ti (336.122 nm)	0.000298	ppm	0.000044	14.67	-85.176800	0.000298
Tl (190.794 nm)	-0.001001 u	ppm	0.001027	> 100.00	-9.098820	-0.001001 u
U (409.013 nm)	0.000250 u	ppm	0.004140	> 100.00	86.011200	0.000250 u
V (292.401 nm)	-0.000418 u	ppm	0.000059	14.00	25.008600	-0.000418 u
Zn (206.200 nm)	-0.000347 u	ppm	0.000378	> 100.00	6.531740	-0.000347 u
Zr (343.823 nm)	0.000276	ppm	0.000140	50.58	31.028900	0.000276

Solution Name: 280-191098-C-1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191098-C-1-A	5/14/2024 12:04:43 AM	1:21	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.003356	ppm	0.000045	1.34	1399.383417	0.003356
Ag (328.068 nm)	0.000257 u	ppm	0.000297	> 100.00	-22.106300	0.000257 u
Al (167.019 nm)	-0.002340 u	ppm	0.002090	89.35	0.182689	-0.002340 u
Al H (396.152 nm)	-0.023620 u	ppm	0.006304	26.69	38.154331	-0.023620 u
As (188.980 nm)	0.000510 u	ppm	0.000720	> 100.00	0.737951	0.000510 u
B (249.678 nm)	0.006038	ppm	0.000282	4.67	224.637000	0.006038
Ba (493.408 nm)	0.009388	ppm	0.000079	0.84	782.158000	0.009388
Be (234.861 nm)	0.000032	ppm	0.000021	63.90	-18.576500	0.000032
Bi (223.061 nm)	-0.000679 u	ppm	0.000269	39.65	0.392430	-0.000679 u
Ca (315.887 nm)	17.427564 o	ppm	0.072414	0.42	15552.495686	17.427564 o
Cd (214.439 nm)	0.000093	ppm	0.000071	76.29	-8.244960	0.000093
Co (228.615 nm)	0.000148 u	ppm	0.000489	> 100.00	-13.548500	0.000148 u
Cr (205.560 nm)	-0.000060 u	ppm	0.000373	> 100.00	17.069200	-0.000060 u
Cu (324.754 nm)	-0.000233 u	ppm	0.000354	> 100.00	1240.300000	-0.000233 u
Fe (238.204 nm)	0.401540	ppm	0.003932	0.98	1405.825867	0.401540
Fe H (259.940 nm)	0.472516 u	ppm	0.003228	0.68	784.880000	0.472516 u
K (766.491 nm)	0.404235	ppm	0.061051	15.10	-1142.810000	0.404235
Li (670.783 nm)	0.014527	ppm	0.003182	21.90	-502.300000	0.014527
Mg (279.078 nm)	6.535700	ppm	0.010203	0.16	31383.200000	6.535700
Mn (257.610 nm)	0.050533	ppm	0.000027	0.05	9747.480000	0.050533
Mo (202.032 nm)	-0.000031 u	ppm	0.000299	> 100.00	6.938630	-0.000031 u
Na (589.592 nm)	2.309250	ppm	0.009136	0.40	12413.800000	2.309250
Na H (589.593 nm)	0.412973 u	ppm	0.055944	13.55	10583.458070	0.412973 u
Ni (231.604 nm)	-0.001589 u	ppm	0.001359	85.56	10.693400	-0.001589 u
P (213.618 nm)	-0.000583 u	ppm	0.001769	> 100.00	9.020530	-0.000583 u
Pb (220.353 nm)	-0.000113 u	ppm	0.000265	> 100.00	-6.442020	-0.000113 u
S (181.972 nm)	6.274122	ppm	0.014429	0.23	2612.072194	6.274122
Sb (206.834 nm)	-0.000287 u	ppm	0.000943	> 100.00	6.495050	-0.000287 u
Se (196.026 nm)	-0.002810 u	ppm	0.000971	34.55	5.757630	-0.002810 u
Si (288.158 nm)	1.507540	ppm	0.002484	0.16	11027.000000	1.507540
Sn (189.925 nm)	0.000346 u	ppm	0.000810	> 100.00	8.462330	0.000346 u
Sr (421.552 nm)	0.026691	ppm	0.000211	0.79	4906.493514	0.026691
Th (288.505 nm)	0.007753	ppm	0.003095	39.93	114.341000	0.007753
Ti (336.122 nm)	0.000380	ppm	0.000039	10.20	-36.947800	0.000380
Tl (190.794 nm)	0.001610	ppm	0.000619	38.42	-4.802430	0.001610
U (409.013 nm)	-0.003210 u	ppm	0.004733	> 100.00	72.408600	-0.003210 u
V (292.401 nm)	-0.000251 u	ppm	0.000173	68.81	31.135600	-0.000251 u
Zn (206.200 nm)	-0.000025 u	ppm	0.000065	> 100.00	8.050940	-0.000025 u
Zr (343.823 nm)	-0.000113 u	ppm	0.000123	> 100.00	1.966860	-0.000113 u

Solution Name: 280-191098-C-1-B MS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191098-C-1-B MS	5/14/2024 12:08:29 AM	1:22	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.943745	ppm	0.000487	0.05	1219245.290944	0.943745
Ag (328.068 nm)	0.046323	ppm	0.000167	0.36	1711.030000	0.046323
Al (167.019 nm)	9.173500 o	ppm	0.060914	0.66	4497.620000	9.173500 o
Al H (396.152 nm)	9.111294	ppm	0.065542	0.72	19366.145083	9.111294
As (188.980 nm)	0.954182	ppm	0.001709	0.18	1019.840000	0.954182
B (249.678 nm)	1.864930 o	ppm	0.003708	0.20	41579.600000	1.864930 o
Ba (493.408 nm)	0.944002	ppm	0.007503	0.79	81972.400000	0.944002
Be (234.861 nm)	0.874293	ppm	0.003435	0.39	219868.000000	0.874293
Bi (223.061 nm)	0.001342	ppm	0.001383	> 100.00	4.073090	0.001342
Ca (315.887 nm)	126.414086 o	ppm	0.854718	0.68	113071.217538	126.414086 o
Cd (214.439 nm)	0.937749	ppm	0.000777	0.08	48460.900000	0.937749
Co (228.615 nm)	0.851524	ppm	0.001732	0.20	12987.400000	0.851524
Cr (205.560 nm)	0.916755	ppm	0.001584	0.17	10805.900000	0.916755
Cu (324.754 nm)	0.826261	ppm	0.005172	0.63	42979.400000	0.826261
Fe (238.204 nm)	10.633814 o	ppm	0.079032	0.74	36395.439089	10.633814 o
Fe H (259.940 nm)	10.742800	ppm	0.061730	0.57	20288.200000	10.742800
K (766.491 nm)	52.377500	ppm	0.317850	0.61	33808.500000	52.377500
Li (670.783 nm)	1.024750	ppm	0.005220	0.51	17527.200000	1.024750
Mg (279.078 nm)	76.900000 o	ppm	0.087138	0.11	369094.000000	76.900000 o
Mn (257.610 nm)	1.135020 o	ppm	0.000491	0.04	218241.000000	1.135020 o
Mo (202.032 nm)	0.923988	ppm	0.004361	0.47	6291.220000	0.923988
Na (589.592 nm)	60.029300	ppm	0.306538	0.51	259858.000000	60.029300
Na H (589.593 nm)	54.057852	ppm	0.491844	0.91	169959.074582	54.057852
Ni (231.604 nm)	0.886095	ppm	0.002558	0.29	5217.530000	0.886095
P (213.618 nm)	18.603900 o	ppm	0.030730	0.17	39386.500000	18.603900 o
Pb (220.353 nm)	0.885596	ppm	0.001494	0.17	2077.220000	0.885596
S (181.972 nm)	51.305862 o	ppm	0.043343	0.08	21222.888882	51.305862 o
Sb (206.834 nm)	0.932769	ppm	0.001749	0.19	2037.500000	0.932769
Se (196.026 nm)	0.924661	ppm	0.006350	0.69	811.436000	0.924661
Si (288.158 nm)	16.096000 o	ppm	0.078044	0.48	110177.000000	16.096000 o
Sn (189.925 nm)	0.924663	ppm	0.001559	0.17	1501.120000	0.924663
Sr (421.552 nm)	0.993893	ppm	0.008255	0.83	182018.919395	0.993893
Th (288.505 nm)	0.023189	ppm	0.004619	19.92	164.697000	0.023189
Ti (336.122 nm)	0.885936	ppm	0.000808	0.09	95671.000000	0.885936
Tl (190.794 nm)	0.965549	ppm	0.003050	0.32	1580.370000	0.965549
U (409.013 nm)	0.004587 u	ppm	0.005655	> 100.00	40.788600	0.004587 u
V (292.401 nm)	0.919958	ppm	0.001022	0.11	26713.900000	0.919958
Zn (206.200 nm)	0.857153	ppm	0.001534	0.18	4055.120000	0.857153
Zr (343.823 nm)	0.873139	ppm	0.006293	0.72	81678.100000	0.873139

Solution Name: 280-191098-C-1-C MSD

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191098-C-1-C MSD	5/14/2024 12:12:22 AM	1:23	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.968028	ppm	0.000548	0.06	1250692.352846	0.968028
Ag (328.068 nm)	0.047015	ppm	0.000139	0.29	1740.360000	0.047015
Al (167.019 nm)	9.479160 o	ppm	0.070905	0.75	4647.390000	9.479160 o
Al H (396.152 nm)	9.390498	ppm	0.064642	0.69	19957.209008	9.390498
As (188.980 nm)	0.970873	ppm	0.001112	0.11	1037.670000	0.970873
B (249.678 nm)	1.892880 o	ppm	0.001735	0.09	42201.600000	1.892880 o
Ba (493.408 nm)	0.968466	ppm	0.007482	0.77	84097.600000	0.968466
Be (234.861 nm)	0.903297	ppm	0.007683	0.85	227162.000000	0.903297
Bi (223.061 nm)	-0.003640 u	ppm	0.000545	14.97	-4.999130	-0.003640 u
Ca (315.887 nm)	129.474805 o	ppm	0.723932	0.56	115809.881007	129.474805 o
Cd (214.439 nm)	0.958222	ppm	0.001305	0.14	49519.200000	0.958222
Co (228.615 nm)	0.873832	ppm	0.001115	0.13	13328.200000	0.873832
Cr (205.560 nm)	0.946745	ppm	0.000158	0.02	11158.800000	0.946745
Cu (324.754 nm)	0.849641	ppm	0.003672	0.43	44160.100000	0.849641
Fe (238.204 nm)	10.909667 o	ppm	0.060020	0.55	37338.726136	10.909667 o
Fe H (259.940 nm)	10.990900	ppm	0.064266	0.58	20759.200000	10.990900
K (766.491 nm)	53.553700	ppm	0.114483	0.21	34599.400000	53.553700
Li (670.783 nm)	1.049660	ppm	0.000853	0.08	17971.700000	1.049660
Mg (279.078 nm)	78.918400 o	ppm	0.140822	0.18	378782.000000	78.918400 o
Mn (257.610 nm)	1.165540 o	ppm	0.000483	0.04	224108.000000	1.165540 o
Mo (202.032 nm)	0.957515	ppm	0.003377	0.35	6519.230000	0.957515
Na (589.592 nm)	61.402900	ppm	0.131492	0.21	265752.000000	61.402900
Na H (589.593 nm)	55.282674	ppm	0.337981	0.61	173603.514212	55.282674
Ni (231.604 nm)	0.911134	ppm	0.000880	0.10	5364.380000	0.911134
P (213.618 nm)	18.977000 o	ppm	0.023070	0.12	40175.500000	18.977000 o
Pb (220.353 nm)	0.902049	ppm	0.002969	0.33	2115.810000	0.902049
S (181.972 nm)	51.621533 o	ppm	0.032834	0.06	21353.453408	51.621533 o
Sb (206.834 nm)	0.956946	ppm	0.004956	0.52	2090.250000	0.956946
Se (196.026 nm)	0.937875	ppm	0.002166	0.23	822.917000	0.937875
Si (288.158 nm)	16.403000 o	ppm	0.026829	0.16	112268.000000	16.403000 o
Sn (189.925 nm)	0.953653	ppm	0.002509	0.26	1547.940000	0.953653
Sr (421.552 nm)	1.019540	ppm	0.008204	0.80	186715.406466	1.019540
Th (288.505 nm)	0.024170	ppm	0.004916	20.34	167.005000	0.024170
Ti (336.122 nm)	0.914829	ppm	0.000263	0.03	98792.700000	0.914829
Tl (190.794 nm)	0.979316	ppm	0.002965	0.30	1602.940000	0.979316
U (409.013 nm)	0.002611	ppm	0.000224	8.59	31.588100	0.002611
V (292.401 nm)	0.944783	ppm	0.000400	0.04	27432.400000	0.944783
Zn (206.200 nm)	0.880796	ppm	0.001760	0.20	4166.750000	0.880796
Zr (343.823 nm)	0.915993	ppm	0.000861	0.09	85684.100000	0.915993

Solution Name: 280-191098-C-1-A PDS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191098-C-1-A PDS	5/14/2024 12:16:23 AM	1:24	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.110092	ppm	0.000165	0.15	139627.446382	0.110092
Ag (328.068 nm)	0.047253	ppm	0.000175	0.37	1766.360000	0.047253
Al (167.019 nm)	1.006070	ppm	0.004691	0.47	495.313000	1.006070
Al H (396.152 nm)	0.974698	ppm	0.017194	1.76	2174.060460	0.974698
As (188.980 nm)	0.204088	ppm	0.001030	0.50	218.280000	0.204088
B (249.678 nm)	0.126550	ppm	0.000626	0.49	2902.890000	0.126550
Ba (493.408 nm)	0.138166	ppm	0.000731	0.53	11968.900000	0.138166
Be (234.861 nm)	0.046856	ppm	0.000086	0.18	11776.500000	0.046856
Bi (223.061 nm)	0.002871	ppm	0.000743	25.88	6.859340	0.002871
Ca (315.887 nm)	102.463028 o	ppm	0.544341	0.53	91640.342737	102.463028 o
Cd (214.439 nm)	0.049957	ppm	0.000176	0.35	2570.740000	0.049957
Co (228.615 nm)	0.046422	ppm	0.000164	0.35	693.233000	0.046422
Cr (205.560 nm)	0.050386	ppm	0.000464	0.92	610.412000	0.050386
Cu (324.754 nm)	0.044879	ppm	0.000193	0.43	3484.860000	0.044879
Fe (238.204 nm)	2.725358	ppm	0.010526	0.39	9352.201773	2.725358
Fe H (259.940 nm)	2.782030 u	ppm	0.006847	0.25	5170.630000	2.782030 u
K (766.491 nm)	22.901100	ppm	0.018733	0.08	13986.000000	22.901100
Li (670.783 nm)	0.136785	ppm	0.001546	1.13	1679.660000	0.136785
Mg (279.078 nm)	51.078600 o	ppm	0.107717	0.21	245160.000000	51.078600 o
Mn (257.610 nm)	0.286517	ppm	0.000485	0.17	55115.300000	0.286517
Mo (202.032 nm)	0.055563	ppm	0.002142	3.85	385.030000	0.055563
Na (589.592 nm)	31.823300	ppm	0.103066	0.32	138070.000000	31.823300
Na H (589.593 nm)	27.651796	ppm	0.189240	0.68	90914.031902	27.651796
Ni (231.604 nm)	0.045569	ppm	0.000869	1.91	287.453000	0.045569
P (213.618 nm)	1.936170	ppm	0.005481	0.28	4111.400000	1.936170
Pb (220.353 nm)	0.093711	ppm	0.000094	0.10	215.637000	0.093711
S (181.972 nm)	32.067155 o	ppm	0.051828	0.16	13269.139570	32.067155 o
Sb (206.834 nm)	0.099718	ppm	0.000766	0.77	221.522000	0.099718
Se (196.026 nm)	0.192087	ppm	0.005305	2.76	175.401000	0.192087
Si (288.158 nm)	12.125300 o	ppm	0.018383	0.15	82946.300000	12.125300 o
Sn (189.925 nm)	0.101242	ppm	0.001401	1.38	171.417000	0.101242
Sr (421.552 nm)	0.174730	ppm	0.001159	0.66	32015.118515	0.174730
Th (288.505 nm)	0.210264	ppm	0.003180	1.51	516.727000	0.210264
Ti (336.122 nm)	0.049261	ppm	0.000092	0.19	5424.860000	0.049261
Tl (190.794 nm)	0.200827	ppm	0.000592	0.29	323.185000	0.200827
U (409.013 nm)	0.493245	ppm	0.002466	0.50	1699.510000	0.493245
V (292.401 nm)	0.048635	ppm	0.000259	0.53	1440.080000	0.048635
Zn (206.200 nm)	0.184654	ppm	0.001897	1.03	879.990000	0.184654
Zr (343.823 nm)	0.085830	ppm	0.009540	11.11	8082.620000	0.085830

Solution Name: 280-191098-A-2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191098-A-2-A	5/14/2024 12:20:16 AM	1:25	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.018727	ppm	0.000029	0.15	21305.440296	0.018727
Ag (328.068 nm)	0.000727	ppm	0.000097	13.40	-4.313330	0.000727
Al (167.019 nm)	0.001777	ppm	0.001688	95.01	3.271270	0.001777
Al H (396.152 nm)	0.006150 u	ppm	0.005960	96.92	127.361601	0.006150 u
As (188.980 nm)	0.008049	ppm	0.000514	6.39	8.761180	0.008049
B (249.678 nm)	0.029453	ppm	0.000270	0.92	743.159000	0.029453
Ba (493.408 nm)	0.047676	ppm	0.000926	1.94	4108.380000	0.047676
Be (234.861 nm)	0.000064	ppm	0.000027	41.61	4.967090	0.000064
Bi (223.061 nm)	0.000511 u	ppm	0.001979	> 100.00	2.559450	0.000511 u
Ca (315.887 nm)	90.132367 o	ppm	0.469034	0.52	80607.140216	90.132367 o
Cd (214.439 nm)	0.000121	ppm	0.000018	14.81	-5.593190	0.000121
Co (228.615 nm)	0.000369 u	ppm	0.000339	91.80	-10.091500	0.000369 u
Cr (205.560 nm)	-0.000372 u	ppm	0.000389	> 100.00	13.093700	-0.000372 u
Cu (324.754 nm)	-0.000288 u	ppm	0.000351	> 100.00	1207.720000	-0.000288 u
Fe (238.204 nm)	1.884602	ppm	0.010340	0.55	6477.205465	1.884602
Fe H (259.940 nm)	1.940230 u	ppm	0.009688	0.50	3572.060000	1.940230 u
K (766.491 nm)	2.173110	ppm	0.121364	5.58	46.734600	2.173110
Li (670.783 nm)	0.035586	ppm	0.001160	3.26	-126.455000	0.035586
Mg (279.078 nm)	34.174200	ppm	0.069489	0.20	164036.000000	34.174200
Mn (257.610 nm)	0.257274	ppm	0.000275	0.11	49493.300000	0.257274
Mo (202.032 nm)	0.001126	ppm	0.000364	32.29	14.808300	0.001126
Na (589.592 nm)	12.075400	ppm	0.021787	0.18	53981.900000	12.075400
Na H (589.593 nm)	9.317253	ppm	0.204100	2.19	36836.383093	9.317253
Ni (231.604 nm)	-0.002137 u	ppm	0.000405	18.96	7.474910	-0.002137 u
P (213.618 nm)	0.003945	ppm	0.001008	25.56	18.565300	0.003945
Pb (220.353 nm)	-0.000186 u	ppm	0.002491	> 100.00	-6.523710	-0.000186 u
S (181.972 nm)	32.911582 o	ppm	0.069793	0.21	13617.366532	32.911582 o
Sb (206.834 nm)	0.000450 u	ppm	0.001281	> 100.00	7.814380	0.000450 u
Se (196.026 nm)	-0.002309 u	ppm	0.002524	> 100.00	6.483500	-0.002309 u
Si (288.158 nm)	7.964580	ppm	0.014221	0.18	54739.300000	7.964580
Sn (189.925 nm)	-0.000754 u	ppm	0.001285	> 100.00	6.710630	-0.000754 u
Sr (421.552 nm)	0.139593	ppm	0.001891	1.35	25580.998816	0.139593
Th (288.505 nm)	0.016708	ppm	0.002368	14.18	134.823000	0.016708
Ti (336.122 nm)	0.000364	ppm	0.000132	36.35	125.881000	0.000364
Tl (190.794 nm)	0.000127 u	ppm	0.001292	> 100.00	-7.275570	0.000127 u
U (409.013 nm)	0.004895 u	ppm	0.005145	> 100.00	90.092300	0.004895 u
V (292.401 nm)	-0.000702 u	ppm	0.000555	79.09	19.764100	-0.000702 u
Zn (206.200 nm)	-0.000432 u	ppm	0.000268	61.94	6.127460	-0.000432 u
Zr (343.823 nm)	-0.000464 u	ppm	0.000210	45.39	0.152804	-0.000464 u

Solution Name: 280-191098-C-5-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191098-C-5-A	5/14/2024 12:24:03 AM	1:26	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001282	ppm	0.000026	2.01	-1287.040581	0.001282
Ag (328.068 nm)	0.000489	ppm	0.000209	42.70	-13.339900	0.000489
Al (167.019 nm)	-0.001104 u	ppm	0.001588	> 100.00	0.522336	-0.001104 u
Al H (396.152 nm)	0.017356 u	ppm	0.000760	4.38	160.838139	0.017356 u
As (188.980 nm)	-0.000686 u	ppm	0.003049	> 100.00	-0.531895	-0.000686 u
B (249.678 nm)	0.048402	ppm	0.000269	0.56	1167.220000	0.048402
Ba (493.408 nm)	0.058434	ppm	0.000953	1.63	5042.970000	0.058434
Be (234.861 nm)	0.000053	ppm	0.000034	64.51	-17.377900	0.000053
Bi (223.061 nm)	-0.002653 u	ppm	0.000941	35.47	-3.202010	-0.002653 u
Ca (315.887 nm)	117.383513 o	ppm	0.747771	0.64	104990.861106	117.383513 o
Cd (214.439 nm)	0.000134	ppm	0.000053	39.80	-6.447280	0.000134
Co (228.615 nm)	-0.000265 u	ppm	0.000246	92.64	-19.723500	-0.000265 u
Cr (205.560 nm)	-0.000031 u	ppm	0.000417	> 100.00	17.490200	-0.000031 u
Cu (324.754 nm)	0.000284	ppm	0.000082	28.99	1225.110000	0.000284
Fe (238.204 nm)	0.034772	ppm	0.002985	8.59	151.648017	0.034772
Fe H (259.940 nm)	0.108062 u	ppm	0.003344	3.09	92.782700	0.108062 u
K (766.491 nm)	1.095680	ppm	0.094270	8.60	-677.822000	1.095680
Li (670.783 nm)	0.007226	ppm	0.001540	21.32	-632.596000	0.007226
Mg (279.078 nm)	23.144300	ppm	0.015953	0.07	111099.000000	23.144300
Mn (257.610 nm)	0.022854	ppm	0.000032	0.14	4426.190000	0.022854
Mo (202.032 nm)	0.000531	ppm	0.000140	26.44	10.757200	0.000531
Na (589.592 nm)	1.938890	ppm	0.026168	1.35	10963.000000	1.938890
Na H (589.593 nm)	-0.136090 u	ppm	0.052367	38.48	9053.126319	-0.136090 u
Ni (231.604 nm)	-0.001170 u	ppm	0.000575	49.17	13.151900	-0.001170 u
P (213.618 nm)	0.005838	ppm	0.000566	9.70	22.500300	0.005838
Pb (220.353 nm)	-0.000345 u	ppm	0.001959	> 100.00	-7.008130	-0.000345 u
S (181.972 nm)	9.327277	ppm	0.017099	0.18	3873.396160	9.327277
Sb (206.834 nm)	-0.000714 u	ppm	0.000481	67.45	5.619510	-0.000714 u
Se (196.026 nm)	-0.001407 u	ppm	0.004892	> 100.00	7.176630	-0.001407 u
Si (288.158 nm)	5.379820	ppm	0.010860	0.20	37240.900000	5.379820
Sn (189.925 nm)	-0.001682 u	ppm	0.000988	58.73	5.180870	-0.001682 u
Sr (421.552 nm)	0.241619	ppm	0.002456	1.02	44263.782724	0.241619
Th (288.505 nm)	0.012593	ppm	0.003788	30.08	123.449000	0.012593
Ti (336.122 nm)	0.000360	ppm	0.000098	27.28	187.162000	0.000360
Tl (190.794 nm)	0.000754 u	ppm	0.001386	> 100.00	-6.205990	0.000754 u
U (409.013 nm)	0.005437 u	ppm	0.008684	> 100.00	86.875600	0.005437 u
V (292.401 nm)	-0.000538 u	ppm	0.000208	38.56	23.479700	-0.000538 u
Zn (206.200 nm)	0.016192	ppm	0.000340	2.10	84.618100	0.016192
Zr (343.823 nm)	-0.000193 u	ppm	0.000009	4.60	10.503400	-0.000193 u

Solution Name: 280-191107-B-1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191107-B-1-A	5/14/2024 12:27:51 AM	1:27	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.039914	ppm	0.000053	0.13	48743.580447	0.039914
Ag (328.068 nm)	0.000821	ppm	0.000294	35.79	-0.368508	0.000821
Al (167.019 nm)	0.006026	ppm	0.001027	17.05	4.028010	0.006026
Al H (396.152 nm)	0.060164 u	ppm	0.004084	6.79	311.759953	0.060164 u
As (188.980 nm)	0.001080 u	ppm	0.002093	> 100.00	1.354580	0.001080 u
B (249.678 nm)	0.031725	ppm	0.000426	1.34	796.371000	0.031725
Ba (493.408 nm)	0.004413	ppm	0.000214	4.84	349.943000	0.004413
Be (234.861 nm)	0.001679	ppm	0.000028	1.65	391.675000	0.001679
Bi (223.061 nm)	-0.002038 u	ppm	0.001092	53.60	-2.082340	-0.002038 u
Ca (315.887 nm)	284.133301 o	ppm	1.621554	0.57	254194.871365	284.133301 o
Cd (214.439 nm)	0.000072 u	ppm	0.000075	> 100.00	-9.618210	0.000072 u
Co (228.615 nm)	0.000441	ppm	0.000376	85.27	-9.130960	0.000441
Cr (205.560 nm)	-0.000536 u	ppm	0.000371	69.17	11.525200	-0.000536 u
Cu (324.754 nm)	-0.015741 u	ppm	0.000293	1.86	1034.140000	-0.015741 u
Fe (238.204 nm)	0.058319	ppm	0.002720	4.66	232.167756	0.058319
Fe H (259.940 nm)	0.128603 u	ppm	0.001736	1.35	131.789000	0.128603 u
K (766.491 nm)	4.247360	ppm	0.057227	1.35	1441.640000	4.247360
Li (670.783 nm)	0.059553	ppm	0.001039	1.74	301.293000	0.059553
Mg (279.078 nm)	65.035600 o	ppm	0.262877	0.40	312164.000000	65.035600 o
Mn (257.610 nm)	0.010129	ppm	0.000026	0.26	1979.820000	0.010129
Mo (202.032 nm)	0.002281	ppm	0.000073	3.19	22.660600	0.002281
Na (589.592 nm)	39.333900	ppm	0.121798	0.31	169633.000000	39.333900
Na H (589.593 nm)	34.490122	ppm	0.460079	1.33	110795.799686	34.490122
Ni (231.604 nm)	0.000935	ppm	0.000527	56.38	25.496600	0.000935
P (213.618 nm)	0.004347	ppm	0.000522	12.02	19.396500	0.004347
Pb (220.353 nm)	0.000500 u	ppm	0.001568	> 100.00	-5.072050	0.000500 u
S (181.972 nm)	321.235714 bo	ppm	0.572848	0.18	132733.903254	321.235714 bo
Sb (206.834 nm)	-0.000653 u	ppm	0.002356	> 100.00	5.731940	-0.000653 u
Se (196.026 nm)	0.001820 u	ppm	0.003146	> 100.00	10.301400	0.001820 u
Si (288.158 nm)	12.538500 o	ppm	0.010567	0.08	85703.500000	12.538500 o
Sn (189.925 nm)	-0.001778 u	ppm	0.001129	63.50	5.025970	-0.001778 u
Sr (421.552 nm)	7.425368 o	ppm	0.094809	1.28	1359740.471607	7.425368 o
Th (288.505 nm)	0.017330	ppm	0.006352	36.65	132.205000	0.017330
Ti (336.122 nm)	0.000377	ppm	0.000133	35.36	566.415000	0.000377
Tl (190.794 nm)	0.002613	ppm	0.001394	53.37	-3.144380	0.002613
U (409.013 nm)	0.002379 u	ppm	0.006001	> 100.00	53.539200	0.002379 u
V (292.401 nm)	-0.000589 u	ppm	0.000268	45.58	24.114700	-0.000589 u
Zn (206.200 nm)	0.085287	ppm	0.000418	0.49	410.841000	0.085287
Zr (343.823 nm)	0.000725	ppm	0.000028	3.85	127.334000	0.000725

Solution Name: 280-191107-B-2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191107-B-2-A	5/14/2024 12:31:40 AM	1:28	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.024366	ppm	0.000043	0.18	28608.025070	0.024366
Ag (328.068 nm)	0.001111	ppm	0.000235	21.16	10.642400	0.001111
Al (167.019 nm)	2.293070	ppm	0.011410	0.50	1123.620000	2.293070
Al H (396.152 nm)	2.220065	ppm	0.015676	0.71	4788.685557	2.220065
As (188.980 nm)	-0.001605 u	ppm	0.002746	> 100.00	-1.530400	-0.001605 u
B (249.678 nm)	0.096392	ppm	0.000454	0.47	2233.740000	0.096392
Ba (493.408 nm)	0.057836	ppm	0.000482	0.83	4991.040000	0.057836
Be (234.861 nm)	0.001898	ppm	0.000035	1.85	453.714000	0.001898
Bi (223.061 nm)	-0.001132 u	ppm	0.001535	> 100.00	-0.431990	-0.001132 u
Ca (315.887 nm)	94.001688 o	ppm	0.356612	0.38	84069.322914	94.001688 o
Cd (214.439 nm)	0.002581	ppm	0.000045	1.74	120.587000	0.002581
Co (228.615 nm)	0.008622	ppm	0.000095	1.10	115.947000	0.008622
Cr (205.560 nm)	0.000187	ppm	0.000169	90.62	19.902000	0.000187
Cu (324.754 nm)	0.014000	ppm	0.000411	2.94	2021.140000	0.014000
Fe (238.204 nm)	0.704302	ppm	0.002970	0.42	2441.128718	0.704302
Fe H (259.940 nm)	0.769929 u	ppm	0.004269	0.55	1349.670000	0.769929 u
K (766.491 nm)	7.062600	ppm	0.057003	0.81	3334.850000	7.062600
Li (670.783 nm)	0.035946	ppm	0.003578	9.95	-120.035000	0.035946
Mg (279.078 nm)	21.821000	ppm	0.008159	0.04	104747.000000	21.821000
Mn (257.610 nm)	4.542870 o	ppm	0.002132	0.05	873400.000000	4.542870 o
Mo (202.032 nm)	0.001884	ppm	0.000367	19.50	19.957600	0.001884
Na (589.592 nm)	110.000000	ppm	0.224088	0.20	469859.000000	110.000000
Na H (589.593 nm)	100.579299	ppm	1.320192	1.31	305255.491682	100.579299
Ni (231.604 nm)	0.023695	ppm	0.001101	4.65	158.974000	0.023695
P (213.618 nm)	0.573248	ppm	0.002051	0.36	1224.240000	0.573248
Pb (220.353 nm)	0.001560	ppm	0.000307	19.68	-3.312700	0.001560
S (181.972 nm)	80.177433 o	ppm	0.174076	0.22	33152.952968	80.177433 o
Sb (206.834 nm)	-0.001708 u	ppm	0.001970	> 100.00	3.405960	-0.001708 u
Se (196.026 nm)	-0.000641 u	ppm	0.001443	> 100.00	11.467600	-0.000641 u
Si (288.158 nm)	12.649200 o	ppm	0.039512	0.31	86453.400000	12.649200 o
Sn (189.925 nm)	0.000025 u	ppm	0.000211	> 100.00	7.949240	0.000025 u
Sr (421.552 nm)	1.007219	ppm	0.006568	0.65	184459.267590	1.007219
Th (288.505 nm)	0.052796	ppm	0.002814	5.33	268.997000	0.052796
Ti (336.122 nm)	0.010429	ppm	0.000222	2.13	1219.640000	0.010429
Tl (190.794 nm)	0.003081	ppm	0.002400	77.88	-2.396930	0.003081
U (409.013 nm)	-0.007733 u	ppm	0.005168	66.83	46.990300	-0.007733 u
V (292.401 nm)	-0.000654 u	ppm	0.000414	63.22	25.004300	-0.000654 u
Zn (206.200 nm)	0.387797	ppm	0.000758	0.20	1839.110000	0.387797
Zr (343.823 nm)	-0.000174 u	ppm	0.000074	42.78	45.093000	-0.000174 u

Solution Name: 280-191107-B-3-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191107-B-3-A	5/14/2024 12:35:32 AM	1:29	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.010891	ppm	0.000028	0.26	11157.407044	0.010891
Ag (328.068 nm)	0.000257	ppm	0.000174	67.79	-22.288700	0.000257
Al (167.019 nm)	0.170561	ppm	0.004074	2.39	84.665800	0.170561
Al H (396.152 nm)	0.145630 u	ppm	0.004050	2.78	400.065434	0.145630 u
As (188.980 nm)	-0.000276 u	ppm	0.001690	> 100.00	-0.098424	-0.000276 u
B (249.678 nm)	0.021633	ppm	0.000285	1.32	571.673000	0.021633
Ba (493.408 nm)	0.033150	ppm	0.000542	1.63	2846.480000	0.033150
Be (234.861 nm)	0.000096	ppm	0.000019	20.33	-4.521780	0.000096
Bi (223.061 nm)	-0.001180 u	ppm	0.001168	98.95	-0.519389	-0.001180 u
Ca (315.887 nm)	32.790580 o	ppm	0.130562	0.40	29298.981895	32.790580 o
Cd (214.439 nm)	0.000186	ppm	0.000017	9.11	-3.593660	0.000186
Co (228.615 nm)	0.000073 u	ppm	0.000300	> 100.00	-14.532000	0.000073 u
Cr (205.560 nm)	-0.000166 u	ppm	0.000186	> 100.00	15.853800	-0.000166 u
Cu (324.754 nm)	0.000843	ppm	0.000387	45.87	1303.340000	0.000843
Fe (238.204 nm)	0.231846	ppm	0.001176	0.51	825.550673	0.231846
Fe H (259.940 nm)	0.301854 u	ppm	0.002489	0.82	460.794000	0.301854 u
K (766.491 nm)	2.173140	ppm	0.041825	1.92	46.757100	2.173140
Li (670.783 nm)	0.026711	ppm	0.000939	3.52	-284.843000	0.026711
Mg (279.078 nm)	7.496450	ppm	0.012253	0.16	35994.700000	7.496450
Mn (257.610 nm)	0.078033	ppm	0.000184	0.24	15034.200000	0.078033
Mo (202.032 nm)	0.001202	ppm	0.000206	17.13	15.321700	0.001202
Na (589.592 nm)	18.392900	ppm	0.011055	0.06	80774.400000	18.392900
Na H (589.593 nm)	15.131126	ppm	0.119954	0.79	53910.168861	15.131126
Ni (231.604 nm)	-0.001747 u	ppm	0.000741	42.43	9.762640	-0.001747 u
P (213.618 nm)	0.038564	ppm	0.000974	2.53	91.896400	0.038564
Pb (220.353 nm)	0.000712 u	ppm	0.002068	> 100.00	-4.575170	0.000712 u
S (181.972 nm)	8.843739	ppm	0.015280	0.17	3673.739324	8.843739
Sb (206.834 nm)	-0.003335 u	ppm	0.001676	50.25	-0.046500	-0.003335 u
Se (196.026 nm)	-0.000211 u	ppm	0.003448	> 100.00	8.356780	-0.000211 u
Si (288.158 nm)	8.005300	ppm	0.028591	0.36	55014.800000	8.005300
Sn (189.925 nm)	-0.001456 u	ppm	0.000492	33.79	5.548680	-0.001456 u
Sr (421.552 nm)	0.220190	ppm	0.000913	0.41	40339.716290	0.220190
Th (288.505 nm)	0.003522	ppm	0.001615	45.84	106.637000	0.003522
Ti (336.122 nm)	0.004462	ppm	0.000078	1.74	437.861000	0.004462
Tl (190.794 nm)	0.001470 u	ppm	0.002518	> 100.00	-5.044370	0.001470 u
U (409.013 nm)	-0.003691 u	ppm	0.006339	> 100.00	68.556900	-0.003691 u
V (292.401 nm)	0.000634	ppm	0.000355	56.04	56.911000	0.000634
Zn (206.200 nm)	0.004907	ppm	0.000750	15.29	31.335500	0.004907
Zr (343.823 nm)	-0.000005 u	ppm	0.000143	> 100.00	39.835000	-0.000005 u

Solution Name: 280-191107-B-4-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191107-B-4-A	5/14/2024 12:39:19 AM	1:30	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.015536	ppm	0.000037	0.24	17172.183435	0.015536
Ag (328.068 nm)	0.000097 u	ppm	0.000256	> 100.00	-28.413800	0.000097 u
Al (167.019 nm)	0.207437	ppm	0.003430	1.65	102.757000	0.207437
Al H (396.152 nm)	0.186730 u	ppm	0.003017	1.62	497.127295	0.186730 u
As (188.980 nm)	-0.001470 u	ppm	0.002496	> 100.00	-1.376420	-0.001470 u
B (249.678 nm)	0.027380	ppm	0.000632	2.31	699.365000	0.027380
Ba (493.408 nm)	0.033697	ppm	0.000382	1.13	2893.970000	0.033697
Be (234.861 nm)	0.000160	ppm	0.000012	7.72	12.253400	0.000160
Bi (223.061 nm)	-0.002078 u	ppm	0.001372	66.02	-2.155830	-0.002078 u
Ca (315.887 nm)	61.660195 o	ppm	0.407543	0.66	55130.872532	61.660195 o
Cd (214.439 nm)	0.000092	ppm	0.000014	15.07	-8.411480	0.000092
Co (228.615 nm)	-0.000086 u	ppm	0.000111	> 100.00	-16.894500	-0.000086 u
Cr (205.560 nm)	0.000461	ppm	0.000333	72.15	23.230400	0.000461
Cu (324.754 nm)	-0.001198 u	ppm	0.000102	8.54	1255.500000	-0.001198 u
Fe (238.204 nm)	0.295299	ppm	0.001231	0.42	1042.530864	0.295299
Fe H (259.940 nm)	0.364544 u	ppm	0.002882	0.79	579.841000	0.364544 u
K (766.491 nm)	2.513190	ppm	0.081919	3.26	275.432000	2.513190
Li (670.783 nm)	0.028127	ppm	0.003902	13.87	-259.573000	0.028127
Mg (279.078 nm)	9.464610	ppm	0.028559	0.30	45441.100000	9.464610
Mn (257.610 nm)	0.112026	ppm	0.000248	0.22	21569.400000	0.112026
Mo (202.032 nm)	0.001883	ppm	0.000318	16.90	19.952100	0.001883
Na (589.592 nm)	23.291800	ppm	0.075004	0.32	101580.000000	23.291800
Na H (589.593 nm)	19.772507	ppm	0.284854	1.44	67561.621389	19.772507
Ni (231.604 nm)	-0.001661 u	ppm	0.000242	14.54	10.269200	-0.001661 u
P (213.618 nm)	0.037600	ppm	0.001430	3.80	89.883800	0.037600
Pb (220.353 nm)	0.001237 u	ppm	0.003352	> 100.00	-3.342580	0.001237 u
S (181.972 nm)	34.771567 o	ppm	0.061768	0.18	14385.520418	34.771567 o
Sb (206.834 nm)	-0.001784 u	ppm	0.000252	14.12	3.298120	-0.001784 u
Se (196.026 nm)	0.000746 u	ppm	0.001668	> 100.00	9.271500	0.000746 u
Si (288.158 nm)	9.398820	ppm	0.028314	0.30	64448.700000	9.398820
Sn (189.925 nm)	-0.002144 u	ppm	0.000545	25.39	4.438460	-0.002144 u
Sr (421.552 nm)	0.942392	ppm	0.011594	1.23	172588.177156	0.942392
Th (288.505 nm)	0.008294	ppm	0.002428	29.27	116.445000	0.008294
Ti (336.122 nm)	0.006480	ppm	0.000101	1.56	720.777000	0.006480
Tl (190.794 nm)	0.001187	ppm	0.001074	90.51	-5.519470	0.001187
U (409.013 nm)	0.000038 u	ppm	0.004591	> 100.00	76.923700	0.000038 u
V (292.401 nm)	0.000639	ppm	0.000100	15.67	57.335100	0.000639
Zn (206.200 nm)	0.007177	ppm	0.000121	1.68	42.051900	0.007177
Zr (343.823 nm)	-0.000002 u	ppm	0.000181	> 100.00	46.274800	-0.000002 u

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/14/2024 12:43:09 AM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000634	ppm	0.000051	8.09	-2125.975975	0.000634
Ag (328.068 nm)	0.001141	ppm	0.000157	13.77	-44.097200	0.001141
Al (167.019 nm)	49.251200 o	ppm	0.362216	0.74	24136.900000	49.251200 o
Al H (396.152 nm)	48.504471	ppm	0.322242	0.66	102174.027172	48.504471
As (188.980 nm)	-0.003038 u	ppm	0.003405	> 100.00	-4.180430	-0.003038 u
B (249.678 nm)	0.001328	ppm	0.000148	11.17	48.593600	0.001328
Ba (493.408 nm)	0.001219	ppm	0.000138	11.30	72.497300	0.001219
Be (234.861 nm)	0.000137	ppm	0.000040	29.13	525.276000	0.000137
Bi (223.061 nm)	0.004642	ppm	0.002295	49.44	10.084500	0.004642
Ca (315.887 nm)	-0.006430 u	ppm	0.006494	> 100.00	-47.055289	-0.006430 u
Cd (214.439 nm)	-0.000076 u	ppm	0.000076	99.43	22.575500	-0.000076 u
Co (228.615 nm)	-0.000314 u	ppm	0.000182	57.95	-20.623700	-0.000314 u
Cr (205.560 nm)	-0.000041 u	ppm	0.000676	> 100.00	7.163780	-0.000041 u
Cu (324.754 nm)	0.002459	ppm	0.000211	8.58	2148.600000	0.002459
Fe (238.204 nm)	49.225844 o	ppm	0.317106	0.64	168362.213653	49.225844 o
Fe H (259.940 nm)	48.846300	ppm	0.324472	0.66	92646.600000	48.846300
K (766.491 nm)	0.039183 u	ppm	0.210025	> 100.00	-1388.300000	0.039183 u
Li (670.783 nm)	0.010352	ppm	0.004092	39.52	-576.797000	0.010352
Mg (279.078 nm)	-0.012374 u	ppm	0.001110	8.97	-166.759000	-0.012374 u
Mn (257.610 nm)	-0.000004 u	ppm	0.000026	> 100.00	31.694200	-0.000004 u
Mo (202.032 nm)	-0.000642 u	ppm	0.000050	7.77	2.783930	-0.000642 u
Na (589.592 nm)	251.226000	ppm	0.644791	0.26	1069460.000000	251.226000
Na H (589.593 nm)	232.357088	ppm	0.845187	0.36	692715.870680	232.357088
Ni (231.604 nm)	-0.000340 u	ppm	0.001026	> 100.00	18.017500	-0.000340 u
P (213.618 nm)	4.766290	ppm	0.005419	0.11	10113.800000	4.766290
Pb (220.353 nm)	-0.006609 u	ppm	0.001357	20.53	-30.397000	-0.006609 u
S (181.972 nm)	5.064462	ppm	0.004398	0.09	2112.236744	5.064462
Sb (206.834 nm)	-0.000275 u	ppm	0.001125	> 100.00	-7.186850	-0.000275 u
Se (196.026 nm)	0.000171 u	ppm	0.002665	> 100.00	2.836200	0.000171 u
Si (288.158 nm)	0.001315 u	ppm	0.002029	> 100.00	830.904000	0.001315 u
Sn (189.925 nm)	0.000078 u	ppm	0.002046	> 100.00	8.879660	0.000078 u
Sr (421.552 nm)	0.000178	ppm	0.000160	90.07	51.438375	0.000178
Th (288.505 nm)	4.852700	ppm	0.054253	1.12	9511.660000	4.852700
Ti (336.122 nm)	0.000916	ppm	0.000128	13.98	-18.485900	0.000916
Tl (190.794 nm)	-0.003341 u	ppm	0.001026	30.71	-13.902800	-0.003341 u
U (409.013 nm)	2.446150	ppm	0.016487	0.67	8209.050000	2.446150
V (292.401 nm)	0.000064 u	ppm	0.000152	> 100.00	257.179000	0.000064 u
Zn (206.200 nm)	0.000981	ppm	0.000275	28.03	12.801300	0.000981
Zr (343.823 nm)	0.001110	ppm	0.000198	17.84	208.129000	0.001110

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/14/2024 12:47:03 AM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.453585	ppm	0.000860	0.19	584465.329202	0.453585
Ag (328.068 nm)	0.492791	ppm	0.000251	0.05	18764.600000	0.492791
Al (167.019 nm)	0.519540	ppm	0.002149	0.41	257.044000	0.519540
Al H (396.152 nm)	0.472379 u	ppm	0.001608	0.34	1111.319881	0.472379 u
As (188.980 nm)	0.479614	ppm	0.000901	0.19	512.783000	0.479614
B (249.678 nm)	0.471447	ppm	0.001739	0.37	10590.200000	0.471447
Ba (493.408 nm)	0.489937	ppm	0.002315	0.47	42527.700000	0.489937
Be (234.861 nm)	0.472786	ppm	0.001069	0.23	118851.000000	0.472786
Bi (223.061 nm)	1.010750	ppm	0.003135	0.31	1842.500000	1.010750
Ca (315.887 nm)	4.934852	ppm	0.019250	0.39	4374.294645	4.934852
Cd (214.439 nm)	0.518263	ppm	0.000753	0.15	26774.000000	0.518263
Co (228.615 nm)	0.491097	ppm	0.001837	0.37	7482.800000	0.491097
Cr (205.560 nm)	0.513491	ppm	0.000790	0.15	6061.250000	0.513491
Cu (324.754 nm)	0.456586	ppm	0.001764	0.39	24355.000000	0.456586
Fe (238.204 nm)	2.457037	ppm	0.007820	0.32	8434.666605	2.457037
Fe H (259.940 nm)	2.509000 u	ppm	0.010259	0.41	4652.160000	2.509000 u
K (766.491 nm)	51.881000	ppm	0.212981	0.41	33474.600000	51.881000
Li (670.783 nm)	0.544847	ppm	0.002832	0.52	8962.340000	0.544847
Mg (279.078 nm)	19.849600	ppm	0.027583	0.14	95282.700000	19.849600
Mn (257.610 nm)	0.502259	ppm	0.000603	0.12	96591.700000	0.502259
Mo (202.032 nm)	0.509718	ppm	0.000610	0.12	3473.760000	0.509718
Na (589.592 nm)	25.764000	ppm	0.156130	0.61	113216.000000	25.764000
Na H (589.593 nm)	22.325693	ppm	0.147306	0.66	75855.218620	22.325693
Ni (231.604 nm)	0.516667	ppm	0.001106	0.21	3050.540000	0.516667
P (213.618 nm)	0.019893	ppm	0.003953	19.87	16.475800	0.019893
Pb (220.353 nm)	0.483697	ppm	0.000387	0.08	1133.110000	0.483697
S (181.972 nm)	0.001887 u	ppm	0.006146	> 100.00	24.046051	0.001887 u
Sb (206.834 nm)	0.511980	ppm	0.000603	0.12	1122.440000	0.511980
Se (196.026 nm)	0.476511	ppm	0.005108	1.07	422.220000	0.476511
Si (288.158 nm)	4.918780	ppm	0.014210	0.29	34337.800000	4.918780
Sn (189.925 nm)	0.514889	ppm	0.004900	0.95	839.324000	0.514889
Sr (421.552 nm)	0.471985	ppm	0.002250	0.48	86448.031797	0.471985
Th (288.505 nm)	0.058930	ppm	0.035003	59.40	222.521000	0.058930
Ti (336.122 nm)	0.493327	ppm	0.000866	0.18	53073.600000	0.493327
Tl (190.794 nm)	0.512674	ppm	0.000336	0.07	835.676000	0.512674
U (409.013 nm)	-0.003861 u	ppm	0.003434	88.94	46.213000	-0.003861 u
V (292.401 nm)	0.497201	ppm	0.000164	0.03	14454.900000	0.497201
Zn (206.200 nm)	0.478399	ppm	0.001196	0.25	2266.870000	0.478399
Zr (343.823 nm)	0.483788	ppm	0.004054	0.84	45234.300000	0.483788

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/14/2024 12:50:58 AM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000216	ppm	0.000025	11.48	-2667.353937	0.000216
Ag (328.068 nm)	-0.000027 u	ppm	0.000352	> 100.00	-33.045100	-0.000027 u
Al (167.019 nm)	-0.002818 u	ppm	0.005532	> 100.00	-0.342048	-0.002818 u
Al H (396.152 nm)	-0.033281 u	ppm	0.009022	27.11	11.529699	-0.033281 u
As (188.980 nm)	-0.001504 u	ppm	0.002068	> 100.00	-1.405800	-0.001504 u
B (249.678 nm)	0.001044	ppm	0.000139	13.28	114.160000	0.001044
Ba (493.408 nm)	0.000031 u	ppm	0.000349	> 100.00	-30.756700	0.000031 u
Be (234.861 nm)	0.000011 u	ppm	0.000011	99.35	-28.383600	0.000011 u
Bi (223.061 nm)	-0.000959 u	ppm	0.001457	> 100.00	-0.116066	-0.000959 u
Ca (315.887 nm)	0.005798	ppm	0.003869	66.73	-36.113985	0.005798
Cd (214.439 nm)	0.000091	ppm	0.000039	43.19	-8.704550	0.000091
Co (228.615 nm)	0.000062 u	ppm	0.000201	> 100.00	-14.875000	0.000062 u
Cr (205.560 nm)	0.000033 u	ppm	0.000058	> 100.00	18.248100	0.000033 u
Cu (324.754 nm)	0.000766	ppm	0.000111	14.43	1297.580000	0.000766
Fe (238.204 nm)	-0.000126 u	ppm	0.003184	> 100.00	32.313521	-0.000126 u
Fe H (259.940 nm)	0.072593 u	ppm	0.001247	1.72	25.426000	0.072593 u
K (766.491 nm)	-0.056222 u	ppm	0.124397	> 100.00	-1452.460000	-0.056222 u
Li (670.783 nm)	0.006994 S	ppm	0.001968	28.14	-636.737000 S	0.006994 S
Mg (279.078 nm)	-0.000004 u	ppm	0.000614	> 100.00	14.419500	-0.000004 u
Mn (257.610 nm)	-0.000018 u	ppm	0.000033	> 100.00	29.079800	-0.000018 u
Mo (202.032 nm)	0.000714	ppm	0.000528	74.02	12.001700	0.000714
Na (589.592 nm)	-0.050515 u	ppm	0.015949	31.57	2369.610000	-0.050515 u
Na H (589.593 nm)	-2.022689 u	ppm	0.019243	0.95	3404.230721	-2.022689 u
Ni (231.604 nm)	-0.000014 u	ppm	0.000684	> 100.00	19.925700	-0.000014 u
P (213.618 nm)	-0.000115 u	ppm	0.003065	> 100.00	9.935800	-0.000115 u
Pb (220.353 nm)	0.000374 u	ppm	0.000667	> 100.00	-5.301210	0.000374 u
S (181.972 nm)	0.007162	ppm	0.003659	51.08	22.877711	0.007162
Sb (206.834 nm)	-0.001414 u	ppm	0.001890	> 100.00	4.126860	-0.001414 u
Se (196.026 nm)	-0.001050 u	ppm	0.000762	72.62	7.222340	-0.001050 u
Si (288.158 nm)	-0.002564 u	ppm	0.001368	53.33	804.394000	-0.002564 u
Sn (189.925 nm)	0.000024 u	ppm	0.002429	> 100.00	7.935300	0.000024 u
Sr (421.552 nm)	0.000070	ppm	0.000061	87.08	31.636525	0.000070
Th (288.505 nm)	0.001045 u	ppm	0.002434	> 100.00	100.715000	0.001045 u
Ti (336.122 nm)	0.000165	ppm	0.000143	86.84	-99.567200	0.000165
Tl (190.794 nm)	-0.000102 u	ppm	0.002498	> 100.00	-7.617360	-0.000102 u
U (409.013 nm)	-0.002743 u	ppm	0.005425	> 100.00	76.099800	-0.002743 u
V (292.401 nm)	-0.000319 u	ppm	0.000108	33.78	28.371000	-0.000319 u
Zn (206.200 nm)	-0.000157 u	ppm	0.000290	> 100.00	7.425750	-0.000157 u
Zr (343.823 nm)	0.000115	ppm	0.000049	42.96	15.952500	0.000115

Solution Name: 280-191107-B-5-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191107-B-5-A	5/14/2024 12:54:34 AM	1:31	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.004121	ppm	0.000014	0.33	2389.116189	0.004121
Ag (328.068 nm)	-0.000165 u	ppm	0.000335	> 100.00	-38.222600	-0.000165 u
Al (167.019 nm)	0.264980	ppm	0.008780	3.31	131.029000	0.264980
Al H (396.152 nm)	0.224209 u	ppm	0.010131	4.52	556.184612	0.224209 u
As (188.980 nm)	-0.001159 u	ppm	0.002587	> 100.00	-1.047040	-0.001159 u
B (249.678 nm)	0.005412	ppm	0.000235	4.35	210.635000	0.005412
Ba (493.408 nm)	0.041389	ppm	0.000326	0.79	3562.220000	0.041389
Be (234.861 nm)	0.000508	ppm	0.000010	2.06	101.400000	0.000508
Bi (223.061 nm)	-0.000858 u	ppm	0.000899	> 100.00	0.067616	-0.000858 u
Ca (315.887 nm)	7.437070	ppm	0.072094	0.97	6613.223446	7.437070
Cd (214.439 nm)	0.000137	ppm	0.000054	39.58	-5.924380	0.000137
Co (228.615 nm)	0.000258	ppm	0.000147	56.94	-11.719500	0.000258
Cr (205.560 nm)	-0.000392 u	ppm	0.000297	75.92	13.152800	-0.000392 u
Cu (324.754 nm)	0.001899	ppm	0.000075	3.93	1353.980000	0.001899
Fe (238.204 nm)	0.454772	ppm	0.003714	0.82	1587.854984	0.454772
Fe H (259.940 nm)	0.523282 u	ppm	0.007936	1.52	881.285000	0.523282 u
K (766.491 nm)	1.369880	ppm	0.105613	7.71	-493.427000	1.369880
Li (670.783 nm)	0.012963	ppm	0.001053	8.12	-530.196000	0.012963
Mg (279.078 nm)	1.334880	ppm	0.003807	0.29	6420.810000	1.334880
Mn (257.610 nm)	0.042159	ppm	0.000138	0.33	8137.540000	0.042159
Mo (202.032 nm)	0.000435	ppm	0.000355	81.61	10.107200	0.000435
Na (589.592 nm)	4.799080	ppm	0.015682	0.33	23066.400000	4.799080
Na H (589.593 nm)	2.406487 u	ppm	0.030338	1.26	16501.156453	2.406487 u
Ni (231.604 nm)	-0.001170 u	ppm	0.000399	34.11	13.151600	-0.001170 u
P (213.618 nm)	0.009128	ppm	0.001633	17.89	29.447000	0.009128
Pb (220.353 nm)	0.000434 u	ppm	0.000764	> 100.00	-5.223840	0.000434 u
S (181.972 nm)	2.127708	ppm	0.008785	0.41	899.023903	2.127708
Sb (206.834 nm)	-0.002083 u	ppm	0.003429	> 100.00	2.587610	-0.002083 u
Se (196.026 nm)	-0.003245 u	ppm	0.002542	78.34	5.540590	-0.003245 u
Si (288.158 nm)	5.211490	ppm	0.024307	0.47	36101.500000	5.211490
Sn (189.925 nm)	-0.000733 u	ppm	0.002826	> 100.00	6.720340	-0.000733 u
Sr (421.552 nm)	0.040175	ppm	0.000290	0.72	7375.735504	0.040175
Th (288.505 nm)	-0.000523 u	ppm	0.003393	> 100.00	98.322600	-0.000523 u
Ti (336.122 nm)	0.003790	ppm	0.000092	2.43	307.987000	0.003790
Tl (190.794 nm)	0.002068	ppm	0.000415	20.04	-4.058170	0.002068
U (409.013 nm)	-0.002122 u	ppm	0.004995	> 100.00	77.394500	-0.002122 u
V (292.401 nm)	-0.000278 u	ppm	0.000047	16.93	29.713500	-0.000278 u
Zn (206.200 nm)	0.004746	ppm	0.000171	3.61	30.574400	0.004746
Zr (343.823 nm)	0.000667	ppm	0.000113	17.00	91.018400	0.000667

Solution Name: 280-191107-B-6-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191107-B-6-A	5/14/2024 12:58:26 AM	1:32	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.090043	ppm	0.000120	0.13	113663.034267	0.090043
Ag (328.068 nm)	0.000617	ppm	0.000270	43.77	-8.005430	0.000617
Al (167.019 nm)	0.172980	ppm	0.002863	1.66	86.327600	0.172980
Al H (396.152 nm)	0.275681 u	ppm	0.007448	2.70	848.206242	0.275681 u
As (188.980 nm)	0.000295 u	ppm	0.003175	> 100.00	0.496520	0.000295 u
B (249.678 nm)	0.108714	ppm	0.000423	0.39	2507.180000	0.108714
Ba (493.408 nm)	0.010969	ppm	0.000378	3.44	919.454000	0.010969
Be (234.861 nm)	0.002907	ppm	0.000046	1.59	708.418000	0.002907
Bi (223.061 nm)	-0.001279 u	ppm	0.001283	> 100.00	-0.699465	-0.001279 u
Ca (315.887 nm)	509.302368 o	ppm	3.880675	0.76	455671.157059	509.302368 o
Cd (214.439 nm)	0.000351	ppm	0.000132	37.66	5.486850	0.000351
Co (228.615 nm)	0.000594	ppm	0.000433	72.87	-6.794870	0.000594
Cr (205.560 nm)	-0.000155 u	ppm	0.000209	> 100.00	15.816700	-0.000155 u
Cu (324.754 nm)	-0.024951 bu	ppm	0.000490	1.96	842.472000	-0.024951 bu
Fe (238.204 nm)	0.891658	ppm	0.007756	0.87	3081.800628	0.891658
Fe H (259.940 nm)	0.960801 u	ppm	0.005941	0.62	1712.130000	0.960801 u
K (766.491 nm)	6.165320	ppm	0.133158	2.16	2731.440000	6.165320
Li (670.783 nm)	0.108165	ppm	0.002401	2.22	1168.870000	0.108165
Mg (279.078 nm)	35.858400	ppm	0.032163	0.09	172122.000000	35.858400
Mn (257.610 nm)	1.011800	ppm	0.000283	0.03	194552.000000	1.011800
Mo (202.032 nm)	0.015960	ppm	0.000435	2.73	115.694000	0.015960
Na (589.592 nm)	91.899500	ppm	0.316061	0.34	392877.000000	91.899500
Na H (589.593 nm)	84.042992	ppm	1.341784	1.60	256541.246843	84.042992
Ni (231.604 nm)	-0.000402 u	ppm	0.001102	> 100.00	17.657400	-0.000402 u
P (213.618 nm)	0.002391	ppm	0.001514	63.30	15.263100	0.002391
Pb (220.353 nm)	0.001204 u	ppm	0.001862	> 100.00	-3.506000	0.001204 u
S (181.972 nm)	408.297958 bo	ppm	0.472901	0.12	168704.387848	408.297958 bo
Sb (206.834 nm)	-0.000192 u	ppm	0.000917	> 100.00	6.548530	-0.000192 u
Se (196.026 nm)	0.000131 u	ppm	0.001635	> 100.00	10.183200	0.000131 u
Si (288.158 nm)	27.446000 o	ppm	0.154091	0.56	186623.000000	27.446000 o
Sn (189.925 nm)	0.000807 u	ppm	0.001439	> 100.00	9.213860	0.000807 u
Sr (421.552 nm)	11.590381 bo	ppm	0.206214	1.78	2122431.106768	11.590381 bo
Th (288.505 nm)	0.025619	ppm	0.003507	13.69	163.200000	0.025619
Ti (336.122 nm)	0.000416	ppm	0.000192	46.20	1079.940000	0.000416
Tl (190.794 nm)	0.002319	ppm	0.001280	55.17	-3.666500	0.002319
U (409.013 nm)	0.006156 u	ppm	0.011641	> 100.00	35.353200	0.006156 u
V (292.401 nm)	-0.000064 u	ppm	0.000164	> 100.00	39.409200	-0.000064 u
Zn (206.200 nm)	0.106287	ppm	0.000200	0.19	509.990000	0.106287
Zr (343.823 nm)	-0.000405 u	ppm	0.000074	18.22	87.850600	-0.000405 u

Solution Name: 280-191119-A-5-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191119-A-5-A	5/14/2024 1:02:17 AM	1:33	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000418	ppm	0.000025	5.92	-2405.821862	0.000418
Ag (328.068 nm)	-0.000017 u	ppm	0.000190	> 100.00	-32.795600	-0.000017 u
Al (167.019 nm)	0.054829	ppm	0.001723	3.14	27.915600	0.054829
Al H (396.152 nm)	0.026695 u	ppm	0.006289	23.56	146.146950	0.026695 u
As (188.980 nm)	-0.001464 u	ppm	0.001504	> 100.00	-1.364580	-0.001464 u
B (249.678 nm)	0.002461	ppm	0.000458	18.62	145.590000	0.002461
Ba (493.408 nm)	0.071386	ppm	0.000106	0.15	6168.170000	0.071386
Be (234.861 nm)	0.000036	ppm	0.000011	29.79	-21.294500	0.000036
Bi (223.061 nm)	-0.001205 u	ppm	0.001785	> 100.00	-0.564768	-0.001205 u
Ca (315.887 nm)	23.133397 o	ppm	0.160028	0.69	20657.948618	23.133397 o
Cd (214.439 nm)	0.000091	ppm	0.000033	35.97	-8.646910	0.000091
Co (228.615 nm)	0.000271	ppm	0.000256	94.68	-11.494300	0.000271
Cr (205.560 nm)	0.000471	ppm	0.000235	49.76	23.397700	0.000471
Cu (324.754 nm)	0.000317	ppm	0.000194	61.18	1263.250000	0.000317
Fe (238.204 nm)	0.067705	ppm	0.001175	1.74	264.264384	0.067705
Fe H (259.940 nm)	0.134547 u	ppm	0.001416	1.05	143.078000	0.134547 u
K (766.491 nm)	0.670679	ppm	0.012028	1.79	-963.629000	0.670679
Li (670.783 nm)	0.010071	ppm	0.001925	19.11	-581.815000	0.010071
Mg (279.078 nm)	12.650500	ppm	0.029944	0.24	60732.600000	12.650500
Mn (257.610 nm)	0.001031	ppm	0.000094	9.15	230.609000	0.001031
Mo (202.032 nm)	0.000361 u	ppm	0.000526	> 100.00	9.604180	0.000361 u
Na (589.592 nm)	0.485397	ppm	0.014277	2.94	4822.040000	0.485397
Na H (589.593 nm)	-1.423340 u	ppm	0.055727	3.92	5289.209157	-1.423340 u
Ni (231.604 nm)	-0.001514 u	ppm	0.000391	25.82	11.130900	-0.001514 u
P (213.618 nm)	0.003667	ppm	0.001448	39.48	17.970300	0.003667
Pb (220.353 nm)	-0.000734 u	ppm	0.000740	> 100.00	-7.925540	-0.000734 u
S (181.972 nm)	0.523373	ppm	0.015472	2.96	236.152043	0.523373
Sb (206.834 nm)	-0.001566 u	ppm	0.002466	> 100.00	3.797510	-0.001566 u
Se (196.026 nm)	-0.000977 u	ppm	0.002231	> 100.00	7.471910	-0.000977 u
Si (288.158 nm)	4.140660	ppm	0.033725	0.81	28852.500000	4.140660
Sn (189.925 nm)	-0.000947 u	ppm	0.000163	17.23	6.368290	-0.000947 u
Sr (421.552 nm)	0.015559	ppm	0.000271	1.74	2867.980802	0.015559
Th (288.505 nm)	0.004140 u	ppm	0.005795	> 100.00	106.767000	0.004140 u
Ti (336.122 nm)	0.000930	ppm	0.000021	2.24	35.269500	0.000930
Tl (190.794 nm)	0.000161 u	ppm	0.000739	> 100.00	-7.185270	0.000161 u
U (409.013 nm)	0.000331 u	ppm	0.008356	> 100.00	83.107500	0.000331 u
V (292.401 nm)	-0.000105 u	ppm	0.000250	> 100.00	35.212700	-0.000105 u
Zn (206.200 nm)	0.001617	ppm	0.000472	29.16	15.804100	0.001617
Zr (343.823 nm)	-0.000099 u	ppm	0.000087	88.71	14.072200	-0.000099 u

Solution Name: MB 280-651846/1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
MB 280-651846/1-A	5/14/2024 1:05:54 AM	1:34	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000148	ppm	0.000035	23.39	-2754.873333	0.000148
Ag (328.068 nm)	0.000249	ppm	0.000125	50.28	-22.774600	0.000249
Al (167.019 nm)	-0.002863 u	ppm	0.005170	> 100.00	-0.360830	-0.002863 u
Al H (396.152 nm)	-0.031416 u	ppm	0.007851	24.99	15.407954	-0.031416 u
As (188.980 nm)	0.000137 u	ppm	0.002188	> 100.00	0.348101	0.000137 u
B (249.678 nm)	0.000565	ppm	0.000379	67.01	103.523000	0.000565
Ba (493.408 nm)	0.000576	ppm	0.000360	62.52	16.584200	0.000576
Be (234.861 nm)	0.000035	ppm	0.000008	23.87	-22.204100	0.000035
Bi (223.061 nm)	-0.000344 u	ppm	0.001081	> 100.00	1.002380	-0.000344 u
Ca (315.887 nm)	0.010994	ppm	0.007005	63.72	-31.464654	0.010994
Cd (214.439 nm)	0.000019 u	ppm	0.000035	> 100.00	-12.396500	0.000019 u
Co (228.615 nm)	0.000256	ppm	0.000126	48.98	-11.923800	0.000256
Cr (205.560 nm)	0.000079 u	ppm	0.000367	> 100.00	18.786100	0.000079 u
Cu (324.754 nm)	0.000549	ppm	0.000262	47.72	1285.600000	0.000549
Fe (238.204 nm)	0.004076	ppm	0.000839	20.57	46.684059	0.004076
Fe H (259.940 nm)	0.073986 u	ppm	0.001148	1.55	28.071800	0.073986 u
K (766.491 nm)	-0.091643 u	ppm	0.049408	53.91	-1476.280000	-0.091643 u
Li (670.783 nm)	0.004352	ppm	0.002607	59.91	-683.884000	0.004352
Mg (279.078 nm)	0.001608	ppm	0.000460	28.60	21.999600	0.001608
Mn (257.610 nm)	0.000058	ppm	0.000025	42.52	43.664300	0.000058
Mo (202.032 nm)	-0.000108 u	ppm	0.000360	> 100.00	6.410150	-0.000108 u
Na (589.592 nm)	-0.035356 u	ppm	0.019716	55.76	2435.280000	-0.035356 u
Na H (589.593 nm)	-2.124822 u	ppm	0.050102	2.36	3104.755323	-2.124822 u
Ni (231.604 nm)	-0.001663 u	ppm	0.000284	17.07	10.259800	-0.001663 u
P (213.618 nm)	-0.001014 u	ppm	0.001448	> 100.00	8.043250	-0.001014 u
Pb (220.353 nm)	-0.000401 u	ppm	0.000961	> 100.00	-7.110360	-0.000401 u
S (181.972 nm)	0.021848	ppm	0.003810	17.44	28.946591	0.021848
Sb (206.834 nm)	0.000092 u	ppm	0.003555	> 100.00	7.348830	0.000092 u
Se (196.026 nm)	-0.001555 u	ppm	0.000942	60.56	6.783270	-0.001555 u
Si (288.158 nm)	0.000050 u	ppm	0.000457	> 100.00	821.550000	0.000050 u
Sn (189.925 nm)	-0.001066 u	ppm	0.000148	13.88	6.175330	-0.001066 u
Sr (421.552 nm)	0.000091	ppm	0.000016	17.82	35.480277	0.000091
Th (288.505 nm)	-0.002153 u	ppm	0.003788	> 100.00	94.643800	-0.002153 u
Ti (336.122 nm)	0.000168	ppm	0.000110	65.77	-99.186100	0.000168
Tl (190.794 nm)	-0.000013 u	ppm	0.002226	> 100.00	-7.469280	-0.000013 u
U (409.013 nm)	-0.000927 u	ppm	0.005440	> 100.00	82.118600	-0.000927 u
V (292.401 nm)	-0.000145 u	ppm	0.000228	> 100.00	32.975400	-0.000145 u
Zn (206.200 nm)	-0.000417 u	ppm	0.000033	7.93	6.199210	-0.000417 u
Zr (343.823 nm)	-0.000157 u	ppm	0.000044	28.15	-9.386780	-0.000157 u

Solution Name: LCS 280-651846/2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LCS 280-651846/2-A	5/14/2024 1:09:31 AM	1:35	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.487428	ppm	0.004497	0.30	1923338.087981	1.487428
Ag (328.068 nm)	0.069533	ppm	0.000382	0.55	2503.100000	0.069533
Al (167.019 nm)	15.370900 o	ppm	0.111975	0.73	7533.730000	15.370900 o
Al H (396.152 nm)	14.689951	ppm	0.134017	0.91	31095.511977	14.689951
As (188.980 nm)	1.490560 o	ppm	0.007121	0.48	1593.040000	1.490560 o
B (249.678 nm)	2.844160 o	ppm	0.007868	0.28	63369.800000	2.844160 o
Ba (493.408 nm)	1.463700 o	ppm	0.008773	0.60	127118.000000	1.463700 o
Be (234.861 nm)	1.429970 o	ppm	0.001602	0.11	359636.000000	1.429970 o
Bi (223.061 nm)	0.000212 u	ppm	0.000673	> 100.00	2.015860	0.000212 u
Ca (315.887 nm)	74.314854 o	ppm	0.627820	0.84	66453.980628	74.314854 o
Cd (214.439 nm)	1.511830 o	ppm	0.001688	0.11	78135.200000	1.511830 o
Co (228.615 nm)	1.408890 o	ppm	0.004321	0.31	21483.900000	1.408890 o
Cr (205.560 nm)	1.511350 o	ppm	0.003290	0.22	17803.200000	1.511350 o
Cu (324.754 nm)	1.337970 o	ppm	0.004241	0.32	68876.900000	1.337970 o
Fe (238.204 nm)	15.463426 o	ppm	0.132331	0.86	52910.463907	15.463426 o
Fe H (259.940 nm)	15.536100	ppm	0.111607	0.72	29390.600000	15.536100
K (766.491 nm)	79.411300	ppm	0.439100	0.55	51988.300000	79.411300
Li (670.783 nm)	1.602330 o	ppm	0.015105	0.94	27835.200000	1.602330 o
Mg (279.078 nm)	75.527400 o	ppm	0.123435	0.16	362500.000000	75.527400 o
Mn (257.610 nm)	1.488890 o	ppm	0.002254	0.15	286272.000000	1.488890 o
Mo (202.032 nm)	1.018970	ppm	0.002188	0.21	6937.190000	1.018970
Na (589.592 nm)	76.415700	ppm	0.713642	0.93	330741.000000	76.415700
Na H (589.593 nm)	70.144427	ppm	0.412935	0.59	218163.731083	70.144427
Ni (231.604 nm)	1.473850 o	ppm	0.002070	0.14	8665.030000	1.473850 o
P (213.618 nm)	29.454200 o	ppm	0.099893	0.34	62349.500000	29.454200 o
Pb (220.353 nm)	1.409310 o	ppm	0.006272	0.45	3310.810000	1.409310 o
S (181.972 nm)	30.079876 o	ppm	0.059124	0.20	12456.977345	30.079876 o
Sb (206.834 nm)	1.004140	ppm	0.001400	0.14	2208.380000	1.004140
Se (196.026 nm)	1.433460 o	ppm	0.006950	0.48	1252.640000	1.433460 o
Si (288.158 nm)	9.490530	ppm	0.008475	0.09	65499.400000	9.490530
Sn (189.925 nm)	1.016210	ppm	0.001903	0.19	1649.030000	1.016210
Sr (421.552 nm)	1.407880 o	ppm	0.008838	0.63	257827.687380	1.407880 o
Th (288.505 nm)	0.024937	ppm	0.003262	13.08	170.077000	0.024937
Ti (336.122 nm)	0.976280	ppm	0.001182	0.12	105292.000000	0.976280
Tl (190.794 nm)	1.516070 o	ppm	0.001943	0.13	2488.030000	1.516070 o
U (409.013 nm)	-0.000478 u	ppm	0.004538	> 100.00	29.410800	-0.000478 u
V (292.401 nm)	1.485420 o	ppm	0.002224	0.15	43102.500000	1.485420 o
Zn (206.200 nm)	1.414420 o	ppm	0.003091	0.22	6686.210000	1.414420 o
Zr (343.823 nm)	0.962705	ppm	0.005569	0.58	90028.000000	0.962705

Solution Name: LCSD 280-651846/3-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LCSD 280-651846/3-A	5/14/2024 1:13:23 AM	1:36	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.475840	ppm	0.004368	0.30	1908332.039994	1.475840
Ag (328.068 nm)	0.068877	ppm	0.000224	0.33	2540.770000	0.068877
Al (167.019 nm)	15.123700 o	ppm	0.084312	0.56	7412.180000	15.123700 o
Al H (396.152 nm)	14.543740	ppm	0.099076	0.68	30809.687217	14.543740
As (188.980 nm)	1.473030 o	ppm	0.004724	0.32	1574.320000	1.473030 o
B (249.678 nm)	2.831780 o	ppm	0.001301	0.05	63095.100000	2.831780 o
Ba (493.408 nm)	1.449370 o	ppm	0.011256	0.78	125873.000000	1.449370 o
Be (234.861 nm)	1.401070 o	ppm	0.004264	0.30	352342.000000	1.401070 o
Bi (223.061 nm)	0.000034 u	ppm	0.001519	> 100.00	1.691090	0.000034 u
Ca (315.887 nm)	73.368986 o	ppm	0.525879	0.72	65607.638801	73.368986 o
Cd (214.439 nm)	1.495870 o	ppm	0.001761	0.12	77309.800000	1.495870 o
Co (228.615 nm)	1.395540 o	ppm	0.000866	0.06	21289.900000	1.395540 o
Cr (205.560 nm)	1.495460 o	ppm	0.000448	0.03	17616.500000	1.495460 o
Cu (324.754 nm)	1.330170 o	ppm	0.002728	0.21	68486.700000	1.330170 o
Fe (238.204 nm)	14.671600 o	ppm	0.097267	0.66	50202.787421	14.671600 o
Fe H (259.940 nm)	14.753700	ppm	0.095543	0.65	27904.900000	14.753700
K (766.491 nm)	78.873600	ppm	0.563288	0.71	51626.700000	78.873600
Li (670.783 nm)	1.589380 o	ppm	0.009731	0.61	27604.100000	1.589380 o
Mg (279.078 nm)	74.823300 o	ppm	0.086778	0.12	359121.000000	74.823300 o
Mn (257.610 nm)	1.472400 o	ppm	0.001056	0.07	283102.000000	1.472400 o
Mo (202.032 nm)	1.354660 o	ppm	0.004411	0.33	9220.210000	1.354660 o
Na (589.592 nm)	75.743000	ppm	0.510480	0.67	327849.000000	75.743000
Na H (589.593 nm)	69.687628	ppm	0.474644	0.68	216795.988871	69.687628
Ni (231.604 nm)	1.455940 o	ppm	0.003502	0.24	8559.940000	1.455940 o
P (213.618 nm)	29.180300 o	ppm	0.002996	0.01	61769.300000	29.180300 o
Pb (220.353 nm)	1.396140 o	ppm	0.004551	0.33	3278.490000	1.396140 o
S (181.972 nm)	29.760246 o	ppm	0.076299	0.26	12324.808587	29.760246 o
Sb (206.834 nm)	1.330140 o	ppm	0.000560	0.04	2908.140000	1.330140 o
Se (196.026 nm)	1.413320 o	ppm	0.003152	0.22	1235.380000	1.413320 o
Si (288.158 nm)	12.586400 o	ppm	0.054104	0.43	86598.200000	12.586400 o
Sn (189.925 nm)	1.348400 o	ppm	0.004165	0.31	2185.390000	1.348400 o
Sr (421.552 nm)	1.394694 o	ppm	0.011724	0.84	255413.014641	1.394694 o
Th (288.505 nm)	0.026976	ppm	0.006813	25.25	178.025000	0.026976
Ti (336.122 nm)	1.296910 o	ppm	0.000879	0.07	139853.000000	1.296910 o
Tl (190.794 nm)	1.490470 o	ppm	0.003028	0.20	2444.180000	1.490470 o
U (409.013 nm)	-0.000274 u	ppm	0.007382	> 100.00	10.646300	-0.000274 u
V (292.401 nm)	1.470560 o	ppm	0.001407	0.10	42673.100000	1.470560 o
Zn (206.200 nm)	1.399980 o	ppm	0.001053	0.08	6618.010000	1.399980 o
Zr (343.823 nm)	1.301810 o	ppm	0.003057	0.23	121725.000000	1.301810 o

Solution Name: 280-190848-A-9-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190848-A-9-A	5/14/2024 1:17:19 AM	1:37	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.029160	ppm	0.000006	0.02	34816.641380	0.029160
Ag (328.068 nm)	0.000658	ppm	0.000154	23.44	-7.322970	0.000658
Al (167.019 nm)	0.019805	ppm	0.001585	8.01	10.751100	0.019805
Al H (396.152 nm)	0.043512 u	ppm	0.011701	26.89	228.237541	0.043512 u
As (188.980 nm)	-0.000067 u	ppm	0.004359	> 100.00	0.128881	-0.000067 u
B (249.678 nm)	0.034296	ppm	0.000391	1.14	853.555000	0.034296
Ba (493.408 nm)	0.976822	ppm	0.008960	0.92	84827.200000	0.976822
Be (234.861 nm)	0.000058	ppm	0.000007	12.59	-16.251500	0.000058
Bi (223.061 nm)	-0.001611 u	ppm	0.002034	> 100.00	-1.304550	-0.001611 u
Ca (315.887 nm)	150.424786 o	ppm	0.661642	0.44	134555.459586	150.424786 o
Cd (214.439 nm)	0.000223	ppm	0.000022	10.10	-1.864690	0.000223
Co (228.615 nm)	0.000022 u	ppm	0.000148	> 100.00	-12.856500	0.000022 u
Cr (205.560 nm)	0.000283 u	ppm	0.000287	> 100.00	21.180100	0.000283 u
Cu (324.754 nm)	-0.001748 u	ppm	0.000085	4.88	1179.730000	-0.001748 u
Fe (238.204 nm)	0.031971	ppm	0.001298	4.06	142.069440	0.031971
Fe H (259.940 nm)	0.099341 u	ppm	0.002634	2.65	76.220500	0.099341 u
K (766.491 nm)	1.164020	ppm	0.090529	7.78	-631.865000	1.164020
Li (670.783 nm)	0.039916	ppm	0.001416	3.55	-49.178400	0.039916
Mg (279.078 nm)	74.294600 o	ppm	0.123892	0.17	356604.000000	74.294600 o
Mn (257.610 nm)	0.221394	ppm	0.000446	0.20	42595.500000	0.221394
Mo (202.032 nm)	0.005270	ppm	0.001628	30.90	42.986100	0.005270
Na (589.592 nm)	132.287000	ppm	0.403262	0.30	566787.000000	132.287000
Na H (589.593 nm)	121.894954	ppm	1.190687	0.98	369525.273142	121.894954
Ni (231.604 nm)	-0.000880 u	ppm	0.000311	35.37	14.854400	-0.000880 u
P (213.618 nm)	0.093419	ppm	0.002723	2.91	208.196000	0.093419
Pb (220.353 nm)	-0.000529 u	ppm	0.001017	> 100.00	-7.481180	-0.000529 u
S (181.972 nm)	2.655661	ppm	0.007435	0.28	1117.508066	2.655661
Sb (206.834 nm)	-0.001334 u	ppm	0.001200	89.95	4.272040	-0.001334 u
Se (196.026 nm)	0.000693 u	ppm	0.002790	> 100.00	9.601790	0.000693 u
Si (288.158 nm)	15.092500 o	ppm	0.020008	0.13	102993.000000	15.092500 o
Sn (189.925 nm)	-0.000982 u	ppm	0.000482	49.10	6.310810	-0.000982 u
Sr (421.552 nm)	0.963627	ppm	0.008963	0.93	176476.635707	0.963627
Th (288.505 nm)	0.031537	ppm	0.005611	17.79	163.077000	0.031537
Ti (336.122 nm)	0.000714	ppm	0.000124	17.33	300.223000	0.000714
Tl (190.794 nm)	0.003411	ppm	0.002911	85.36	-1.840750	0.003411
U (409.013 nm)	0.004803 u	ppm	0.004657	96.95	80.161200	0.004803 u
V (292.401 nm)	0.001177	ppm	0.000188	16.01	75.849300	0.001177
Zn (206.200 nm)	0.000106 u	ppm	0.000348	> 100.00	8.668140	0.000106 u
Zr (343.823 nm)	-0.000096 u	ppm	0.000146	> 100.00	61.543200	-0.000096 u

Solution Name: 280-190848-A-11-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190848-A-11-A	5/14/2024 1:21:09 AM	1:38	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000117	ppm	0.000025	21.71	-2795.348876	0.000117
Ag (328.068 nm)	0.000130	ppm	0.000176	> 100.00	-26.975800	0.000130
Al (167.019 nm)	-0.002680 u	ppm	0.001401	52.29	-0.272523	-0.002680 u
Al H (396.152 nm)	-0.028717 u	ppm	0.005968	20.78	21.161639	-0.028717 u
As (188.980 nm)	-0.001064 u	ppm	0.000894	84.01	-0.935383	-0.001064 u
B (249.678 nm)	0.003348	ppm	0.000424	12.67	165.387000	0.003348
Ba (493.408 nm)	0.000348	ppm	0.000321	92.23	-3.209910	0.000348
Be (234.861 nm)	0.000043	ppm	0.000024	57.29	-20.284400	0.000043
Bi (223.061 nm)	-0.001200 u	ppm	0.000528	43.96	-0.556543	-0.001200 u
Ca (315.887 nm)	0.022109	ppm	0.005205	23.54	-21.519169	0.022109
Cd (214.439 nm)	0.000087	ppm	0.000072	82.98	-8.907830	0.000087
Co (228.615 nm)	-0.000141 u	ppm	0.000276	> 100.00	-17.979100	-0.000141 u
Cr (205.560 nm)	0.000052 u	ppm	0.000144	> 100.00	18.471800	0.000052 u
Cu (324.754 nm)	0.001310	ppm	0.000305	23.27	1324.720000	0.001310
Fe (238.204 nm)	0.002723	ppm	0.001931	70.92	42.055732	0.002723
Fe H (259.940 nm)	0.075237 u	ppm	0.000275	0.36	30.448400	0.075237 u
K (766.491 nm)	-0.057596 u	ppm	0.096503	> 100.00	-1453.380000	-0.057596 u
Li (670.783 nm)	0.007086	ppm	0.002068	29.19	-635.095000	0.007086
Mg (279.078 nm)	0.002545	ppm	0.002087	81.99	26.756900	0.002545
Mn (257.610 nm)	0.000042	ppm	0.000028	65.99	40.472200	0.000042
Mo (202.032 nm)	0.001034	ppm	0.000712	68.93	14.177300	0.001034
Na (589.592 nm)	-0.077421 u	ppm	0.027424	35.42	2256.240000	-0.077421 u
Na H (589.593 nm)	-1.925374 u	ppm	0.038936	2.02	3691.051836	-1.925374 u
Ni (231.604 nm)	-0.001453 u	ppm	0.001067	73.42	11.490100	-0.001453 u
P (213.618 nm)	-0.000052 u	ppm	0.001863	> 100.00	10.004900	-0.000052 u
Pb (220.353 nm)	-0.000656 u	ppm	0.000486	74.06	-7.743170	-0.000656 u
S (181.972 nm)	0.008164	ppm	0.002656	32.54	23.287458	0.008164
Sb (206.834 nm)	-0.001725 u	ppm	0.002484	> 100.00	3.468460	-0.001725 u
Se (196.026 nm)	-0.001871 u	ppm	0.000175	9.37	6.509190	-0.001871 u
Si (288.158 nm)	0.005788	ppm	0.000963	16.63	861.070000	0.005788
Sn (189.925 nm)	0.000242	ppm	0.000216	89.34	8.286870	0.000242
Sr (421.552 nm)	0.000209	ppm	0.000052	24.70	57.115097	0.000209
Th (288.505 nm)	0.001251 u	ppm	0.002970	> 100.00	101.042000	0.001251 u
Ti (336.122 nm)	0.000203	ppm	0.000104	51.41	-95.392200	0.000203
Tl (190.794 nm)	0.000754 u	ppm	0.002764	> 100.00	-6.208060	0.000754 u
U (409.013 nm)	-0.006013 u	ppm	0.002814	46.81	65.293900	-0.006013 u
V (292.401 nm)	-0.000356 u	ppm	0.000121	34.00	27.253800	-0.000356 u
Zn (206.200 nm)	0.000453	ppm	0.000339	74.85	10.307900	0.000453
Zr (343.823 nm)	0.000258	ppm	0.000165	64.06	29.355000	0.000258

Solution Name: 280-190848-A-12-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190848-A-12-A	5/14/2024 1:24:48 AM	1:39	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.007123	ppm	0.000026	0.36	6278.046381	0.007123
Ag (328.068 nm)	0.000608	ppm	0.000339	55.80	-8.817550	0.000608
Al (167.019 nm)	0.116408	ppm	0.003298	2.83	59.790400	0.116408
Al H (396.152 nm)	0.096912 u	ppm	0.001533	1.58	309.172687	0.096912 u
As (188.980 nm)	-0.001463 u	ppm	0.000760	51.91	-1.419280	-0.001463 u
B (249.678 nm)	0.050030	ppm	0.000230	0.46	1199.880000	0.050030
Ba (493.408 nm)	0.579777	ppm	0.003977	0.69	50334.200000	0.579777
Be (234.861 nm)	0.000035	ppm	0.000044	> 100.00	3.908500	0.000035
Bi (223.061 nm)	-0.002839 u	ppm	0.000915	32.22	-3.540770	-0.002839 u
Ca (315.887 nm)	64.952117 o	ppm	0.547193	0.84	58076.411792	64.952117 o
Cd (214.439 nm)	0.000105	ppm	0.000062	58.53	-5.944060	0.000105
Co (228.615 nm)	-0.000003 u	ppm	0.000320	> 100.00	-14.249600	-0.000003 u
Cr (205.560 nm)	0.000762	ppm	0.000196	25.72	26.321800	0.000762
Cu (324.754 nm)	-0.000229 u	ppm	0.000223	97.31	1259.970000	-0.000229 u
Fe (238.204 nm)	2.472049	ppm	0.015620	0.63	8486.003514	2.472049
Fe H (259.940 nm)	2.532130 u	ppm	0.023358	0.92	4696.080000	2.532130 u
K (766.491 nm)	1.479310	ppm	0.034544	2.34	-419.839000	1.479310
Li (670.783 nm)	0.018358	ppm	0.003313	18.04	-433.923000	0.018358
Mg (279.078 nm)	35.512500	ppm	0.020561	0.06	170459.000000	35.512500
Mn (257.610 nm)	0.388777	ppm	0.000266	0.07	74774.900000	0.388777
Mo (202.032 nm)	0.000669	ppm	0.000356	53.19	11.697300	0.000669
Na (589.592 nm)	57.781600	ppm	0.060350	0.10	249402.000000	57.781600
Na H (589.593 nm)	51.734130	ppm	0.492762	0.95	162499.137953	51.734130
Ni (231.604 nm)	-0.001746 u	ppm	0.000388	22.20	9.773880	-0.001746 u
P (213.618 nm)	0.667383	ppm	0.002772	0.42	1425.070000	0.667383
Pb (220.353 nm)	0.002035	ppm	0.000227	11.18	-1.278440	0.002035
S (181.972 nm)	0.186226	ppm	0.010152	5.45	97.619173	0.186226
Sb (206.834 nm)	-0.003673 u	ppm	0.001501	40.86	-1.125530	-0.003673 u
Se (196.026 nm)	0.000547 u	ppm	0.000659	> 100.00	9.402600	0.000547 u
Si (288.158 nm)	16.660900 o	ppm	0.019397	0.12	113611.000000	16.660900 o
Sn (189.925 nm)	-0.000044 u	ppm	0.001418	> 100.00	7.867130	-0.000044 u
Sr (421.552 nm)	0.458521	ppm	0.002683	0.59	83982.450509	0.458521
Th (288.505 nm)	0.018254	ppm	0.001789	9.80	139.802000	0.018254
Ti (336.122 nm)	0.002463	ppm	0.000043	1.74	295.199000	0.002463
Tl (190.794 nm)	0.001963	ppm	0.001772	90.29	-4.268820	0.001963
U (409.013 nm)	0.002119 u	ppm	0.007010	> 100.00	84.746800	0.002119 u
V (292.401 nm)	-0.000417 u	ppm	0.000155	37.22	28.055100	-0.000417 u
Zn (206.200 nm)	0.000954	ppm	0.000582	61.02	12.674600	0.000954
Zr (343.823 nm)	-0.000199 u	ppm	0.000064	32.14	63.650700	-0.000199 u

Solution Name: 280-190848-A-13-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190848-A-13-A	5/14/2024 1:28:43 AM	1:40	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.007696	ppm	0.000031	0.40	7019.212294	0.007696
Ag (328.068 nm)	0.000049	ppm	0.000036	72.69	-30.334100	0.000049
Al (167.019 nm)	0.065274	ppm	0.005614	8.60	33.015400	0.065274
Al H (396.152 nm)	0.026811 u	ppm	0.006846	25.53	141.967402	0.026811 u
As (188.980 nm)	-0.000946 u	ppm	0.001693	> 100.00	-0.810307	-0.000946 u
B (249.678 nm)	0.014620	ppm	0.000242	1.65	415.996000	0.014620
Ba (493.408 nm)	0.102554	ppm	0.001108	1.08	8875.900000	0.102554
Be (234.861 nm)	0.000047	ppm	0.000031	66.23	-18.748800	0.000047
Bi (223.061 nm)	-0.001834 u	ppm	0.002783	> 100.00	-1.710000	-0.001834 u
Ca (315.887 nm)	10.967165 o	ppm	0.046589	0.42	9771.874015	10.967165 o
Cd (214.439 nm)	0.000041	ppm	0.000026	65.01	-11.254100	0.000041
Co (228.615 nm)	0.000207 u	ppm	0.000248	> 100.00	-12.368700	0.000207 u
Cr (205.560 nm)	0.004194	ppm	0.000208	4.95	67.240800	0.004194
Cu (324.754 nm)	0.000185	ppm	0.000111	60.14	1268.940000	0.000185
Fe (238.204 nm)	0.052348	ppm	0.001952	3.73	211.749818	0.052348
Fe H (259.940 nm)	0.123885 u	ppm	0.002501	2.02	122.830000	0.123885 u
K (766.491 nm)	1.074420	ppm	0.045235	4.21	-692.120000	1.074420
Li (670.783 nm)	0.018084	ppm	0.001762	9.74	-438.809000	0.018084
Mg (279.078 nm)	5.636950	ppm	0.016309	0.29	27069.900000	5.636950
Mn (257.610 nm)	0.005108	ppm	0.000026	0.50	1014.510000	0.005108
Mo (202.032 nm)	0.000202 u	ppm	0.000563	> 100.00	8.519680	0.000202 u
Na (589.592 nm)	78.910800	ppm	0.733952	0.93	337946.000000	78.910800
Na H (589.593 nm)	72.474146	ppm	0.429636	0.59	222675.248879	72.474146
Ni (231.604 nm)	-0.000193 u	ppm	0.000705	> 100.00	18.879800	-0.000193 u
P (213.618 nm)	0.064284	ppm	0.003297	5.13	146.505000	0.064284
Pb (220.353 nm)	-0.000168 u	ppm	0.000668	> 100.00	-6.604830	-0.000168 u
S (181.972 nm)	8.248111	ppm	0.027491	0.33	3427.523780	8.248111
Sb (206.834 nm)	-0.003669 u	ppm	0.002516	68.58	-0.611210	-0.003669 u
Se (196.026 nm)	-0.001669 u	ppm	0.002160	> 100.00	7.555430	-0.001669 u
Si (288.158 nm)	18.687200 o	ppm	0.122969	0.66	127328.000000	18.687200 o
Sn (189.925 nm)	-0.002862 u	ppm	0.001065	37.20	3.274960	-0.002862 u
Sr (421.552 nm)	0.065913	ppm	0.000457	0.69	12088.693527	0.065913
Th (288.505 nm)	0.004963	ppm	0.002621	52.81	108.368000	0.004963
Ti (336.122 nm)	0.001405	ppm	0.000061	4.35	58.998300	0.001405
Tl (190.794 nm)	0.001425 u	ppm	0.002052	> 100.00	-5.104070	0.001425 u
U (409.013 nm)	-0.006670 u	ppm	0.005328	79.88	61.632400	-0.006670 u
V (292.401 nm)	0.000115 u	ppm	0.000193	> 100.00	40.662700	0.000115 u
Zn (206.200 nm)	0.000253	ppm	0.000259	> 100.00	9.361670	0.000253
Zr (343.823 nm)	-0.000709 u	ppm	0.000071	10.05	19.931400	-0.000709 u

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/14/2024 1:32:32 AM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000621	ppm	0.000025	4.09	-2142.570010	0.000621
Ag (328.068 nm)	0.001074	ppm	0.000199	18.52	-45.648600	0.001074
Al (167.019 nm)	49.724800 o	ppm	0.380163	0.76	24368.800000	49.724800 o
Al H (396.152 nm)	48.612680	ppm	0.311616	0.64	102401.778287	48.612680
As (188.980 nm)	-0.001607 u	ppm	0.000866	53.87	-2.655370	-0.001607 u
B (249.678 nm)	0.001494	ppm	0.000297	19.91	51.976800	0.001494
Ba (493.408 nm)	0.001220	ppm	0.000190	15.54	72.572500	0.001220
Be (234.861 nm)	0.000121	ppm	0.000040	32.79	523.449000	0.000121
Bi (223.061 nm)	0.003623	ppm	0.002220	61.26	8.229100	0.003623
Ca (315.887 nm)	-0.011023 u	ppm	0.004904	44.49	-51.164989	-0.011023 u
Cd (214.439 nm)	-0.000104 u	ppm	0.000089	86.08	21.311600	-0.000104 u
Co (228.615 nm)	-0.000236 u	ppm	0.000166	70.32	-19.428500	-0.000236 u
Cr (205.560 nm)	0.000265	ppm	0.000174	65.57	10.729300	0.000265
Cu (324.754 nm)	0.002584	ppm	0.000189	7.33	2162.200000	0.002584
Fe (238.204 nm)	49.430586 o	ppm	0.330902	0.67	169062.338004	49.430586 o
Fe H (259.940 nm)	48.949400	ppm	0.315275	0.64	92842.300000	48.949400
K (766.491 nm)	0.143088	ppm	0.109065	76.22	-1318.430000	0.143088
Li (670.783 nm)	0.008069	ppm	0.003118	38.64	-617.551000	0.008069
Mg (279.078 nm)	-0.011350 u	ppm	0.002074	18.27	-161.971000	-0.011350 u
Mn (257.610 nm)	-0.000029 u	ppm	0.000019	66.93	26.873000	-0.000029 u
Mo (202.032 nm)	-0.000692 u	ppm	0.000603	87.10	2.439050	-0.000692 u
Na (589.592 nm)	251.950000	ppm	0.713616	0.28	1072530.000000	251.950000
Na H (589.593 nm)	232.148748	ppm	0.240973	0.10	692103.290212	232.148748
Ni (231.604 nm)	0.000414 u	ppm	0.001039	> 100.00	22.442700	0.000414 u
P (213.618 nm)	4.766470	ppm	0.009880	0.21	10114.100000	4.766470
Pb (220.353 nm)	-0.004178 u	ppm	0.000400	9.58	-24.708700	-0.004178 u
S (181.972 nm)	5.061789	ppm	0.022848	0.45	2111.142187	5.061789
Sb (206.834 nm)	0.001803 u	ppm	0.002798	> 100.00	-2.725460	0.001803 u
Se (196.026 nm)	0.003947 u	ppm	0.003575	90.58	6.090780	0.003947 u
Si (288.158 nm)	0.004061	ppm	0.001616	39.78	848.940000	0.004061
Sn (189.925 nm)	-0.000363 u	ppm	0.001595	> 100.00	8.170580	-0.000363 u
Sr (421.552 nm)	0.000214	ppm	0.000069	32.24	58.124168	0.000214
Th (288.505 nm)	4.896890	ppm	0.030078	0.61	9596.930000	4.896890
Ti (336.122 nm)	0.001093	ppm	0.000141	12.90	0.552478	0.001093
Tl (190.794 nm)	-0.003807 u	ppm	0.000658	17.28	-14.675300	-0.003807 u
U (409.013 nm)	2.437620	ppm	0.004868	0.20	8180.730000	2.437620
V (292.401 nm)	-0.000283 u	ppm	0.000486	> 100.00	249.743000	-0.000283 u
Zn (206.200 nm)	0.001591	ppm	0.000425	26.71	15.680400	0.001591
Zr (343.823 nm)	0.005632	ppm	0.000189	3.36	631.145000	0.005632

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/14/2024 1:36:27 AM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.452926	ppm	0.000641	0.14	583611.688319	0.452926
Ag (328.068 nm)	0.493361	ppm	0.000618	0.13	18789.900000	0.493361
Al (167.019 nm)	0.516545	ppm	0.000642	0.12	255.572000	0.516545
Al H (396.152 nm)	0.470317 u	ppm	0.010174	2.16	1106.828058	0.470317 u
As (188.980 nm)	0.477998	ppm	0.000219	0.05	511.056000	0.477998
B (249.678 nm)	0.471968	ppm	0.000912	0.19	10601.800000	0.471968
Ba (493.408 nm)	0.489547	ppm	0.001058	0.22	42493.700000	0.489547
Be (234.861 nm)	0.468749	ppm	0.001293	0.28	117836.000000	0.468749
Bi (223.061 nm)	1.009200	ppm	0.004474	0.44	1839.670000	1.009200
Ca (315.887 nm)	4.918594	ppm	0.033524	0.68	4359.747003	4.918594
Cd (214.439 nm)	0.517110	ppm	0.001261	0.24	26714.400000	0.517110
Co (228.615 nm)	0.491268	ppm	0.001417	0.29	7485.400000	0.491268
Cr (205.560 nm)	0.513235	ppm	0.001307	0.25	6058.290000	0.513235
Cu (324.754 nm)	0.456644	ppm	0.002013	0.44	24355.200000	0.456644
Fe (238.204 nm)	2.446481	ppm	0.015715	0.64	8398.570946	2.446481
Fe H (259.940 nm)	2.504220 u	ppm	0.013046	0.52	4643.070000	2.504220 u
K (766.491 nm)	51.850000	ppm	0.161018	0.31	33453.800000	51.850000
Li (670.783 nm)	0.548079	ppm	0.002598	0.47	9020.010000	0.548079
Mg (279.078 nm)	19.825900	ppm	0.031034	0.16	95169.000000	19.825900
Mn (257.610 nm)	0.501508	ppm	0.001260	0.25	96447.400000	0.501508
Mo (202.032 nm)	0.507506	ppm	0.001535	0.30	3458.710000	0.507506
Na (589.592 nm)	25.723900	ppm	0.110772	0.43	113043.000000	25.723900
Na H (589.593 nm)	22.294644	ppm	0.072336	0.32	75762.365740	22.294644
Ni (231.604 nm)	0.515110	ppm	0.002462	0.48	3041.410000	0.515110
P (213.618 nm)	0.019670	ppm	0.002124	10.80	15.898200	0.019670
Pb (220.353 nm)	0.484301	ppm	0.003769	0.78	1134.530000	0.484301
S (181.972 nm)	-0.006894 u	ppm	0.004186	60.71	20.415209	-0.006894 u
Sb (206.834 nm)	0.511143	ppm	0.000291	0.06	1120.600000	0.511143
Se (196.026 nm)	0.476921	ppm	0.001381	0.29	422.577000	0.476921
Si (288.158 nm)	4.924390	ppm	0.014269	0.29	34376.100000	4.924390
Sn (189.925 nm)	0.516017	ppm	0.001176	0.23	841.144000	0.516017
Sr (421.552 nm)	0.471930	ppm	0.000957	0.20	86438.010505	0.471930
Th (288.505 nm)	0.037472	ppm	0.021854	58.32	181.065000	0.037472
Ti (336.122 nm)	0.492958	ppm	0.000653	0.13	53033.700000	0.492958
Tl (190.794 nm)	0.511972	ppm	0.002504	0.49	834.525000	0.511972
U (409.013 nm)	-0.004383 u	ppm	0.004321	98.60	43.390200	-0.004383 u
V (292.401 nm)	0.496713	ppm	0.000990	0.20	14439.800000	0.496713
Zn (206.200 nm)	0.477539	ppm	0.001899	0.40	2262.810000	0.477539
Zr (343.823 nm)	0.503166	ppm	0.002717	0.54	47044.900000	0.503166

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/14/2024 1:40:18 AM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000214	ppm	0.000018	8.44	-2670.148287	0.000214
Ag (328.068 nm)	0.000217	ppm	0.000303	> 100.00	-23.880500	0.000217
Al (167.019 nm)	-0.000933 u	ppm	0.004316	> 100.00	0.579782	-0.000933 u
Al H (396.152 nm)	-0.027424 u	ppm	0.002770	10.10	23.881297	-0.027424 u
As (188.980 nm)	-0.002595 u	ppm	0.001329	51.22	-2.571640	-0.002595 u
B (249.678 nm)	0.001529	ppm	0.000225	14.69	124.949000	0.001529
Ba (493.408 nm)	0.000128 u	ppm	0.000209	> 100.00	-22.282700	0.000128 u
Be (234.861 nm)	0.000023 u	ppm	0.000026	> 100.00	-25.248400	0.000023 u
Bi (223.061 nm)	-0.000680 u	ppm	0.001990	> 100.00	0.390659	-0.000680 u
Ca (315.887 nm)	0.007396	ppm	0.003980	53.81	-34.683654	0.007396
Cd (214.439 nm)	0.000105	ppm	0.000039	36.94	-7.959660	0.000105
Co (228.615 nm)	-0.000177 u	ppm	0.000014	7.88	-18.527400	-0.000177 u
Cr (205.560 nm)	0.000484 u	ppm	0.000509	> 100.00	23.564800	0.000484 u
Cu (324.754 nm)	0.000740	ppm	0.000257	34.75	1295.170000	0.000740
Fe (238.204 nm)	-0.000768 u	ppm	0.001059	> 100.00	30.117994	-0.000768 u
Fe H (259.940 nm)	0.071080 u	ppm	0.003287	4.62	22.554100	0.071080 u
K (766.491 nm)	-0.014997 u	ppm	0.213588	> 100.00	-1424.740000	-0.014997 u
Li (670.783 nm)	0.006225 S	ppm	0.001677	26.95	-650.462000 S	0.006225 S
Mg (279.078 nm)	0.000615 u	ppm	0.000748	> 100.00	17.305000	0.000615 u
Mn (257.610 nm)	-0.000023 u	ppm	0.000042	> 100.00	28.090000	-0.000023 u
Mo (202.032 nm)	0.001046	ppm	0.000520	49.73	14.259300	0.001046
Na (589.592 nm)	-0.084524 u	ppm	0.002071	2.45	2225.300000	-0.084524 u
Na H (589.593 nm)	-2.064192 u	ppm	0.036893	1.79	3282.249635	-2.064192 u
Ni (231.604 nm)	-0.000490 u	ppm	0.000613	> 100.00	17.138800	-0.000490 u
P (213.618 nm)	-0.001894 u	ppm	0.001396	73.69	6.172650	-0.001894 u
Pb (220.353 nm)	-0.000885 u	ppm	0.001502	> 100.00	-8.271990	-0.000885 u
S (181.972 nm)	-0.003569 u	ppm	0.002709	75.92	18.446989	-0.003569 u
Sb (206.834 nm)	-0.001969 u	ppm	0.002838	> 100.00	2.932260	-0.001969 u
Se (196.026 nm)	0.000683 u	ppm	0.002260	> 100.00	8.726770	0.000683 u
Si (288.158 nm)	-0.004340 u	ppm	0.001349	31.08	792.094000	-0.004340 u
Sn (189.925 nm)	-0.000740 u	ppm	0.000704	95.15	6.701720	-0.000740 u
Sr (421.552 nm)	0.000105	ppm	0.000084	79.77	38.167743	0.000105
Th (288.505 nm)	-0.001813 u	ppm	0.004808	> 100.00	95.257100	-0.001813 u
Ti (336.122 nm)	0.000322	ppm	0.000064	19.83	-82.638800	0.000322
Tl (190.794 nm)	0.001826	ppm	0.000808	44.22	-4.442140	0.001826
U (409.013 nm)	-0.002307 u	ppm	0.009694	> 100.00	77.548700	-0.002307 u
V (292.401 nm)	-0.000003 u	ppm	0.000206	> 100.00	37.034500	-0.000003 u
Zn (206.200 nm)	0.000064 u	ppm	0.000174	> 100.00	8.472470	0.000064 u
Zr (343.823 nm)	0.000174	ppm	0.000059	33.59	21.509900	0.000174

Solution Name: 280-190890-A-1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190890-A-1-A	5/14/2024 1:43:54 AM	1:41	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.004373	ppm	0.000011	0.25	2716.344343	0.004373
Ag (328.068 nm)	-0.000019 u	ppm	0.000312	> 100.00	-33.220400	-0.000019 u
Al (167.019 nm)	2.167310	ppm	0.017271	0.80	1063.280000	2.167310
Al H (396.152 nm)	2.016954	ppm	0.016162	0.80	4334.431637	2.016954
As (188.980 nm)	-0.000204 u	ppm	0.003812	> 100.00	-0.070874	-0.000204 u
B (249.678 nm)	0.023549	ppm	0.000579	2.46	611.231000	0.023549
Ba (493.408 nm)	0.066080	ppm	0.000461	0.70	5707.240000	0.066080
Be (234.861 nm)	0.000149	ppm	0.000011	7.61	31.467300	0.000149
Bi (223.061 nm)	-0.000351 u	ppm	0.001463	> 100.00	0.989658	-0.000351 u
Ca (315.887 nm)	20.724797 o	ppm	0.176623	0.85	18502.786726	20.724797 o
Cd (214.439 nm)	0.000156	ppm	0.000049	31.21	-3.404920	0.000156
Co (228.615 nm)	0.001571	ppm	0.000520	33.07	9.280920	0.001571
Cr (205.560 nm)	0.002143	ppm	0.000313	14.61	42.609600	0.002143
Cu (324.754 nm)	0.003725	ppm	0.000113	3.03	1448.630000	0.003725
Fe (238.204 nm)	2.356631	ppm	0.020048	0.85	8091.325430	2.356631
Fe H (259.940 nm)	2.415460 u	ppm	0.024179	1.00	4474.520000	2.415460 u
K (766.491 nm)	3.218760	ppm	0.143208	4.45	749.921000	3.218760
Li (670.783 nm)	0.015495	ppm	0.002283	14.73	-485.024000	0.015495
Mg (279.078 nm)	5.376810	ppm	0.005944	0.11	25818.200000	5.376810
Mn (257.610 nm)	0.157698	ppm	0.000320	0.20	30349.800000	0.157698
Mo (202.032 nm)	0.000857	ppm	0.000193	22.54	12.977300	0.000857
Na (589.592 nm)	15.793300	ppm	0.139638	0.88	69816.700000	15.793300
Na H (589.593 nm)	12.680024	ppm	0.115083	0.91	46758.267291	12.680024
Ni (231.604 nm)	0.001276	ppm	0.000298	23.33	27.496000	0.001276
P (213.618 nm)	0.078262	ppm	0.001555	1.99	175.842000	0.078262
Pb (220.353 nm)	0.002132	ppm	0.001279	60.01	-1.757830	0.002132
S (181.972 nm)	3.198522	ppm	0.002555	0.08	1341.659816	3.198522
Sb (206.834 nm)	-0.002417 u	ppm	0.001594	65.96	1.664660	-0.002417 u
Se (196.026 nm)	-0.001201 u	ppm	0.004069	> 100.00	7.336070	-0.001201 u
Si (288.158 nm)	8.321240	ppm	0.042975	0.52	57155.700000	8.321240
Sn (189.925 nm)	-0.001079 u	ppm	0.000579	53.61	6.193910	-0.001079 u
Sr (421.552 nm)	0.122329	ppm	0.000794	0.65	22419.548352	0.122329
Th (288.505 nm)	0.005000	ppm	0.005829	> 100.00	111.063000	0.005000
Ti (336.122 nm)	0.035368	ppm	0.000182	0.51	3742.150000	0.035368
Tl (190.794 nm)	0.001447	ppm	0.002015	> 100.00	-5.218530	0.001447
U (409.013 nm)	-0.005575 u	ppm	0.003863	69.29	65.318000	-0.005575 u
V (292.401 nm)	0.004303	ppm	0.000168	3.91	164.386000	0.004303
Zn (206.200 nm)	0.010805	ppm	0.000291	2.69	59.183200	0.010805
Zr (343.823 nm)	0.001232	ppm	0.000150	12.14	161.061000	0.001232

Solution Name: 280-190890-A-1-A SD@5

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190890-A-1-A SD@5	5/14/2024 1:47:41 AM	1:42	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001014	ppm	0.000029	2.84	-1634.160004	0.001014
Ag (328.068 nm)	-0.000240 u	ppm	0.000460	> 100.00	-41.281300	-0.000240 u
Al (167.019 nm)	0.439612	ppm	0.004349	0.99	216.520000	0.439612
Al H (396.152 nm)	0.381935 u	ppm	0.004393	1.15	886.932445	0.381935 u
As (188.980 nm)	-0.000172 u	ppm	0.001771	> 100.00	0.005837	-0.000172 u
B (249.678 nm)	0.004854	ppm	0.000206	4.25	198.147000	0.004854
Ba (493.408 nm)	0.014284	ppm	0.000234	1.64	1207.480000	0.014284
Be (234.861 nm)	0.000051	ppm	0.000016	32.13	-12.807300	0.000051
Bi (223.061 nm)	0.000653	ppm	0.000458	70.14	2.819160	0.000653
Ca (315.887 nm)	4.156234	ppm	0.023596	0.57	3677.603990	4.156234
Cd (214.439 nm)	0.000142 u	ppm	0.000128	90.17	-5.627260	0.000142 u
Co (228.615 nm)	0.000687	ppm	0.000195	28.42	-5.141900	0.000687
Cr (205.560 nm)	0.000252 u	ppm	0.000235	93.02	20.727000	0.000252 u
Cu (324.754 nm)	0.000901	ppm	0.000136	15.10	1303.900000	0.000901
Fe (238.204 nm)	0.506012	ppm	0.002753	0.54	1763.071337	0.506012
Fe H (259.940 nm)	0.569819 u	ppm	0.001576	0.28	969.657000	0.569819 u
K (766.491 nm)	0.615614	ppm	0.130987	21.28	-1000.660000	0.615614
Li (670.783 nm)	0.008313	ppm	0.000553	6.65	-613.191000	0.008313
Mg (279.078 nm)	1.078710	ppm	0.001619	0.15	5191.240000	1.078710
Mn (257.610 nm)	0.032186	ppm	0.000071	0.22	6220.130000	0.032186
Mo (202.032 nm)	-0.000139 u	ppm	0.000488	> 100.00	6.199140	-0.000139 u
Na (589.592 nm)	3.137340	ppm	0.018403	0.59	15942.200000	3.137340
Na H (589.593 nm)	0.693963 u	ppm	0.069267	9.98	11418.040788	0.693963 u
Ni (231.604 nm)	-0.000970 u	ppm	0.000190	19.58	14.319800	-0.000970 u
P (213.618 nm)	0.017496	ppm	0.001999	11.42	47.256200	0.017496
Pb (220.353 nm)	0.001296	ppm	0.000617	47.65	-3.247970	0.001296
S (181.972 nm)	0.631794	ppm	0.000627	0.10	280.999751	0.631794
Sb (206.834 nm)	-0.001038 u	ppm	0.002464	> 100.00	4.870090	-0.001038 u
Se (196.026 nm)	-0.000822 u	ppm	0.001122	> 100.00	7.465700	-0.000822 u
Si (288.158 nm)	1.661280	ppm	0.004254	0.26	12068.700000	1.661280
Sn (189.925 nm)	0.000396	ppm	0.000251	63.37	8.543380	0.000396
Sr (421.552 nm)	0.024503	ppm	0.000278	1.14	4505.819499	0.024503
Th (288.505 nm)	-0.000608 u	ppm	0.006230	> 100.00	98.050300	-0.000608 u
Ti (336.122 nm)	0.007333	ppm	0.000184	2.51	682.540000	0.007333
Tl (190.794 nm)	-0.000322 u	ppm	0.000753	> 100.00	-8.007420	-0.000322 u
U (409.013 nm)	-0.003554 u	ppm	0.002403	67.62	73.168600	-0.003554 u
V (292.401 nm)	0.000480	ppm	0.000007	1.49	51.678000	0.000480
Zn (206.200 nm)	0.002122	ppm	0.000487	22.97	18.187200	0.002122
Zr (343.823 nm)	0.000251	ppm	0.000111	44.15	36.912700	0.000251

Solution Name: 280-190890-A-1-B MS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190890-A-1-B MS	5/14/2024 1:51:31 AM	1:43	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.441060	ppm	0.001879	0.13	1863290.042451	1.441060
Ag (328.068 nm)	0.065696	ppm	0.000109	0.17	2367.200000	0.065696
Al (167.019 nm)	18.349700 o	ppm	0.092048	0.50	8992.200000	18.349700 o
Al H (396.152 nm)	17.746306	ppm	0.082690	0.47	37531.926368	17.746306
As (188.980 nm)	1.406640 o	ppm	0.006420	0.46	1503.310000	1.406640 o
B (249.678 nm)	2.744790 o	ppm	0.000919	0.03	61155.400000	2.744790 o
Ba (493.408 nm)	1.449300 o	ppm	0.008766	0.60	125868.000000	1.449300 o
Be (234.861 nm)	1.353920 o	ppm	0.007977	0.59	340529.000000	1.353920 o
Bi (223.061 nm)	0.004076	ppm	0.001758	43.14	9.052790	0.004076
Ca (315.887 nm)	89.293431 o	ppm	0.429410	0.48	79856.479178	89.293431 o
Cd (214.439 nm)	1.419260 o	ppm	0.002061	0.15	73351.600000	1.419260 o
Co (228.615 nm)	1.332680 o	ppm	0.001262	0.09	20323.200000	1.332680 o
Cr (205.560 nm)	1.423540 o	ppm	0.003106	0.22	16769.300000	1.423540 o
Cu (324.754 nm)	1.272400 o	ppm	0.001421	0.11	65565.200000	1.272400 o
Fe (238.204 nm)	16.671044 o	ppm	0.073144	0.44	57039.953298	16.671044 o
Fe H (259.940 nm)	16.764900	ppm	0.079851	0.48	31724.000000	16.764900
K (766.491 nm)	79.343200	ppm	0.414124	0.52	51942.600000	79.343200
Li (670.783 nm)	1.522940 o	ppm	0.010887	0.71	26418.300000	1.522940 o
Mg (279.078 nm)	76.234400 o	ppm	0.046436	0.06	365891.000000	76.234400 o
Mn (257.610 nm)	1.546890 o	ppm	0.002287	0.15	297423.000000	1.546890 o
Mo (202.032 nm)	0.987065	ppm	0.002175	0.22	6720.210000	0.987065
Na (589.592 nm)	87.675600	ppm	0.773947	0.88	378523.000000	87.675600
Na H (589.593 nm)	81.086964	ppm	0.420024	0.52	250321.603070	81.086964
Ni (231.604 nm)	1.386510 o	ppm	0.002051	0.15	8152.720000	1.386510 o
P (213.618 nm)	27.908700 o	ppm	0.007782	0.03	59077.900000	27.908700 o
Pb (220.353 nm)	1.331760 o	ppm	0.001953	0.15	3126.950000	1.331760 o
S (181.972 nm)	31.821502 o	ppm	0.047270	0.15	13176.250979	31.821502 o
Sb (206.834 nm)	0.980016	ppm	0.004052	0.41	2153.750000	0.980016
Se (196.026 nm)	1.361250 o	ppm	0.004141	0.30	1190.380000	1.361250 o
Si (288.158 nm)	20.800100 o	ppm	0.058430	0.28	142053.000000	20.800100 o
Sn (189.925 nm)	0.989079	ppm	0.004177	0.42	1605.240000	0.989079
Sr (421.552 nm)	1.449878 o	ppm	0.008370	0.58	265518.216625	1.449878 o
Th (288.505 nm)	0.027471	ppm	0.007598	27.66	176.564000	0.027471
Ti (336.122 nm)	0.996289	ppm	0.000796	0.08	107483.000000	0.996289
Tl (190.794 nm)	1.438950 o	ppm	0.002360	0.16	2360.790000	1.438950 o
U (409.013 nm)	-0.000631 u	ppm	0.002420	> 100.00	29.285100	-0.000631 u
V (292.401 nm)	1.404150 o	ppm	0.001733	0.12	40749.000000	1.404150 o
Zn (206.200 nm)	1.332720 o	ppm	0.001435	0.11	6300.460000	1.332720 o
Zr (343.823 nm)	0.932300	ppm	0.005342	0.57	87238.400000	0.932300

Solution Name: 280-190890-A-1-C MSD

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190890-A-1-C MSD	5/14/2024 1:55:27 AM	1:44	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.498695	ppm	0.003556	0.24	1937929.571644	1.498695
Ag (328.068 nm)	0.068294	ppm	0.000365	0.53	2470.310000	0.068294
Al (167.019 nm)	19.019700 o	ppm	0.166334	0.87	9320.560000	19.019700 o
Al H (396.152 nm)	18.543835	ppm	0.124568	0.67	39216.540015	18.543835
As (188.980 nm)	1.461190 o	ppm	0.003454	0.24	1561.600000	1.461190 o
B (249.678 nm)	2.847600 o	ppm	0.004804	0.17	63442.800000	2.847600 o
Ba (493.408 nm)	1.511310 o	ppm	0.009076	0.60	131254.000000	1.511310 o
Be (234.861 nm)	1.399930 o	ppm	0.001723	0.12	352101.000000	1.399930 o
Bi (223.061 nm)	0.000179 u	ppm	0.001520	> 100.00	1.956270	0.000179 u
Ca (315.887 nm)	92.412739 o	ppm	0.738309	0.80	82647.566430	92.412739 o
Cd (214.439 nm)	1.472220 o	ppm	0.001764	0.12	76089.400000	1.472220 o
Co (228.615 nm)	1.389330 o	ppm	0.003574	0.26	21188.800000	1.389330 o
Cr (205.560 nm)	1.489460 o	ppm	0.002907	0.20	17545.200000	1.489460 o
Cu (324.754 nm)	1.332140 o	ppm	0.005448	0.41	68584.100000	1.332140 o
Fe (238.204 nm)	17.337339 o	ppm	0.114044	0.66	59318.371787	17.337339 o
Fe H (259.940 nm)	17.257800	ppm	0.117176	0.68	32660.100000	17.257800
K (766.491 nm)	82.660800	ppm	0.204640	0.25	54173.600000	82.660800
Li (670.783 nm)	1.589810 o	ppm	0.004683	0.29	27611.900000	1.589810 o
Mg (279.078 nm)	79.570300 o	ppm	0.124661	0.16	381902.000000	79.570300 o
Mn (257.610 nm)	1.611920 o	ppm	0.002043	0.13	309924.000000	1.611920 o
Mo (202.032 nm)	1.060180	ppm	0.002288	0.22	7217.430000	1.060180
Na (589.592 nm)	91.147600	ppm	0.201231	0.22	393421.000000	91.147600
Na H (589.593 nm)	84.096409	ppm	0.562985	0.67	259278.435983	84.096409
Ni (231.604 nm)	1.442640 o	ppm	0.004678	0.32	8481.910000	1.442640 o
P (213.618 nm)	28.968500 o	ppm	0.030902	0.11	61320.100000	28.968500 o
Pb (220.353 nm)	1.384020 o	ppm	0.003145	0.23	3249.710000	1.384020 o
S (181.972 nm)	32.804900 o	ppm	0.036060	0.11	13582.901087	32.804900 o
Sb (206.834 nm)	1.048400	ppm	0.003495	0.33	2302.480000	1.048400
Se (196.026 nm)	1.406430 o	ppm	0.008588	0.61	1229.630000	1.406430 o
Si (288.158 nm)	21.738500 o	ppm	0.066941	0.31	148437.000000	21.738500 o
Sn (189.925 nm)	1.060760	ppm	0.001050	0.10	1721.000000	1.060760
Sr (421.552 nm)	1.510316 o	ppm	0.008900	0.59	276585.578280	1.510316 o
Th (288.505 nm)	0.026807	ppm	0.002853	10.64	176.929000	0.026807
Ti (336.122 nm)	1.069260	ppm	0.002183	0.20	115356.000000	1.069260
Tl (190.794 nm)	1.477440 o	ppm	0.012243	0.83	2423.930000	1.477440 o
U (409.013 nm)	0.001666 u	ppm	0.006343	> 100.00	31.950500	0.001666 u
V (292.401 nm)	1.463500 o	ppm	0.002583	0.18	42468.700000	1.463500 o
Zn (206.200 nm)	1.387240 o	ppm	0.002241	0.16	6557.850000	1.387240 o
Zr (343.823 nm)	1.020250	ppm	0.003228	0.32	95461.000000	1.020250

Solution Name: 280-190890-A-1-A PDS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190890-A-1-A PDS	5/14/2024 1:59:17 AM	1:45	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.091881	ppm	0.000108	0.12	116043.170232	0.091881
Ag (328.068 nm)	0.046690	ppm	0.000074	0.16	1744.110000	0.046690
Al (167.019 nm)	3.096460 o	ppm	0.035069	1.13	1518.670000	3.096460 o
Al H (396.152 nm)	2.910569	ppm	0.023357	0.80	6225.549855	2.910569
As (188.980 nm)	0.189794	ppm	0.001821	0.96	202.987000	0.189794
B (249.678 nm)	0.123131	ppm	0.000984	0.80	2826.060000	0.123131
Ba (493.408 nm)	0.157111	ppm	0.001081	0.69	13614.800000	0.157111
Be (234.861 nm)	0.046904	ppm	0.000354	0.75	11795.300000	0.046904
Bi (223.061 nm)	-0.001868 u	ppm	0.001714	91.76	-1.772200	-0.001868 u
Ca (315.887 nm)	39.004332 o	ppm	0.283079	0.73	34858.909522	39.004332 o
Cd (214.439 nm)	0.050524	ppm	0.000114	0.23	2600.570000	0.050524
Co (228.615 nm)	0.049295	ppm	0.000157	0.32	738.070000	0.049295
Cr (205.560 nm)	0.051868	ppm	0.000265	0.51	627.739000	0.051868
Cu (324.754 nm)	0.049461	ppm	0.000274	0.55	3752.550000	0.049461
Fe (238.204 nm)	3.359953	ppm	0.028932	0.86	11522.220558	3.359953
Fe H (259.940 nm)	3.398770 u	ppm	0.025250	0.74	6341.840000	3.398770 u
K (766.491 nm)	23.728000	ppm	0.277112	1.17	14542.100000	23.728000
Li (670.783 nm)	0.118124	ppm	0.001406	1.19	1346.610000	0.118124
Mg (279.078 nm)	24.559800	ppm	0.012538	0.05	117878.000000	24.559800
Mn (257.610 nm)	0.199000	ppm	0.000030	0.02	38290.300000	0.199000
Mo (202.032 nm)	0.054989	ppm	0.002007	3.65	381.129000	0.054989
Na (589.592 nm)	35.470600	ppm	0.178253	0.50	153606.000000	35.470600
Na H (589.593 nm)	30.880544	ppm	0.241787	0.78	100442.267682	30.880544
Ni (231.604 nm)	0.051530	ppm	0.000554	1.07	322.410000	0.051530
P (213.618 nm)	1.978890	ppm	0.009124	0.46	4201.650000	1.978890
Pb (220.353 nm)	0.095959	ppm	0.000549	0.57	220.274000	0.095959
S (181.972 nm)	4.190822	ppm	0.016191	0.39	1752.262265	4.190822
Sb (206.834 nm)	0.099381	ppm	0.001579	1.59	220.793000	0.099381
Se (196.026 nm)	0.189966	ppm	0.002499	1.32	173.452000	0.189966
Si (288.158 nm)	12.725800 o	ppm	0.028347	0.22	87013.500000	12.725800 o
Sn (189.925 nm)	0.102074	ppm	0.000712	0.70	172.773000	0.102074
Sr (421.552 nm)	0.162026	ppm	0.000955	0.59	29688.830982	0.162026
Th (288.505 nm)	0.196074	ppm	0.000748	0.38	488.289000	0.196074
Ti (336.122 nm)	0.082870	ppm	0.000116	0.14	8904.220000	0.082870
Tl (190.794 nm)	0.199020	ppm	0.001869	0.94	320.093000	0.199020
U (409.013 nm)	0.483117	ppm	0.003456	0.72	1675.290000	0.483117
V (292.401 nm)	0.052786	ppm	0.000183	0.35	1560.510000	0.052786
Zn (206.200 nm)	0.198167	ppm	0.000410	0.21	943.790000	0.198167
Zr (343.823 nm)	0.084990	ppm	0.008988	10.58	8008.110000	0.084990

Solution Name: 280-190890-A-3-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190890-A-3-A	5/14/2024 2:03:04 AM	1:46	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.002835	ppm	0.000033	1.16	723.757640	0.002835
Ag (328.068 nm)	0.000036 u	ppm	0.000559	> 100.00	-30.620700	0.000036 u
Al (167.019 nm)	0.234931	ppm	0.007580	3.23	116.373000	0.234931
Al H (396.152 nm)	0.208475 u	ppm	0.014822	7.11	530.695985	0.208475 u
As (188.980 nm)	-0.002542 u	ppm	0.000842	33.14	-2.526870	-0.002542 u
B (249.678 nm)	0.020995	ppm	0.000266	1.27	557.080000	0.020995
Ba (493.408 nm)	0.063594	ppm	0.001169	1.84	5491.260000	0.063594
Be (234.861 nm)	0.000060	ppm	0.000037	61.17	-10.387800	0.000060
Bi (223.061 nm)	-0.000323 u	ppm	0.001902	> 100.00	1.042240	-0.000323 u
Ca (315.887 nm)	28.252676 o	ppm	0.244399	0.87	25238.566218	28.252676 o
Cd (214.439 nm)	0.000156	ppm	0.000023	14.87	-4.933200	0.000156
Co (228.615 nm)	0.000324	ppm	0.000117	35.96	-10.611400	0.000324
Cr (205.560 nm)	0.000401	ppm	0.000298	74.36	22.469300	0.000401
Cu (324.754 nm)	0.001386	ppm	0.000560	40.43	1330.540000	0.001386
Fe (238.204 nm)	0.520460	ppm	0.003680	0.71	1812.475082	0.520460
Fe H (259.940 nm)	0.583059 u	ppm	0.005073	0.87	994.800000	0.583059 u
K (766.491 nm)	2.040770	ppm	0.052024	2.55	-42.261200	2.040770
Li (670.783 nm)	0.014839	ppm	0.002566	17.29	-496.720000	0.014839
Mg (279.078 nm)	7.359920	ppm	0.007604	0.10	35339.000000	7.359920
Mn (257.610 nm)	0.057270	ppm	0.000059	0.10	11042.600000	0.057270
Mo (202.032 nm)	0.001246	ppm	0.000462	37.10	15.623500	0.001246
Na (589.592 nm)	32.929100	ppm	0.056243	0.17	142581.000000	32.929100
Na H (589.593 nm)	28.665357	ppm	0.350385	1.22	93766.945386	28.665357
Ni (231.604 nm)	-0.000592 u	ppm	0.000350	59.21	16.538700	-0.000592 u
P (213.618 nm)	0.013838	ppm	0.002450	17.71	39.425200	0.013838
Pb (220.353 nm)	0.001289 u	ppm	0.001323	> 100.00	-3.212450	0.001289 u
S (181.972 nm)	5.144115	ppm	0.012156	0.24	2145.250494	5.144115
Sb (206.834 nm)	0.000126 u	ppm	0.000407	> 100.00	7.370690	0.000126 u
Se (196.026 nm)	-0.000157 u	ppm	0.004168	> 100.00	8.228590	-0.000157 u
Si (288.158 nm)	5.258910	ppm	0.017449	0.33	36423.100000	5.258910
Sn (189.925 nm)	-0.000399 u	ppm	0.000596	> 100.00	7.261350	-0.000399 u
Sr (421.552 nm)	0.175730	ppm	0.001639	0.93	32198.244991	0.175730
Th (288.505 nm)	0.007382	ppm	0.003546	48.03	113.804000	0.007382
Ti (336.122 nm)	0.004289	ppm	0.000057	1.32	408.899000	0.004289
Tl (190.794 nm)	0.001782	ppm	0.000839	47.05	-4.535590	0.001782
U (409.013 nm)	-0.001486 u	ppm	0.007526	> 100.00	76.670800	-0.001486 u
V (292.401 nm)	0.000038 u	ppm	0.000158	> 100.00	39.731000	0.000038 u
Zn (206.200 nm)	0.005742	ppm	0.000689	12.00	35.276200	0.005742
Zr (343.823 nm)	0.000187	ppm	0.000143	76.51	46.455500	0.000187

Solution Name: 280-190890-A-4-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190890-A-4-A	5/14/2024 2:06:50 AM	1:47	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.003448	ppm	0.000001	0.03	1518.019816	0.003448
Ag (328.068 nm)	-0.000073 u	ppm	0.000332	> 100.00	-35.131400	-0.000073 u
Al (167.019 nm)	1.181760	ppm	0.008795	0.74	580.242000	1.181760
Al H (396.152 nm)	1.081604	ppm	0.009014	0.83	2362.937579	1.081604
As (188.980 nm)	-0.000987 u	ppm	0.000705	71.37	-0.883210	-0.000987 u
B (249.678 nm)	0.022894	ppm	0.000218	0.95	598.196000	0.022894
Ba (493.408 nm)	0.044976	ppm	0.000330	0.73	3873.860000	0.044976
Be (234.861 nm)	0.000105	ppm	0.000007	6.84	8.893060	0.000105
Bi (223.061 nm)	-0.002059 u	ppm	0.001400	67.97	-2.120940	-0.002059 u
Ca (315.887 nm)	13.176646 o	ppm	0.052635	0.40	11748.868858	13.176646 o
Cd (214.439 nm)	0.000125	ppm	0.000028	22.17	-5.883630	0.000125
Co (228.615 nm)	0.000963	ppm	0.000197	20.51	-0.572233	0.000963
Cr (205.560 nm)	0.000891	ppm	0.000176	19.75	28.092000	0.000891
Cu (324.754 nm)	0.003083	ppm	0.000059	1.91	1414.940000	0.003083
Fe (238.204 nm)	1.288615	ppm	0.003136	0.24	4439.209248	1.288615
Fe H (259.940 nm)	1.358430 u	ppm	0.005290	0.39	2467.230000	1.358430 u
K (766.491 nm)	2.429280	ppm	0.093264	3.84	219.006000	2.429280
Li (670.783 nm)	0.013097	ppm	0.002439	18.62	-527.806000	0.013097
Mg (279.078 nm)	3.766330	ppm	0.002388	0.06	18089.800000	3.766330
Mn (257.610 nm)	0.090682	ppm	0.000137	0.15	17466.100000	0.090682
Mo (202.032 nm)	0.000589	ppm	0.000279	47.46	11.150700	0.000589
Na (589.592 nm)	15.303600	ppm	0.131674	0.86	67684.400000	15.303600
Na H (589.593 nm)	12.136725	ppm	0.099426	0.82	45124.007949	12.136725
Ni (231.604 nm)	0.000301 u	ppm	0.000654	> 100.00	21.777800	0.000301 u
P (213.618 nm)	0.041119	ppm	0.000462	1.12	97.155400	0.041119
Pb (220.353 nm)	0.001974	ppm	0.000593	30.04	-1.849260	0.001974
S (181.972 nm)	2.483073	ppm	0.006838	0.28	1045.949941	2.483073
Sb (206.834 nm)	-0.000852 u	ppm	0.000636	74.58	5.166700	-0.000852 u
Se (196.026 nm)	0.000349 u	ppm	0.001495	> 100.00	8.618850	0.000349 u
Si (288.158 nm)	5.503290	ppm	0.007246	0.13	38078.100000	5.503290
Sn (189.925 nm)	-0.000554 u	ppm	0.001140	> 100.00	7.024460	-0.000554 u
Sr (421.552 nm)	0.080142	ppm	0.000315	0.39	14694.349500	0.080142
Th (288.505 nm)	0.005845	ppm	0.001360	23.26	111.532000	0.005845
Ti (336.122 nm)	0.017734	ppm	0.000093	0.53	1824.130000	0.017734
Tl (190.794 nm)	0.002013	ppm	0.001635	81.21	-4.208420	0.002013
U (409.013 nm)	-0.000006 u	ppm	0.003299	> 100.00	84.133800	-0.000006 u
V (292.401 nm)	0.002025	ppm	0.000138	6.81	97.081700	0.002025
Zn (206.200 nm)	0.009615	ppm	0.000295	3.07	53.564500	0.009615
Zr (343.823 nm)	0.000576	ppm	0.000049	8.59	85.439300	0.000576

Solution Name: 280-190890-A-6-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190890-A-6-A	5/14/2024 2:10:35 AM	1:48	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.004675	ppm	0.000014	0.31	3106.794499	0.004675
Ag (328.068 nm)	0.000035 u	ppm	0.000342	> 100.00	-30.661400	0.000035 u
Al (167.019 nm)	0.017396	ppm	0.002986	17.17	9.598860	0.017396
Al H (396.152 nm)	0.009189 u	ppm	0.002524	27.47	116.168054	0.009189 u
As (188.980 nm)	-0.000315 u	ppm	0.000849	> 100.00	-0.136855	-0.000315 u
B (249.678 nm)	0.017153	ppm	0.000269	1.57	472.382000	0.017153
Ba (493.408 nm)	0.078750	ppm	0.000190	0.24	6807.960000	0.078750
Be (234.861 nm)	0.000032	ppm	0.000017	54.55	-22.365200	0.000032
Bi (223.061 nm)	-0.000720 u	ppm	0.001348	> 100.00	0.317839	-0.000720 u
Ca (315.887 nm)	41.858030 o	ppm	0.264685	0.63	37412.335258	41.858030 o
Cd (214.439 nm)	0.000089	ppm	0.000010	11.39	-8.737700	0.000089
Co (228.615 nm)	0.002599	ppm	0.000591	22.75	23.989900	0.002599
Cr (205.560 nm)	-0.000065 u	ppm	0.000300	> 100.00	17.084000	-0.000065 u
Cu (324.754 nm)	0.000146 u	ppm	0.000299	> 100.00	1265.470000	0.000146 u
Fe (238.204 nm)	0.067965	ppm	0.002718	4.00	265.155333	0.067965
Fe H (259.940 nm)	0.136507 u	ppm	0.000993	0.73	146.799000	0.136507 u
K (766.491 nm)	1.816690	ppm	0.061624	3.39	-192.954000	1.816690
Li (670.783 nm)	0.014412	ppm	0.006739	46.76	-504.336000	0.014412
Mg (279.078 nm)	9.704290	ppm	0.019177	0.20	46591.800000	9.704290
Mn (257.610 nm)	0.004380	ppm	0.000022	0.51	874.582000	0.004380
Mo (202.032 nm)	0.000841	ppm	0.000414	49.27	12.866400	0.000841
Na (589.592 nm)	29.892400	ppm	0.059010	0.20	129723.000000	29.892400
Na H (589.593 nm)	25.627047	ppm	0.096727	0.38	84857.490772	25.627047
Ni (231.604 nm)	-0.001003 u	ppm	0.000782	77.97	14.127900	-0.001003 u
P (213.618 nm)	0.001318	ppm	0.000908	68.88	12.969000	0.001318
Pb (220.353 nm)	-0.000364 u	ppm	0.000403	> 100.00	-7.065840	-0.000364 u
S (181.972 nm)	6.742823	ppm	0.015986	0.24	2805.628355	6.742823
Sb (206.834 nm)	-0.001995 u	ppm	0.003101	> 100.00	2.865860	-0.001995 u
Se (196.026 nm)	0.000145 u	ppm	0.001820	> 100.00	8.532380	0.000145 u
Si (288.158 nm)	5.919510	ppm	0.006022	0.10	40895.100000	5.919510
Sn (189.925 nm)	0.000174 u	ppm	0.001622	> 100.00	8.177540	0.000174 u
Sr (421.552 nm)	0.242957	ppm	0.000937	0.39	44508.762211	0.242957
Th (288.505 nm)	0.006734	ppm	0.004894	72.67	111.728000	0.006734
Ti (336.122 nm)	0.000689	ppm	0.000017	2.47	51.714500	0.000689
Tl (190.794 nm)	0.001440 u	ppm	0.001842	> 100.00	-5.073950	0.001440 u
U (409.013 nm)	-0.002113 u	ppm	0.005518	> 100.00	72.414300	-0.002113 u
V (292.401 nm)	-0.000265 u	ppm	0.000262	99.07	30.877900	-0.000265 u
Zn (206.200 nm)	0.000598	ppm	0.000217	36.35	10.989900	0.000598
Zr (343.823 nm)	-0.000132 u	ppm	0.000173	> 100.00	18.658400	-0.000132 u

Solution Name: 280-190890-A-7-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190890-A-7-A	5/14/2024 2:14:22 AM	1:49	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.004599	ppm	0.000018	0.38	3009.250076	0.004599
Ag (328.068 nm)	-0.000126 u	ppm	0.000108	85.65	-37.460400	-0.000126 u
Al (167.019 nm)	2.681890	ppm	0.018998	0.71	1315.310000	2.681890
Al H (396.152 nm)	2.498814	ppm	0.017610	0.70	5348.549191	2.498814
As (188.980 nm)	0.000866 u	ppm	0.001029	> 100.00	1.065080	0.000866 u
B (249.678 nm)	0.023230	ppm	0.000221	0.95	603.640000	0.023230
Ba (493.408 nm)	0.066076	ppm	0.000882	1.34	5706.920000	0.066076
Be (234.861 nm)	0.000137	ppm	0.000014	10.54	31.814600	0.000137
Bi (223.061 nm)	-0.000960 u	ppm	0.001714	> 100.00	-0.118876	-0.000960 u
Ca (315.887 nm)	20.492493 o	ppm	0.184052	0.90	18294.926152	20.492493 o
Cd (214.439 nm)	0.000167	ppm	0.000059	35.64	-2.610000	0.000167
Co (228.615 nm)	0.001528	ppm	0.000189	12.37	8.854820	0.001528
Cr (205.560 nm)	0.002585	ppm	0.000186	7.20	47.752400	0.002585
Cu (324.754 nm)	0.003397	ppm	0.000033	0.96	1432.130000	0.003397
Fe (238.204 nm)	2.681611	ppm	0.017818	0.66	9202.607177	2.681611
Fe H (259.940 nm)	2.738600 u	ppm	0.015941	0.58	5088.170000	2.738600 u
K (766.491 nm)	3.215630	ppm	0.122820	3.82	747.815000	3.215630
Li (670.783 nm)	0.014537	ppm	0.002603	17.90	-502.112000	0.014537
Mg (279.078 nm)	5.338280	ppm	0.007216	0.14	25632.800000	5.338280
Mn (257.610 nm)	0.157502	ppm	0.000083	0.05	30312.300000	0.157502
Mo (202.032 nm)	0.000599	ppm	0.000147	24.61	11.221300	0.000599
Na (589.592 nm)	15.613200	ppm	0.035857	0.23	69052.200000	15.613200
Na H (589.593 nm)	12.376145	ppm	0.096211	0.78	45864.591690	12.376145
Ni (231.604 nm)	0.000964	ppm	0.000331	34.28	25.666200	0.000964
P (213.618 nm)	0.088337	ppm	0.000888	1.01	197.240000	0.088337
Pb (220.353 nm)	0.002996	ppm	0.000696	23.22	0.132241	0.002996
S (181.972 nm)	3.168580	ppm	0.004864	0.15	1329.296008	3.168580
Sb (206.834 nm)	-0.002104 u	ppm	0.002152	> 100.00	2.307160	-0.002104 u
Se (196.026 nm)	0.000709 u	ppm	0.002807	> 100.00	9.000070	0.000709 u
Si (288.158 nm)	9.214590	ppm	0.009335	0.10	63203.900000	9.214590
Sn (189.925 nm)	-0.000806 u	ppm	0.000373	46.29	6.641820	-0.000806 u
Sr (421.552 nm)	0.120187	ppm	0.000723	0.60	22027.332970	0.120187
Th (288.505 nm)	0.008649	ppm	0.002172	25.12	118.211000	0.008649
Ti (336.122 nm)	0.043116	ppm	0.000199	0.46	4576.860000	0.043116
Tl (190.794 nm)	0.000283 u	ppm	0.001562	> 100.00	-7.166980	0.000283 u
U (409.013 nm)	-0.003431 u	ppm	0.007287	> 100.00	72.653300	-0.003431 u
V (292.401 nm)	0.004764	ppm	0.000444	9.32	177.888000	0.004764
Zn (206.200 nm)	0.012130	ppm	0.000369	3.04	65.438800	0.012130
Zr (343.823 nm)	0.001148	ppm	0.000051	4.46	157.727000	0.001148

Solution Name: 280-190573-A-3-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190573-A-3-A	5/14/2024 2:18:08 AM	1:50	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.222735	ppm	0.000319	0.14	285504.934126	0.222735
Ag (328.068 nm)	0.000392 u	ppm	0.000400	> 100.00	-18.045900	0.000392 u
Al (167.019 nm)	0.047439	ppm	0.002083	4.39	24.317100	0.047439
Al H (396.152 nm)	0.037643 u	ppm	0.009630	25.58	186.105169	0.037643 u
As (188.980 nm)	-0.001349 u	ppm	0.000758	56.19	-1.241850	-0.001349 u
B (249.678 nm)	0.048638	ppm	0.000375	0.77	1172.420000	0.048638
Ba (493.408 nm)	0.068756	ppm	0.000791	1.15	5939.710000	0.068756
Be (234.861 nm)	0.000025 u	ppm	0.000037	> 100.00	-25.443100	0.000025 u
Bi (223.061 nm)	-0.001879 u	ppm	0.001011	53.82	-1.793100	-0.001879 u
Ca (315.887 nm)	63.753313 o	ppm	0.421205	0.66	57003.747943	63.753313 o
Cd (214.439 nm)	0.000479	ppm	0.000041	8.50	11.455900	0.000479
Co (228.615 nm)	0.000191	ppm	0.000057	29.94	-12.737700	0.000191
Cr (205.560 nm)	0.000604	ppm	0.000027	4.54	24.903700	0.000604
Cu (324.754 nm)	0.008193	ppm	0.000273	3.34	1648.410000	0.008193
Fe (238.204 nm)	0.091923	ppm	0.000465	0.51	347.077928	0.091923
Fe H (259.940 nm)	0.160579 u	ppm	0.001537	0.96	192.512000	0.160579 u
K (766.491 nm)	2.500260	ppm	0.072322	2.89	266.736000	2.500260
Li (670.783 nm)	0.280729	ppm	0.001622	0.58	4248.610000	0.280729
Mg (279.078 nm)	13.586300	ppm	0.013361	0.10	65222.800000	13.586300
Mn (257.610 nm)	0.063518	ppm	0.000061	0.10	12243.800000	0.063518
Mo (202.032 nm)	0.032167	ppm	0.000419	1.30	225.913000	0.032167
Na (589.592 nm)	18.884400	ppm	0.084517	0.45	82950.400000	18.884400
Na H (589.593 nm)	15.504001	ppm	0.149479	0.96	55068.276964	15.504001
Ni (231.604 nm)	-0.001590 u	ppm	0.000558	35.10	10.687000	-0.001590 u
P (213.618 nm)	0.174513	ppm	0.001819	1.04	379.503000	0.174513
Pb (220.353 nm)	-0.000618 u	ppm	0.000820	> 100.00	-7.684010	-0.000618 u
S (181.972 nm)	13.259916 o	ppm	0.031462	0.24	5498.188767	13.259916 o
Sb (206.834 nm)	-0.002077 u	ppm	0.002525	> 100.00	2.458780	-0.002077 u
Se (196.026 nm)	-0.000672 u	ppm	0.002730	> 100.00	7.740410	-0.000672 u
Si (288.158 nm)	3.268850	ppm	0.002516	0.08	22950.800000	3.268850
Sn (189.925 nm)	-0.000013 u	ppm	0.001573	> 100.00	7.876040	-0.000013 u
Sr (421.552 nm)	0.169116	ppm	0.001145	0.68	30987.188694	0.169116
Th (288.505 nm)	0.006509	ppm	0.005739	88.18	112.861000	0.006509
Ti (336.122 nm)	0.000305	ppm	0.000054	17.67	59.867300	0.000305
Tl (190.794 nm)	0.002042	ppm	0.001537	75.25	-4.143540	0.002042
U (409.013 nm)	0.046720	ppm	0.004432	9.49	230.935000	0.046720
V (292.401 nm)	-0.000160 u	ppm	0.000172	> 100.00	31.504400	-0.000160 u
Zn (206.200 nm)	0.026051	ppm	0.000046	0.18	131.165000	0.026051
Zr (343.823 nm)	-0.000166 u	ppm	0.000046	27.63	4.086250	-0.000166 u

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/14/2024 2:21:56 AM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000572	ppm	0.000047	8.25	-2205.766185	0.000572
Ag (328.068 nm)	0.001137	ppm	0.000388	34.13	-42.801700	0.001137
Al (167.019 nm)	49.101200 o	ppm	0.341928	0.70	24063.200000	49.101200 o
Al H (396.152 nm)	47.828402	ppm	0.315010	0.66	100751.040508	47.828402
As (188.980 nm)	-0.002262 u	ppm	0.002090	92.37	-3.341250	-0.002262 u
B (249.678 nm)	0.001260	ppm	0.000147	11.67	47.710900	0.001260
Ba (493.408 nm)	0.001185	ppm	0.000393	33.14	69.517800	0.001185
Be (234.861 nm)	0.000067	ppm	0.000024	36.14	503.067000	0.000067
Bi (223.061 nm)	0.004699	ppm	0.000445	9.47	10.187800	0.004699
Ca (315.887 nm)	-0.005445 u	ppm	0.003485	64.00	-46.173843	-0.005445 u
Cd (214.439 nm)	-0.000103 u	ppm	0.000048	46.95	20.822800	-0.000103 u
Co (228.615 nm)	-0.000078 u	ppm	0.000367	> 100.00	-17.029500	-0.000078 u
Cr (205.560 nm)	0.000326	ppm	0.000290	88.99	11.571000	0.000326
Cu (324.754 nm)	0.002122	ppm	0.000402	18.97	2119.230000	0.002122
Fe (238.204 nm)	48.805899 o	ppm	0.316073	0.65	166926.198157	48.805899 o
Fe H (259.940 nm)	48.327100	ppm	0.296717	0.61	91660.500000	48.327100
K (766.491 nm)	0.176729 u	ppm	0.176449	99.84	-1295.800000	0.176729 u
Li (670.783 nm)	0.009434	ppm	0.001872	19.84	-593.189000	0.009434
Mg (279.078 nm)	-0.012371 u	ppm	0.000554	4.48	-165.042000	-0.012371 u
Mn (257.610 nm)	-0.000037 u	ppm	0.000037	> 100.00	25.362700	-0.000037 u
Mo (202.032 nm)	-0.000420 u	ppm	0.000501	> 100.00	4.290250	-0.000420 u
Na (589.592 nm)	246.893000	ppm	1.591190	0.64	1051060.000000	246.893000
Na H (589.593 nm)	227.616277	ppm	1.923796	0.85	678773.210782	227.616277
Ni (231.604 nm)	-0.000466 u	ppm	0.001601	> 100.00	17.280900	-0.000466 u
P (213.618 nm)	4.696390	ppm	0.008908	0.19	9965.610000	4.696390
Pb (220.353 nm)	-0.004830 u	ppm	0.001803	37.34	-26.098500	-0.004830 u
S (181.972 nm)	4.985729	ppm	0.006479	0.13	2079.704374	4.985729
Sb (206.834 nm)	0.001749 u	ppm	0.002240	> 100.00	-2.625340	0.001749 u
Se (196.026 nm)	-0.001095 u	ppm	0.001983	> 100.00	1.783740	-0.001095 u
Si (288.158 nm)	0.002058	ppm	0.000231	11.24	835.613000	0.002058
Sn (189.925 nm)	-0.000429 u	ppm	0.000921	> 100.00	8.052290	-0.000429 u
Sr (421.552 nm)	0.000239	ppm	0.000043	18.12	62.618647	0.000239
Th (288.505 nm)	4.774060	ppm	0.063602	1.33	9358.930000	4.774060
Ti (336.122 nm)	0.000975	ppm	0.000108	11.03	-12.136700	0.000975
Tl (190.794 nm)	-0.001239 u	ppm	0.001256	> 100.00	-10.432300	-0.001239 u
U (409.013 nm)	2.394910	ppm	0.006123	0.26	8039.260000	2.394910
V (292.401 nm)	-0.000187 u	ppm	0.000282	> 100.00	246.340000	-0.000187 u
Zn (206.200 nm)	0.001217	ppm	0.000643	52.84	13.915000	0.001217
Zr (343.823 nm)	0.001341	ppm	0.000069	5.14	228.919000	0.001341

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/14/2024 2:25:47 AM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.442402 Q	ppm	0.000579	0.13	569982.944511 Q	0.442402 Q
Ag (328.068 nm)	0.483603	ppm	0.000355	0.07	18413.700000	0.483603
Al (167.019 nm)	0.511975	ppm	0.006849	1.34	253.316000	0.511975
Al H (396.152 nm)	0.460277 u	ppm	0.002821	0.61	1085.005128	0.460277 u
As (188.980 nm)	0.469679	ppm	0.004451	0.95	502.165000	0.469679
B (249.678 nm)	0.460988	ppm	0.001559	0.34	10357.200000	0.460988
Ba (493.408 nm)	0.481827	ppm	0.002152	0.45	41823.100000	0.481827
Be (234.861 nm)	0.463692	ppm	0.003638	0.78	116564.000000	0.463692
Bi (223.061 nm)	0.990253	ppm	0.002089	0.21	1805.170000	0.990253
Ca (315.887 nm)	4.868202	ppm	0.014331	0.29	4314.657445	4.868202
Cd (214.439 nm)	0.508548	ppm	0.000782	0.15	26271.900000	0.508548
Co (228.615 nm)	0.480461	ppm	0.000355	0.07	7320.390000	0.480461
Cr (205.560 nm)	0.503303	ppm	0.000654	0.13	5941.330000	0.503303
Cu (324.754 nm)	0.447343 Q	ppm	0.003289	0.74	23886.600000 Q	0.447343 Q
Fe (238.204 nm)	2.419929	ppm	0.019672	0.81	8307.776957	2.419929
Fe H (259.940 nm)	2.473210 u	ppm	0.013185	0.53	4584.190000	2.473210 u
K (766.491 nm)	50.864500	ppm	0.170480	0.34	32791.000000	50.864500
Li (670.783 nm)	0.538625	ppm	0.002931	0.54	8851.280000	0.538625
Mg (279.078 nm)	19.440100	ppm	0.017738	0.09	93317.400000	19.440100
Mn (257.610 nm)	0.491658	ppm	0.000253	0.05	94553.600000	0.491658
Mo (202.032 nm)	0.497888	ppm	0.001380	0.28	3393.300000	0.497888
Na (589.592 nm)	25.254900	ppm	0.133625	0.53	111033.000000	25.254900
Na H (589.593 nm)	21.839662	ppm	0.188199	0.86	74411.277536	21.839662
Ni (231.604 nm)	0.507033	ppm	0.000955	0.19	2994.030000	0.507033
P (213.618 nm)	0.018514	ppm	0.001358	7.33	14.237200	0.018514
Pb (220.353 nm)	0.472785	ppm	0.000868	0.18	1107.410000	0.472785
S (181.972 nm)	-0.009963 u	ppm	0.004797	48.15	19.080466	-0.009963 u
Sb (206.834 nm)	0.500931	ppm	0.001807	0.36	1098.380000	0.500931
Se (196.026 nm)	0.468236	ppm	0.003750	0.80	415.027000	0.468236
Si (288.158 nm)	4.827610	ppm	0.023713	0.49	33716.500000	4.827610
Sn (189.925 nm)	0.505866	ppm	0.002570	0.51	824.754000	0.505866
Sr (421.552 nm)	0.463740	ppm	0.002274	0.49	84938.231322	0.463740
Th (288.505 nm)	0.052030	ppm	0.028032	53.88	209.003000	0.052030
Ti (336.122 nm)	0.482128	ppm	0.000596	0.12	51866.200000	0.482128
Tl (190.794 nm)	0.502136	ppm	0.002620	0.52	818.351000	0.502136
U (409.013 nm)	0.001875 u	ppm	0.003215	> 100.00	65.865000	0.001875 u
V (292.401 nm)	0.486827	ppm	0.000098	0.02	14153.700000	0.486827
Zn (206.200 nm)	0.470690	ppm	0.000890	0.19	2230.480000	0.470690
Zr (343.823 nm)	0.471673	ppm	0.004443	0.94	44101.900000	0.471673

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/14/2024 2:29:34 AM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000230	ppm	0.000011	4.89	-2649.055154	0.000230
Ag (328.068 nm)	-0.000296 u	ppm	0.000255	86.00	-43.528000	-0.000296 u
Al (167.019 nm)	-0.002699 u	ppm	0.000907	33.61	-0.281709	-0.002699 u
Al H (396.152 nm)	-0.028274 u	ppm	0.004456	15.76	22.069649	-0.028274 u
As (188.980 nm)	-0.001185 u	ppm	0.001850	> 100.00	-1.064620	-0.001185 u
B (249.678 nm)	0.001124	ppm	0.000291	25.89	115.956000	0.001124
Ba (493.408 nm)	0.000481	ppm	0.000185	38.37	8.417150	0.000481
Be (234.861 nm)	0.000019	ppm	0.000011	56.92	-26.277800	0.000019
Bi (223.061 nm)	-0.000231 u	ppm	0.000953	> 100.00	1.208880	-0.000231 u
Ca (315.887 nm)	0.003668	ppm	0.002496	68.06	-38.019844	0.003668
Cd (214.439 nm)	0.000161	ppm	0.000079	48.77	-5.063080	0.000161
Co (228.615 nm)	0.000136 u	ppm	0.000314	> 100.00	-13.761800	0.000136 u
Cr (205.560 nm)	0.000169 u	ppm	0.000365	> 100.00	19.854800	0.000169 u
Cu (324.754 nm)	0.000361	ppm	0.000198	54.88	1276.080000	0.000361
Fe (238.204 nm)	0.002385	ppm	0.001320	55.35	40.901821	0.002385
Fe H (259.940 nm)	0.073910 u	ppm	0.001640	2.22	27.926800	0.073910 u
K (766.491 nm)	0.097406	ppm	0.043640	44.80	-1349.150000	0.097406
Li (670.783 nm)	0.007256 S	ppm	0.002811	38.74	-632.048000 S	0.007256 S
Mg (279.078 nm)	0.001347	ppm	0.001352	> 100.00	20.730400	0.001347
Mn (257.610 nm)	-0.000016 u	ppm	0.000048	> 100.00	29.471500	-0.000016 u
Mo (202.032 nm)	0.000691 u	ppm	0.000939	> 100.00	11.846200	0.000691 u
Na (589.592 nm)	-0.102143 u	ppm	0.007392	7.24	2150.980000	-0.102143 u
Na H (589.593 nm)	-2.173597 u	ppm	0.029334	1.35	2960.832933	-2.173597 u
Ni (231.604 nm)	-0.001679 u	ppm	0.000545	32.48	10.162800	-0.001679 u
P (213.618 nm)	-0.001309 u	ppm	0.001556	> 100.00	7.436860	-0.001309 u
Pb (220.353 nm)	0.000793	ppm	0.000250	31.55	-4.298580	0.000793
S (181.972 nm)	-0.007256 u	ppm	0.004802	66.18	16.922709	-0.007256 u
Sb (206.834 nm)	-0.001138 u	ppm	0.001182	> 100.00	4.707970	-0.001138 u
Se (196.026 nm)	-0.001668 u	ppm	0.002078	> 100.00	6.684560	-0.001668 u
Si (288.158 nm)	-0.004986 u	ppm	0.001534	30.77	787.558000	-0.004986 u
Sn (189.925 nm)	-0.000448 u	ppm	0.000746	> 100.00	7.173180	-0.000448 u
Sr (421.552 nm)	0.000050	ppm	0.000023	45.39	28.024358	0.000050
Th (288.505 nm)	0.003146	ppm	0.002644	84.06	104.890000	0.003146
Ti (336.122 nm)	0.000151	ppm	0.000070	46.01	-100.988000	0.000151
Tl (190.794 nm)	0.001217 u	ppm	0.002352	> 100.00	-5.444140	0.001217 u
U (409.013 nm)	0.001939 u	ppm	0.009933	> 100.00	91.599100	0.001939 u
V (292.401 nm)	-0.000132 u	ppm	0.000479	> 100.00	33.231200	-0.000132 u
Zn (206.200 nm)	-0.000822 u	ppm	0.000413	50.24	4.287980	-0.000822 u
Zr (343.823 nm)	0.000097 u	ppm	0.000088	90.53	14.263400	0.000097 u

Solution Name: 280-190573-A-5-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190573-A-5-A	5/14/2024 2:33:10 AM	1:51	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.355272	ppm	0.000534	0.15	457146.193928	0.355272
Ag (328.068 nm)	0.000530	ppm	0.000050	9.49	-11.810100	0.000530
Al (167.019 nm)	0.057991	ppm	0.002803	4.83	29.503000	0.057991
Al H (396.152 nm)	0.044462 u	ppm	0.003912	8.80	196.199106	0.044462 u
As (188.980 nm)	-0.002750 u	ppm	0.001478	53.76	-2.740200	-0.002750 u
B (249.678 nm)	0.016842	ppm	0.000498	2.95	465.310000	0.016842
Ba (493.408 nm)	0.057886	ppm	0.000487	0.84	4995.430000	0.057886
Be (234.861 nm)	0.000003 u	ppm	0.000010	> 100.00	-31.240300	0.000003 u
Bi (223.061 nm)	-0.001546 u	ppm	0.001596	> 100.00	-1.186280	-0.001546 u
Ca (315.887 nm)	50.538992 o	ppm	0.206960	0.41	45179.866985	50.538992 o
Cd (214.439 nm)	0.000128	ppm	0.000065	50.98	-6.679430	0.000128
Co (228.615 nm)	0.000586	ppm	0.000146	24.94	-6.751450	0.000586
Cr (205.560 nm)	0.000376	ppm	0.000286	76.24	22.203000	0.000376
Cu (324.754 nm)	0.003981	ppm	0.000301	7.57	1442.920000	0.003981
Fe (238.204 nm)	0.123169	ppm	0.001488	1.21	453.925675	0.123169
Fe H (259.940 nm)	0.194175 u	ppm	0.001738	0.90	256.311000	0.194175 u
K (766.491 nm)	2.217920	ppm	0.074478	3.36	76.871800	2.217920
Li (670.783 nm)	0.458305	ppm	0.001042	0.23	7417.820000	0.458305
Mg (279.078 nm)	11.122900	ppm	0.013260	0.12	53400.600000	11.122900
Mn (257.610 nm)	0.091992	ppm	0.000151	0.16	17717.800000	0.091992
Mo (202.032 nm)	0.040464	ppm	0.000935	2.31	282.345000	0.040464
Na (589.592 nm)	14.226000	ppm	0.026889	0.19	63140.700000	14.226000
Na H (589.593 nm)	11.142538	ppm	0.169604	1.52	42222.445313	11.142538
Ni (231.604 nm)	-0.001677 u	ppm	0.001039	61.95	10.178200	-0.001677 u
P (213.618 nm)	0.229728	ppm	0.002554	1.11	496.909000	0.229728
Pb (220.353 nm)	0.000215	ppm	0.000133	62.13	-5.848240	0.000215
S (181.972 nm)	9.959962	ppm	0.008736	0.09	4134.910594	9.959962
Sb (206.834 nm)	-0.001756 u	ppm	0.000413	23.51	3.199680	-0.001756 u
Se (196.026 nm)	-0.000183 u	ppm	0.000741	> 100.00	8.168390	-0.000183 u
Si (288.158 nm)	2.967250	ppm	0.001337	0.05	20908.900000	2.967250
Sn (189.925 nm)	-0.000402 u	ppm	0.001132	> 100.00	7.249510	-0.000402 u
Sr (421.552 nm)	0.128350	ppm	0.001352	1.05	23522.080286	0.128350
Th (288.505 nm)	0.004315	ppm	0.003671	85.07	108.426000	0.004315
Ti (336.122 nm)	0.000436	ppm	0.000196	45.00	44.067200	0.000436
Tl (190.794 nm)	0.002264	ppm	0.001274	56.27	-3.793890	0.002264
U (409.013 nm)	0.001969 u	ppm	0.007578	> 100.00	84.747500	0.001969 u
V (292.401 nm)	-0.000278 u	ppm	0.000178	63.95	29.684900	-0.000278 u
Zn (206.200 nm)	0.035661	ppm	0.000420	1.18	176.539000	0.035661
Zr (343.823 nm)	0.000179	ppm	0.000098	54.54	35.054900	0.000179

Solution Name: 280-190573-A-7-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190573-A-7-A	5/14/2024 2:36:55 AM	1:52	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.031533	ppm	0.000021	0.07	37889.639020	0.031533
Ag (328.068 nm)	0.000621	ppm	0.000419	67.46	-8.496500	0.000621
Al (167.019 nm)	0.010970	ppm	0.003354	30.58	6.412810	0.010970
Al H (396.152 nm)	0.000518 u	ppm	0.005371	> 100.00	104.985623	0.000518 u
As (188.980 nm)	-0.003496 u	ppm	0.001000	28.61	-3.534830	-0.003496 u
B (249.678 nm)	0.041453	ppm	0.000249	0.60	1012.750000	0.041453
Ba (493.408 nm)	0.051469	ppm	0.000806	1.57	4437.900000	0.051469
Be (234.861 nm)	0.000020	ppm	0.000019	93.49	-26.056300	0.000020
Bi (223.061 nm)	-0.002306 u	ppm	0.001722	74.66	-2.570580	-0.002306 u
Ca (315.887 nm)	60.690820 o	ppm	0.502904	0.83	54263.497528	60.690820 o
Cd (214.439 nm)	0.000119	ppm	0.000070	58.50	-7.239770	0.000119
Co (228.615 nm)	0.000299	ppm	0.000191	63.82	-11.131600	0.000299
Cr (205.560 nm)	0.000738	ppm	0.000169	22.86	26.549700	0.000738
Cu (324.754 nm)	0.000788	ppm	0.000367	46.51	1273.350000	0.000788
Fe (238.204 nm)	0.010712	ppm	0.002286	21.34	69.375044	0.010712
Fe H (259.940 nm)	0.082099 u	ppm	0.001076	1.31	43.478700	0.082099 u
K (766.491 nm)	2.460160	ppm	0.160872	6.54	239.775000	2.460160
Li (670.783 nm)	0.048627	ppm	0.001535	3.16	106.292000	0.048627
Mg (279.078 nm)	7.118910	ppm	0.002957	0.04	34182.700000	7.118910
Mn (257.610 nm)	0.032742	ppm	0.000024	0.07	6327.040000	0.032742
Mo (202.032 nm)	0.004177	ppm	0.000249	5.95	35.555400	0.004177
Na (589.592 nm)	11.562300	ppm	0.076847	0.66	51812.700000	11.562300
Na H (589.593 nm)	8.510868 u	ppm	0.137143	1.61	34471.706466	8.510868 u
Ni (231.604 nm)	-0.002157 u	ppm	0.000412	19.12	7.361370	-0.002157 u
P (213.618 nm)	0.047596	ppm	0.001715	3.60	111.040000	0.047596
Pb (220.353 nm)	-0.000099 u	ppm	0.000842	> 100.00	-6.431200	-0.000099 u
S (181.972 nm)	14.095841 o	ppm	0.021054	0.15	5843.478754	14.095841 o
Sb (206.834 nm)	-0.001485 u	ppm	0.004901	> 100.00	3.960880	-0.001485 u
Se (196.026 nm)	-0.001055 u	ppm	0.000702	66.53	7.379290	-0.001055 u
Si (288.158 nm)	2.959450	ppm	0.003633	0.12	20856.100000	2.959450
Sn (189.925 nm)	-0.001758 u	ppm	0.001092	62.14	5.057530	-0.001758 u
Sr (421.552 nm)	0.129811	ppm	0.001202	0.93	23789.707517	0.129811
Th (288.505 nm)	0.006785	ppm	0.002225	32.79	112.394000	0.006785
Ti (336.122 nm)	0.000419	ppm	0.000074	17.64	65.208500	0.000419
Tl (190.794 nm)	0.001282 u	ppm	0.002224	> 100.00	-5.343450	0.001282 u
U (409.013 nm)	0.005051	ppm	0.001506	29.82	93.464900	0.005051
V (292.401 nm)	0.000012 u	ppm	0.000543	> 100.00	38.208500	0.000012 u
Zn (206.200 nm)	0.002560	ppm	0.000255	9.95	20.257100	0.002560
Zr (343.823 nm)	-0.000035 u	ppm	0.000091	> 100.00	14.777500	-0.000035 u

Solution Name: 280-190573-A-10-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190573-A-10-A	5/14/2024 2:40:43 AM	1:53	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.028014	ppm	0.000034	0.12	33332.105030	0.028014
Ag (328.068 nm)	0.000398	ppm	0.000264	66.53	-19.312600	0.000398
Al (167.019 nm)	0.029063	ppm	0.002834	9.75	15.352600	0.029063
Al H (396.152 nm)	0.017525 u	ppm	0.004701	26.82	148.297755	0.017525 u
As (188.980 nm)	-0.000686 u	ppm	0.001358	> 100.00	-0.534507	-0.000686 u
B (249.678 nm)	0.084565	ppm	0.000420	0.50	1971.270000	0.084565
Ba (493.408 nm)	0.084005	ppm	0.000311	0.37	7264.430000	0.084005
Be (234.861 nm)	0.000020 u	ppm	0.000043	> 100.00	-25.551700	0.000020 u
Bi (223.061 nm)	-0.000468 u	ppm	0.001369	> 100.00	0.777525	-0.000468 u
Ca (315.887 nm)	78.667435 o	ppm	0.624438	0.79	70348.573477	78.667435 o
Cd (214.439 nm)	0.000850	ppm	0.000078	9.22	30.628000	0.000850
Co (228.615 nm)	0.000002 u	ppm	0.000197	> 100.00	-15.560200	0.000002 u
Cr (205.560 nm)	0.000957	ppm	0.000294	30.67	29.079100	0.000957
Cu (324.754 nm)	0.016977	ppm	0.000153	0.90	2081.690000	0.016977
Fe (238.204 nm)	0.130200	ppm	0.001491	1.15	477.969055	0.130200
Fe H (259.940 nm)	0.200811 u	ppm	0.003768	1.88	268.913000	0.200811 u
K (766.491 nm)	3.003880	ppm	0.059005	1.96	605.419000	3.003880
Li (670.783 nm)	0.043366	ppm	0.002705	6.24	12.399500	0.043366
Mg (279.078 nm)	16.531700	ppm	0.045667	0.28	79358.200000	16.531700
Mn (257.610 nm)	0.023044	ppm	0.000031	0.14	4462.680000	0.023044
Mo (202.032 nm)	0.018648	ppm	0.000922	4.94	133.974000	0.018648
Na (589.592 nm)	25.037100	ppm	0.111632	0.45	109116.000000	25.037100
Na H (589.593 nm)	21.087532	ppm	0.210789	1.00	71515.283479	21.087532
Ni (231.604 nm)	-0.001668 u	ppm	0.000617	37.00	10.229300	-0.001668 u
P (213.618 nm)	0.099535	ppm	0.001643	1.65	219.858000	0.099535
Pb (220.353 nm)	0.001004	ppm	0.000619	61.61	-3.640460	0.001004
S (181.972 nm)	17.161394 o	ppm	0.006412	0.04	7109.954905	17.161394 o
Sb (206.834 nm)	-0.002951 u	ppm	0.002548	86.37	0.476579	-0.002951 u
Se (196.026 nm)	0.002048 u	ppm	0.002654	> 100.00	10.086800	0.002048 u
Si (288.158 nm)	3.670580	ppm	0.007374	0.20	25670.100000	3.670580
Sn (189.925 nm)	-0.000976 u	ppm	0.001106	> 100.00	6.321870	-0.000976 u
Sr (421.552 nm)	0.217629	ppm	0.001837	0.84	39870.801491	0.217629
Th (288.505 nm)	0.006368	ppm	0.004246	66.68	112.996000	0.006368
Ti (336.122 nm)	0.000737	ppm	0.000088	12.01	140.163000	0.000737
Tl (190.794 nm)	0.002173	ppm	0.001717	79.02	-3.906230	0.002173
U (409.013 nm)	0.115318	ppm	0.003632	3.15	455.806000	0.115318
V (292.401 nm)	-0.000236 u	ppm	0.000278	> 100.00	26.272800	-0.000236 u
Zn (206.200 nm)	0.012803	ppm	0.000347	2.71	68.614900	0.012803
Zr (343.823 nm)	-0.000093 u	ppm	0.000093	> 100.00	12.713300	-0.000093 u

Solution Name: 280-190573-A-11-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190573-A-11-A	5/14/2024 2:44:31 AM	1:54	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.028454	ppm	0.000019	0.07	33902.247374	0.028454
Ag (328.068 nm)	0.000026 u	ppm	0.000181	> 100.00	-33.531600	0.000026 u
Al (167.019 nm)	0.021597	ppm	0.001653	7.65	11.630400	0.021597
Al H (396.152 nm)	0.027774 u	ppm	0.010448	37.62	170.288240	0.027774 u
As (188.980 nm)	-0.002639 u	ppm	0.003282	> 100.00	-2.619680	-0.002639 u
B (249.678 nm)	0.085020	ppm	0.000030	0.04	1981.520000	0.085020
Ba (493.408 nm)	0.084122	ppm	0.000681	0.81	7274.580000	0.084122
Be (234.861 nm)	0.000024	ppm	0.000004	15.61	-25.627600	0.000024
Bi (223.061 nm)	-0.001993 u	ppm	0.000768	38.54	-2.000650	-0.001993 u
Ca (315.887 nm)	79.785566 o	ppm	0.368564	0.46	71349.052444	79.785566 o
Cd (214.439 nm)	0.000938	ppm	0.000068	7.27	35.103000	0.000938
Co (228.615 nm)	0.000147 u	ppm	0.000420	> 100.00	-13.353300	0.000147 u
Cr (205.560 nm)	0.000902	ppm	0.000281	31.18	28.455000	0.000902
Cu (324.754 nm)	0.016902	ppm	0.000104	0.62	2078.120000	0.016902
Fe (238.204 nm)	0.035338	ppm	0.001571	4.45	153.583398	0.035338
Fe H (259.940 nm)	0.105745 u	ppm	0.000917	0.87	88.381600	0.105745 u
K (766.491 nm)	3.033530	ppm	0.054483	1.80	625.355000	3.033530
Li (670.783 nm)	0.045009	ppm	0.002598	5.77	41.719100	0.045009
Mg (279.078 nm)	16.702900	ppm	0.042509	0.25	80180.300000	16.702900
Mn (257.610 nm)	0.022973	ppm	0.000033	0.14	4448.990000	0.022973
Mo (202.032 nm)	0.018767	ppm	0.000797	4.25	134.782000	0.018767
Na (589.592 nm)	25.361200	ppm	0.031510	0.12	110493.000000	25.361200
Na H (589.593 nm)	21.493846	ppm	0.177111	0.82	72710.703148	21.493846
Ni (231.604 nm)	-0.001981 u	ppm	0.000701	35.38	8.392950	-0.001981 u
P (213.618 nm)	0.100099	ppm	0.002207	2.21	221.051000	0.100099
Pb (220.353 nm)	0.000797 u	ppm	0.001383	> 100.00	-4.131310	0.000797 u
S (181.972 nm)	17.443315 o	ppm	0.010293	0.06	7226.427098	17.443315 o
Sb (206.834 nm)	-0.001212 u	ppm	0.001547	> 100.00	4.237200	-0.001212 u
Se (196.026 nm)	-0.000361 u	ppm	0.001185	> 100.00	8.007230	-0.000361 u
Si (288.158 nm)	3.720770	ppm	0.003522	0.09	26010.100000	3.720770
Sn (189.925 nm)	-0.000266 u	ppm	0.001289	> 100.00	7.467560	-0.000266 u
Sr (421.552 nm)	0.220992	ppm	0.001809	0.82	40486.505913	0.220992
Th (288.505 nm)	0.010853	ppm	0.002088	19.24	121.710000	0.010853
Ti (336.122 nm)	0.000408	ppm	0.000096	23.47	107.269000	0.000408
Tl (190.794 nm)	0.001347	ppm	0.000644	47.78	-5.264120	0.001347
U (409.013 nm)	0.113447	ppm	0.003920	3.45	449.394000	0.113447
V (292.401 nm)	-0.000071 u	ppm	0.000129	> 100.00	31.199800	-0.000071 u
Zn (206.200 nm)	0.011958	ppm	0.000191	1.60	64.627400	0.011958
Zr (343.823 nm)	-0.000051 u	ppm	0.000095	> 100.00	16.594400	-0.000051 u

Solution Name: 280-190573-A-13-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190573-A-13-A	5/14/2024 2:48:17 AM	1:55	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.029633	ppm	0.000017	0.06	35428.689901	0.029633
Ag (328.068 nm)	0.000383	ppm	0.000049	12.82	-20.196300	0.000383
Al (167.019 nm)	0.031167	ppm	0.000796	2.55	16.313800	0.031167
Al H (396.152 nm)	0.041534 u	ppm	0.004013	9.66	200.382282	0.041534 u
As (188.980 nm)	-0.000352 u	ppm	0.001706	> 100.00	-0.175575	-0.000352 u
B (249.678 nm)	0.091098	ppm	0.000445	0.49	2116.650000	0.091098
Ba (493.408 nm)	0.087635	ppm	0.000496	0.57	7579.780000	0.087635
Be (234.861 nm)	0.000029	ppm	0.000025	88.45	-24.620000	0.000029
Bi (223.061 nm)	0.000399 u	ppm	0.000863	> 100.00	2.355830	0.000399 u
Ca (315.887 nm)	82.417649 o	ppm	0.583546	0.71	73704.181763	82.417649 o
Cd (214.439 nm)	0.000996	ppm	0.000033	3.31	38.094400	0.000996
Co (228.615 nm)	-0.000339 u	ppm	0.000518	> 100.00	-20.750700	-0.000339 u
Cr (205.560 nm)	0.000528	ppm	0.000321	60.83	24.043300	0.000528
Cu (324.754 nm)	0.021668	ppm	0.000352	1.62	2317.530000	0.021668
Fe (238.204 nm)	0.035768	ppm	0.001412	3.95	155.056051	0.035768
Fe H (259.940 nm)	0.104867 u	ppm	0.001325	1.26	86.714900	0.104867 u
K (766.491 nm)	3.169060	ppm	0.034514	1.09	716.495000	3.169060
Li (670.783 nm)	0.042976	ppm	0.001923	4.47	5.445590	0.042976
Mg (279.078 nm)	17.536000	ppm	0.014299	0.08	84178.400000	17.536000
Mn (257.610 nm)	0.026143	ppm	0.000017	0.07	5058.360000	0.026143
Mo (202.032 nm)	0.021523	ppm	0.000330	1.53	153.525000	0.021523
Na (589.592 nm)	26.203600	ppm	0.174595	0.67	114080.000000	26.203600
Na H (589.593 nm)	22.159593	ppm	0.149161	0.67	74674.857391	22.159593
Ni (231.604 nm)	-0.002124 u	ppm	0.000701	33.02	7.553810	-0.002124 u
P (213.618 nm)	0.114022	ppm	0.002981	2.61	250.203000	0.114022
Pb (220.353 nm)	0.000547 u	ppm	0.002748	> 100.00	-4.715050	0.000547 u
S (181.972 nm)	16.573565 o	ppm	0.040215	0.24	6867.106478	16.573565 o
Sb (206.834 nm)	-0.002271 u	ppm	0.001993	87.78	1.909290	-0.002271 u
Se (196.026 nm)	0.001966 u	ppm	0.003936	> 100.00	10.031700	0.001966 u
Si (288.158 nm)	3.751280	ppm	0.007988	0.21	26216.300000	3.751280
Sn (189.925 nm)	-0.000960 u	ppm	0.000923	96.11	6.345700	-0.000960 u
Sr (421.552 nm)	0.233061	ppm	0.001455	0.62	42696.609903	0.233061
Th (288.505 nm)	0.006857	ppm	0.003088	45.04	114.176000	0.006857
Ti (336.122 nm)	0.000314	ppm	0.000035	11.16	103.018000	0.000314
Tl (190.794 nm)	0.000680 u	ppm	0.002556	> 100.00	-6.368150	0.000680 u
U (409.013 nm)	0.125833	ppm	0.010226	8.13	490.013000	0.125833
V (292.401 nm)	-0.000149 u	ppm	0.000080	53.62	28.538800	-0.000149 u
Zn (206.200 nm)	0.012074	ppm	0.000380	3.14	65.175800	0.012074
Zr (343.823 nm)	-0.000200 u	ppm	0.000056	27.88	2.898680	-0.000200 u

Solution Name: 280-190569-C-4-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190569-C-4-A	5/14/2024 2:52:03 AM	1:56	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.052185	ppm	0.000030	0.06	64635.275037	0.052185
Ag (328.068 nm)	0.000632 u	ppm	0.000684	> 100.00	-7.878630	0.000632 u
Al (167.019 nm)	-0.003567 u	ppm	0.005018	> 100.00	3.322240	-0.003567 u
Al H (396.152 nm)	0.005995 u	ppm	0.004699	78.38	125.198588	0.005995 u
As (188.980 nm)	0.078539	ppm	0.002111	2.69	84.020100	0.078539
B (249.678 nm)	0.176049	ppm	0.000274	0.16	3997.690000	0.176049
Ba (493.408 nm)	0.436826	ppm	0.002862	0.66	37915.200000	0.436826
Be (234.861 nm)	-0.000002 u	ppm	0.000007	> 100.00	27.391500	-0.000002 u
Bi (223.061 nm)	-0.001530 u	ppm	0.000460	30.06	-1.156370	-0.001530 u
Ca (315.887 nm)	85.146520 o	ppm	0.460370	0.54	76145.915652	85.146520 o
Cd (214.439 nm)	0.000068	ppm	0.000036	53.01	-5.385330	0.000068
Co (228.615 nm)	-0.000177 u	ppm	0.000143	80.50	-17.354500	-0.000177 u
Cr (205.560 nm)	0.000034 u	ppm	0.000468	> 100.00	17.107900	0.000034 u
Cu (324.754 nm)	-0.004413 u	ppm	0.000135	3.06	1221.380000	-0.004413 u
Fe (238.204 nm)	5.561602 o	ppm	0.027607	0.50	19050.835009	5.561602 o
Fe H (259.940 nm)	5.587830	ppm	0.029277	0.52	10498.900000	5.587830
K (766.491 nm)	7.207150	ppm	0.076900	1.07	3432.060000	7.207150
Li (670.783 nm)	0.067577	ppm	0.001482	2.19	444.492000	0.067577
Mg (279.078 nm)	68.349600 o	ppm	0.035394	0.05	328062.000000	68.349600 o
Mn (257.610 nm)	0.965731	ppm	0.000228	0.02	185694.000000	0.965731
Mo (202.032 nm)	0.000823	ppm	0.000578	70.17	12.746500	0.000823
Na (589.592 nm)	56.220300	ppm	0.166696	0.30	242417.000000	56.220300
Na H (589.593 nm)	50.131069	ppm	0.292581	0.58	157539.000201	50.131069
Ni (231.604 nm)	-0.000161 u	ppm	0.000564	> 100.00	19.069000	-0.000161 u
P (213.618 nm)	0.005355	ppm	0.001384	25.84	21.535600	0.005355
Pb (220.353 nm)	-0.000147 u	ppm	0.001351	> 100.00	-6.223050	-0.000147 u
S (181.972 nm)	17.873878 o	ppm	0.042030	0.24	7406.136837	17.873878 o
Sb (206.834 nm)	-0.002903 u	ppm	0.001454	50.08	0.024192	-0.002903 u
Se (196.026 nm)	-0.003347 u	ppm	0.003565	> 100.00	5.963490	-0.003347 u
Si (288.158 nm)	13.539300 o	ppm	0.056284	0.42	92478.500000	13.539300 o
Sn (189.925 nm)	-0.000809 u	ppm	0.000607	75.09	6.686500	-0.000809 u
Sr (421.552 nm)	2.239781 o	ppm	0.014656	0.65	410163.959208	2.239781 o
Th (288.505 nm)	0.029728	ppm	0.003784	12.73	170.472000	0.029728
Ti (336.122 nm)	0.000348	ppm	0.000151	43.35	112.950000	0.000348
Tl (190.794 nm)	0.001766	ppm	0.000726	41.12	-4.648680	0.001766
U (409.013 nm)	-0.001074 u	ppm	0.010292	> 100.00	73.438500	-0.001074 u
V (292.401 nm)	-0.000692 u	ppm	0.000065	9.44	21.675100	-0.000692 u
Zn (206.200 nm)	0.000943	ppm	0.000135	14.32	12.619200	0.000943
Zr (343.823 nm)	-0.000415 u	ppm	0.000139	33.44	36.223500	-0.000415 u

Solution Name: 280-190569-C-4-B MS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190569-C-4-B MS	5/14/2024 2:55:49 AM	1:57	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.630706	ppm	0.002054	0.13	2108890.123709	1.630706
Ag (328.068 nm)	0.069972	ppm	0.000329	0.47	2549.550000	0.069972
Al (167.019 nm)	15.096100 o	ppm	0.110799	0.73	7402.690000	15.096100 o
Al H (396.152 nm)	14.771519	ppm	0.107891	0.73	31308.583388	14.771519
As (188.980 nm)	1.572260 o	ppm	0.004137	0.26	1680.260000	1.572260 o
B (249.678 nm)	3.052340 o	ppm	0.004870	0.16	67990.900000	3.052340 o
Ba (493.408 nm)	1.914840 o	ppm	0.015004	0.78	166311.000000	1.914840 o
Be (234.861 nm)	1.445100 o	ppm	0.003219	0.22	363483.000000	1.445100 o
Bi (223.061 nm)	0.001532	ppm	0.000736	48.04	4.419470	0.001532
Ca (315.887 nm)	160.638769 o	ppm	1.115565	0.69	143694.704144	160.638769 o
Cd (214.439 nm)	1.470980 o	ppm	0.001243	0.08	76027.500000	1.470980 o
Co (228.615 nm)	1.374360 o	ppm	0.002096	0.15	20963.400000	1.374360 o
Cr (205.560 nm)	1.489230 o	ppm	0.001200	0.08	17541.600000	1.489230 o
Cu (324.754 nm)	1.338370 o	ppm	0.001327	0.10	69080.800000	1.338370 o
Fe (238.204 nm)	20.235738 o	ppm	0.123611	0.61	69229.547213	20.235738 o
Fe H (259.940 nm)	20.145100	ppm	0.148380	0.74	38143.000000	20.145100
K (766.491 nm)	88.776800	ppm	0.277294	0.31	58286.500000	88.776800
Li (670.783 nm)	1.682900 o	ppm	0.006852	0.41	29273.200000	1.682900 o
Mg (279.078 nm)	143.951000 o	ppm	0.242179	0.17	690903.000000	143.951000 o
Mn (257.610 nm)	2.421300 o	ppm	0.002894	0.12	465528.000000	2.421300 o
Mo (202.032 nm)	1.167640 o	ppm	0.003932	0.34	7948.310000	1.167640 o
Na (589.592 nm)	133.860000	ppm	0.315212	0.24	575809.000000	133.860000
Na H (589.593 nm)	124.611475	ppm	0.758280	0.61	379127.825355	124.611475
Ni (231.604 nm)	1.430060 o	ppm	0.003509	0.25	8408.190000	1.430060 o
P (213.618 nm)	29.422700 o	ppm	0.040915	0.14	62282.200000	29.422700 o
Pb (220.353 nm)	1.390590 o	ppm	0.001616	0.12	3266.340000	1.390590 o
S (181.972 nm)	48.738602 o	ppm	0.016604	0.03	20167.330542	48.738602 o
Sb (206.834 nm)	1.158700 o	ppm	0.002709	0.23	2538.970000	1.158700 o
Se (196.026 nm)	1.425140 o	ppm	0.003243	0.23	1246.290000	1.425140 o
Si (288.158 nm)	24.580700 o	ppm	0.053810	0.22	167716.000000	24.580700 o
Sn (189.925 nm)	1.157020 o	ppm	0.004389	0.38	1876.470000	1.157020 o
Sr (421.552 nm)	3.679318 o	ppm	0.034341	0.93	673769.729075	3.679318 o
Th (288.505 nm)	0.043048	ppm	0.003096	7.19	220.052000	0.043048
Ti (336.122 nm)	1.124030 o	ppm	0.001696	0.15	121414.000000	1.124030 o
Tl (190.794 nm)	1.485270 o	ppm	0.003489	0.23	2436.360000	1.485270 o
U (409.013 nm)	0.001842 u	ppm	0.006774	> 100.00	19.844900	0.001842 u
V (292.401 nm)	1.468380 o	ppm	0.000447	0.03	42611.900000	1.468380 o
Zn (206.200 nm)	1.368770 o	ppm	0.002185	0.16	6470.680000	1.368770 o
Zr (343.823 nm)	1.110110 o	ppm	0.005814	0.52	103875.000000	1.110110 o

Solution Name: 280-190569-C-4-C MSD

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190569-C-4-C MSD	5/14/2024 2:59:41 AM	1:58	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.627475	ppm	0.001426	0.09	2104705.129561	1.627475
Ag (328.068 nm)	0.069945	ppm	0.000393	0.56	2567.510000	0.069945
Al (167.019 nm)	15.025600 o	ppm	0.090365	0.60	7368.150000	15.025600 o
Al H (396.152 nm)	14.724461	ppm	0.133551	0.91	31215.612354	14.724461
As (188.980 nm)	1.566990 o	ppm	0.006994	0.45	1674.630000	1.566990 o
B (249.678 nm)	3.048640 o	ppm	0.010140	0.33	67908.500000	3.048640 o
Ba (493.408 nm)	1.904910 o	ppm	0.004110	0.22	165448.000000	1.904910 o
Be (234.861 nm)	1.434350 o	ppm	0.005807	0.40	360773.000000	1.434350 o
Bi (223.061 nm)	0.000803 u	ppm	0.001555	> 100.00	3.092320	0.000803 u
Ca (315.887 nm)	159.351412 o	ppm	1.092881	0.69	142542.805774	159.351412 o
Cd (214.439 nm)	1.468650 o	ppm	0.001616	0.11	75907.400000	1.468650 o
Co (228.615 nm)	1.372380 o	ppm	0.002385	0.17	20935.900000	1.372380 o
Cr (205.560 nm)	1.488990 o	ppm	0.001715	0.12	17538.900000	1.488990 o
Cu (324.754 nm)	1.333370 o	ppm	0.006731	0.50	68827.600000	1.333370 o
Fe (238.204 nm)	20.140789 o	ppm	0.155749	0.77	68904.867300	20.140789 o
Fe H (259.940 nm)	20.073900	ppm	0.138332	0.69	38007.800000	20.073900
K (766.491 nm)	89.092800	ppm	0.212284	0.24	58499.000000	89.092800
Li (670.783 nm)	1.684810 o	ppm	0.008343	0.50	29307.300000	1.684810 o
Mg (279.078 nm)	143.273000 o	ppm	0.402273	0.28	687649.000000	143.273000 o
Mn (257.610 nm)	2.411140 o	ppm	0.002798	0.12	463573.000000	2.411140 o
Mo (202.032 nm)	1.266990 o	ppm	0.001921	0.15	8623.970000	1.266990 o
Na (589.592 nm)	133.229000	ppm	0.878559	0.66	573106.000000	133.229000
Na H (589.593 nm)	122.994419	ppm	0.551587	0.45	374355.096811	122.994419
Ni (231.604 nm)	1.428000 o	ppm	0.002351	0.16	8396.090000	1.428000 o
P (213.618 nm)	29.379400 o	ppm	0.080572	0.27	62190.800000	29.379400 o
Pb (220.353 nm)	1.388230 o	ppm	0.001953	0.14	3260.390000	1.388230 o
S (181.972 nm)	48.532744 o	ppm	0.057033	0.12	20082.250111	48.532744 o
Sb (206.834 nm)	1.255800 o	ppm	0.001941	0.15	2747.500000	1.255800 o
Se (196.026 nm)	1.425880 o	ppm	0.000916	0.06	1246.970000	1.425880 o
Si (288.158 nm)	25.253600 o	ppm	0.068920	0.27	172311.000000	25.253600 o
Sn (189.925 nm)	1.249990 o	ppm	0.001508	0.12	2026.580000	1.249990 o
Sr (421.552 nm)	3.645168 o	ppm	0.002070	0.06	667516.295377	3.645168 o
Th (288.505 nm)	0.037181	ppm	0.001648	4.43	209.800000	0.037181
Ti (336.122 nm)	1.216650 o	ppm	0.000703	0.06	131396.000000	1.216650 o
Tl (190.794 nm)	1.484380 o	ppm	0.002262	0.15	2434.410000	1.484380 o
U (409.013 nm)	-0.002850 u	ppm	0.005446	> 100.00	-1.467710	-0.002850 u
V (292.401 nm)	1.466270 o	ppm	0.001140	0.08	42551.100000	1.466270 o
Zn (206.200 nm)	1.365870 o	ppm	0.002773	0.20	6456.950000	1.365870 o
Zr (343.823 nm)	1.215410 o	ppm	0.001389	0.11	113717.000000	1.215410 o

Solution Name: 280-190569-C-5-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190569-C-5-A	5/14/2024 3:03:30 AM	1:59	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.108960	ppm	0.000040	0.04	138160.880959	0.108960
Ag (328.068 nm)	0.000853	ppm	0.000155	18.13	-0.518119	0.000853
Al (167.019 nm)	0.001375 u	ppm	0.005078	> 100.00	11.788700	0.001375 u
Al H (396.152 nm)	0.022009 u	ppm	0.005649	25.67	182.197332	0.022009 u
As (188.980 nm)	0.273824	ppm	0.005580	2.04	292.559000	0.273824
B (249.678 nm)	0.206670	ppm	0.000849	0.41	4666.530000	0.206670
Ba (493.408 nm)	1.012100	ppm	0.006519	0.64	87891.300000	1.012100
Be (234.861 nm)	0.000149	ppm	0.000035	23.40	153.590000	0.000149
Bi (223.061 nm)	-0.001660 u	ppm	0.002827	> 100.00	-1.392770	-0.001660 u
Ca (315.887 nm)	148.095303 o	ppm	1.346445	0.91	132471.089135	148.095303 o
Cd (214.439 nm)	0.000089	ppm	0.000089	99.90	2.506410	0.000089
Co (228.615 nm)	0.003044	ppm	0.000325	10.69	33.409100	0.003044
Cr (205.560 nm)	0.001927	ppm	0.000530	27.50	37.659400	0.001927
Cu (324.754 nm)	-0.006694 u	ppm	0.000190	2.84	1208.410000	-0.006694 u
Fe (238.204 nm)	13.909543 o	ppm	0.135812	0.98	47596.908082	13.909543 o
Fe H (259.940 nm)	13.971600	ppm	0.108560	0.78	26419.700000	13.971600
K (766.491 nm)	16.729800	ppm	0.151510	0.91	9835.900000	16.729800
Li (670.783 nm)	0.126689	ppm	0.001468	1.16	1499.470000	0.126689
Mg (279.078 nm)	122.219000 o	ppm	0.065894	0.05	586606.000000	122.219000 o
Mn (257.610 nm)	0.083910	ppm	0.000040	0.05	16164.200000	0.083910
Mo (202.032 nm)	0.006385	ppm	0.000954	14.95	50.572800	0.006385
Na (589.592 nm)	90.523500	ppm	0.165187	0.18	389520.000000	90.523500
Na H (589.593 nm)	84.280417	ppm	0.456045	0.54	258961.345965	84.280417
Ni (231.604 nm)	0.016630	ppm	0.000247	1.49	117.541000	0.016630
P (213.618 nm)	0.040549	ppm	0.001757	4.33	96.116400	0.040549
Pb (220.353 nm)	-0.000487 u	ppm	0.001317	> 100.00	-6.565790	-0.000487 u
S (181.972 nm)	2.579721	ppm	0.012497	0.48	1085.878366	2.579721
Sb (206.834 nm)	-0.001687 u	ppm	0.000832	49.33	1.317060	-0.001687 u
Se (196.026 nm)	-0.001000 u	ppm	0.000380	38.00	6.637030	-0.001000 u
Si (288.158 nm)	18.164600 o	ppm	0.022812	0.13	123791.000000	18.164600 o
Sn (189.925 nm)	-0.001680 u	ppm	0.000671	39.95	5.426220	-0.001680 u
Sr (421.552 nm)	3.591859 o	ppm	0.023896	0.67	657754.407706	3.591859 o
Th (288.505 nm)	0.031685	ppm	0.002685	8.48	160.804000	0.031685
Ti (336.122 nm)	0.005488	ppm	0.000107	1.96	809.486000	0.005488
Tl (190.794 nm)	0.003482	ppm	0.000745	21.39	-2.000890	0.003482
U (409.013 nm)	-0.002847 u	ppm	0.004303	> 100.00	64.105700	-0.002847 u
V (292.401 nm)	0.008831	ppm	0.000022	0.25	299.884000	0.008831
Zn (206.200 nm)	0.045545	ppm	0.000267	0.59	223.202000	0.045545
Zr (343.823 nm)	0.002900	ppm	0.000348	11.98	382.831000	0.002900

Solution Name: 280-190569-C-6-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190569-C-6-A	5/14/2024 3:07:18 AM	1:60	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.131866	ppm	0.000085	0.06	167825.693468	0.131866
Ag (328.068 nm)	0.001272	ppm	0.000219	17.22	14.036200	0.001272
Al (167.019 nm)	-0.002813 u	ppm	0.002117	75.27	26.106000	-0.002813 u
Al H (396.152 nm)	0.015945 u	ppm	0.001992	12.49	160.383074	0.015945 u
As (188.980 nm)	0.147753	ppm	0.002062	1.40	157.287000	0.147753
B (249.678 nm)	0.320711	ppm	0.001510	0.47	7169.590000	0.320711
Ba (493.408 nm)	1.071950	ppm	0.006833	0.64	93090.600000	1.071950
Be (234.861 nm)	-0.000008 u	ppm	0.000065	> 100.00	354.012000	-0.000008 u
Bi (223.061 nm)	-0.004219 u	ppm	0.000799	18.95	-6.054670	-0.004219 u
Ca (315.887 nm)	124.241355 o	ppm	0.948218	0.76	111127.105716	124.241355 o
Cd (214.439 nm)	0.000183	ppm	0.000095	51.86	25.660300	0.000183
Co (228.615 nm)	0.004940	ppm	0.000330	6.69	62.467400	0.004940
Cr (205.560 nm)	0.001100	ppm	0.000320	29.07	23.241700	0.001100
Cu (324.754 nm)	-0.007086 u	ppm	0.000091	1.28	1239.170000	-0.007086 u
Fe (238.204 nm)	36.504742 o	ppm	0.287127	0.79	124861.967503	36.504742 o
Fe H (259.940 nm)	36.284600	ppm	0.276548	0.76	68791.800000	36.284600
K (766.491 nm)	10.065100	ppm	0.134243	1.33	5353.960000	10.065100
Li (670.783 nm)	0.141064	ppm	0.002741	1.94	1756.010000	0.141064
Mg (279.078 nm)	126.792000 o	ppm	0.091230	0.07	608524.000000	126.792000 o
Mn (257.610 nm)	2.505810 o	ppm	0.000515	0.02	481775.000000	2.505810 o
Mo (202.032 nm)	0.000857	ppm	0.000103	11.96	12.977500	0.000857
Na (589.592 nm)	190.939000	ppm	0.722243	0.38	816101.000000	190.939000
Na H (589.593 nm)	178.160312	ppm	1.070149	0.60	535164.772269	178.160312
Ni (231.604 nm)	0.041993	ppm	0.000770	1.83	266.284000	0.041993
P (213.618 nm)	0.854278	ppm	0.003218	0.38	1821.350000	0.854278
Pb (220.353 nm)	-0.001380 u	ppm	0.001332	96.47	-7.274430	-0.001380 u
S (181.972 nm)	1.019493	ppm	0.020788	2.04	446.034036	1.019493
Sb (206.834 nm)	0.001139 u	ppm	0.003045	> 100.00	3.707930	0.001139 u
Se (196.026 nm)	-0.001263 u	ppm	0.000775	61.35	5.817500	-0.001263 u
Si (288.158 nm)	20.491700 o	ppm	0.041367	0.20	139545.000000	20.491700 o
Sn (189.925 nm)	-0.000703 u	ppm	0.001722	> 100.00	7.396670	-0.000703 u
Sr (421.552 nm)	3.722715 o	ppm	0.022028	0.59	681716.547522	3.722715 o
Th (288.505 nm)	0.053996	ppm	0.003111	5.76	239.786000	0.053996
Ti (336.122 nm)	0.005496	ppm	0.000193	3.51	756.350000	0.005496
Tl (190.794 nm)	0.003313	ppm	0.001986	59.95	-2.702610	0.003313
U (409.013 nm)	-0.003278 u	ppm	0.004140	> 100.00	80.705500	-0.003278 u
V (292.401 nm)	0.017809	ppm	0.000541	3.04	563.926000	0.017809
Zn (206.200 nm)	0.004943	ppm	0.000098	1.98	31.506600	0.004943
Zr (343.823 nm)	0.005335	ppm	0.000081	1.51	665.922000	0.005335

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/14/2024 3:11:09 AM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000608	ppm	0.000028	4.62	-2159.333867	0.000608
Ag (328.068 nm)	0.000950	ppm	0.000126	13.31	-50.298300	0.000950
Al (167.019 nm)	49.860100 o	ppm	0.245055	0.49	24435.100000	49.860100 o
Al H (396.152 nm)	48.657516	ppm	0.304156	0.63	102496.166687	48.657516
As (188.980 nm)	-0.003000 u	ppm	0.002153	71.77	-4.148040	-0.003000 u
B (249.678 nm)	0.003291	ppm	0.000344	10.46	91.664000	0.003291
Ba (493.408 nm)	0.001305	ppm	0.000228	17.46	79.982500	0.001305
Be (234.861 nm)	0.000123	ppm	0.000010	8.37	525.755000	0.000123
Bi (223.061 nm)	0.004456	ppm	0.000244	5.47	9.746040	0.004456
Ca (315.887 nm)	-0.001187 u	ppm	0.005801	> 100.00	-42.363723	-0.001187 u
Cd (214.439 nm)	0.000023 u	ppm	0.000142	> 100.00	27.981500	0.000023 u
Co (228.615 nm)	-0.000331 u	ppm	0.000436	> 100.00	-20.876800	-0.000331 u
Cr (205.560 nm)	0.000435	ppm	0.000213	48.92	12.692400	0.000435
Cu (324.754 nm)	0.002492	ppm	0.000094	3.77	2156.490000	0.002492
Fe (238.204 nm)	49.605798 o	ppm	0.378805	0.76	169661.482328	49.605798 o
Fe H (259.940 nm)	49.175200	ppm	0.402520	0.82	93271.100000	49.175200
K (766.491 nm)	0.174935	ppm	0.033532	19.17	-1297.010000	0.174935
Li (670.783 nm)	0.007321	ppm	0.004692	64.10	-630.897000	0.007321
Mg (279.078 nm)	-0.010171 u	ppm	0.000831	8.17	-156.541000	-0.010171 u
Mn (257.610 nm)	0.000000 u	ppm	0.000057	> 100.00	32.395200	0.000000 u
Mo (202.032 nm)	-0.000344 u	ppm	0.000491	> 100.00	4.809380	-0.000344 u
Na (589.592 nm)	251.302000	ppm	0.528308	0.21	1069780.000000	251.302000
Na H (589.593 nm)	232.098945	ppm	1.549256	0.67	691957.343709	232.098945
Ni (231.604 nm)	0.000049 u	ppm	0.000731	> 100.00	20.298700	0.000049 u
P (213.618 nm)	4.771040	ppm	0.004621	0.10	10123.800000	4.771040
Pb (220.353 nm)	-0.005861 u	ppm	0.001466	25.01	-28.687800	-0.005861 u
S (181.972 nm)	5.049391	ppm	0.018608	0.37	2106.015906	5.049391
Sb (206.834 nm)	-0.001420 u	ppm	0.004149	> 100.00	-9.688750	-0.001420 u
Se (196.026 nm)	0.001932 u	ppm	0.003002	> 100.00	4.322890	0.001932 u
Si (288.158 nm)	0.006319	ppm	0.001271	20.11	864.626000	0.006319
Sn (189.925 nm)	-0.000516 u	ppm	0.000444	86.18	7.927190	-0.000516 u
Sr (421.552 nm)	0.000237	ppm	0.000141	59.62	62.200426	0.000237
Th (288.505 nm)	4.887020	ppm	0.040158	0.82	9577.840000	4.887020
Ti (336.122 nm)	0.000992	ppm	0.000114	11.48	-10.361500	0.000992
Tl (190.794 nm)	-0.002143 u	ppm	0.001372	64.04	-11.938800	-0.002143 u
U (409.013 nm)	2.437930	ppm	0.004585	0.19	8181.860000	2.437930
V (292.401 nm)	-0.000253 u	ppm	0.000287	> 100.00	250.105000	-0.000253 u
Zn (206.200 nm)	0.001308	ppm	0.000394	30.15	14.344700	0.001308
Zr (343.823 nm)	0.005538	ppm	0.000056	1.02	622.702000	0.005538

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/14/2024 3:15:01 AM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.449492 Q	ppm	0.000294	0.07	579164.958274 Q	0.449492 Q
Ag (328.068 nm)	0.490772	ppm	0.000450	0.09	18690.900000	0.490772
Al (167.019 nm)	0.524762	ppm	0.007620	1.45	259.600000	0.524762
Al H (396.152 nm)	0.469303 u	ppm	0.006346	1.35	1104.691962	0.469303 u
As (188.980 nm)	0.479487	ppm	0.004126	0.86	512.648000	0.479487
B (249.678 nm)	0.468869	ppm	0.000483	0.10	10532.800000	0.468869
Ba (493.408 nm)	0.486403	ppm	0.001202	0.25	42220.600000	0.486403
Be (234.861 nm)	0.468456	ppm	0.001647	0.35	117762.000000	0.468456
Bi (223.061 nm)	1.000840	ppm	0.002872	0.29	1824.450000	1.000840
Ca (315.887 nm)	4.932458	ppm	0.029971	0.61	4372.152747	4.932458
Cd (214.439 nm)	0.517447	ppm	0.001065	0.21	26731.800000	0.517447
Co (228.615 nm)	0.488916	ppm	0.000125	0.03	7449.500000	0.488916
Cr (205.560 nm)	0.512907	ppm	0.000599	0.12	6054.440000	0.512907
Cu (324.754 nm)	0.455717	ppm	0.001783	0.39	24307.500000	0.455717
Fe (238.204 nm)	2.456960	ppm	0.012880	0.52	8434.404305	2.456960
Fe H (259.940 nm)	2.509170 u	ppm	0.021211	0.85	4652.480000	2.509170 u
K (766.491 nm)	51.663500	ppm	0.258446	0.50	33328.400000	51.663500
Li (670.783 nm)	0.539769	ppm	0.002379	0.44	8871.700000	0.539769
Mg (279.078 nm)	19.807500	ppm	0.016974	0.09	95080.600000	19.807500
Mn (257.610 nm)	0.500311	ppm	0.000481	0.10	96217.200000	0.500311
Mo (202.032 nm)	0.507250	ppm	0.001939	0.38	3456.970000	0.507250
Na (589.592 nm)	25.535600	ppm	0.078567	0.31	112237.000000	25.535600
Na H (589.593 nm)	22.157332	ppm	0.087437	0.39	75353.818986	22.157332
Ni (231.604 nm)	0.514741	ppm	0.000936	0.18	3039.240000	0.514741
P (213.618 nm)	0.018300	ppm	0.002466	13.48	13.075100	0.018300
Pb (220.353 nm)	0.479132	ppm	0.001335	0.28	1122.340000	0.479132
S (181.972 nm)	-0.013327 u	ppm	0.002855	21.43	17.747256	-0.013327 u
Sb (206.834 nm)	0.510039	ppm	0.001772	0.35	1118.190000	0.510039
Se (196.026 nm)	0.475611	ppm	0.004488	0.94	421.438000	0.475611
Si (288.158 nm)	4.925770	ppm	0.019366	0.39	34384.900000	4.925770
Sn (189.925 nm)	0.514353	ppm	0.001937	0.38	838.458000	0.514353
Sr (421.552 nm)	0.467808	ppm	0.001048	0.22	85683.100717	0.467808
Th (288.505 nm)	0.037936	ppm	0.024087	63.49	181.944000	0.037936
Ti (336.122 nm)	0.491174	ppm	0.000189	0.04	52841.500000	0.491174
Tl (190.794 nm)	0.508558	ppm	0.001946	0.38	828.902000	0.508558
U (409.013 nm)	-0.003918 u	ppm	0.005204	> 100.00	45.081300	-0.003918 u
V (292.401 nm)	0.494940	ppm	0.001164	0.24	14387.900000	0.494940
Zn (206.200 nm)	0.479100	ppm	0.000824	0.17	2270.190000	0.479100
Zr (343.823 nm)	0.500393	ppm	0.002750	0.55	46785.800000	0.500393

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/14/2024 3:18:47 AM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000197	ppm	0.000035	17.58	-2691.469141	0.000197
Ag (328.068 nm)	-0.000146 u	ppm	0.000336	> 100.00	-37.501600	-0.000146 u
Al (167.019 nm)	-0.004877 u	ppm	0.003445	70.63	-1.349620	-0.004877 u
Al H (396.152 nm)	-0.032091 u	ppm	0.009054	28.21	14.074685	-0.032091 u
As (188.980 nm)	-0.004009 u	ppm	0.002361	58.89	-4.083160	-0.004009 u
B (249.678 nm)	0.001724	ppm	0.000480	27.82	129.300000	0.001724
Ba (493.408 nm)	0.000404	ppm	0.000081	20.10	1.702900	0.000404
Be (234.861 nm)	0.000028	ppm	0.000015	54.08	-23.962300	0.000028
Bi (223.061 nm)	-0.000113 u	ppm	0.001454	> 100.00	1.423040	-0.000113 u
Ca (315.887 nm)	0.000186 u	ppm	0.007893	> 100.00	-41.135072	0.000186 u
Cd (214.439 nm)	0.000078	ppm	0.000056	71.96	-9.375720	0.000078
Co (228.615 nm)	-0.000073 u	ppm	0.000099	> 100.00	-16.941200	-0.000073 u
Cr (205.560 nm)	0.000134 u	ppm	0.000181	> 100.00	19.437400	0.000134 u
Cu (324.754 nm)	0.000639	ppm	0.000317	49.67	1292.000000	0.000639
Fe (238.204 nm)	0.000151 u	ppm	0.001092	> 100.00	33.260066	0.000151 u
Fe H (259.940 nm)	0.072560 u	ppm	0.003056	4.21	25.364800	0.072560 u
K (766.491 nm)	-0.083579 u	ppm	0.035926	42.98	-1470.860000	-0.083579 u
Li (670.783 nm)	0.009161 S	ppm	0.002248	24.53	-598.056000 S	0.009161 S
Mg (279.078 nm)	0.001759	ppm	0.001126	64.03	22.945100	0.001759
Mn (257.610 nm)	0.000019	ppm	0.000005	26.24	36.093600	0.000019
Mo (202.032 nm)	0.001330	ppm	0.000339	25.46	16.195700	0.001330
Na (589.592 nm)	-0.137319 u	ppm	0.005000	3.64	2001.410000	-0.137319 u
Na H (589.593 nm)	-2.103906 u	ppm	0.061303	2.91	3165.669678	-2.103906 u
Ni (231.604 nm)	-0.001780 u	ppm	0.000944	53.07	9.574560	-0.001780 u
P (213.618 nm)	-0.000953 u	ppm	0.002435	> 100.00	8.165340	-0.000953 u
Pb (220.353 nm)	-0.000773 u	ppm	0.001943	> 100.00	-8.018640	-0.000773 u
S (181.972 nm)	-0.002111 u	ppm	0.008395	> 100.00	19.051393	-0.002111 u
Sb (206.834 nm)	-0.002650 u	ppm	0.003554	> 100.00	1.469720	-0.002650 u
Se (196.026 nm)	0.002634 u	ppm	0.003232	> 100.00	10.421100	0.002634 u
Si (288.158 nm)	-0.004497 u	ppm	0.000902	20.05	791.025000	-0.004497 u
Sn (189.925 nm)	-0.000466 u	ppm	0.001756	> 100.00	7.143400	-0.000466 u
Sr (421.552 nm)	0.000129	ppm	0.000020	15.62	42.498570	0.000129
Th (288.505 nm)	0.003030	ppm	0.002393	78.98	104.504000	0.003030
Ti (336.122 nm)	0.000195	ppm	0.000006	3.02	-96.260500	0.000195
Tl (190.794 nm)	0.001160 u	ppm	0.001833	> 100.00	-5.538420	0.001160 u
U (409.013 nm)	-0.006269 u	ppm	0.002965	47.31	64.447000	-0.006269 u
V (292.401 nm)	-0.000346 u	ppm	0.000468	> 100.00	27.948700	-0.000346 u
Zn (206.200 nm)	-0.000210 u	ppm	0.000260	> 100.00	7.174570	-0.000210 u
Zr (343.823 nm)	0.000120	ppm	0.000054	44.91	16.448500	0.000120

Solution Name: 280-190569-C-7-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190569-C-7-A	5/14/2024 3:22:17 AM	1:61	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.215326	ppm	0.000372	0.17	275909.194746	0.215326
Ag (328.068 nm)	0.000809	ppm	0.000128	15.78	-8.004070	0.000809
Al (167.019 nm)	-0.001319 u	ppm	0.002573	> 100.00	14.590400	-0.001319 u
Al H (396.152 nm)	0.015920 u	ppm	0.002282	14.34	162.303334	0.015920 u
As (188.980 nm)	0.108554	ppm	0.001092	1.01	115.779000	0.108554
B (249.678 nm)	0.253587	ppm	0.001057	0.42	5702.090000	0.253587
Ba (493.408 nm)	9.529090 o	ppm	0.041721	0.44	827799.000000	9.529090 o
Be (234.861 nm)	0.000156	ppm	0.000013	8.19	215.676000	0.000156
Bi (223.061 nm)	-0.000462 u	ppm	0.001622	> 100.00	0.788111	-0.000462 u
Ca (315.887 nm)	128.484293 o	ppm	0.793085	0.62	114923.592710	128.484293 o
Cd (214.439 nm)	0.000063	ppm	0.000043	68.98	5.753070	0.000063
Co (228.615 nm)	0.015123	ppm	0.000400	2.65	240.461000	0.015123
Cr (205.560 nm)	0.003382	ppm	0.000242	7.15	53.621100	0.003382
Cu (324.754 nm)	-0.010171 u	ppm	0.000232	2.28	1210.180000	-0.010171 u
Fe (238.204 nm)	19.599897 o	ppm	0.137517	0.70	67055.269222	19.599897 o
Fe H (259.940 nm)	19.507100	ppm	0.109327	0.56	36931.600000	19.507100
K (766.491 nm)	9.433790	ppm	0.082279	0.87	4929.440000	9.433790
Li (670.783 nm)	0.250344	ppm	0.003257	1.30	3706.340000	0.250344
Mg (279.078 nm)	167.197000 o	ppm	0.313991	0.19	802479.000000	167.197000 o
Mn (257.610 nm)	0.614729	ppm	0.001062	0.17	118214.000000	0.614729
Mo (202.032 nm)	0.007167	ppm	0.000166	2.31	55.887700	0.007167
Na (589.592 nm)	59.058100	ppm	0.466617	0.79	277036.000000	59.058100
Na H (589.593 nm)	54.805017	ppm	0.308670	0.56	186913.976933	54.805017
Ni (231.604 nm)	0.083633	ppm	0.000990	1.18	510.479000	0.083633
P (213.618 nm)	0.032632	ppm	0.001123	3.44	79.374800	0.032632
Pb (220.353 nm)	0.001837 u	ppm	0.002781	> 100.00	-0.718732	0.001837 u
S (181.972 nm)	2.266068	ppm	0.005245	0.23	957.410449	2.266068
Sb (206.834 nm)	-0.001110 u	ppm	0.001705	> 100.00	1.653100	-0.001110 u
Se (196.026 nm)	-0.000623 u	ppm	0.002557	> 100.00	6.646810	-0.000623 u
Si (288.158 nm)	16.394800 o	ppm	0.025004	0.15	111811.000000	16.394800 o
Sn (189.925 nm)	0.001101 u	ppm	0.001322	> 100.00	10.014600	0.001101 u
Sr (421.552 nm)	5.177977 o	ppm	0.033514	0.65	948201.823843	5.177977 o
Th (288.505 nm)	0.032681	ppm	0.002382	7.29	171.201000	0.032681
Ti (336.122 nm)	0.008450	ppm	0.000123	1.46	1084.450000	0.008450
Tl (190.794 nm)	-0.000216 u	ppm	0.000655	> 100.00	-8.180510	-0.000216 u
U (409.013 nm)	-0.000983 u	ppm	0.001067	> 100.00	76.424700	-0.000983 u
V (292.401 nm)	0.042650	ppm	0.000465	1.09	1287.860000	0.042650
Zn (206.200 nm)	0.000915	ppm	0.000288	31.46	12.489400	0.000915
Zr (343.823 nm)	0.008556	ppm	0.000590	6.90	915.057000	0.008556

Solution Name: MB 280-651675/1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
MB 280-651675/1-A	5/14/2024 3:26:06 AM	1:62	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000229	ppm	0.000021	9.07	-2650.085337	0.000229
Ag (328.068 nm)	0.000072 u	ppm	0.000214	> 100.00	-29.185200	0.000072 u
Al (167.019 nm)	0.001177 u	ppm	0.002005	> 100.00	1.617420	0.001177 u
Al H (396.152 nm)	-0.029332 u	ppm	0.008133	27.73	19.840851	-0.029332 u
As (188.980 nm)	-0.001595 u	ppm	0.000605	37.94	-1.502770	-0.001595 u
B (249.678 nm)	0.001202	ppm	0.000434	36.10	117.678000	0.001202
Ba (493.408 nm)	0.000223	ppm	0.000185	82.86	-14.016100	0.000223
Be (234.861 nm)	0.000043	ppm	0.000014	33.10	-20.136600	0.000043
Bi (223.061 nm)	-0.001075 u	ppm	0.000579	53.82	-0.328457	-0.001075 u
Ca (315.887 nm)	0.018570	ppm	0.005574	30.02	-24.685169	0.018570
Cd (214.439 nm)	0.000110	ppm	0.000045	40.46	-7.687100	0.000110
Co (228.615 nm)	0.000115 u	ppm	0.000121	> 100.00	-14.078300	0.000115 u
Cr (205.560 nm)	-0.000115 u	ppm	0.000296	> 100.00	16.510800	-0.000115 u
Cu (324.754 nm)	0.000212	ppm	0.000247	> 100.00	1269.970000	0.000212
Fe (238.204 nm)	0.006278	ppm	0.001220	19.44	54.213477	0.006278
Fe H (259.940 nm)	0.078504 u	ppm	0.004359	5.55	36.651700	0.078504 u
K (766.491 nm)	-0.084495 u	ppm	0.129962	> 100.00	-1471.470000	-0.084495 u
Li (670.783 nm)	0.003814	ppm	0.003350	87.82	-693.484000	0.003814
Mg (279.078 nm)	0.005192	ppm	0.001453	27.98	39.470000	0.005192
Mn (257.610 nm)	0.000035 u	ppm	0.000060	> 100.00	39.138700	0.000035 u
Mo (202.032 nm)	0.000613	ppm	0.000472	77.06	11.317600	0.000613
Na (589.592 nm)	-0.179927 u	ppm	0.003748	2.08	1820.110000	-0.179927 u
Na H (589.593 nm)	-2.279632 u	ppm	0.027151	1.19	2648.610739	-2.279632 u
Ni (231.604 nm)	-0.001059 u	ppm	0.000965	91.19	13.801000	-0.001059 u
P (213.618 nm)	-0.000532 u	ppm	0.001605	> 100.00	9.091550	-0.000532 u
Pb (220.353 nm)	0.000220 u	ppm	0.002120	> 100.00	-5.680290	0.000220 u
S (181.972 nm)	-0.006473 u	ppm	0.004592	70.94	17.238495	-0.006473 u
Sb (206.834 nm)	-0.000673 u	ppm	0.002788	> 100.00	5.724070	-0.000673 u
Se (196.026 nm)	0.000610 u	ppm	0.002244	> 100.00	8.662530	0.000610 u
Si (288.158 nm)	-0.005092 u	ppm	0.001208	23.72	787.260000	-0.005092 u
Sn (189.925 nm)	0.000406 u	ppm	0.000661	> 100.00	8.552310	0.000406 u
Sr (421.552 nm)	0.000070	ppm	0.000016	22.39	31.756308	0.000070
Th (288.505 nm)	0.001851	ppm	0.001568	84.72	102.194000	0.001851
Ti (336.122 nm)	0.000295	ppm	0.000036	12.31	-85.437600	0.000295
Tl (190.794 nm)	-0.000567 u	ppm	0.001218	> 100.00	-8.383230	-0.000567 u
U (409.013 nm)	-0.008965 u	ppm	0.005304	59.17	55.527900	-0.008965 u
V (292.401 nm)	-0.000374 u	ppm	0.000067	17.92	27.082300	-0.000374 u
Zn (206.200 nm)	0.001349	ppm	0.000445	32.95	14.538700	0.001349
Zr (343.823 nm)	0.000151	ppm	0.000098	65.14	19.365700	0.000151

Solution Name: LCS 280-651675/2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LCS 280-651675/2-A	5/14/2024 3:29:39 AM	1:63	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.989093	ppm	0.000105	0.01	1277972.825146	0.989093
Ag (328.068 nm)	0.050419	ppm	0.000386	0.77	1866.130000	0.050419
Al (167.019 nm)	10.778100 o	ppm	0.094730	0.88	5282.620000	10.778100 o
Al H (396.152 nm)	10.320901	ppm	0.079282	0.77	21893.359084	10.320901
As (188.980 nm)	1.029490	ppm	0.004286	0.42	1100.340000	1.029490
B (249.678 nm)	1.967670 o	ppm	0.001349	0.07	43869.800000	1.967670 o
Ba (493.408 nm)	1.021590	ppm	0.007779	0.76	88712.300000	1.021590
Be (234.861 nm)	0.990987	ppm	0.009171	0.93	249200.000000	0.990987
Bi (223.061 nm)	-0.001196 u	ppm	0.004819	> 100.00	-0.547926	-0.001196 u
Ca (315.887 nm)	51.791848 o	ppm	0.273437	0.53	46300.895092	51.791848 o
Cd (214.439 nm)	1.056310	ppm	0.000595	0.06	54588.100000	1.056310
Co (228.615 nm)	0.984077	ppm	0.000805	0.08	15010.900000	0.984077
Cr (205.560 nm)	1.055140	ppm	0.000450	0.04	12434.800000	1.055140
Cu (324.754 nm)	0.929177	ppm	0.003380	0.36	48222.600000	0.929177
Fe (238.204 nm)	10.348794 o	ppm	0.070450	0.68	35420.802223	10.348794 o
Fe H (259.940 nm)	10.396400	ppm	0.062034	0.60	19630.300000	10.396400
K (766.491 nm)	54.986400	ppm	0.369405	0.67	35563.000000	54.986400
Li (670.783 nm)	1.112650 o	ppm	0.006092	0.55	19096.000000	1.112650 o
Mg (279.078 nm)	52.305300 o	ppm	0.005820	0.01	251049.000000	52.305300 o
Mn (257.610 nm)	1.036680	ppm	0.000387	0.04	199334.000000	1.036680
Mo (202.032 nm)	1.049700	ppm	0.003233	0.31	7146.190000	1.049700
Na (589.592 nm)	53.602000	ppm	0.345923	0.65	232758.000000	53.602000
Na H (589.593 nm)	47.756359	ppm	0.451407	0.95	151560.588405	47.756359
Ni (231.604 nm)	1.028060	ppm	0.001278	0.12	6050.160000	1.028060
P (213.618 nm)	20.390600 o	ppm	0.020331	0.10	43166.200000	20.390600 o
Pb (220.353 nm)	0.982101	ppm	0.003606	0.37	2303.990000	0.982101
S (181.972 nm)	20.739298 o	ppm	0.004684	0.02	8595.001738	20.739298 o
Sb (206.834 nm)	1.034610	ppm	0.005807	0.56	2260.470000	1.034610
Se (196.026 nm)	0.991711	ppm	0.002091	0.21	869.317000	0.991711
Si (288.158 nm)	9.721590	ppm	0.027405	0.28	67078.800000	9.721590
Sn (189.925 nm)	1.053720	ppm	0.001199	0.11	1709.510000	1.053720
Sr (421.552 nm)	0.981305	ppm	0.006692	0.68	179713.852146	0.981305
Th (288.505 nm)	0.019126	ppm	0.003156	16.50	155.749000	0.019126
Ti (336.122 nm)	1.005700	ppm	0.000740	0.07	108413.000000	1.005700
Tl (190.794 nm)	1.061520	ppm	0.001635	0.15	1738.170000	1.061520
U (409.013 nm)	-0.002528 u	ppm	0.006179	> 100.00	20.763900	-0.002528 u
V (292.401 nm)	1.035600	ppm	0.002968	0.29	30062.800000	1.035600
Zn (206.200 nm)	0.988015	ppm	0.001159	0.12	4672.970000	0.988015
Zr (343.823 nm)	0.991831	ppm	0.007755	0.78	92740.000000	0.991831

Solution Name: LCSD 280-651675/3-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LCSD 280-651675/3-A	5/14/2024 3:33:28 AM	1:64	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.999368	ppm	0.001876	0.19	1291278.661755	0.999368
Ag (328.068 nm)	0.051462	ppm	0.000216	0.42	1909.530000	0.051462
Al (167.019 nm)	10.896500 o	ppm	0.136740	1.25	5340.680000	10.896500 o
Al H (396.152 nm)	10.401949	ppm	0.102249	0.98	22065.205329	10.401949
As (188.980 nm)	1.036440	ppm	0.006328	0.61	1107.760000	1.036440
B (249.678 nm)	1.988680 o	ppm	0.006374	0.32	44337.100000	1.988680 o
Ba (493.408 nm)	1.027070	ppm	0.007892	0.77	89188.700000	1.027070
Be (234.861 nm)	1.008600	ppm	0.010866	1.08	253630.000000	1.008600
Bi (223.061 nm)	0.000313 u	ppm	0.003485	> 100.00	2.199520	0.000313 u
Ca (315.887 nm)	52.276029 o	ppm	0.494862	0.95	46734.129208	52.276029 o
Cd (214.439 nm)	1.063420	ppm	0.000606	0.06	54955.700000	1.063420
Co (228.615 nm)	0.991483	ppm	0.003899	0.39	15124.000000	0.991483
Cr (205.560 nm)	1.061040	ppm	0.000699	0.07	12504.100000	1.061040
Cu (324.754 nm)	0.934059	ppm	0.003030	0.32	48465.200000	0.934059
Fe (238.204 nm)	10.515546 o	ppm	0.102633	0.98	35991.016737	10.515546 o
Fe H (259.940 nm)	10.574500	ppm	0.110902	1.05	19968.400000	10.574500
K (766.491 nm)	55.421600	ppm	0.268187	0.48	35855.600000	55.421600
Li (670.783 nm)	1.123570 o	ppm	0.008033	0.71	19290.700000	1.123570 o
Mg (279.078 nm)	52.652000 o	ppm	0.078703	0.15	252713.000000	52.652000 o
Mn (257.610 nm)	1.044420	ppm	0.000726	0.07	200823.000000	1.044420
Mo (202.032 nm)	1.064720	ppm	0.001105	0.10	7248.360000	1.064720
Na (589.592 nm)	54.074500	ppm	0.156856	0.29	234779.000000	54.074500
Na H (589.593 nm)	48.337282	ppm	0.373513	0.77	153278.657620	48.337282
Ni (231.604 nm)	1.035330	ppm	0.001869	0.18	6092.850000	1.035330
P (213.618 nm)	20.562500 o	ppm	0.072016	0.35	43530.500000	20.562500 o
Pb (220.353 nm)	0.992592	ppm	0.002528	0.25	2328.670000	0.992592
S (181.972 nm)	20.898546 o	ppm	0.019971	0.10	8660.839930	20.898546 o
Sb (206.834 nm)	1.044140	ppm	0.002450	0.23	2281.050000	1.044140
Se (196.026 nm)	0.997261	ppm	0.005832	0.58	874.129000	0.997261
Si (288.158 nm)	9.829780	ppm	0.032736	0.33	67815.000000	9.829780
Sn (189.925 nm)	1.061370	ppm	0.003320	0.31	1721.860000	1.061370
Sr (421.552 nm)	0.986367	ppm	0.006915	0.70	180640.868477	0.986367
Th (288.505 nm)	0.017308	ppm	0.003131	18.09	152.162000	0.017308
Ti (336.122 nm)	1.014260	ppm	0.000735	0.07	109337.000000	1.014260
Tl (190.794 nm)	1.069450	ppm	0.003375	0.32	1751.190000	1.069450
U (409.013 nm)	0.001559	ppm	0.001346	86.35	32.846700	0.001559
V (292.401 nm)	1.040500	ppm	0.001259	0.12	30202.800000	1.040500
Zn (206.200 nm)	0.994260	ppm	0.002806	0.28	4702.450000	0.994260
Zr (343.823 nm)	1.017680	ppm	0.001641	0.16	95156.000000	1.017680

Solution Name: 280-190774-B-1-A @200

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190774-B-1-A @200	5/14/2024 3:37:16 AM	1:65	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000311	ppm	0.000014	4.58	-2544.462133	0.000311
Ag (328.068 nm)	0.000057 u	ppm	0.000297	> 100.00	-29.928600	0.000057 u
Al (167.019 nm)	0.002959 u	ppm	0.004269	> 100.00	2.519580	0.002959 u
Al H (396.152 nm)	-0.040321 u	ppm	0.005071	12.58	0.925523	-0.040321 u
As (188.980 nm)	-0.003337 u	ppm	0.000786	23.57	-3.365640	-0.003337 u
B (249.678 nm)	0.004847	ppm	0.000616	12.72	198.693000	0.004847
Ba (493.408 nm)	0.000599	ppm	0.000086	14.32	18.611300	0.000599
Be (234.861 nm)	0.000027 u	ppm	0.000028	> 100.00	-26.956700	0.000027 u
Bi (223.061 nm)	0.000516 u	ppm	0.000749	> 100.00	2.570030	0.000516 u
Ca (315.887 nm)	1.383159	ppm	0.006652	0.48	1196.318219	1.383159
Cd (214.439 nm)	0.000118	ppm	0.000050	42.37	-7.239460	0.000118
Co (228.615 nm)	0.001109	ppm	0.000454	40.92	1.069960	0.001109
Cr (205.560 nm)	0.000118 u	ppm	0.000476	> 100.00	19.160700	0.000118 u
Cu (324.754 nm)	0.000503	ppm	0.000133	26.43	1285.970000	0.000503
Fe (238.204 nm)	0.047784	ppm	0.001470	3.08	196.145439	0.047784
Fe H (259.940 nm)	0.118295 u	ppm	0.002157	1.82	112.215000	0.118295 u
K (766.491 nm)	-0.000961 u	ppm	0.126346	> 100.00	-1415.300000	-0.000961 u
Li (670.783 nm)	0.009371	ppm	0.001446	15.44	-594.318000	0.009371
Mg (279.078 nm)	0.159527	ppm	0.001705	1.07	779.911000	0.159527
Mn (257.610 nm)	0.001633	ppm	0.000059	3.62	346.315000	0.001633
Mo (202.032 nm)	0.056777	ppm	0.001519	2.68	393.290000	0.056777
Na (589.592 nm)	0.670696	ppm	0.005599	0.83	5433.610000	0.670696
Na H (589.593 nm)	-1.488958 u	ppm	0.025899	1.74	4974.805517	-1.488958 u
Ni (231.604 nm)	-0.000372 u	ppm	0.000418	> 100.00	17.828200	-0.000372 u
P (213.618 nm)	-0.001871 u	ppm	0.000799	42.69	6.223920	-0.001871 u
Pb (220.353 nm)	-0.000510 u	ppm	0.000521	> 100.00	-7.575560	-0.000510 u
S (181.972 nm)	1.366196	ppm	0.002816	0.21	584.345245	1.366196
Sb (206.834 nm)	-0.000898 u	ppm	0.001775	> 100.00	4.957550	-0.000898 u
Se (196.026 nm)	-0.002073 u	ppm	0.001234	59.53	6.331720	-0.002073 u
Si (288.158 nm)	0.047565	ppm	0.000882	1.85	1143.310000	0.047565
Sn (189.925 nm)	-0.000742 u	ppm	0.000856	> 100.00	6.699050	-0.000742 u
Sr (421.552 nm)	0.025088	ppm	0.000090	0.36	4612.975508	0.025088
Th (288.505 nm)	-0.002556 u	ppm	0.003126	> 100.00	93.864400	-0.002556 u
Ti (336.122 nm)	0.000338	ppm	0.000058	17.18	-77.781100	0.000338
Tl (190.794 nm)	0.001318 u	ppm	0.002213	> 100.00	-5.378910	0.001318 u
U (409.013 nm)	0.000302 u	ppm	0.003550	> 100.00	86.016800	0.000302 u
V (292.401 nm)	-0.000443 u	ppm	0.000268	60.64	23.228500	-0.000443 u
Zn (206.200 nm)	0.002039	ppm	0.000240	11.79	17.797200	0.002039
Zr (343.823 nm)	0.000312	ppm	0.000101	32.36	34.697300	0.000312

Solution Name: 280-190604-A-1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190604-A-1-A	5/14/2024 3:40:50 AM	1:66	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.013912	ppm	0.000046	0.33	15069.765141	0.013912
Ag (328.068 nm)	0.000422	ppm	0.000079	18.60	-16.805600	0.000422
Al (167.019 nm)	0.006349	ppm	0.002539	40.00	4.158670	0.006349
Al H (396.152 nm)	-0.016491 u	ppm	0.006454	39.14	55.216098	-0.016491 u
As (188.980 nm)	-0.002589 u	ppm	0.000844	32.59	-2.566070	-0.002589 u
B (249.678 nm)	0.018648	ppm	0.000115	0.62	505.613000	0.018648
Ba (493.408 nm)	0.028532	ppm	0.000213	0.75	2445.260000	0.028532
Be (234.861 nm)	0.000038	ppm	0.000012	32.34	-21.779900	0.000038
Bi (223.061 nm)	-0.001570 u	ppm	0.000475	30.27	-1.230410	-0.001570 u
Ca (315.887 nm)	21.428434 o	ppm	0.143301	0.67	19132.385667	21.428434 o
Cd (214.439 nm)	0.000095	ppm	0.000021	21.63	-8.480310	0.000095
Co (228.615 nm)	0.000481	ppm	0.000146	30.40	-8.415970	0.000481
Cr (205.560 nm)	0.000636	ppm	0.000144	22.57	25.334900	0.000636
Cu (324.754 nm)	0.009117	ppm	0.000206	2.26	1716.180000	0.009117
Fe (238.204 nm)	0.020582	ppm	0.002034	9.88	103.127467	0.020582
Fe H (259.940 nm)	0.090523 u	ppm	0.003311	3.66	59.476700	0.090523 u
K (766.491 nm)	2.365930	ppm	0.065535	2.77	176.403000	2.365930
Li (670.783 nm)	0.023668	ppm	0.004625	19.54	-339.159000	0.023668
Mg (279.078 nm)	11.258500	ppm	0.030655	0.27	54051.000000	11.258500
Mn (257.610 nm)	0.002102	ppm	0.000005	0.24	436.566000	0.002102
Mo (202.032 nm)	0.008975	ppm	0.000554	6.18	68.184000	0.008975
Na (589.592 nm)	101.744000	ppm	0.175703	0.17	434728.000000	101.744000
Na H (589.593 nm)	93.686119	ppm	0.217690	0.23	284932.820064	93.686119
Ni (231.604 nm)	0.005307	ppm	0.000232	4.38	51.137800	0.005307
P (213.618 nm)	-0.000015 u	ppm	0.003744	> 100.00	9.454040	-0.000015 u
Pb (220.353 nm)	-0.000671 u	ppm	0.000955	> 100.00	-7.745660	-0.000671 u
S (181.972 nm)	45.839414 o	ppm	0.046047	0.10	18957.829858	45.839414 o
Sb (206.834 nm)	-0.001040 u	ppm	0.002786	> 100.00	4.847440	-0.001040 u
Se (196.026 nm)	0.000983 u	ppm	0.002491	> 100.00	9.367310	0.000983 u
Si (288.158 nm)	8.148950	ppm	0.035133	0.43	55987.500000	8.148950
Sn (189.925 nm)	0.000352 u	ppm	0.002257	> 100.00	8.464410	0.000352 u
Sr (421.552 nm)	0.105483	ppm	0.000149	0.14	19334.685438	0.105483
Th (288.505 nm)	0.005767 u	ppm	0.008935	> 100.00	110.296000	0.005767 u
Ti (336.122 nm)	0.000438	ppm	0.000117	26.69	-21.597300	0.000438
Tl (190.794 nm)	0.000188 u	ppm	0.001548	> 100.00	-7.153610	0.000188 u
U (409.013 nm)	0.025828	ppm	0.003063	11.86	167.635000	0.025828
V (292.401 nm)	0.001137	ppm	0.000231	20.33	70.255200	0.001137
Zn (206.200 nm)	0.004021	ppm	0.000874	21.75	27.152400	0.004021
Zr (343.823 nm)	-0.000029 u	ppm	0.000056	> 100.00	37.762700	-0.000029 u

Solution Name: 280-190604-A-1-A SD@5

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190604-A-1-A SD@5	5/14/2024 3:44:37 AM	1:67	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.002577	ppm	0.000014	0.53	390.772148	0.002577
Ag (328.068 nm)	-0.000023 u	ppm	0.000081	> 100.00	-32.947500	-0.000023 u
Al (167.019 nm)	-0.001102 u	ppm	0.001794	> 100.00	0.527857	-0.001102 u
Al H (396.152 nm)	-0.031638 u	ppm	0.005059	15.99	16.590472	-0.031638 u
As (188.980 nm)	-0.002818 u	ppm	0.001903	67.51	-2.811580	-0.002818 u
B (249.678 nm)	0.004107	ppm	0.000168	4.08	182.231000	0.004107
Ba (493.408 nm)	0.005784	ppm	0.000281	4.85	469.054000	0.005784
Be (234.861 nm)	0.000029	ppm	0.000021	70.15	-23.259400	0.000029
Bi (223.061 nm)	-0.000337 u	ppm	0.002111	> 100.00	1.016180	-0.000337 u
Ca (315.887 nm)	4.238805	ppm	0.043400	1.02	3751.487310	4.238805
Cd (214.439 nm)	0.000106	ppm	0.000026	24.22	-7.886750	0.000106
Co (228.615 nm)	0.000259	ppm	0.000085	32.76	-11.877700	0.000259
Cr (205.560 nm)	-0.000031 u	ppm	0.000042	> 100.00	17.488200	-0.000031 u
Cu (324.754 nm)	0.001830	ppm	0.000355	19.40	1350.550000	0.001830
Fe (238.204 nm)	0.041962	ppm	0.002546	6.07	176.235304	0.041962
Fe H (259.940 nm)	0.112555 u	ppm	0.004338	3.85	101.315000	0.112555 u
K (766.491 nm)	0.548286	ppm	0.071561	13.05	-1045.940000	0.548286
Li (670.783 nm)	0.013075	ppm	0.000888	6.79	-528.210000	0.013075
Mg (279.078 nm)	2.253550	ppm	0.001171	0.05	10830.600000	2.253550
Mn (257.610 nm)	0.000560	ppm	0.000028	5.03	140.096000	0.000560
Mo (202.032 nm)	0.001662	ppm	0.000150	9.04	18.453300	0.001662
Na (589.592 nm)	20.291600	ppm	0.052455	0.26	88769.800000	20.291600
Na H (589.593 nm)	16.992945	ppm	0.152417	0.90	59338.910403	16.992945
Ni (231.604 nm)	0.000660	ppm	0.000391	59.21	23.884100	0.000660
P (213.618 nm)	0.000582 u	ppm	0.001781	> 100.00	11.329700	0.000582 u
Pb (220.353 nm)	-0.001791 u	ppm	0.000943	52.68	-10.400100	-0.001791 u
S (181.972 nm)	8.957908	ppm	0.018239	0.20	3720.748872	8.957908
Sb (206.834 nm)	-0.001697 u	ppm	0.000952	56.12	3.493530	-0.001697 u
Se (196.026 nm)	-0.001754 u	ppm	0.001085	61.88	6.681090	-0.001754 u
Si (288.158 nm)	1.586460	ppm	0.000861	0.05	11561.100000	1.586460
Sn (189.925 nm)	-0.000969 u	ppm	0.000582	60.10	6.332650	-0.000969 u
Sr (421.552 nm)	0.021087	ppm	0.000227	1.08	3880.365383	0.021087
Th (288.505 nm)	0.001305 u	ppm	0.005594	> 100.00	101.274000	0.001305 u
Ti (336.122 nm)	0.000256	ppm	0.000114	44.45	-80.151000	0.000256
Tl (190.794 nm)	-0.000011 u	ppm	0.002278	> 100.00	-7.467920	-0.000011 u
U (409.013 nm)	0.001101 u	ppm	0.007907	> 100.00	88.271400	0.001101 u
V (292.401 nm)	-0.000044 u	ppm	0.000245	> 100.00	36.292300	-0.000044 u
Zn (206.200 nm)	0.000957	ppm	0.000224	23.42	12.685500	0.000957
Zr (343.823 nm)	0.000084 u	ppm	0.000090	> 100.00	20.059900	0.000084 u

Solution Name: 280-190604-A-1-B MS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190604-A-1-B MS	5/14/2024 3:48:24 AM	1:68	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.061460	ppm	0.001216	0.11	1371690.428286	1.061460
Ag (328.068 nm)	0.049107	ppm	0.000426	0.87	1818.170000	0.049107
Al (167.019 nm)	10.437700 o	ppm	0.079415	0.76	5115.840000	10.437700 o
Al H (396.152 nm)	10.051151	ppm	0.069316	0.69	21331.405901	10.051151
As (188.980 nm)	1.006400	ppm	0.004535	0.45	1075.670000	1.006400
B (249.678 nm)	1.946770 o	ppm	0.005308	0.27	43404.800000	1.946770 o
Ba (493.408 nm)	1.017220	ppm	0.006619	0.65	88332.600000	1.017220
Be (234.861 nm)	0.968388	ppm	0.012842	1.33	243516.000000	0.968388
Bi (223.061 nm)	-0.002076 u	ppm	0.002846	> 100.00	-2.151440	-0.002076 u
Ca (315.887 nm)	71.674652 o	ppm	0.522410	0.73	64091.587015	71.674652 o
Cd (214.439 nm)	1.022970	ppm	0.002890	0.28	52865.000000	1.022970
Co (228.615 nm)	0.965047	ppm	0.001744	0.18	14720.100000	0.965047
Cr (205.560 nm)	1.022270	ppm	0.000984	0.10	12048.000000	1.022270
Cu (324.754 nm)	0.926102	ppm	0.002065	0.22	48060.500000	0.926102
Fe (238.204 nm)	10.078934 o	ppm	0.073932	0.73	34498.006732	10.078934 o
Fe H (259.940 nm)	10.142700	ppm	0.078182	0.77	19148.500000	10.142700
K (766.491 nm)	57.397000	ppm	0.049933	0.09	37184.100000	57.397000
Li (670.783 nm)	1.110020 o	ppm	0.001647	0.15	19049.000000	1.110020 o
Mg (279.078 nm)	62.432600 o	ppm	0.142291	0.23	299656.000000	62.432600 o
Mn (257.610 nm)	1.008200	ppm	0.002073	0.21	193860.000000	1.008200
Mo (202.032 nm)	1.027740	ppm	0.004020	0.39	6996.820000	1.027740
Na (589.592 nm)	153.193000	ppm	0.434269	0.28	655675.000000	153.193000
Na H (589.593 nm)	140.940908	ppm	0.952521	0.68	425608.412204	140.940908
Ni (231.604 nm)	1.008890	ppm	0.002102	0.21	5937.730000	1.008890
P (213.618 nm)	19.947200 o	ppm	0.047451	0.24	42226.600000	19.947200 o
Pb (220.353 nm)	0.953779	ppm	0.003918	0.41	2237.400000	0.953779
S (181.972 nm)	66.549489 o	ppm	0.025097	0.04	27520.656246	66.549489 o
Sb (206.834 nm)	1.018480	ppm	0.001239	0.12	2224.800000	1.018480
Se (196.026 nm)	0.969224	ppm	0.001787	0.18	850.179000	0.969224
Si (288.158 nm)	17.834200 o	ppm	0.045774	0.26	121993.000000	17.834200 o
Sn (189.925 nm)	1.043360	ppm	0.002781	0.27	1692.770000	1.043360
Sr (421.552 nm)	1.055736	ppm	0.006545	0.62	193343.528646	1.055736
Th (288.505 nm)	0.020395	ppm	0.005425	26.60	158.129000	0.020395
Ti (336.122 nm)	0.980713	ppm	0.001017	0.10	105764.000000	0.980713
Tl (190.794 nm)	1.025950	ppm	0.002723	0.27	1679.650000	1.025950
U (409.013 nm)	0.033743	ppm	0.004239	12.56	138.448000	0.033743
V (292.401 nm)	1.010110	ppm	0.003552	0.35	29324.100000	1.010110
Zn (206.200 nm)	0.961380	ppm	0.002612	0.27	4547.210000	0.961380
Zr (343.823 nm)	0.979853	ppm	0.001347	0.14	91655.400000	0.979853

Solution Name: 280-190604-A-1-C MSD

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190604-A-1-C MSD	5/14/2024 3:52:13 AM	1:69	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.111765	ppm	0.000881	0.08	1436838.481687	1.111765
Ag (328.068 nm)	0.051077	ppm	0.000276	0.54	1892.640000	0.051077
Al (167.019 nm)	10.888300 o	ppm	0.097923	0.90	5336.690000	10.888300 o
Al H (396.152 nm)	10.494327	ppm	0.089208	0.85	22268.022677	10.494327
As (188.980 nm)	1.048400	ppm	0.003249	0.31	1120.550000	1.048400
B (249.678 nm)	2.028160 o	ppm	0.004433	0.22	45215.400000	2.028160 o
Ba (493.408 nm)	1.063830	ppm	0.010382	0.98	92382.200000	1.063830
Be (234.861 nm)	1.008740	ppm	0.009177	0.91	253664.000000	1.008740
Bi (223.061 nm)	-0.000238 u	ppm	0.001405	> 100.00	1.195580	-0.000238 u
Ca (315.887 nm)	74.503145 o	ppm	0.650664	0.87	66622.459629	74.503145 o
Cd (214.439 nm)	1.066070	ppm	0.001521	0.14	55093.100000	1.066070
Co (228.615 nm)	1.004920	ppm	0.002064	0.21	15328.800000	1.004920
Cr (205.560 nm)	1.067550	ppm	0.001709	0.16	12580.700000	1.067550
Cu (324.754 nm)	0.965632	ppm	0.002964	0.31	50057.800000	0.965632
Fe (238.204 nm)	10.552324 o	ppm	0.087633	0.83	36116.779471	10.552324 o
Fe H (259.940 nm)	10.610900	ppm	0.091979	0.87	20037.700000	10.610900
K (766.491 nm)	59.685500	ppm	0.083255	0.14	38723.000000	59.685500
Li (670.783 nm)	1.167570 o	ppm	0.005059	0.43	20076.100000	1.167570 o
Mg (279.078 nm)	64.997000 o	ppm	0.089743	0.14	311964.000000	64.997000 o
Mn (257.610 nm)	1.052040	ppm	0.000804	0.08	202287.000000	1.052040
Mo (202.032 nm)	1.069850	ppm	0.001003	0.09	7283.240000	1.069850
Na (589.592 nm)	158.942000	ppm	0.497160	0.31	680209.000000	158.942000
Na H (589.593 nm)	147.184129	ppm	0.953207	0.65	444050.207635	147.184129
Ni (231.604 nm)	1.052440	ppm	0.002307	0.22	6193.180000	1.052440
P (213.618 nm)	20.775200 o	ppm	0.024039	0.12	43978.600000	20.775200 o
Pb (220.353 nm)	0.995853	ppm	0.002407	0.24	2336.390000	0.995853
S (181.972 nm)	68.875739 o	ppm	0.143546	0.21	28481.974915	68.875739 o
Sb (206.834 nm)	1.054290	ppm	0.002697	0.26	2303.020000	1.054290
Se (196.026 nm)	0.999414	ppm	0.000638	0.06	876.404000	0.999414
Si (288.158 nm)	18.477100 o	ppm	0.047605	0.26	126361.000000	18.477100 o
Sn (189.925 nm)	1.079910	ppm	0.000663	0.06	1751.800000	1.079910
Sr (421.552 nm)	1.104620 o	ppm	0.010874	0.98	202295.166515	1.104620 o
Th (288.505 nm)	0.019854	ppm	0.003520	17.73	157.886000	0.019854
Ti (336.122 nm)	1.016840	ppm	0.001870	0.18	109665.000000	1.016840
Tl (190.794 nm)	1.070240	ppm	0.002960	0.28	1752.510000	1.070240
U (409.013 nm)	0.032554	ppm	0.001963	6.03	132.174000	0.032554
V (292.401 nm)	1.049800	ppm	0.000474	0.05	30473.100000	1.049800
Zn (206.200 nm)	1.002000	ppm	0.002287	0.23	4739.010000	1.002000
Zr (343.823 nm)	1.019880	ppm	0.003251	0.32	95399.400000	1.019880

Solution Name: 280-190604-A-1-A PDS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190604-A-1-A PDS	5/14/2024 3:56:05 AM	1:70	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.109373	ppm	0.000133	0.12	138695.834502	0.109373
Ag (328.068 nm)	0.046303	ppm	0.000115	0.25	1728.940000	0.046303
Al (167.019 nm)	1.020120	ppm	0.004995	0.49	500.933000	1.020120
Al H (396.152 nm)	0.948029	ppm	0.013650	1.44	2095.582953	0.948029
As (188.980 nm)	0.192783	ppm	0.002087	1.08	206.236000	0.192783
B (249.678 nm)	0.115176	ppm	0.000301	0.26	2652.580000	0.115176
Ba (493.408 nm)	0.121324	ppm	0.000787	0.65	10505.800000	0.121324
Be (234.861 nm)	0.047251	ppm	0.000120	0.25	11857.100000	0.047251
Bi (223.061 nm)	-0.002218 u	ppm	0.001675	75.49	-2.410330	-0.002218 u
Ca (315.887 nm)	39.822620 o	ppm	0.231772	0.58	35591.095019	39.822620 o
Cd (214.439 nm)	0.050633	ppm	0.000101	0.20	2604.290000	0.050633
Co (228.615 nm)	0.048547	ppm	0.000150	0.31	725.564000	0.048547
Cr (205.560 nm)	0.050405	ppm	0.000237	0.47	610.982000	0.050405
Cu (324.754 nm)	0.054689	ppm	0.000403	0.74	4011.380000	0.054689
Fe (238.204 nm)	0.989548	ppm	0.005574	0.56	3416.540037	0.989548
Fe H (259.940 nm)	1.061930 u	ppm	0.005504	0.52	1904.170000	1.061930 u
K (766.491 nm)	23.495200	ppm	0.083767	0.36	14385.600000	23.495200
Li (670.783 nm)	0.123915	ppm	0.004031	3.25	1449.960000	0.123915
Mg (279.078 nm)	30.333000	ppm	0.020327	0.07	145590.000000	30.333000
Mn (257.610 nm)	0.051057	ppm	0.000013	0.03	9848.200000	0.051057
Mo (202.032 nm)	0.062548	ppm	0.001840	2.94	432.541000	0.062548
Na (589.592 nm)	116.797000	ppm	0.272141	0.23	498884.000000	116.797000
Na H (589.593 nm)	107.406573	ppm	0.440366	0.41	325443.490074	107.406573
Ni (231.604 nm)	0.054798	ppm	0.001352	2.47	341.580000	0.054798
P (213.618 nm)	1.912380	ppm	0.004917	0.26	4060.220000	1.912380
Pb (220.353 nm)	0.093847	ppm	0.001872	2.00	215.882000	0.093847
S (181.972 nm)	45.335383 o	ppm	0.044207	0.10	18750.257435	45.335383 o
Sb (206.834 nm)	0.103579	ppm	0.000688	0.66	230.054000	0.103579
Se (196.026 nm)	0.188877	ppm	0.004619	2.45	172.653000	0.188877
Si (288.158 nm)	12.606000 o	ppm	0.061185	0.49	86200.600000	12.606000 o
Sn (189.925 nm)	0.102313	ppm	0.002404	2.35	173.117000	0.102313
Sr (421.552 nm)	0.146098	ppm	0.000963	0.66	26772.179701	0.146098
Th (288.505 nm)	0.196593	ppm	0.007952	4.04	487.089000	0.196593
Ti (336.122 nm)	0.048778	ppm	0.000075	0.15	5231.000000	0.048778
Tl (190.794 nm)	0.200529	ppm	0.000826	0.41	322.721000	0.200529
U (409.013 nm)	0.508499	ppm	0.003935	0.77	1757.680000	0.508499
V (292.401 nm)	0.050200	ppm	0.000269	0.54	1483.330000	0.050200
Zn (206.200 nm)	0.192565	ppm	0.000971	0.50	917.342000	0.192565
Zr (343.823 nm)	0.083140	ppm	0.008697	10.46	7829.890000	0.083140

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/14/2024 3:59:54 AM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000564	ppm	0.000050	8.77	-2216.287804	0.000564
Ag (328.068 nm)	0.001239	ppm	0.000272	21.98	-39.106500	0.001239
Al (167.019 nm)	49.665100 o	ppm	0.270278	0.54	24339.300000	49.665100 o
Al H (396.152 nm)	47.952526	ppm	0.303130	0.63	101012.304129	47.952526
As (188.980 nm)	0.000146 u	ppm	0.002063	> 100.00	-0.774309	0.000146 u
B (249.678 nm)	0.003611	ppm	0.000284	7.87	99.519500	0.003611
Ba (493.408 nm)	0.001327	ppm	0.000236	17.77	81.901300	0.001327
Be (234.861 nm)	0.000167	ppm	0.000041	24.36	531.608000	0.000167
Bi (223.061 nm)	0.003038	ppm	0.001475	48.56	7.163430	0.003038
Ca (315.887 nm)	-0.005243 u	ppm	0.001765	33.67	-45.992926	-0.005243 u
Cd (214.439 nm)	-0.000052 u	ppm	0.000048	91.67	23.729900	-0.000052 u
Co (228.615 nm)	-0.000262 u	ppm	0.000291	> 100.00	-19.821900	-0.000262 u
Cr (205.560 nm)	-0.000071 u	ppm	0.000393	> 100.00	6.826650	-0.000071 u
Cu (324.754 nm)	0.002650	ppm	0.000480	18.12	2149.470000	0.002650
Fe (238.204 nm)	49.118180 o	ppm	0.322738	0.66	167994.053121	49.118180 o
Fe H (259.940 nm)	48.643300	ppm	0.326799	0.67	92261.100000	48.643300
K (766.491 nm)	0.149006	ppm	0.100603	67.52	-1314.450000	0.149006
Li (670.783 nm)	0.007349	ppm	0.000429	5.84	-630.389000	0.007349
Mg (279.078 nm)	-0.010157 u	ppm	0.002488	24.49	-154.899000	-0.010157 u
Mn (257.610 nm)	-0.000034 u	ppm	0.000028	81.07	25.847400	-0.000034 u
Mo (202.032 nm)	-0.000290 u	ppm	0.000361	> 100.00	5.176010	-0.000290 u
Na (589.592 nm)	247.384000	ppm	1.125780	0.46	1053150.000000	247.384000
Na H (589.593 nm)	229.936947	ppm	2.153902	0.94	685598.625220	229.936947
Ni (231.604 nm)	-0.001019 u	ppm	0.000745	73.13	14.035900	-0.001019 u
P (213.618 nm)	4.709200	ppm	0.008501	0.18	9992.720000	4.709200
Pb (220.353 nm)	-0.005556 u	ppm	0.001784	32.11	-27.838900	-0.005556 u
S (181.972 nm)	4.999692	ppm	0.002502	0.05	2085.475751	4.999692
Sb (206.834 nm)	0.002318 u	ppm	0.003410	> 100.00	-1.466830	0.002318 u
Se (196.026 nm)	-0.000123 u	ppm	0.002651	> 100.00	2.592930	-0.000123 u
Si (288.158 nm)	0.007416	ppm	0.001700	22.93	872.231000	0.007416
Sn (189.925 nm)	0.000894 u	ppm	0.001282	> 100.00	10.194400	0.000894 u
Sr (421.552 nm)	0.000257	ppm	0.000065	25.47	65.905484	0.000257
Th (288.505 nm)	4.794480	ppm	0.057953	1.21	9398.420000	4.794480
Ti (336.122 nm)	0.000957	ppm	0.000144	14.99	-14.050200	0.000957
Tl (190.794 nm)	-0.002286 u	ppm	0.001869	81.75	-12.163800	-0.002286 u
U (409.013 nm)	2.401930	ppm	0.001939	0.08	8062.700000	2.401930
V (292.401 nm)	-0.000053 u	ppm	0.000356	> 100.00	251.525000	-0.000053 u
Zn (206.200 nm)	0.001324	ppm	0.000171	12.95	14.419200	0.001324
Zr (343.823 nm)	0.001146	ppm	0.000047	4.14	211.347000	0.001146

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/14/2024 4:03:46 AM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.446886 Q	ppm	0.000797	0.18	575790.552507 Q	0.446886 Q
Ag (328.068 nm)	0.489059	ppm	0.000575	0.12	18621.600000	0.489059
Al (167.019 nm)	0.528253	ppm	0.006844	1.30	261.300000	0.528253
Al H (396.152 nm)	0.463471 u	ppm	0.007263	1.57	1092.347919	0.463471 u
As (188.980 nm)	0.473921	ppm	0.002462	0.52	506.698000	0.473921
B (249.678 nm)	0.467125	ppm	0.001182	0.25	10493.900000	0.467125
Ba (493.408 nm)	0.483571	ppm	0.003270	0.68	41974.600000	0.483571
Be (234.861 nm)	0.467704	ppm	0.002891	0.62	117573.000000	0.467704
Bi (223.061 nm)	0.998748	ppm	0.003249	0.33	1820.640000	0.998748
Ca (315.887 nm)	4.910014	ppm	0.045538	0.93	4352.070100	4.910014
Cd (214.439 nm)	0.516916	ppm	0.000813	0.16	26704.400000	0.516916
Co (228.615 nm)	0.487052	ppm	0.000527	0.11	7421.020000	0.487052
Cr (205.560 nm)	0.511645	ppm	0.000684	0.13	6039.530000	0.511645
Cu (324.754 nm)	0.453781	ppm	0.000914	0.20	24212.500000	0.453781
Fe (238.204 nm)	2.447822	ppm	0.017954	0.73	8403.156708	2.447822
Fe H (259.940 nm)	2.500030 u	ppm	0.015782	0.63	4635.120000	2.500030 u
K (766.491 nm)	51.652400	ppm	0.126589	0.25	33320.900000	51.652400
Li (670.783 nm)	0.536035	ppm	0.002914	0.54	8805.070000	0.536035
Mg (279.078 nm)	19.761500	ppm	0.011721	0.06	94859.600000	19.761500
Mn (257.610 nm)	0.499316	ppm	0.000261	0.05	96026.000000	0.499316
Mo (202.032 nm)	0.507058	ppm	0.001157	0.23	3455.670000	0.507058
Na (589.592 nm)	25.422600	ppm	0.045105	0.18	111749.000000	25.422600
Na H (589.593 nm)	22.080627	ppm	0.230251	1.04	75122.807828	22.080627
Ni (231.604 nm)	0.514878	ppm	0.001412	0.27	3040.050000	0.514878
P (213.618 nm)	0.017752	ppm	0.002791	15.72	12.066300	0.017752
Pb (220.353 nm)	0.477521	ppm	0.003268	0.68	1118.550000	0.477521
S (181.972 nm)	-0.015041 u	ppm	0.002162	14.38	17.033621	-0.015041 u
Sb (206.834 nm)	0.510085	ppm	0.003125	0.61	1118.310000	0.510085
Se (196.026 nm)	0.475011	ppm	0.001455	0.31	420.916000	0.475011
Si (288.158 nm)	4.908420	ppm	0.022193	0.45	34266.600000	4.908420
Sn (189.925 nm)	0.513257	ppm	0.003772	0.73	836.689000	0.513257
Sr (421.552 nm)	0.464831	ppm	0.003388	0.73	85137.986964	0.464831
Th (288.505 nm)	0.059811	ppm	0.032654	54.59	224.241000	0.059811
Ti (336.122 nm)	0.488996	ppm	0.000345	0.07	52606.700000	0.488996
Tl (190.794 nm)	0.510612	ppm	0.002331	0.46	832.291000	0.510612
U (409.013 nm)	-0.002967 u	ppm	0.008325	> 100.00	49.551900	-0.002967 u
V (292.401 nm)	0.493853	ppm	0.000678	0.14	14357.500000	0.493853
Zn (206.200 nm)	0.479073	ppm	0.000431	0.09	2270.060000	0.479073
Zr (343.823 nm)	0.477182	ppm	0.005595	1.17	44617.000000	0.477182

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/14/2024 4:07:32 AM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000202	ppm	0.000013	6.28	-2686.068864	0.000202
Ag (328.068 nm)	-0.000069 u	ppm	0.000222	> 100.00	-34.733800	-0.000069 u
Al (167.019 nm)	-0.001397 u	ppm	0.002520	> 100.00	0.353529	-0.001397 u
Al H (396.152 nm)	-0.031171 u	ppm	0.007539	24.19	15.998175	-0.031171 u
As (188.980 nm)	-0.001789 u	ppm	0.001184	66.19	-1.710280	-0.001789 u
B (249.678 nm)	0.002216	ppm	0.000134	6.04	140.237000	0.002216
Ba (493.408 nm)	0.000383	ppm	0.000371	96.91	-0.145045	0.000383
Be (234.861 nm)	0.000011	ppm	0.000008	73.18	-28.217700	0.000011
Bi (223.061 nm)	-0.001454 u	ppm	0.000830	57.09	-1.018140	-0.001454 u
Ca (315.887 nm)	-0.002473 u	ppm	0.006824	> 100.00	-43.514298	-0.002473 u
Cd (214.439 nm)	0.000082	ppm	0.000075	91.43	-9.166750	0.000082
Co (228.615 nm)	-0.000142 u	ppm	0.000144	> 100.00	-17.995800	-0.000142 u
Cr (205.560 nm)	-0.000143 u	ppm	0.000206	> 100.00	16.179400	-0.000143 u
Cu (324.754 nm)	0.000937	ppm	0.000229	24.38	1305.270000	0.000937
Fe (238.204 nm)	0.000060 u	ppm	0.000844	> 100.00	32.951943	0.000060 u
Fe H (259.940 nm)	0.074897 u	ppm	0.001178	1.57	29.802200	0.074897 u
K (766.491 nm)	0.006942 u	ppm	0.082349	> 100.00	-1409.980000	0.006942 u
Li (670.783 nm)	0.008082 S	ppm	0.001030	12.74	-617.310000 S	0.008082 S
Mg (279.078 nm)	0.000546 u	ppm	0.001316	> 100.00	16.940400	0.000546 u
Mn (257.610 nm)	-0.000013 u	ppm	0.000032	> 100.00	29.958100	-0.000013 u
Mo (202.032 nm)	0.001110	ppm	0.000338	30.41	14.699600	0.001110
Na (589.592 nm)	-0.110136 u	ppm	0.002660	2.42	2117.410000	-0.110136 u
Na H (589.593 nm)	-2.083008 u	ppm	0.055981	2.69	3227.520504	-2.083008 u
Ni (231.604 nm)	-0.001383 u	ppm	0.000459	33.18	11.899200	-0.001383 u
P (213.618 nm)	-0.001770 u	ppm	0.001227	69.34	6.410310	-0.001770 u
Pb (220.353 nm)	0.000039 u	ppm	0.001334	> 100.00	-6.081010	0.000039 u
S (181.972 nm)	-0.005251 u	ppm	0.005292	> 100.00	17.752979	-0.005251 u
Sb (206.834 nm)	-0.000800 u	ppm	0.003060	> 100.00	5.421630	-0.000800 u
Se (196.026 nm)	0.000486 u	ppm	0.002073	> 100.00	8.555710	0.000486 u
Si (288.158 nm)	-0.005850 u	ppm	0.001683	28.77	781.649000	-0.005850 u
Sn (189.925 nm)	-0.000857 u	ppm	0.000600	70.05	6.512830	-0.000857 u
Sr (421.552 nm)	0.000131	ppm	0.000113	86.57	42.809949	0.000131
Th (288.505 nm)	0.000614 u	ppm	0.001874	> 100.00	99.963600	0.000614 u
Ti (336.122 nm)	0.000166 u	ppm	0.000158	95.13	-99.373600	0.000166 u
Tl (190.794 nm)	0.000504 u	ppm	0.001192	> 100.00	-6.620280	0.000504 u
U (409.013 nm)	0.000229 u	ppm	0.004237	> 100.00	85.928300	0.000229 u
V (292.401 nm)	-0.000386 u	ppm	0.000236	61.23	26.011800	-0.000386 u
Zn (206.200 nm)	-0.000215 u	ppm	0.000695	> 100.00	7.153860	-0.000215 u
Zr (343.823 nm)	0.000173	ppm	0.000140	80.83	21.419100	0.000173

Solution Name: 280-190845-F-5-B

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190845-F-5-B	5/14/2024 4:11:02 AM	1:71	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.009496	ppm	0.000018	0.19	9350.677889	0.009496
Ag (328.068 nm)	0.000813	ppm	0.000105	12.90	-0.878141	0.000813
Al (167.019 nm)	0.000305 u	ppm	0.002661	> 100.00	1.206000	0.000305 u
Al H (396.152 nm)	-0.007883 u	ppm	0.002800	35.51	89.464576	-0.007883 u
As (188.980 nm)	-0.001981 u	ppm	0.001540	77.70	-1.916750	-0.001981 u
B (249.678 nm)	0.040739	ppm	0.000032	0.08	996.856000	0.040739
Ba (493.408 nm)	0.594592	ppm	0.002809	0.47	51621.300000	0.594592
Be (234.861 nm)	-0.000021 u	ppm	0.000037	> 100.00	-36.204500	-0.000021 u
Bi (223.061 nm)	-0.000988 u	ppm	0.000912	92.29	-0.169597	-0.000988 u
Ca (315.887 nm)	67.038342 o	ppm	0.376915	0.56	59943.119462	67.038342 o
Cd (214.439 nm)	0.000000 u	ppm	0.000068	> 100.00	-13.357500	0.000000 u
Co (228.615 nm)	0.000088 u	ppm	0.000122	> 100.00	-12.882100	0.000088 u
Cr (205.560 nm)	0.000257 u	ppm	0.000497	> 100.00	20.875500	0.000257 u
Cu (324.754 nm)	-0.000529 u	ppm	0.000138	26.11	1236.890000	-0.000529 u
Fe (238.204 nm)	0.027044	ppm	0.001402	5.18	125.221493	0.027044
Fe H (259.940 nm)	0.098041 u	ppm	0.002226	2.27	73.752900	0.098041 u
K (766.491 nm)	1.763360	ppm	0.030486	1.73	-228.816000	1.763360
Li (670.783 nm)	0.016282	ppm	0.000994	6.10	-470.979000	0.016282
Mg (279.078 nm)	28.463000	ppm	0.036275	0.13	136627.000000	28.463000
Mn (257.610 nm)	0.633914	ppm	0.000476	0.08	121902.000000	0.633914
Mo (202.032 nm)	0.001759	ppm	0.000187	10.63	19.108300	0.001759
Na (589.592 nm)	82.146500	ppm	0.270401	0.33	352909.000000	82.146500
Na H (589.593 nm)	75.345085	ppm	0.249974	0.33	231964.760278	75.345085
Ni (231.604 nm)	-0.002059 u	ppm	0.000698	33.92	7.936310	-0.002059 u
P (213.618 nm)	0.047301	ppm	0.001918	4.06	110.439000	0.047301
Pb (220.353 nm)	0.000048 u	ppm	0.003043	> 100.00	-6.096760	0.000048 u
S (181.972 nm)	1.000377	ppm	0.010238	1.02	434.447515	1.000377
Sb (206.834 nm)	-0.000321 u	ppm	0.003458	> 100.00	6.499830	-0.000321 u
Se (196.026 nm)	-0.002616 u	ppm	0.004572	> 100.00	7.031490	-0.002616 u
Si (288.158 nm)	14.999400 o	ppm	0.057141	0.38	102364.000000	14.999400 o
Sn (189.925 nm)	0.000031 u	ppm	0.001355	> 100.00	7.946840	0.000031 u
Sr (421.552 nm)	0.420553	ppm	0.002097	0.50	77029.811594	0.420553
Th (288.505 nm)	0.015442	ppm	0.005282	34.20	138.024000	0.015442
Ti (336.122 nm)	0.000277	ppm	0.000070	25.26	64.240900	0.000277
Tl (190.794 nm)	0.000724 u	ppm	0.001654	> 100.00	-6.258150	0.000724 u
U (409.013 nm)	-0.003146 u	ppm	0.001522	48.38	65.475700	-0.003146 u
V (292.401 nm)	-0.000587 u	ppm	0.000165	28.15	22.822300	-0.000587 u
Zn (206.200 nm)	0.000471 u	ppm	0.001006	> 100.00	10.390100	0.000471 u
Zr (343.823 nm)	-0.000542 u	ppm	0.000084	15.53	19.457300	-0.000542 u

Solution Name: MB 280-652666/1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
MB 280-652666/1-A	5/14/2024 4:14:51 AM	1:72	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000190	ppm	0.000034	17.94	-2700.488657	0.000190
Ag (328.068 nm)	0.000103 u	ppm	0.000481	> 100.00	-28.062000	0.000103 u
Al (167.019 nm)	0.012872	ppm	0.004166	32.36	7.356940	0.012872
Al H (396.152 nm)	-0.018463 u	ppm	0.001838	9.95	42.766843	-0.018463 u
As (188.980 nm)	-0.003306 u	ppm	0.002591	78.39	-3.332340	-0.003306 u
B (249.678 nm)	0.001483	ppm	0.000276	18.63	123.898000	0.001483
Ba (493.408 nm)	0.000921	ppm	0.000712	77.39	46.567600	0.000921
Be (234.861 nm)	0.000019	ppm	0.000005	26.28	-25.917300	0.000019
Bi (223.061 nm)	0.000536	ppm	0.000674	> 100.00	2.605210	0.000536
Ca (315.887 nm)	0.126564	ppm	0.004432	3.50	71.945054	0.126564
Cd (214.439 nm)	0.000061	ppm	0.000091	> 100.00	-10.216800	0.000061
Co (228.615 nm)	0.000057 u	ppm	0.000139	> 100.00	-14.932700	0.000057 u
Cr (205.560 nm)	0.001606	ppm	0.000261	16.27	36.762600	0.001606
Cu (324.754 nm)	0.001544	ppm	0.000142	9.20	1337.270000	0.001544
Fe (238.204 nm)	0.029183	ppm	0.002234	7.66	132.537868	0.029183
Fe H (259.940 nm)	0.102495 u	ppm	0.000542	0.53	82.211500	0.102495 u
K (766.491 nm)	-0.015933 u	ppm	0.065097	> 100.00	-1425.370000	-0.015933 u
Li (670.783 nm)	0.008870	ppm	0.002753	31.04	-603.246000	0.008870
Mg (279.078 nm)	0.022071	ppm	0.001397	6.33	120.391000	0.022071
Mn (257.610 nm)	0.000478	ppm	0.000035	7.33	124.318000	0.000478
Mo (202.032 nm)	0.000827	ppm	0.000090	10.84	12.768800	0.000827
Na (589.592 nm)	-0.018604 u	ppm	0.021573	> 100.00	2507.420000	-0.018604 u
Na H (589.593 nm)	-2.097666 u	ppm	0.062058	2.96	3185.301984	-2.097666 u
Ni (231.604 nm)	-0.000578 u	ppm	0.000926	> 100.00	16.622100	-0.000578 u
P (213.618 nm)	0.015871	ppm	0.001147	7.23	43.754500	0.015871
Pb (220.353 nm)	-0.000435 u	ppm	0.000801	> 100.00	-7.221020	-0.000435 u
S (181.972 nm)	0.018785	ppm	0.003647	19.42	27.674385	0.018785
Sb (206.834 nm)	-0.000673 u	ppm	0.001452	> 100.00	5.787570	-0.000673 u
Se (196.026 nm)	-0.003423 u	ppm	0.001932	56.45	5.159010	-0.003423 u
Si (288.158 nm)	0.012267	ppm	0.001632	13.30	911.400000	0.012267
Sn (189.925 nm)	0.018306	ppm	0.001105	6.04	37.454100	0.018306
Sr (421.552 nm)	0.000518	ppm	0.000108	20.87	113.694713	0.000518
Th (288.505 nm)	0.002014 u	ppm	0.002186	> 100.00	102.563000	0.002014 u
Ti (336.122 nm)	0.000591	ppm	0.000150	25.36	-53.394800	0.000591
Tl (190.794 nm)	-0.000266 u	ppm	0.001443	> 100.00	-7.890560	-0.000266 u
U (409.013 nm)	-0.006163 u	ppm	0.007563	> 100.00	64.800300	-0.006163 u
V (292.401 nm)	-0.000480 u	ppm	0.000246	51.35	23.552400	-0.000480 u
Zn (206.200 nm)	0.001579	ppm	0.000447	28.33	15.624600	0.001579
Zr (343.823 nm)	0.000324	ppm	0.000106	32.79	35.592200	0.000324

Solution Name: LCS 280-652666/2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LCS 280-652666/2-A	5/14/2024 4:18:25 AM	1:73	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.907031	ppm	0.000611	0.07	1171698.254377	0.907031
Ag (328.068 nm)	0.044861	ppm	0.000095	0.21	1660.300000	0.044861
Al (167.019 nm)	10.009400 o	ppm	0.031537	0.32	4905.970000	10.009400 o
Al H (396.152 nm)	9.551520	ppm	0.056560	0.59	20269.743969	9.551520
As (188.980 nm)	0.942932	ppm	0.000651	0.07	1007.840000	0.942932
B (249.678 nm)	1.802720 o	ppm	0.003370	0.19	40200.100000	1.802720 o
Ba (493.408 nm)	0.944446	ppm	0.006763	0.72	82011.000000	0.944446
Be (234.861 nm)	0.916523	ppm	0.004980	0.54	230472.000000	0.916523
Bi (223.061 nm)	-0.000702 u	ppm	0.001549	> 100.00	0.351267	-0.000702 u
Ca (315.887 nm)	48.044466 o	ppm	0.214241	0.45	42947.820880	48.044466 o
Cd (214.439 nm)	0.974592	ppm	0.000639	0.07	50364.300000	0.974592
Co (228.615 nm)	0.913785	ppm	0.001492	0.16	13938.400000	0.913785
Cr (205.560 nm)	0.980325	ppm	0.001207	0.12	11554.400000	0.980325
Cu (324.754 nm)	0.865052	ppm	0.001676	0.19	44978.300000	0.865052
Fe (238.204 nm)	9.671994 o	ppm	0.041914	0.43	33106.462322	9.671994 o
Fe H (259.940 nm)	9.643710	ppm	0.048514	0.50	18201.000000	9.643710
K (766.491 nm)	50.684400	ppm	0.081762	0.16	32669.900000	50.684400
Li (670.783 nm)	1.025690	ppm	0.005508	0.54	17543.900000	1.025690
Mg (279.078 nm)	48.174400 o	ppm	0.038907	0.08	231223.000000	48.174400 o
Mn (257.610 nm)	0.961785	ppm	0.001150	0.12	184936.000000	0.961785
Mo (202.032 nm)	1.006710	ppm	0.003842	0.38	6853.830000	1.006710
Na (589.592 nm)	49.546300	ppm	0.115370	0.23	215343.000000	49.546300
Na H (589.593 nm)	44.003072	ppm	0.230459	0.52	140389.593380	44.003072
Ni (231.604 nm)	0.952100	ppm	0.000671	0.07	5604.630000	0.952100
P (213.618 nm)	18.698200 o	ppm	0.020989	0.11	39583.300000	18.698200 o
Pb (220.353 nm)	0.910324	ppm	0.004098	0.45	2135.020000	0.910324
S (181.972 nm)	18.906338 o	ppm	0.039823	0.21	7837.188790	18.906338 o
Sb (206.834 nm)	0.982392	ppm	0.001446	0.15	2146.060000	0.982392
Se (196.026 nm)	0.894321	ppm	0.000566	0.06	784.657000	0.894321
Si (288.158 nm)	7.244310	ppm	0.020462	0.28	50296.400000	7.244310
Sn (189.925 nm)	1.026540	ppm	0.003682	0.36	1665.600000	1.026540
Sr (421.552 nm)	0.905907	ppm	0.006582	0.73	165907.212239	0.905907
Th (288.505 nm)	0.016688	ppm	0.004047	24.25	150.066000	0.016688
Ti (336.122 nm)	0.965458	ppm	0.000845	0.09	104066.000000	0.965458
Tl (190.794 nm)	0.977403	ppm	0.000095	0.01	1599.650000	0.977403
U (409.013 nm)	-0.003574 u	ppm	0.001323	37.01	19.709800	-0.003574 u
V (292.401 nm)	0.965479	ppm	0.000880	0.09	28029.800000	0.965479
Zn (206.200 nm)	0.913735	ppm	0.000837	0.09	4322.260000	0.913735
Zr (343.823 nm)	0.950582	ppm	0.008006	0.84	88873.900000	0.950582

Solution Name: 280-191000-C-4-A @500

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191000-C-4-A @500	5/14/2024 4:22:13 AM	1:74	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.004799	ppm	0.000066	1.37	3267.216270	0.004799
Ag (328.068 nm)	-0.000967 u	ppm	0.000331	34.24	-68.890700	-0.000967 u
Al (167.019 nm)	0.683584	ppm	0.008108	1.19	336.310000	0.683584
Al H (396.152 nm)	0.880881 u	ppm	0.010780	1.22	2455.514291	0.880881 u
As (188.980 nm)	-0.005817 u	ppm	0.005857	> 100.00	-6.040070	-0.005817 u
B (249.678 nm)	0.005477	ppm	0.000730	13.33	211.189000	0.005477
Ba (493.408 nm)	0.009875	ppm	0.000061	0.62	824.483000	0.009875
Be (234.861 nm)	0.000024	ppm	0.000012	48.54	-13.852800	0.000024
Bi (223.061 nm)	-0.001362 u	ppm	0.001310	96.21	-0.850580	-0.001362 u
Ca (315.887 nm)	1428.211725 o	ppm	8.224877	0.58	1277890.860258	1428.211725 o
Cd (214.439 nm)	0.000265	ppm	0.000063	23.80	1.187070	0.000265
Co (228.615 nm)	-0.000189 u	ppm	0.000266	> 100.00	-18.353300	-0.000189 u
Cr (205.560 nm)	0.003592	ppm	0.000095	2.64	59.938300	0.003592
Cu (324.754 nm)	-0.009896 u	ppm	0.000354	3.58	429.451000	-0.009896 u
Fe (238.204 nm)	1.068033	ppm	0.006041	0.57	3684.921431	1.068033
Fe H (259.940 nm)	1.145110 u	ppm	0.010110	0.88	2062.130000	1.145110 u
K (766.491 nm)	0.648867	ppm	0.045151	6.96	-978.298000	0.648867
Li (670.783 nm)	0.023906	ppm	0.001388	5.81	-334.907000	0.023906
Mg (279.078 nm)	0.734340	ppm	0.000576	0.08	3537.400000	0.734340
Mn (257.610 nm)	0.014151	ppm	0.000013	0.09	2752.880000	0.014151
Mo (202.032 nm)	0.004131	ppm	0.001263	30.56	35.243300	0.004131
Na (589.592 nm)	0.024067 u	ppm	0.030491	> 100.00	2709.740000	0.024067 u
Na H (589.593 nm)	-1.968783 u	ppm	0.007252	0.37	3578.956287	-1.968783 u
Ni (231.604 nm)	-0.000314 u	ppm	0.000309	98.47	18.173900	-0.000314 u
P (213.618 nm)	0.027164	ppm	0.001424	5.24	67.444900	0.027164
Pb (220.353 nm)	0.000446 u	ppm	0.000951	> 100.00	-5.501340	0.000446 u
S (181.972 nm)	1097.804623 bo	ppm	1.831889	0.17	453562.302882	1097.804623 bo
Sb (206.834 nm)	-0.003359 u	ppm	0.001554	46.27	-0.145325	-0.003359 u
Se (196.026 nm)	-0.000253 u	ppm	0.000681	> 100.00	7.874270	-0.000253 u
Si (288.158 nm)	1.446670	ppm	0.003401	0.24	10619.300000	1.446670
Sn (189.925 nm)	0.009559	ppm	0.000357	3.74	23.349600	0.009559
Sr (421.552 nm)	5.983359 o	ppm	0.035200	0.59	1095682.142436	5.983359 o
Th (288.505 nm)	0.002252 u	ppm	0.002307	> 100.00	103.471000	0.002252 u
Ti (336.122 nm)	0.016191	ppm	0.000111	0.69	4858.430000	0.016191
Tl (190.794 nm)	0.004746	ppm	0.001635	34.44	0.307267	0.004746
U (409.013 nm)	0.014798	ppm	0.003986	26.94	-63.536600	0.014798
V (292.401 nm)	0.003814	ppm	0.000201	5.27	149.500000	0.003814
Zn (206.200 nm)	0.016847	ppm	0.000631	3.75	87.710600	0.016847
Zr (343.823 nm)	0.001571	ppm	0.000210	13.40	160.439000	0.001571

Solution Name: 480-219552-B-1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
480-219552-B-1-A	5/14/2024 4:25:59 AM	1:75	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.335761	ppm	0.000254	0.08	431877.829404	0.335761
Ag (328.068 nm)	0.000390	ppm	0.000196	50.20	-85.973900	0.000390
Al (167.019 nm)	123.939000 o	ppm	0.210878	0.17	60847.500000	123.939000 o
Al H (396.152 nm)	162.167578 o	ppm	0.746290	0.46	341508.419799	162.167578 o
As (188.980 nm)	0.072058	ppm	0.002511	3.48	70.886700	0.072058
B (249.678 nm)	0.184884	ppm	0.000561	0.30	3805.030000	0.184884
Ba (493.408 nm)	0.711555	ppm	0.004194	0.59	61782.100000	0.711555
Be (234.861 nm)	0.007946	ppm	0.000145	1.83	4878.780000	0.007946
Bi (223.061 nm)	0.011855	ppm	0.000680	5.73	23.221700	0.011855
Ca (315.887 nm)	260.181963 o	ppm	0.914285	0.35	232763.745665	260.181963 o
Cd (214.439 nm)	0.003295	ppm	0.000027	0.83	379.747000	0.003295
Co (228.615 nm)	0.102653	ppm	0.000496	0.48	1582.700000	0.102653
Cr (205.560 nm)	0.363775	ppm	0.000999	0.27	4244.620000	0.363775
Cu (324.754 nm)	0.287636	ppm	0.000172	0.06	15869.600000	0.287636
Fe (238.204 nm)	274.768589 o	ppm	0.871151	0.32	939613.406727	274.768589 o
Fe H (259.940 nm)	275.457000	ppm	1.443410	0.52	522980.000000	275.457000
K (766.491 nm)	29.386600	ppm	0.137830	0.47	18347.400000	29.386600
Li (670.783 nm)	0.383028	ppm	0.002935	0.77	6074.350000	0.383028
Mg (279.078 nm)	63.428600 o	ppm	0.021679	0.03	304074.000000	63.428600 o
Mn (257.610 nm)	9.479870 o	ppm	0.009590	0.10	1822540.000000	9.479870 o
Mo (202.032 nm)	0.013232	ppm	0.000344	2.60	97.139500	0.013232
Na (589.592 nm)	4.608840	ppm	0.031811	0.69	23923.400000	4.608840
Na H (589.593 nm)	1.950895 u	ppm	0.038551	1.98	16312.339067	1.950895 u
Ni (231.604 nm)	0.344069	ppm	0.000334	0.10	2037.820000	0.344069
P (213.618 nm)	4.117440	ppm	0.005001	0.12	8717.290000	4.117440
Pb (220.353 nm)	0.284263	ppm	0.002282	0.80	623.210000	0.284263
S (181.972 nm)	5.092866	ppm	0.014523	0.29	2143.411820	5.092866
Sb (206.834 nm)	0.007942	ppm	0.000694	8.74	-8.545670	0.007942
Se (196.026 nm)	-0.006974 u	ppm	0.003963	56.83	-21.094700	-0.006974 u
Si (288.158 nm)	4.024300	ppm	0.018466	0.46	28190.100000	4.024300
Sn (189.925 nm)	0.157635	ppm	0.001427	0.91	267.212000	0.157635
Sr (421.552 nm)	0.442765	ppm	0.002493	0.56	81097.332416	0.442765
Th (288.505 nm)	0.122944	ppm	0.001990	1.62	488.623000	0.122944
Ti (336.122 nm)	1.099800 o	ppm	0.000913	0.08	119028.000000	1.099800 o
Tl (190.794 nm)	0.005405	ppm	0.002441	45.17	-7.250220	0.005405
U (409.013 nm)	-0.028342 u	ppm	0.001681	5.93	134.061000	-0.028342 u
V (292.401 nm)	0.378655	ppm	0.000593	0.16	11049.900000	0.378655
Zn (206.200 nm)	1.085130	ppm	0.000394	0.04	5131.490000	1.085130
Zr (343.823 nm)	0.028577	ppm	0.000059	0.20	3246.510000	0.028577

Solution Name: 280-191000-C-4-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191000-C-4-A	5/14/2024 4:29:45 AM	1:76	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.009145	ppm	0.000098	1.07	8896.062151	0.009145
Ag (328.068 nm)	-0.000564 u	ppm	0.000259	45.95	-54.683200	-0.000564 u
Al (167.019 nm)	1.209490	ppm	0.020700	1.71	594.234000	1.209490
Al H (396.152 nm)	1.445092 b	ppm	0.030769	2.13	4046.746485	1.445092 b
As (188.980 nm)	-0.003744 u	ppm	0.002548	68.05	-3.842770	-0.003744 u
B (249.678 nm)	0.005429	ppm	0.000614	11.31	208.955000	0.005429
Ba (493.408 nm)	0.017023	ppm	0.000232	1.36	1445.450000	0.017023
Be (234.861 nm)	0.000043	ppm	0.000029	66.61	-0.380113	0.000043
Bi (223.061 nm)	-0.000787 u	ppm	0.002323	> 100.00	0.196250	-0.000787 u
Ca (315.887 nm)	2538.666505 bo	ppm	24.589047	0.97	2271501.157896	2538.666505 bo
Cd (214.439 nm)	0.000193	ppm	0.000140	72.33	-1.890170	0.000193
Co (228.615 nm)	-0.000035 u	ppm	0.000256	> 100.00	-15.706300	-0.000035 u
Cr (205.560 nm)	0.006355	ppm	0.000509	8.01	92.310500	0.006355
Cu (324.754 nm)	-0.010658 bu	ppm	0.000135	1.27	163.793000	-0.010658 bu
Fe (238.204 nm)	1.871697	ppm	0.023277	1.24	6433.078120	1.871697
Fe H (259.940 nm)	1.956140 u	ppm	0.019267	0.98	3602.280000	1.956140 u
K (766.491 nm)	0.883807	ppm	0.157197	17.79	-820.303000	0.883807
Li (670.783 nm)	0.032543	ppm	0.002902	8.92	-180.757000	0.032543
Mg (279.078 nm)	1.306020	ppm	0.028978	2.22	6279.190000	1.306020
Mn (257.610 nm)	0.025520	ppm	0.000358	1.40	4938.600000	0.025520
Mo (202.032 nm)	0.002476	ppm	0.000379	15.32	23.983700	0.002476
Na (589.592 nm)	0.158475	ppm	0.034809	21.97	3298.100000	0.158475
Na H (589.593 nm)	-2.062649 u	ppm	0.037462	1.82	3315.056775	-2.062649 u
Ni (231.604 nm)	0.001679	ppm	0.000452	26.94	29.858600	0.001679
P (213.618 nm)	0.060716	ppm	0.002301	3.79	138.188000	0.060716
Pb (220.353 nm)	-0.001290 u	ppm	0.000304	23.54	-9.752390	-0.001290 u
S (181.972 nm)	1798.441229 bo	ppm	31.568481	1.76	743020.392025	1798.441229 bo
Sb (206.834 nm)	-0.001591 u	ppm	0.002268	> 100.00	3.531660	-0.001591 u
Se (196.026 nm)	0.004681 u	ppm	0.005479	> 100.00	12.136000	0.004681 u
Si (288.158 nm)	2.698580	ppm	0.039871	1.48	19097.500000	2.698580
Sn (189.925 nm)	0.016415	ppm	0.001726	10.52	34.434300	0.016415
Sr (421.552 nm)	10.983003 bo	ppm	0.073934	0.67	2011209.044733	10.983003 bo
Th (288.505 nm)	0.000998 u	ppm	0.003851	> 100.00	102.019000	0.000998 u
Ti (336.122 nm)	0.031829 b	ppm	0.001240	3.90	9054.490000	0.031829 b
Tl (190.794 nm)	0.001419	ppm	0.001040	73.32	-5.217800	0.001419
U (409.013 nm)	0.023000 b	ppm	0.010864	47.24	-190.037000	0.023000 b
V (292.401 nm)	0.006715	ppm	0.000230	3.43	231.677000	0.006715
Zn (206.200 nm)	0.029701	ppm	0.000843	2.84	148.399000	0.029701
Zr (343.823 nm)	0.002882	ppm	0.000179	6.22	289.999000	0.002882

Solution Name: 280-191000-C-4-A SD@5

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191000-C-4-A SD@5	5/14/2024 4:33:31 AM	1:77	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.002018	ppm	0.000064	3.16	-334.378697	0.002018
Ag (328.068 nm)	-0.000368 u	ppm	0.000203	55.06	-45.887900	-0.000368 u
Al (167.019 nm)	0.254146	ppm	0.003052	1.20	125.710000	0.254146
Al H (396.152 nm)	0.366756 u	ppm	0.002317	0.63	1045.870123	0.366756 u
As (188.980 nm)	-0.002671 u	ppm	0.001740	65.14	-2.663540	-0.002671 u
B (249.678 nm)	0.000744	ppm	0.000052	6.99	106.872000	0.000744
Ba (493.408 nm)	0.003468	ppm	0.000169	4.88	267.858000	0.003468
Be (234.861 nm)	0.000009 u	ppm	0.000019	> 100.00	-24.116800	0.000009 u
Bi (223.061 nm)	-0.002430 u	ppm	0.000601	24.75	-2.796860	-0.002430 u
Ca (315.887 nm)	528.744648 o	ppm	1.995527	0.38	473067.677222	528.744648 o
Cd (214.439 nm)	0.000079	ppm	0.000018	22.25	-8.971790	0.000079
Co (228.615 nm)	0.000141 u	ppm	0.000364	> 100.00	-13.564100	0.000141 u
Cr (205.560 nm)	0.002262	ppm	0.000400	17.69	44.407400	0.002262
Cu (324.754 nm)	-0.005626 u	ppm	0.000166	2.95	855.477000	-0.005626 u
Fe (238.204 nm)	0.429000	ppm	0.000938	0.22	1499.726371	0.429000
Fe H (259.940 nm)	0.498556 u	ppm	0.006082	1.22	834.329000	0.498556 u
K (766.491 nm)	0.404900	ppm	0.013018	3.22	-1142.360000	0.404900
Li (670.783 nm)	0.022427	ppm	0.002354	10.50	-361.304000	0.022427
Mg (279.078 nm)	0.271415	ppm	0.001209	0.45	1316.790000	0.271415
Mn (257.610 nm)	0.005478	ppm	0.000028	0.51	1085.660000	0.005478
Mo (202.032 nm)	0.000187 u	ppm	0.000336	> 100.00	8.420610	0.000187 u
Na (589.592 nm)	-0.073492 u	ppm	0.013231	18.00	2279.480000	-0.073492 u
Na H (589.593 nm)	-2.476685 u	ppm	0.000558	0.02	2074.174621	-2.476685 u
Ni (231.604 nm)	-0.002489 u	ppm	0.000474	19.04	5.413980	-0.002489 u
P (213.618 nm)	0.011073	ppm	0.002216	20.01	33.644100	0.011073
Pb (220.353 nm)	-0.000088 u	ppm	0.002117	> 100.00	-6.590440	-0.000088 u
S (181.972 nm)	426.100116 bo	ppm	0.839925	0.20	176057.120315	426.100116 bo
Sb (206.834 nm)	-0.003432 u	ppm	0.000529	15.40	-0.195582	-0.003432 u
Se (196.026 nm)	-0.000959 u	ppm	0.002906	> 100.00	7.282330	-0.000959 u
Si (288.158 nm)	0.517656	ppm	0.003843	0.74	4327.250000	0.517656
Sn (189.925 nm)	0.002754	ppm	0.002157	78.34	12.349800	0.002754
Sr (421.552 nm)	2.231458 o	ppm	0.024759	1.11	408640.002515	2.231458 o
Th (288.505 nm)	0.003866	ppm	0.001091	28.21	106.120000	0.003866
Ti (336.122 nm)	0.006172	ppm	0.000129	2.10	1743.970000	0.006172
Tl (190.794 nm)	0.002240	ppm	0.000949	42.37	-3.776960	0.002240
U (409.013 nm)	0.004809	ppm	0.004673	97.18	27.975300	0.004809
V (292.401 nm)	0.000755	ppm	0.000032	4.24	60.395300	0.000755
Zn (206.200 nm)	0.005779	ppm	0.000250	4.32	35.454500	0.005779
Zr (343.823 nm)	0.000195	ppm	0.000156	79.82	26.567200	0.000195

Solution Name: 280-191000-C-4-B MS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191000-C-4-B MS	5/14/2024 4:37:01 AM	1:78	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.270248	ppm	0.003297	0.26	1642080.301806	1.270248
Ag (328.068 nm)	0.048159	ppm	0.000229	0.47	1793.710000	0.048159
Al (167.019 nm)	11.008600 o	ppm	0.155549	1.41	5396.080000	11.008600 o
Al H (396.152 nm)	12.757316 b	ppm	0.063181	0.50	27942.930032	12.757316 b
As (188.980 nm)	1.028860	ppm	0.002030	0.20	1099.640000	1.028860
B (249.678 nm)	1.961550 o	ppm	0.006924	0.35	43730.300000	1.961550 o
Ba (493.408 nm)	1.019300	ppm	0.002475	0.24	88513.300000	1.019300
Be (234.861 nm)	0.954124	ppm	0.015557	1.63	239944.000000	0.954124
Bi (223.061 nm)	0.001731	ppm	0.000851	49.18	4.782490	0.001731
Ca (315.887 nm)	2598.328729 bo	ppm	23.636555	0.91	2324885.592293	2598.328729 bo
Cd (214.439 nm)	0.894415	ppm	0.003408	0.38	46221.900000	0.894415
Co (228.615 nm)	0.929399	ppm	0.001469	0.16	14177.800000	0.929399
Cr (205.560 nm)	0.965181	ppm	0.002687	0.28	11375.600000	0.965181
Cu (324.754 nm)	0.949963 b	ppm	0.005013	0.53	48705.900000	0.949963 b
Fe (238.204 nm)	11.263306 o	ppm	0.115919	1.03	38548.008323	11.263306 o
Fe H (259.940 nm)	11.531900	ppm	0.087235	0.76	21786.600000	11.531900
K (766.491 nm)	60.209200	ppm	0.221350	0.37	39075.200000	60.209200
Li (670.783 nm)	1.174400 o	ppm	0.001517	0.13	20198.000000	1.174400 o
Mg (279.078 nm)	46.652300 o	ppm	0.191166	0.41	223914.000000	46.652300 o
Mn (257.610 nm)	0.967013	ppm	0.000852	0.09	185941.000000	0.967013
Mo (202.032 nm)	0.981168	ppm	0.001376	0.14	6680.100000	0.981168
Na (589.592 nm)	56.139000	ppm	0.238174	0.42	243525.000000	56.139000
Na H (589.593 nm)	51.384077	ppm	0.257063	0.50	162225.179487	51.384077
Ni (231.604 nm)	0.933440	ppm	0.004261	0.46	5495.120000	0.933440
P (213.618 nm)	19.761900 o	ppm	0.013341	0.07	41830.000000	19.761900 o
Pb (220.353 nm)	0.907130	ppm	0.002616	0.29	2126.360000	0.907130
S (181.972 nm)	1816.664898 bo	ppm	5.246491	0.29	750555.758105	1816.664898 bo
Sb (206.834 nm)	1.021210	ppm	0.003353	0.33	2229.060000	1.021210
Se (196.026 nm)	0.998811	ppm	0.004406	0.44	875.349000	0.998811
Si (288.158 nm)	10.158900	ppm	0.025943	0.26	70014.400000	10.158900
Sn (189.925 nm)	0.982714	ppm	0.008529	0.87	1594.870000	0.982714
Sr (421.552 nm)	12.025818 bo	ppm	0.051266	0.43	2202167.521215	12.025818 bo
Th (288.505 nm)	0.009722	ppm	0.003242	33.35	136.349000	0.009722
Ti (336.122 nm)	1.033720 b	ppm	0.000721	0.07	117188.000000	1.033720 b
Tl (190.794 nm)	0.902097	ppm	0.004703	0.52	1475.500000	0.902097
U (409.013 nm)	0.016955 b	ppm	0.006239	36.80	-266.784000	0.016955 b
V (292.401 nm)	0.954339	ppm	0.000242	0.03	27705.700000	0.954339
Zn (206.200 nm)	0.864420	ppm	0.005518	0.64	4089.430000	0.864420
Zr (343.823 nm)	0.977267	ppm	0.000237	0.02	91383.000000	0.977267

Solution Name: 280-191000-C-4-C MSD

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191000-C-4-C MSD	5/14/2024 4:40:48 AM	1:79	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.178615	ppm	0.010528	0.89	1523411.540448	1.178615
Ag (328.068 nm)	0.045660	ppm	0.000412	0.90	1695.380000	0.045660
Al (167.019 nm)	9.977130 o	ppm	0.325995	3.27	4890.720000	9.977130 o
Al H (396.152 nm)	11.537991 b	ppm	0.108190	0.94	25333.438916	11.537991 b
As (188.980 nm)	0.969634	ppm	0.008269	0.85	1036.360000	0.969634
B (249.678 nm)	1.851300 o	ppm	0.015790	0.85	41278.300000	1.851300 o
Ba (493.408 nm)	0.951533	ppm	0.004164	0.44	82626.500000	0.951533
Be (234.861 nm)	0.834961	ppm	0.063548	7.61	209974.000000	0.834961
Bi (223.061 nm)	-0.000876 u	ppm	0.000522	59.52	0.033615	-0.000876 u
Ca (315.887 nm)	2485.254720 bo	ppm	44.373851	1.79	2223709.477548	2485.254720 bo
Cd (214.439 nm)	0.876742	ppm	0.005089	0.58	45307.800000	0.876742
Co (228.615 nm)	0.891121	ppm	0.002566	0.29	13592.700000	0.891121
Cr (205.560 nm)	0.931641	ppm	0.001048	0.11	10981.500000	0.931641
Cu (324.754 nm)	0.901552 b	ppm	0.006584	0.73	46380.300000	0.901552 b
Fe (238.204 nm)	10.418749 o	ppm	0.176664	1.70	35660.014809	10.418749 o
Fe H (259.940 nm)	10.669200	ppm	0.147132	1.38	20148.300000	10.669200
K (766.491 nm)	57.974000	ppm	0.247597	0.43	37572.100000	57.974000
Li (670.783 nm)	1.137110 o	ppm	0.002132	0.19	19532.500000	1.137110 o
Mg (279.078 nm)	45.501300 o	ppm	0.282256	0.62	218391.000000	45.501300 o
Mn (257.610 nm)	0.930261	ppm	0.000626	0.07	178875.000000	0.930261
Mo (202.032 nm)	0.949277	ppm	0.000383	0.04	6463.210000	0.949277
Na (589.592 nm)	53.420400	ppm	0.218835	0.41	231812.000000	53.420400
Na H (589.593 nm)	47.839840	ppm	0.052213	0.11	151685.717666	47.839840
Ni (231.604 nm)	0.908508	ppm	0.004080	0.45	5348.900000	0.908508
P (213.618 nm)	18.877800 o	ppm	0.091683	0.49	39959.300000	18.877800 o
Pb (220.353 nm)	0.875240	ppm	0.002796	0.32	2051.580000	0.875240
S (181.972 nm)	1814.555769 bo	ppm	6.351175	0.35	749684.141672	1814.555769 bo
Sb (206.834 nm)	0.975157	ppm	0.001107	0.11	2129.220000	0.975157
Se (196.026 nm)	0.944074	ppm	0.009761	1.03	827.874000	0.944074
Si (288.158 nm)	9.878220	ppm	0.051620	0.52	68102.600000	9.878220
Sn (189.925 nm)	0.960005	ppm	0.004125	0.43	1558.180000	0.960005
Sr (421.552 nm)	12.410155 bo	ppm	0.021946	0.18	2272546.785935	12.410155 bo
Th (288.505 nm)	0.004035 u	ppm	0.004445	> 100.00	126.261000	0.004035 u
Ti (336.122 nm)	0.977010 b	ppm	0.002494	0.26	110821.000000	0.977010 b
Tl (190.794 nm)	0.888470	ppm	0.002243	0.25	1453.220000	0.888470
U (409.013 nm)	0.017280 b	ppm	0.007898	45.71	-247.753000	0.017280 b
V (292.401 nm)	0.925755	ppm	0.000523	0.06	26879.900000	0.925755
Zn (206.200 nm)	0.855596	ppm	0.007101	0.83	4047.770000	0.855596
Zr (343.823 nm)	0.926364	ppm	0.003766	0.41	86623.900000	0.926364

Solution Name: 280-191000-C-4-A PDS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191000-C-4-A PDS	5/14/2024 4:44:37 AM	1:80	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.131429	ppm	0.001422	1.08	167259.470139	0.131429
Ag (328.068 nm)	0.048026	ppm	0.000376	0.78	1796.600000	0.048026
Al (167.019 nm)	1.958690	ppm	0.024260	1.24	961.402000	1.958690
Al H (396.152 nm)	2.358080 b	ppm	0.014143	0.60	5916.675387	2.358080 b
As (188.980 nm)	0.195053	ppm	0.001516	0.78	208.625000	0.195053
B (249.678 nm)	0.105997	ppm	0.001591	1.50	2445.990000	0.105997
Ba (493.408 nm)	0.114056	ppm	0.000382	0.34	9874.370000	0.114056
Be (234.861 nm)	0.045719	ppm	0.001548	3.39	11489.800000	0.045719
Bi (223.061 nm)	-0.000322 u	ppm	0.001579	> 100.00	1.043990	-0.000322 u
Ca (315.887 nm)	2389.078800 bo	ppm	7.710608	0.32	2137653.398798	2389.078800 bo
Cd (214.439 nm)	0.044935	ppm	0.000738	1.64	2311.140000	0.044935
Co (228.615 nm)	0.046619	ppm	0.000456	0.98	696.711000	0.046619
Cr (205.560 nm)	0.052917	ppm	0.000713	1.35	640.265000	0.052917
Cu (324.754 nm)	0.036571 b	ppm	0.000835	2.28	2628.990000	0.036571 b
Fe (238.204 nm)	2.643245	ppm	0.009291	0.35	9071.412061	2.643245
Fe H (259.940 nm)	2.741430 u	ppm	0.017410	0.64	5093.550000	2.741430 u
K (766.491 nm)	24.287400	ppm	0.059912	0.25	14918.300000	24.287400
Li (670.783 nm)	0.140530	ppm	0.002919	2.08	1746.480000	0.140530
Mg (279.078 nm)	18.700000	ppm	0.316348	1.69	89753.100000	18.700000
Mn (257.610 nm)	0.070173	ppm	0.000837	1.19	13523.200000	0.070173
Mo (202.032 nm)	0.052936	ppm	0.001088	2.05	367.169000	0.052936
Na (589.592 nm)	22.300400	ppm	0.044227	0.20	97569.200000	22.300400
Na H (589.593 nm)	18.964556	ppm	0.033384	0.18	65323.254935	18.964556
Ni (231.604 nm)	0.047795	ppm	0.000623	1.30	300.488000	0.047795
P (213.618 nm)	1.967800	ppm	0.008906	0.45	4177.640000	1.967800
Pb (220.353 nm)	0.088815	ppm	0.002029	2.28	203.449000	0.088815
S (181.972 nm)	1703.914372 bo	ppm	26.854068	1.58	703968.622349	1703.914372 bo
Sb (206.834 nm)	0.096306	ppm	0.003362	3.49	214.236000	0.096306
Se (196.026 nm)	0.200601	ppm	0.006131	3.06	182.414000	0.200601
Si (288.158 nm)	7.244330	ppm	0.070544	0.97	49906.100000	7.244330
Sn (189.925 nm)	0.105495	ppm	0.001296	1.23	178.283000	0.105495
Sr (421.552 nm)	10.766081 o	ppm	0.015969	0.15	1971486.595423	10.766081 o
Th (288.505 nm)	0.194033	ppm	0.004604	2.37	482.687000	0.194033
Ti (336.122 nm)	0.079004 b	ppm	0.001168	1.48	13797.500000	0.079004 b
Tl (190.794 nm)	0.179457	ppm	0.004188	2.33	287.928000	0.179457
U (409.013 nm)	0.511243 b	ppm	0.007745	1.51	1441.510000	0.511243 b
V (292.401 nm)	0.052169	ppm	0.000702	1.35	1540.830000	0.052169
Zn (206.200 nm)	0.192969	ppm	0.004027	2.09	919.251000	0.192969
Zr (343.823 nm)	0.092771	ppm	0.013530	14.58	8709.950000	0.092771

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/14/2024 4:48:24 AM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001312	ppm	0.000012	0.92	-1247.826897	0.001312
Ag (328.068 nm)	0.000019 u	ppm	0.000189	> 100.00	-86.659200	0.000019 u
Al (167.019 nm)	44.544900 o	ppm	0.587303	1.32	21832.400000	44.544900 o
Al H (396.152 nm)	47.798972	ppm	0.294755	0.62	100689.135499	47.798972
As (188.980 nm)	-0.002437 u	ppm	0.003104	> 100.00	-3.486970	-0.002437 u
B (249.678 nm)	0.001822	ppm	0.000052	2.87	62.787800	0.001822
Ba (493.408 nm)	0.001354	ppm	0.000194	14.36	84.245700	0.001354
Be (234.861 nm)	0.000166	ppm	0.000084	50.64	508.972000	0.000166
Bi (223.061 nm)	0.003434	ppm	0.001214	35.36	7.883530	0.003434
Ca (315.887 nm)	0.035851	ppm	0.017445	48.66	-9.223243	0.035851
Cd (214.439 nm)	-0.000031 u	ppm	0.000055	> 100.00	23.138200	-0.000031 u
Co (228.615 nm)	-0.000126 u	ppm	0.000091	71.98	-17.770000	-0.000126 u
Cr (205.560 nm)	0.000231	ppm	0.000116	50.42	10.819000	0.000231
Cu (324.754 nm)	0.000411	ppm	0.000346	84.20	2016.540000	0.000411
Fe (238.204 nm)	47.006136 o	ppm	0.375155	0.80	160771.847546	47.006136 o
Fe H (259.940 nm)	47.086800	ppm	0.376127	0.80	89305.300000	47.086800
K (766.491 nm)	0.748694	ppm	0.045526	6.08	-911.165000	0.748694
Li (670.783 nm)	0.023362	ppm	0.001348	5.77	-344.620000	0.023362
Mg (279.078 nm)	-0.011547 u	ppm	0.000282	2.44	-159.586000	-0.011547 u
Mn (257.610 nm)	-0.000008 u	ppm	0.000014	> 100.00	30.984400	-0.000008 u
Mo (202.032 nm)	0.000010 u	ppm	0.000580	> 100.00	7.217420	0.000010 u
Na (589.592 nm)	245.512000	ppm	0.432696	0.18	1045190.000000	245.512000
Na H (589.593 nm)	229.627203	ppm	3.375900	1.47	684686.530588	229.627203
Ni (231.604 nm)	-0.000791 u	ppm	0.000284	35.95	15.370600	-0.000791 u
P (213.618 nm)	4.601750	ppm	0.012962	0.28	9765.170000	4.601750
Pb (220.353 nm)	-0.004759 u	ppm	0.001550	32.57	-25.935000	-0.004759 u
S (181.972 nm)	5.087441	ppm	0.006114	0.12	2121.727959	5.087441
Sb (206.834 nm)	0.000060 u	ppm	0.002748	> 100.00	-6.084710	0.000060 u
Se (196.026 nm)	0.000206 u	ppm	0.003491	> 100.00	3.110080	0.000206 u
Si (288.158 nm)	-0.005609 u	ppm	0.001393	24.84	783.437000	-0.005609 u
Sn (189.925 nm)	-0.001017 u	ppm	0.000868	85.35	7.072490	-0.001017 u
Sr (421.552 nm)	0.000294	ppm	0.000086	29.16	72.765569	0.000294
Th (288.505 nm)	4.701590	ppm	0.077195	1.64	9219.590000	4.701590
Ti (336.122 nm)	0.001354	ppm	0.000104	7.70	28.745200	0.001354
Tl (190.794 nm)	-0.002057 u	ppm	0.000586	28.49	-11.745800	-0.002057 u
U (409.013 nm)	2.437040	ppm	0.002879	0.12	8177.510000	2.437040
V (292.401 nm)	-0.000620 u	ppm	0.000326	52.66	227.241000	-0.000620 u
Zn (206.200 nm)	0.000877	ppm	0.000341	38.88	12.309800	0.000877
Zr (343.823 nm)	0.000696	ppm	0.000112	16.06	164.958000	0.000696

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/14/2024 4:52:16 AM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.449047 Q	ppm	0.001324	0.29	578588.675534 Q	0.449047 Q
Ag (328.068 nm)	0.472785	ppm	0.000725	0.15	18002.900000	0.472785
Al (167.019 nm)	0.470044	ppm	0.002346	0.50	232.717000	0.470044
Al H (396.152 nm)	0.451264 u	ppm	0.005145	1.14	1064.783970	0.451264 u
As (188.980 nm)	0.463593	ppm	0.004959	1.07	495.663000	0.463593
B (249.678 nm)	0.462730	ppm	0.001500	0.32	10395.700000	0.462730
Ba (493.408 nm)	0.495627	ppm	0.002628	0.53	43022.000000	0.495627
Be (234.861 nm)	0.446099 Q	ppm	0.002435	0.55	112140.000000 Q	0.446099 Q
Bi (223.061 nm)	0.980556	ppm	0.002970	0.30	1787.510000	0.980556
Ca (315.887 nm)	4.628167	ppm	0.029612	0.64	4099.879607	4.628167
Cd (214.439 nm)	0.471293	ppm	0.002350	0.50	24346.300000	0.471293
Co (228.615 nm)	0.470943	ppm	0.001117	0.24	7175.240000	0.470943
Cr (205.560 nm)	0.480374	ppm	0.001621	0.34	5671.470000	0.480374
Cu (324.754 nm)	0.441545 Q	ppm	0.000747	0.17	23596.000000 Q	0.441545 Q
Fe (238.204 nm)	2.308947	ppm	0.014293	0.62	7928.269915	2.308947
Fe H (259.940 nm)	2.393420 u	ppm	0.013187	0.55	4432.670000	2.393420 u
K (766.491 nm)	51.884500	ppm	0.192888	0.37	33476.900000	51.884500
Li (670.783 nm)	0.549604	ppm	0.000831	0.15	9047.230000	0.549604
Mg (279.078 nm)	18.031700	ppm	0.096263	0.53	86558.200000	18.031700
Mn (257.610 nm)	0.472295	ppm	0.001428	0.30	90831.200000	0.472295
Mo (202.032 nm)	0.479002	ppm	0.002488	0.52	3264.850000	0.479002
Na (589.592 nm)	24.964100	ppm	0.068191	0.27	109832.000000	24.964100
Na H (589.593 nm)	21.099500	ppm	0.133119	0.63	72257.896316	21.099500
Ni (231.604 nm)	0.475592	ppm	0.001967	0.41	2809.620000	0.475592
P (213.618 nm)	0.017984	ppm	0.000162	0.90	13.584400	0.017984
Pb (220.353 nm)	0.462397	ppm	0.001933	0.42	1082.920000	0.462397
S (181.972 nm)	0.072098	ppm	0.003932	5.45	52.881433	0.072098
Sb (206.834 nm)	0.486545	ppm	0.001270	0.26	1066.890000	0.486545
Se (196.026 nm)	0.460486	ppm	0.004415	0.96	408.291000	0.460486
Si (288.158 nm)	4.735000	ppm	0.027816	0.59	33079.700000	4.735000
Sn (189.925 nm)	0.478789	ppm	0.002892	0.60	781.031000	0.478789
Sr (421.552 nm)	0.473524	ppm	0.002229	0.47	86729.859956	0.473524
Th (288.505 nm)	0.056621	ppm	0.035534	62.76	217.333000	0.056621
Ti (336.122 nm)	0.476939	ppm	0.001011	0.21	51306.300000	0.476939
Tl (190.794 nm)	0.476230	ppm	0.003320	0.70	775.703000	0.476230
U (409.013 nm)	-0.009915 u	ppm	0.003366	33.95	27.424500	-0.009915 u
V (292.401 nm)	0.468436	ppm	0.001352	0.29	13622.300000	0.468436
Zn (206.200 nm)	0.427740 Q	ppm	0.003058	0.71	2027.700000 Q	0.427740 Q
Zr (343.823 nm)	0.460160	ppm	0.008245	1.79	43025.500000	0.460160

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/14/2024 4:56:03 AM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000955	ppm	0.000022	2.35	-1710.425904	0.000955
Ag (328.068 nm)	-0.000816 u	ppm	0.000089	10.91	-62.702900	-0.000816 u
Al (167.019 nm)	-0.000824 u	ppm	0.003452	> 100.00	0.633101	-0.000824 u
Al H (396.152 nm)	-0.033375 u	ppm	0.003006	9.01	11.345905	-0.033375 u
As (188.980 nm)	-0.002627 u	ppm	0.001632	62.13	-2.606410	-0.002627 u
B (249.678 nm)	0.000615	ppm	0.000198	32.11	104.640000	0.000615
Ba (493.408 nm)	0.000208	ppm	0.000218	> 100.00	-15.305000	0.000208
Be (234.861 nm)	0.000033	ppm	0.000003	8.49	-22.884500	0.000033
Bi (223.061 nm)	0.000016 u	ppm	0.001438	> 100.00	1.659280	0.000016 u
Ca (315.887 nm)	0.016879	ppm	0.002003	11.87	-26.199098	0.016879
Cd (214.439 nm)	0.000188	ppm	0.000076	40.34	-3.681870	0.000188
Co (228.615 nm)	0.000460	ppm	0.000175	38.12	-8.836620	0.000460
Cr (205.560 nm)	-0.000180 u	ppm	0.000114	63.15	15.735000	-0.000180 u
Cu (324.754 nm)	-0.001801 u	ppm	0.000103	5.74	1166.960000	-0.001801 u
Fe (238.204 nm)	-0.001131 u	ppm	0.000324	28.67	28.878759	-0.001131 u
Fe H (259.940 nm)	0.071016 u	ppm	0.000707	1.00	22.432400	0.071016 u
K (766.491 nm)	0.584058	ppm	0.057857	9.91	-1021.880000	0.584058
Li (670.783 nm)	0.022574 S	ppm	0.002306	10.22	-358.681000 S	0.022574 S
Mg (279.078 nm)	0.000162 u	ppm	0.002216	> 100.00	15.692800	0.000162 u
Mn (257.610 nm)	-0.000002 u	ppm	0.000022	> 100.00	32.095100	-0.000002 u
Mo (202.032 nm)	0.000941	ppm	0.000189	20.08	13.547900	0.000941
Na (589.592 nm)	-0.302962 u	ppm	0.011715	3.87	1296.540000	-0.302962 u
Na H (589.593 nm)	-2.676769 u	ppm	0.021386	0.80	1479.885262	-2.676769 u
Ni (231.604 nm)	-0.001804 u	ppm	0.000378	20.97	9.428620	-0.001804 u
P (213.618 nm)	-0.002377 u	ppm	0.001764	74.22	5.420670	-0.002377 u
Pb (220.353 nm)	0.000302 u	ppm	0.001401	> 100.00	-5.522170	0.000302 u
S (181.972 nm)	0.070930 Z	ppm	0.003582	5.05	49.216075 Z	0.070930 Z
Sb (206.834 nm)	-0.001403 u	ppm	0.000479	34.16	4.188210	-0.001403 u
Se (196.026 nm)	-0.001865 u	ppm	0.001147	61.51	6.513730	-0.001865 u
Si (288.158 nm)	-0.017764 u	ppm	0.001439	8.10	700.715000	-0.017764 u
Sn (189.925 nm)	-0.001792 u	ppm	0.001394	77.80	5.002540	-0.001792 u
Sr (421.552 nm)	0.000082	ppm	0.000063	76.91	33.898766	0.000082
Th (288.505 nm)	-0.005911 u	ppm	0.002439	41.26	86.939100	-0.005911 u
Ti (336.122 nm)	0.000732	ppm	0.000059	8.07	-38.398800	0.000732
Tl (190.794 nm)	0.000750	ppm	0.000527	70.27	-6.212050	0.000750
U (409.013 nm)	-0.016069 u	ppm	0.002835	17.64	32.049700	-0.016069 u
V (292.401 nm)	-0.000625 u	ppm	0.000177	28.27	19.561300	-0.000625 u
Zn (206.200 nm)	-0.000754 u	ppm	0.000443	58.85	4.610250	-0.000754 u
Zr (343.823 nm)	0.000125 u	ppm	0.000210	> 100.00	16.890300	0.000125 u

Solution Name: MB 280-652294/1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
MB 280-652294/1-A	5/14/2024 4:59:33 AM	2:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000958	ppm	0.000016	1.69	-1706.418967	0.000958
Ag (328.068 nm)	-0.000886 u	ppm	0.000149	16.85	-65.398500	-0.000886 u
Al (167.019 nm)	-0.000323 u	ppm	0.001498	> 100.00	0.881425	-0.000323 u
Al H (396.152 nm)	-0.031013 u	ppm	0.002970	9.58	16.248895	-0.031013 u
As (188.980 nm)	-0.002300 u	ppm	0.000663	28.84	-2.256480	-0.002300 u
B (249.678 nm)	-0.000003 u	ppm	0.000189	> 100.00	90.877600	-0.000003 u
Ba (493.408 nm)	0.000669	ppm	0.000205	30.67	24.696400	0.000669
Be (234.861 nm)	0.000022 u	ppm	0.000019	87.33	-25.360300	0.000022 u
Bi (223.061 nm)	-0.001229 u	ppm	0.000666	54.15	-0.609150	-0.001229 u
Ca (315.887 nm)	0.026514	ppm	0.002097	7.91	-17.577064	0.026514
Cd (214.439 nm)	0.000158	ppm	0.000079	50.01	-5.251970	0.000158
Co (228.615 nm)	0.000353	ppm	0.000071	20.17	-10.468600	0.000353
Cr (205.560 nm)	-0.000277 u	ppm	0.000098	35.40	14.602100	-0.000277 u
Cu (324.754 nm)	-0.002047 u	ppm	0.000393	19.17	1155.280000	-0.002047 u
Fe (238.204 nm)	0.003464	ppm	0.000565	16.31	44.591414	0.003464
Fe H (259.940 nm)	0.075455 u	ppm	0.000623	0.83	30.861800	0.075455 u
K (766.491 nm)	0.625814	ppm	0.012744	2.04	-993.800000	0.625814
Li (670.783 nm)	0.022902	ppm	0.001978	8.64	-352.815000	0.022902
Mg (279.078 nm)	0.000900 u	ppm	0.001554	> 100.00	19.260200	0.000900 u
Mn (257.610 nm)	0.000024	ppm	0.000036	> 100.00	37.096900	0.000024
Mo (202.032 nm)	-0.000180 u	ppm	0.000134	74.35	5.921140	-0.000180 u
Na (589.592 nm)	-0.311606 u	ppm	0.003386	1.09	1260.720000	-0.311606 u
Na H (589.593 nm)	-2.769057 u	ppm	0.015357	0.55	1209.084053	-2.769057 u
Ni (231.604 nm)	-0.001862 u	ppm	0.000359	19.30	9.093420	-0.001862 u
P (213.618 nm)	-0.002561 u	ppm	0.001652	64.49	5.045390	-0.002561 u
Pb (220.353 nm)	0.000039 u	ppm	0.000085	> 100.00	-6.142200	0.000039 u
S (181.972 nm)	0.051261	ppm	0.009004	17.57	41.086644	0.051261
Sb (206.834 nm)	-0.001822 u	ppm	0.002449	> 100.00	3.290750	-0.001822 u
Se (196.026 nm)	-0.003268 u	ppm	0.002126	65.06	5.295260	-0.003268 u
Si (288.158 nm)	-0.016239 u	ppm	0.000490	3.02	710.753000	-0.016239 u
Sn (189.925 nm)	-0.002397 u	ppm	0.000623	25.98	4.025840	-0.002397 u
Sr (421.552 nm)	0.000011 u	ppm	0.000041	> 100.00	20.832356	0.000011 u
Th (288.505 nm)	-0.004504 u	ppm	0.001032	22.90	89.637800	-0.004504 u
Ti (336.122 nm)	0.000659	ppm	0.000034	5.09	-46.276200	0.000659
Tl (190.794 nm)	0.001148	ppm	0.000532	46.35	-5.553860	0.001148
U (409.013 nm)	-0.015548 u	ppm	0.004291	27.60	33.778100	-0.015548 u
V (292.401 nm)	-0.000970 u	ppm	0.000113	11.64	9.837090	-0.000970 u
Zn (206.200 nm)	-0.000601 u	ppm	0.000373	61.96	5.329160	-0.000601 u
Zr (343.823 nm)	0.000005 u	ppm	0.000061	> 100.00	5.693490	0.000005 u

Solution Name: LCS 280-652294/28-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LCS 280-652294/28-A	5/14/2024 5:03:03 AM	2:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.029582	ppm	0.000084	0.28	35362.590293	0.029582
Ag (328.068 nm)	0.038000	ppm	0.000147	0.39	1410.440000	0.038000
Al (167.019 nm)	0.799756	ppm	0.009824	1.23	392.948000	0.799756
Al H (396.152 nm)	0.773476 u	ppm	0.006088	0.79	1712.539096	0.773476 u
As (188.980 nm)	0.037349	ppm	0.001445	3.87	40.104200	0.037349
B (249.678 nm)	-0.000093 u	ppm	0.000266	> 100.00	89.301200	-0.000093 u
Ba (493.408 nm)	0.043596	ppm	0.000292	0.67	3753.840000	0.043596
Be (234.861 nm)	0.037418	ppm	0.000331	0.89	9383.650000	0.037418
Bi (223.061 nm)	-0.001523 u	ppm	0.000829	54.43	-1.143910	-0.001523 u
Ca (315.887 nm)	1.014072	ppm	0.010524	1.04	866.067210	1.014072
Cd (214.439 nm)	0.039393	ppm	0.000040	0.10	2023.200000	0.039393
Co (228.615 nm)	0.040872	ppm	0.000193	0.47	608.161000	0.040872
Cr (205.560 nm)	0.040646	ppm	0.000194	0.48	496.041000	0.040646
Cu (324.754 nm)	0.034976	ppm	0.000251	0.72	3033.790000	0.034976
Fe (238.204 nm)	0.779427	ppm	0.005438	0.70	2698.024242	0.779427
Fe H (259.940 nm)	0.860739 u	ppm	0.002266	0.26	1522.110000	0.860739 u
K (766.491 nm)	1.722710	ppm	0.090490	5.25	-256.150000	1.722710
Li (670.783 nm)	0.065867	ppm	0.002501	3.80	413.972000	0.065867
Mg (279.078 nm)	0.947630	ppm	0.001219	0.13	4561.190000	0.947630
Mn (257.610 nm)	0.040291	ppm	0.000033	0.08	7778.360000	0.040291
Mo (202.032 nm)	0.039649	ppm	0.000073	0.18	276.799000	0.039649
Na (589.592 nm)	0.738262	ppm	0.017555	2.38	5826.100000	0.738262
Na H (589.593 nm)	-1.784325 u	ppm	0.021105	1.18	4179.012118	-1.784325 u
Ni (231.604 nm)	0.038565	ppm	0.000826	2.14	246.215000	0.038565
P (213.618 nm)	-0.000886 u	ppm	0.001281	> 100.00	5.676420	-0.000886 u
Pb (220.353 nm)	0.039067	ppm	0.000929	2.38	85.657200	0.039067
S (181.972 nm)	0.038516	ppm	0.005785	15.02	36.087861	0.038516
Sb (206.834 nm)	0.039460	ppm	0.000933	2.37	93.115000	0.039460
Se (196.026 nm)	0.035941	ppm	0.001206	3.36	39.302400	0.035941
Si (288.158 nm)	0.365495	ppm	0.001285	0.35	3312.100000	0.365495
Sn (189.925 nm)	0.038174	ppm	0.000794	2.08	69.548900	0.038174
Sr (421.552 nm)	0.080076	ppm	0.000819	1.02	14682.240090	0.080076
Th (288.505 nm)	0.027123	ppm	0.002119	7.81	152.202000	0.027123
Ti (336.122 nm)	0.040186	ppm	0.000042	0.11	4216.890000	0.040186
Tl (190.794 nm)	0.042903	ppm	0.001536	3.58	63.112300	0.042903
U (409.013 nm)	0.024953	ppm	0.005397	21.63	168.062000	0.024953
V (292.401 nm)	0.038468	ppm	0.000188	0.49	1152.930000	0.038468
Zn (206.200 nm)	0.035306	ppm	0.000277	0.79	174.862000	0.035306
Zr (343.823 nm)	0.001063	ppm	0.000064	6.04	107.763000	0.001063

Solution Name: LCSD 280-652294/29-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LCSD 280-652294/29-A	5/14/2024 5:06:32 AM	2:3	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.029511	ppm	0.000038	0.13	35270.424892	0.029511
Ag (328.068 nm)	0.038023	ppm	0.000203	0.53	1411.260000	0.038023
Al (167.019 nm)	0.796608	ppm	0.004244	0.53	391.403000	0.796608
Al H (396.152 nm)	0.776085 u	ppm	0.006615	0.85	1718.024099	0.776085 u
As (188.980 nm)	0.038093	ppm	0.002131	5.59	40.900100	0.038093
B (249.678 nm)	-0.000541 u	ppm	0.000359	66.31	79.337000	-0.000541 u
Ba (493.408 nm)	0.042786	ppm	0.000369	0.86	3683.450000	0.042786
Be (234.861 nm)	0.037574	ppm	0.000119	0.32	9422.700000	0.037574
Bi (223.061 nm)	-0.000948 u	ppm	0.001706	> 100.00	-0.096885	-0.000948 u
Ca (315.887 nm)	1.011755	ppm	0.003324	0.33	863.993918	1.011755
Cd (214.439 nm)	0.039057	ppm	0.000083	0.21	2005.830000	0.039057
Co (228.615 nm)	0.040480	ppm	0.000414	1.02	602.176000	0.040480
Cr (205.560 nm)	0.040297	ppm	0.000077	0.19	491.937000	0.040297
Cu (324.754 nm)	0.034973	ppm	0.000188	0.54	3034.160000	0.034973
Fe (238.204 nm)	0.773436	ppm	0.003573	0.46	2677.534911	0.773436
Fe H (259.940 nm)	0.853612 u	ppm	0.008704	1.02	1508.580000	0.853612 u
K (766.491 nm)	1.743270	ppm	0.139191	7.98	-242.327000	1.743270
Li (670.783 nm)	0.066466	ppm	0.002903	4.37	424.670000	0.066466
Mg (279.078 nm)	0.941581	ppm	0.002332	0.25	4532.110000	0.941581
Mn (257.610 nm)	0.040022	ppm	0.000027	0.07	7726.770000	0.040022
Mo (202.032 nm)	0.039599	ppm	0.000265	0.67	276.460000	0.039599
Na (589.592 nm)	0.748962	ppm	0.012780	1.71	5869.420000	0.748962
Na H (589.593 nm)	-1.784044 u	ppm	0.006095	0.34	4178.373937	-1.784044 u
Ni (231.604 nm)	0.038455	ppm	0.000474	1.23	245.571000	0.038455
P (213.618 nm)	-0.001030 u	ppm	0.001415	> 100.00	5.362420	-0.001030 u
Pb (220.353 nm)	0.039820	ppm	0.000386	0.97	87.437900	0.039820
S (181.972 nm)	0.036852	ppm	0.000921	2.50	35.401495	0.036852
Sb (206.834 nm)	0.037709	ppm	0.001067	2.83	89.324200	0.037709
Se (196.026 nm)	0.036899	ppm	0.001611	4.36	40.133700	0.036899
Si (288.158 nm)	0.358519	ppm	0.000292	0.08	3264.570000	0.358519
Sn (189.925 nm)	0.037365	ppm	0.001321	3.54	68.242500	0.037365
Sr (421.552 nm)	0.079537	ppm	0.000577	0.72	14583.542818	0.079537
Th (288.505 nm)	0.031731	ppm	0.002206	6.95	161.132000	0.031731
Ti (336.122 nm)	0.040017	ppm	0.000058	0.15	4198.640000	0.040017
Tl (190.794 nm)	0.043139	ppm	0.001080	2.50	63.500300	0.043139
U (409.013 nm)	0.031625	ppm	0.004167	13.18	190.155000	0.031625
V (292.401 nm)	0.037953	ppm	0.000229	0.60	1138.110000	0.037953
Zn (206.200 nm)	0.035157	ppm	0.000187	0.53	174.157000	0.035157
Zr (343.823 nm)	0.000749	ppm	0.000077	10.35	78.333900	0.000749

Solution Name: 280-190570-A-6-C

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190570-A-6-C	5/14/2024 5:10:02 AM	2:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.007409	ppm	0.000004	0.05	6647.652651	0.007409
Ag (328.068 nm)	-0.000806 u	ppm	0.000122	15.11	-63.441300	-0.000806 u
Al (167.019 nm)	-0.000080 u	ppm	0.002448	> 100.00	1.032090	-0.000080 u
Al H (396.152 nm)	-0.012850 u	ppm	0.007637	59.43	71.656579	-0.012850 u
As (188.980 nm)	0.001947 u	ppm	0.002430	> 100.00	2.281420	0.001947 u
B (249.678 nm)	0.035652	ppm	0.000351	0.98	883.675000	0.035652
Ba (493.408 nm)	0.044409	ppm	0.000133	0.30	3824.560000	0.044409
Be (234.861 nm)	0.000019	ppm	0.000013	71.72	-25.992900	0.000019
Bi (223.061 nm)	-0.001709 u	ppm	0.001327	77.69	-1.482550	-0.001709 u
Ca (315.887 nm)	46.777629 o	ppm	0.293554	0.63	41814.282805	46.777629 o
Cd (214.439 nm)	0.000122	ppm	0.000048	39.56	-7.039650	0.000122
Co (228.615 nm)	0.000203	ppm	0.000089	43.64	-12.633600	0.000203
Cr (205.560 nm)	0.000698	ppm	0.000111	15.90	26.063000	0.000698
Cu (324.754 nm)	-0.002797 u	ppm	0.000432	15.44	1114.790000	-0.002797 u
Fe (238.204 nm)	0.047506	ppm	0.000559	1.18	195.193731	0.047506
Fe H (259.940 nm)	0.116604 u	ppm	0.001566	1.34	109.003000	0.116604 u
K (766.491 nm)	7.027000	ppm	0.015430	0.22	3310.910000	7.027000
Li (670.783 nm)	0.030800	ppm	0.001746	5.67	-211.870000	0.030800
Mg (279.078 nm)	12.450700	ppm	0.028628	0.23	59773.900000	12.450700
Mn (257.610 nm)	0.000423	ppm	0.000023	5.51	113.769000	0.000423
Mo (202.032 nm)	0.002630	ppm	0.000422	16.06	25.031300	0.002630
Na (589.592 nm)	22.671700	ppm	0.040735	0.18	98971.300000	22.671700
Na H (589.593 nm)	18.584582	ppm	0.100599	0.54	64085.118793	18.584582
Ni (231.604 nm)	-0.002557 u	ppm	0.000614	24.00	5.016620	-0.002557 u
P (213.618 nm)	0.025583	ppm	0.000932	3.64	64.713900	0.025583
Pb (220.353 nm)	0.000055 u	ppm	0.001049	> 100.00	-6.113950	0.000055 u
S (181.972 nm)	26.977896 o	ppm	0.006177	0.02	11165.464384	26.977896 o
Sb (206.834 nm)	-0.000981 u	ppm	0.001384	> 100.00	5.100480	-0.000981 u
Se (196.026 nm)	-0.002394 u	ppm	0.000894	37.34	6.781230	-0.002394 u
Si (288.158 nm)	15.641800 o	ppm	0.031423	0.20	106711.000000	15.641800 o
Sn (189.925 nm)	-0.001903 u	ppm	0.000202	10.63	4.824020	-0.001903 u
Sr (421.552 nm)	0.245704	ppm	0.001046	0.43	45011.757237	0.245704
Th (288.505 nm)	0.004172 u	ppm	0.004347	> 100.00	106.539000	0.004172 u
Ti (336.122 nm)	0.000690	ppm	0.000051	7.33	62.753700	0.000690
Tl (190.794 nm)	0.001983	ppm	0.000479	24.14	-4.185650	0.001983
U (409.013 nm)	-0.011224 u	ppm	0.000994	8.86	41.630100	-0.011224 u
V (292.401 nm)	0.004636	ppm	0.000118	2.54	174.505000	0.004636
Zn (206.200 nm)	-0.000277 u	ppm	0.000188	67.85	6.859410	-0.000277 u
Zr (343.823 nm)	-0.000640 u	ppm	0.000037	5.79	13.193300	-0.000640 u

Solution Name: 280-190571-A-1-C

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190571-A-1-C	5/14/2024 5:13:48 AM	2:5	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.007619	ppm	0.000007	0.09	6920.408687	0.007619
Ag (328.068 nm)	-0.000485 u	ppm	0.000177	36.46	-53.628000	-0.000485 u
Al (167.019 nm)	0.035433	ppm	0.001135	3.20	18.459100	0.035433
Al H (396.152 nm)	0.019088 u	ppm	0.003385	17.73	142.445785	0.019088 u
As (188.980 nm)	0.004137	ppm	0.000964	23.31	4.620610	0.004137
B (249.678 nm)	0.022323	ppm	0.000156	0.70	587.178000	0.022323
Ba (493.408 nm)	0.034515	ppm	0.000306	0.89	2965.000000	0.034515
Be (234.861 nm)	0.000027	ppm	0.000011	39.17	-23.620700	0.000027
Bi (223.061 nm)	-0.000960 u	ppm	0.000952	99.14	-0.118655	-0.000960 u
Ca (315.887 nm)	54.770605 o	ppm	0.301474	0.55	48966.220290	54.770605 o
Cd (214.439 nm)	0.000159	ppm	0.000043	27.29	-5.076100	0.000159
Co (228.615 nm)	0.000400	ppm	0.000190	47.66	-9.550870	0.000400
Cr (205.560 nm)	0.011618	ppm	0.000199	1.71	154.635000	0.011618
Cu (324.754 nm)	-0.002070 u	ppm	0.000166	8.00	1152.310000	-0.002070 u
Fe (238.204 nm)	0.115539	ppm	0.002245	1.94	427.833338	0.115539
Fe H (259.940 nm)	0.184912 u	ppm	0.001176	0.64	238.721000	0.184912 u
K (766.491 nm)	10.045300	ppm	0.047896	0.48	5340.670000	10.045300
Li (670.783 nm)	0.032259	ppm	0.000613	1.90	-185.837000	0.032259
Mg (279.078 nm)	16.938100	ppm	0.057177	0.34	81312.100000	16.938100
Mn (257.610 nm)	0.001960	ppm	0.000023	1.17	409.248000	0.001960
Mo (202.032 nm)	0.012602	ppm	0.000470	3.73	92.856500	0.012602
Na (589.592 nm)	46.397200	ppm	0.147550	0.32	199701.000000	46.397200
Na H (589.593 nm)	40.448476	ppm	0.354556	0.88	128369.778100	40.448476
Ni (231.604 nm)	0.004227	ppm	0.000662	15.67	44.801400	0.004227
P (213.618 nm)	0.026683	ppm	0.001691	6.34	66.983000	0.026683
Pb (220.353 nm)	-0.000384 u	ppm	0.000276	71.80	-7.192330	-0.000384 u
S (181.972 nm)	43.851864 o	ppm	0.032655	0.07	18136.739005	43.851864 o
Sb (206.834 nm)	-0.002663 u	ppm	0.001534	57.60	1.765810	-0.002663 u
Se (196.026 nm)	0.000104 u	ppm	0.000663	> 100.00	9.024820	0.000104 u
Si (288.158 nm)	17.378600 o	ppm	0.024970	0.14	118469.000000	17.378600 o
Sn (189.925 nm)	-0.001372 u	ppm	0.001051	76.59	5.682730	-0.001372 u
Sr (421.552 nm)	0.295325	ppm	0.002793	0.95	54098.336109	0.295325
Th (288.505 nm)	0.003653	ppm	0.000804	22.00	105.826000	0.003653
Ti (336.122 nm)	0.005227	ppm	0.000109	2.09	569.902000	0.005227
Tl (190.794 nm)	0.003034	ppm	0.002442	80.49	-2.485420	0.003034
U (409.013 nm)	-0.007944 u	ppm	0.008375	> 100.00	51.406900	-0.007944 u
V (292.401 nm)	0.017372	ppm	0.000417	2.40	544.336000	0.017372
Zn (206.200 nm)	0.002648	ppm	0.000489	18.46	20.671800	0.002648
Zr (343.823 nm)	-0.000662 u	ppm	0.000118	17.77	18.763400	-0.000662 u

Solution Name: 280-190725-E-4-P

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190725-E-4-P	5/14/2024 5:17:35 AM	2:6	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.217228	ppm	0.000419	0.19	278372.376266	0.217228
Ag (328.068 nm)	-0.000046 u	ppm	0.000176	> 100.00	-33.399800	-0.000046 u
Al (167.019 nm)	0.148431	ppm	0.002296	1.55	74.264400	0.148431
Al H (396.152 nm)	0.143182 u	ppm	0.001698	1.19	402.286816	0.143182 u
As (188.980 nm)	0.011695	ppm	0.001216	10.40	12.683200	0.011695
B (249.678 nm)	0.299637	ppm	0.000266	0.09	6752.900000	0.299637
Ba (493.408 nm)	1.849950 o	ppm	0.014424	0.78	160680.000000	1.849950 o
Be (234.861 nm)	0.000041	ppm	0.000008	20.65	-13.220100	0.000041
Bi (223.061 nm)	-0.002443 u	ppm	0.001227	50.21	-2.820460	-0.002443 u
Ca (315.887 nm)	49.294323 o	ppm	0.325170	0.66	44066.164774	49.294323 o
Cd (214.439 nm)	0.000129	ppm	0.000027	20.67	-6.068680	0.000129
Co (228.615 nm)	0.000250	ppm	0.000211	84.44	-6.989110	0.000250
Cr (205.560 nm)	0.014890	ppm	0.000208	1.40	193.001000	0.014890
Cu (324.754 nm)	-0.007295 u	ppm	0.000055	0.75	1187.010000	-0.007295 u
Fe (238.204 nm)	0.821420	ppm	0.003356	0.41	2841.617579	0.821420
Fe H (259.940 nm)	0.905291 u	ppm	0.009583	1.06	1606.720000	0.905291 u
K (766.491 nm)	13.890500	ppm	0.091765	0.66	7926.540000	13.890500
Li (670.783 nm)	0.254658	ppm	0.001228	0.48	3783.320000	0.254658
Mg (279.078 nm)	128.040000 o	ppm	0.296035	0.23	614565.000000	128.040000 o
Mn (257.610 nm)	0.198669	ppm	0.000359	0.18	38226.700000	0.198669
Mo (202.032 nm)	0.022387	ppm	0.000254	1.14	159.402000	0.022387
Na (589.592 nm)	106.039000	ppm	0.244271	0.23	457487.000000	106.039000
Na H (589.593 nm)	98.327631	ppm	0.614031	0.62	301712.916043	98.327631
Ni (231.604 nm)	0.009950	ppm	0.000443	4.46	78.362000	0.009950
P (213.618 nm)	0.012472	ppm	0.001034	8.29	36.821300	0.012472
Pb (220.353 nm)	-0.000021 u	ppm	0.001527	> 100.00	-6.375780	-0.000021 u
S (181.972 nm)	2.593727	ppm	0.002930	0.11	1091.859201	2.593727
Sb (206.834 nm)	-0.002162 u	ppm	0.000686	31.72	2.799250	-0.002162 u
Se (196.026 nm)	-0.004452 u	ppm	0.002174	48.85	5.760940	-0.004452 u
Si (288.158 nm)	30.730800 o	ppm	0.328556	1.07	208860.000000	30.730800 o
Sn (189.925 nm)	-0.001475 u	ppm	0.001117	75.76	5.529290	-0.001475 u
Sr (421.552 nm)	3.174320 o	ppm	0.025159	0.79	581295.246941	3.174320 o
Th (288.505 nm)	0.018585	ppm	0.003186	17.14	137.303000	0.018585
Ti (336.122 nm)	0.003447	ppm	0.000298	8.66	365.518000	0.003447
Tl (190.794 nm)	0.001914	ppm	0.001337	69.88	-4.358620	0.001914
U (409.013 nm)	-0.015617 u	ppm	0.001743	11.16	27.242100	-0.015617 u
V (292.401 nm)	-0.000252 u	ppm	0.000230	91.39	29.949400	-0.000252 u
Zn (206.200 nm)	0.003182	ppm	0.000264	8.28	23.193700	0.003182
Zr (343.823 nm)	-0.001205 u	ppm	0.000029	2.40	27.095700	-0.001205 u

Solution Name: 280-190730-A-4-C

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190730-A-4-C	5/14/2024 5:21:25 AM	2:7	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.006034	ppm	0.000021	0.35	4867.253666	0.006034
Ag (328.068 nm)	-0.000688 u	ppm	0.000193	28.06	-60.971400	-0.000688 u
Al (167.019 nm)	0.006182	ppm	0.002774	44.86	4.297870	0.006182
Al H (396.152 nm)	-0.014492 u	ppm	0.004309	29.73	64.150379	-0.014492 u
As (188.980 nm)	0.004688	ppm	0.000295	6.29	5.205070	0.004688
B (249.678 nm)	0.026416	ppm	0.000211	0.80	677.896000	0.026416
Ba (493.408 nm)	0.030312	ppm	0.000185	0.61	2599.910000	0.030312
Be (234.861 nm)	0.000027	ppm	0.000018	65.65	-21.022100	0.000027
Bi (223.061 nm)	-0.001089 u	ppm	0.000940	86.31	-0.354252	-0.001089 u
Ca (315.887 nm)	35.027174 o	ppm	0.192234	0.55	31300.236369	35.027174 o
Cd (214.439 nm)	0.000118	ppm	0.000010	8.89	-7.045780	0.000118
Co (228.615 nm)	0.000013 u	ppm	0.000119	> 100.00	-15.551000	0.000013 u
Cr (205.560 nm)	0.003088	ppm	0.000057	1.83	54.153300	0.003088
Cu (324.754 nm)	-0.002597 u	ppm	0.000234	9.01	1125.990000	-0.002597 u
Fe (238.204 nm)	0.325521	ppm	0.002465	0.76	1145.875121	0.325521
Fe H (259.940 nm)	0.395897 u	ppm	0.002901	0.73	639.381000	0.395897 u
K (766.491 nm)	8.332170	ppm	0.055783	0.67	4188.620000	8.332170
Li (670.783 nm)	0.031018	ppm	0.001773	5.72	-207.971000	0.031018
Mg (279.078 nm)	10.389400	ppm	0.011408	0.11	49880.200000	10.389400
Mn (257.610 nm)	0.005582	ppm	0.000036	0.64	1105.560000	0.005582
Mo (202.032 nm)	0.006073	ppm	0.000230	3.79	48.450300	0.006073
Na (589.592 nm)	29.054000	ppm	0.073939	0.25	126040.000000	29.054000
Na H (589.593 nm)	24.851174	ppm	0.222983	0.90	82491.191688	24.851174
Ni (231.604 nm)	-0.002411 u	ppm	0.000642	26.63	5.873470	-0.002411 u
P (213.618 nm)	0.029532	ppm	0.001795	6.08	73.084200	0.029532
Pb (220.353 nm)	0.009241	ppm	0.000423	4.57	15.557000	0.009241
S (181.972 nm)	15.681560 o	ppm	0.011287	0.07	6498.581386	15.681560 o
Sb (206.834 nm)	-0.003158 u	ppm	0.001776	56.25	0.433741	-0.003158 u
Se (196.026 nm)	-0.000724 u	ppm	0.002660	> 100.00	8.299490	-0.000724 u
Si (288.158 nm)	17.675000 o	ppm	0.031591	0.18	120476.000000	17.675000 o
Sn (189.925 nm)	-0.000650 u	ppm	0.000537	82.54	6.851440	-0.000650 u
Sr (421.552 nm)	0.189129	ppm	0.001668	0.88	34651.800715	0.189129
Th (288.505 nm)	-0.000701 u	ppm	0.002164	> 100.00	97.333100	-0.000701 u
Ti (336.122 nm)	0.001418	ppm	0.000123	8.67	114.567000	0.001418
Tl (190.794 nm)	0.002520	ppm	0.000604	23.98	-3.314030	0.002520
U (409.013 nm)	-0.011577 u	ppm	0.000930	8.04	42.253800	-0.011577 u
V (292.401 nm)	0.015945	ppm	0.000113	0.71	504.012000	0.015945
Zn (206.200 nm)	0.002532	ppm	0.000700	27.66	20.121000	0.002532
Zr (343.823 nm)	-0.000653 u	ppm	0.000075	11.47	21.304800	-0.000653 u

Solution Name: 280-190730-A-6-C

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190730-A-6-C	5/14/2024 5:25:11 AM	2:8	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.005122	ppm	0.000014	0.27	3685.550613	0.005122
Ag (328.068 nm)	-0.000550 u	ppm	0.000253	46.09	-56.603900	-0.000550 u
Al (167.019 nm)	0.001706 u	ppm	0.002765	> 100.00	1.881770	0.001706 u
Al H (396.152 nm)	-0.017439 u	ppm	0.003682	21.12	55.276426	-0.017439 u
As (188.980 nm)	0.004998	ppm	0.002289	45.79	5.543910	0.004998
B (249.678 nm)	0.019898	ppm	0.000197	0.99	533.413000	0.019898
Ba (493.408 nm)	0.018054	ppm	0.000731	4.05	1534.970000	0.018054
Be (234.861 nm)	0.000031	ppm	0.000007	21.43	-23.221500	0.000031
Bi (223.061 nm)	-0.000882 u	ppm	0.001240	> 100.00	0.023284	-0.000882 u
Ca (315.887 nm)	27.958556 o	ppm	0.158921	0.57	24975.393838	27.958556 o
Cd (214.439 nm)	0.000137	ppm	0.000046	33.42	-6.290220	0.000137
Co (228.615 nm)	0.000168	ppm	0.000163	97.21	-13.248100	0.000168
Cr (205.560 nm)	0.001702	ppm	0.000064	3.74	37.897900	0.001702
Cu (324.754 nm)	-0.002282 u	ppm	0.000264	11.58	1142.560000	-0.002282 u
Fe (238.204 nm)	0.013527	ppm	0.000118	0.87	78.999452	0.013527
Fe H (259.940 nm)	0.082946 u	ppm	0.001034	1.25	45.087300	0.082946 u
K (766.491 nm)	7.007240	ppm	0.075122	1.07	3297.620000	7.007240
Li (670.783 nm)	0.029840	ppm	0.000737	2.47	-229.004000	0.029840
Mg (279.078 nm)	8.747900	ppm	0.015680	0.18	42001.900000	8.747900
Mn (257.610 nm)	0.000231	ppm	0.000029	12.70	76.930800	0.000231
Mo (202.032 nm)	0.004458	ppm	0.000479	10.74	37.465300	0.004458
Na (589.592 nm)	29.048900	ppm	0.066937	0.23	125989.000000	29.048900
Na H (589.593 nm)	24.809843	ppm	0.507160	2.04	82348.630773	24.809843
Ni (231.604 nm)	-0.002447 u	ppm	0.000729	29.78	5.660780	-0.002447 u
P (213.618 nm)	0.028571	ppm	0.000986	3.45	71.037200	0.028571
Pb (220.353 nm)	-0.000104 u	ppm	0.000210	> 100.00	-6.497160	-0.000104 u
S (181.972 nm)	12.096346 o	ppm	0.013937	0.12	5017.397390	12.096346 o
Sb (206.834 nm)	-0.001472 u	ppm	0.000208	14.11	4.075070	-0.001472 u
Se (196.026 nm)	-0.001333 u	ppm	0.001846	> 100.00	7.812100	-0.001333 u
Si (288.158 nm)	17.925100 o	ppm	0.056431	0.31	122169.000000	17.925100 o
Sn (189.925 nm)	-0.000758 u	ppm	0.001166	> 100.00	6.672670	-0.000758 u
Sr (421.552 nm)	0.148281	ppm	0.002809	1.89	27171.908443	0.148281
Th (288.505 nm)	-0.000641 u	ppm	0.002435	> 100.00	97.473800	-0.000641 u
Ti (336.122 nm)	0.000672	ppm	0.000076	11.24	18.236100	0.000672
Tl (190.794 nm)	0.001989	ppm	0.001280	64.35	-4.178490	0.001989
U (409.013 nm)	-0.011647 u	ppm	0.005025	43.14	42.807200	-0.011647 u
V (292.401 nm)	0.020213	ppm	0.000297	1.47	629.187000	0.020213
Zn (206.200 nm)	0.002208	ppm	0.000228	10.33	18.594200	0.002208
Zr (343.823 nm)	-0.000599 u	ppm	0.000143	23.82	26.767800	-0.000599 u

Solution Name: 280-190570-A-4-D

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190570-A-4-D	5/14/2024 5:28:57 AM	2:9	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.004811	ppm	0.000012	0.24	3282.664236	0.004811
Ag (328.068 nm)	-0.000320 u	ppm	0.000179	56.12	-47.789300	-0.000320 u
Al (167.019 nm)	0.006240	ppm	0.000593	9.50	4.180260	0.006240
Al H (396.152 nm)	-0.003801 u	ppm	0.003676	96.70	93.052780	-0.003801 u
As (188.980 nm)	0.008982	ppm	0.002089	23.26	9.799440	0.008982
B (249.678 nm)	0.013791	ppm	0.000161	1.17	397.428000	0.013791
Ba (493.408 nm)	0.047252	ppm	0.000142	0.30	4071.520000	0.047252
Be (234.861 nm)	0.000023 u	ppm	0.000026	> 100.00	-23.946600	0.000023 u
Bi (223.061 nm)	-0.001248 u	ppm	0.001239	99.32	-0.643168	-0.001248 u
Ca (315.887 nm)	53.235926 o	ppm	0.396725	0.75	47593.023446	53.235926 o
Cd (214.439 nm)	0.000064	ppm	0.000071	> 100.00	-9.963030	0.000064
Co (228.615 nm)	0.000188	ppm	0.000151	80.56	-12.857200	0.000188
Cr (205.560 nm)	0.007964	ppm	0.000188	2.37	111.619000	0.007964
Cu (324.754 nm)	-0.000143 u	ppm	0.000203	> 100.00	1241.320000	-0.000143 u
Fe (238.204 nm)	0.124034	ppm	0.001473	1.19	456.883873	0.124034
Fe H (259.940 nm)	0.194648 u	ppm	0.003223	1.66	257.210000	0.194648 u
K (766.491 nm)	7.970940	ppm	0.058120	0.73	3945.700000	7.970940
Li (670.783 nm)	0.027915	ppm	0.001635	5.86	-263.362000	0.027915
Mg (279.078 nm)	14.930300	ppm	0.026054	0.17	71674.900000	14.930300
Mn (257.610 nm)	0.000813	ppm	0.000009	1.06	188.692000	0.000813
Mo (202.032 nm)	0.002674	ppm	0.000115	4.29	25.330500	0.002674
Na (589.592 nm)	21.031600	ppm	0.037355	0.18	92014.100000	21.031600
Na H (589.593 nm)	17.277085	ppm	0.048964	0.28	60244.859725	17.277085
Ni (231.604 nm)	-0.002922 u	ppm	0.000189	6.48	2.872860	-0.002922 u
P (213.618 nm)	0.126354	ppm	0.000842	0.67	278.136000	0.126354
Pb (220.353 nm)	0.000779	ppm	0.000298	38.24	-4.403390	0.000779
S (181.972 nm)	28.342739 o	ppm	0.029364	0.10	11729.361363	28.342739 o
Sb (206.834 nm)	-0.002273 u	ppm	0.000040	1.76	2.530640	-0.002273 u
Se (196.026 nm)	-0.001316 u	ppm	0.003055	> 100.00	7.713020	-0.001316 u
Si (288.158 nm)	15.734400 o	ppm	0.043063	0.27	107339.000000	15.734400 o
Sn (189.925 nm)	-0.000870 u	ppm	0.000706	81.07	6.492570	-0.000870 u
Sr (421.552 nm)	0.216960	ppm	0.000382	0.18	39748.175268	0.216960
Th (288.505 nm)	0.004095	ppm	0.003147	76.85	106.664000	0.004095
Ti (336.122 nm)	0.000950	ppm	0.000051	5.38	105.280000	0.000950
Tl (190.794 nm)	0.001473 u	ppm	0.003410	> 100.00	-5.027700	0.001473 u
U (409.013 nm)	-0.008846 u	ppm	0.003293	37.23	48.635000	-0.008846 u
V (292.401 nm)	0.019841	ppm	0.000202	1.02	617.033000	0.019841
Zn (206.200 nm)	0.005937	ppm	0.000331	5.57	36.198800	0.005937
Zr (343.823 nm)	-0.000668 u	ppm	0.000085	12.72	11.117700	-0.000668 u

Solution Name: 280-190570-A-4-D SD@5

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190570-A-4-D SD@5	5/14/2024 5:32:44 AM	2:10	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001598	ppm	0.000014	0.85	-878.203823	0.001598
Ag (328.068 nm)	-0.000651 u	ppm	0.000208	31.86	-57.224700	-0.000651 u
Al (167.019 nm)	-0.000453 u	ppm	0.002118	> 100.00	0.864446	-0.000453 u
Al H (396.152 nm)	-0.031535 u	ppm	0.000756	2.40	19.078636	-0.031535 u
As (188.980 nm)	-0.000959 u	ppm	0.001841	> 100.00	-0.824904	-0.000959 u
B (249.678 nm)	0.001712	ppm	0.000063	3.67	128.905000	0.001712
Ba (493.408 nm)	0.009804	ppm	0.000261	2.66	818.318000	0.009804
Be (234.861 nm)	0.000019	ppm	0.000007	39.66	-25.585100	0.000019
Bi (223.061 nm)	-0.001587 u	ppm	0.000627	39.51	-1.261580	-0.001587 u
Ca (315.887 nm)	10.841511	ppm	0.094490	0.87	9659.442232	10.841511
Cd (214.439 nm)	0.000105	ppm	0.000048	46.03	-7.908160	0.000105
Co (228.615 nm)	0.000199	ppm	0.000161	81.09	-12.794900	0.000199
Cr (205.560 nm)	0.001401	ppm	0.000134	9.59	34.340100	0.001401
Cu (324.754 nm)	-0.001876 u	ppm	0.000146	7.80	1161.500000	-0.001876 u
Fe (238.204 nm)	0.067808	ppm	0.000815	1.20	264.618255	0.067808
Fe H (259.940 nm)	0.139914 u	ppm	0.002187	1.56	153.269000	0.139914 u
K (766.491 nm)	2.063510	ppm	0.046877	2.27	-26.970900	2.063510
Li (670.783 nm)	0.024538	ppm	0.002725	11.11	-323.627000	0.024538
Mg (279.078 nm)	3.026620	ppm	0.010852	0.36	14541.600000	3.026620
Mn (257.610 nm)	0.000359	ppm	0.000030	8.34	101.514000	0.000359
Mo (202.032 nm)	-0.000100 u	ppm	0.000418	> 100.00	6.468840	-0.000100 u
Na (589.592 nm)	3.978330	ppm	0.011968	0.30	19501.500000	3.978330
Na H (589.593 nm)	1.322961 u	ppm	0.054175	4.09	13259.495230	1.322961 u
Ni (231.604 nm)	-0.002890 u	ppm	0.000430	14.88	3.063060	-0.002890 u
P (213.618 nm)	0.022103	ppm	0.002634	11.91	57.316300	0.022103
Pb (220.353 nm)	0.000732	ppm	0.000407	55.59	-4.500870	0.000732
S (181.972 nm)	5.600359	ppm	0.012589	0.22	2333.633004	5.600359
Sb (206.834 nm)	-0.002447 u	ppm	0.001900	77.64	1.975880	-0.002447 u
Se (196.026 nm)	-0.002116 u	ppm	0.001392	65.79	6.434750	-0.002116 u
Si (288.158 nm)	3.122340	ppm	0.010696	0.34	21958.400000	3.122340
Sn (189.925 nm)	-0.001511 u	ppm	0.000735	48.63	5.457090	-0.001511 u
Sr (421.552 nm)	0.043751	ppm	0.000095	0.22	8030.522556	0.043751
Th (288.505 nm)	-0.001866 u	ppm	0.002671	> 100.00	94.821400	-0.001866 u
Ti (336.122 nm)	0.000737	ppm	0.000035	4.79	-13.462000	0.000737
Tl (190.794 nm)	0.001912	ppm	0.001089	56.95	-4.297950	0.001912
U (409.013 nm)	-0.015157 u	ppm	0.002492	16.44	33.615700	-0.015157 u
V (292.401 nm)	0.003357	ppm	0.000119	3.54	135.969000	0.003357
Zn (206.200 nm)	0.000875	ppm	0.000173	19.75	12.300800	0.000875
Zr (343.823 nm)	-0.000202 u	ppm	0.000006	2.80	0.010964	-0.000202 u

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/14/2024 5:36:28 AM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001265	ppm	0.000011	0.89	-1308.504780	0.001265
Ag (328.068 nm)	0.000087 u	ppm	0.000140	> 100.00	-83.644300	0.000087 u
Al (167.019 nm)	44.216300 o	ppm	0.203568	0.46	21671.500000	44.216300 o
Al H (396.152 nm)	47.802854	ppm	0.143592	0.30	100697.226119	47.802854
As (188.980 nm)	-0.002772 u	ppm	0.002281	82.30	-3.842180	-0.002772 u
B (249.678 nm)	-0.000197 u	ppm	0.000121	61.07	18.032500	-0.000197 u
Ba (493.408 nm)	0.001201	ppm	0.000262	21.82	70.969900	0.001201
Be (234.861 nm)	0.000137	ppm	0.000014	9.88	500.886000	0.000137
Bi (223.061 nm)	0.002631	ppm	0.000456	17.33	6.421640	0.002631
Ca (315.887 nm)	0.002859 u	ppm	0.003475	> 100.00	-38.743431	0.002859 u
Cd (214.439 nm)	-0.000083 u	ppm	0.000072	86.63	20.361300	-0.000083 u
Co (228.615 nm)	-0.000167 u	ppm	0.000030	17.85	-18.391100	-0.000167 u
Cr (205.560 nm)	0.000254	ppm	0.000072	28.33	11.114100	0.000254
Cu (324.754 nm)	0.000537	ppm	0.000457	84.94	2030.010000	0.000537
Fe (238.204 nm)	46.919858 o	ppm	0.161585	0.34	160476.817781	46.919858 o
Fe H (259.940 nm)	46.942900	ppm	0.161984	0.35	89031.900000	46.942900
K (766.491 nm)	0.653711	ppm	0.184953	28.29	-975.040000	0.653711
Li (670.783 nm)	0.025314	ppm	0.004977	19.66	-309.780000	0.025314
Mg (279.078 nm)	-0.012544 u	ppm	0.000878	7.00	-164.260000	-0.012544 u
Mn (257.610 nm)	-0.000035 u	ppm	0.000018	51.35	25.674700	-0.000035 u
Mo (202.032 nm)	-0.001043 u	ppm	0.000037	3.52	0.052746	-0.001043 u
Na (589.592 nm)	246.274000	ppm	0.214773	0.09	1048430.000000	246.274000
Na H (589.593 nm)	229.260759	ppm	1.617440	0.71	683608.522566	229.260759
Ni (231.604 nm)	-0.000973 u	ppm	0.000540	55.49	14.303900	-0.000973 u
P (213.618 nm)	4.594770	ppm	0.003088	0.07	9750.330000	4.594770
Pb (220.353 nm)	-0.004573 u	ppm	0.000516	11.28	-25.498000	-0.004573 u
S (181.972 nm)	4.950977	ppm	0.009691	0.20	2065.348600	4.950977
Sb (206.834 nm)	0.000000 u	ppm	0.004299	> 100.00	-6.201780	0.000000 u
Se (196.026 nm)	-0.000184 u	ppm	0.001170	> 100.00	2.783510	-0.000184 u
Si (288.158 nm)	0.019906	ppm	0.000710	3.57	956.361000	0.019906
Sn (189.925 nm)	-0.000560 u	ppm	0.000390	69.72	7.808610	-0.000560 u
Sr (421.552 nm)	0.000170	ppm	0.000117	68.63	50.079046	0.000170
Th (288.505 nm)	4.740180	ppm	0.067462	1.42	9294.170000	4.740180
Ti (336.122 nm)	0.001386	ppm	0.000073	5.24	32.099500	0.001386
Tl (190.794 nm)	-0.003257 u	ppm	0.001102	33.84	-13.719200	-0.003257 u
U (409.013 nm)	2.441020	ppm	0.004566	0.19	8190.470000	2.441020
V (292.401 nm)	-0.000575 u	ppm	0.000275	47.87	231.211000	-0.000575 u
Zn (206.200 nm)	0.000953	ppm	0.000137	14.32	12.667600	0.000953
Zr (343.823 nm)	0.003235	ppm	0.000193	5.96	402.136000	0.003235

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/14/2024 5:40:21 AM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.449680 Q	ppm	0.000598	0.13	579408.510382 Q	0.449680 Q
Ag (328.068 nm)	0.475912	ppm	0.001257	0.26	18124.700000	0.475912
Al (167.019 nm)	0.471318	ppm	0.004906	1.04	233.350000	0.471318
Al H (396.152 nm)	0.459248 u	ppm	0.002491	0.54	1081.681780	0.459248 u
As (188.980 nm)	0.462266	ppm	0.001531	0.33	494.244000	0.462266
B (249.678 nm)	0.461055	ppm	0.000636	0.14	10358.600000	0.461055
Ba (493.408 nm)	0.496449	ppm	0.001723	0.35	43093.400000	0.496449
Be (234.861 nm)	0.451362	ppm	0.001664	0.37	113464.000000	0.451362
Bi (223.061 nm)	0.980313	ppm	0.003867	0.39	1787.070000	0.980313
Ca (315.887 nm)	4.631275	ppm	0.024739	0.53	4102.660170	4.631275
Cd (214.439 nm)	0.476322	ppm	0.000197	0.04	24606.200000	0.476322
Co (228.615 nm)	0.473399	ppm	0.001480	0.31	7212.710000	0.473399
Cr (205.560 nm)	0.483354	ppm	0.000630	0.13	5706.550000	0.483354
Cu (324.754 nm)	0.442296 Q	ppm	0.000469	0.11	23631.900000 Q	0.442296 Q
Fe (238.204 nm)	2.322052	ppm	0.010808	0.47	7973.083396	2.322052
Fe H (259.940 nm)	2.396630 u	ppm	0.010138	0.42	4438.770000	2.396630 u
K (766.491 nm)	52.072700	ppm	0.143337	0.28	33603.500000	52.072700
Li (670.783 nm)	0.548402	ppm	0.000983	0.18	9025.770000	0.548402
Mg (279.078 nm)	18.260200	ppm	0.012605	0.07	87654.900000	18.260200
Mn (257.610 nm)	0.475686	ppm	0.000165	0.03	91483.000000	0.475686
Mo (202.032 nm)	0.480947	ppm	0.000483	0.10	3278.080000	0.480947
Na (589.592 nm)	25.135100	ppm	0.053768	0.21	110559.000000	25.135100
Na H (589.593 nm)	21.310934	ppm	0.098469	0.46	72880.847980	21.310934
Ni (231.604 nm)	0.480486	ppm	0.001047	0.22	2838.320000	0.480486
P (213.618 nm)	0.019243	ppm	0.003152	16.38	16.203900	0.019243
Pb (220.353 nm)	0.463644	ppm	0.002623	0.57	1085.850000	0.463644
S (181.972 nm)	0.023514	ppm	0.004638	19.72	32.825870	0.023514
Sb (206.834 nm)	0.487891	ppm	0.000542	0.11	1069.820000	0.487891
Se (196.026 nm)	0.460856	ppm	0.002858	0.62	408.615000	0.460856
Si (288.158 nm)	4.782200	ppm	0.013189	0.28	33400.100000	4.782200
Sn (189.925 nm)	0.481620	ppm	0.001284	0.27	785.602000	0.481620
Sr (421.552 nm)	0.474509	ppm	0.001377	0.29	86910.124575	0.474509
Th (288.505 nm)	0.045145	ppm	0.026424	58.53	195.115000	0.045145
Ti (336.122 nm)	0.478495	ppm	0.000510	0.11	51473.900000	0.478495
Tl (190.794 nm)	0.481721	ppm	0.001708	0.35	784.747000	0.481721
U (409.013 nm)	-0.014537 u	ppm	0.003374	23.21	11.171100	-0.014537 u
V (292.401 nm)	0.471943	ppm	0.000309	0.07	13723.400000	0.471943
Zn (206.200 nm)	0.434490 Q	ppm	0.001087	0.25	2059.560000 Q	0.434490 Q
Zr (343.823 nm)	0.477685	ppm	0.001260	0.26	44663.200000	0.477685

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/14/2024 5:44:08 AM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000893	ppm	0.000011	1.23	-1790.219353	0.000893
Ag (328.068 nm)	-0.000857 u	ppm	0.000173	20.23	-64.289900	-0.000857 u
Al (167.019 nm)	-0.000961 u	ppm	0.000385	40.08	0.565647	-0.000961 u
Al H (396.152 nm)	-0.037611 u	ppm	0.006747	17.94	2.445280	-0.037611 u
As (188.980 nm)	-0.001439 u	ppm	0.002793	> 100.00	-1.336330	-0.001439 u
B (249.678 nm)	-0.000320 u	ppm	0.000329	> 100.00	83.835200	-0.000320 u
Ba (493.408 nm)	0.000259	ppm	0.000259	> 100.00	-10.919100	0.000259
Be (234.861 nm)	0.000025	ppm	0.000029	> 100.00	-24.891000	0.000025
Bi (223.061 nm)	-0.002069 u	ppm	0.000719	34.76	-2.139090	-0.002069 u
Ca (315.887 nm)	0.014252	ppm	0.001984	13.92	-28.549660	0.014252
Cd (214.439 nm)	0.000103	ppm	0.000070	67.45	-8.059850	0.000103
Co (228.615 nm)	0.000092 u	ppm	0.000453	> 100.00	-14.432500	0.000092 u
Cr (205.560 nm)	-0.000068 u	ppm	0.000022	32.91	17.060500	-0.000068 u
Cu (324.754 nm)	-0.001737 u	ppm	0.000161	9.27	1170.260000	-0.001737 u
Fe (238.204 nm)	-0.001212 u	ppm	0.000827	68.25	28.600345	-0.001212 u
Fe H (259.940 nm)	0.071279 u	ppm	0.000848	1.19	22.930800	0.071279 u
K (766.491 nm)	0.651300	ppm	0.109973	16.89	-976.661000	0.651300
Li (670.783 nm)	0.023664 S	ppm	0.000984	4.16	-339.221000 S	0.023664 S
Mg (279.078 nm)	0.000241 u	ppm	0.001318	> 100.00	16.035200	0.000241 u
Mn (257.610 nm)	-0.000020 u	ppm	0.000016	78.83	28.649900	-0.000020 u
Mo (202.032 nm)	0.001126	ppm	0.000318	28.27	14.803700	0.001126
Na (589.592 nm)	-0.301379 u	ppm	0.001218	0.40	1303.270000	-0.301379 u
Na H (589.593 nm)	-2.615536 u	ppm	0.021244	0.81	1659.977983	-2.615536 u
Ni (231.604 nm)	-0.001635 u	ppm	0.000795	48.63	10.423300	-0.001635 u
P (213.618 nm)	-0.001994 u	ppm	0.001612	80.85	6.220790	-0.001994 u
Pb (220.353 nm)	0.000296	ppm	0.000414	> 100.00	-5.531880	0.000296
S (181.972 nm)	0.021121	ppm	0.007256	34.36	28.635171	0.021121
Sb (206.834 nm)	-0.001229 u	ppm	0.000568	46.24	4.559660	-0.001229 u
Se (196.026 nm)	-0.001994 u	ppm	0.001270	63.70	6.402430	-0.001994 u
Si (288.158 nm)	-0.004218 u	ppm	0.000483	11.46	792.374000	-0.004218 u
Sn (189.925 nm)	-0.001824 u	ppm	0.000514	28.17	4.951400	-0.001824 u
Sr (421.552 nm)	0.000059	ppm	0.000007	11.39	29.725471	0.000059
Th (288.505 nm)	-0.006231 u	ppm	0.002396	38.46	86.347300	-0.006231 u
Ti (336.122 nm)	0.000619	ppm	0.000092	14.79	-50.601200	0.000619
Tl (190.794 nm)	0.002129	ppm	0.000852	40.04	-3.941300	0.002129
U (409.013 nm)	-0.015017 u	ppm	0.002526	16.82	35.513100	-0.015017 u
V (292.401 nm)	-0.000615 u	ppm	0.000204	33.25	19.823300	-0.000615 u
Zn (206.200 nm)	-0.000731 u	ppm	0.000389	53.19	4.718980	-0.000731 u
Zr (343.823 nm)	0.000166	ppm	0.000130	78.21	20.758300	0.000166

Solution Name: 280-190570-A-4-J MS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190570-A-4-J MS	5/14/2024 5:47:38 AM	2:11	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.041014	ppm	0.000053	0.13	50167.991430	0.041014
Ag (328.068 nm)	0.039066	ppm	0.000096	0.25	1446.890000	0.039066
Al (167.019 nm)	0.793311	ppm	0.007920	1.00	389.802000	0.793311
Al H (396.152 nm)	0.806117 u	ppm	0.010039	1.25	1800.931085	0.806117 u
As (188.980 nm)	0.048455	ppm	0.000663	1.37	51.974300	0.048455
B (249.678 nm)	0.013592	ppm	0.000616	4.53	393.535000	0.013592
Ba (493.408 nm)	0.087477	ppm	0.000514	0.59	7565.940000	0.087477
Be (234.861 nm)	0.038853	ppm	0.000262	0.68	9744.380000	0.038853
Bi (223.061 nm)	-0.000958 u	ppm	0.000750	78.31	-0.115481	-0.000958 u
Ca (315.887 nm)	54.499731 o	ppm	0.303424	0.56	48723.848536	54.499731 o
Cd (214.439 nm)	0.039609	ppm	0.000043	0.11	2034.380000	0.039609
Co (228.615 nm)	0.039229	ppm	0.000288	0.73	583.255000	0.039229
Cr (205.560 nm)	0.048897	ppm	0.000160	0.33	593.190000	0.048897
Cu (324.754 nm)	0.036533	ppm	0.000083	0.23	3103.420000	0.036533
Fe (238.204 nm)	0.791060	ppm	0.007639	0.97	2737.802423	0.791060
Fe H (259.940 nm)	0.873404 u	ppm	0.004470	0.51	1546.160000	0.873404 u
K (766.491 nm)	9.012590	ppm	0.094437	1.05	4646.190000	9.012590
Li (670.783 nm)	0.072418	ppm	0.003206	4.43	530.881000	0.072418
Mg (279.078 nm)	15.905400	ppm	0.016575	0.10	76353.500000	15.905400
Mn (257.610 nm)	0.040079	ppm	0.000024	0.06	7737.610000	0.040079
Mo (202.032 nm)	0.043425	ppm	0.000569	1.31	302.479000	0.043425
Na (589.592 nm)	22.193000	ppm	0.110873	0.50	97046.200000	22.193000
Na H (589.593 nm)	18.349846	ppm	0.073597	0.40	63468.945509	18.349846
Ni (231.604 nm)	0.036786	ppm	0.000406	1.10	235.781000	0.036786
P (213.618 nm)	0.126874	ppm	0.000301	0.24	276.335000	0.126874
Pb (220.353 nm)	0.037495	ppm	0.000538	1.44	81.924800	0.037495
S (181.972 nm)	28.472087 o	ppm	0.035263	0.12	11783.072596	28.472087 o
Sb (206.834 nm)	0.038847	ppm	0.001391	3.58	92.027700	0.038847
Se (196.026 nm)	0.039435	ppm	0.001354	3.43	43.075600	0.039435
Si (288.158 nm)	16.235900 o	ppm	0.040913	0.25	110751.000000	16.235900 o
Sn (189.925 nm)	0.040236	ppm	0.001571	3.90	72.877600	0.040236
Sr (421.552 nm)	0.298713	ppm	0.001558	0.52	54718.803719	0.298713
Th (288.505 nm)	0.038120	ppm	0.002932	7.69	173.828000	0.038120
Ti (336.122 nm)	0.041398	ppm	0.000059	0.14	4468.350000	0.041398
Tl (190.794 nm)	0.041899	ppm	0.002081	4.97	61.445200	0.041899
U (409.013 nm)	0.037663	ppm	0.002195	5.83	202.668000	0.037663
V (292.401 nm)	0.060150	ppm	0.000197	0.33	1786.000000	0.060150
Zn (206.200 nm)	0.041474	ppm	0.000587	1.42	203.983000	0.041474
Zr (343.823 nm)	0.000733	ppm	0.000077	10.56	145.516000	0.000733

Solution Name: 280-190570-A-4-K MSD

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190570-A-4-K MSD	5/14/2024 5:51:24 AM	2:12	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.041337	ppm	0.000037	0.09	50586.082253	0.041337
Ag (328.068 nm)	0.039590	ppm	0.000306	0.77	1466.840000	0.039590
Al (167.019 nm)	0.791603	ppm	0.010630	1.34	388.977000	0.791603
Al H (396.152 nm)	0.805340 u	ppm	0.004909	0.61	1799.305296	0.805340 u
As (188.980 nm)	0.050078	ppm	0.000606	1.21	53.709500	0.050078
B (249.678 nm)	0.013925	ppm	0.000042	0.30	400.927000	0.013925
Ba (493.408 nm)	0.087911	ppm	0.000758	0.86	7603.640000	0.087911
Be (234.861 nm)	0.039104	ppm	0.000232	0.59	9807.570000	0.039104
Bi (223.061 nm)	-0.002464 u	ppm	0.002136	86.67	-2.858440	-0.002464 u
Ca (315.887 nm)	54.548549 o	ppm	0.327710	0.60	48767.529495	54.548549 o
Cd (214.439 nm)	0.039926	ppm	0.000078	0.20	2050.750000	0.039926
Co (228.615 nm)	0.039449	ppm	0.000231	0.58	586.622000	0.039449
Cr (205.560 nm)	0.049104	ppm	0.000289	0.59	595.621000	0.049104
Cu (324.754 nm)	0.036804	ppm	0.000325	0.88	3117.080000	0.036804
Fe (238.204 nm)	0.805635	ppm	0.004934	0.61	2787.640916	0.805635
Fe H (259.940 nm)	0.882070 u	ppm	0.004611	0.52	1562.620000	0.882070 u
K (766.491 nm)	9.036790	ppm	0.041793	0.46	4662.460000	9.036790
Li (670.783 nm)	0.072754	ppm	0.004236	5.82	536.887000	0.072754
Mg (279.078 nm)	15.975500	ppm	0.018505	0.12	76689.900000	15.975500
Mn (257.610 nm)	0.040424	ppm	0.000023	0.06	7803.910000	0.040424
Mo (202.032 nm)	0.043366	ppm	0.000663	1.53	302.082000	0.043366
Na (589.592 nm)	22.370200	ppm	0.075835	0.34	97799.400000	22.370200
Na H (589.593 nm)	18.573231	ppm	0.139685	0.75	64126.545797	18.573231
Ni (231.604 nm)	0.036718	ppm	0.000356	0.97	235.381000	0.036718
P (213.618 nm)	0.127776	ppm	0.002280	1.78	278.225000	0.127776
Pb (220.353 nm)	0.038040	ppm	0.000256	0.67	83.204400	0.038040
S (181.972 nm)	28.540489 o	ppm	0.006028	0.02	11811.327886	28.540489 o
Sb (206.834 nm)	0.038580	ppm	0.002379	6.17	91.464200	0.038580
Se (196.026 nm)	0.035894	ppm	0.000413	1.15	39.999700	0.035894
Si (288.158 nm)	16.248400 o	ppm	0.015115	0.09	110835.000000	16.248400 o
Sn (189.925 nm)	0.039945	ppm	0.000519	1.30	72.407900	0.039945
Sr (421.552 nm)	0.299016	ppm	0.002367	0.79	54774.254222	0.299016
Th (288.505 nm)	0.042278	ppm	0.001662	3.93	181.822000	0.042278
Ti (336.122 nm)	0.041579	ppm	0.000086	0.21	4487.990000	0.041579
Tl (190.794 nm)	0.040983	ppm	0.000654	1.60	59.935700	0.040983
U (409.013 nm)	0.029917	ppm	0.005698	19.05	177.066000	0.029917
V (292.401 nm)	0.060588	ppm	0.000359	0.59	1798.840000	0.060588
Zn (206.200 nm)	0.041751	ppm	0.000330	0.79	205.290000	0.041751
Zr (343.823 nm)	0.000329	ppm	0.000038	11.66	107.854000	0.000329

Solution Name: 280-190570-A-4-D PDS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190570-A-4-D PDS	5/14/2024 5:55:12 AM	2:13	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.096424	ppm	0.000061	0.06	121926.624066	0.096424
Ag (328.068 nm)	0.045253	ppm	0.000110	0.24	1683.750000	0.045253
Al (167.019 nm)	0.931277	ppm	0.010884	1.17	457.502000	0.931277
Al H (396.152 nm)	0.956664	ppm	0.015787	1.65	2123.886800	0.956664
As (188.980 nm)	0.198437	ppm	0.001508	0.76	212.278000	0.198437
B (249.678 nm)	0.109873	ppm	0.000357	0.32	2534.440000	0.109873
Ba (493.408 nm)	0.141981	ppm	0.000713	0.50	12300.300000	0.141981
Be (234.861 nm)	0.045865	ppm	0.000136	0.30	11509.900000	0.045865
Bi (223.061 nm)	0.000575	ppm	0.000332	57.71	2.676400	0.000575
Ca (315.887 nm)	69.811952 o	ppm	0.488112	0.70	62424.884307	69.811952 o
Cd (214.439 nm)	0.046875	ppm	0.000053	0.11	2410.100000	0.046875
Co (228.615 nm)	0.045542	ppm	0.000105	0.23	679.803000	0.045542
Cr (205.560 nm)	0.055803	ppm	0.000286	0.51	674.535000	0.055803
Cu (324.754 nm)	0.043841	ppm	0.000427	0.97	3456.790000	0.043841
Fe (238.204 nm)	1.051714	ppm	0.005797	0.55	3629.117572	1.051714
Fe H (259.940 nm)	1.134080 u	ppm	0.005642	0.50	2041.200000	1.134080 u
K (766.491 nm)	28.612300	ppm	0.017047	0.06	17826.700000	28.612300
Li (670.783 nm)	0.132958	ppm	0.001766	1.33	1611.350000	0.132958
Mg (279.078 nm)	32.548800	ppm	0.041856	0.13	156226.000000	32.548800
Mn (257.610 nm)	0.047607	ppm	0.000042	0.09	9184.920000	0.047607
Mo (202.032 nm)	0.051317	ppm	0.000177	0.34	356.156000	0.051317
Na (589.592 nm)	40.690900	ppm	0.165485	0.41	175736.000000	40.690900
Na H (589.593 nm)	35.524793	ppm	0.195771	0.55	114074.290727	35.524793
Ni (231.604 nm)	0.043332	ppm	0.000403	0.93	274.323000	0.043332
P (213.618 nm)	1.982180	ppm	0.008035	0.41	4209.100000	1.982180
Pb (220.353 nm)	0.091172	ppm	0.000342	0.37	209.535000	0.091172
S (181.972 nm)	28.707887 o	ppm	0.026769	0.09	11880.859684	28.707887 o
Sb (206.834 nm)	0.098931	ppm	0.002862	2.89	220.375000	0.098931
Se (196.026 nm)	0.182936	ppm	0.005612	3.07	167.821000	0.182936
Si (288.158 nm)	19.827500 o	ppm	0.049938	0.25	135086.000000	19.827500 o
Sn (189.925 nm)	0.097589	ppm	0.000904	0.93	165.490000	0.097589
Sr (421.552 nm)	0.256269	ppm	0.001290	0.50	46946.503263	0.256269
Th (288.505 nm)	0.195425	ppm	0.001188	0.61	484.583000	0.195425
Ti (336.122 nm)	0.048712	ppm	0.000052	0.11	5291.420000	0.048712
Tl (190.794 nm)	0.188298	ppm	0.000299	0.16	302.587000	0.188298
U (409.013 nm)	0.485887	ppm	0.002925	0.60	1679.630000	0.485887
V (292.401 nm)	0.066558	ppm	0.000020	0.03	1961.460000	0.066558
Zn (206.200 nm)	0.176805	ppm	0.000680	0.38	842.931000	0.176805
Zr (343.823 nm)	0.067853	ppm	0.004107	6.05	6432.810000	0.067853

Solution Name: 280-190725-E-5-D

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190725-E-5-D	5/14/2024 5:58:59 AM	2:14	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.206576	ppm	0.000028	0.01	264578.621641	0.206576
Ag (328.068 nm)	-0.000155 u	ppm	0.000076	49.17	-37.416700	-0.000155 u
Al (167.019 nm)	0.092733	ppm	0.005199	5.61	46.918900	0.092733
Al H (396.152 nm)	0.076740 u	ppm	0.006846	8.92	261.607314	0.076740 u
As (188.980 nm)	0.012993	ppm	0.002035	15.66	14.073200	0.012993
B (249.678 nm)	0.290678	ppm	0.000037	0.01	6553.830000	0.290678
Ba (493.408 nm)	1.784250 o	ppm	0.010667	0.60	154972.000000	1.784250 o
Be (234.861 nm)	0.000054	ppm	0.000024	44.15	-11.079000	0.000054
Bi (223.061 nm)	-0.001100 u	ppm	0.000255	23.23	-0.373252	-0.001100 u
Ca (315.887 nm)	47.317404 o	ppm	0.275792	0.58	42297.261358	47.317404 o
Cd (214.439 nm)	0.000146	ppm	0.000052	35.28	-5.287360	0.000146
Co (228.615 nm)	-0.000038 u	ppm	0.000164	> 100.00	-11.583800	-0.000038 u
Cr (205.560 nm)	0.006036	ppm	0.000462	7.66	88.764500	0.006036
Cu (324.754 nm)	-0.006836 u	ppm	0.000355	5.20	1200.250000	-0.006836 u
Fe (238.204 nm)	0.697294	ppm	0.002807	0.40	2417.166875	0.697294
Fe H (259.940 nm)	0.774111 u	ppm	0.002835	0.37	1357.610000	0.774111 u
K (766.491 nm)	13.267800	ppm	0.035861	0.27	7507.780000	13.267800
Li (670.783 nm)	0.243866	ppm	0.000655	0.27	3590.730000	0.243866
Mg (279.078 nm)	125.160000 o	ppm	0.262061	0.21	600738.000000	125.160000 o
Mn (257.610 nm)	0.188062	ppm	0.000148	0.08	36187.500000	0.188062
Mo (202.032 nm)	0.020633	ppm	0.000237	1.15	147.470000	0.020633
Na (589.592 nm)	102.140000	ppm	0.664489	0.65	440766.000000	102.140000
Na H (589.593 nm)	94.319382	ppm	0.249432	0.26	289812.491855	94.319382
Ni (231.604 nm)	0.004616	ppm	0.000558	12.09	47.079100	0.004616
P (213.618 nm)	0.013785	ppm	0.001259	9.14	39.561900	0.013785
Pb (220.353 nm)	0.000919 u	ppm	0.001200	> 100.00	-4.144800	0.000919 u
S (181.972 nm)	2.485137	ppm	0.006526	0.26	1046.980068	2.485137
Sb (206.834 nm)	-0.001485 u	ppm	0.000715	48.16	4.006430	-0.001485 u
Se (196.026 nm)	-0.003297 u	ppm	0.002643	80.16	6.773400	-0.003297 u
Si (288.158 nm)	30.843700 o	ppm	0.257974	0.84	209624.000000	30.843700 o
Sn (189.925 nm)	-0.001583 u	ppm	0.000988	62.40	5.352010	-0.001583 u
Sr (421.552 nm)	3.046624 o	ppm	0.014306	0.47	557911.909875	3.046624 o
Th (288.505 nm)	0.025008	ppm	0.002067	8.27	149.486000	0.025008
Ti (336.122 nm)	0.001890	ppm	0.000058	3.07	193.221000	0.001890
Tl (190.794 nm)	0.000938 u	ppm	0.001126	> 100.00	-5.956690	0.000938 u
U (409.013 nm)	-0.016897 u	ppm	0.004197	24.84	23.204600	-0.016897 u
V (292.401 nm)	-0.000676 u	ppm	0.000554	81.93	20.453400	-0.000676 u
Zn (206.200 nm)	0.002890	ppm	0.000101	3.51	21.810800	0.002890
Zr (343.823 nm)	-0.001377 u	ppm	0.000112	8.14	11.181500	-0.001377 u

Solution Name: 280-190725-E-5-J MS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190725-E-5-J MS	5/14/2024 6:02:48 AM	2:15	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.251170	ppm	0.000482	0.19	322329.435243	0.251170
Ag (328.068 nm)	0.041455	ppm	0.000598	1.44	1541.820000	0.041455
Al (167.019 nm)	0.900737	ppm	0.005885	0.65	443.184000	0.900737
Al H (396.152 nm)	0.925371	ppm	0.012218	1.32	2051.004394	0.925371
As (188.980 nm)	0.052313	ppm	0.001124	2.15	56.072800	0.052313
B (249.678 nm)	0.293523	ppm	0.000430	0.15	6616.820000	0.293523
Ba (493.408 nm)	1.830400 o	ppm	0.009478	0.52	158981.000000	1.830400 o
Be (234.861 nm)	0.039323	ppm	0.000118	0.30	9873.430000	0.039323
Bi (223.061 nm)	-0.002560 u	ppm	0.001065	41.60	-3.033240	-0.002560 u
Ca (315.887 nm)	48.505020 o	ppm	0.174063	0.36	43359.914222	48.505020 o
Cd (214.439 nm)	0.039547	ppm	0.000058	0.15	2032.040000	0.039547
Co (228.615 nm)	0.038806	ppm	0.000198	0.51	581.563000	0.038806
Cr (205.560 nm)	0.049581	ppm	0.000374	0.75	600.981000	0.049581
Cu (324.754 nm)	0.031360	ppm	0.000241	0.77	3139.050000	0.031360
Fe (238.204 nm)	1.916755	ppm	0.009229	0.48	6587.153174	1.916755
Fe H (259.940 nm)	1.988620 u	ppm	0.010145	0.51	3663.950000	1.988620 u
K (766.491 nm)	14.558500	ppm	0.188073	1.29	8375.730000	14.558500
Li (670.783 nm)	0.291255	ppm	0.003719	1.28	4436.480000	0.291255
Mg (279.078 nm)	127.097000 o	ppm	0.332230	0.26	610037.000000	127.097000 o
Mn (257.610 nm)	0.231752	ppm	0.000559	0.24	44586.800000	0.231752
Mo (202.032 nm)	0.062364	ppm	0.000608	0.97	431.287000	0.062364
Na (589.592 nm)	103.388000	ppm	0.570864	0.55	446180.000000	103.388000
Na H (589.593 nm)	95.657208	ppm	0.743362	0.78	293825.983172	95.657208
Ni (231.604 nm)	0.044914	ppm	0.000553	1.23	283.447000	0.044914
P (213.618 nm)	0.012057	ppm	0.001016	8.42	32.865200	0.012057
Pb (220.353 nm)	0.038956	ppm	0.002652	6.81	85.324700	0.038956
S (181.972 nm)	2.466438	ppm	0.007144	0.29	1039.534204	2.466438
Sb (206.834 nm)	0.038567	ppm	0.000732	1.90	91.191100	0.038567
Se (196.026 nm)	0.036052	ppm	0.003574	9.91	40.909700	0.036052
Si (288.158 nm)	32.393600 o	ppm	0.093099	0.29	220134.000000	32.393600 o
Sn (189.925 nm)	0.040193	ppm	0.001898	4.72	72.827600	0.040193
Sr (421.552 nm)	3.131739 o	ppm	0.017642	0.56	573497.938598	3.131739 o
Th (288.505 nm)	0.058812	ppm	0.004786	8.14	216.340000	0.058812
Ti (336.122 nm)	0.043442	ppm	0.000023	0.05	4675.100000	0.043442
Tl (190.794 nm)	0.041233	ppm	0.000635	1.54	60.283800	0.041233
U (409.013 nm)	0.029819	ppm	0.004970	16.67	178.353000	0.029819
V (292.401 nm)	0.039923	ppm	0.000061	0.15	1196.960000	0.039923
Zn (206.200 nm)	0.037870	ppm	0.000557	1.47	186.968000	0.037870
Zr (343.823 nm)	-0.000984 u	ppm	0.000059	5.97	57.009900	-0.000984 u

Solution Name: 280-190725-E-5-K MSD

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190725-E-5-K MSD	5/14/2024 6:06:37 AM	2:16	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.252484	ppm	0.000196	0.08	324030.398932	0.252484
Ag (328.068 nm)	0.040862	ppm	0.000111	0.27	1519.270000	0.040862
Al (167.019 nm)	0.901168	ppm	0.012183	1.35	443.108000	0.901168
Al H (396.152 nm)	0.929718	ppm	0.007424	0.80	2060.381108	0.929718
As (188.980 nm)	0.053489	ppm	0.000394	0.74	57.339100	0.053489
B (249.678 nm)	0.294273	ppm	0.000759	0.26	6634.060000	0.294273
Ba (493.408 nm)	1.841420 o	ppm	0.005439	0.30	159938.000000	1.841420 o
Be (234.861 nm)	0.038826	ppm	0.000172	0.44	9744.270000	0.038826
Bi (223.061 nm)	-0.001114 u	ppm	0.000423	38.00	-0.399122	-0.001114 u
Ca (315.887 nm)	49.152114 o	ppm	0.251399	0.51	43938.919022	49.152114 o
Cd (214.439 nm)	0.039283	ppm	0.000027	0.07	2018.090000	0.039283
Co (228.615 nm)	0.038300	ppm	0.000050	0.13	573.870000	0.038300
Cr (205.560 nm)	0.049752	ppm	0.000185	0.37	603.079000	0.049752
Cu (324.754 nm)	0.031022	ppm	0.000090	0.29	3122.650000	0.031022
Fe (238.204 nm)	1.521183	ppm	0.008534	0.56	5234.482472	1.521183
Fe H (259.940 nm)	1.595130 u	ppm	0.009779	0.61	2916.730000	1.595130 u
K (766.491 nm)	14.580000	ppm	0.089205	0.61	8390.170000	14.580000
Li (670.783 nm)	0.291213	ppm	0.001103	0.38	4435.720000	0.291213
Mg (279.078 nm)	128.507000 o	ppm	0.397965	0.31	616800.000000	128.507000 o
Mn (257.610 nm)	0.231202	ppm	0.000433	0.19	44481.000000	0.231202
Mo (202.032 nm)	0.062307	ppm	0.000178	0.29	430.902000	0.062307
Na (589.592 nm)	104.276000	ppm	0.239155	0.23	449974.000000	104.276000
Na H (589.593 nm)	96.521847	ppm	0.464224	0.48	296385.139322	96.521847
Ni (231.604 nm)	0.045650	ppm	0.000419	0.92	287.766000	0.045650
P (213.618 nm)	0.010606	ppm	0.002949	27.80	29.803900	0.010606
Pb (220.353 nm)	0.039808	ppm	0.002214	5.56	87.310100	0.039808
S (181.972 nm)	2.486747	ppm	0.006429	0.26	1047.927463	2.486747
Sb (206.834 nm)	0.038510	ppm	0.000854	2.22	91.135700	0.038510
Se (196.026 nm)	0.037715	ppm	0.001878	4.98	42.399800	0.037715
Si (288.158 nm)	32.452100 o	ppm	0.051814	0.16	220529.000000	32.452100 o
Sn (189.925 nm)	0.037189	ppm	0.000383	1.03	67.970300	0.037189
Sr (421.552 nm)	3.147407 o	ppm	0.012621	0.40	576367.132690	3.147407 o
Th (288.505 nm)	0.059593	ppm	0.001894	3.18	217.856000	0.059593
Ti (336.122 nm)	0.043113	ppm	0.000131	0.30	4641.190000	0.043113
Tl (190.794 nm)	0.042218	ppm	0.001383	3.28	61.914600	0.042218
U (409.013 nm)	0.030234	ppm	0.002803	9.27	179.375000	0.030234
V (292.401 nm)	0.039290	ppm	0.000071	0.18	1178.360000	0.039290
Zn (206.200 nm)	0.039588	ppm	0.000213	0.54	195.080000	0.039588
Zr (343.823 nm)	-0.001079 u	ppm	0.000074	6.89	47.600000	-0.001079 u

Solution Name: MB 280-652678/1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
MB 280-652678/1-A	5/14/2024 6:10:26 AM	2:17	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000903	ppm	0.000018	2.03	-1777.752030	0.000903
Ag (328.068 nm)	-0.000629 u	ppm	0.000096	15.21	-55.660000	-0.000629 u
Al (167.019 nm)	-0.001157 u	ppm	0.001626	> 100.00	0.474224	-0.001157 u
Al H (396.152 nm)	-0.034915 u	ppm	0.005789	16.58	8.037678	-0.034915 u
As (188.980 nm)	-0.001131 u	ppm	0.001669	> 100.00	-1.007150	-0.001131 u
B (249.678 nm)	-0.000353 u	ppm	0.000153	43.46	83.106400	-0.000353 u
Ba (493.408 nm)	0.000543	ppm	0.000138	25.32	13.789600	0.000543
Be (234.861 nm)	0.000032	ppm	0.000005	15.69	-22.838000	0.000032
Bi (223.061 nm)	-0.001615 u	ppm	0.000357	22.14	-1.311140	-0.001615 u
Ca (315.887 nm)	0.024847	ppm	0.002583	10.40	-19.068954	0.024847
Cd (214.439 nm)	0.000172	ppm	0.000054	31.66	-4.498930	0.000172
Co (228.615 nm)	0.000383	ppm	0.000073	19.17	-10.020400	0.000383
Cr (205.560 nm)	-0.000334 u	ppm	0.000212	63.46	13.931000	-0.000334 u
Cu (324.754 nm)	-0.001918 u	ppm	0.000165	8.61	1161.560000	-0.001918 u
Fe (238.204 nm)	0.004759	ppm	0.000697	14.65	49.018134	0.004759
Fe H (259.940 nm)	0.074856 u	ppm	0.001046	1.40	29.723200	0.074856 u
K (766.491 nm)	0.601645	ppm	0.083007	13.80	-1010.050000	0.601645
Li (670.783 nm)	0.022676	ppm	0.002980	13.14	-356.852000	0.022676
Mg (279.078 nm)	0.004309	ppm	0.001649	38.28	35.541800	0.004309
Mn (257.610 nm)	0.000073	ppm	0.000009	12.63	46.554800	0.000073
Mo (202.032 nm)	-0.000139 u	ppm	0.000192	> 100.00	6.205410	-0.000139 u
Na (589.592 nm)	-0.301281 u	ppm	0.006980	2.32	1304.460000	-0.301281 u
Na H (589.593 nm)	-2.594422 u	ppm	0.022599	0.87	1722.608178	-2.594422 u
Ni (231.604 nm)	-0.002655 u	ppm	0.000192	7.24	4.442650	-0.002655 u
P (213.618 nm)	-0.000921 u	ppm	0.000649	70.53	8.505640	-0.000921 u
Pb (220.353 nm)	-0.000622 u	ppm	0.000551	88.54	-7.692190	-0.000622 u
S (181.972 nm)	0.012396	ppm	0.004596	37.08	25.031665	0.012396
Sb (206.834 nm)	-0.002201 u	ppm	0.001780	80.89	2.461900	-0.002201 u
Se (196.026 nm)	-0.002030 u	ppm	0.001172	57.74	6.374900	-0.002030 u
Si (288.158 nm)	0.091133	ppm	0.022163	24.32	1438.100000	0.091133
Sn (189.925 nm)	-0.001197 u	ppm	0.000495	41.31	5.962660	-0.001197 u
Sr (421.552 nm)	0.000040 u	ppm	0.000074	> 100.00	26.161489	0.000040 u
Th (288.505 nm)	-0.001432 u	ppm	0.001343	93.82	95.627600	-0.001432 u
Ti (336.122 nm)	0.000450	ppm	0.000024	5.35	-68.847700	0.000450
Tl (190.794 nm)	0.001396 u	ppm	0.001594	> 100.00	-5.145340	0.001396 u
U (409.013 nm)	-0.015685 u	ppm	0.005972	38.08	33.330700	-0.015685 u
V (292.401 nm)	-0.000683 u	ppm	0.000165	24.18	18.062900	-0.000683 u
Zn (206.200 nm)	-0.000248 u	ppm	0.000115	46.37	6.997450	-0.000248 u
Zr (343.823 nm)	-0.000146 u	ppm	0.000055	38.01	-7.951590	-0.000146 u

Solution Name: LCS 280-652678/2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LCS 280-652678/2-A	5/14/2024 6:13:55 AM	2:18	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.948124	ppm	0.001565	0.17	1224916.085960	0.948124
Ag (328.068 nm)	0.045249	ppm	0.000198	0.44	1678.060000	0.045249
Al (167.019 nm)	9.273730 o	ppm	0.063818	0.69	4545.730000	9.273730 o
Al H (396.152 nm)	9.693323	ppm	0.061621	0.64	20565.599798	9.693323
As (188.980 nm)	0.953248	ppm	0.002371	0.25	1018.870000	0.953248
B (249.678 nm)	1.861470 o	ppm	0.002425	0.13	41506.700000	1.861470 o
Ba (493.408 nm)	0.992020	ppm	0.008141	0.82	86143.900000	0.992020
Be (234.861 nm)	0.917872	ppm	0.006762	0.74	230809.000000	0.917872
Bi (223.061 nm)	0.001309 u	ppm	0.001654	> 100.00	4.013710	0.001309 u
Ca (315.887 nm)	46.577754 o	ppm	0.340562	0.73	41635.439313	46.577754 o
Cd (214.439 nm)	0.928205	ppm	0.001562	0.17	47966.600000	0.928205
Co (228.615 nm)	0.906154	ppm	0.001069	0.12	13822.100000	0.906154
Cr (205.560 nm)	0.951395	ppm	0.000919	0.10	11213.800000	0.951395
Cu (324.754 nm)	0.868316	ppm	0.001324	0.15	45145.400000	0.868316
Fe (238.204 nm)	9.352708 o	ppm	0.071484	0.76	32014.652478	9.352708 o
Fe H (259.940 nm)	9.503500	ppm	0.088316	0.93	17934.700000	9.503500
K (766.491 nm)	52.655200	ppm	0.224925	0.43	33995.200000	52.655200
Li (670.783 nm)	1.053460	ppm	0.008044	0.76	18039.600000	1.053460
Mg (279.078 nm)	46.261500 o	ppm	0.092648	0.20	222042.000000	46.261500 o
Mn (257.610 nm)	0.941981	ppm	0.001431	0.15	181128.000000	0.941981
Mo (202.032 nm)	0.976766	ppm	0.003736	0.38	6650.170000	0.976766
Na (589.592 nm)	50.196900	ppm	0.308103	0.61	218221.000000	50.196900
Na H (589.593 nm)	44.702665	ppm	0.326548	0.73	142526.637535	44.702665
Ni (231.604 nm)	0.917869	ppm	0.001491	0.16	5403.860000	0.917869
P (213.618 nm)	18.694500 o	ppm	0.025740	0.14	39575.200000	18.694500 o
Pb (220.353 nm)	0.901240	ppm	0.001187	0.13	2113.600000	0.901240
S (181.972 nm)	19.359745 o	ppm	0.030214	0.16	8024.463333	19.359745 o
Sb (206.834 nm)	0.974329	ppm	0.002056	0.21	2128.050000	0.974329
Se (196.026 nm)	0.919014	ppm	0.003898	0.42	806.217000	0.919014
Si (288.158 nm)	9.353820	ppm	0.013915	0.15	64554.700000	9.353820
Sn (189.925 nm)	0.966236	ppm	0.004340	0.45	1568.230000	0.966236
Sr (421.552 nm)	0.946251	ppm	0.007689	0.81	173294.826627	0.946251
Th (288.505 nm)	0.013012	ppm	0.003372	25.91	141.937000	0.013012
Ti (336.122 nm)	0.961191	ppm	0.001007	0.10	103603.000000	0.961191
Tl (190.794 nm)	0.953868	ppm	0.002849	0.30	1560.940000	0.953868
U (409.013 nm)	-0.011024 u	ppm	0.004371	39.65	-4.285830	-0.011024 u
V (292.401 nm)	0.941373	ppm	0.001352	0.14	27331.900000	0.941373
Zn (206.200 nm)	0.854627	ppm	0.002837	0.33	4043.190000	0.854627
Zr (343.823 nm)	0.938707	ppm	0.014461	1.54	87772.700000	0.938707

Solution Name: 280-191169-C-1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191169-C-1-A	5/14/2024 6:17:42 AM	2:19	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.046246	ppm	0.000049	0.10	56943.078881	0.046246
Ag (328.068 nm)	0.000011 u	ppm	0.000198	> 100.00	-31.157700	0.000011 u
Al (167.019 nm)	0.002256	ppm	0.001973	87.44	2.459210	0.002256
Al H (396.152 nm)	-0.000645 u	ppm	0.009931	> 100.00	110.191963	-0.000645 u
As (188.980 nm)	-0.002219 u	ppm	0.001889	85.13	-2.179660	-0.002219 u
B (249.678 nm)	0.029640	ppm	0.000382	1.29	749.516000	0.029640
Ba (493.408 nm)	0.036583	ppm	0.000231	0.63	3144.750000	0.036583
Be (234.861 nm)	0.000071	ppm	0.000007	9.77	-8.653650	0.000071
Bi (223.061 nm)	-0.001581 u	ppm	0.000731	46.25	-1.250500	-0.001581 u
Ca (315.887 nm)	82.018329 o	ppm	0.668999	0.82	73346.879522	82.018329 o
Cd (214.439 nm)	0.000209	ppm	0.000030	14.41	-2.235570	0.000209
Co (228.615 nm)	0.002828	ppm	0.000202	7.14	27.338900	0.002828
Cr (205.560 nm)	-0.000213 u	ppm	0.000061	28.72	15.263000	-0.000213 u
Cu (324.754 nm)	-0.002004 u	ppm	0.000075	3.74	1128.120000	-0.002004 u
Fe (238.204 nm)	0.439951	ppm	0.005589	1.27	1537.173128	0.439951
Fe H (259.940 nm)	0.509534 u	ppm	0.003210	0.63	855.176000	0.509534 u
K (766.491 nm)	3.834790	ppm	0.032272	0.84	1164.190000	3.834790
Li (670.783 nm)	0.076576	ppm	0.001383	1.81	605.096000	0.076576
Mg (279.078 nm)	48.466900 o	ppm	0.079124	0.16	232639.000000	48.466900 o
Mn (257.610 nm)	0.165401	ppm	0.000204	0.12	31830.800000	0.165401
Mo (202.032 nm)	0.003299	ppm	0.001089	33.02	29.586300	0.003299
Na (589.592 nm)	27.070500	ppm	0.074234	0.27	117633.000000	27.070500
Na H (589.593 nm)	23.079085	ppm	0.083981	0.36	77290.344925	23.079085
Ni (231.604 nm)	0.004802	ppm	0.000431	8.97	48.170600	0.004802
P (213.618 nm)	0.001245	ppm	0.000899	72.19	13.029700	0.001245
Pb (220.353 nm)	0.000183 u	ppm	0.000605	> 100.00	-5.798460	0.000183 u
S (181.972 nm)	126.555168 bo	ppm	0.098052	0.08	52304.707113	126.555168 bo
Sb (206.834 nm)	-0.002357 u	ppm	0.002260	95.90	2.041900	-0.002357 u
Se (196.026 nm)	-0.000875 u	ppm	0.000991	> 100.00	7.726450	-0.000875 u
Si (288.158 nm)	5.963070	ppm	0.008840	0.15	41189.600000	5.963070
Sn (189.925 nm)	-0.000919 u	ppm	0.000836	90.97	6.419550	-0.000919 u
Sr (421.552 nm)	0.179274	ppm	0.000748	0.42	32847.160731	0.179274
Th (288.505 nm)	0.010154	ppm	0.006469	63.71	120.500000	0.010154
Ti (336.122 nm)	0.000778	ppm	0.000064	8.26	151.757000	0.000778
Tl (190.794 nm)	0.003487	ppm	0.001456	41.77	-1.710750	0.003487
U (409.013 nm)	-0.009451 u	ppm	0.006199	65.59	42.826900	-0.009451 u
V (292.401 nm)	-0.000689 u	ppm	0.000027	3.91	20.096800	-0.000689 u
Zn (206.200 nm)	0.023672	ppm	0.000103	0.43	119.931000	0.023672
Zr (343.823 nm)	0.000161	ppm	0.000162	> 100.00	46.910000	0.000161

Solution Name: 280-191169-C-2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191169-C-2-A	5/14/2024 6:21:29 AM	2:20	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.046655	ppm	0.000076	0.16	57472.618284	0.046655
Ag (328.068 nm)	-0.000353 u	ppm	0.000202	57.42	-45.118000	-0.000353 u
Al (167.019 nm)	0.001763	ppm	0.000820	46.48	2.272400	0.001763
Al H (396.152 nm)	-0.002784 u	ppm	0.001597	57.34	105.671017	-0.002784 u
As (188.980 nm)	-0.004270 u	ppm	0.000962	22.53	-4.374060	-0.004270 u
B (249.678 nm)	0.028517	ppm	0.000464	1.63	724.449000	0.028517
Ba (493.408 nm)	0.036987	ppm	0.000055	0.15	3179.780000	0.036987
Be (234.861 nm)	0.000050	ppm	0.000009	18.57	-12.935800	0.000050
Bi (223.061 nm)	-0.002009 u	ppm	0.001738	86.53	-2.028850	-0.002009 u
Ca (315.887 nm)	82.470147 o	ppm	0.330220	0.40	73751.156432	82.470147 o
Cd (214.439 nm)	0.000138	ppm	0.000022	15.74	-5.838110	0.000138
Co (228.615 nm)	0.003105	ppm	0.000179	5.77	31.556700	0.003105
Cr (205.560 nm)	-0.000249 u	ppm	0.000238	95.59	14.823800	-0.000249 u
Cu (324.754 nm)	-0.002037 u	ppm	0.000085	4.16	1126.980000	-0.002037 u
Fe (238.204 nm)	0.515242	ppm	0.003018	0.59	1794.634323	0.515242
Fe H (259.940 nm)	0.587080 u	ppm	0.002632	0.45	1002.440000	0.587080 u
K (766.491 nm)	3.881920	ppm	0.103609	2.67	1195.890000	3.881920
Li (670.783 nm)	0.078778	ppm	0.002537	3.22	644.396000	0.078778
Mg (279.078 nm)	48.652900 o	ppm	0.102499	0.21	233532.000000	48.652900 o
Mn (257.610 nm)	0.167728	ppm	0.000232	0.14	32278.300000	0.167728
Mo (202.032 nm)	0.000574	ppm	0.000337	58.60	11.054200	0.000574
Na (589.592 nm)	27.233300	ppm	0.076701	0.28	118325.000000	27.233300
Na H (589.593 nm)	23.033978	ppm	0.083809	0.36	77158.039609	23.033978
Ni (231.604 nm)	0.004082	ppm	0.000369	9.04	43.952000	0.004082
P (213.618 nm)	0.000804	ppm	0.000366	45.53	12.115100	0.000804
Pb (220.353 nm)	0.000060 u	ppm	0.000615	> 100.00	-6.070380	0.000060 u
S (181.972 nm)	127.109455 bo	ppm	0.137510	0.11	52533.708604	127.109455 bo
Sb (206.834 nm)	-0.002387 u	ppm	0.000583	24.42	1.975270	-0.002387 u
Se (196.026 nm)	0.001362 u	ppm	0.002380	> 100.00	9.665140	0.001362 u
Si (288.158 nm)	6.028550	ppm	0.008672	0.14	41632.900000	6.028550
Sn (189.925 nm)	-0.001078 u	ppm	0.000748	69.41	6.164930	-0.001078 u
Sr (421.552 nm)	0.180272	ppm	0.000599	0.33	33030.002975	0.180272
Th (288.505 nm)	0.015240	ppm	0.002027	13.30	130.369000	0.015240
Ti (336.122 nm)	0.000669	ppm	0.000054	8.06	141.044000	0.000669
Tl (190.794 nm)	0.002688	ppm	0.001210	45.02	-3.022270	0.002688
U (409.013 nm)	-0.007199 u	ppm	0.002725	37.86	50.287300	-0.007199 u
V (292.401 nm)	-0.001010 u	ppm	0.000365	36.16	11.025100	-0.001010 u
Zn (206.200 nm)	0.022544	ppm	0.000004	0.02	114.606000	0.022544
Zr (343.823 nm)	-0.000080 u	ppm	0.000060	74.35	24.816700	-0.000080 u

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/14/2024 6:25:16 AM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001283	ppm	0.000027	2.08	-1285.601020	0.001283
Ag (328.068 nm)	0.000157 u	ppm	0.000267	> 100.00	-80.304300	0.000157 u
Al (167.019 nm)	44.397500 o	ppm	0.248426	0.56	21760.300000	44.397500 o
Al H (396.152 nm)	47.947431	ppm	0.269750	0.56	101001.592138	47.947431
As (188.980 nm)	-0.002302 u	ppm	0.001551	67.40	-3.344670	-0.002302 u
B (249.678 nm)	0.000502	ppm	0.000269	53.60	33.321500	0.000502
Ba (493.408 nm)	0.001232	ppm	0.000349	28.32	73.629600	0.001232
Be (234.861 nm)	0.000081	ppm	0.000031	39.10	488.607000	0.000081
Bi (223.061 nm)	0.002143	ppm	0.001493	69.67	5.532990	0.002143
Ca (315.887 nm)	0.008181	ppm	0.001201	14.68	-33.981042	0.008181
Cd (214.439 nm)	0.000014 u	ppm	0.000018	> 100.00	25.535200	0.000014 u
Co (228.615 nm)	0.000036 u	ppm	0.000104	> 100.00	-15.295900	0.000036 u
Cr (205.560 nm)	0.000212	ppm	0.000110	52.07	10.583400	0.000212
Cu (324.754 nm)	0.001018	ppm	0.000318	31.22	2061.390000	0.001018
Fe (238.204 nm)	47.182831 o	ppm	0.261544	0.55	161376.060897	47.182831 o
Fe H (259.940 nm)	47.170500	ppm	0.258219	0.55	89464.200000	47.170500
K (766.491 nm)	0.678463	ppm	0.014339	2.11	-958.395000	0.678463
Li (670.783 nm)	0.027378	ppm	0.003203	11.70	-272.947000	0.027378
Mg (279.078 nm)	-0.011923 u	ppm	0.000781	6.55	-161.602000	-0.011923 u
Mn (257.610 nm)	-0.000047 u	ppm	0.000027	56.35	23.344600	-0.000047 u
Mo (202.032 nm)	-0.000129 u	ppm	0.000513	> 100.00	6.267980	-0.000129 u
Na (589.592 nm)	244.648000	ppm	0.397697	0.16	1041520.000000	244.648000
Na H (589.593 nm)	228.650036	ppm	1.359949	0.59	681812.753018	228.650036
Ni (231.604 nm)	-0.000986 u	ppm	0.000406	41.16	14.229400	-0.000986 u
P (213.618 nm)	4.597530	ppm	0.004841	0.11	9756.180000	4.597530
Pb (220.353 nm)	-0.004265 u	ppm	0.001441	33.80	-24.807800	-0.004265 u
S (181.972 nm)	4.995671	ppm	0.010251	0.21	2083.815238	4.995671
Sb (206.834 nm)	0.000368 u	ppm	0.001211	> 100.00	-5.463220	0.000368 u
Se (196.026 nm)	0.000381	ppm	0.000224	58.61	3.252340	0.000381
Si (288.158 nm)	0.005434	ppm	0.001361	25.04	858.538000	0.005434
Sn (189.925 nm)	-0.000073 u	ppm	0.000693	> 100.00	8.599060	-0.000073 u
Sr (421.552 nm)	0.000110	ppm	0.000052	47.27	39.064243	0.000110
Th (288.505 nm)	4.785770	ppm	0.040380	0.84	9382.310000	4.785770
Ti (336.122 nm)	0.001299	ppm	0.000158	12.19	22.743600	0.001299
Tl (190.794 nm)	-0.001478 u	ppm	0.000318	21.52	-10.793100	-0.001478 u
U (409.013 nm)	2.450480	ppm	0.006521	0.27	8221.650000	2.450480
V (292.401 nm)	-0.000303 u	ppm	0.000120	39.62	241.672000	-0.000303 u
Zn (206.200 nm)	0.000753	ppm	0.000411	54.58	11.724400	0.000753
Zr (343.823 nm)	0.007637	ppm	0.000217	2.84	813.728000	0.007637

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/14/2024 6:29:08 AM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.448203 Q	ppm	0.000397	0.09	577496.064129 Q	0.448203 Q
Ag (328.068 nm)	0.474187	ppm	0.000648	0.14	18061.200000	0.474187
Al (167.019 nm)	0.471006	ppm	0.006638	1.41	233.198000	0.471006
Al H (396.152 nm)	0.448456 u	ppm	0.006292	1.40	1059.008569	0.448456 u
As (188.980 nm)	0.465118	ppm	0.000568	0.12	497.292000	0.465118
B (249.678 nm)	0.459778	ppm	0.000706	0.15	10330.100000	0.459778
Ba (493.408 nm)	0.494064	ppm	0.003740	0.76	42886.200000	0.494064
Be (234.861 nm)	0.453761	ppm	0.004911	1.08	114067.000000	0.453761
Bi (223.061 nm)	0.983532	ppm	0.005798	0.59	1792.930000	0.983532
Ca (315.887 nm)	4.634930	ppm	0.033038	0.71	4105.931256	4.634930
Cd (214.439 nm)	0.477625	ppm	0.000386	0.08	24673.600000	0.477625
Co (228.615 nm)	0.471550	ppm	0.000215	0.05	7184.520000	0.471550
Cr (205.560 nm)	0.485368	ppm	0.000893	0.18	5730.270000	0.485368
Cu (324.754 nm)	0.442953 Q	ppm	0.000469	0.11	23663.600000 Q	0.442953 Q
Fe (238.204 nm)	2.325508	ppm	0.012337	0.53	7984.899838	2.325508
Fe H (259.940 nm)	2.396300 u	ppm	0.012297	0.51	4438.150000	2.396300 u
K (766.491 nm)	51.683000	ppm	0.130534	0.25	33341.500000	51.683000
Li (670.783 nm)	0.540335	ppm	0.003703	0.69	8881.800000	0.540335
Mg (279.078 nm)	18.277900	ppm	0.022217	0.12	87740.000000	18.277900
Mn (257.610 nm)	0.476019	ppm	0.000414	0.09	91547.100000	0.476019
Mo (202.032 nm)	0.482399	ppm	0.001396	0.29	3287.960000	0.482399
Na (589.592 nm)	24.828800	ppm	0.014116	0.06	109251.000000	24.828800
Na H (589.593 nm)	21.134778	ppm	0.214958	1.02	72357.769679	21.134778
Ni (231.604 nm)	0.480409	ppm	0.000951	0.20	2837.870000	0.480409
P (213.618 nm)	0.018570	ppm	0.000315	1.69	14.722900	0.018570
Pb (220.353 nm)	0.462286	ppm	0.002041	0.44	1082.640000	0.462286
S (181.972 nm)	0.009606	ppm	0.008740	90.99	27.075322	0.009606
Sb (206.834 nm)	0.490202	ppm	0.002670	0.54	1074.810000	0.490202
Se (196.026 nm)	0.459042	ppm	0.002501	0.54	407.039000	0.459042
Si (288.158 nm)	4.769340	ppm	0.016606	0.35	33314.400000	4.769340
Sn (189.925 nm)	0.485366	ppm	0.002356	0.49	791.651000	0.485366
Sr (421.552 nm)	0.471803	ppm	0.003854	0.82	86414.663853	0.471803
Th (288.505 nm)	0.034968	ppm	0.026003	74.36	175.351000	0.034968
Ti (336.122 nm)	0.478196	ppm	0.000638	0.13	51441.700000	0.478196
Tl (190.794 nm)	0.481448	ppm	0.000901	0.19	784.292000	0.481448
U (409.013 nm)	-0.018426 u	ppm	0.006431	34.90	-2.482130	-0.018426 u
V (292.401 nm)	0.472391	ppm	0.000480	0.10	13735.800000	0.472391
Zn (206.200 nm)	0.434575 Q	ppm	0.000037	0.01	2059.970000 Q	0.434575 Q
Zr (343.823 nm)	0.492338	ppm	0.004343	0.88	46032.200000	0.492338

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/14/2024 6:32:55 AM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000916	ppm	0.000032	3.48	-1760.905443	0.000916
Ag (328.068 nm)	-0.000758 u	ppm	0.000293	38.67	-60.572400	-0.000758 u
Al (167.019 nm)	-0.001841 u	ppm	0.001325	71.95	0.135771	-0.001841 u
Al H (396.152 nm)	-0.036717 u	ppm	0.002726	7.42	4.301180	-0.036717 u
As (188.980 nm)	-0.001779 u	ppm	0.001062	59.69	-1.700270	-0.001779 u
B (249.678 nm)	0.000153	ppm	0.000072	46.94	94.341000	0.000153
Ba (493.408 nm)	0.000378	ppm	0.000266	70.47	-0.585761	0.000378
Be (234.861 nm)	0.000023	ppm	0.000018	75.97	-25.153100	0.000023
Bi (223.061 nm)	-0.001701 u	ppm	0.001033	60.70	-1.468730	-0.001701 u
Ca (315.887 nm)	0.016070	ppm	0.006040	37.58	-26.922384	0.016070
Cd (214.439 nm)	0.000062	ppm	0.000060	97.63	-10.208700	0.000062
Co (228.615 nm)	0.000320	ppm	0.000178	55.74	-10.967700	0.000320
Cr (205.560 nm)	0.000194 u	ppm	0.000228	> 100.00	20.149300	0.000194 u
Cu (324.754 nm)	-0.001844 u	ppm	0.000110	5.98	1165.030000	-0.001844 u
Fe (238.204 nm)	-0.000528 u	ppm	0.000858	> 100.00	30.938175	-0.000528 u
Fe H (259.940 nm)	0.070240 u	ppm	0.000883	1.26	20.957700	0.070240 u
K (766.491 nm)	0.571030	ppm	0.045980	8.05	-1030.640000	0.571030
Li (670.783 nm)	0.024803 S	ppm	0.001874	7.56	-318.897000 S	0.024803 S
Mg (279.078 nm)	-0.000734 u	ppm	0.000770	> 100.00	11.293200	-0.000734 u
Mn (257.610 nm)	-0.000040 u	ppm	0.000014	34.15	24.821400	-0.000040 u
Mo (202.032 nm)	0.000837	ppm	0.000682	81.44	12.839300	0.000837
Na (589.592 nm)	-0.295521 u	ppm	0.010375	3.51	1328.470000	-0.295521 u
Na H (589.593 nm)	-2.610222 u	ppm	0.010223	0.39	1675.823378	-2.610222 u
Ni (231.604 nm)	-0.001622 u	ppm	0.000243	14.96	10.498600	-0.001622 u
P (213.618 nm)	-0.002451 u	ppm	0.001673	68.29	5.250520	-0.002451 u
Pb (220.353 nm)	0.000074 u	ppm	0.000460	> 100.00	-6.044030	0.000074 u
S (181.972 nm)	0.009759	ppm	0.003254	33.34	23.939702	0.009759
Sb (206.834 nm)	-0.000359 u	ppm	0.000213	59.43	6.436090	-0.000359 u
Se (196.026 nm)	-0.000913 u	ppm	0.002189	> 100.00	7.340610	-0.000913 u
Si (288.158 nm)	-0.005998 u	ppm	0.001233	20.56	780.231000	-0.005998 u
Sn (189.925 nm)	-0.002049 u	ppm	0.000327	15.98	4.588080	-0.002049 u
Sr (421.552 nm)	0.000011 u	ppm	0.000051	> 100.00	20.925397	0.000011 u
Th (288.505 nm)	-0.005153 u	ppm	0.000955	18.52	88.470200	-0.005153 u
Ti (336.122 nm)	0.000599	ppm	0.000110	18.37	-52.718400	0.000599
Tl (190.794 nm)	0.002809	ppm	0.001208	43.02	-2.821420	0.002809
U (409.013 nm)	-0.012139 u	ppm	0.002866	23.61	45.045300	-0.012139 u
V (292.401 nm)	-0.000811 u	ppm	0.000307	37.84	14.059000	-0.000811 u
Zn (206.200 nm)	-0.000731 u	ppm	0.000382	52.27	4.715870	-0.000731 u
Zr (343.823 nm)	0.000027 u	ppm	0.000074	> 100.00	7.697460	0.000027 u

Solution Name: 280-191169-C-3-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191169-C-3-A	5/14/2024 6:36:25 AM	2:21	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.040208	ppm	0.000049	0.12	49124.355371	0.040208
Ag (328.068 nm)	-0.000220 u	ppm	0.000192	87.31	-39.866200	-0.000220 u
Al (167.019 nm)	0.055741	ppm	0.001322	2.37	28.393100	0.055741
Al H (396.152 nm)	0.035301 u	ppm	0.005846	16.56	163.580735	0.035301 u
As (188.980 nm)	-0.001774 u	ppm	0.002364	> 100.00	-1.697270	-0.001774 u
B (249.678 nm)	0.111013	ppm	0.000482	0.43	2559.750000	0.111013
Ba (493.408 nm)	0.013462	ppm	0.000300	2.23	1136.130000	0.013462
Be (234.861 nm)	0.000248	ppm	0.000010	4.16	32.461100	0.000248
Bi (223.061 nm)	-0.001533 u	ppm	0.000293	19.13	-1.161840	-0.001533 u
Ca (315.887 nm)	21.364397 o	ppm	0.121117	0.57	19075.086408	21.364397 o
Cd (214.439 nm)	0.001466	ppm	0.000020	1.34	62.485700	0.001466
Co (228.615 nm)	0.008710	ppm	0.000199	2.29	116.910000	0.008710
Cr (205.560 nm)	-0.000303 u	ppm	0.000115	37.99	14.271000	-0.000303 u
Cu (324.754 nm)	0.249791	ppm	0.000278	0.11	13855.500000	0.249791
Fe (238.204 nm)	0.111363	ppm	0.001057	0.95	413.554152	0.111363
Fe H (259.940 nm)	0.181233 u	ppm	0.001970	1.09	231.734000	0.181233 u
K (766.491 nm)	3.429450	ppm	0.042765	1.25	891.602000	3.429450
Li (670.783 nm)	0.071055	ppm	0.001306	1.84	506.566000	0.071055
Mg (279.078 nm)	22.969300	ppm	0.063262	0.28	110260.000000	22.969300
Mn (257.610 nm)	0.398277	ppm	0.000666	0.17	76601.200000	0.398277
Mo (202.032 nm)	-0.000069 u	ppm	0.000302	> 100.00	6.677340	-0.000069 u
Na (589.592 nm)	52.869600	ppm	0.267503	0.51	227136.000000	52.869600
Na H (589.593 nm)	47.646569	ppm	0.362949	0.76	149503.395930	47.646569
Ni (231.604 nm)	0.025326	ppm	0.000429	1.69	168.537000	0.025326
P (213.618 nm)	0.012818	ppm	0.000161	1.25	17.801100	0.012818
Pb (220.353 nm)	0.003140	ppm	0.000595	18.96	1.151460	0.003140
S (181.972 nm)	51.439319 o	ppm	0.110788	0.22	21272.117623	51.439319 o
Sb (206.834 nm)	-0.002518 u	ppm	0.000705	27.99	1.769820	-0.002518 u
Se (196.026 nm)	-0.002397 u	ppm	0.003679	> 100.00	6.627500	-0.002397 u
Si (288.158 nm)	6.243770	ppm	0.011942	0.19	43089.700000	6.243770
Sn (189.925 nm)	-0.001246 u	ppm	0.000960	77.08	5.886370	-0.001246 u
Sr (421.552 nm)	0.047938	ppm	0.000301	0.63	8797.185818	0.047938
Th (288.505 nm)	0.005969	ppm	0.002736	45.84	115.855000	0.005969
Ti (336.122 nm)	0.000571	ppm	0.000072	12.61	-7.577050	0.000571
Tl (190.794 nm)	0.001192 u	ppm	0.001149	96.33	-5.464150	0.001192 u
U (409.013 nm)	-0.022509 u	ppm	0.003452	15.34	7.848620	-0.022509 u
V (292.401 nm)	-0.001097 u	ppm	0.000255	23.26	8.139670	-0.001097 u
Zn (206.200 nm)	0.215104	ppm	0.001118	0.52	1023.760000	0.215104
Zr (343.823 nm)	-0.000078 u	ppm	0.000152	> 100.00	25.167200	-0.000078 u

Solution Name: 280-191169-C-3-A SD@5

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191169-C-3-A SD@5	5/14/2024 6:40:13 AM	2:22	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.007614	ppm	0.000018	0.24	6912.851512	0.007614
Ag (328.068 nm)	-0.000492 u	ppm	0.000146	29.64	-50.382300	-0.000492 u
Al (167.019 nm)	0.010321	ppm	0.003959	38.36	6.122980	0.010321
Al H (396.152 nm)	-0.019137 u	ppm	0.002388	12.48	42.787004	-0.019137 u
As (188.980 nm)	-0.002023 u	ppm	0.001266	62.56	-1.961400	-0.002023 u
B (249.678 nm)	0.021369	ppm	0.000413	1.93	566.122000	0.021369
Ba (493.408 nm)	0.003091	ppm	0.000195	6.30	235.168000	0.003091
Be (234.861 nm)	0.000072	ppm	0.000009	12.22	-12.264100	0.000072
Bi (223.061 nm)	-0.002056 u	ppm	0.000219	10.66	-2.114040	-0.002056 u
Ca (315.887 nm)	4.323490	ppm	0.018210	0.42	3827.261705	4.323490
Cd (214.439 nm)	0.000387	ppm	0.000097	25.05	6.640010	0.000387
Co (228.615 nm)	0.001987	ppm	0.000079	3.98	14.433100	0.001987
Cr (205.560 nm)	-0.000182 u	ppm	0.000160	87.91	15.707200	-0.000182 u
Cu (324.754 nm)	0.048661	ppm	0.000254	0.52	3711.520000	0.048661
Fe (238.204 nm)	0.049324	ppm	0.002824	5.72	201.411246	0.049324
Fe H (259.940 nm)	0.121064 u	ppm	0.001773	1.46	117.472000	0.121064 u
K (766.491 nm)	1.161310	ppm	0.034525	2.97	-633.686000	1.161310
Li (670.783 nm)	0.035069	ppm	0.001797	5.12	-135.686000	0.035069
Mg (279.078 nm)	4.678790	ppm	0.004823	0.10	22471.400000	4.678790
Mn (257.610 nm)	0.082145	ppm	0.000059	0.07	15824.800000	0.082145
Mo (202.032 nm)	-0.000363 u	ppm	0.000270	74.34	4.677910	-0.000363 u
Na (589.592 nm)	10.569700	ppm	0.061503	0.58	47476.200000	10.569700
Na H (589.593 nm)	7.537243 u	ppm	0.165964	2.20	31524.058866	7.537243 u
Ni (231.604 nm)	0.003945	ppm	0.000799	20.26	43.145100	0.003945
P (213.618 nm)	-0.000266 u	ppm	0.001547	> 100.00	5.914250	-0.000266 u
Pb (220.353 nm)	0.001135	ppm	0.001180	> 100.00	-3.546120	0.001135
S (181.972 nm)	10.252161	ppm	0.005271	0.05	4255.610071	10.252161
Sb (206.834 nm)	-0.001452 u	ppm	0.001140	78.49	4.064040	-0.001452 u
Se (196.026 nm)	-0.000715 u	ppm	0.001092	> 100.00	7.626640	-0.000715 u
Si (288.158 nm)	1.237860	ppm	0.003352	0.27	9200.730000	1.237860
Sn (189.925 nm)	-0.002101 u	ppm	0.000376	17.89	4.504070	-0.002101 u
Sr (421.552 nm)	0.009665	ppm	0.000172	1.78	1788.667328	0.009665
Th (288.505 nm)	-0.005660 u	ppm	0.002026	35.80	88.709000	-0.005660 u
Ti (336.122 nm)	0.000602	ppm	0.000082	13.62	-42.711100	0.000602
Tl (190.794 nm)	0.001512	ppm	0.000474	31.34	-4.951620	0.001512
U (409.013 nm)	-0.011774 u	ppm	0.001170	9.94	45.693900	-0.011774 u
V (292.401 nm)	-0.000894 u	ppm	0.000126	14.10	11.987400	-0.000894 u
Zn (206.200 nm)	0.042939	ppm	0.000494	1.15	210.900000	0.042939
Zr (343.823 nm)	-0.000076 u	ppm	0.000022	29.41	3.589330	-0.000076 u

Solution Name: 280-191169-C-3-B MS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191169-C-3-B MS	5/14/2024 6:43:59 AM	2:23	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.049614	ppm	0.001916	0.18	1356350.086202	1.049614
Ag (328.068 nm)	0.045450	ppm	0.000354	0.78	1688.820000	0.045450
Al (167.019 nm)	9.201110 o	ppm	0.060308	0.66	4510.240000	9.201110 o
Al H (396.152 nm)	9.715122	ppm	0.053405	0.55	20618.608944	9.715122
As (188.980 nm)	0.956223	ppm	0.001713	0.18	1022.050000	0.956223
B (249.678 nm)	1.975540 o	ppm	0.005610	0.28	44043.100000	1.975540 o
Ba (493.408 nm)	1.000020	ppm	0.004796	0.48	86838.900000	1.000020
Be (234.861 nm)	0.905981	ppm	0.000871	0.10	227820.000000	0.905981
Bi (223.061 nm)	-0.000124 u	ppm	0.001119	> 100.00	1.404320	-0.000124 u
Ca (315.887 nm)	67.324787 o	ppm	0.339035	0.50	60199.424129	67.324787 o
Cd (214.439 nm)	0.921232	ppm	0.001140	0.12	47606.300000	0.921232
Co (228.615 nm)	0.906500	ppm	0.002199	0.24	13827.300000	0.906500
Cr (205.560 nm)	0.944573	ppm	0.000485	0.05	11133.600000	0.944573
Cu (324.754 nm)	1.115980 o	ppm	0.001802	0.16	57635.400000	1.115980 o
Fe (238.204 nm)	9.413507 o	ppm	0.038445	0.41	32222.555250	9.413507 o
Fe H (259.940 nm)	9.568990	ppm	0.041884	0.44	18059.100000	9.568990
K (766.491 nm)	56.598900	ppm	0.128107	0.23	36647.300000	56.598900
Li (670.783 nm)	1.111930 o	ppm	0.003038	0.27	19083.100000	1.111930 o
Mg (279.078 nm)	69.469600 o	ppm	0.171923	0.25	333433.000000	69.469600 o
Mn (257.610 nm)	1.328790 o	ppm	0.001436	0.11	255493.000000	1.328790 o
Mo (202.032 nm)	0.970836	ppm	0.004524	0.47	6609.830000	0.970836
Na (589.592 nm)	102.792000	ppm	0.181729	0.18	441594.000000	102.792000
Na H (589.593 nm)	94.368645	ppm	0.210136	0.22	288606.326322	94.368645
Ni (231.604 nm)	0.935292	ppm	0.001444	0.15	5506.030000	0.935292
P (213.618 nm)	18.687400 o	ppm	0.042900	0.23	39540.600000	18.687400 o
Pb (220.353 nm)	0.897863	ppm	0.000967	0.11	2105.640000	0.897863
S (181.972 nm)	70.598871 o	ppm	0.057501	0.08	29193.924601	70.598871 o
Sb (206.834 nm)	0.978987	ppm	0.004836	0.49	2137.850000	0.978987
Se (196.026 nm)	0.920487	ppm	0.003842	0.42	808.063000	0.920487
Si (288.158 nm)	15.494800 o	ppm	0.013948	0.09	106129.000000	15.494800 o
Sn (189.925 nm)	0.970548	ppm	0.003101	0.32	1575.190000	0.970548
Sr (421.552 nm)	0.989613	ppm	0.005112	0.52	181235.158254	0.989613
Th (288.505 nm)	0.016018	ppm	0.003343	20.87	153.687000	0.016018
Ti (336.122 nm)	0.956233	ppm	0.000511	0.05	103115.000000	0.956233
Tl (190.794 nm)	0.946373	ppm	0.002024	0.21	1548.620000	0.946373
U (409.013 nm)	-0.013372 u	ppm	0.005053	37.79	-15.620800	-0.013372 u
V (292.401 nm)	0.936743	ppm	0.000454	0.05	27200.500000	0.936743
Zn (206.200 nm)	1.055020	ppm	0.003408	0.32	4989.310000	1.055020
Zr (343.823 nm)	0.951181	ppm	0.005379	0.57	88964.800000	0.951181

Solution Name: 280-191169-C-3-C MSD

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191169-C-3-C MSD	5/14/2024 6:47:48 AM	2:24	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.065214	ppm	0.001048	0.10	1376552.914626	1.065214
Ag (328.068 nm)	0.045923	ppm	0.000330	0.72	1708.930000	0.045923
Al (167.019 nm)	9.272500 o	ppm	0.079445	0.86	4545.220000	9.272500 o
Al H (396.152 nm)	9.742722	ppm	0.107321	1.10	20678.073272	9.742722
As (188.980 nm)	0.970611	ppm	0.002294	0.24	1037.430000	0.970611
B (249.678 nm)	2.003920 o	ppm	0.004309	0.22	44674.600000	2.003920 o
Ba (493.408 nm)	1.006540	ppm	0.009719	0.97	87405.300000	1.006540
Be (234.861 nm)	0.911585	ppm	0.010933	1.20	229229.000000	0.911585
Bi (223.061 nm)	-0.000554 u	ppm	0.004710	> 100.00	0.621483	-0.000554 u
Ca (315.887 nm)	68.251635 o	ppm	0.643632	0.94	61028.746876	68.251635 o
Cd (214.439 nm)	0.930222	ppm	0.002189	0.24	48071.000000	0.930222
Co (228.615 nm)	0.916235	ppm	0.001606	0.18	13976.000000	0.916235
Cr (205.560 nm)	0.955126	ppm	0.001819	0.19	11257.800000	0.955126
Cu (324.754 nm)	1.136210 o	ppm	0.001460	0.13	58657.000000	1.136210 o
Fe (238.204 nm)	9.474898 o	ppm	0.082203	0.87	32432.486558	9.474898 o
Fe H (259.940 nm)	9.639850	ppm	0.088400	0.92	18193.600000	9.639850
K (766.491 nm)	57.463700	ppm	0.001567	0.00	37228.900000	57.463700
Li (670.783 nm)	1.124340 o	ppm	0.002022	0.18	19304.600000	1.124340 o
Mg (279.078 nm)	70.834900 o	ppm	0.180461	0.25	339986.000000	70.834900 o
Mn (257.610 nm)	1.353380 o	ppm	0.001855	0.14	260220.000000	1.353380 o
Mo (202.032 nm)	0.986578	ppm	0.003958	0.40	6716.890000	0.986578
Na (589.592 nm)	105.284000	ppm	0.320441	0.30	452190.000000	105.284000
Na H (589.593 nm)	96.241897	ppm	0.648125	0.67	294126.490148	96.241897
Ni (231.604 nm)	0.944905	ppm	0.001694	0.18	5562.410000	0.944905
P (213.618 nm)	18.893800 o	ppm	0.038575	0.20	39976.400000	18.893800 o
Pb (220.353 nm)	0.905801	ppm	0.001144	0.13	2124.300000	0.905801
S (181.972 nm)	72.633584 o	ppm	0.048147	0.07	30034.626572	72.633584 o
Sb (206.834 nm)	0.988264	ppm	0.004389	0.44	2158.020000	0.988264
Se (196.026 nm)	0.927516	ppm	0.005095	0.55	814.195000	0.927516
Si (288.158 nm)	15.895700 o	ppm	0.032449	0.20	108847.000000	15.895700 o
Sn (189.925 nm)	0.981879	ppm	0.001701	0.17	1593.490000	0.981879
Sr (421.552 nm)	0.996740	ppm	0.009105	0.91	182540.398230	0.996740
Th (288.505 nm)	0.019604	ppm	0.002678	13.66	161.165000	0.019604
Ti (336.122 nm)	0.968762	ppm	0.000103	0.01	104468.000000	0.968762
Tl (190.794 nm)	0.951482	ppm	0.002775	0.29	1556.990000	0.951482
U (409.013 nm)	-0.012918 u	ppm	0.002037	15.77	-15.518100	-0.012918 u
V (292.401 nm)	0.947349	ppm	0.001225	0.13	27508.200000	0.947349
Zn (206.200 nm)	1.069170	ppm	0.002018	0.19	5056.150000	1.069170
Zr (343.823 nm)	0.974452	ppm	0.000935	0.10	91141.000000	0.974452

Solution Name: 280-191169-C-3-A PDS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191169-C-3-A PDS	5/14/2024 6:51:37 AM	2:25	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.133373	ppm	0.000110	0.08	169776.609470	0.133373
Ag (328.068 nm)	0.045264	ppm	0.000339	0.75	1690.780000	0.045264
Al (167.019 nm)	0.981216	ppm	0.003375	0.34	481.930000	0.981216
Al H (396.152 nm)	0.990322	ppm	0.005549	0.56	2183.651415	0.990322
As (188.980 nm)	0.187369	ppm	0.001884	1.01	200.448000	0.187369
B (249.678 nm)	0.205801	ppm	0.000638	0.31	4667.990000	0.205801
Ba (493.408 nm)	0.109574	ppm	0.000308	0.28	9485.020000	0.109574
Be (234.861 nm)	0.045579	ppm	0.000123	0.27	11437.800000	0.045579
Bi (223.061 nm)	0.003231	ppm	0.002037	63.02	7.515100	0.003231
Ca (315.887 nm)	39.111592 o	ppm	0.204769	0.52	34954.883053	39.111592 o
Cd (214.439 nm)	0.048370	ppm	0.000047	0.10	2487.380000	0.048370
Co (228.615 nm)	0.054259	ppm	0.000297	0.55	812.543000	0.054259
Cr (205.560 nm)	0.047483	ppm	0.000317	0.67	576.583000	0.047483
Cu (324.754 nm)	0.287667	ppm	0.000561	0.20	15761.400000	0.287667
Fe (238.204 nm)	1.041790	ppm	0.006880	0.66	3595.180367	1.041790
Fe H (259.940 nm)	1.121430 u	ppm	0.009550	0.85	2017.170000	1.121430 u
K (766.491 nm)	24.333800	ppm	0.120707	0.50	14949.500000	24.333800
Li (670.783 nm)	0.173556	ppm	0.002664	1.53	2335.910000	0.173556
Mg (279.078 nm)	40.764000	ppm	0.032829	0.08	195656.000000	40.764000
Mn (257.610 nm)	0.432905	ppm	0.000230	0.05	83258.500000	0.432905
Mo (202.032 nm)	0.052739	ppm	0.001963	3.72	365.825000	0.052739
Na (589.592 nm)	70.970200	ppm	0.112356	0.16	304241.000000	70.970200
Na H (589.593 nm)	65.084258	ppm	0.133824	0.21	200952.544722	65.084258
Ni (231.604 nm)	0.070886	ppm	0.000378	0.53	435.913000	0.070886
P (213.618 nm)	1.870440	ppm	0.004014	0.21	3953.040000	1.870440
Pb (220.353 nm)	0.092221	ppm	0.001242	1.35	211.989000	0.092221
S (181.972 nm)	51.481981 o	ppm	0.064479	0.13	21290.352929	51.481981 o
Sb (206.834 nm)	0.101227	ppm	0.002141	2.12	225.021000	0.101227
Se (196.026 nm)	0.182708	ppm	0.000689	0.38	167.489000	0.182708
Si (288.158 nm)	10.789200	ppm	0.029105	0.27	73900.000000	10.789200
Sn (189.925 nm)	0.097911	ppm	0.001618	1.65	166.009000	0.097911
Sr (421.552 nm)	0.092637	ppm	0.000480	0.52	16982.331997	0.092637
Th (288.505 nm)	0.199151	ppm	0.004425	2.22	497.205000	0.199151
Ti (336.122 nm)	0.048695	ppm	0.000147	0.30	5220.160000	0.048695
Tl (190.794 nm)	0.189855	ppm	0.000761	0.40	305.170000	0.189855
U (409.013 nm)	0.481574	ppm	0.002711	0.56	1668.760000	0.481574
V (292.401 nm)	0.046178	ppm	0.000608	1.32	1368.310000	0.046178
Zn (206.200 nm)	0.380445	ppm	0.001260	0.33	1804.400000	0.380445
Zr (343.823 nm)	0.083423	ppm	0.009111	10.92	7848.490000	0.083423

Solution Name: 280-191169-C-4-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191169-C-4-A	5/14/2024 6:55:26 AM	2:26	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.174720	ppm	0.000160	0.09	223322.552561	0.174720
Ag (328.068 nm)	0.000124 u	ppm	0.000168	> 100.00	-26.922700	0.000124 u
Al (167.019 nm)	-0.000112 u	ppm	0.002237	> 100.00	11.835700	-0.000112 u
Al H (396.152 nm)	0.004795 u	ppm	0.002615	54.54	128.742208	0.004795 u
As (188.980 nm)	0.001629	ppm	0.001395	85.66	1.597530	0.001629
B (249.678 nm)	0.054537	ppm	0.000211	0.39	1283.600000	0.054537
Ba (493.408 nm)	0.010199	ppm	0.000301	2.95	852.597000	0.010199
Be (234.861 nm)	-0.000010 u	ppm	0.000009	89.82	125.195000	-0.000010 u
Bi (223.061 nm)	-0.002065 u	ppm	0.000616	29.82	-2.130460	-0.002065 u
Ca (315.887 nm)	102.120796 o	ppm	0.610466	0.60	91334.120655	102.120796 o
Cd (214.439 nm)	0.000137	ppm	0.000033	24.39	5.864610	0.000137
Co (228.615 nm)	0.046788	ppm	0.000295	0.63	697.068000	0.046788
Cr (205.560 nm)	0.000000 u	ppm	0.000166	> 100.00	14.748600	0.000000 u
Cu (324.754 nm)	0.001775	ppm	0.000268	15.12	1332.110000	0.001775
Fe (238.204 nm)	15.015544 o	ppm	0.086825	0.58	51378.913701	15.015544 o
Fe H (259.940 nm)	15.099000	ppm	0.079904	0.53	28560.600000	15.099000
K (766.491 nm)	7.083820	ppm	0.053381	0.75	3349.120000	7.083820
Li (670.783 nm)	0.220804	ppm	0.001517	0.69	3179.130000	0.220804
Mg (279.078 nm)	96.362600 o	ppm	0.012433	0.01	462503.000000	96.362600 o
Mn (257.610 nm)	3.331260 o	ppm	0.000912	0.03	640468.000000	3.331260 o
Mo (202.032 nm)	0.000343	ppm	0.000241	70.30	9.477780	0.000343
Na (589.592 nm)	47.819700	ppm	0.271913	0.57	205682.000000	47.819700
Na H (589.593 nm)	42.335575	ppm	0.597458	1.41	133878.107272	42.335575
Ni (231.604 nm)	0.152950	ppm	0.000592	0.39	916.995000	0.152950
P (213.618 nm)	0.017315	ppm	0.002433	14.05	46.792400	0.017315
Pb (220.353 nm)	0.000590 u	ppm	0.000909	> 100.00	-3.960150	0.000590 u
S (181.972 nm)	209.634895 bo	ppm	0.312037	0.15	86634.072242	209.634895 bo
Sb (206.834 nm)	-0.002968 u	ppm	0.002745	92.48	-1.613580	-0.002968 u
Se (196.026 nm)	-0.002622 u	ppm	0.002253	85.91	7.025540	-0.002622 u
Si (288.158 nm)	7.607410	ppm	0.010729	0.14	52321.100000	7.607410
Sn (189.925 nm)	-0.001418 u	ppm	0.001150	81.10	5.866800	-0.001418 u
Sr (421.552 nm)	0.230121	ppm	0.002706	1.18	42158.331620	0.230121
Th (288.505 nm)	0.046391	ppm	0.003812	8.22	237.553000	0.046391
Ti (336.122 nm)	0.000636	ppm	0.000090	14.18	181.900000	0.000636
Tl (190.794 nm)	0.002124	ppm	0.000420	19.79	-4.128110	0.002124
U (409.013 nm)	-0.010078 u	ppm	0.003615	35.87	47.571900	-0.010078 u
V (292.401 nm)	-0.001109 u	ppm	0.000253	22.78	11.596900	-0.001109 u
Zn (206.200 nm)	0.113881	ppm	0.000539	0.47	545.845000	0.113881
Zr (343.823 nm)	-0.000513 u	ppm	0.000101	19.73	20.347600	-0.000513 u

Solution Name: 280-191169-C-5-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191169-C-5-A	5/14/2024 6:59:59 AM	2:27	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.013800	ppm	0.000020	0.14	14924.164133	0.013800
Ag (328.068 nm)	-0.000195 u	ppm	0.000210	> 100.00	-38.973300	-0.000195 u
Al (167.019 nm)	0.004289	ppm	0.000893	20.82	3.327130	0.004289
Al H (396.152 nm)	-0.019920 u	ppm	0.001745	8.76	45.994325	-0.019920 u
As (188.980 nm)	-0.000969 u	ppm	0.001522	> 100.00	-0.840452	-0.000969 u
B (249.678 nm)	0.015211	ppm	0.000389	2.56	428.854000	0.015211
Ba (493.408 nm)	0.013902	ppm	0.000318	2.28	1174.290000	0.013902
Be (234.861 nm)	0.000028	ppm	0.000013	48.16	-21.147400	0.000028
Bi (223.061 nm)	-0.001848 u	ppm	0.001169	63.27	-1.736220	-0.001848 u
Ca (315.887 nm)	17.659410 o	ppm	0.074903	0.42	15759.946329	17.659410 o
Cd (214.439 nm)	0.000136	ppm	0.000047	34.76	-6.139720	0.000136
Co (228.615 nm)	0.001019	ppm	0.000210	20.60	-0.290473	0.001019
Cr (205.560 nm)	-0.000220 u	ppm	0.000140	63.68	15.220400	-0.000220 u
Cu (324.754 nm)	0.044473	ppm	0.000282	0.63	3498.580000	0.044473
Fe (238.204 nm)	0.265310	ppm	0.001027	0.39	939.981381	0.265310
Fe H (259.940 nm)	0.334966 u	ppm	0.002957	0.88	523.673000	0.334966 u
K (766.491 nm)	2.701200	ppm	0.054336	2.01	401.865000	2.701200
Li (670.783 nm)	0.039920	ppm	0.000891	2.23	-49.106500	0.039920
Mg (279.078 nm)	19.772900	ppm	0.024161	0.12	94917.900000	19.772900
Mn (257.610 nm)	0.174247	ppm	0.000174	0.10	33531.400000	0.174247
Mo (202.032 nm)	-0.000214 u	ppm	0.000363	> 100.00	5.693960	-0.000214 u
Na (589.592 nm)	39.371500	ppm	0.109611	0.28	169815.000000	39.371500
Na H (589.593 nm)	34.350960	ppm	0.554539	1.61	110401.812656	34.350960
Ni (231.604 nm)	0.002758	ppm	0.000797	28.90	36.183100	0.002758
P (213.618 nm)	-0.002296 u	ppm	0.001039	45.27	1.916860	-0.002296 u
Pb (220.353 nm)	0.000777 u	ppm	0.001202	> 100.00	-4.390880	0.000777 u
S (181.972 nm)	23.235365 o	ppm	0.063322	0.27	9619.606609	23.235365 o
Sb (206.834 nm)	-0.001123 u	ppm	0.002390	> 100.00	4.760050	-0.001123 u
Se (196.026 nm)	-0.005001 u	ppm	0.001058	21.16	4.266130	-0.005001 u
Si (288.158 nm)	8.036220	ppm	0.040351	0.50	55223.600000	8.036220
Sn (189.925 nm)	-0.002515 u	ppm	0.000359	14.28	3.839910	-0.002515 u
Sr (421.552 nm)	0.038559	ppm	0.000680	1.76	7079.643119	0.038559
Th (288.505 nm)	0.003360	ppm	0.002310	68.73	107.439000	0.003360
Ti (336.122 nm)	0.000589	ppm	0.000015	2.49	-14.026800	0.000589
Tl (190.794 nm)	0.001680	ppm	0.000725	43.16	-4.681670	0.001680
U (409.013 nm)	-0.014555 u	ppm	0.001804	12.39	34.790800	-0.014555 u
V (292.401 nm)	-0.001016 u	ppm	0.000006	0.61	9.967680	-0.001016 u
Zn (206.200 nm)	0.099865	ppm	0.000235	0.24	479.670000	0.099865
Zr (343.823 nm)	-0.000454 u	ppm	0.000081	17.84	-1.988910	-0.000454 u

Solution Name: 280-191169-C-6-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191169-C-6-A	5/14/2024 7:03:46 AM	2:28	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.100141	ppm	0.000152	0.15	126739.503781	0.100141
Ag (328.068 nm)	-0.000397 u	ppm	0.000060	15.03	-46.670800	-0.000397 u
Al (167.019 nm)	0.303577	ppm	0.011917	3.93	152.450000	0.303577
Al H (396.152 nm)	0.278010 u	ppm	0.004356	1.57	670.167589	0.278010 u
As (188.980 nm)	-0.000493 u	ppm	0.001178	> 100.00	-0.416646	-0.000493 u
B (249.678 nm)	0.031163	ppm	0.000136	0.43	778.937000	0.031163
Ba (493.408 nm)	0.024109	ppm	0.000490	2.03	2061.030000	0.024109
Be (234.861 nm)	0.000273	ppm	0.000016	5.82	79.668100	0.000273
Bi (223.061 nm)	-0.000571 u	ppm	0.000570	99.88	0.589446	-0.000571 u
Ca (315.887 nm)	9.666095	ppm	0.051363	0.53	8607.705495	9.666095
Cd (214.439 nm)	0.000305	ppm	0.000035	11.38	5.579200	0.000305
Co (228.615 nm)	0.020892	ppm	0.000447	2.14	302.648000	0.020892
Cr (205.560 nm)	0.000711	ppm	0.000127	17.81	25.418900	0.000711
Cu (324.754 nm)	0.339034	ppm	0.000331	0.10	18365.600000	0.339034
Fe (238.204 nm)	3.961239	ppm	0.030690	0.77	13578.338928	3.961239
Fe H (259.940 nm)	4.018160 u	ppm	0.021027	0.52	7518.050000	4.018160 u
K (766.491 nm)	3.546560	ppm	0.126618	3.57	970.362000	3.546560
Li (670.783 nm)	0.144362	ppm	0.001109	0.77	1814.880000	0.144362
Mg (279.078 nm)	9.568770	ppm	0.020870	0.22	45936.400000	9.568770
Mn (257.610 nm)	1.268120 o	ppm	0.000932	0.07	243828.000000	1.268120 o
Mo (202.032 nm)	-0.000391 u	ppm	0.000145	37.07	4.490680	-0.000391 u
Na (589.592 nm)	31.541800	ppm	0.205558	0.65	136590.000000	31.541800
Na H (589.593 nm)	27.163444	ppm	0.177794	0.65	89280.722073	27.163444
Ni (231.604 nm)	0.046519	ppm	0.000152	0.33	292.825000	0.046519
P (213.618 nm)	0.026164	ppm	0.001170	4.47	39.093900	0.026164
Pb (220.353 nm)	0.001903	ppm	0.000692	36.38	-1.611450	0.001903
S (181.972 nm)	17.729847 o	ppm	0.004509	0.03	7347.219318	17.729847 o
Sb (206.834 nm)	-0.001518 u	ppm	0.001531	> 100.00	3.319030	-0.001518 u
Se (196.026 nm)	-0.001334 u	ppm	0.001526	> 100.00	8.542900	-0.001334 u
Si (288.158 nm)	22.826700 o	ppm	0.047313	0.21	155351.000000	22.826700 o
Sn (189.925 nm)	-0.001694 u	ppm	0.001861	> 100.00	5.229580	-0.001694 u
Sr (421.552 nm)	0.028481	ppm	0.000122	0.43	5234.218847	0.028481
Th (288.505 nm)	0.011057	ppm	0.000716	6.48	138.717000	0.011057
Ti (336.122 nm)	0.004730	ppm	0.000095	2.00	414.288000	0.004730
Tl (190.794 nm)	0.001795	ppm	0.000490	27.30	-4.529890	0.001795
U (409.013 nm)	-0.010699 u	ppm	0.005849	54.67	51.034800	-0.010699 u
V (292.401 nm)	-0.000549 u	ppm	0.000090	16.36	23.748200	-0.000549 u
Zn (206.200 nm)	0.488195	ppm	0.000655	0.13	2313.130000	0.488195
Zr (343.823 nm)	-0.000346 u	ppm	0.000111	31.96	79.273700	-0.000346 u

Solution Name: 280-191169-C-7-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191169-C-7-A	5/14/2024 7:07:34 AM	2:29	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.094605	ppm	0.000203	0.21	119570.991570	0.094605
Ag (328.068 nm)	-0.000335 u	ppm	0.000241	71.89	-44.297400	-0.000335 u
Al (167.019 nm)	0.010900	ppm	0.002897	26.58	6.428890	0.010900
Al H (396.152 nm)	-0.015812 u	ppm	0.007321	46.30	59.411615	-0.015812 u
As (188.980 nm)	-0.001276 u	ppm	0.002885	> 100.00	-1.163910	-0.001276 u
B (249.678 nm)	0.004826	ppm	0.000327	6.79	198.285000	0.004826
Ba (493.408 nm)	0.122779	ppm	0.001023	0.83	10632.900000	0.122779
Be (234.861 nm)	0.000116	ppm	0.000015	12.52	-0.994225	0.000116
Bi (223.061 nm)	-0.002477 u	ppm	0.001178	47.55	-2.882390	-0.002477 u
Ca (315.887 nm)	30.709167 o	ppm	0.164598	0.54	27436.579333	30.709167 o
Cd (214.439 nm)	0.000168	ppm	0.000030	17.76	-4.629730	0.000168
Co (228.615 nm)	0.003819	ppm	0.000164	4.29	42.671100	0.003819
Cr (205.560 nm)	0.000025 u	ppm	0.000366	> 100.00	18.134400	0.000025 u
Cu (324.754 nm)	0.011533	ppm	0.000066	0.57	1833.260000	0.011533
Fe (238.204 nm)	0.080728	ppm	0.001314	1.63	308.796593	0.080728
Fe H (259.940 nm)	0.150157 u	ppm	0.002683	1.79	172.721000	0.150157 u
K (766.491 nm)	2.735390	ppm	0.069646	2.55	424.863000	2.735390
Li (670.783 nm)	0.133917	ppm	0.000313	0.23	1628.460000	0.133917
Mg (279.078 nm)	24.463300	ppm	0.065364	0.27	117431.000000	24.463300
Mn (257.610 nm)	0.286388	ppm	0.000298	0.10	55090.600000	0.286388
Mo (202.032 nm)	0.000210	ppm	0.000224	> 100.00	8.577920	0.000210
Na (589.592 nm)	52.404300	ppm	0.315396	0.60	225430.000000	52.404300
Na H (589.593 nm)	47.243903	ppm	0.233079	0.49	148506.906572	47.243903
Ni (231.604 nm)	0.041127	ppm	0.000924	2.25	261.198000	0.041127
P (213.618 nm)	-0.001332 u	ppm	0.000538	40.43	6.535490	-0.001332 u
Pb (220.353 nm)	0.000205 u	ppm	0.000439	> 100.00	-5.758910	0.000205 u
S (181.972 nm)	1.348994	ppm	0.006499	0.48	577.793794	1.348994
Sb (206.834 nm)	-0.001717 u	ppm	0.000512	29.81	3.514500	-0.001717 u
Se (196.026 nm)	-0.001789 u	ppm	0.002415	> 100.00	7.491960	-0.001789 u
Si (288.158 nm)	15.187900 o	ppm	0.009766	0.06	103639.000000	15.187900 o
Sn (189.925 nm)	-0.001517 u	ppm	0.000274	18.09	5.448590	-0.001517 u
Sr (421.552 nm)	0.079389	ppm	0.000465	0.59	14556.494488	0.079389
Th (288.505 nm)	0.005834	ppm	0.002535	43.45	113.909000	0.005834
Ti (336.122 nm)	0.000548	ppm	0.000038	6.95	11.075600	0.000548
Tl (190.794 nm)	0.001585	ppm	0.000732	46.17	-4.829030	0.001585
U (409.013 nm)	-0.012645 u	ppm	0.006230	49.27	39.171600	-0.012645 u
V (292.401 nm)	-0.001000 u	ppm	0.000200	19.96	10.739500	-0.001000 u
Zn (206.200 nm)	0.034966	ppm	0.000605	1.73	173.256000	0.034966
Zr (343.823 nm)	-0.000803 u	ppm	0.000069	8.54	-4.144680	-0.000803 u

Solution Name: 280-191184-A-5-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191184-A-5-A	5/14/2024 7:11:22 AM	2:30	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.003821	ppm	0.000049	1.28	2000.864021	0.003821
Ag (328.068 nm)	-0.000601 u	ppm	0.000202	33.56	-60.007900	-0.000601 u
Al (167.019 nm)	0.003679	ppm	0.001496	40.68	2.847730	0.003679
Al H (396.152 nm)	-0.023125 u	ppm	0.002835	12.26	42.473609	-0.023125 u
As (188.980 nm)	0.002155	ppm	0.001352	62.77	2.504380	0.002155
B (249.678 nm)	0.019508	ppm	0.000355	1.82	524.743000	0.019508
Ba (493.408 nm)	0.024785	ppm	0.000831	3.35	2119.750000	0.024785
Be (234.861 nm)	0.000037	ppm	0.000025	66.34	-21.921100	0.000037
Bi (223.061 nm)	-0.001628 u	ppm	0.000530	32.59	-1.334940	-0.001628 u
Ca (315.887 nm)	24.944851 o	ppm	0.110654	0.44	22278.797409	24.944851 o
Cd (214.439 nm)	0.000138	ppm	0.000057	41.19	-6.251490	0.000138
Co (228.615 nm)	0.000349	ppm	0.000073	20.78	-10.458100	0.000349
Cr (205.560 nm)	0.003267	ppm	0.000131	4.00	56.320000	0.003267
Cu (324.754 nm)	-0.001955 u	ppm	0.000069	3.53	1156.620000	-0.001955 u
Fe (238.204 nm)	0.014745	ppm	0.000847	5.74	83.166919	0.014745
Fe H (259.940 nm)	0.081549 u	ppm	0.000657	0.81	42.434600	0.081549 u
K (766.491 nm)	4.056590	ppm	0.100679	2.48	1313.350000	4.056590
Li (670.783 nm)	0.030131	ppm	0.002843	9.43	-223.816000	0.030131
Mg (279.078 nm)	8.469160	ppm	0.034718	0.41	40663.900000	8.469160
Mn (257.610 nm)	0.000341	ppm	0.000029	8.62	98.087600	0.000341
Mo (202.032 nm)	0.008500	ppm	0.000122	1.44	64.958200	0.008500
Na (589.592 nm)	22.829200	ppm	0.096900	0.42	99591.800000	22.829200
Na H (589.593 nm)	18.970965	ppm	0.498834	2.63	65187.814811	18.970965
Ni (231.604 nm)	0.000163 u	ppm	0.000316	> 100.00	20.966200	0.000163 u
P (213.618 nm)	0.043522	ppm	0.001107	2.54	102.697000	0.043522
Pb (220.353 nm)	-0.000149 u	ppm	0.000434	> 100.00	-6.610210	-0.000149 u
S (181.972 nm)	6.784663	ppm	0.024191	0.36	2822.971456	6.784663
Sb (206.834 nm)	-0.002395 u	ppm	0.001352	56.46	2.117380	-0.002395 u
Se (196.026 nm)	0.000252 u	ppm	0.002091	> 100.00	9.212590	0.000252 u
Si (288.158 nm)	18.494500 o	ppm	0.094829	0.51	126023.000000	18.494500 o
Sn (189.925 nm)	-0.002998 u	ppm	0.001189	39.67	3.056110	-0.002998 u
Sr (421.552 nm)	0.102412	ppm	0.002363	2.31	18772.423837	0.102412
Th (288.505 nm)	0.002441	ppm	0.001401	57.38	103.585000	0.002441
Ti (336.122 nm)	0.000665	ppm	0.000033	4.90	10.677400	0.000665
Tl (190.794 nm)	0.002401	ppm	0.001037	43.18	-3.506770	0.002401
U (409.013 nm)	-0.011042 u	ppm	0.007538	68.26	45.225000	-0.011042 u
V (292.401 nm)	0.027378	ppm	0.000050	0.18	838.088000	0.027378
Zn (206.200 nm)	0.001344	ppm	0.000086	6.39	14.515700	0.001344
Zr (343.823 nm)	-0.000826 u	ppm	0.000136	16.44	7.839290	-0.000826 u

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/14/2024 7:15:09 AM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001261	ppm	0.000016	1.30	-1314.592101	0.001261
Ag (328.068 nm)	0.000652	ppm	0.000100	15.29	-62.532700	0.000652
Al (167.019 nm)	44.831100 o	ppm	0.312240	0.70	21972.600000	44.831100 o
Al H (396.152 nm)	48.026970	ppm	0.212358	0.44	101168.955302	48.026970
As (188.980 nm)	-0.002462 u	ppm	0.000946	38.42	-3.519910	-0.002462 u
B (249.678 nm)	0.000194 u	ppm	0.000552	> 100.00	26.190700	0.000194 u
Ba (493.408 nm)	0.001087	ppm	0.000418	38.50	61.014700	0.001087
Be (234.861 nm)	0.000105	ppm	0.000028	26.75	496.677000	0.000105
Bi (223.061 nm)	0.003822	ppm	0.001018	26.63	8.590080	0.003822
Ca (315.887 nm)	0.003376	ppm	0.001627	48.19	-38.280412	0.003376
Cd (214.439 nm)	-0.000057 u	ppm	0.000037	64.42	21.970400	-0.000057 u
Co (228.615 nm)	-0.000090 u	ppm	0.000141	> 100.00	-17.218400	-0.000090 u
Cr (205.560 nm)	0.000104 u	ppm	0.000153	> 100.00	9.268250	0.000104 u
Cu (324.754 nm)	0.001115	ppm	0.000198	17.77	2063.240000	0.001115
Fe (238.204 nm)	47.431570 o	ppm	0.249594	0.53	162226.631845	47.431570 o
Fe H (259.940 nm)	47.398600	ppm	0.257679	0.54	89897.400000	47.398600
K (766.491 nm)	0.723073	ppm	0.031952	4.42	-928.395000	0.723073
Li (670.783 nm)	0.023387	ppm	0.001562	6.68	-344.175000	0.023387
Mg (279.078 nm)	-0.011669 u	ppm	0.001488	12.76	-160.719000	-0.011669 u
Mn (257.610 nm)	-0.000015 u	ppm	0.000012	83.81	29.613200	-0.000015 u
Mo (202.032 nm)	-0.000852 u	ppm	0.000192	22.56	1.354460	-0.000852 u
Na (589.592 nm)	244.318000	ppm	0.805083	0.33	1040120.000000	244.318000
Na H (589.593 nm)	228.525062	ppm	0.728849	0.32	681444.970859	228.525062
Ni (231.604 nm)	-0.001429 u	ppm	0.000529	37.05	11.631500	-0.001429 u
P (213.618 nm)	4.575180	ppm	0.011181	0.24	9708.780000	4.575180
Pb (220.353 nm)	-0.004296 u	ppm	0.001879	43.73	-24.884000	-0.004296 u
S (181.972 nm)	4.965619	ppm	0.004693	0.09	2071.394126	4.965619
Sb (206.834 nm)	0.002266 u	ppm	0.002920	> 100.00	-1.395650	0.002266 u
Se (196.026 nm)	-0.000924 u	ppm	0.002177	> 100.00	2.098760	-0.000924 u
Si (288.158 nm)	0.000063 u	ppm	0.001397	> 100.00	821.988000	0.000063 u
Sn (189.925 nm)	-0.000571 u	ppm	0.001097	> 100.00	7.797600	-0.000571 u
Sr (421.552 nm)	0.000224	ppm	0.000047	20.99	59.957065	0.000224
Th (288.505 nm)	4.775230	ppm	0.069161	1.45	9361.990000	4.775230
Ti (336.122 nm)	0.001220	ppm	0.000050	4.12	14.228900	0.001220
Tl (190.794 nm)	-0.001081 u	ppm	0.001056	97.63	-10.142200	-0.001081 u
U (409.013 nm)	2.455600	ppm	0.003631	0.15	8239.060000	2.455600
V (292.401 nm)	-0.000306 u	ppm	0.000311	> 100.00	240.341000	-0.000306 u
Zn (206.200 nm)	0.000998	ppm	0.000075	7.47	12.879600	0.000998
Zr (343.823 nm)	0.001457	ppm	0.000158	10.87	236.634000	0.001457

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/14/2024 7:19:01 AM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.447729 Q	ppm	0.000912	0.20	576881.864037 Q	0.447729 Q
Ag (328.068 nm)	0.477411	ppm	0.001562	0.33	18179.700000	0.477411
Al (167.019 nm)	0.480703	ppm	0.003335	0.69	237.949000	0.480703
Al H (396.152 nm)	0.460155 u	ppm	0.005235	1.14	1083.827428	0.460155 u
As (188.980 nm)	0.462202	ppm	0.002256	0.49	494.176000	0.462202
B (249.678 nm)	0.457317	ppm	0.001764	0.39	10275.300000	0.457317
Ba (493.408 nm)	0.491784	ppm	0.003608	0.73	42688.200000	0.491784
Be (234.861 nm)	0.443642 Q	ppm	0.003049	0.69	111522.000000 Q	0.443642 Q
Bi (223.061 nm)	0.983188	ppm	0.002257	0.23	1792.310000	0.983188
Ca (315.887 nm)	4.669460	ppm	0.025338	0.54	4136.828018	4.669460
Cd (214.439 nm)	0.482329	ppm	0.001052	0.22	24916.700000	0.482329
Co (228.615 nm)	0.471927	ppm	0.001143	0.24	7190.340000	0.471927
Cr (205.560 nm)	0.488179	ppm	0.001307	0.27	5763.400000	0.488179
Cu (324.754 nm)	0.444532 Q	ppm	0.000215	0.05	23746.300000 Q	0.444532 Q
Fe (238.204 nm)	2.339138	ppm	0.007599	0.32	8031.506561	2.339138
Fe H (259.940 nm)	2.408940 u	ppm	0.007556	0.31	4462.140000	2.408940 u
K (766.491 nm)	51.594600	ppm	0.148673	0.29	33282.000000	51.594600
Li (670.783 nm)	0.538161	ppm	0.003635	0.68	8843.010000	0.538161
Mg (279.078 nm)	18.519200	ppm	0.029440	0.16	88897.700000	18.519200
Mn (257.610 nm)	0.480370	ppm	0.000154	0.03	92383.700000	0.480370
Mo (202.032 nm)	0.486514	ppm	0.000697	0.14	3315.940000	0.486514
Na (589.592 nm)	24.750600	ppm	0.021089	0.09	108913.000000	24.750600
Na H (589.593 nm)	21.047254	ppm	0.201493	0.96	72096.143851	21.047254
Ni (231.604 nm)	0.485860	ppm	0.001172	0.24	2869.850000	0.485860
P (213.618 nm)	0.018041	ppm	0.000862	4.78	13.436900	0.018041
Pb (220.353 nm)	0.459910	ppm	0.002692	0.59	1077.020000	0.459910
S (181.972 nm)	-0.013391 u	ppm	0.002271	16.96	17.586040	-0.013391 u
Sb (206.834 nm)	0.491865	ppm	0.001976	0.40	1078.490000	0.491865
Se (196.026 nm)	0.457353	ppm	0.002275	0.50	405.575000	0.457353
Si (288.158 nm)	4.787740	ppm	0.001820	0.04	33440.300000	4.787740
Sn (189.925 nm)	0.488875	ppm	0.002925	0.60	797.317000	0.488875
Sr (421.552 nm)	0.470011	ppm	0.003186	0.68	86086.629977	0.470011
Th (288.505 nm)	0.054158	ppm	0.033404	61.68	212.868000	0.054158
Ti (336.122 nm)	0.481203	ppm	0.000213	0.04	51765.900000	0.481203
Tl (190.794 nm)	0.486848	ppm	0.003484	0.72	793.172000	0.486848
U (409.013 nm)	-0.015914 u	ppm	0.002515	15.80	7.023290	-0.015914 u
V (292.401 nm)	0.476676	ppm	0.000162	0.03	13861.800000	0.476676
Zn (206.200 nm)	0.439973 Q	ppm	0.001016	0.23	2085.450000 Q	0.439973 Q
Zr (343.823 nm)	0.471781	ppm	0.005660	1.20	44111.500000	0.471781

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/14/2024 7:22:47 AM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000868	ppm	0.000015	1.69	-1822.754458	0.000868
Ag (328.068 nm)	-0.000758 u	ppm	0.000235	31.05	-60.616000	-0.000758 u
Al (167.019 nm)	-0.002096 u	ppm	0.004011	> 100.00	0.011137	-0.002096 u
Al H (396.152 nm)	-0.033609 u	ppm	0.002803	8.34	10.845082	-0.033609 u
As (188.980 nm)	-0.001912 u	ppm	0.000200	10.45	-1.841980	-0.001912 u
B (249.678 nm)	-0.000085 u	ppm	0.000102	> 100.00	89.062700	-0.000085 u
Ba (493.408 nm)	0.000316	ppm	0.000244	77.03	-5.927580	0.000316
Be (234.861 nm)	0.000028	ppm	0.000003	9.28	-23.935200	0.000028
Bi (223.061 nm)	-0.001094 u	ppm	0.001213	> 100.00	-0.362233	-0.001094 u
Ca (315.887 nm)	0.015203	ppm	0.008060	53.02	-27.698162	0.015203
Cd (214.439 nm)	0.000135	ppm	0.000039	28.79	-6.415200	0.000135
Co (228.615 nm)	0.000224 u	ppm	0.000288	> 100.00	-12.433400	0.000224 u
Cr (205.560 nm)	-0.000140 u	ppm	0.000161	> 100.00	16.208400	-0.000140 u
Cu (324.754 nm)	-0.001857 u	ppm	0.000114	6.14	1164.230000	-0.001857 u
Fe (238.204 nm)	0.000184 u	ppm	0.001292	> 100.00	33.375899	0.000184 u
Fe H (259.940 nm)	0.072397 u	ppm	0.000848	1.17	25.054900	0.072397 u
K (766.491 nm)	0.573359	ppm	0.011420	1.99	-1029.080000	0.573359
Li (670.783 nm)	0.023945 S	ppm	0.001889	7.89	-334.202000 S	0.023945 S
Mg (279.078 nm)	0.000140 u	ppm	0.000684	> 100.00	15.454000	0.000140 u
Mn (257.610 nm)	-0.000002 u	ppm	0.000029	> 100.00	32.088300	-0.000002 u
Mo (202.032 nm)	0.000776	ppm	0.000337	43.37	12.424300	0.000776
Na (589.592 nm)	-0.292686 u	ppm	0.013505	4.61	1340.390000	-0.292686 u
Na H (589.593 nm)	-2.544428 u	ppm	0.018787	0.74	1869.246127	-2.544428 u
Ni (231.604 nm)	-0.001542 u	ppm	0.000457	29.62	10.969200	-0.001542 u
P (213.618 nm)	-0.002800 u	ppm	0.000520	18.59	4.509880	-0.002800 u
Pb (220.353 nm)	0.000762 u	ppm	0.001247	> 100.00	-4.422380	0.000762 u
S (181.972 nm)	-0.003792 u	ppm	0.003778	99.64	18.348314	-0.003792 u
Sb (206.834 nm)	-0.001308 u	ppm	0.000642	49.03	4.376050	-0.001308 u
Se (196.026 nm)	-0.001292 u	ppm	0.001803	> 100.00	7.010930	-0.001292 u
Si (288.158 nm)	-0.013578 u	ppm	0.000617	4.54	728.895000	-0.013578 u
Sn (189.925 nm)	-0.002076 u	ppm	0.000791	38.10	4.544410	-0.002076 u
Sr (421.552 nm)	-0.000016 u	ppm	0.000011	70.30	16.029737	-0.000016 u
Th (288.505 nm)	-0.003728 u	ppm	0.001256	33.68	91.248600	-0.003728 u
Ti (336.122 nm)	0.000556	ppm	0.000064	11.57	-57.391800	0.000556
Tl (190.794 nm)	0.001814	ppm	0.001162	64.08	-4.459380	0.001814
U (409.013 nm)	-0.010449 u	ppm	0.001630	15.60	50.636600	-0.010449 u
V (292.401 nm)	-0.000728 u	ppm	0.000228	31.27	16.474700	-0.000728 u
Zn (206.200 nm)	-0.000676 u	ppm	0.000087	12.88	4.978290	-0.000676 u
Zr (343.823 nm)	0.000066 u	ppm	0.000180	> 100.00	11.341400	0.000066 u

Solution Name: 280-191184-A-5-B MS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191184-A-5-B MS	5/14/2024 7:26:18 AM	2:31	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.001602	ppm	0.000130	0.01	1294172.689098	1.001602
Ag (328.068 nm)	0.046512	ppm	0.000089	0.19	1722.200000	0.046512
Al (167.019 nm)	9.449720 o	ppm	0.081689	0.86	4631.970000	9.449720 o
Al H (396.152 nm)	9.788664	ppm	0.084151	0.86	20777.158404	9.788664
As (188.980 nm)	0.974388	ppm	0.002425	0.25	1041.460000	0.974388
B (249.678 nm)	1.923320 o	ppm	0.004569	0.24	42882.100000	1.923320 o
Ba (493.408 nm)	1.024230	ppm	0.007542	0.74	88942.300000	1.024230
Be (234.861 nm)	0.923220	ppm	0.007631	0.83	232154.000000	0.923220
Bi (223.061 nm)	0.000139 u	ppm	0.002301	> 100.00	1.883640	0.000139 u
Ca (315.887 nm)	71.940773 o	ppm	0.448187	0.62	64329.705967	71.940773 o
Cd (214.439 nm)	0.943266	ppm	0.002376	0.25	48745.200000	0.943266
Co (228.615 nm)	0.914457	ppm	0.003173	0.35	13949.200000	0.914457
Cr (205.560 nm)	0.979397	ppm	0.001404	0.14	11543.500000	0.979397
Cu (324.754 nm)	0.886327	ppm	0.005924	0.67	46054.300000	0.886327
Fe (238.204 nm)	9.528040 o	ppm	0.058955	0.62	32614.207308	9.528040 o
Fe H (259.940 nm)	9.676250	ppm	0.057734	0.60	18262.700000	9.676250
K (766.491 nm)	57.638600	ppm	0.174799	0.30	37346.500000	57.638600
Li (670.783 nm)	1.070740	ppm	0.003079	0.29	18348.000000	1.070740
Mg (279.078 nm)	55.791700 o	ppm	0.111214	0.20	267784.000000	55.791700 o
Mn (257.610 nm)	0.956247	ppm	0.001989	0.21	183871.000000	0.956247
Mo (202.032 nm)	1.004330	ppm	0.004413	0.44	6837.640000	1.004330
Na (589.592 nm)	73.106600	ppm	0.107612	0.15	315586.000000	73.106600
Na H (589.593 nm)	67.085391	ppm	0.448250	0.67	208406.724509	67.085391
Ni (231.604 nm)	0.931867	ppm	0.000975	0.10	5485.960000	0.931867
P (213.618 nm)	18.920400 o	ppm	0.064911	0.34	40052.500000	18.920400 o
Pb (220.353 nm)	0.906873	ppm	0.003197	0.35	2126.790000	0.906873
S (181.972 nm)	26.627991 o	ppm	0.043960	0.17	11027.384100	26.627991 o
Sb (206.834 nm)	0.994573	ppm	0.002125	0.21	2172.240000	0.994573
Se (196.026 nm)	0.925840	ppm	0.002273	0.25	812.998000	0.925840
Si (288.158 nm)	27.890100 o	ppm	0.217472	0.78	190053.000000	27.890100 o
Sn (189.925 nm)	0.997195	ppm	0.000789	0.08	1618.220000	0.997195
Sr (421.552 nm)	1.057211	ppm	0.007973	0.75	193613.680909	1.057211
Th (288.505 nm)	0.020250	ppm	0.003639	17.97	157.097000	0.020250
Ti (336.122 nm)	0.976851	ppm	0.000290	0.03	105348.000000	0.976851
Tl (190.794 nm)	0.970005	ppm	0.005847	0.60	1587.440000	0.970005
U (409.013 nm)	-0.004091 u	ppm	0.005632	> 100.00	13.521300	-0.004091 u
V (292.401 nm)	0.988749	ppm	0.001594	0.16	28712.000000	0.988749
Zn (206.200 nm)	0.871050	ppm	0.001925	0.22	4120.740000	0.871050
Zr (343.823 nm)	0.969544	ppm	0.006438	0.66	90734.100000	0.969544

Solution Name: 280-191184-A-5-C MSD

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191184-A-5-C MSD	5/14/2024 7:30:06 AM	2:32	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.994750	ppm	0.001707	0.17	1285298.741660	0.994750
Ag (328.068 nm)	0.046227	ppm	0.000213	0.46	1714.240000	0.046227
Al (167.019 nm)	9.426540 o	ppm	0.073537	0.78	4620.580000	9.426540 o
Al H (396.152 nm)	9.749038	ppm	0.007634	0.08	20694.111233	9.749038
As (188.980 nm)	0.967374	ppm	0.003476	0.36	1033.970000	0.967374
B (249.678 nm)	1.913640 o	ppm	0.001031	0.05	42666.700000	1.913640 o
Ba (493.408 nm)	1.019980	ppm	0.007496	0.73	88572.900000	1.019980
Be (234.861 nm)	0.916323	ppm	0.009768	1.07	230419.000000	0.916323
Bi (223.061 nm)	-0.001057 u	ppm	0.002896	> 100.00	-0.296125	-0.001057 u
Ca (315.887 nm)	71.850974 o	ppm	0.514651	0.72	64249.356030	71.850974 o
Cd (214.439 nm)	0.945803	ppm	0.002431	0.26	48876.200000	0.945803
Co (228.615 nm)	0.910553	ppm	0.001691	0.19	13889.800000	0.910553
Cr (205.560 nm)	0.978898	ppm	0.001225	0.13	11537.700000	0.978898
Cu (324.754 nm)	0.886816	ppm	0.002010	0.23	46071.500000	0.886816
Fe (238.204 nm)	9.465903 o	ppm	0.066609	0.70	32401.725895	9.465903 o
Fe H (259.940 nm)	9.615140	ppm	0.066354	0.69	18146.700000	9.615140
K (766.491 nm)	57.378500	ppm	0.226885	0.40	37171.600000	57.378500
Li (670.783 nm)	1.059490	ppm	0.002289	0.22	18147.200000	1.059490
Mg (279.078 nm)	55.883900 o	ppm	0.157049	0.28	268226.000000	55.883900 o
Mn (257.610 nm)	0.955363	ppm	0.001998	0.21	183701.000000	0.955363
Mo (202.032 nm)	1.010980	ppm	0.003998	0.40	6882.870000	1.010980
Na (589.592 nm)	72.577400	ppm	0.072934	0.10	313328.000000	72.577400
Na H (589.593 nm)	66.915507	ppm	0.513126	0.77	207899.670095	66.915507
Ni (231.604 nm)	0.933760	ppm	0.001378	0.15	5497.060000	0.933760
P (213.618 nm)	18.824500 o	ppm	0.021582	0.11	39849.200000	18.824500 o
Pb (220.353 nm)	0.904614	ppm	0.002008	0.22	2121.460000	0.904614
S (181.972 nm)	26.615299 o	ppm	0.055573	0.21	11022.134980	26.615299 o
Sb (206.834 nm)	0.999161	ppm	0.002461	0.25	2182.020000	0.999161
Se (196.026 nm)	0.925628	ppm	0.005778	0.62	812.829000	0.925628
Si (288.158 nm)	28.087200 o	ppm	0.092642	0.33	191389.000000	28.087200 o
Sn (189.925 nm)	1.006360	ppm	0.001808	0.18	1633.020000	1.006360
Sr (421.552 nm)	1.052039	ppm	0.007050	0.67	192666.613012	1.052039
Th (288.505 nm)	0.011330	ppm	0.001635	14.43	140.094000	0.011330
Ti (336.122 nm)	0.980243	ppm	0.001217	0.12	105713.000000	0.980243
Tl (190.794 nm)	0.969657	ppm	0.003029	0.31	1586.840000	0.969657
U (409.013 nm)	-0.002895 u	ppm	0.003738	> 100.00	16.545100	-0.002895 u
V (292.401 nm)	0.987308	ppm	0.001269	0.13	28667.400000	0.987308
Zn (206.200 nm)	0.872082	ppm	0.001383	0.16	4125.610000	0.872082
Zr (343.823 nm)	0.986185	ppm	0.001457	0.15	92289.600000	0.986185

Solution Name: 280-191184-A-7-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191184-A-7-A	5/14/2024 7:33:54 AM	2:33	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.003909	ppm	0.000019	0.47	2115.574994	0.003909
Ag (328.068 nm)	-0.000350 u	ppm	0.000141	40.39	-50.730300	-0.000350 u
Al (167.019 nm)	0.001073	ppm	0.001022	95.28	1.563880	0.001073
Al H (396.152 nm)	-0.022015 u	ppm	0.002899	13.17	46.358846	-0.022015 u
As (188.980 nm)	0.000915 u	ppm	0.001843	> 100.00	1.179720	0.000915 u
B (249.678 nm)	0.018588	ppm	0.000582	3.13	504.277000	0.018588
Ba (493.408 nm)	0.026898	ppm	0.000235	0.88	2303.360000	0.026898
Be (234.861 nm)	0.000031	ppm	0.000022	73.22	-24.184300	0.000031
Bi (223.061 nm)	-0.000415 u	ppm	0.001531	> 100.00	0.873634	-0.000415 u
Ca (315.887 nm)	27.794375 o	ppm	0.043534	0.16	24828.488861	27.794375 o
Cd (214.439 nm)	0.000153	ppm	0.000031	20.50	-5.474750	0.000153
Co (228.615 nm)	0.000185	ppm	0.000101	54.78	-12.953200	0.000185
Cr (205.560 nm)	0.006462	ppm	0.000395	6.12	93.935600	0.006462
Cu (324.754 nm)	-0.002288 u	ppm	0.000188	8.20	1138.720000	-0.002288 u
Fe (238.204 nm)	0.002937	ppm	0.001539	52.40	42.786615	0.002937
Fe H (259.940 nm)	0.073122 u	ppm	0.000607	0.83	26.430600	0.073122 u
K (766.491 nm)	4.050100	ppm	0.025071	0.62	1308.980000	4.050100
Li (670.783 nm)	0.031753	ppm	0.000551	1.73	-194.852000	0.031753
Mg (279.078 nm)	8.952860	ppm	0.014923	0.17	42985.500000	8.952860
Mn (257.610 nm)	0.000095	ppm	0.000029	30.14	50.808000	0.000095
Mo (202.032 nm)	0.016316	ppm	0.001224	7.50	118.109000	0.016316
Na (589.592 nm)	17.032700	ppm	0.051540	0.30	74981.300000	17.032700
Na H (589.593 nm)	13.716364	ppm	0.100431	0.73	49737.712204	13.716364
Ni (231.604 nm)	-0.002611 u	ppm	0.000199	7.63	4.697640	-0.002611 u
P (213.618 nm)	0.042430	ppm	0.000810	1.91	100.398000	0.042430
Pb (220.353 nm)	-0.000861 u	ppm	0.000951	> 100.00	-8.313130	-0.000861 u
S (181.972 nm)	7.873398	ppm	0.022514	0.29	3272.767440	7.873398
Sb (206.834 nm)	-0.001423 u	ppm	0.001615	> 100.00	4.264560	-0.001423 u
Se (196.026 nm)	0.000393 u	ppm	0.001961	> 100.00	9.463090	0.000393 u
Si (288.158 nm)	21.218800 o	ppm	0.068425	0.32	144466.000000	21.218800 o
Sn (189.925 nm)	-0.000648 u	ppm	0.000376	58.08	6.849800	-0.000648 u
Sr (421.552 nm)	0.115566	ppm	0.000837	0.72	21181.068274	0.115566
Th (288.505 nm)	0.002274	ppm	0.000499	21.93	103.340000	0.002274
Ti (336.122 nm)	0.000866	ppm	0.000067	7.80	38.725700	0.000866
Tl (190.794 nm)	0.002755	ppm	0.001804	65.49	-2.938470	0.002755
U (409.013 nm)	-0.006259 u	ppm	0.004419	70.60	60.611400	-0.006259 u
V (292.401 nm)	0.029355	ppm	0.000185	0.63	894.713000	0.029355
Zn (206.200 nm)	0.000138 u	ppm	0.000460	> 100.00	8.818660	0.000138 u
Zr (343.823 nm)	-0.000341 u	ppm	0.000133	38.92	64.765800	-0.000341 u

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/14/2024 7:37:40 AM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001292	ppm	0.000023	1.75	-1273.669120	0.001292
Ag (328.068 nm)	0.000660	ppm	0.000062	9.45	-61.082800	0.000660
Al (167.019 nm)	44.859000 o	ppm	0.289503	0.65	21986.100000	44.859000 o
Al H (396.152 nm)	47.892856	ppm	0.263655	0.55	100886.719855	47.892856
As (188.980 nm)	-0.001735 u	ppm	0.001311	75.52	-2.740590	-0.001735 u
B (249.678 nm)	0.001510	ppm	0.000229	15.15	55.624200	0.001510
Ba (493.408 nm)	0.001300	ppm	0.000081	6.23	79.549800	0.001300
Be (234.861 nm)	0.000095	ppm	0.000027	28.09	492.778000	0.000095
Bi (223.061 nm)	0.004192	ppm	0.001561	37.23	9.265330	0.004192
Ca (315.887 nm)	0.003820 u	ppm	0.005113	> 100.00	-37.883853	0.003820 u
Cd (214.439 nm)	0.000004 u	ppm	0.000055	> 100.00	25.050800	0.000004 u
Co (228.615 nm)	0.000179 u	ppm	0.000208	> 100.00	-13.119000	0.000179 u
Cr (205.560 nm)	0.000164	ppm	0.000096	58.52	10.012900	0.000164
Cu (324.754 nm)	0.001021	ppm	0.000230	22.51	2064.460000	0.001021
Fe (238.204 nm)	47.333572 o	ppm	0.259967	0.55	161891.525066	47.333572 o
Fe H (259.940 nm)	47.335000	ppm	0.241343	0.51	89776.600000	47.335000
K (766.491 nm)	0.779072	ppm	0.078581	10.09	-890.737000	0.779072
Li (670.783 nm)	0.026271	ppm	0.002190	8.34	-292.703000	0.026271
Mg (279.078 nm)	-0.011011 u	ppm	0.000413	3.75	-157.246000	-0.011011 u
Mn (257.610 nm)	-0.000031 u	ppm	0.000014	45.68	26.582500	-0.000031 u
Mo (202.032 nm)	-0.000081 u	ppm	0.000110	> 100.00	6.598970	-0.000081 u
Na (589.592 nm)	242.782000	ppm	0.822886	0.34	1033600.000000	242.782000
Na H (589.593 nm)	226.629302	ppm	1.583060	0.70	675870.015887	226.629302
Ni (231.604 nm)	-0.001031 u	ppm	0.000299	29.01	13.962800	-0.001031 u
P (213.618 nm)	4.555330	ppm	0.006378	0.14	9666.720000	4.555330
Pb (220.353 nm)	-0.004510 u	ppm	0.001274	28.25	-25.367800	-0.004510 u
S (181.972 nm)	4.956061	ppm	0.005534	0.11	2067.449818	4.956061
Sb (206.834 nm)	-0.001003 u	ppm	0.001878	> 100.00	-8.420910	-0.001003 u
Se (196.026 nm)	-0.000477 u	ppm	0.001300	> 100.00	2.500350	-0.000477 u
Si (288.158 nm)	0.002789	ppm	0.001797	64.44	840.512000	0.002789
Sn (189.925 nm)	-0.000447 u	ppm	0.000837	> 100.00	7.995250	-0.000447 u
Sr (421.552 nm)	0.000134	ppm	0.000086	64.42	43.415886	0.000134
Th (288.505 nm)	4.808290	ppm	0.046094	0.96	9425.800000	4.808290
Ti (336.122 nm)	0.001325	ppm	0.000096	7.24	25.539800	0.001325
Tl (190.794 nm)	-0.001942 u	ppm	0.002286	> 100.00	-11.559200	-0.001942 u
U (409.013 nm)	2.452420	ppm	0.006145	0.25	8228.090000	2.452420
V (292.401 nm)	-0.000470 u	ppm	0.000132	28.19	237.961000	-0.000470 u
Zn (206.200 nm)	0.000911	ppm	0.000054	5.89	12.468600	0.000911
Zr (343.823 nm)	0.007859	ppm	0.000366	4.65	834.574000	0.007859

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/14/2024 7:41:32 AM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.447864 Q	ppm	0.000439	0.10	577057.331333 Q	0.447864 Q
Ag (328.068 nm)	0.477341	ppm	0.000834	0.17	18181.400000	0.477341
Al (167.019 nm)	0.479230	ppm	0.000369	0.08	237.230000	0.479230
Al H (396.152 nm)	0.452893 u	ppm	0.001716	0.38	1068.652704	0.452893 u
As (188.980 nm)	0.460982	ppm	0.002590	0.56	492.871000	0.460982
B (249.678 nm)	0.457535	ppm	0.000647	0.14	10280.100000	0.457535
Ba (493.408 nm)	0.491296	ppm	0.002646	0.54	42645.800000	0.491296
Be (234.861 nm)	0.446983 Q	ppm	0.002168	0.48	112362.000000 Q	0.446983 Q
Bi (223.061 nm)	0.990004	ppm	0.002154	0.22	1804.720000	0.990004
Ca (315.887 nm)	4.677153	ppm	0.018630	0.40	4143.711213	4.677153
Cd (214.439 nm)	0.482734	ppm	0.001495	0.31	24937.700000	0.482734
Co (228.615 nm)	0.471264	ppm	0.000340	0.07	7180.240000	0.471264
Cr (205.560 nm)	0.489621	ppm	0.001553	0.32	5780.410000	0.489621
Cu (324.754 nm)	0.444923 Q	ppm	0.000387	0.09	23762.000000 Q	0.444923 Q
Fe (238.204 nm)	2.342949	ppm	0.013700	0.58	8044.539871	2.342949
Fe H (259.940 nm)	2.409600 u	ppm	0.009842	0.41	4463.400000	2.409600 u
K (766.491 nm)	51.373700	ppm	0.181431	0.35	33133.400000	51.373700
Li (670.783 nm)	0.534322	ppm	0.001218	0.23	8774.490000	0.534322
Mg (279.078 nm)	18.491200	ppm	0.050869	0.28	88763.800000	18.491200
Mn (257.610 nm)	0.480459	ppm	0.000628	0.13	92400.800000	0.480459
Mo (202.032 nm)	0.488484	ppm	0.002582	0.53	3329.340000	0.488484
Na (589.592 nm)	24.595300	ppm	0.116913	0.48	108253.000000	24.595300
Na H (589.593 nm)	20.938461	ppm	0.150752	0.72	71775.284670	20.938461
Ni (231.604 nm)	0.485606	ppm	0.001439	0.30	2868.360000	0.485606
P (213.618 nm)	0.018782	ppm	0.001081	5.75	14.942300	0.018782
Pb (220.353 nm)	0.459022	ppm	0.004076	0.89	1074.920000	0.459022
S (181.972 nm)	-0.011411 u	ppm	0.002534	22.21	18.406502	-0.011411 u
Sb (206.834 nm)	0.492583	ppm	0.002586	0.53	1079.990000	0.492583
Se (196.026 nm)	0.458078	ppm	0.002112	0.46	406.205000	0.458078
Si (288.158 nm)	4.805590	ppm	0.005708	0.12	33561.300000	4.805590
Sn (189.925 nm)	0.489383	ppm	0.001772	0.36	798.137000	0.489383
Sr (421.552 nm)	0.468107	ppm	0.003025	0.65	85737.847475	0.468107
Th (288.505 nm)	0.031231	ppm	0.021291	68.17	168.476000	0.031231
Ti (336.122 nm)	0.481331	ppm	0.000213	0.04	51779.800000	0.481331
Tl (190.794 nm)	0.487135	ppm	0.001422	0.29	793.639000	0.487135
U (409.013 nm)	-0.017798 u	ppm	0.003208	18.02	-0.600679	-0.017798 u
V (292.401 nm)	0.476524	ppm	0.000802	0.17	13855.800000	0.476524
Zn (206.200 nm)	0.440707 Q	ppm	0.001186	0.27	2088.910000 Q	0.440707 Q
Zr (343.823 nm)	0.497044	ppm	0.003626	0.73	46472.000000	0.497044

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/14/2024 7:45:19 AM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000910	ppm	0.000009	0.95	-1769.285259	0.000910
Ag (328.068 nm)	-0.000614 u	ppm	0.000104	16.91	-55.027000	-0.000614 u
Al (167.019 nm)	-0.001760 u	ppm	0.001459	82.89	0.175581	-0.001760 u
Al H (396.152 nm)	-0.038059 u	ppm	0.001960	5.15	1.491999	-0.038059 u
As (188.980 nm)	-0.001559 u	ppm	0.000912	58.52	-1.464230	-0.001559 u
B (249.678 nm)	0.000026 u	ppm	0.000126	> 100.00	91.528000	0.000026 u
Ba (493.408 nm)	0.000284	ppm	0.000090	31.78	-8.752400	0.000284
Be (234.861 nm)	0.000041	ppm	0.000023	55.25	-20.784500	0.000041
Bi (223.061 nm)	-0.000696 u	ppm	0.001030	> 100.00	0.362467	-0.000696 u
Ca (315.887 nm)	0.020122	ppm	0.002658	13.21	-23.296640	0.020122
Cd (214.439 nm)	0.000114	ppm	0.000033	28.94	-7.484880	0.000114
Co (228.615 nm)	0.000088 u	ppm	0.000161	> 100.00	-14.501500	0.000088 u
Cr (205.560 nm)	0.000072 u	ppm	0.000152	> 100.00	18.704000	0.000072 u
Cu (324.754 nm)	-0.001676 u	ppm	0.000046	2.76	1173.850000	-0.001676 u
Fe (238.204 nm)	-0.000109 u	ppm	0.000645	> 100.00	32.373280	-0.000109 u
Fe H (259.940 nm)	0.070036 u	ppm	0.001610	2.30	20.570100	0.070036 u
K (766.491 nm)	0.613515	ppm	0.061841	10.08	-1002.070000	0.613515
Li (670.783 nm)	0.024972 S	ppm	0.002085	8.35	-315.882000 S	0.024972 S
Mg (279.078 nm)	0.001514	ppm	0.001831	> 100.00	22.109000	0.001514
Mn (257.610 nm)	-0.000023 u	ppm	0.000017	72.51	28.042500	-0.000023 u
Mo (202.032 nm)	0.000967	ppm	0.000233	24.13	13.721000	0.000967
Na (589.592 nm)	-0.292964 u	ppm	0.002621	0.89	1339.040000	-0.292964 u
Na H (589.593 nm)	-2.565346 u	ppm	0.023478	0.92	1807.607042	-2.565346 u
Ni (231.604 nm)	-0.002452 u	ppm	0.000717	29.24	5.631060	-0.002452 u
P (213.618 nm)	-0.002145 u	ppm	0.002125	99.05	5.875350	-0.002145 u
Pb (220.353 nm)	0.000750	ppm	0.000199	26.57	-4.457060	0.000750
S (181.972 nm)	-0.006616 u	ppm	0.003803	57.48	17.172910	-0.006616 u
Sb (206.834 nm)	-0.001534 u	ppm	0.001747	> 100.00	3.908180	-0.001534 u
Se (196.026 nm)	-0.002682 u	ppm	0.001742	64.94	5.804220	-0.002682 u
Si (288.158 nm)	-0.013017 u	ppm	0.000312	2.40	733.063000	-0.013017 u
Sn (189.925 nm)	-0.001083 u	ppm	0.001974	> 100.00	6.147870	-0.001083 u
Sr (421.552 nm)	-0.000022 u	ppm	0.000012	54.09	14.800158	-0.000022 u
Th (288.505 nm)	-0.002042 u	ppm	0.003265	> 100.00	94.462900	-0.002042 u
Ti (336.122 nm)	0.000582	ppm	0.000130	22.38	-54.542600	0.000582
Tl (190.794 nm)	0.001826	ppm	0.001878	> 100.00	-4.440250	0.001826
U (409.013 nm)	-0.014639 u	ppm	0.006811	46.52	36.776800	-0.014639 u
V (292.401 nm)	-0.000713 u	ppm	0.000174	24.36	17.055100	-0.000713 u
Zn (206.200 nm)	-0.000316 u	ppm	0.000311	98.23	6.674860	-0.000316 u
Zr (343.823 nm)	0.000039 u	ppm	0.000049	> 100.00	8.841000	0.000039 u

Solution Name: icis

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
icis	5/14/2024 12:09:19 PM	S1:5	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000000 !	ppm	N/A	N/A	-2240.378377 !	0.000000 !
Ag (328.068 nm)	0.000000 !	ppm	N/A	N/A	-32.666300 !	0.000000 !
Al (394.401 nm)	0.000000 !	ppm	N/A	N/A	383.701000 !	0.000000 !
Al H (396.152 nm)	0.000000 !	ppm	N/A	N/A	20.352100 !	0.000000 !
As (188.980 nm)	0.000000 !	ppm	N/A	N/A	-0.871416 !	0.000000 !
B (249.678 nm)	0.000000 !	ppm	N/A	N/A	21.523400 !	0.000000 !
Ba (493.408 nm)	0.000000 !	ppm	N/A	N/A	-44.326700 !	0.000000 !
Be (234.861 nm)	0.000000 !	ppm	N/A	N/A	0.112720 !	0.000000 !
Bi (223.061 nm)	0.000000 !	ppm	N/A	N/A	4.243010 !	0.000000 !
Ca (315.887 nm)	0.000000 !	ppm	N/A	N/A	-14.847827 !	0.000000 !
Cd (214.439 nm)	0.000000 !	ppm	N/A	N/A	-3.469550 !	0.000000 !
Co (228.615 nm)	0.000000 !	ppm	N/A	N/A	-6.751050 !	0.000000 !
Cr (205.560 nm)	0.000000 !	ppm	N/A	N/A	8.992530 !	0.000000 !
Cu (324.754 nm)	0.000000 !	ppm	N/A	N/A	618.670000 !	0.000000 !
Fe (238.204 nm)	0.000000 !	ppm	N/A	N/A	21.127235 !	0.000000 !
Fe H (259.940 nm)	0.000000 !	ppm	N/A	N/A	13.389400 !	0.000000 !
K (766.491 nm)	0.000000 !	ppm	N/A	N/A	30.226000 !	0.000000 !
Li (670.783 nm)	0.000000 !	ppm	N/A	N/A	395.795000 !	0.000000 !
Mg (279.078 nm)	0.000000 !	ppm	N/A	N/A	4.070340 !	0.000000 !
Mn (257.610 nm)	0.000000 !	ppm	N/A	N/A	40.528500 !	0.000000 !
Mo (202.032 nm)	0.000000 !	ppm	N/A	N/A	5.342910 !	0.000000 !
Na (589.592 nm)	0.000000 !	ppm	N/A	N/A	2662.560000 !	0.000000 !
Na H (589.593 nm)	0.000000 !	ppm	N/A	N/A	1067.146933 !	0.000000 !
Ni (231.604 nm)	0.000000 !	ppm	N/A	N/A	-2.310760 !	0.000000 !
P (213.618 nm)	0.000000 !	ppm	N/A	N/A	-7.399720 !	0.000000 !
Pb (220.353 nm)	0.000000 !	ppm	N/A	N/A	2.279010 !	0.000000 !
S (181.972 nm)	0.000000 !	ppm	N/A	N/A	16.871343 !	0.000000 !
Sb (206.834 nm)	0.000000 !	ppm	N/A	N/A	4.700970 !	0.000000 !
Se (196.026 nm)	0.000000 !	ppm	N/A	N/A	4.517240 !	0.000000 !
Si (288.158 nm)	0.000000 !	ppm	N/A	N/A	709.932000 !	0.000000 !
Sn (189.925 nm)	0.000000 !	ppm	N/A	N/A	3.443670 !	0.000000 !
Sr (421.552 nm)	0.000000 !	ppm	N/A	N/A	37.531734 !	0.000000 !
Th (288.505 nm)	0.000000 !	ppm	N/A	N/A	26.613500 !	0.000000 !
Ti (336.122 nm)	0.000000 !	ppm	N/A	N/A	-120.848000 !	0.000000 !
Tl (190.794 nm)	0.000000 !	ppm	N/A	N/A	-1.457400 !	0.000000 !
U (409.013 nm)	0.000000 !	ppm	N/A	N/A	5.372710 !	0.000000 !
V (292.401 nm)	0.000000 !	ppm	N/A	N/A	-60.139900 !	0.000000 !
Zn (206.200 nm)	0.000000 !	ppm	N/A	N/A	3.171140 !	0.000000 !
Zr (343.823 nm)	0.000000 !	ppm	N/A	N/A	0.429030 !	0.000000 !

Solution Name: ic1

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
ic1	5/14/2024 12:13:21 PM	3:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.000000 !	ppm	N/A	N/A	2194326.725388 !	1.000000 !
Ag (328.068 nm)	1.000000 !	ppm	N/A	N/A	36308.300000 !	1.000000 !
Al (394.401 nm)	1.000000 !	ppm	N/A	N/A	13569.900000 !	1.000000 !
Al H (396.152 nm)	1.000000 !	ppm	N/A	N/A	4815.220000 !	1.000000 !
As (188.980 nm)	1.000000 !	ppm	N/A	N/A	575.537000 !	1.000000 !
B (249.678 nm)	1.000000 !	ppm	N/A	N/A	7672.650000 !	1.000000 !
Ba (493.408 nm)	1.000000 !	ppm	N/A	N/A	137402.000000 !	1.000000 !
Be (234.861 nm)	1.000000 !	ppm	N/A	N/A	100453.000000 !	1.000000 !
Bi (223.061 nm)	2.000000 !	ppm	N/A	N/A	4887.730000 !	2.000000 !
Ca (315.887 nm)	10.000000 !	ppm	N/A	N/A	8368.174409 !	10.000000 !
Cd (214.439 nm)	1.000000 !	ppm	N/A	N/A	25516.700000 !	1.000000 !
Co (228.615 nm)	1.000000 !	ppm	N/A	N/A	13056.100000 !	1.000000 !
Cr (205.560 nm)	1.000000 !	ppm	N/A	N/A	6438.710000 !	1.000000 !
Cu (324.754 nm)	1.000000 !	ppm	N/A	N/A	48091.000000 !	1.000000 !
Fe (238.204 nm)	5.000000 !	ppm	N/A	N/A	16109.612408 !	5.000000 !
Fe H (259.940 nm)	5.000000 !	ppm	N/A	N/A	6844.260000 !	5.000000 !
K (766.491 nm)	100.000000 !	ppm	N/A	N/A	128519.000000 !	100.000000 !
Li (670.783 nm)	1.000000 !	ppm	N/A	N/A	31032.600000 !	1.000000 !
Mg (279.078 nm)	40.000000 !	ppm	N/A	N/A	119174.000000 !	40.000000 !
Mn (257.610 nm)	1.000000 !	ppm	N/A	N/A	292197.000000 !	1.000000 !
Mo (202.032 nm)	1.000000 !	ppm	N/A	N/A	5386.180000 !	1.000000 !
Na (589.592 nm)		ppm	N/A	N/A	547508.000000 !	
Na H (589.593 nm)		ppm	N/A	N/A	395838.983301 !	
Ni (231.604 nm)	1.000000 !	ppm	N/A	N/A	4720.880000 !	1.000000 !
P (213.618 nm)		ppm	N/A	N/A	-143.783000 !	
Pb (220.353 nm)	1.000000 !	ppm	N/A	N/A	2134.260000 !	1.000000 !
S (181.972 nm)		ppm	N/A	N/A	18.340798 !	
Sb (206.834 nm)	1.000000 !	ppm	N/A	N/A	1439.420000 !	1.000000 !
Se (196.026 nm)	1.000000 !	ppm	N/A	N/A	562.190000 !	1.000000 !
Si (288.158 nm)	10.000000 !	ppm	N/A	N/A	74584.700000 !	10.000000 !
Sn (189.925 nm)	1.000000 !	ppm	N/A	N/A	708.715000 !	1.000000 !
Sr (421.552 nm)	1.000000 !	ppm	N/A	N/A	215435.483100 !	1.000000 !
Th (288.505 nm)		ppm	N/A	N/A	-14.616100 !	
Ti (336.122 nm)	1.000000 !	ppm	N/A	N/A	135969.000000 !	1.000000 !
Tl (190.794 nm)	1.000000 !	ppm	N/A	N/A	935.261000 !	1.000000 !
U (409.013 nm)		ppm	N/A	N/A	-33.091700 !	
V (292.401 nm)	1.000000 !	ppm	N/A	N/A	31320.000000 !	1.000000 !
Zn (206.200 nm)	1.000000 !	ppm	N/A	N/A	2333.520000 !	1.000000 !
Zr (343.823 nm)	1.000000 !	ppm	N/A	N/A	76098.800000 !	1.000000 !

Solution Name: ic3

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
ic3	5/14/2024 12:17:48 PM	3:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)		ppm	N/A	N/A	-2054.136656 !	
Ag (328.068 nm)		ppm	N/A	N/A	-21.301500 !	
Al (394.401 nm)		ppm	N/A	N/A	405.581000 !	
Al H (396.152 nm)		ppm	N/A	N/A	28.761800 !	
As (188.980 nm)		ppm	N/A	N/A	-0.663347 !	
B (249.678 nm)		ppm	N/A	N/A	57.004700 !	
Ba (493.408 nm)		ppm	N/A	N/A	13.838700 !	
Be (234.861 nm)		ppm	N/A	N/A	1.426080 !	
Bi (223.061 nm)		ppm	N/A	N/A	3.110560 !	
Ca (315.887 nm)		ppm	N/A	N/A	-14.662556 !	
Cd (214.439 nm)		ppm	N/A	N/A	4.496630 !	
Co (228.615 nm)		ppm	N/A	N/A	-4.104330 !	
Cr (205.560 nm)		ppm	N/A	N/A	6.457820 !	
Cu (324.754 nm)		ppm	N/A	N/A	650.053000 !	
Fe (238.204 nm)		ppm	N/A	N/A	19.316190 !	
Fe H (259.940 nm)		ppm	N/A	N/A	9.752070 !	
K (766.491 nm)		ppm	N/A	N/A	29.997400 !	
Li (670.783 nm)		ppm	N/A	N/A	391.173000 !	
Mg (279.078 nm)		ppm	N/A	N/A	14.964400 !	
Mn (257.610 nm)		ppm	N/A	N/A	114.080000 !	
Mo (202.032 nm)		ppm	N/A	N/A	10.181000 !	
Na (589.592 nm)	50.000000 !	ppm	N/A	N/A	536783.000000 !	50.000000 !
Na H (589.593 nm)	50.000000 !	ppm	N/A	N/A	389502.887383 !	50.000000 !
Ni (231.604 nm)		ppm	N/A	N/A	-0.019887 !	
P (213.618 nm)		ppm	N/A	N/A	-9.965640 !	
Pb (220.353 nm)		ppm	N/A	N/A	0.078923 !	
S (181.972 nm)		ppm	N/A	N/A	18.237114 !	
Sb (206.834 nm)		ppm	N/A	N/A	4.022060 !	
Se (196.026 nm)		ppm	N/A	N/A	4.228870 !	
Si (288.158 nm)		ppm	N/A	N/A	1008.930000 !	
Sn (189.925 nm)		ppm	N/A	N/A	1.922210 !	
Sr (421.552 nm)		ppm	N/A	N/A	107.811155 !	
Th (288.505 nm)		ppm	N/A	N/A	28.180700 !	
Ti (336.122 nm)		ppm	N/A	N/A	-104.773000 !	
Tl (190.794 nm)		ppm	N/A	N/A	-2.089660 !	
U (409.013 nm)		ppm	N/A	N/A	-3.870160 !	
V (292.401 nm)		ppm	N/A	N/A	-63.052800 !	
Zn (206.200 nm)		ppm	N/A	N/A	4.146360 !	
Zr (343.823 nm)		ppm	N/A	N/A	32.576500 !	

Solution Name: ic2

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
ic2	5/14/2024 12:22:13 PM	3:3	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)		ppm	N/A	N/A	-47.579512 !	
Ag (328.068 nm)		ppm	N/A	N/A	117.345000 !	
Al (394.401 nm)	100.000000 !	ppm	N/A	N/A	1356800.000000 !	100.000000 !
Al H (396.152 nm)	100.000000 !	ppm	N/A	N/A	455539.000000 !	100.000000 !
As (188.980 nm)		ppm	N/A	N/A	-1.717680 !	
B (249.678 nm)		ppm	N/A	N/A	-31.208000 !	
Ba (493.408 nm)		ppm	N/A	N/A	277.163000 !	
Be (234.861 nm)		ppm	N/A	N/A	694.144000 !	
Bi (223.061 nm)		ppm	N/A	N/A	3.659700 !	
Ca (315.887 nm)		ppm	N/A	N/A	-58.654750 !	
Cd (214.439 nm)		ppm	N/A	N/A	14.672800 !	
Co (228.615 nm)		ppm	N/A	N/A	-9.384050 !	
Cr (205.560 nm)		ppm	N/A	N/A	17.519600 !	
Cu (324.754 nm)		ppm	N/A	N/A	2038.430000 !	
Fe (238.204 nm)	100.000000 !	ppm	N/A	N/A	322069.809003 !	100.000000 !
Fe H (259.940 nm)	100.000000 !	ppm	N/A	N/A	136104.000000 !	100.000000 !
K (766.491 nm)		ppm	N/A	N/A	49.828100 !	
Li (670.783 nm)		ppm	N/A	N/A	505.481000 !	
Mg (279.078 nm)		ppm	N/A	N/A	-310.743000 !	
Mn (257.610 nm)		ppm	N/A	N/A	-420.608000 !	
Mo (202.032 nm)		ppm	N/A	N/A	1.975770 !	
Na (589.592 nm)	500.000000 !	ppm	N/A	N/A	5240880.000000 !	500.000000 !
Na H (589.593 nm)	500.000000 !	ppm	N/A	N/A	3840180.193518 !	500.000000 !
Ni (231.604 nm)		ppm	N/A	N/A	2.832940 !	
P (213.618 nm)	10.000000 !	ppm	N/A	N/A	12323.200000 !	10.000000 !
Pb (220.353 nm)		ppm	N/A	N/A	-6.014450 !	
S (181.972 nm)	10.000000 !	ppm	N/A	N/A	3895.518558 !	10.000000 !
Sb (206.834 nm)		ppm	N/A	N/A	17.253000 !	
Se (196.026 nm)		ppm	N/A	N/A	-1.574290 !	
Si (288.158 nm)		ppm	N/A	N/A	941.538000 !	
Sn (189.925 nm)		ppm	N/A	N/A	4.276140 !	
Sr (421.552 nm)		ppm	N/A	N/A	107.573725 !	
Th (288.505 nm)	10.000000 !	ppm	N/A	N/A	22305.900000 !	10.000000 !
Ti (336.122 nm)		ppm	N/A	N/A	73.057900 !	
Tl (190.794 nm)		ppm	N/A	N/A	-17.237300 !	
U (409.013 nm)	5.000000 !	ppm	N/A	N/A	18769.300000 !	5.000000 !
V (292.401 nm)		ppm	N/A	N/A	396.840000 !	
Zn (206.200 nm)		ppm	N/A	N/A	12.394500 !	
Zr (343.823 nm)		ppm	N/A	N/A	100.186000 !	

Solution Name: S1-8314993

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
S1-8314993	5/14/2024 12:27:11 PM	3:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.996959	ppm	0.001036	0.10	2187868.027754	0.996959
Ag (328.068 nm)	1.000530	ppm	0.000551	0.06	36021.800000	1.000530
Al (394.401 nm)	1.003270	ppm	0.005373	0.54	13614.100000	1.003270
Al H (396.152 nm)	0.997835	ppm	0.001350	0.14	4805.360000	0.997835
As (188.980 nm)	1.001480	ppm	0.001706	0.17	576.383000	1.001480
B (249.678 nm)	1.000120	ppm	0.000982	0.10	7673.570000	1.000120
Ba (493.408 nm)	0.996643	ppm	0.001821	0.18	137293.000000	0.996643
Be (234.861 nm)	0.998563	ppm	0.002693	0.27	100349.000000	0.998563
Bi (223.061 nm)	2.002190	ppm	0.009033	0.45	4893.070000	2.002190
Ca (315.887 nm)	9.981474	ppm	0.017186	0.17	8352.644211	9.981474
Cd (214.439 nm)	1.004590	ppm	0.003431	0.34	25658.100000	1.004590
Co (228.615 nm)	1.000090	ppm	0.002281	0.23	13086.200000	1.000090
Cr (205.560 nm)	0.999846	ppm	0.002596	0.26	6431.270000	0.999846
Cu (324.754 nm)	1.000180	ppm	0.001517	0.15	48093.700000	1.000180
Fe (238.204 nm)	5.008463	ppm	0.005582	0.11	16147.057083	5.008463
Fe H (259.940 nm)	5.006900	ppm	0.006149	0.12	6853.650000	5.006900
K (766.491 nm)	100.357000	ppm	0.137587	0.14	128978.000000	100.357000
Li (670.783 nm)	1.000920	ppm	0.003586	0.36	31081.900000	1.000920
Mg (279.078 nm)	40.194100	ppm	0.093487	0.23	119856.000000	40.194100
Mn (257.610 nm)	1.002020	ppm	0.001675	0.17	292788.000000	1.002020
Mo (202.032 nm)	1.002580	ppm	0.002488	0.25	5400.040000	1.002580
Na (589.592 nm)	50.576300	ppm	0.040121	0.08	550134.000000	50.576300
Na H (589.593 nm)	50.328354 u	ppm	0.497826	0.99	396115.676545	50.328354 u
Ni (231.604 nm)	1.004800	ppm	0.003294	0.33	4744.580000	1.004800
P (213.618 nm)	-0.040665 u	ppm	0.002862	7.04	-141.824000	-0.040665 u
Pb (220.353 nm)	0.996532	ppm	0.004230	0.42	2123.250000	0.996532
S (181.972 nm)	-0.052478 u	ppm	0.003148	6.00	15.968765	-0.052478 u
Sb (206.834 nm)	1.004660	ppm	0.007529	0.75	1442.900000	1.004660
Se (196.026 nm)	1.004640	ppm	0.006575	0.65	565.213000	1.004640
Si (288.158 nm)	10.059400	ppm	0.117757	1.17	75912.700000	10.059400
Sn (189.925 nm)	1.000760	ppm	0.001623	0.16	709.254000	1.000760
Sr (421.552 nm)	0.998143	ppm	0.002250	0.23	215035.485043	0.998143
Th (288.505 nm)	-0.002289 u	ppm	0.000634	27.70	-6.421460	-0.002289 u
Ti (336.122 nm)	1.000380	ppm	0.000965	0.10	136064.000000	1.000380
Tl (190.794 nm)	1.000310	ppm	0.002228	0.22	933.500000	1.000310
U (409.013 nm)	0.001508	ppm	0.001108	73.49	-11.272100	0.001508
V (292.401 nm)	1.001280	ppm	0.001425	0.14	31134.700000	1.001280
Zn (206.200 nm)	1.003370	ppm	0.004683	0.47	2341.360000	1.003370
Zr (343.823 nm)	1.000750	ppm	0.001092	0.11	76162.600000	1.000750

Solution Name: S3-8324147

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
S3-8324147	5/14/2024 12:31:33 PM	3:5	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000176	ppm	0.000004	2.18	-1853.221826	0.000176
Ag (328.068 nm)	0.000261	ppm	0.000184	70.21	-23.211300	0.000261
Al (394.401 nm)	-0.000027 u	ppm	0.000460	> 100.00	381.895000	-0.000027 u
Al H (396.152 nm)	-0.053382 u	ppm	0.004242	7.95	19.417400	-0.053382 u
As (188.980 nm)	0.001260 u	ppm	0.003565	> 100.00	-0.144955	0.001260 u
B (249.678 nm)	0.004712	ppm	0.000708	15.03	57.575900	0.004712
Ba (493.408 nm)	0.000422	ppm	0.000080	18.95	13.714100	0.000422
Be (234.861 nm)	0.000022 u	ppm	0.000035	> 100.00	2.288020	0.000022 u
Bi (223.061 nm)	-0.000846 u	ppm	0.000613	72.44	2.177250	-0.000846 u
Ca (315.887 nm)	0.002956	ppm	0.002428	82.12	-12.369441	0.002956
Cd (214.439 nm)	0.000264	ppm	0.000127	47.97	3.267060	0.000264
Co (228.615 nm)	0.000212	ppm	0.000071	33.38	-3.983130	0.000212
Cr (205.560 nm)	-0.000531 u	ppm	0.000368	69.26	5.575070	-0.000531 u
Cu (324.754 nm)	0.000494	ppm	0.000142	28.73	642.698000	0.000494
Fe (238.204 nm)	-0.001002 u	ppm	0.000828	82.69	17.906833	-0.001002 u
Fe H (259.940 nm)	-0.022644 u	ppm	0.000920	4.06	10.290200	-0.022644 u
K (766.491 nm)	0.038806	ppm	0.026638	68.64	80.088000	0.038806
Li (670.783 nm)	0.001485	ppm	0.000306	20.61	459.801000	0.001485
Mg (279.078 nm)	0.001744	ppm	0.001053	60.37	9.332840	0.001744
Mn (257.610 nm)	0.000235	ppm	0.000014	5.80	109.179000	0.000235
Mo (202.032 nm)	0.000872	ppm	0.000402	46.14	10.036200	0.000872
Na (589.592 nm)	49.843100	ppm	0.197865	0.40	535109.000000	49.843100
Na H (589.593 nm)	49.624166 u	ppm	0.121865	0.25	386621.981777	49.624166 u
Ni (231.604 nm)	0.000038 u	ppm	0.000173	> 100.00	-2.128840	0.000038 u
P (213.618 nm)	-0.002238 u	ppm	0.001381	61.74	-10.197200	-0.002238 u
Pb (220.353 nm)	-0.000937 u	ppm	0.000847	90.41	0.272455	-0.000937 u
S (181.972 nm)	-0.003609 u	ppm	0.003353	92.91	15.471370	-0.003609 u
Sb (206.834 nm)	-0.000596 u	ppm	0.003266	> 100.00	3.839360	-0.000596 u
Se (196.026 nm)	0.000498 u	ppm	0.004282	> 100.00	4.798850	0.000498 u
Si (288.158 nm)	0.120573	ppm	0.058437	48.47	1599.880000	0.120573
Sn (189.925 nm)	-0.000750 u	ppm	0.000699	93.09	2.914430	-0.000750 u
Sr (421.552 nm)	0.000165	ppm	0.000083	50.11	73.112156	0.000165
Th (288.505 nm)	0.001822	ppm	0.001086	59.60	30.638700	0.001822
Ti (336.122 nm)	0.000197	ppm	0.000023	11.75	-93.996000	0.000197
Tl (190.794 nm)	0.001269 u	ppm	0.001709	> 100.00	-0.271127	0.001269 u
U (409.013 nm)	-0.001971 u	ppm	0.003994	> 100.00	-2.015370	-0.001971 u
V (292.401 nm)	-0.000185 u	ppm	0.000226	> 100.00	-65.604700	-0.000185 u
Zn (206.200 nm)	0.000031 u	ppm	0.000323	> 100.00	3.243680	0.000031 u
Zr (343.823 nm)	0.000415	ppm	0.000060	14.57	32.023000	0.000415

Solution Name: s2-8314997

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
s2-8314997	5/14/2024 12:35:55 PM	3:6	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001092	ppm	0.000009	0.84	157.980011	0.001092
Ag (328.068 nm)	-0.001423 u	ppm	0.000135	9.50	115.684000	-0.001423 u
Al (394.401 nm)	102.964000 o	ppm	0.259878	0.25	1356270.000000	102.964000 o
Al H (396.152 nm)	99.472700	ppm	0.356501	0.36	453138.000000	99.472700
As (188.980 nm)	0.002836 u	ppm	0.003491	> 100.00	0.130921	0.002836 u
B (249.678 nm)	-0.005844 u	ppm	0.000277	4.73	-23.189500	-0.005844 u
Ba (493.408 nm)	0.000407	ppm	0.000437	> 100.00	272.103000	0.000407
Be (234.861 nm)	0.000524	ppm	0.000049	9.30	693.830000	0.000524
Bi (223.061 nm)	-0.000359 u	ppm	0.000310	86.45	3.366880	-0.000359 u
Ca (315.887 nm)	-0.044797 u	ppm	0.007143	15.95	-52.401425	-0.044797 u
Cd (214.439 nm)	-0.000767 u	ppm	0.000051	6.61	12.576900	-0.000767 u
Co (228.615 nm)	-0.000544 u	ppm	0.000232	42.72	-13.832100	-0.000544 u
Cr (205.560 nm)	0.000896	ppm	0.000060	6.67	14.754200	0.000896
Cu (324.754 nm)	-0.011654 u	ppm	0.000113	0.97	2036.270000	-0.011654 u
Fe (238.204 nm)	99.796751 o	ppm	0.213311	0.21	321136.845392	99.796751 o
Fe H (259.940 nm)	99.676600	ppm	0.212078	0.21	135664.000000	99.676600
K (766.491 nm)	0.077697	ppm	0.014147	18.21	130.058000	0.077697
Li (670.783 nm)	-0.002030 u	ppm	0.001768	87.10	517.303000	-0.002030 u
Mg (279.078 nm)	0.012154	ppm	0.000961	7.91	-303.100000	0.012154
Mn (257.610 nm)	-0.001577 u	ppm	0.000025	1.60	-420.137000	-0.001577 u
Mo (202.032 nm)	-0.000335 u	ppm	0.000324	96.71	3.539720	-0.000335 u
Na (589.592 nm)	490.851000 o	ppm	1.752440	0.36	5246150.000000	490.851000 o
Na H (589.593 nm)	500.350658	ppm	3.728004	0.75	3842872.171664	500.350658
Ni (231.604 nm)	0.000763	ppm	0.000370	48.55	1.291570	0.000763
P (213.618 nm)	10.016400	ppm	0.042610	0.43	12341.600000	10.016400
Pb (220.353 nm)	-0.001270 u	ppm	0.001519	> 100.00	-3.401090	-0.001270 u
S (181.972 nm)	10.037383	ppm	0.029268	0.29	3915.919550	10.037383
Sb (206.834 nm)	0.001270 u	ppm	0.004344	> 100.00	14.826700	0.001270 u
Se (196.026 nm)	0.005615	ppm	0.002599	46.30	-2.082110	0.005615
Si (288.158 nm)	0.027316	ppm	0.003538	12.95	911.729000	0.027316
Sn (189.925 nm)	0.000150 u	ppm	0.001063	> 100.00	3.549760	0.000150 u
Sr (421.552 nm)	0.000293	ppm	0.000030	10.10	100.616684	0.000293
Th (288.505 nm)	9.961670	ppm	0.023224	0.23	22239.700000	9.961670
Ti (336.122 nm)	0.001456	ppm	0.000038	2.58	77.405000	0.001456
Tl (190.794 nm)	-0.013644 u	ppm	0.001769	12.97	-15.826600	-0.013644 u
U (409.013 nm)	5.009960 Q	ppm	0.009304	0.19	19022.600000 Q	5.009960 Q
V (292.401 nm)	0.000759	ppm	0.000295	38.88	398.739000	0.000759
Zn (206.200 nm)	0.002762	ppm	0.000641	23.21	9.608620	0.002762
Zr (343.823 nm)	-0.000433 u	ppm	0.000080	18.49	96.509500	-0.000433 u

Solution Name: ICVH-8338324

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
ICVH-8338324	5/14/2024 12:41:17 PM	3:7	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000405	ppm	0.000032	7.96	-1350.036585	0.000405
Ag (328.068 nm)	0.000277	ppm	0.000108	38.91	-30.904300	0.000277
Al (394.401 nm)	39.021000 o	ppm	0.052809	0.14	515008.000000	39.021000 o
Al H (396.152 nm)	39.659100	ppm	0.053714	0.14	180821.000000	39.659100
As (188.980 nm)	0.002669 u	ppm	0.004833	> 100.00	0.161085	0.002669 u
B (249.678 nm)	-0.004996 u	ppm	0.000739	14.79	-16.702800	-0.004996 u
Ba (493.408 nm)	-0.000759 u	ppm	0.000183	24.13	59.960900	-0.000759 u
Be (234.861 nm)	0.000452	ppm	0.000047	10.48	558.759000	0.000452
Bi (223.061 nm)	0.000904	ppm	0.001234	> 100.00	6.449670	0.000904
Ca (315.887 nm)	-0.000080 u	ppm	0.003984	> 100.00	-14.914996	-0.000080 u
Cd (214.439 nm)	-0.000328 u	ppm	0.000117	35.67	16.682700	-0.000328 u
Co (228.615 nm)	0.000567	ppm	0.000149	26.22	0.660104	0.000567
Cr (205.560 nm)	-0.000111 u	ppm	0.000412	> 100.00	8.281610	-0.000111 u
Cu (324.754 nm)	-0.000451 u	ppm	0.000103	22.85	676.248000	-0.000451 u
Fe (238.204 nm)	79.881633 o	ppm	0.069442	0.09	257056.029775	79.881633 o
Fe H (259.940 nm)	79.729000	ppm	0.061652	0.08	108523.000000	79.729000
K (766.491 nm)	-0.069039 u	ppm	0.047067	68.17	-58.481800	-0.069039 u
Li (670.783 nm)	0.000713 u	ppm	0.003048	> 100.00	447.334000	0.000713 u
Mg (279.078 nm)	0.002666	ppm	0.001085	40.69	-40.436300	0.002666
Mn (257.610 nm)	0.000486	ppm	0.000026	5.41	182.404000	0.000486
Mo (202.032 nm)	-0.000436 u	ppm	0.000129	29.49	2.994380	-0.000436 u
Na (589.592 nm)	80.687500 o	ppm	0.314653	0.39	864605.000000	80.687500 o
Na H (589.593 nm)	80.070551	ppm	0.447750	0.56	620091.493153	80.070551
Ni (231.604 nm)	0.000531	ppm	0.000033	6.22	0.192432	0.000531
P (213.618 nm)	3.969050	ppm	0.007914	0.20	4886.800000	3.969050
Pb (220.353 nm)	-0.002279 u	ppm	0.000881	38.68	-6.322180	-0.002279 u
S (181.972 nm)	3.913633	ppm	0.007987	0.20	1539.553841	3.913633
Sb (206.834 nm)	0.001576 u	ppm	0.002154	> 100.00	13.606000	0.001576 u
Se (196.026 nm)	0.003422	ppm	0.001330	38.87	-1.364380	0.003422
Si (288.158 nm)	0.005039	ppm	0.002828	56.12	746.078000	0.005039
Sn (189.925 nm)	-0.001226 u	ppm	0.001968	> 100.00	2.579350	-0.001226 u
Sr (421.552 nm)	-0.000029 u	ppm	0.000023	80.03	31.269460	-0.000029 u
Th (288.505 nm)	0.004663	ppm	0.001191	25.54	36.122200	0.004663
Ti (336.122 nm)	0.000218	ppm	0.000057	26.24	-91.142000	0.000218
Tl (190.794 nm)	-0.006394 u	ppm	0.001613	25.23	-8.716000	-0.006394 u
U (409.013 nm)	0.399879	ppm	0.001896	0.47	1574.060000	0.399879
V (292.401 nm)	0.000094 u	ppm	0.000121	> 100.00	-73.707500	0.000094 u
Zn (206.200 nm)	0.000357 u	ppm	0.000792	> 100.00	4.003310	0.000357 u
Zr (343.823 nm)	-0.000398 u	ppm	0.000125	31.52	73.427100	-0.000398 u

Solution Name: icv-8338322

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
icv-8338322	5/14/2024 12:46:30 PM	3:8	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.208621 S	ppm	0.000393	0.19	456065.789676 S	0.208621 S
Ag (328.068 nm)	0.247985	ppm	0.000849	0.34	8904.910000	0.247985
Al (394.401 nm)	0.243893	ppm	0.002587	1.06	3598.370000	0.243893
Al H (396.152 nm)	0.212685 Qu	ppm	0.005929	2.79	1230.760000 Q	0.212685 Qu
As (188.980 nm)	0.252723	ppm	0.001152	0.46	144.798000	0.252723
B (249.678 nm)	0.249912	ppm	0.000962	0.38	1933.630000	0.249912
Ba (493.408 nm)	0.248045	ppm	0.000365	0.15	34137.200000	0.248045
Be (234.861 nm)	0.251720	ppm	0.003644	1.45	25296.200000	0.251720
Bi (223.061 nm)	0.511815	ppm	0.002936	0.57	1253.960000	0.511815
Ca (315.887 nm)	2.501042	ppm	0.010446	0.42	2081.781128	2.501042
Cd (214.439 nm)	0.251135	ppm	0.001615	0.64	6411.630000	0.251135
Co (228.615 nm)	0.250569	ppm	0.000892	0.36	3273.530000	0.250569
Cr (205.560 nm)	0.248824	ppm	0.001756	0.71	1607.250000	0.248824
Cu (324.754 nm)	0.249798	ppm	0.000487	0.20	12476.400000	0.249798
Fe (238.204 nm)	1.261083	ppm	0.004043	0.32	4081.460910	1.261083
Fe H (259.940 nm)	1.243030 u	ppm	0.007866	0.63	1732.410000	1.243030 u
K (766.491 nm)	24.653400	ppm	0.115146	0.47	31707.100000	24.653400
Li (670.783 nm)	0.248314	ppm	0.002502	1.01	8008.580000	0.248314
Mg (279.078 nm)	9.917170	ppm	0.047978	0.48	29574.900000	9.917170
Mn (257.610 nm)	0.249802	ppm	0.000816	0.33	73021.800000	0.249802
Mo (202.032 nm)	0.250595	ppm	0.001917	0.76	1353.750000	0.250595
Na (589.592 nm)	12.549000	ppm	0.037761	0.30	138507.000000	12.549000
Na H (589.593 nm)	12.016343 u	ppm	0.078664	0.65	99257.321007	12.016343 u
Ni (231.604 nm)	0.249539	ppm	0.002062	0.83	1176.570000	0.249539
P (213.618 nm)	-0.009548 u	ppm	0.001320	13.83	-40.216200	-0.009548 u
Pb (220.353 nm)	0.249498	ppm	0.000380	0.15	533.293000	0.249498
S (181.972 nm)	-0.024686 u	ppm	0.004112	16.66	12.162609	-0.024686 u
Sb (206.834 nm)	0.247134	ppm	0.001525	0.62	358.471000	0.247134
Se (196.026 nm)	0.247656	ppm	0.007337	2.96	142.731000	0.247656
Si (288.158 nm)	2.396340	ppm	0.012839	0.54	18635.300000	2.396340
Sn (189.925 nm)	0.250882	ppm	0.003730	1.49	180.383000	0.250882
Sr (421.552 nm)	0.247132	ppm	0.000502	0.20	53269.176727	0.247132
Th (288.505 nm)	0.002629	ppm	0.000860	32.73	25.562600	0.002629
Ti (336.122 nm)	0.247136	ppm	0.000675	0.27	33522.500000	0.247136
Tl (190.794 nm)	0.252334	ppm	0.001984	0.79	234.400000	0.252334
U (409.013 nm)	-0.000789 u	ppm	0.004972	> 100.00	-3.209850	-0.000789 u
V (292.401 nm)	0.247816	ppm	0.000495	0.20	7660.570000	0.247816
Zn (206.200 nm)	0.252035	ppm	0.001704	0.68	590.500000	0.252035
Zr (343.823 nm)	0.253035	ppm	0.000526	0.21	19257.600000	0.253035

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/14/2024 12:50:52 PM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000593	ppm	0.000018	2.96	-938.184522	0.000593
Ag (328.068 nm)	-0.000332 u	ppm	0.000066	19.74	55.636700	-0.000332 u
Al (394.401 nm)	50.812500 o	ppm	0.146056	0.29	669498.000000	50.812500 o
Al H (396.152 nm)	50.081700	ppm	0.006255	0.01	228273.000000	50.081700
As (188.980 nm)	-0.001491 u	ppm	0.002990	> 100.00	-2.051380	-0.001491 u
B (249.678 nm)	-0.003620 u	ppm	0.000225	6.22	-6.172380	-0.003620 u
Ba (493.408 nm)	0.000246	ppm	0.000165	66.92	121.647000	0.000246
Be (234.861 nm)	0.000250	ppm	0.000035	13.89	350.349000	0.000250
Bi (223.061 nm)	-0.000801 u	ppm	0.001076	> 100.00	2.286280	-0.000801 u
Ca (315.887 nm)	-0.017297 u	ppm	0.010054	58.13	-29.347883	-0.017297 u
Cd (214.439 nm)	-0.000336 u	ppm	0.000052	15.37	6.015210	-0.000336 u
Co (228.615 nm)	-0.000225 u	ppm	0.000144	64.08	-9.685210	-0.000225 u
Cr (205.560 nm)	0.000416	ppm	0.000288	69.09	11.667700	0.000416
Cu (324.754 nm)	-0.005429 u	ppm	0.000109	2.00	1349.130000	-0.005429 u
Fe (238.204 nm)	50.649356 o	ppm	0.088502	0.17	162995.412476	50.649356 o
Fe H (259.940 nm)	50.547200	ppm	0.080806	0.16	68817.200000	50.547200
K (766.491 nm)	0.028015 u	ppm	0.047400	> 100.00	66.222000	0.028015 u
Li (670.783 nm)	0.002212 u	ppm	0.002577	> 100.00	555.038000	0.002212 u
Mg (279.078 nm)	0.006387	ppm	0.001392	21.80	-149.653000	0.006387
Mn (257.610 nm)	-0.000760 u	ppm	0.000005	0.71	-181.454000	-0.000760 u
Mo (202.032 nm)	0.000028 u	ppm	0.000257	> 100.00	5.492240	0.000028 u
Na (589.592 nm)	248.378000 o	ppm	0.434501	0.17	2655940.000000	248.378000 o
Na H (589.593 nm)	248.841946	ppm	1.669366	0.67	1914258.200741	248.841946
Ni (231.604 nm)	0.000577	ppm	0.000525	90.99	0.413306	0.000577
P (213.618 nm)	5.016780	ppm	0.011377	0.23	6177.740000	5.016780
Pb (220.353 nm)	-0.001606 u	ppm	0.000769	47.86	-2.636250	-0.001606 u
S (181.972 nm)	5.007141	ppm	0.026081	0.52	1961.961114	5.007141
Sb (206.834 nm)	0.002103 u	ppm	0.003119	> 100.00	11.927900	0.002103 u
Se (196.026 nm)	0.005867	ppm	0.003250	55.40	2.853380	0.005867
Si (288.158 nm)	0.011237	ppm	0.004899	43.60	793.637000	0.011237
Sn (189.925 nm)	0.000823 u	ppm	0.001219	> 100.00	4.024230	0.000823 u
Sr (421.552 nm)	0.000144	ppm	0.000086	59.78	68.611741	0.000144
Th (288.505 nm)	4.999630	ppm	0.010005	0.20	11175.100000	4.999630
Ti (336.122 nm)	0.000757	ppm	0.000019	2.51	-17.822100	0.000757
Tl (190.794 nm)	-0.010218 u	ppm	0.000525	5.14	-11.834600	-0.010218 u
U (409.013 nm)	2.530150 Q	ppm	0.008391	0.33	9609.240000 Q	2.530150 Q
V (292.401 nm)	0.000404	ppm	0.000073	18.18	170.126000	0.000404
Zn (206.200 nm)	0.001397	ppm	0.000815	58.36	6.426960	0.001397
Zr (343.823 nm)	0.000588	ppm	0.000058	9.91	110.637000	0.000588

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/14/2024 12:55:20 PM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.466044	ppm	0.000905	0.19	1021566.591687	0.466044
Ag (328.068 nm)	0.500347	ppm	0.001230	0.25	17998.100000	0.500347
Al (394.401 nm)	0.500011	ppm	0.004083	0.82	6975.430000	0.500011
Al H (396.152 nm)	0.480737 u	ppm	0.005106	1.06	2451.140000	0.480737 u
As (188.980 nm)	0.500499	ppm	0.003536	0.71	287.616000	0.500499
B (249.678 nm)	0.501026	ppm	0.000866	0.17	3854.940000	0.501026
Ba (493.408 nm)	0.500841	ppm	0.000785	0.16	68970.700000	0.500841
Be (234.861 nm)	0.500312	ppm	0.005922	1.18	50278.100000	0.500312
Bi (223.061 nm)	1.008410	ppm	0.001835	0.18	2466.510000	1.008410
Ca (315.887 nm)	5.008603	ppm	0.018891	0.38	4183.874964	5.008603
Cd (214.439 nm)	0.506613	ppm	0.001108	0.22	12937.700000	0.506613
Co (228.615 nm)	0.505464	ppm	0.000663	0.13	6610.450000	0.505464
Cr (205.560 nm)	0.502274	ppm	0.000103	0.02	3235.230000	0.502274
Cu (324.754 nm)	0.505308	ppm	0.001087	0.22	24604.800000	0.505308
Fe (238.204 nm)	2.538436	ppm	0.004831	0.19	8194.192175	2.538436
Fe H (259.940 nm)	2.524190 u	ppm	0.004369	0.17	3475.600000	2.524190 u
K (766.491 nm)	49.945700	ppm	0.039431	0.08	64205.000000	49.945700
Li (670.783 nm)	0.504487	ppm	0.001993	0.40	15862.200000	0.504487
Mg (279.078 nm)	19.955900	ppm	0.060270	0.30	59508.800000	19.955900
Mn (257.610 nm)	0.504407	ppm	0.000882	0.17	147406.000000	0.504407
Mo (202.032 nm)	0.504053	ppm	0.000893	0.18	2717.570000	0.504053
Na (589.592 nm)	25.314600	ppm	0.022169	0.09	276697.000000	25.314600
Na H (589.593 nm)	24.739772 u	ppm	0.153458	0.62	197859.924537	24.739772 u
Ni (231.604 nm)	0.506608	ppm	0.000802	0.16	2391.020000	0.506608
P (213.618 nm)	-0.019419 u	ppm	0.000737	3.79	-73.850100	-0.019419 u
Pb (220.353 nm)	0.495903	ppm	0.003268	0.66	1057.710000	0.495903
S (181.972 nm)	-0.029987 u	ppm	0.003305	11.02	15.004001	-0.029987 u
Sb (206.834 nm)	0.505367	ppm	0.001556	0.31	728.169000	0.505367
Se (196.026 nm)	0.500448	ppm	0.008217	1.64	283.818000	0.500448
Si (288.158 nm)	4.979070	ppm	0.054354	1.09	37939.500000	4.979070
Sn (189.925 nm)	0.503650	ppm	0.002860	0.57	358.653000	0.503650
Sr (421.552 nm)	0.497827	ppm	0.000824	0.17	107268.506963	0.497827
Th (288.505 nm)	0.001274 u	ppm	0.002138	> 100.00	15.626700	0.001274 u
Ti (336.122 nm)	0.498528	ppm	0.000686	0.14	67745.300000	0.498528
Tl (190.794 nm)	0.502334	ppm	0.007764	1.55	468.068000	0.502334
U (409.013 nm)	-0.000300 u	ppm	0.001056	> 100.00	-6.808290	-0.000300 u
V (292.401 nm)	0.498957	ppm	0.000853	0.17	15484.100000	0.498957
Zn (206.200 nm)	0.504997	ppm	0.002140	0.42	1179.990000	0.504997
Zr (343.823 nm)	0.499279	ppm	0.001373	0.28	37998.100000	0.499279

Solution Name: ICB-8200241

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
ICB-8200241	5/14/2024 12:59:43 PM	S1:5	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000140	ppm	0.000010	6.77	-1932.023707	0.000140
Ag (328.068 nm)	0.000142	ppm	0.000165	> 100.00	-27.545400	0.000142
Al (394.401 nm)	-0.002382 u	ppm	0.000756	31.75	351.234000	-0.002382 u
Al H (396.152 nm)	-0.053144 u	ppm	0.002979	5.60	20.500000	-0.053144 u
As (188.980 nm)	0.001799 u	ppm	0.002836	> 100.00	0.165516	0.001799 u
B (249.678 nm)	0.000117 u	ppm	0.000377	> 100.00	22.417000	0.000117 u
Ba (493.408 nm)	0.000153 u	ppm	0.000216	> 100.00	-23.326500	0.000153 u
Be (234.861 nm)	0.000000 u	ppm	0.000032	> 100.00	0.145640	0.000000 u
Bi (223.061 nm)	0.000038 u	ppm	0.000539	> 100.00	4.335180	0.000038 u
Ca (315.887 nm)	0.001771 u	ppm	0.004022	> 100.00	-13.363165	0.001771 u
Cd (214.439 nm)	0.000144	ppm	0.000063	43.67	0.208675	0.000144
Co (228.615 nm)	-0.000128 u	ppm	0.000031	23.87	-8.425420	-0.000128 u
Cr (205.560 nm)	-0.000185 u	ppm	0.000076	41.16	7.801490	-0.000185 u
Cu (324.754 nm)	0.000443	ppm	0.000067	15.03	639.848000	0.000443
Fe (238.204 nm)	-0.000795 u	ppm	0.000953	> 100.00	18.571565	-0.000795 u
Fe H (259.940 nm)	-0.020967 u	ppm	0.000863	4.12	12.571700	-0.020967 u
K (766.491 nm)	-0.005306 u	ppm	0.040982	> 100.00	23.409000	-0.005306 u
Li (670.783 nm)	0.003096 S	ppm	0.002562	82.75	490.703000 S	0.003096 S
Mg (279.078 nm)	0.000884	ppm	0.000329	37.20	6.756520	0.000884
Mn (257.610 nm)	-0.000015 u	ppm	0.000025	> 100.00	36.016000	-0.000015 u
Mo (202.032 nm)	0.000468	ppm	0.000278	59.47	7.860770	0.000468
Na (589.592 nm)	0.005016 u	ppm	0.010061	> 100.00	2717.010000	0.005016 u
Na H (589.593 nm)	-0.580488 u	ppm	0.008542	1.47	1643.509423	-0.580488 u
Ni (231.604 nm)	-0.000194 u	ppm	0.000145	74.83	-3.228840	-0.000194 u
P (213.618 nm)	-0.001766 u	ppm	0.000085	4.84	-9.602160	-0.001766 u
Pb (220.353 nm)	0.000599	ppm	0.000349	58.27	3.545120	0.000599
S (181.972 nm)	-0.010939 u	ppm	0.004715	43.10	12.620627	-0.010939 u
Sb (206.834 nm)	0.002586	ppm	0.001148	44.38	8.408930	0.002586
Se (196.026 nm)	-0.002602 u	ppm	0.000497	19.08	3.065840	-0.002602 u
Si (288.158 nm)	-0.003865 u	ppm	0.002614	67.63	679.966000	-0.003865 u
Sn (189.925 nm)	-0.001606 u	ppm	0.002334	> 100.00	2.311140	-0.001606 u
Sr (421.552 nm)	-0.000028 u	ppm	0.000041	> 100.00	31.396871	-0.000028 u
Th (288.505 nm)	0.000293 u	ppm	0.001421	> 100.00	27.238700	0.000293 u
Ti (336.122 nm)	0.000031 u	ppm	0.000058	> 100.00	-116.565000	0.000031 u
Tl (190.794 nm)	-0.000026 u	ppm	0.001288	> 100.00	-1.482890	-0.000026 u
U (409.013 nm)	-0.002358 u	ppm	0.003753	> 100.00	-3.490380	-0.002358 u
V (292.401 nm)	-0.000122 u	ppm	0.000353	> 100.00	-63.769100	-0.000122 u
Zn (206.200 nm)	-0.000021 u	ppm	0.000311	> 100.00	3.121280	-0.000021 u
Zr (343.823 nm)	0.000061 u	ppm	0.000100	> 100.00	5.045700	0.000061 u

Solution Name: CRI-8338330

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CRI-8338330	5/14/2024 1:03:45 PM	S1:3	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.014799 Q	ppm	0.000007	0.05	30268.109138 Q	0.014799 Q
Ag (328.068 nm)	0.010077	ppm	0.000145	1.44	328.880000	0.010077
Al (394.401 nm)	0.092296	ppm	0.000840	0.91	1614.070000	0.092296
Al H (396.152 nm)	0.049223 u	ppm	0.003084	6.27	486.552000	0.049223 u
As (188.980 nm)	0.016925	ppm	0.001303	7.70	8.883930	0.016925
B (249.678 nm)	0.098534	ppm	0.000140	0.14	775.420000	0.098534
Ba (493.408 nm)	0.010210	ppm	0.000253	2.48	1359.780000	0.010210
Be (234.861 nm)	0.001004	ppm	0.000019	1.84	101.582000	0.001004
Bi (223.061 nm)	-0.000511 Qu	ppm	0.000461	90.39	2.996460 Q	-0.000511 Qu
Ca (315.887 nm)	0.211027	ppm	0.005157	2.44	162.056846	0.211027
Cd (214.439 nm)	0.005190	ppm	0.000138	2.67	129.242000	0.005190
Co (228.615 nm)	0.010476	ppm	0.000025	0.24	130.408000	0.010476
Cr (205.560 nm)	0.009833	ppm	0.000596	6.06	72.047600	0.009833
Cu (324.754 nm)	0.015733	ppm	0.000231	1.47	1361.760000	0.015733
Fe (238.204 nm)	0.106603	ppm	0.001147	1.08	364.195607	0.106603
Fe H (259.940 nm)	0.084588 u	ppm	0.002252	2.66	156.193000	0.084588 u
K (766.491 nm)	2.989350	ppm	0.034757	1.16	3871.220000	2.989350
Li (670.783 nm)	0.021283	ppm	0.002180	10.24	1048.310000	0.021283
Mg (279.078 nm)	0.204098	ppm	0.002545	1.25	614.276000	0.204098
Mn (257.610 nm)	0.010400	ppm	0.000026	0.25	3079.070000	0.010400
Mo (202.032 nm)	0.020351	ppm	0.000435	2.14	114.848000	0.020351
Na (589.592 nm)	1.018920	ppm	0.012886	1.26	13620.000000	1.018920
Na H (589.593 nm)	0.413517 u	ppm	0.005696	1.38	9306.708273	0.413517 u
Ni (231.604 nm)	0.042836	ppm	0.000565	1.32	200.022000	0.042836
P (213.618 nm)	2.975530	ppm	0.005146	0.17	3660.150000	2.975530
Pb (220.353 nm)	0.008074	ppm	0.001230	15.23	19.524400	0.008074
S (181.972 nm)	0.081649	ppm	0.003273	4.01	48.714000	0.081649
Sb (206.834 nm)	0.019073	ppm	0.002595	13.60	31.942400	0.019073
Se (196.026 nm)	0.022026	ppm	0.003191	14.49	16.811600	0.022026
Si (288.158 nm)	0.471453	ppm	0.008190	1.74	4274.690000	0.471453
Sn (189.925 nm)	0.101754	ppm	0.001840	1.81	75.208000	0.101754
Sr (421.552 nm)	0.009838	ppm	0.000100	1.02	2156.552396	0.009838
Th (288.505 nm)	0.000319 Qu	ppm	0.000511	> 100.00	27.402700 Q	0.000319 Qu
Ti (336.122 nm)	0.009945	ppm	0.000074	0.74	1233.830000	0.009945
Tl (190.794 nm)	0.015763	ppm	0.001639	10.40	13.265100	0.015763
U (409.013 nm)	0.065934	ppm	0.001937	2.94	252.606000	0.065934
V (292.401 nm)	0.010081	ppm	0.000284	2.82	251.307000	0.010081
Zn (206.200 nm)	0.021201	ppm	0.000763	3.60	52.576600	0.021201
Zr (343.823 nm)	0.010506	ppm	0.000109	1.04	800.084000	0.010506

Solution Name: ICSA-8216097

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
ICSA-8216097	5/14/2024 1:08:03 PM	3:9	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.002679	ppm	0.000009	0.32	3645.760108	0.002679
Ag (328.068 nm)	0.002139	ppm	0.000255	11.91	41.637600	0.002139
Al (394.401 nm)	538.401000 o	ppm	0.764262	0.14	7100070.000000	538.401000 o
Al H (396.152 nm)	534.473000	ppm	0.612188	0.11	2433590.000000	534.473000
As (188.980 nm)	0.007446	ppm	0.004798	64.44	3.351100	0.007446
B (249.678 nm)	0.001615	ppm	0.000505	31.25	33.880200	0.001615
Ba (493.408 nm)	-0.000693 u	ppm	0.000195	28.18	365.871000	-0.000693 u
Be (234.861 nm)	-0.000491 u	ppm	0.000111	22.68	1301.420000	-0.000491 u
Bi (223.061 nm)	0.004681	ppm	0.000300	6.42	15.671900	0.004681
Ca (315.887 nm)	502.261407 o	ppm	0.724386	0.14	421032.006334	502.261407 o
Cd (214.439 nm)	-0.000651 u	ppm	0.000252	38.67	49.023600	-0.000651 u
Co (228.615 nm)	-0.001365 u	ppm	0.000345	25.25	-24.602700	-0.001365 u
Cr (205.560 nm)	0.003775 K	ppm	0.000666	17.65	33.265400 K	0.003775 K
Cu (324.754 nm)	-0.005042 u	ppm	0.000155	3.07	456.928000	-0.005042 u
Fe (238.204 nm)	193.707548 o	ppm	0.352376	0.18	623313.354011	193.707548 o
Fe H (259.940 nm)	196.345000	ppm	0.311767	0.16	267195.000000	196.345000
K (766.491 nm)	-0.001823 u	ppm	0.082626	> 100.00	27.883900	-0.001823 u
Li (670.783 nm)	0.007085 S	ppm	0.000482	6.80	720.693000 S	0.007085 S
Mg (279.078 nm)	532.320000 o	ppm	0.463883	0.09	1585800.000000	532.320000 o
Mn (257.610 nm)	-0.000135 u	ppm	0.000012	8.60	1.218050	-0.000135 u
Mo (202.032 nm)	-0.000057 u	ppm	0.000197	> 100.00	5.035650	-0.000057 u
Na (589.592 nm)	0.134446	ppm	0.006339	4.71	4119.390000	0.134446
Na H (589.593 nm)	-0.394018 u	ppm	0.012429	3.15	3084.635254	-0.394018 u
Ni (231.604 nm)	-0.002762 u	ppm	0.000709	25.66	-15.357600	-0.002762 u
P (213.618 nm)	-0.008804 u	ppm	0.004881	55.44	-17.989700	-0.008804 u
Pb (220.353 nm)	-0.000294 u	ppm	0.005006	> 100.00	-57.450100	-0.000294 u
S (181.972 nm)	-0.045101 u	ppm	0.005230	11.60	15.873768	-0.045101 u
Sb (206.834 nm)	-0.000132 u	ppm	0.003586	> 100.00	20.630200	-0.000132 u
Se (196.026 nm)	0.000491 u	ppm	0.005109	> 100.00	-14.084600	0.000491 u
Si (288.158 nm)	0.013500	ppm	0.001894	14.03	810.311000	0.013500
Sn (189.925 nm)	0.000953 u	ppm	0.003717	> 100.00	4.115680	0.000953 u
Sr (421.552 nm)	0.003542 K	ppm	0.000051	1.44	800.489496 K	0.003542 K
Th (288.505 nm)	-0.008337 Ku	ppm	0.003869	46.40	13.236000 K	-0.008337 Ku
Ti (336.122 nm)	-0.001852 u	ppm	0.000035	1.91	992.838000	-0.001852 u
Tl (190.794 nm)	-0.002811 u	ppm	0.002156	76.72	-7.169910	-0.002811 u
U (409.013 nm)	0.017768	ppm	0.003429	19.30	236.770000	0.017768
V (292.401 nm)	0.003333	ppm	0.000137	4.10	72.199100	0.003333
Zn (206.200 nm)	0.004246	ppm	0.001549	36.50	13.064700	0.004246
Zr (343.823 nm)	-0.000240 u	ppm	0.000159	66.23	232.355000	-0.000240 u

Solution Name: ICSAB-8232371

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
ICSAB-8232371	5/14/2024 1:13:01 PM	3:10	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.232948 Go	ppm	0.003721	0.30	2706233.078546 G	1.232948 Go
Ag (328.068 nm)	1.104400 o	ppm	0.002061	0.19	39792.700000	1.104400 o
Al (394.401 nm)	536.991000 o	ppm	1.232840	0.23	7081480.000000	536.991000 o
Al H (396.152 nm)	531.591000	ppm	1.413550	0.27	2420470.000000	531.591000
As (188.980 nm)	1.039010	ppm	0.003723	0.36	597.954000	1.039010
B (249.678 nm)	10.667800	ppm	0.040614	0.38	81642.400000	10.667800
Ba (493.408 nm)	1.013960	ppm	0.001184	0.12	140013.000000	1.013960
Be (234.861 nm)	0.511809	ppm	0.004215	0.82	52760.400000	0.511809
Bi (223.061 nm)	-0.000422 Gu	ppm	0.000425	> 100.00	3.212660 G	-0.000422 Gu
Ca (315.887 nm)	500.218529 o	ppm	0.359705	0.07	419319.457403	500.218529 o
Cd (214.439 nm)	0.956702	ppm	0.002347	0.25	24501.900000	0.956702
Co (228.615 nm)	0.943783	ppm	0.004482	0.47	12350.900000	0.943783
Cr (205.560 nm)	0.985348	ppm	0.001345	0.14	6338.240000	0.985348
Cu (324.754 nm)	1.084980	ppm	0.003724	0.34	52191.800000	1.084980
Fe (238.204 nm)	193.104964 o	ppm	0.295991	0.15	621384.164051	193.104964 o
Fe H (259.940 nm)	195.988000	ppm	0.076961	0.04	266708.000000	195.988000
K (766.491 nm)	10.791900	ppm	0.065188	0.60	13896.700000	10.791900
Li (670.783 nm)	1.099200 S	ppm	0.000464	0.04	34183.300000 S	1.099200 S
Mg (279.078 nm)	533.833000 o	ppm	1.020400	0.19	1590320.000000	533.833000 o
Mn (257.610 nm)	0.973117	ppm	0.002513	0.26	284343.000000	0.973117
Mo (202.032 nm)	0.987005	ppm	0.003499	0.35	5316.250000	0.987005
Na (589.592 nm)	10.742100	ppm	0.024201	0.23	124743.000000	10.742100
Na H (589.593 nm)	10.018244 u	ppm	0.121236	1.21	87087.244818	10.018244 u
Ni (231.604 nm)	0.941721	ppm	0.004036	0.43	4446.610000	0.941721
P (213.618 nm)	10.320300	ppm	0.062022	0.60	12629.800000	10.320300
Pb (220.353 nm)	0.949575	ppm	0.005257	0.55	1964.560000	0.949575
S (181.972 nm)	10.632313	ppm	0.035400	0.33	4173.758222	10.632313
Sb (206.834 nm)	1.044730	ppm	0.001954	0.19	1515.990000	1.044730
Se (196.026 nm)	1.030850	ppm	0.001617	0.16	561.494000	1.030850
Si (288.158 nm)	10.500300	ppm	0.003777	0.04	79150.300000	10.500300
Sn (189.925 nm)	0.975242	ppm	0.007982	0.82	691.254000	0.975242
Sr (421.552 nm)	1.003610	ppm	0.000961	0.10	216213.169092	1.003610
Th (288.505 nm)	-0.016122 Gu	ppm	0.001818	11.28	-28.979000 G	-0.016122 Gu
Ti (336.122 nm)	1.024190	ppm	0.002219	0.22	140636.000000	1.024190
Tl (190.794 nm)	0.952851	ppm	0.002624	0.28	885.977000	0.952851
U (409.013 nm)	0.018370 G	ppm	0.003337	18.16	212.082000 G	0.018370 G
V (292.401 nm)	0.997906	ppm	0.001761	0.18	31060.100000	0.997906
Zn (206.200 nm)	0.960169	ppm	0.005173	0.54	2240.700000	0.960169
Zr (343.823 nm)	0.992215	ppm	0.005458	0.55	75755.900000	0.992215

Solution Name: lra-8254108

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
lra-8254108	5/14/2024 1:17:30 PM	3:11	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000472	ppm	0.000027	5.71	-1200.454999	0.000472
Ag (328.068 nm)	0.026370	ppm	0.000216	0.82	-4189.460000	0.026370
Al (394.401 nm)	0.041871	ppm	0.009917	23.69	932.069000	0.041871
Al H (396.152 nm)	0.152816 u	ppm	0.005004	3.27	958.189000	0.152816 u
As (188.980 nm)	10.047100 o	ppm	0.033838	0.34	5787.230000	10.047100 o
B (249.678 nm)	10.248300	ppm	0.020448	0.20	78432.500000	10.248300
Ba (493.408 nm)	12.280700	ppm	0.004871	0.04	1689290.000000	12.280700
Be (234.861 nm)	0.001069	ppm	0.000361	33.77	3332.600000	0.001069
Bi (223.061 nm)	-0.000594 u	ppm	0.001355	> 100.00	2.792470	-0.000594 u
Ca (315.887 nm)	0.052560	ppm	0.006168	11.73	29.213451	0.052560
Cd (214.439 nm)	2.039110 o	ppm	0.003264	0.16	52330.500000	2.039110 o
Co (228.615 nm)	5.201600 o	ppm	0.011072	0.21	68224.800000	5.201600 o
Cr (205.560 nm)	10.080200 o	ppm	0.033724	0.33	64781.100000	10.080200 o
Cu (324.754 nm)	10.496200 o	ppm	0.134919	1.29	499439.000000	10.496200 o
Fe (238.204 nm)	498.073432 o	ppm	0.701962	0.14	1602691.392426	498.073432 o
Fe H (259.940 nm)	501.220000	ppm	0.636944	0.13	682017.000000	501.220000
K (766.491 nm)	-0.061390 u	ppm	0.056525	92.07	-48.653100	-0.061390 u
Li (670.783 nm)	0.002790	ppm	0.001339	47.99	484.858000	0.002790
Mg (279.078 nm)	0.012228	ppm	0.009482	77.54	-176.681000	0.012228
Mn (257.610 nm)	9.841680 o	ppm	0.008444	0.09	2875360.000000	9.841680 o
Mo (202.032 nm)	5.030930 o	ppm	0.006298	0.13	27075.900000	5.030930 o
Na (589.592 nm)	-0.663655 u	ppm	0.017612	2.65	84216.600000	-0.663655 u
Na H (589.593 nm)	-0.421380 u	ppm	0.054844	13.02	53317.004098	-0.421380 u
Ni (231.604 nm)	10.244500 o	ppm	0.013391	0.13	48389.800000	10.244500 o
P (213.618 nm)	24.743000 o	ppm	0.059616	0.24	29780.800000	24.743000 o
Pb (220.353 nm)	10.051500	ppm	0.013830	0.14	21412.300000	10.051500
S (181.972 nm)	19.369560 o	ppm	0.046863	0.24	7641.462274	19.369560 o
Sb (206.834 nm)	-0.040511 u	ppm	0.003516	8.68	-14.964800	-0.040511 u
Se (196.026 nm)	5.021710 o	ppm	0.006811	0.14	2763.870000	5.021710 o
Si (288.158 nm)	47.311500 o	ppm	0.641877	1.36	351109.000000	47.311500 o
Sn (189.925 nm)	0.001427 u	ppm	0.003537	> 100.00	4.450220	0.001427 u
Sr (421.552 nm)	9.888632 o	ppm	0.012134	0.12	2130028.667376	9.888632 o
Th (288.505 nm)	-0.059153 u	ppm	0.000937	1.58	-360.362000	-0.059153 u
Ti (336.122 nm)	9.806010 o	ppm	0.016216	0.17	1334540.000000	9.806010 o
Tl (190.794 nm)	5.037640 o	ppm	0.005355	0.11	4693.030000	5.037640 o
U (409.013 nm)	-0.034441 u	ppm	0.000775	2.25	300.301000	-0.034441 u
V (292.401 nm)	9.992510 o	ppm	0.012237	0.12	311301.000000	9.992510 o
Zn (206.200 nm)	10.034300 o	ppm	0.020255	0.20	23386.400000	10.034300 o
Zr (343.823 nm)	0.005639	ppm	0.001155	20.49	1072.890000	0.005639

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/14/2024 1:22:15 PM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000579	ppm	0.000024	4.19	-967.658878	0.000579
Ag (328.068 nm)	-0.000330 u	ppm	0.000379	> 100.00	54.004900	-0.000330 u
Al (394.401 nm)	50.997200 o	ppm	0.145801	0.29	671946.000000	50.997200 o
Al H (396.152 nm)	50.680100	ppm	0.084143	0.17	230997.000000	50.680100
As (188.980 nm)	0.001339 u	ppm	0.006218	> 100.00	-0.426245	0.001339 u
B (249.678 nm)	0.015368	ppm	0.002370	15.42	139.108000	0.015368
Ba (493.408 nm)	0.000660	ppm	0.000082	12.47	180.944000	0.000660
Be (234.861 nm)	0.000360	ppm	0.000057	15.92	367.438000	0.000360
Bi (223.061 nm)	-0.000602 u	ppm	0.001349	> 100.00	2.774150	-0.000602 u
Ca (315.887 nm)	-0.020584 u	ppm	0.007457	36.23	-32.103777	-0.020584 u
Cd (214.439 nm)	-0.000241 u	ppm	0.000098	40.67	8.775340	-0.000241 u
Co (228.615 nm)	-0.000130 u	ppm	0.000095	73.09	-8.413270	-0.000130 u
Cr (205.560 nm)	0.000780	ppm	0.000218	27.91	13.993800	0.000780
Cu (324.754 nm)	-0.004743 u	ppm	0.000151	3.18	1373.990000	-0.004743 u
Fe (238.204 nm)	51.604925 o	ppm	0.102391	0.20	166070.146373	51.604925 o
Fe H (259.940 nm)	51.466000	ppm	0.102191	0.20	70067.400000	51.466000
K (766.491 nm)	-0.055074 u	ppm	0.060555	> 100.00	-40.538600	-0.055074 u
Li (670.783 nm)	-0.003017 u	ppm	0.000511	16.95	393.584000	-0.003017 u
Mg (279.078 nm)	0.007660	ppm	0.000410	5.36	-145.603000	0.007660
Mn (257.610 nm)	-0.000543 u	ppm	0.000214	39.35	-117.988000	-0.000543 u
Mo (202.032 nm)	0.001840	ppm	0.000623	33.86	15.242000	0.001840
Na (589.592 nm)	245.146000 o	ppm	0.698171	0.28	2621430.000000	245.146000 o
Na H (589.593 nm)	245.675603	ppm	1.303759	0.53	1889981.715420	245.675603
Ni (231.604 nm)	0.000968	ppm	0.000666	68.79	2.260300	0.000968
P (213.618 nm)	5.009030	ppm	0.016049	0.32	6168.050000	5.009030
Pb (220.353 nm)	-0.000387 u	ppm	0.002130	> 100.00	-0.103399	-0.000387 u
S (181.972 nm)	5.035964	ppm	0.031331	0.62	1973.201083	5.035964
Sb (206.834 nm)	0.002407	ppm	0.000739	30.72	12.430900	0.002407
Se (196.026 nm)	0.006092	ppm	0.001152	18.92	2.889250	0.006092
Si (288.158 nm)	0.055217	ppm	0.002189	3.96	1119.290000	0.055217
Sn (189.925 nm)	0.001769 u	ppm	0.002750	> 100.00	4.690950	0.001769 u
Sr (421.552 nm)	0.000181	ppm	0.000050	27.84	76.588329	0.000181
Th (288.505 nm)	4.955120	ppm	0.003992	0.08	11076.000000	4.955120
Ti (336.122 nm)	0.001741	ppm	0.000198	11.34	116.199000	0.001741
Tl (190.794 nm)	-0.007779 u	ppm	0.001714	22.04	-9.570330	-0.007779 u
U (409.013 nm)	2.530730 Q	ppm	0.006824	0.27	9611.710000 Q	2.530730 Q
V (292.401 nm)	0.000730	ppm	0.000322	44.16	177.564000	0.000730
Zn (206.200 nm)	0.002717	ppm	0.000411	15.11	9.502020	0.002717
Zr (343.823 nm)	-0.000578 u	ppm	0.000046	7.96	23.099900	-0.000578 u

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/14/2024 1:26:44 PM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.468040	ppm	0.000016	0.00	1025950.980349	0.468040
Ag (328.068 nm)	0.499989	ppm	0.000547	0.11	17984.600000	0.499989
Al (394.401 nm)	0.498947	ppm	0.002275	0.46	6961.810000	0.498947
Al H (396.152 nm)	0.482625 u	ppm	0.001316	0.27	2459.730000	0.482625 u
As (188.980 nm)	0.493889	ppm	0.004376	0.89	283.806000	0.493889
B (249.678 nm)	0.507445	ppm	0.000629	0.12	3904.050000	0.507445
Ba (493.408 nm)	0.501720	ppm	0.001213	0.24	69092.700000	0.501720
Be (234.861 nm)	0.503093	ppm	0.001184	0.24	50557.600000	0.503093
Bi (223.061 nm)	1.010250	ppm	0.005557	0.55	2471.000000	1.010250
Ca (315.887 nm)	5.047615	ppm	0.001826	0.04	4216.579101	5.047615
Cd (214.439 nm)	0.512156	ppm	0.001191	0.23	13079.200000	0.512156
Co (228.615 nm)	0.507499	ppm	0.001062	0.21	6637.090000	0.507499
Cr (205.560 nm)	0.506048	ppm	0.000227	0.04	3259.470000	0.506048
Cu (324.754 nm)	0.505339	ppm	0.001157	0.23	24606.200000	0.505339
Fe (238.204 nm)	2.568005	ppm	0.002994	0.12	8289.396940	2.568005
Fe H (259.940 nm)	2.541960 u	ppm	0.008922	0.35	3499.780000	2.541960 u
K (766.491 nm)	49.471200	ppm	0.044829	0.09	63595.300000	49.471200
Li (670.783 nm)	0.503294	ppm	0.000931	0.18	15825.600000	0.503294
Mg (279.078 nm)	20.033100	ppm	0.036223	0.18	59738.400000	20.033100
Mn (257.610 nm)	0.505272	ppm	0.000605	0.12	147659.000000	0.505272
Mo (202.032 nm)	0.507518	ppm	0.001959	0.39	2736.210000	0.507518
Na (589.592 nm)	24.949400	ppm	0.025862	0.10	272804.000000	24.949400
Na H (589.593 nm)	24.315618 u	ppm	0.127068	0.52	194612.154055	24.315618 u
Ni (231.604 nm)	0.512534	ppm	0.001210	0.24	2419.010000	0.512534
P (213.618 nm)	-0.020653 u	ppm	0.001270	6.15	-75.479200	-0.020653 u
Pb (220.353 nm)	0.499695	ppm	0.002012	0.40	1065.790000	0.499695
S (181.972 nm)	-0.034144 u	ppm	0.001622	4.75	13.389083	-0.034144 u
Sb (206.834 nm)	0.503714	ppm	0.002532	0.50	725.795000	0.503714
Se (196.026 nm)	0.495670	ppm	0.003993	0.81	281.152000	0.495670
Si (288.158 nm)	5.010250	ppm	0.056395	1.13	38175.100000	5.010250
Sn (189.925 nm)	0.510204	ppm	0.002415	0.47	363.276000	0.510204
Sr (421.552 nm)	0.495089	ppm	0.001434	0.29	106678.634408	0.495089
Th (288.505 nm)	0.004161	ppm	0.001101	26.46	21.965800	0.004161
Ti (336.122 nm)	0.500372	ppm	0.000360	0.07	67996.500000	0.500372
Tl (190.794 nm)	0.507952	ppm	0.002399	0.47	473.323000	0.507952
U (409.013 nm)	0.003286 u	ppm	0.003760	> 100.00	6.672640	0.003286 u
V (292.401 nm)	0.498967	ppm	0.000645	0.13	15483.500000	0.498967
Zn (206.200 nm)	0.512146	ppm	0.001481	0.29	1196.650000	0.512146
Zr (343.823 nm)	0.499314	ppm	0.000636	0.13	38000.800000	0.499314

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/14/2024 1:31:12 PM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000162	ppm	0.000024	14.90	-1885.110097	0.000162
Ag (328.068 nm)	-0.000010 u	ppm	0.000022	> 100.00	-33.041700	-0.000010 u
Al (394.401 nm)	-0.001376 u	ppm	0.000340	24.68	364.688000	-0.001376 u
Al H (396.152 nm)	-0.053401 u	ppm	0.005784	10.83	19.332100	-0.053401 u
As (188.980 nm)	-0.000673 u	ppm	0.004225	> 100.00	-1.259190	-0.000673 u
B (249.678 nm)	0.005364	ppm	0.000595	11.08	62.567700	0.005364
Ba (493.408 nm)	0.000015 u	ppm	0.000174	> 100.00	-42.204300	0.000015 u
Be (234.861 nm)	-0.000022 u	ppm	0.000013	61.01	-2.029560	-0.000022 u
Bi (223.061 nm)	0.001091	ppm	0.000508	46.55	6.906870	0.001091
Ca (315.887 nm)	0.010896	ppm	0.003020	27.72	-5.713778	0.010896
Cd (214.439 nm)	0.000132	ppm	0.000069	52.36	-0.096985	0.000132
Co (228.615 nm)	-0.000121 u	ppm	0.000183	> 100.00	-8.332830	-0.000121 u
Cr (205.560 nm)	-0.000034 u	ppm	0.000265	> 100.00	8.771620	-0.000034 u
Cu (324.754 nm)	0.000367	ppm	0.000144	39.27	636.381000	0.000367
Fe (238.204 nm)	0.004884	ppm	0.000225	4.62	36.843243	0.004884
Fe H (259.940 nm)	-0.013979 u	ppm	0.003085	22.07	22.080500	-0.013979 u
K (766.491 nm)	-0.024017 u	ppm	0.030887	> 100.00	-0.633726	-0.024017 u
Li (670.783 nm)	0.000658 S	ppm	0.000390	59.29	415.969000 S	0.000658 S
Mg (279.078 nm)	0.002697	ppm	0.001525	56.53	12.080600	0.002697
Mn (257.610 nm)	0.000081	ppm	0.000021	25.48	64.055900	0.000081
Mo (202.032 nm)	0.000324	ppm	0.000193	59.60	7.087910	0.000324
Na (589.592 nm)	-0.011468 u	ppm	0.003341	29.14	2540.550000	-0.011468 u
Na H (589.593 nm)	-0.641193 u	ppm	0.006271	0.98	1177.805932	-0.641193 u
Ni (231.604 nm)	-0.000331 u	ppm	0.000633	> 100.00	-3.877200	-0.000331 u
P (213.618 nm)	-0.000605 u	ppm	0.001353	> 100.00	-8.168190	-0.000605 u
Pb (220.353 nm)	0.001295	ppm	0.000932	71.99	5.033320	0.001295
S (181.972 nm)	-0.009804 u	ppm	0.005103	52.05	13.071242	-0.009804 u
Sb (206.834 nm)	0.001649 u	ppm	0.002135	> 100.00	7.065790	0.001649 u
Se (196.026 nm)	0.001239 u	ppm	0.005025	> 100.00	5.207900	0.001239 u
Si (288.158 nm)	0.007056	ppm	0.004571	64.78	761.033000	0.007056
Sn (189.925 nm)	-0.001084 u	ppm	0.000664	61.23	2.679330	-0.001084 u
Sr (421.552 nm)	-0.000039 u	ppm	0.000016	40.95	29.046748	-0.000039 u
Th (288.505 nm)	0.001153	ppm	0.001046	90.70	29.171200	0.001153
Ti (336.122 nm)	0.000135	ppm	0.000061	45.16	-102.482000	0.000135
Tl (190.794 nm)	-0.001406 u	ppm	0.001690	> 100.00	-2.775280	-0.001406 u
U (409.013 nm)	0.001937 u	ppm	0.002426	> 100.00	12.652600	0.001937 u
V (292.401 nm)	0.000066 u	ppm	0.000109	> 100.00	-57.949400	0.000066 u
Zn (206.200 nm)	0.000384 u	ppm	0.000445	> 100.00	4.066890	0.000384 u
Zr (343.823 nm)	0.000065	ppm	0.000055	84.00	5.379120	0.000065

Solution Name: CCVL-8338330

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVL-8338330	5/14/2024 1:35:14 PM	S1:3	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.014858	ppm	0.000028	0.19	30399.109876	0.014858
Ag (328.068 nm)	0.010114	ppm	0.000039	0.38	330.445000	0.010114
Al (394.401 nm)	0.092004	ppm	0.000458	0.50	1608.810000	0.092004
Al H (396.152 nm)	0.051325 u	ppm	0.002323	4.53	496.125000	0.051325 u
As (188.980 nm)	0.014054	ppm	0.002273	16.17	7.229000	0.014054
B (249.678 nm)	0.102038	ppm	0.000542	0.53	802.226000	0.102038
Ba (493.408 nm)	0.009994	ppm	0.000164	1.64	1330.190000	0.009994
Be (234.861 nm)	0.001030	ppm	0.000026	2.55	104.248000	0.001030
Bi (223.061 nm)	-0.000840 Qu	ppm	0.000744	88.64	2.193000 Q	-0.000840 Qu
Ca (315.887 nm)	0.208886	ppm	0.002589	1.24	160.261656	0.208886
Cd (214.439 nm)	0.005422	ppm	0.000063	1.17	135.163000	0.005422
Co (228.615 nm)	0.010128	ppm	0.000327	3.23	125.866000	0.010128
Cr (205.560 nm)	0.010071	ppm	0.000126	1.26	73.581100	0.010071
Cu (324.754 nm)	0.015935	ppm	0.000061	0.38	1372.280000	0.015935
Fe (238.204 nm)	0.107324	ppm	0.001631	1.52	366.517753	0.107324
Fe H (259.940 nm)	0.084426 u	ppm	0.000862	1.02	155.973000	0.084426 u
K (766.491 nm)	2.955180	ppm	0.049745	1.68	3827.310000	2.955180
Li (670.783 nm)	0.024059	ppm	0.001240	5.16	1133.310000	0.024059
Mg (279.078 nm)	0.204534	ppm	0.001020	0.50	615.502000	0.204534
Mn (257.610 nm)	0.010443	ppm	0.000028	0.27	3091.620000	0.010443
Mo (202.032 nm)	0.020541	ppm	0.000584	2.84	115.872000	0.020541
Na (589.592 nm)	0.974780	ppm	0.002587	0.27	13148.800000	0.974780
Na H (589.593 nm)	0.334863 u	ppm	0.002545	0.76	8703.777907	0.334863 u
Ni (231.604 nm)	0.042542	ppm	0.000312	0.73	198.635000	0.042542
P (213.618 nm)	2.986670	ppm	0.004746	0.16	3673.890000	2.986670
Pb (220.353 nm)	0.009970	ppm	0.000884	8.86	23.564900	0.009970
S (181.972 nm)	0.078254	ppm	0.005700	7.28	47.398789	0.078254
Sb (206.834 nm)	0.021657	ppm	0.001642	7.58	35.649900	0.021657
Se (196.026 nm)	0.021464	ppm	0.003290	15.33	16.498300	0.021464
Si (288.158 nm)	0.475765	ppm	0.009683	2.04	4306.340000	0.475765
Sn (189.925 nm)	0.101465	ppm	0.001411	1.39	75.004100	0.101465
Sr (421.552 nm)	0.009911	ppm	0.000026	0.26	2172.414565	0.009911
Th (288.505 nm)	0.003373 Q	ppm	0.002681	79.47	34.222300 Q	0.003373 Q
Ti (336.122 nm)	0.009987	ppm	0.000069	0.69	1239.470000	0.009987
Tl (190.794 nm)	0.015909	ppm	0.002942	18.49	13.400100	0.015909
U (409.013 nm)	0.064820	ppm	0.004750	7.33	248.482000	0.064820
V (292.401 nm)	0.009861	ppm	0.000167	1.69	244.635000	0.009861
Zn (206.200 nm)	0.021101	ppm	0.000350	1.66	52.344500	0.021101
Zr (343.823 nm)	0.010411	ppm	0.000078	0.75	792.861000	0.010411

Solution Name: MB 280-652548/1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
MB 280-652548/1-A	5/14/2024 4:24:55 PM	1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	-0.000038 u	ppm	0.000026	68.86	-2324.881334	-0.000038 u
Ag (328.068 nm)	0.000269 u	ppm	0.000329	> 100.00	-22.901200	0.000269 u
Al (394.401 nm)	0.002981	ppm	0.000920	30.86	423.147000	0.002981
Al H (396.152 nm)	-0.047202 u	ppm	0.004924	10.43	47.556100	-0.047202 u
As (188.980 nm)	-0.001506 u	ppm	0.002211	> 100.00	-1.739380	-0.001506 u
B (249.678 nm)	0.000452	ppm	0.000367	81.25	24.984000	0.000452
Ba (493.408 nm)	-0.000037 u	ppm	0.000155	> 100.00	-49.346300	-0.000037 u
Be (234.861 nm)	-0.000024 u	ppm	0.000023	98.00	-2.187870	-0.000024 u
Bi (223.061 nm)	-0.000095 u	ppm	0.001411	> 100.00	4.010010	-0.000095 u
Ca (315.887 nm)	0.015041	ppm	0.002454	16.32	-2.239012	0.015041
Cd (214.439 nm)	0.000063	ppm	0.000055	86.56	-1.848120	0.000063
Co (228.615 nm)	0.000107 u	ppm	0.000142	> 100.00	-5.351640	0.000107 u
Cr (205.560 nm)	-0.000330 u	ppm	0.000377	> 100.00	6.871990	-0.000330 u
Cu (324.754 nm)	-0.001268 u	ppm	0.000098	7.72	558.106000	-0.001268 u
Fe (238.204 nm)	0.012700	ppm	0.000777	6.12	61.992510	0.012700
Fe H (259.940 nm)	-0.005535 u	ppm	0.001108	20.01	33.569600	-0.005535 u
K (766.491 nm)	-0.056377 u	ppm	0.019809	35.14	-42.212400	-0.056377 u
Li (670.783 nm)	-0.005427 u	ppm	0.002049	37.75	229.508000	-0.005427 u
Mg (279.078 nm)	0.000441 u	ppm	0.001000	> 100.00	5.422420	0.000441 u
Mn (257.610 nm)	0.000209	ppm	0.000002	0.99	101.682000	0.000209
Mo (202.032 nm)	0.000327	ppm	0.000170	52.02	7.105090	0.000327
Na (589.592 nm)	-0.045364 u	ppm	0.014512	31.99	2178.580000	-0.045364 u
Na H (589.593 nm)	-0.692358 u	ppm	0.001973	0.28	785.524652	-0.692358 u
Ni (231.604 nm)	0.000209 u	ppm	0.000280	> 100.00	-1.326230	0.000209 u
P (213.618 nm)	-0.000059 u	ppm	0.003618	> 100.00	-7.416500	-0.000059 u
Pb (220.353 nm)	-0.000810 u	ppm	0.000812	> 100.00	0.546201	-0.000810 u
S (181.972 nm)	-0.014497 u	ppm	0.002529	17.45	11.245321	-0.014497 u
Sb (206.834 nm)	-0.000331 u	ppm	0.001014	> 100.00	4.225020	-0.000331 u
Se (196.026 nm)	-0.000874 u	ppm	0.001934	> 100.00	4.028250	-0.000874 u
Si (288.158 nm)	-0.007878 u	ppm	0.002888	36.66	651.369000	-0.007878 u
Sn (189.925 nm)	-0.000781 u	ppm	0.001642	> 100.00	2.892670	-0.000781 u
Sr (421.552 nm)	-0.000066 u	ppm	0.000062	93.50	23.221082	-0.000066 u
Th (288.505 nm)	-0.001367 u	ppm	0.001624	> 100.00	23.570400	-0.001367 u
Ti (336.122 nm)	-0.000022 u	ppm	0.000016	70.79	-123.790000	-0.000022 u
Tl (190.794 nm)	-0.001017 u	ppm	0.000797	78.33	-2.411240	-0.001017 u
U (409.013 nm)	0.001608 u	ppm	0.001842	> 100.00	11.385600	0.001608 u
V (292.401 nm)	0.000016 u	ppm	0.000195	> 100.00	-59.652500	0.000016 u
Zn (206.200 nm)	0.000515 u	ppm	0.000679	> 100.00	4.372410	0.000515 u
Zr (343.823 nm)	-0.000164 u	ppm	0.000111	67.83	-12.012000	-0.000164 u

Solution Name: LCS 280-652548/2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LCS 280-652548/2-A	5/14/2024 4:28:56 PM	1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.005214	ppm	0.005245	0.52	2205997.507039	1.005214
Ag (328.068 nm)	0.050346	ppm	0.000354	0.70	1479.030000	0.050346
Al (394.401 nm)	10.172700 o	ppm	0.034264	0.34	134548.000000	10.172700 o
Al H (396.152 nm)	10.253100	ppm	0.004872	0.05	46942.500000	10.253100
As (188.980 nm)	1.048950	ppm	0.005409	0.52	603.805000	1.048950
B (249.678 nm)	2.011440	ppm	0.008977	0.45	15411.300000	2.011440
Ba (493.408 nm)	1.010900	ppm	0.001332	0.13	139276.000000	1.010900
Be (234.861 nm)	1.030550	ppm	0.008665	0.84	103598.000000	1.030550
Bi (223.061 nm)	-0.002152 u	ppm	0.000402	18.68	-1.010760	-0.002152 u
Ca (315.887 nm)	51.546883 o	ppm	0.087747	0.17	43197.018772	51.546883 o
Cd (214.439 nm)	1.000250	ppm	0.002410	0.24	25549.200000	1.000250
Co (228.615 nm)	0.993783	ppm	0.003841	0.39	13003.400000	0.993783
Cr (205.560 nm)	1.005730	ppm	0.003630	0.36	6469.150000	1.005730
Cu (324.754 nm)	1.014050	ppm	0.004727	0.47	48743.000000	1.014050
Fe (238.204 nm)	10.284476 o	ppm	0.029395	0.29	33123.625173	10.284476 o
Fe H (259.940 nm)	10.300900	ppm	0.031733	0.31	14056.900000	10.300900
K (766.491 nm)	50.661400	ppm	0.107686	0.21	65124.600000	50.661400
Li (670.783 nm)	1.004070	ppm	0.004423	0.44	31187.600000	1.004070
Mg (279.078 nm)	51.193000 o	ppm	0.145175	0.28	152571.000000	51.193000 o
Mn (257.610 nm)	1.007870	ppm	0.002607	0.26	294498.000000	1.007870
Mo (202.032 nm)	0.991181	ppm	0.003407	0.34	5338.720000	0.991181
Na (589.592 nm)	51.065400	ppm	0.067355	0.13	555472.000000	51.065400
Na H (589.593 nm)	50.559538	ppm	0.296698	0.59	397952.722193	50.559538
Ni (231.604 nm)	0.987041	ppm	0.003331	0.34	4660.730000	0.987041
P (213.618 nm)	20.509500 o	ppm	0.079691	0.39	25197.400000	20.509500 o
Pb (220.353 nm)	1.033070	ppm	0.005120	0.50	2200.180000	1.033070
S (181.972 nm)	19.604809 o	ppm	0.111363	0.57	7639.117831	19.604809 o
Sb (206.834 nm)	0.988972	ppm	0.003714	0.38	1420.950000	0.988972
Se (196.026 nm)	1.021530	ppm	0.000398	0.04	574.094000	1.021530
Si (288.158 nm)	9.444560	ppm	0.037962	0.40	71359.700000	9.444560
Sn (189.925 nm)	0.986602	ppm	0.007390	0.75	699.266000	0.986602
Sr (421.552 nm)	1.002051	ppm	0.001162	0.12	215877.346008	1.002051
Th (288.505 nm)	-0.013603 u	ppm	0.000408	3.00	-32.317900	-0.013603 u
Ti (336.122 nm)	0.987164	ppm	0.003302	0.33	134378.000000	0.987164
Tl (190.794 nm)	1.008160	ppm	0.001107	0.11	940.800000	1.008160
U (409.013 nm)	0.018229	ppm	0.002649	14.53	56.466400	0.018229
V (292.401 nm)	1.016010	ppm	0.003118	0.31	31597.600000	1.016010
Zn (206.200 nm)	1.002570	ppm	0.001836	0.18	2339.510000	1.002570
Zr (343.823 nm)	0.980542	ppm	0.002591	0.26	74631.500000	0.980542

Solution Name: LCSD 280-652548/3-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LCSD 280-652548/3-A	5/14/2024 4:33:19 PM	1:3	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.012734	ppm	0.002517	0.25	2222515.745907	1.012734
Ag (328.068 nm)	0.050520	ppm	0.000548	1.08	1479.710000	0.050520
Al (394.401 nm)	10.248400 o	ppm	0.018064	0.18	135545.000000	10.248400 o
Al H (396.152 nm)	10.324300	ppm	0.027451	0.27	47266.700000	10.324300
As (188.980 nm)	1.056480	ppm	0.009712	0.92	608.146000	1.056480
B (249.678 nm)	2.021310	ppm	0.005026	0.25	15486.800000	2.021310
Ba (493.408 nm)	1.023120	ppm	0.003495	0.34	140952.000000	1.023120
Be (234.861 nm)	1.012440	ppm	0.011238	1.11	101780.000000	1.012440
Bi (223.061 nm)	-0.000329 u	ppm	0.001691	> 100.00	3.439580	-0.000329 u
Ca (315.887 nm)	51.993065 o	ppm	0.123014	0.24	43571.054397	51.993065 o
Cd (214.439 nm)	1.013200	ppm	0.003545	0.35	25879.900000	1.013200
Co (228.615 nm)	0.999410	ppm	0.003456	0.35	13077.000000	0.999410
Cr (205.560 nm)	1.018370	ppm	0.002831	0.28	6550.380000	1.018370
Cu (324.754 nm)	1.021730	ppm	0.003113	0.30	49108.000000	1.021730
Fe (238.204 nm)	10.363488 o	ppm	0.012861	0.12	33377.993661	10.363488 o
Fe H (259.940 nm)	10.410800	ppm	0.012435	0.12	14206.300000	10.410800
K (766.491 nm)	51.090600	ppm	0.186996	0.37	65676.000000	51.090600
Li (670.783 nm)	1.025710	ppm	0.003699	0.36	31850.800000	1.025710
Mg (279.078 nm)	51.860200 o	ppm	0.150455	0.29	154559.000000	51.860200 o
Mn (257.610 nm)	1.019640	ppm	0.002236	0.22	297936.000000	1.019640
Mo (202.032 nm)	0.999139	ppm	0.002822	0.28	5381.540000	0.999139
Na (589.592 nm)	51.574600	ppm	0.158536	0.31	560999.000000	51.574600
Na H (589.593 nm)	51.041997	ppm	0.499501	0.98	401702.195969	51.041997
Ni (231.604 nm)	0.996378	ppm	0.003212	0.32	4704.840000	0.996378
P (213.618 nm)	20.603200 o	ppm	0.081278	0.39	25312.200000	20.603200 o
Pb (220.353 nm)	1.042160	ppm	0.003626	0.35	2219.500000	1.042160
S (181.972 nm)	19.800762 o	ppm	0.094246	0.48	7715.102396	19.800762 o
Sb (206.834 nm)	0.992540	ppm	0.001884	0.19	1426.080000	0.992540
Se (196.026 nm)	1.019470	ppm	0.002543	0.25	572.948000	1.019470
Si (288.158 nm)	9.503090	ppm	0.020954	0.22	71800.400000	9.503090
Sn (189.925 nm)	0.996194	ppm	0.004737	0.48	706.030000	0.996194
Sr (421.552 nm)	1.014725	ppm	0.003618	0.36	218607.324548	1.014725
Th (288.505 nm)	-0.014579 u	ppm	0.003312	22.72	-34.811700	-0.014579 u
Ti (336.122 nm)	0.992728	ppm	0.001955	0.20	135136.000000	0.992728
Tl (190.794 nm)	1.015430	ppm	0.001980	0.19	947.587000	1.015430
U (409.013 nm)	0.009412	ppm	0.003293	34.98	23.326200	0.009412
V (292.401 nm)	1.029830	ppm	0.002383	0.23	32028.700000	1.029830
Zn (206.200 nm)	1.015080	ppm	0.002346	0.23	2368.650000	1.015080
Zr (343.823 nm)	0.984314	ppm	0.002267	0.23	74918.600000	0.984314

Solution Name: 280-191098-C-1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191098-C-1-A	5/14/2024 4:37:43 PM	1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.019278	ppm	0.000068	0.35	40104.354288	0.019278
Ag (328.068 nm)	0.001595	ppm	0.000085	5.31	24.150600	0.001595
Al (394.401 nm)	0.019176	ppm	0.001540	8.03	685.025000	0.019176
Al H (396.152 nm)	-0.074024 u	ppm	0.003902	5.27	-74.561200	-0.074024 u
As (188.980 nm)	0.012948	ppm	0.001463	11.30	6.790270	0.012948
B (249.678 nm)	0.034658	ppm	0.001679	4.84	286.698000	0.034658
Ba (493.408 nm)	0.047350	ppm	0.000531	1.12	6468.820000	0.047350
Be (234.861 nm)	-0.000024 u	ppm	0.000037	> 100.00	17.127300	-0.000024 u
Bi (223.061 nm)	0.001046 u	ppm	0.001343	> 100.00	6.796890	0.001046 u
Ca (315.887 nm)	91.535794 o	ppm	0.112032	0.12	76719.812058	91.535794 o
Cd (214.439 nm)	0.000227	ppm	0.000041	18.27	3.006410	0.000227
Co (228.615 nm)	-0.000655 u	ppm	0.000231	35.29	-15.315700	-0.000655 u
Cr (205.560 nm)	0.000276	ppm	0.000193	69.72	10.761200	0.000276
Cu (324.754 nm)	-0.000933 u	ppm	0.000213	22.83	545.121000	-0.000933 u
Fe (238.204 nm)	1.942303	ppm	0.002878	0.15	6270.871193	1.942303
Fe H (259.940 nm)	1.925590 u	ppm	0.004870	0.25	2661.120000	1.925590 u
K (766.491 nm)	1.937410	ppm	0.050611	2.61	2519.590000	1.937410
Li (670.783 nm)	0.021088	ppm	0.001105	5.24	1065.950000	0.021088
Mg (279.078 nm)	34.012200	ppm	0.158261	0.47	101335.000000	34.012200
Mn (257.610 nm)	0.254809	ppm	0.000912	0.36	74484.600000	0.254809
Mo (202.032 nm)	0.001764	ppm	0.000373	21.13	14.834900	0.001764
Na (589.592 nm)	11.917600	ppm	0.014200	0.12	130313.000000	11.917600
Na H (589.593 nm)	11.222627 u	ppm	0.082180	0.73	92346.125430	11.222627 u
Ni (231.604 nm)	-0.002220 u	ppm	0.001062	47.84	-12.795900	-0.002220 u
P (213.618 nm)	0.008812	ppm	0.001955	22.18	3.441590	0.008812
Pb (220.353 nm)	-0.000746 u	ppm	0.001544	> 100.00	0.721532	-0.000746 u
S (181.972 nm)	31.107582 o	ppm	0.182572	0.59	12083.982869	31.107582 o
Sb (206.834 nm)	0.000831 u	ppm	0.001326	> 100.00	6.049130	0.000831 u
Se (196.026 nm)	0.003833	ppm	0.001272	33.19	6.858300	0.003833
Si (288.158 nm)	7.644420	ppm	0.045706	0.60	57179.700000	7.644420
Sn (189.925 nm)	-0.003934 u	ppm	0.000924	23.50	0.669484	-0.003934 u
Sr (421.552 nm)	0.146269	ppm	0.000797	0.54	31543.656131	0.146269
Th (288.505 nm)	-0.009895 u	ppm	0.001932	19.53	11.520200	-0.009895 u
Ti (336.122 nm)	-0.000400 u	ppm	0.000064	16.05	73.581100	-0.000400 u
Tl (190.794 nm)	-0.000019 u	ppm	0.001996	> 100.00	-1.510540	-0.000019 u
U (409.013 nm)	0.020951	ppm	0.003791	18.10	85.643300	0.020951
V (292.401 nm)	0.001288	ppm	0.000047	3.66	-15.069100	0.001288
Zn (206.200 nm)	0.002555	ppm	0.000096	3.77	9.124920	0.002555
Zr (343.823 nm)	0.000321	ppm	0.000073	22.86	27.393900	0.000321

Solution Name: 280-191098-C-1-A SD@5

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191098-C-1-A SD@5	5/14/2024 4:42:07 PM	1:5	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.003257	ppm	0.000012	0.38	4912.796038	0.003257
Ag (328.068 nm)	0.000614	ppm	0.000063	10.27	-10.898400	0.000614
Al (394.401 nm)	0.006754	ppm	0.000440	6.52	482.690000	0.006754
Al H (396.152 nm)	-0.054324 u	ppm	0.001979	3.64	15.129400	-0.054324 u
As (188.980 nm)	0.001815 u	ppm	0.002477	> 100.00	0.214779	0.001815 u
B (249.678 nm)	0.007473	ppm	0.000337	4.50	78.698600	0.007473
Ba (493.408 nm)	0.009628	ppm	0.000241	2.50	1280.160000	0.009628
Be (234.861 nm)	-0.000002 u	ppm	0.000018	> 100.00	4.135760	-0.000002 u
Bi (223.061 nm)	-0.000422 u	ppm	0.001036	> 100.00	3.212970	-0.000422 u
Ca (315.887 nm)	18.534991 o	ppm	0.035098	0.19	15523.076152	18.534991 o
Cd (214.439 nm)	0.000195	ppm	0.000033	17.08	1.648380	0.000195
Co (228.615 nm)	-0.000394 u	ppm	0.000179	45.48	-11.906100	-0.000394 u
Cr (205.560 nm)	-0.000343 u	ppm	0.000546	> 100.00	6.782500	-0.000343 u
Cu (324.754 nm)	-0.000649 u	ppm	0.000177	27.30	581.766000	-0.000649 u
Fe (238.204 nm)	0.435069	ppm	0.003233	0.74	1421.047392	0.435069
Fe H (259.940 nm)	0.411618 u	ppm	0.002397	0.58	601.161000	0.411618 u
K (766.491 nm)	0.316631	ppm	0.012705	4.01	437.062000	0.316631
Li (670.783 nm)	0.001428 u	ppm	0.002498	> 100.00	444.399000	0.001428 u
Mg (279.078 nm)	6.834070	ppm	0.004170	0.06	20364.400000	6.834070
Mn (257.610 nm)	0.052279	ppm	0.000040	0.08	15314.200000	0.052279
Mo (202.032 nm)	0.000355	ppm	0.000249	70.03	7.253330	0.000355
Na (589.592 nm)	2.352400	ppm	0.007364	0.31	27861.600000	2.352400
Na H (589.593 nm)	1.724878 u	ppm	0.021706	1.26	19360.624284	1.724878 u
Ni (231.604 nm)	-0.000586 u	ppm	0.000933	> 100.00	-5.081620	-0.000586 u
P (213.618 nm)	-0.000351 u	ppm	0.002563	> 100.00	-7.801100	-0.000351 u
Pb (220.353 nm)	-0.001458 u	ppm	0.001159	79.45	-0.825879	-0.001458 u
S (181.972 nm)	6.130482	ppm	0.009340	0.15	2394.988755	6.130482
Sb (206.834 nm)	0.000144 u	ppm	0.001866	> 100.00	4.942620	0.000144 u
Se (196.026 nm)	-0.004031 u	ppm	0.002917	72.35	2.305250	-0.004031 u
Si (288.158 nm)	1.505030	ppm	0.002900	0.19	11825.500000	1.505030
Sn (189.925 nm)	-0.003220 u	ppm	0.001338	41.53	1.172370	-0.003220 u
Sr (421.552 nm)	0.029370	ppm	0.000194	0.66	6363.668099	0.029370
Th (288.505 nm)	-0.004796 u	ppm	0.002523	52.60	17.313100	-0.004796 u
Ti (336.122 nm)	-0.000087 u	ppm	0.000049	55.92	-82.321200	-0.000087 u
Tl (190.794 nm)	0.000231 u	ppm	0.000485	> 100.00	-1.248390	0.000231 u
U (409.013 nm)	0.005594	ppm	0.001996	35.68	26.716200	0.005594
V (292.401 nm)	0.000249	ppm	0.000150	60.31	-51.373200	0.000249
Zn (206.200 nm)	0.000839	ppm	0.000632	75.28	5.126830	0.000839
Zr (343.823 nm)	0.000119	ppm	0.000074	62.08	10.036200	0.000119

Solution Name: 280-191098-C-1-B MS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191098-C-1-B MS	5/14/2024 4:46:26 PM	1:6	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.077343	ppm	0.002374	0.22	2364432.813227	1.077343
Ag (328.068 nm)	0.051437	ppm	0.000082	0.16	1518.350000	0.051437
Al (394.401 nm)	10.332600 o	ppm	0.015059	0.15	136699.000000	10.332600 o
Al H (396.152 nm)	10.327600	ppm	0.019282	0.19	47281.500000	10.327600
As (188.980 nm)	1.085130	ppm	0.007411	0.68	624.860000	1.085130
B (249.678 nm)	2.112100	ppm	0.001756	0.08	16181.500000	2.112100
Ba (493.408 nm)	1.060420	ppm	0.005192	0.49	146082.000000	1.060420
Be (234.861 nm)	1.014370	ppm	0.006115	0.60	101992.000000	1.014370
Bi (223.061 nm)	-0.000549 u	ppm	0.000765	> 100.00	2.902480	-0.000549 u
Ca (315.887 nm)	143.011706 o	ppm	0.299084	0.21	119872.183157	143.011706 o
Cd (214.439 nm)	0.986654	ppm	0.003155	0.32	25202.400000	0.986654
Co (228.615 nm)	0.972063	ppm	0.002627	0.27	12719.600000	0.972063
Cr (205.560 nm)	0.993292	ppm	0.001489	0.15	6389.260000	0.993292
Cu (324.754 nm)	1.017570	ppm	0.005683	0.56	48882.600000	1.017570
Fe (238.204 nm)	12.048334 o	ppm	0.024540	0.20	38799.049671	12.048334 o
Fe H (259.940 nm)	12.138000	ppm	0.034296	0.28	16556.500000	12.138000
K (766.491 nm)	53.760000	ppm	0.126660	0.24	69106.000000	53.760000
Li (670.783 nm)	1.055770	ppm	0.003344	0.32	32795.900000	1.055770
Mg (279.078 nm)	86.105900 o	ppm	0.233390	0.27	256587.000000	86.105900 o
Mn (257.610 nm)	1.248940 o	ppm	0.002971	0.24	364926.000000	1.248940 o
Mo (202.032 nm)	0.989584	ppm	0.004349	0.44	5330.130000	0.989584
Na (589.592 nm)	64.171500 o	ppm	0.131587	0.21	695832.000000	64.171500 o
Na H (589.593 nm)	63.290331	ppm	0.467647	0.74	495777.276023	63.290331
Ni (231.604 nm)	0.964782	ppm	0.002268	0.24	4555.580000	0.964782
P (213.618 nm)	21.029600 o	ppm	0.043288	0.21	25838.500000	21.029600 o
Pb (220.353 nm)	1.013360	ppm	0.007570	0.75	2158.180000	1.013360
S (181.972 nm)	52.657024 o	ppm	0.185071	0.35	20460.292921	52.657024 o
Sb (206.834 nm)	1.000200	ppm	0.002506	0.25	1437.170000	1.000200
Se (196.026 nm)	1.044110	ppm	0.007715	0.74	586.910000	1.044110
Si (288.158 nm)	17.427300 o	ppm	0.058792	0.34	130326.000000	17.427300 o
Sn (189.925 nm)	0.979387	ppm	0.002272	0.23	694.177000	0.979387
Sr (421.552 nm)	1.155839 o	ppm	0.005145	0.45	249002.848024	1.155839 o
Th (288.505 nm)	-0.016454 u	ppm	0.000280	1.70	-31.792100	-0.016454 u
Ti (336.122 nm)	0.986649	ppm	0.001958	0.20	134556.000000	0.986649
Tl (190.794 nm)	0.991528	ppm	0.002574	0.26	925.164000	0.991528
U (409.013 nm)	0.017308	ppm	0.002442	14.11	54.547400	0.017308
V (292.401 nm)	1.017830	ppm	0.001731	0.17	31663.200000	1.017830
Zn (206.200 nm)	0.982627	ppm	0.003009	0.31	2293.030000	0.982627
Zr (343.823 nm)	0.980659	ppm	0.002283	0.23	74642.700000	0.980659

Solution Name: 280-191098-C-1-C MSD

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191098-C-1-C MSD	5/14/2024 4:50:51 PM	1:7	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.069756	ppm	0.001905	0.18	2347768.370033	1.069756
Ag (328.068 nm)	0.051099	ppm	0.000339	0.66	1508.960000	0.051099
Al (394.401 nm)	10.310400 o	ppm	0.022058	0.21	136406.000000	10.310400 o
Al H (396.152 nm)	10.234000	ppm	0.025876	0.25	46855.300000	10.234000
As (188.980 nm)	1.073260	ppm	0.007471	0.70	618.015000	1.073260
B (249.678 nm)	2.107710	ppm	0.004464	0.21	16147.900000	2.107710
Ba (493.408 nm)	1.051550	ppm	0.002513	0.24	144863.000000	1.051550
Be (234.861 nm)	1.018960	ppm	0.001342	0.13	102451.000000	1.018960
Bi (223.061 nm)	-0.001296 u	ppm	0.000367	28.37	1.079740	-0.001296 u
Ca (315.887 nm)	140.955792 o	ppm	0.341956	0.24	118148.706248	140.955792 o
Cd (214.439 nm)	0.977700	ppm	0.001635	0.17	24973.700000	0.977700
Co (228.615 nm)	0.967468	ppm	0.002111	0.22	12659.400000	0.967468
Cr (205.560 nm)	0.987581	ppm	0.001926	0.20	6352.560000	0.987581
Cu (324.754 nm)	1.009850	ppm	0.004979	0.49	48516.300000	1.009850
Fe (238.204 nm)	11.894931 o	ppm	0.039973	0.34	38305.351106	11.894931 o
Fe H (259.940 nm)	11.961700	ppm	0.033785	0.28	16316.600000	11.961700
K (766.491 nm)	53.367100	ppm	0.162031	0.30	68601.100000	53.367100
Li (670.783 nm)	1.044210	ppm	0.000963	0.09	32441.100000	1.044210
Mg (279.078 nm)	85.251400 o	ppm	0.186948	0.22	254041.000000	85.251400 o
Mn (257.610 nm)	1.239390 o	ppm	0.002893	0.23	362137.000000	1.239390 o
Mo (202.032 nm)	0.987892	ppm	0.002927	0.30	5321.020000	0.987892
Na (589.592 nm)	63.408600 o	ppm	0.186998	0.29	687626.000000	63.408600 o
Na H (589.593 nm)	63.089570	ppm	0.427765	0.68	494205.612340	63.089570
Ni (231.604 nm)	0.955643	ppm	0.001634	0.17	4512.410000	0.955643
P (213.618 nm)	20.907100 o	ppm	0.056796	0.27	25687.900000	20.907100 o
Pb (220.353 nm)	1.005100	ppm	0.001868	0.19	2140.590000	1.005100
S (181.972 nm)	52.206947 o	ppm	0.067196	0.13	20285.617837	52.206947 o
Sb (206.834 nm)	0.997781	ppm	0.006282	0.63	1433.670000	0.997781
Se (196.026 nm)	1.027650	ppm	0.004089	0.40	577.737000	1.027650
Si (288.158 nm)	17.268900 o	ppm	0.073542	0.43	129151.000000	17.268900 o
Sn (189.925 nm)	0.974795	ppm	0.003474	0.36	690.938000	0.974795
Sr (421.552 nm)	1.146911 o	ppm	0.002472	0.22	247079.810830	1.146911 o
Th (288.505 nm)	-0.015392 u	ppm	0.002324	15.10	-29.345100	-0.015392 u
Ti (336.122 nm)	0.983701	ppm	0.001915	0.19	134149.000000	0.983701
Tl (190.794 nm)	0.984176	ppm	0.001638	0.17	918.279000	0.984176
U (409.013 nm)	0.020377	ppm	0.001678	8.23	66.000400	0.020377
V (292.401 nm)	1.011250	ppm	0.002441	0.24	31457.800000	1.011250
Zn (206.200 nm)	0.975879	ppm	0.004855	0.50	2277.300000	0.975879
Zr (343.823 nm)	0.978145	ppm	0.002095	0.21	74451.100000	0.978145

Solution Name: 280-191098-C-1-A PDS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191098-C-1-A PDS	5/14/2024 4:55:29 PM	1:8	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.114693	ppm	0.000822	0.72	249701.418235	0.114693
Ag (328.068 nm)	0.048478	ppm	0.000296	0.61	1709.180000	0.048478
Al (394.401 nm)	0.992427	ppm	0.005527	0.56	13578.300000	0.992427
Al H (396.152 nm)	0.913931	ppm	0.002997	0.33	4423.360000	0.913931
As (188.980 nm)	0.216447	ppm	0.002307	1.07	124.120000	0.216447
B (249.678 nm)	0.135097	ppm	0.001400	1.04	1055.170000	0.135097
Ba (493.408 nm)	0.141552	ppm	0.000331	0.23	19435.500000	0.141552
Be (234.861 nm)	0.049579	ppm	0.001270	2.56	5010.500000	0.049579
Bi (223.061 nm)	0.000192 u	ppm	0.001197	> 100.00	4.712630	0.000192 u
Ca (315.887 nm)	107.440858 o	ppm	0.239844	0.22	90053.062212	107.440858 o
Cd (214.439 nm)	0.048199	ppm	0.000153	0.32	1228.630000	0.048199
Co (228.615 nm)	0.046594	ppm	0.000219	0.47	603.231000	0.046594
Cr (205.560 nm)	0.048107	ppm	0.000213	0.44	317.991000	0.048107
Cu (324.754 nm)	0.047506	ppm	0.000521	1.10	2851.790000	0.047506
Fe (238.204 nm)	2.844760	ppm	0.007917	0.28	9175.192810	2.844760
Fe H (259.940 nm)	2.830910 u	ppm	0.017429	0.62	3892.930000	2.830910 u
K (766.491 nm)	21.631800	ppm	0.114242	0.53	27824.700000	21.631800
Li (670.783 nm)	0.117824	ppm	0.001109	0.94	4040.310000	0.117824
Mg (279.078 nm)	52.423200 o	ppm	0.148773	0.28	156195.000000	52.423200 o
Mn (257.610 nm)	0.294232	ppm	0.000913	0.31	86002.300000	0.294232
Mo (202.032 nm)	0.050666	ppm	0.000716	1.41	277.970000	0.050666
Na (589.592 nm)	31.652800	ppm	0.133460	0.42	341811.000000	31.652800
Na H (589.593 nm)	31.205451 u	ppm	0.278899	0.89	245963.392251	31.205451 u
Ni (231.604 nm)	0.044613	ppm	0.000136	0.30	208.606000	0.044613
P (213.618 nm)	1.998190	ppm	0.008702	0.44	2452.310000	1.998190
Pb (220.353 nm)	0.095212	ppm	0.000438	0.46	205.823000	0.095212
S (181.972 nm)	31.839442 o	ppm	0.235165	0.74	12369.603822	31.839442 o
Sb (206.834 nm)	0.095905	ppm	0.004600	4.80	142.331000	0.095905
Se (196.026 nm)	0.196945	ppm	0.006393	3.25	114.632000	0.196945
Si (288.158 nm)	12.245100 o	ppm	0.026638	0.22	91250.700000	12.245100 o
Sn (189.925 nm)	0.095649	ppm	0.001514	1.58	70.902500	0.095649
Sr (421.552 nm)	0.190386	ppm	0.000760	0.40	41046.261409	0.190386
Th (288.505 nm)	0.183439	ppm	0.000612	0.33	444.634000	0.183439
Ti (336.122 nm)	0.047959	ppm	0.000246	0.51	6698.760000	0.047959
Tl (190.794 nm)	0.190474	ppm	0.001277	0.67	176.817000	0.190474
U (409.013 nm)	0.523327	ppm	0.001822	0.35	1972.930000	0.523327
V (292.401 nm)	0.050217	ppm	0.000344	0.69	1502.450000	0.050217
Zn (206.200 nm)	0.190139	ppm	0.000480	0.25	446.260000	0.190139
Zr (343.823 nm)	0.049359	ppm	0.000153	0.31	3760.230000	0.049359

Solution Name: 280-191098-C-5-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191098-C-5-A	5/14/2024 4:59:56 PM	1:9	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001085	ppm	0.000007	0.64	142.940376	0.001085
Ag (328.068 nm)	0.001414	ppm	0.000295	20.85	17.457100	0.001414
Al (394.401 nm)	0.019321	ppm	0.000449	2.32	701.138000	0.019321
Al H (396.152 nm)	-0.073369 u	ppm	0.003372	4.60	-71.576400	-0.073369 u
As (188.980 nm)	-0.000391 u	ppm	0.002188	> 100.00	-0.824365	-0.000391 u
B (249.678 nm)	0.052510	ppm	0.000199	0.38	423.282000	0.052510
Ba (493.408 nm)	0.057932	ppm	0.000018	0.03	7918.350000	0.057932
Be (234.861 nm)	-0.000025 u	ppm	0.000035	> 100.00	2.544100	-0.000025 u
Bi (223.061 nm)	0.001149	ppm	0.000736	64.07	7.049530	0.001149
Ca (315.887 nm)	118.408109 o	ppm	0.363906	0.31	99246.933398	118.408109 o
Cd (214.439 nm)	0.000416	ppm	0.000070	16.75	7.157970	0.000416
Co (228.615 nm)	-0.000605 u	ppm	0.000210	34.77	-14.661100	-0.000605 u
Cr (205.560 nm)	0.000063 u	ppm	0.000254	> 100.00	9.396430	0.000063 u
Cu (324.754 nm)	-0.000020 u	ppm	0.000182	> 100.00	576.753000	-0.000020 u
Fe (238.204 nm)	0.036204	ppm	0.000709	1.96	137.625488	0.036204
Fe H (259.940 nm)	0.008728 u	ppm	0.000621	7.11	52.975700	0.008728 u
K (766.491 nm)	0.925370	ppm	0.099068	10.71	1219.220000	0.925370
Li (670.783 nm)	0.001079 u	ppm	0.001529	> 100.00	455.009000	0.001079 u
Mg (279.078 nm)	23.159900	ppm	0.091403	0.39	69003.400000	23.159900
Mn (257.610 nm)	0.022604	ppm	0.000085	0.38	6644.450000	0.022604
Mo (202.032 nm)	0.000649	ppm	0.000076	11.74	8.836200	0.000649
Na (589.592 nm)	1.965670	ppm	0.007802	0.40	24077.600000	1.965670
Na H (589.593 nm)	1.375928 u	ppm	0.013622	0.99	16882.489211	1.375928 u
Ni (231.604 nm)	-0.001271 u	ppm	0.000055	4.32	-8.317020	-0.001271 u
P (213.618 nm)	0.003919	ppm	0.003215	82.03	-2.649650	0.003919
Pb (220.353 nm)	-0.001959 u	ppm	0.000746	38.09	-1.852320	-0.001959 u
S (181.972 nm)	9.077224	ppm	0.021930	0.24	3538.849934	9.077224
Sb (206.834 nm)	-0.000763 u	ppm	0.002169	> 100.00	3.608920	-0.000763 u
Se (196.026 nm)	0.001455 u	ppm	0.003253	> 100.00	5.503520	0.001455 u
Si (288.158 nm)	5.241790	ppm	0.016102	0.31	39431.500000	5.241790
Sn (189.925 nm)	-0.002284 u	ppm	0.001334	58.41	1.832700	-0.002284 u
Sr (421.552 nm)	0.251250	ppm	0.000193	0.08	54156.270587	0.251250
Th (288.505 nm)	-0.005308 u	ppm	0.004922	92.72	15.931600	-0.005308 u
Ti (336.122 nm)	-0.000592 u	ppm	0.000046	7.71	120.648000	-0.000592 u
Tl (190.794 nm)	0.001733	ppm	0.000621	35.85	0.164065	0.001733
U (409.013 nm)	0.022069	ppm	0.003184	14.43	88.223500	0.022069
V (292.401 nm)	0.001324	ppm	0.000174	13.17	-12.466000	0.001324
Zn (206.200 nm)	0.018117	ppm	0.001856	10.24	45.391000	0.018117
Zr (343.823 nm)	0.000248	ppm	0.000069	27.82	19.330700	0.000248

Solution Name: 280-191107-B-1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191107-B-1-A	5/14/2024 5:04:19 PM	1:10	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.043484	ppm	0.000149	0.34	93275.885838	0.043484
Ag (328.068 nm)	0.001829	ppm	0.000084	4.58	32.615600	0.001829
Al (394.401 nm)	0.029040	ppm	0.001965	6.77	909.216000	0.029040
Al H (396.152 nm)	-0.099667 u	ppm	0.002438	2.45	-191.307000	-0.099667 u
As (188.980 nm)	0.000193 u	ppm	0.001946	> 100.00	-0.082584	0.000193 u
B (249.678 nm)	0.036227	ppm	0.000016	0.04	298.697000	0.036227
Ba (493.408 nm)	0.003979	ppm	0.000077	1.93	503.114000	0.003979
Be (234.861 nm)	0.001592	ppm	0.000028	1.77	173.701000	0.001592
Bi (223.061 nm)	0.000968	ppm	0.000594	61.33	6.607440	0.000968
Ca (315.887 nm)	294.271635 o	ppm	0.193122	0.07	246673.718532	294.271635 o
Cd (214.439 nm)	0.000425	ppm	0.000081	19.00	7.389470	0.000425
Co (228.615 nm)	-0.000389 u	ppm	0.000116	29.88	-11.841100	-0.000389 u
Cr (205.560 nm)	-0.000006 u	ppm	0.000291	> 100.00	8.939600	-0.000006 u
Cu (324.754 nm)	-0.002007 u	ppm	0.000367	18.31	425.222000	-0.002007 u
Fe (238.204 nm)	0.016863	ppm	0.000990	5.87	75.389715	0.016863
Fe H (259.940 nm)	-0.013469 u	ppm	0.002931	21.76	22.773700	-0.013469 u
K (766.491 nm)	4.096090	ppm	0.020336	0.50	5293.250000	4.096090
Li (670.783 nm)	0.041039	ppm	0.002092	5.10	1730.560000	0.041039
Mg (279.078 nm)	67.398100 o	ppm	0.198124	0.29	200803.000000	67.398100 o
Mn (257.610 nm)	0.010266	ppm	0.000025	0.25	3039.890000	0.010266
Mo (202.032 nm)	0.003134	ppm	0.000027	0.86	22.204300	0.003134
Na (589.592 nm)	39.393000	ppm	0.064245	0.16	423502.000000	39.393000
Na H (589.593 nm)	38.496048 u	ppm	0.179735	0.47	301304.190982	38.496048 u
Ni (231.604 nm)	0.000019 u	ppm	0.000984	> 100.00	-2.220200	0.000019 u
P (213.618 nm)	0.001218 u	ppm	0.001703	> 100.00	-6.041220	0.001218 u
Pb (220.353 nm)	0.000321 u	ppm	0.001105	> 100.00	2.981080	0.000321 u
S (181.972 nm)	322.472280 bo	ppm	1.483922	0.46	125095.476665	322.472280 bo
Sb (206.834 nm)	-0.000884 u	ppm	0.002843	> 100.00	3.419650	-0.000884 u
Se (196.026 nm)	-0.004133 u	ppm	0.002329	56.35	2.616420	-0.004133 u
Si (288.158 nm)	12.716000 o	ppm	0.046696	0.37	94648.900000	12.716000 o
Sn (189.925 nm)	-0.000311 u	ppm	0.002167	> 100.00	3.223990	-0.000311 u
Sr (421.552 nm)	7.968187 o	ppm	0.041029	0.51	1716368.771533	7.968187 o
Th (288.505 nm)	-0.005419 u	ppm	0.000949	17.51	16.285400	-0.005419 u
Ti (336.122 nm)	-0.001250 u	ppm	0.000008	0.67	509.197000	-0.001250 u
Tl (190.794 nm)	0.001228 u	ppm	0.002737	> 100.00	-0.314249	0.001228 u
U (409.013 nm)	0.014630	ppm	0.001582	10.82	60.312000	0.014630
V (292.401 nm)	0.002054	ppm	0.000170	8.28	22.079100	0.002054
Zn (206.200 nm)	0.092529	ppm	0.000712	0.77	218.795000	0.092529
Zr (343.823 nm)	0.000157	ppm	0.000100	63.86	12.414500	0.000157

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/14/2024 5:08:53 PM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000524	ppm	0.000013	2.51	-1089.263329	0.000524
Ag (328.068 nm)	-0.000631 u	ppm	0.000126	19.98	43.565000	-0.000631 u
Al (394.401 nm)	50.335800 o	ppm	0.186134	0.37	663221.000000	50.335800 o
Al H (396.152 nm)	49.880400	ppm	0.031843	0.06	227356.000000	49.880400
As (188.980 nm)	0.000886 u	ppm	0.003049	> 100.00	-0.678545	0.000886 u
B (249.678 nm)	-0.003426 u	ppm	0.000303	8.84	-4.689330	-0.003426 u
Ba (493.408 nm)	0.000126	ppm	0.000016	12.48	104.110000	0.000126
Be (234.861 nm)	0.000336	ppm	0.000051	15.04	356.316000	0.000336
Bi (223.061 nm)	0.000621	ppm	0.000800	> 100.00	5.759900	0.000621
Ca (315.887 nm)	-0.018723 u	ppm	0.006346	33.90	-30.543120	-0.018723 u
Cd (214.439 nm)	-0.000336 u	ppm	0.000080	23.74	5.888520	-0.000336 u
Co (228.615 nm)	-0.000132 u	ppm	0.000263	> 100.00	-8.469080	-0.000132 u
Cr (205.560 nm)	0.001152	ppm	0.000055	4.75	16.399800	0.001152
Cu (324.754 nm)	-0.005989 u	ppm	0.000398	6.64	1313.520000	-0.005989 u
Fe (238.204 nm)	50.121689 o	ppm	0.059867	0.12	161297.541212	50.121689 o
Fe H (259.940 nm)	50.163100	ppm	0.089612	0.18	68294.700000	50.163100
K (766.491 nm)	0.066852	ppm	0.038454	57.52	116.124000	0.066852
Li (670.783 nm)	-0.002479 u	ppm	0.002516	> 100.00	411.890000	-0.002479 u
Mg (279.078 nm)	0.009599	ppm	0.003838	39.99	-138.564000	0.009599
Mn (257.610 nm)	-0.000755 u	ppm	0.000025	3.27	-180.098000	-0.000755 u
Mo (202.032 nm)	-0.000523 u	ppm	0.000507	96.93	2.528690	-0.000523 u
Na (589.592 nm)	248.345000 o	ppm	0.553308	0.22	2655580.000000	248.345000 o
Na H (589.593 nm)	249.596167	ppm	0.859886	0.34	1920041.509010	249.596167
Ni (231.604 nm)	0.000241	ppm	0.000149	61.82	-1.173240	0.000241
P (213.618 nm)	4.933490	ppm	0.010933	0.22	6075.090000	4.933490
Pb (220.353 nm)	-0.002568 u	ppm	0.002581	> 100.00	-4.699880	-0.002568 u
S (181.972 nm)	4.940194	ppm	0.032975	0.67	1935.960224	4.940194
Sb (206.834 nm)	0.002314	ppm	0.001804	77.99	12.201800	0.002314
Se (196.026 nm)	0.002076 u	ppm	0.001867	89.94	0.780352	0.002076 u
Si (288.158 nm)	0.007795	ppm	0.004337	55.64	767.401000	0.007795
Sn (189.925 nm)	-0.000047 u	ppm	0.003793	> 100.00	3.410500	-0.000047 u
Sr (421.552 nm)	0.000221	ppm	0.000061	27.69	85.196014	0.000221
Th (288.505 nm)	4.973430	ppm	0.004081	0.08	11116.700000	4.973430
Ti (336.122 nm)	0.000738	ppm	0.000039	5.34	-20.328200	0.000738
Tl (190.794 nm)	-0.008843 u	ppm	0.001910	21.60	-10.538700	-0.008843 u
U (409.013 nm)	2.506240 Q	ppm	0.001614	0.06	9518.600000 Q	2.506240 Q
V (292.401 nm)	0.000296 u	ppm	0.000343	> 100.00	164.545000	0.000296 u
Zn (206.200 nm)	0.001937	ppm	0.001016	52.46	7.685300	0.001937
Zr (343.823 nm)	-0.000525 u	ppm	0.000121	22.98	25.386000	-0.000525 u

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/14/2024 5:13:50 PM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.461557	ppm	0.001337	0.29	1011711.086030	0.461557
Ag (328.068 nm)	0.496248	ppm	0.001008	0.20	17850.500000	0.496248
Al (394.401 nm)	0.490341	ppm	0.001487	0.30	6849.850000	0.490341
Al H (396.152 nm)	0.473353 u	ppm	0.002416	0.51	2417.520000	0.473353 u
As (188.980 nm)	0.498408	ppm	0.006225	1.25	286.411000	0.498408
B (249.678 nm)	0.491524	ppm	0.001062	0.22	3782.230000	0.491524
Ba (493.408 nm)	0.496023	ppm	0.000570	0.11	68307.700000	0.496023
Be (234.861 nm)	0.495957	ppm	0.003130	0.63	49840.400000	0.495957
Bi (223.061 nm)	0.993675	ppm	0.001482	0.15	2430.540000	0.993675
Ca (315.887 nm)	4.993779	ppm	0.015618	0.31	4171.447949	4.993779
Cd (214.439 nm)	0.498327	ppm	0.001695	0.34	12726.100000	0.498327
Co (228.615 nm)	0.498396	ppm	0.001623	0.33	6518.030000	0.498396
Cr (205.560 nm)	0.497697	ppm	0.001457	0.29	3205.850000	0.497697
Cu (324.754 nm)	0.497730	ppm	0.001232	0.25	24243.900000	0.497730
Fe (238.204 nm)	2.491841	ppm	0.009245	0.37	8044.183650	2.491841
Fe H (259.940 nm)	2.483940 u	ppm	0.008195	0.33	3420.840000	2.483940 u
K (766.491 nm)	49.611600	ppm	0.067511	0.14	63775.700000	49.611600
Li (670.783 nm)	0.495876	ppm	0.002981	0.60	15598.400000	0.495876
Mg (279.078 nm)	19.809300	ppm	0.075683	0.38	59071.600000	19.809300
Mn (257.610 nm)	0.499194	ppm	0.001310	0.26	145884.000000	0.499194
Mo (202.032 nm)	0.495363	ppm	0.001221	0.25	2670.810000	0.495363
Na (589.592 nm)	25.283800	ppm	0.031937	0.13	276335.000000	25.283800
Na H (589.593 nm)	24.818323 u	ppm	0.214702	0.87	198443.491684	24.818323 u
Ni (231.604 nm)	0.501158	ppm	0.001861	0.37	2365.270000	0.501158
P (213.618 nm)	-0.021264 u	ppm	0.003388	15.93	-75.461800	-0.021264 u
Pb (220.353 nm)	0.500107	ppm	0.000734	0.15	1066.700000	0.500107
S (181.972 nm)	-0.036600 u	ppm	0.003317	9.06	12.348694	-0.036600 u
Sb (206.834 nm)	0.496525	ppm	0.002243	0.45	715.506000	0.496525
Se (196.026 nm)	0.498772	ppm	0.003309	0.66	282.882000	0.498772
Si (288.158 nm)	4.931860	ppm	0.046057	0.93	37586.400000	4.931860
Sn (189.925 nm)	0.498032	ppm	0.002809	0.56	354.691000	0.498032
Sr (421.552 nm)	0.495075	ppm	0.000382	0.08	106675.671343	0.495075
Th (288.505 nm)	-0.002824 u	ppm	0.002233	79.08	6.552390	-0.002824 u
Ti (336.122 nm)	0.495067	ppm	0.001111	0.22	67274.200000	0.495067
Tl (190.794 nm)	0.498497	ppm	0.004870	0.98	464.485000	0.498497
U (409.013 nm)	-0.000681 u	ppm	0.001285	> 100.00	-8.213920	-0.000681 u
V (292.401 nm)	0.495666	ppm	0.001093	0.22	15381.700000	0.495666
Zn (206.200 nm)	0.497770	ppm	0.002532	0.51	1163.150000	0.497770
Zr (343.823 nm)	0.494546	ppm	0.001349	0.27	37637.800000	0.494546

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/14/2024 5:18:13 PM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000020 u	ppm	0.000042	> 100.00	-2196.976986	0.000020 u
Ag (328.068 nm)	0.000046 u	ppm	0.000102	> 100.00	-30.960000	0.000046 u
Al (394.401 nm)	-0.000480 u	ppm	0.000524	> 100.00	376.153000	-0.000480 u
Al H (396.152 nm)	-0.053816 u	ppm	0.001677	3.12	17.443400	-0.053816 u
As (188.980 nm)	0.001524 u	ppm	0.002146	> 100.00	0.007054	0.001524 u
B (249.678 nm)	0.000127 u	ppm	0.000393	> 100.00	22.496100	0.000127 u
Ba (493.408 nm)	-0.000076 u	ppm	0.000157	> 100.00	-54.726000	-0.000076 u
Be (234.861 nm)	0.000017 u	ppm	0.000038	> 100.00	1.904880	0.000017 u
Bi (223.061 nm)	-0.000584 u	ppm	0.000796	> 100.00	2.817950	-0.000584 u
Ca (315.887 nm)	0.006843	ppm	0.006917	> 100.00	-9.111711	0.006843
Cd (214.439 nm)	0.000037 u	ppm	0.000102	> 100.00	-2.527080	0.000037 u
Co (228.615 nm)	0.000017 u	ppm	0.000285	> 100.00	-6.525180	0.000017 u
Cr (205.560 nm)	0.000189	ppm	0.000107	56.73	10.207700	0.000189
Cu (324.754 nm)	0.000073 u	ppm	0.000193	> 100.00	622.777000	0.000073 u
Fe (238.204 nm)	0.004610	ppm	0.000428	9.29	35.962029	0.004610
Fe H (259.940 nm)	-0.014731 u	ppm	0.001006	6.83	21.056500	-0.014731 u
K (766.491 nm)	-0.010180 u	ppm	0.024879	> 100.00	17.146400	-0.010180 u
Li (670.783 nm)	-0.000651 Su	ppm	0.001557	> 100.00	375.889000 S	-0.000651 Su
Mg (279.078 nm)	0.000740 u	ppm	0.001569	> 100.00	6.261230	0.000740 u
Mn (257.610 nm)	0.000054	ppm	0.000018	32.90	56.171400	0.000054
Mo (202.032 nm)	0.000192 u	ppm	0.000265	> 100.00	6.375020	0.000192 u
Na (589.592 nm)	0.002594 u	ppm	0.012998	> 100.00	2690.420000	0.002594 u
Na H (589.593 nm)	-0.570331 u	ppm	0.004787	0.84	1720.991146	-0.570331 u
Ni (231.604 nm)	-0.000523 u	ppm	0.000113	21.64	-4.780960	-0.000523 u
P (213.618 nm)	-0.002039 u	ppm	0.000607	29.77	-9.916180	-0.002039 u
Pb (220.353 nm)	-0.000602 u	ppm	0.000345	57.23	0.990458	-0.000602 u
S (181.972 nm)	-0.013625 u	ppm	0.001395	10.24	11.588837	-0.013625 u
Sb (206.834 nm)	-0.000421 u	ppm	0.001019	> 100.00	4.097090	-0.000421 u
Se (196.026 nm)	-0.001411 u	ppm	0.002258	> 100.00	3.729860	-0.001411 u
Si (288.158 nm)	-0.005401 u	ppm	0.001396	25.85	668.590000	-0.005401 u
Sn (189.925 nm)	-0.001645 u	ppm	0.001129	68.62	2.283220	-0.001645 u
Sr (421.552 nm)	-0.000031 u	ppm	0.000019	62.16	30.951297	-0.000031 u
Th (288.505 nm)	0.002625	ppm	0.001704	64.91	32.440900	0.002625
Ti (336.122 nm)	0.000031 u	ppm	0.000040	> 100.00	-116.612000	0.000031 u
Tl (190.794 nm)	-0.001190 u	ppm	0.001846	> 100.00	-2.572440	-0.001190 u
U (409.013 nm)	-0.000809 u	ppm	0.002184	> 100.00	2.363950	-0.000809 u
V (292.401 nm)	0.000072 u	ppm	0.000084	> 100.00	-57.667800	0.000072 u
Zn (206.200 nm)	0.000460 u	ppm	0.000927	> 100.00	4.243110	0.000460 u
Zr (343.823 nm)	0.000220	ppm	0.000034	15.59	17.156100	0.000220

Solution Name: 280-191107-B-2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191107-B-2-A	5/14/2024 5:22:15 PM	1:11	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.025215	ppm	0.000027	0.11	53145.456640	0.025215
Ag (328.068 nm)	0.001778	ppm	0.000156	8.78	31.083700	0.001778
Al (394.401 nm)	2.271310	ppm	0.006886	0.30	30380.900000	2.271310
Al H (396.152 nm)	2.197880	ppm	0.007173	0.33	10268.900000	2.197880
As (188.980 nm)	0.001673 u	ppm	0.003412	> 100.00	0.307208	0.001673 u
B (249.678 nm)	0.102885	ppm	0.000252	0.24	808.707000	0.102885
Ba (493.408 nm)	0.057687	ppm	0.000369	0.64	7887.170000	0.057687
Be (234.861 nm)	0.002172	ppm	0.000016	0.75	227.261000	0.002172
Bi (223.061 nm)	-0.000155 u	ppm	0.000352	> 100.00	3.864850	-0.000155 u
Ca (315.887 nm)	95.024777 o	ppm	0.372125	0.39	79644.633864	95.024777 o
Cd (214.439 nm)	0.002618	ppm	0.000067	2.57	63.760100	0.002618
Co (228.615 nm)	0.008082	ppm	0.000319	3.95	99.086100	0.008082
Cr (205.560 nm)	0.000329 u	ppm	0.000403	> 100.00	11.062600	0.000329 u
Cu (324.754 nm)	0.016950	ppm	0.000009	0.06	1392.060000	0.016950
Fe (238.204 nm)	0.714613	ppm	0.002991	0.42	2320.560800	0.714613
Fe H (259.940 nm)	0.688467 u	ppm	0.002798	0.41	977.851000	0.688467 u
K (766.491 nm)	6.497420	ppm	0.064013	0.99	8378.690000	6.497420
Li (670.783 nm)	0.024239	ppm	0.001434	5.92	1199.080000	0.024239
Mg (279.078 nm)	21.896100	ppm	0.076314	0.35	65246.500000	21.896100
Mn (257.610 nm)	4.512640 o	ppm	0.005446	0.12	1318440.000000	4.512640 o
Mo (202.032 nm)	0.001845	ppm	0.000291	15.78	15.268900	0.001845
Na (589.592 nm)	109.845000 o	ppm	0.656746	0.60	1176480.000000	109.845000 o
Na H (589.593 nm)	109.629413	ppm	0.520253	0.47	846987.523072	109.629413
Ni (231.604 nm)	0.024085	ppm	0.000360	1.49	111.453000	0.024085
P (213.618 nm)	0.598791	ppm	0.000594	0.10	729.940000	0.598791
Pb (220.353 nm)	0.000341 u	ppm	0.001054	> 100.00	2.753290	0.000341 u
S (181.972 nm)	78.595621 o	ppm	0.160641	0.20	30511.351741	78.595621 o
Sb (206.834 nm)	-0.001388 u	ppm	0.001683	> 100.00	2.732350	-0.001388 u
Se (196.026 nm)	-0.000200 u	ppm	0.006707	> 100.00	7.445680	-0.000200 u
Si (288.158 nm)	12.479300 o	ppm	0.010301	0.08	92901.700000	12.479300 o
Sn (189.925 nm)	0.000187 u	ppm	0.002271	> 100.00	3.575780	0.000187 u
Sr (421.552 nm)	1.053411	ppm	0.005527	0.52	226940.074232	1.053411
Th (288.505 nm)	-0.052647 u	ppm	0.001447	2.75	18.325200	-0.052647 u
Ti (336.122 nm)	0.009605	ppm	0.000055	0.57	1445.100000	0.009605
Tl (190.794 nm)	0.001962	ppm	0.000871	44.41	0.365593	0.001962
U (409.013 nm)	0.020330	ppm	0.002600	12.79	82.269800	0.020330
V (292.401 nm)	0.001596	ppm	0.000207	12.96	-4.511830	0.001596
Zn (206.200 nm)	0.401857	ppm	0.000648	0.16	939.637000	0.401857
Zr (343.823 nm)	0.000577	ppm	0.000023	3.98	45.273800	0.000577

Solution Name: 280-191107-B-3-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191107-B-3-A	5/14/2024 5:26:40 PM	1:12	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.010828	ppm	0.000003	0.03	21543.453117	0.010828
Ag (328.068 nm)	0.000987	ppm	0.000231	23.46	1.799010	0.000987
Al (394.401 nm)	0.152843	ppm	0.000657	0.43	2417.510000	0.152843
Al H (396.152 nm)	0.088630 u	ppm	0.000963	1.09	665.963000	0.088630 u
As (188.980 nm)	0.001128 u	ppm	0.002054	> 100.00	-0.147246	0.001128 u
B (249.678 nm)	0.022058	ppm	0.000408	1.85	190.295000	0.022058
Ba (493.408 nm)	0.032395	ppm	0.000192	0.59	4408.840000	0.032395
Be (234.861 nm)	0.000033	ppm	0.000024	72.39	6.400330	0.000033
Bi (223.061 nm)	0.001058	ppm	0.000139	13.09	6.825960	0.001058
Ca (315.887 nm)	32.869249 o	ppm	0.055692	0.17	27539.516710	32.869249 o
Cd (214.439 nm)	0.000227	ppm	0.000129	56.97	2.396630	0.000227
Co (228.615 nm)	-0.000149 u	ppm	0.000266	> 100.00	-8.609110	-0.000149 u
Cr (205.560 nm)	-0.000269 u	ppm	0.000304	> 100.00	7.254870	-0.000269 u
Cu (324.754 nm)	0.000832	ppm	0.000090	10.86	646.686000	0.000832
Fe (238.204 nm)	0.220932	ppm	0.003412	1.54	732.020037	0.220932
Fe H (259.940 nm)	0.198499 u	ppm	0.001308	0.66	311.184000	0.198499 u
K (766.491 nm)	1.993640	ppm	0.017440	0.87	2591.830000	1.993640
Li (670.783 nm)	0.010391	ppm	0.000163	1.57	727.963000	0.010391
Mg (279.078 nm)	7.462880	ppm	0.040560	0.54	22239.500000	7.462880
Mn (257.610 nm)	0.076834	ppm	0.000463	0.60	22488.000000	0.076834
Mo (202.032 nm)	0.001598	ppm	0.000016	0.99	13.944100	0.001598
Na (589.592 nm)	18.017200	ppm	0.087243	0.48	195364.000000	18.017200
Na H (589.593 nm)	17.480411 u	ppm	0.135996	0.78	140270.161383	17.480411 u
Ni (231.604 nm)	-0.000095 u	ppm	0.000876	> 100.00	-2.760660	-0.000095 u
P (213.618 nm)	0.040324	ppm	0.000373	0.92	42.233000	0.040324
Pb (220.353 nm)	-0.000567 u	ppm	0.001428	> 100.00	1.067960	-0.000567 u
S (181.972 nm)	8.518406	ppm	0.028828	0.34	3321.349169	8.518406
Sb (206.834 nm)	-0.001867 u	ppm	0.002519	> 100.00	2.022000	-0.001867 u
Se (196.026 nm)	-0.002954 u	ppm	0.004393	> 100.00	3.138070	-0.002954 u
Si (288.158 nm)	7.758330	ppm	0.009802	0.13	58022.700000	7.758330
Sn (189.925 nm)	-0.002404 u	ppm	0.001358	56.48	1.748260	-0.002404 u
Sr (421.552 nm)	0.230100	ppm	0.001395	0.61	49600.672331	0.230100
Th (288.505 nm)	-0.005354 u	ppm	0.002128	39.75	16.632500	-0.005354 u
Ti (336.122 nm)	0.004002	ppm	0.000041	1.03	513.086000	0.004002
Tl (190.794 nm)	0.001644	ppm	0.001700	> 100.00	0.071126	0.001644
U (409.013 nm)	0.013122	ppm	0.004274	32.57	54.791600	0.013122
V (292.401 nm)	0.002052	ppm	0.000056	2.73	5.789800	0.002052
Zn (206.200 nm)	0.005665	ppm	0.000260	4.58	16.371700	0.005665
Zr (343.823 nm)	0.000285	ppm	0.000083	29.13	22.405700	0.000285

Solution Name: 280-191107-B-4-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191107-B-4-A	5/14/2024 5:31:02 PM	1:13	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.015607	ppm	0.000052	0.33	32040.827112	0.015607
Ag (328.068 nm)	0.001275	ppm	0.000241	18.92	12.015100	0.001275
Al (394.401 nm)	0.203278	ppm	0.001039	0.51	3098.900000	0.203278
Al H (396.152 nm)	0.130497 u	ppm	0.003538	2.71	856.575000	0.130497 u
As (188.980 nm)	0.004391	ppm	0.003066	69.83	1.800720	0.004391
B (249.678 nm)	0.028687	ppm	0.000513	1.79	241.009000	0.028687
Ba (493.408 nm)	0.032327	ppm	0.000211	0.65	4399.730000	0.032327
Be (234.861 nm)	0.000123	ppm	0.000023	18.47	16.290900	0.000123
Bi (223.061 nm)	-0.001859 u	ppm	0.000263	14.18	-0.294984	-0.001859 u
Ca (315.887 nm)	62.164047 o	ppm	0.056883	0.09	52097.411008	62.164047 o
Cd (214.439 nm)	0.000312	ppm	0.000105	33.75	4.600970	0.000312
Co (228.615 nm)	-0.000451 u	ppm	0.000190	42.09	-12.513200	-0.000451 u
Cr (205.560 nm)	0.000470	ppm	0.000159	33.83	12.002200	0.000470
Cu (324.754 nm)	0.000413	ppm	0.000038	9.25	616.309000	0.000413
Fe (238.204 nm)	0.299788	ppm	0.002094	0.70	985.755455	0.299788
Fe H (259.940 nm)	0.278579 u	ppm	0.004031	1.45	420.144000	0.278579 u
K (766.491 nm)	2.227950	ppm	0.048822	2.19	2892.890000	2.227950
Li (670.783 nm)	0.017449	ppm	0.000592	3.39	952.278000	0.017449
Mg (279.078 nm)	9.443350	ppm	0.011151	0.12	28139.800000	9.443350
Mn (257.610 nm)	0.109670	ppm	0.000139	0.13	32081.200000	0.109670
Mo (202.032 nm)	0.002538	ppm	0.000066	2.62	19.001100	0.002538
Na (589.592 nm)	22.922100	ppm	0.079679	0.35	247759.000000	22.922100
Na H (589.593 nm)	22.438545 u	ppm	0.223025	0.99	178289.495013	22.438545 u
Ni (231.604 nm)	-0.000242 u	ppm	0.000212	87.41	-3.456100	-0.000242 u
P (213.618 nm)	0.043024	ppm	0.001921	4.46	45.540400	0.043024
Pb (220.353 nm)	-0.001531 u	ppm	0.000529	34.54	-0.980041	-0.001531 u
S (181.972 nm)	33.500250 o	ppm	0.158348	0.47	13011.307489	33.500250 o
Sb (206.834 nm)	-0.002979 u	ppm	0.001349	45.30	0.426581	-0.002979 u
Se (196.026 nm)	-0.000805 u	ppm	0.005957	> 100.00	4.391290	-0.000805 u
Si (288.158 nm)	9.114130	ppm	0.035400	0.39	68039.200000	9.114130
Sn (189.925 nm)	-0.001747 u	ppm	0.002468	> 100.00	2.211700	-0.001747 u
Sr (421.552 nm)	0.969065	ppm	0.001598	0.16	208772.121371	0.969065
Th (288.505 nm)	-0.006022 u	ppm	0.001774	29.45	16.022200	-0.006022 u
Ti (336.122 nm)	0.005727	ppm	0.000019	0.32	827.521000	0.005727
Tl (190.794 nm)	-0.002056 u	ppm	0.000708	34.46	-3.400510	-0.002056 u
U (409.013 nm)	0.021301	ppm	0.004694	22.04	85.531200	0.021301
V (292.401 nm)	0.002258	ppm	0.000161	7.14	13.479900	0.002258
Zn (206.200 nm)	0.009429	ppm	0.001191	12.63	25.144800	0.009429
Zr (343.823 nm)	0.000281	ppm	0.000096	34.22	22.181200	0.000281

Solution Name: 280-191107-B-5-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191107-B-5-A	5/14/2024 5:35:24 PM	1:14	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.003885	ppm	0.000020	0.51	6293.506393	0.003885
Ag (328.068 nm)	0.000439	ppm	0.000178	40.53	-17.495700	0.000439
Al (394.401 nm)	0.235989	ppm	0.000837	0.35	3499.910000	0.235989
Al H (396.152 nm)	0.196250 u	ppm	0.002301	1.17	1155.930000	0.196250 u
As (188.980 nm)	0.003053 u	ppm	0.003563	> 100.00	0.902425	0.003053 u
B (249.678 nm)	0.004763	ppm	0.000264	5.54	57.964800	0.004763
Ba (493.408 nm)	0.040340	ppm	0.000243	0.60	5501.590000	0.040340
Be (234.861 nm)	0.000466	ppm	0.000027	5.79	50.076300	0.000466
Bi (223.061 nm)	0.000351 u	ppm	0.000716	> 100.00	5.099290	0.000351 u
Ca (315.887 nm)	7.433794	ppm	0.006800	0.09	6216.918312	7.433794
Cd (214.439 nm)	0.000134	ppm	0.000022	16.50	0.107490	0.000134
Co (228.615 nm)	0.000209 u	ppm	0.000350	> 100.00	-3.943300	0.000209 u
Cr (205.560 nm)	-0.000445 u	ppm	0.000361	81.26	6.131890	-0.000445 u
Cu (324.754 nm)	0.002510	ppm	0.000166	6.62	735.419000	0.002510
Fe (238.204 nm)	0.453653	ppm	0.000605	0.13	1480.846360	0.453653
Fe H (259.940 nm)	0.434788 u	ppm	0.001638	0.38	632.687000	0.434788 u
K (766.491 nm)	1.220030	ppm	0.029375	2.41	1597.840000	1.220030
Li (670.783 nm)	0.008068	ppm	0.002232	27.67	646.360000	0.008068
Mg (279.078 nm)	1.329380	ppm	0.011173	0.84	3965.590000	1.329380
Mn (257.610 nm)	0.041860	ppm	0.000201	0.48	12270.100000	0.041860
Mo (202.032 nm)	0.000335 u	ppm	0.000574	> 100.00	7.144790	0.000335 u
Na (589.592 nm)	4.782650	ppm	0.008361	0.17	54043.200000	4.782650
Na H (589.593 nm)	4.182872 u	ppm	0.036474	0.87	38334.556781	4.182872 u
Ni (231.604 nm)	0.000355 u	ppm	0.000472	> 100.00	-0.634421	0.000355 u
P (213.618 nm)	0.016595	ppm	0.001949	11.74	12.927100	0.016595
Pb (220.353 nm)	0.000690 u	ppm	0.000678	98.20	3.724050	0.000690 u
S (181.972 nm)	2.049062	ppm	0.019346	0.94	811.819790	2.049062
Sb (206.834 nm)	-0.001136 u	ppm	0.000276	24.28	3.098080	-0.001136 u
Se (196.026 nm)	-0.000516 u	ppm	0.004576	> 100.00	4.369450	-0.000516 u
Si (288.158 nm)	5.059790	ppm	0.027200	0.54	38086.700000	5.059790
Sn (189.925 nm)	-0.003106 u	ppm	0.001236	39.78	1.252910	-0.003106 u
Sr (421.552 nm)	0.041811	ppm	0.000381	0.91	9043.608032	0.041811
Th (288.505 nm)	-0.001195 u	ppm	0.000714	59.69	24.906500	-0.001195 u
Ti (336.122 nm)	0.003225	ppm	0.000028	0.88	338.218000	0.003225
Tl (190.794 nm)	0.000029 u	ppm	0.000276	> 100.00	-1.442240	0.000029 u
U (409.013 nm)	0.004555	ppm	0.002349	51.57	22.826300	0.004555
V (292.401 nm)	0.000596	ppm	0.000405	67.94	-41.053000	0.000596
Zn (206.200 nm)	0.006086	ppm	0.000741	12.18	17.352500	0.006086
Zr (343.823 nm)	0.000194	ppm	0.000074	38.28	15.801400	0.000194

Solution Name: 280-191107-B-6-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191107-B-6-A	5/14/2024 5:39:44 PM	1:15	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.095219	ppm	0.000302	0.32	206914.732671	0.095219
Ag (328.068 nm)	0.001883	ppm	0.000240	12.75	34.552400	0.001883
Al (394.401 nm)	0.203092	ppm	0.002117	1.04	3308.560000	0.203092
Al H (396.152 nm)	0.054709 u	ppm	0.004823	8.82	511.532000	0.054709 u
As (188.980 nm)	0.003374	ppm	0.000502	14.89	2.247670	0.003374
B (249.678 nm)	0.117844	ppm	0.000137	0.12	923.161000	0.117844
Ba (493.408 nm)	0.010565	ppm	0.000050	0.47	1411.020000	0.010565
Be (234.861 nm)	0.003104	ppm	0.000050	1.60	324.939000	0.003104
Bi (223.061 nm)	0.000182 u	ppm	0.000879	> 100.00	4.688190	0.000182 u
Ca (315.887 nm)	512.375438 o	ppm	1.197092	0.23	429510.621274	512.375438 o
Cd (214.439 nm)	0.000465	ppm	0.000022	4.82	8.719490	0.000465
Co (228.615 nm)	0.000041 u	ppm	0.000391	> 100.00	-6.230850	0.000041 u
Cr (205.560 nm)	-0.000406 u	ppm	0.000269	66.18	6.298620	-0.000406 u
Cu (324.754 nm)	-0.002944 u	ppm	0.000408	13.85	309.682000	-0.002944 u
Fe (238.204 nm)	0.904344	ppm	0.005153	0.57	2931.037205	0.904344
Fe H (259.940 nm)	0.870969 u	ppm	0.004993	0.57	1226.170000	0.870969 u
K (766.491 nm)	5.739480	ppm	0.019988	0.35	7404.830000	5.739480
Li (670.783 nm)	0.089121	ppm	0.001534	1.72	3269.890000	0.089121
Mg (279.078 nm)	36.150300	ppm	0.095326	0.26	107710.000000	36.150300
Mn (257.610 nm)	1.012590	ppm	0.002303	0.23	295877.000000	1.012590
Mo (202.032 nm)	0.017170	ppm	0.000361	2.10	97.731500	0.017170
Na (589.592 nm)	92.025400 o	ppm	0.190773	0.21	985790.000000	92.025400 o
Na H (589.593 nm)	91.693936	ppm	0.720513	0.79	709261.433174	91.693936
Ni (231.604 nm)	0.000174 u	ppm	0.000320	> 100.00	-1.491230	0.000174 u
P (213.618 nm)	0.001720	ppm	0.001262	73.37	-5.880310	0.001720
Pb (220.353 nm)	-0.001325 u	ppm	0.001855	> 100.00	-0.559852	-0.001325 u
S (181.972 nm)	407.888890 bo	ppm	1.498980	0.37	158229.809187	407.888890 bo
Sb (206.834 nm)	-0.000011 u	ppm	0.003447	> 100.00	4.666030	-0.000011 u
Se (196.026 nm)	-0.001504 u	ppm	0.002411	> 100.00	5.064920	-0.001504 u
Si (288.158 nm)	27.538000 o	ppm	0.082509	0.30	204145.000000	27.538000 o
Sn (189.925 nm)	-0.000941 u	ppm	0.002185	> 100.00	2.779670	-0.000941 u
Sr (421.552 nm)	12.288218 bo	ppm	0.122136	0.99	2646894.606200	12.288218 bo
Th (288.505 nm)	-0.013739 u	ppm	0.001631	11.87	21.224400	-0.013739 u
Ti (336.122 nm)	-0.002194 u	ppm	0.000028	1.28	973.711000	-0.002194 u
Tl (190.794 nm)	-0.001447 u	ppm	0.003136	> 100.00	-2.863510	-0.001447 u
U (409.013 nm)	0.012816	ppm	0.001258	9.82	54.305200	0.012816
V (292.401 nm)	0.002042	ppm	0.000194	9.51	35.095200	0.002042
Zn (206.200 nm)	0.111571	ppm	0.000387	0.35	263.171000	0.111571
Zr (343.823 nm)	0.000066	ppm	0.000028	42.02	6.630240	0.000066

Solution Name: 280-191119-A-5-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191119-A-5-A	5/14/2024 5:44:08 PM	1:16	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000325	ppm	0.000016	4.77	-1526.930990	0.000325
Ag (328.068 nm)	0.000621	ppm	0.000246	39.66	-11.049300	0.000621
Al (394.401 nm)	0.056756	ppm	0.001004	1.77	1145.620000	0.056756
Al H (396.152 nm)	-0.003311 u	ppm	0.001622	49.00	247.379000	-0.003311 u
As (188.980 nm)	-0.003204 u	ppm	0.001281	39.99	-2.665150	-0.003204 u
B (249.678 nm)	0.003047	ppm	0.000587	19.25	44.836200	0.003047
Ba (493.408 nm)	0.072403	ppm	0.000849	1.17	9907.390000	0.072403
Be (234.861 nm)	0.000002 u	ppm	0.000032	> 100.00	3.293890	0.000002 u
Bi (223.061 nm)	0.000879 u	ppm	0.001261	> 100.00	6.388170	0.000879 u
Ca (315.887 nm)	23.298819 o	ppm	0.069154	0.30	19516.604291	23.298819 o
Cd (214.439 nm)	0.000183	ppm	0.000194	> 100.00	1.222560	0.000183
Co (228.615 nm)	-0.000528 u	ppm	0.000232	43.97	-13.633800	-0.000528 u
Cr (205.560 nm)	0.000309	ppm	0.000181	58.42	10.980000	0.000309
Cu (324.754 nm)	-0.000069 u	ppm	0.000138	> 100.00	607.144000	-0.000069 u
Fe (238.204 nm)	0.069629	ppm	0.001516	2.18	245.171766	0.069629
Fe H (259.940 nm)	0.044747 u	ppm	0.002613	5.84	101.985000	0.044747 u
K (766.491 nm)	0.791886	ppm	0.025918	3.27	1047.710000	0.791886
Li (670.783 nm)	0.006205	ppm	0.002549	41.09	591.116000	0.006205
Mg (279.078 nm)	12.601300	ppm	0.050919	0.40	37547.000000	12.601300
Mn (257.610 nm)	0.001069	ppm	0.000006	0.52	352.945000	0.001069
Mo (202.032 nm)	0.000572	ppm	0.000439	76.69	8.420210	0.000572
Na (589.592 nm)	0.473318	ppm	0.012208	2.58	8239.420000	0.473318
Na H (589.593 nm)	-0.105310 u	ppm	0.012569	11.94	5583.120355	-0.105310 u
Ni (231.604 nm)	-0.000640 u	ppm	0.000133	20.72	-5.335440	-0.000640 u
P (213.618 nm)	0.003450	ppm	0.000504	14.62	-3.153710	0.003450
Pb (220.353 nm)	-0.000525 u	ppm	0.000512	97.55	1.171930	-0.000525 u
S (181.972 nm)	0.491046	ppm	0.007109	1.45	207.574699	0.491046
Sb (206.834 nm)	-0.001870 u	ppm	0.001241	66.39	2.021700	-0.001870 u
Se (196.026 nm)	0.001129 u	ppm	0.004134	> 100.00	5.268810	0.001129 u
Si (288.158 nm)	4.078840	ppm	0.006739	0.17	30840.300000	4.078840
Sn (189.925 nm)	-0.002080 u	ppm	0.001666	80.08	1.976490	-0.002080 u
Sr (421.552 nm)	0.017370	ppm	0.000636	3.66	3778.917501	0.017370
Th (288.505 nm)	-0.001142 u	ppm	0.001614	> 100.00	24.341900	-0.001142 u
Ti (336.122 nm)	0.000690	ppm	0.000058	8.46	36.434800	0.000690
Tl (190.794 nm)	-0.001597 u	ppm	0.000884	55.35	-2.956580	-0.001597 u
U (409.013 nm)	0.013333	ppm	0.001753	13.15	55.474500	0.013333
V (292.401 nm)	0.000660	ppm	0.000020	3.06	-38.501100	0.000660
Zn (206.200 nm)	0.002345	ppm	0.000533	22.71	8.634830	0.002345
Zr (343.823 nm)	-0.000012 u	ppm	0.000198	> 100.00	-0.380305	-0.000012 u

Solution Name: 550-217859-H-32-A @10

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217859-H-32-A @10	5/14/2024 5:48:43 PM	1:17	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.048660	ppm	0.000065	0.13	104643.813145	0.048660
Ag (328.068 nm)	0.001567	ppm	0.000109	6.98	23.139900	0.001567
Al (394.401 nm)	0.165824	ppm	0.000784	0.47	2606.890000	0.165824
Al H (396.152 nm)	0.078591 u	ppm	0.002172	2.76	620.259000	0.078591 u
As (188.980 nm)	0.003380 u	ppm	0.003733	> 100.00	1.240360	0.003380 u
B (249.678 nm)	0.039404	ppm	0.000127	0.32	323.007000	0.039404
Ba (493.408 nm)	0.003052	ppm	0.000195	6.39	376.058000	0.003052
Be (234.861 nm)	0.000000 u	ppm	0.000013	> 100.00	5.634600	0.000000 u
Bi (223.061 nm)	-0.000035 u	ppm	0.000667	> 100.00	4.156790	-0.000035 u
Ca (315.887 nm)	71.848111 o	ppm	0.235385	0.33	60215.583520	71.848111 o
Cd (214.439 nm)	0.000306	ppm	0.000135	44.10	4.498450	0.000306
Co (228.615 nm)	0.001486	ppm	0.000160	10.75	12.764100	0.001486
Cr (205.560 nm)	0.007105	ppm	0.000484	6.82	54.628000	0.007105
Cu (324.754 nm)	0.005792	ppm	0.000249	4.30	869.449000	0.005792
Fe (238.204 nm)	0.338006	ppm	0.002029	0.60	1108.731114	0.338006
Fe H (259.940 nm)	0.315048 u	ppm	0.002368	0.75	469.765000	0.315048 u
K (766.491 nm)	0.755268	ppm	0.035895	4.75	1000.660000	0.755268
Li (670.783 nm)	0.047704	ppm	0.000444	0.93	1958.680000	0.047704
Mg (279.078 nm)	16.783900	ppm	0.065069	0.39	50007.800000	16.783900
Mn (257.610 nm)	0.106889	ppm	0.000330	0.31	31268.900000	0.106889
Mo (202.032 nm)	0.001943	ppm	0.000254	13.07	15.799700	0.001943
Na (589.592 nm)	233.144000 o	ppm	0.580859	0.25	2493220.000000	233.144000 o
Na H (589.593 nm)	234.047112	ppm	2.131331	0.91	1800819.767370	234.047112
Ni (231.604 nm)	0.023909	ppm	0.000351	1.47	110.612000	0.023909
P (213.618 nm)	0.001473	ppm	0.000515	34.94	-5.990580	0.001473
Pb (220.353 nm)	0.000387 u	ppm	0.000916	> 100.00	3.099210	0.000387 u
S (181.972 nm)	99.786067 o	ppm	0.286813	0.29	38721.345232	99.786067 o
Sb (206.834 nm)	-0.002507 u	ppm	0.001590	63.43	1.153440	-0.002507 u
Se (196.026 nm)	0.002559	ppm	0.001728	67.54	5.993030	0.002559
Si (288.158 nm)	0.547405	ppm	0.001218	0.22	4752.910000	0.547405
Sn (189.925 nm)	-0.001293 u	ppm	0.001510	> 100.00	2.531680	-0.001293 u
Sr (421.552 nm)	1.366373 o	ppm	0.004042	0.30	294351.433843	1.366373 o
Th (288.505 nm)	-0.005779 u	ppm	0.000751	12.99	16.664100	-0.005779 u
Ti (336.122 nm)	0.003285	ppm	0.000100	3.04	522.018000	0.003285
Tl (190.794 nm)	-0.000568 u	ppm	0.001719	> 100.00	-2.000880	-0.000568 u
U (409.013 nm)	0.020026	ppm	0.005868	29.30	80.810400	0.020026
V (292.401 nm)	0.001434	ppm	0.000284	19.79	-12.676000	0.001434
Zn (206.200 nm)	0.013655	ppm	0.000860	6.30	34.991200	0.013655
Zr (343.823 nm)	0.000071 u	ppm	0.000073	> 100.00	6.273870	0.000071 u

Solution Name: MB 280-652678/1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
MB 280-652678/1-A	5/14/2024 5:53:09 PM	1:18	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000173	ppm	0.000025	14.20	-1861.217030	0.000173
Ag (328.068 nm)	0.000215	ppm	0.000155	71.98	-24.886700	0.000215
Al (394.401 nm)	-0.001230 u	ppm	0.000145	11.75	366.095000	-0.001230 u
Al H (396.152 nm)	-0.048307 u	ppm	0.000952	1.97	42.524700	-0.048307 u
As (188.980 nm)	-0.000628 u	ppm	0.002079	> 100.00	-1.233490	-0.000628 u
B (249.678 nm)	-0.000916 u	ppm	0.000276	30.12	14.511600	-0.000916 u
Ba (493.408 nm)	0.000236	ppm	0.000070	29.44	-11.856700	0.000236
Be (234.861 nm)	-0.000014 u	ppm	0.000029	> 100.00	-1.231670	-0.000014 u
Bi (223.061 nm)	0.000928 u	ppm	0.001787	> 100.00	6.508400	0.000928 u
Ca (315.887 nm)	0.023196	ppm	0.004385	18.90	4.597280	0.023196
Cd (214.439 nm)	-0.000032 u	ppm	0.000081	> 100.00	-4.289780	-0.000032 u
Co (228.615 nm)	0.000030 u	ppm	0.000295	> 100.00	-6.353370	0.000030 u
Cr (205.560 nm)	0.000104	ppm	0.000106	> 100.00	9.664090	0.000104
Cu (324.754 nm)	0.000464	ppm	0.000251	54.01	641.322000	0.000464
Fe (238.204 nm)	0.009421	ppm	0.001353	14.36	51.439628	0.009421
Fe H (259.940 nm)	-0.010356 u	ppm	0.001015	9.81	27.010300	-0.010356 u
K (766.491 nm)	0.022031 u	ppm	0.060310	> 100.00	58.533400	0.022031 u
Li (670.783 nm)	0.005277	ppm	0.001361	25.79	557.548000	0.005277
Mg (279.078 nm)	0.001926	ppm	0.001752	90.95	9.832130	0.001926
Mn (257.610 nm)	0.000088	ppm	0.000017	19.35	66.333000	0.000088
Mo (202.032 nm)	0.000170	ppm	0.000203	> 100.00	6.257730	0.000170
Na (589.592 nm)	0.019365	ppm	0.009177	47.39	2869.470000	0.019365
Na H (589.593 nm)	-0.546110 u	ppm	0.008091	1.48	1906.657111	-0.546110 u
Ni (231.604 nm)	-0.000358 u	ppm	0.000383	> 100.00	-4.003160	-0.000358 u
P (213.618 nm)	-0.001634 u	ppm	0.001342	82.17	-9.425010	-0.001634 u
Pb (220.353 nm)	-0.000087 u	ppm	0.001292	> 100.00	2.085500	-0.000087 u
S (181.972 nm)	-0.002255 u	ppm	0.001640	72.73	15.989066	-0.002255 u
Sb (206.834 nm)	0.000056 u	ppm	0.001724	> 100.00	4.783240	0.000056 u
Se (196.026 nm)	-0.003740 u	ppm	0.002605	69.65	2.430160	-0.003740 u
Si (288.158 nm)	-0.010126 u	ppm	0.002032	20.06	632.747000	-0.010126 u
Sn (189.925 nm)	-0.002973 u	ppm	0.001452	48.85	1.347110	-0.002973 u
Sr (421.552 nm)	0.000003 u	ppm	0.000014	> 100.00	38.238685	0.000003 u
Th (288.505 nm)	0.003525	ppm	0.000924	26.21	34.439900	0.003525
Ti (336.122 nm)	0.000051	ppm	0.000024	46.74	-113.830000	0.000051
Tl (190.794 nm)	0.000138 u	ppm	0.002402	> 100.00	-1.329190	0.000138 u
U (409.013 nm)	-0.002694 u	ppm	0.002305	85.57	-4.703790	-0.002694 u
V (292.401 nm)	-0.000109 u	ppm	0.000079	72.42	-63.322000	-0.000109 u
Zn (206.200 nm)	0.000990	ppm	0.000060	6.02	5.477130	0.000990
Zr (343.823 nm)	-0.000088 u	ppm	0.000041	46.61	-6.271970	-0.000088 u

Solution Name: LCS 280-652678/2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LCS 280-652678/2-A	5/14/2024 5:57:11 PM	1:19	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.958030	ppm	0.002292	0.24	2102354.185301	0.958030
Ag (328.068 nm)	0.048476	ppm	0.000199	0.41	1427.400000	0.048476
Al (394.401 nm)	9.785280 o	ppm	0.024088	0.25	129438.000000	9.785280 o
Al H (396.152 nm)	9.860310	ppm	0.010039	0.10	45154.100000	9.860310
As (188.980 nm)	0.994705	ppm	0.004823	0.48	572.535000	0.994705
B (249.678 nm)	1.995810	ppm	0.002135	0.11	15291.700000	1.995810
Ba (493.408 nm)	0.974326	ppm	0.000847	0.09	134231.000000	0.974326
Be (234.861 nm)	0.984690	ppm	0.003226	0.33	98988.700000	0.984690
Bi (223.061 nm)	-0.001412 u	ppm	0.000259	18.38	0.796019	-0.001412 u
Ca (315.887 nm)	49.108570 o	ppm	0.089308	0.18	41152.975782	49.108570 o
Cd (214.439 nm)	0.976472	ppm	0.005332	0.55	24941.400000	0.976472
Co (228.615 nm)	0.957554	ppm	0.003738	0.39	12529.800000	0.957554
Cr (205.560 nm)	0.964337	ppm	0.005177	0.54	6203.080000	0.964337
Cu (324.754 nm)	0.971246	ppm	0.006070	0.62	46711.700000	0.971246
Fe (238.204 nm)	9.916804 o	ppm	0.013394	0.14	31940.326260	9.916804 o
Fe H (259.940 nm)	9.895780	ppm	0.018959	0.19	13505.600000	9.895780
K (766.491 nm)	48.975100	ppm	0.108345	0.22	62957.800000	48.975100
Li (670.783 nm)	0.970975	ppm	0.001585	0.16	30172.300000	0.970975
Mg (279.078 nm)	49.389400 o	ppm	0.225047	0.46	147196.000000	49.389400 o
Mn (257.610 nm)	0.975149	ppm	0.003698	0.38	284937.000000	0.975149
Mo (202.032 nm)	0.996322	ppm	0.004145	0.42	5366.390000	0.996322
Na (589.592 nm)	48.917500	ppm	0.134399	0.27	532263.000000	48.917500
Na H (589.593 nm)	48.772316 u	ppm	0.253390	0.52	384097.339549	48.772316 u
Ni (231.604 nm)	0.948589	ppm	0.006039	0.64	4479.080000	0.948589
P (213.618 nm)	20.227300 o	ppm	0.057597	0.28	24851.600000	20.227300 o
Pb (220.353 nm)	0.964474	ppm	0.002037	0.21	2054.020000	0.964474
S (181.972 nm)	19.407009 o	ppm	0.065461	0.34	7561.611003	19.407009 o
Sb (206.834 nm)	0.989392	ppm	0.002619	0.26	1421.340000	0.989392
Se (196.026 nm)	0.985225	ppm	0.002875	0.29	553.873000	0.985225
Si (288.158 nm)	9.500610	ppm	0.038553	0.41	71769.200000	9.500610
Sn (189.925 nm)	0.984372	ppm	0.002867	0.29	697.693000	0.984372
Sr (421.552 nm)	0.966374	ppm	0.000755	0.08	208192.491246	0.966374
Th (288.505 nm)	-0.008694 u	ppm	0.000328	3.78	-20.091000	-0.008694 u
Ti (336.122 nm)	0.977388	ppm	0.003154	0.32	133040.000000	0.977388
Tl (190.794 nm)	0.977082	ppm	0.003266	0.33	911.643000	0.977082
U (409.013 nm)	0.017081	ppm	0.003866	22.63	51.921000	0.017081
V (292.401 nm)	0.980419	ppm	0.003810	0.39	30489.100000	0.980419
Zn (206.200 nm)	0.974779	ppm	0.002861	0.29	2274.740000	0.974779
Zr (343.823 nm)	0.976580	ppm	0.003066	0.31	74329.400000	0.976580

Solution Name: 280-191169-C-3-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191169-C-3-A	5/14/2024 6:01:34 PM	1:20	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.041011	ppm	0.000198	0.48	87842.488968	0.041011
Ag (328.068 nm)	0.001044	ppm	0.000130	12.49	4.912510	0.001044
Al (394.401 nm)	0.066886	ppm	0.000879	1.31	1276.220000	0.066886
Al H (396.152 nm)	0.002977 u	ppm	0.001655	55.58	276.007000	0.002977 u
As (188.980 nm)	0.000778 u	ppm	0.002633	> 100.00	-0.371311	0.000778 u
B (249.678 nm)	0.123115	ppm	0.001398	1.14	963.495000	0.123115
Ba (493.408 nm)	0.012931	ppm	0.000074	0.57	1733.480000	0.012931
Be (234.861 nm)	0.000243	ppm	0.000004	1.71	30.216800	0.000243
Bi (223.061 nm)	-0.001288 u	ppm	0.001130	87.77	1.098850	-0.001288 u
Ca (315.887 nm)	22.728264 o	ppm	0.035430	0.16	19038.306156	22.728264 o
Cd (214.439 nm)	0.001626	ppm	0.000173	10.63	38.254400	0.001626
Co (228.615 nm)	0.008474	ppm	0.000297	3.50	103.981000	0.008474
Cr (205.560 nm)	-0.000001 u	ppm	0.000490	> 100.00	8.943920	-0.000001 u
Cu (324.754 nm)	0.278056	ppm	0.001447	0.52	13811.900000	0.278056
Fe (238.204 nm)	0.123779	ppm	0.001481	1.20	419.426952	0.123779
Fe H (259.940 nm)	0.101233 u	ppm	0.001444	1.43	178.841000	0.101233 u
K (766.491 nm)	2.561490	ppm	0.009158	0.36	3321.460000	2.561490
Li (670.783 nm)	0.047781	ppm	0.002598	5.44	1884.210000	0.047781
Mg (279.078 nm)	24.541400	ppm	0.139642	0.57	73122.900000	24.541400
Mn (257.610 nm)	0.412731	ppm	0.002313	0.56	120623.000000	0.412731
Mo (202.032 nm)	0.000635	ppm	0.000432	67.93	8.761810	0.000635
Na (589.592 nm)	53.030600	ppm	0.096511	0.18	569250.000000	53.030600
Na H (589.593 nm)	52.528318	ppm	0.410297	0.78	408943.112919	52.528318
Ni (231.604 nm)	0.026660	ppm	0.000426	1.60	123.607000	0.026660
P (213.618 nm)	0.000033 u	ppm	0.000756	> 100.00	-22.598100	0.000033 u
Pb (220.353 nm)	0.001551	ppm	0.001561	> 100.00	5.572860	0.001551
S (181.972 nm)	51.712528 o	ppm	0.292443	0.57	20075.459223	51.712528 o
Sb (206.834 nm)	0.001782	ppm	0.000868	48.70	7.264490	0.001782
Se (196.026 nm)	-0.003314 u	ppm	0.002661	80.30	3.106310	-0.003314 u
Si (288.158 nm)	6.385330	ppm	0.041854	0.66	47881.600000	6.385330
Sn (189.925 nm)	0.000429 u	ppm	0.002319	> 100.00	3.746160	0.000429 u
Sr (421.552 nm)	0.049714	ppm	0.000140	0.28	10745.756538	0.049714
Th (288.505 nm)	-0.005075 u	ppm	0.002412	47.53	25.791300	-0.005075 u
Ti (336.122 nm)	-0.000089 u	ppm	0.000077	86.78	-70.700300	-0.000089 u
Tl (190.794 nm)	-0.000686 u	ppm	0.002170	> 100.00	-2.090130	-0.000686 u
U (409.013 nm)	0.009934	ppm	0.003360	33.82	42.800000	0.009934
V (292.401 nm)	0.000508	ppm	0.000202	39.87	-42.718400	0.000508
Zn (206.200 nm)	0.243363	ppm	0.001764	0.72	570.291000	0.243363
Zr (343.823 nm)	0.000408	ppm	0.000054	13.27	31.645400	0.000408

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/14/2024 6:05:57 PM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000608	ppm	0.000002	0.35	-904.800584	0.000608
Ag (328.068 nm)	-0.000546 u	ppm	0.000331	60.71	46.018000	-0.000546 u
Al (394.401 nm)	50.525000 o	ppm	0.064991	0.13	665721.000000	50.525000 o
Al H (396.152 nm)	49.893100	ppm	0.042768	0.09	227414.000000	49.893100
As (188.980 nm)	-0.000212 u	ppm	0.001644	> 100.00	-1.313590	-0.000212 u
B (249.678 nm)	-0.002726 u	ppm	0.000577	21.15	0.663218	-0.002726 u
Ba (493.408 nm)	0.000176	ppm	0.000083	47.19	111.751000	0.000176
Be (234.861 nm)	0.000266	ppm	0.000106	40.04	351.429000	0.000266
Bi (223.061 nm)	0.000569 u	ppm	0.001293	> 100.00	5.632390	0.000569 u
Ca (315.887 nm)	-0.022636 u	ppm	0.003653	16.14	-33.823935	-0.022636 u
Cd (214.439 nm)	-0.000361 u	ppm	0.000226	62.76	5.362860	-0.000361 u
Co (228.615 nm)	-0.000570 u	ppm	0.000350	61.42	-14.184600	-0.000570 u
Cr (205.560 nm)	0.000674	ppm	0.000015	2.29	13.329700	0.000674
Cu (324.754 nm)	-0.005197 u	ppm	0.000276	5.31	1346.710000	-0.005197 u
Fe (238.204 nm)	50.586467 o	ppm	0.026090	0.05	162793.055984	50.586467 o
Fe H (259.940 nm)	50.422400	ppm	0.053695	0.11	68647.400000	50.422400
K (766.491 nm)	0.060651	ppm	0.040159	66.21	108.156000	0.060651
Li (670.783 nm)	-0.001647 u	ppm	0.001528	92.79	435.930000	-0.001647 u
Mg (279.078 nm)	0.007228	ppm	0.001696	23.47	-145.267000	0.007228
Mn (257.610 nm)	-0.000770 u	ppm	0.000033	4.31	-184.319000	-0.000770 u
Mo (202.032 nm)	-0.000572 u	ppm	0.000223	38.89	2.262660	-0.000572 u
Na (589.592 nm)	244.389000 o	ppm	0.312544	0.13	2613330.000000	244.389000 o
Na H (589.593 nm)	245.024034	ppm	1.354843	0.55	1884981.361525	245.024034
Ni (231.604 nm)	0.000700	ppm	0.000574	81.96	0.994707	0.000700
P (213.618 nm)	4.975490	ppm	0.018758	0.38	6126.790000	4.975490
Pb (220.353 nm)	-0.002415 u	ppm	0.000774	32.05	-4.375000	-0.002415 u
S (181.972 nm)	4.990488	ppm	0.028863	0.58	1955.500861	4.990488
Sb (206.834 nm)	0.002183 u	ppm	0.002665	> 100.00	12.040400	0.002183 u
Se (196.026 nm)	0.002740	ppm	0.000649	23.69	1.117690	0.002740
Si (288.158 nm)	0.004094 u	ppm	0.004340	> 100.00	740.660000	0.004094 u
Sn (189.925 nm)	0.000501 u	ppm	0.002154	> 100.00	3.796860	0.000501 u
Sr (421.552 nm)	0.000123	ppm	0.000031	24.94	64.113325	0.000123
Th (288.505 nm)	4.925570	ppm	0.002761	0.06	11010.100000	4.925570
Ti (336.122 nm)	0.000721	ppm	0.000031	4.29	-22.709600	0.000721
Tl (190.794 nm)	-0.007323 u	ppm	0.000790	10.78	-9.120220	-0.007323 u
U (409.013 nm)	2.506800 Q	ppm	0.009539	0.38	9520.640000 Q	2.506800 Q
V (292.401 nm)	0.000578	ppm	0.000113	19.57	172.089000	0.000578
Zn (206.200 nm)	0.002244	ppm	0.000589	26.25	8.401530	0.002244
Zr (343.823 nm)	0.000215	ppm	0.000145	67.32	82.148800	0.000215

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/14/2024 6:10:27 PM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.463981	ppm	0.001073	0.23	1017035.901073	0.463981
Ag (328.068 nm)	0.495685	ppm	0.001370	0.28	17829.900000	0.495685
Al (394.401 nm)	0.493858	ppm	0.002389	0.48	6895.120000	0.493858
Al H (396.152 nm)	0.477785 u	ppm	0.001509	0.32	2437.690000	0.477785 u
As (188.980 nm)	0.494073	ppm	0.009096	1.84	283.912000	0.494073
B (249.678 nm)	0.495495	ppm	0.000730	0.15	3812.620000	0.495495
Ba (493.408 nm)	0.495804	ppm	0.000166	0.03	68278.500000	0.495804
Be (234.861 nm)	0.500555	ppm	0.000880	0.18	50302.400000	0.500555
Bi (223.061 nm)	0.998469	ppm	0.003989	0.40	2442.250000	0.998469
Ca (315.887 nm)	4.995579	ppm	0.011143	0.22	4172.957043	4.995579
Cd (214.439 nm)	0.504943	ppm	0.001592	0.32	12895.000000	0.504943
Co (228.615 nm)	0.501878	ppm	0.002907	0.58	6563.510000	0.501878
Cr (205.560 nm)	0.499844	ppm	0.001602	0.32	3219.620000	0.499844
Cu (324.754 nm)	0.500401	ppm	0.001516	0.30	24371.600000	0.500401
Fe (238.204 nm)	2.530741	ppm	0.003541	0.14	8169.417657	2.530741
Fe H (259.940 nm)	2.508720 u	ppm	0.006608	0.26	3454.540000	2.508720 u
K (766.491 nm)	49.363800	ppm	0.023557	0.05	63457.300000	49.363800
Li (670.783 nm)	0.497551	ppm	0.002877	0.58	15649.600000	0.497551
Mg (279.078 nm)	19.824900	ppm	0.074682	0.38	59117.900000	19.824900
Mn (257.610 nm)	0.500364	ppm	0.001244	0.25	146225.000000	0.500364
Mo (202.032 nm)	0.500757	ppm	0.002862	0.57	2699.830000	0.500757
Na (589.592 nm)	24.946700	ppm	0.048970	0.20	272736.000000	24.946700
Na H (589.593 nm)	24.378765 u	ppm	0.201904	0.83	195074.310705	24.378765 u
Ni (231.604 nm)	0.505838	ppm	0.002771	0.55	2387.380000	0.505838
P (213.618 nm)	-0.021038 u	ppm	0.001051	4.99	-75.492600	-0.021038 u
Pb (220.353 nm)	0.495360	ppm	0.002881	0.58	1056.570000	0.495360
S (181.972 nm)	-0.033042 u	ppm	0.004381	13.26	13.759454	-0.033042 u
Sb (206.834 nm)	0.497140	ppm	0.003339	0.67	716.381000	0.497140
Se (196.026 nm)	0.497730	ppm	0.002695	0.54	282.298000	0.497730
Si (288.158 nm)	4.918730	ppm	0.046803	0.95	37493.800000	4.918730
Sn (189.925 nm)	0.504174	ppm	0.001575	0.31	359.023000	0.504174
Sr (421.552 nm)	0.490780	ppm	0.000213	0.04	105750.483795	0.490780
Th (288.505 nm)	0.001566 u	ppm	0.003343	> 100.00	16.355600	0.001566 u
Ti (336.122 nm)	0.495005	ppm	0.001054	0.21	67265.900000	0.495005
Tl (190.794 nm)	0.499108	ppm	0.003920	0.79	465.052000	0.499108
U (409.013 nm)	0.000860	ppm	0.000315	36.68	-2.361990	0.000860
V (292.401 nm)	0.494218	ppm	0.001707	0.35	15335.800000	0.494218
Zn (206.200 nm)	0.506050	ppm	0.002193	0.43	1182.440000	0.506050
Zr (343.823 nm)	0.495234	ppm	0.001343	0.27	37690.200000	0.495234

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/14/2024 6:14:51 PM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000163	ppm	0.000019	11.68	-1881.726911	0.000163
Ag (328.068 nm)	0.000179	ppm	0.000156	87.05	-26.652300	0.000179
Al (394.401 nm)	-0.002745 u	ppm	0.000338	12.31	346.879000	-0.002745 u
Al H (396.152 nm)	-0.052337 u	ppm	0.003229	6.17	24.173400	-0.052337 u
As (188.980 nm)	-0.001739 u	ppm	0.002430	> 100.00	-1.873960	-0.001739 u
B (249.678 nm)	0.000255	ppm	0.000101	39.69	23.476800	0.000255
Ba (493.408 nm)	0.000212	ppm	0.000066	31.34	-15.175000	0.000212
Be (234.861 nm)	-0.000007 u	ppm	0.000015	> 100.00	-0.520089	-0.000007 u
Bi (223.061 nm)	-0.001397 u	ppm	0.000742	53.11	0.830859	-0.001397 u
Ca (315.887 nm)	0.005443	ppm	0.007138	> 100.00	-10.284654	0.005443
Cd (214.439 nm)	0.000120	ppm	0.000087	72.30	-0.407817	0.000120
Co (228.615 nm)	0.000028 u	ppm	0.000078	> 100.00	-6.377430	0.000028 u
Cr (205.560 nm)	0.000056 u	ppm	0.000207	> 100.00	9.352050	0.000056 u
Cu (324.754 nm)	0.000428	ppm	0.000191	44.67	639.165000	0.000428
Fe (238.204 nm)	0.006023	ppm	0.003004	49.88	40.506613	0.006023
Fe H (259.940 nm)	-0.015764 u	ppm	0.003536	22.43	19.651800	-0.015764 u
K (766.491 nm)	-0.019747 u	ppm	0.003645	18.46	4.853750	-0.019747 u
Li (670.783 nm)	0.000355 Su	ppm	0.001526	> 100.00	406.737000 S	0.000355 Su
Mg (279.078 nm)	0.002095	ppm	0.000824	39.33	10.335500	0.002095
Mn (257.610 nm)	0.000059	ppm	0.000011	18.47	57.770600	0.000059
Mo (202.032 nm)	0.000264 u	ppm	0.000370	> 100.00	6.761890	0.000264 u
Na (589.592 nm)	0.020183	ppm	0.004927	24.41	2878.300000	0.020183
Na H (589.593 nm)	-0.545770 u	ppm	0.003618	0.66	1909.315867	-0.545770 u
Ni (231.604 nm)	-0.000063 u	ppm	0.000345	> 100.00	-2.612620	-0.000063 u
P (213.618 nm)	0.000872 u	ppm	0.001505	> 100.00	-6.337280	0.000872 u
Pb (220.353 nm)	-0.000920 u	ppm	0.002054	> 100.00	0.313243	-0.000920 u
S (181.972 nm)	-0.012044 u	ppm	0.003239	26.90	12.194489	-0.012044 u
Sb (206.834 nm)	-0.001582 u	ppm	0.001479	93.55	2.432290	-0.001582 u
Se (196.026 nm)	-0.001992 u	ppm	0.000845	42.41	3.405730	-0.001992 u
Si (288.158 nm)	-0.006102 u	ppm	0.001800	29.49	664.158000	-0.006102 u
Sn (189.925 nm)	-0.000901 u	ppm	0.001034	> 100.00	2.807980	-0.000901 u
Sr (421.552 nm)	0.000145 u	ppm	0.000250	> 100.00	68.831615	0.000145 u
Th (288.505 nm)	0.000355 u	ppm	0.000658	> 100.00	27.322500	0.000355 u
Ti (336.122 nm)	0.000047 u	ppm	0.000069	> 100.00	-114.382000	0.000047 u
Tl (190.794 nm)	-0.001061 u	ppm	0.003171	> 100.00	-2.452190	-0.001061 u
U (409.013 nm)	0.002141 u	ppm	0.003218	> 100.00	13.413100	0.002141 u
V (292.401 nm)	0.000053 u	ppm	0.000207	> 100.00	-58.423300	0.000053 u
Zn (206.200 nm)	0.000518	ppm	0.000320	61.89	4.377360	0.000518
Zr (343.823 nm)	0.000038 u	ppm	0.000109	> 100.00	3.325670	0.000038 u

Solution Name: 280-191169-C-3-A SD@5

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191169-C-3-A SD@5	5/14/2024 6:18:53 PM	1:21	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.007038	ppm	0.000020	0.28	13219.835635	0.007038
Ag (328.068 nm)	0.000306	ppm	0.000179	58.48	-21.824600	0.000306
Al (394.401 nm)	0.012673	ppm	0.000707	5.58	552.114000	0.012673
Al H (396.152 nm)	-0.038455 u	ppm	0.001613	4.19	87.374900	-0.038455 u
As (188.980 nm)	0.001112 u	ppm	0.003006	> 100.00	-0.220251	0.001112 u
B (249.678 nm)	0.023244	ppm	0.000242	1.04	199.363000	0.023244
Ba (493.408 nm)	0.002615	ppm	0.000205	7.86	315.326000	0.002615
Be (234.861 nm)	0.000044	ppm	0.000033	74.24	5.914040	0.000044
Bi (223.061 nm)	0.000010 u	ppm	0.000905	> 100.00	4.268100	0.000010 u
Ca (315.887 nm)	4.593480	ppm	0.008688	0.19	3835.876693	4.593480
Cd (214.439 nm)	0.000433	ppm	0.000116	26.89	7.637790	0.000433
Co (228.615 nm)	0.001643	ppm	0.000123	7.50	14.717700	0.001643
Cr (205.560 nm)	-0.000300 u	ppm	0.000408	> 100.00	7.056440	-0.000300 u
Cu (324.754 nm)	0.055336	ppm	0.000166	0.30	3244.650000	0.055336
Fe (238.204 nm)	0.059392	ppm	0.001288	2.17	212.234813	0.059392
Fe H (259.940 nm)	0.038596 u	ppm	0.001296	3.36	93.614900	0.038596 u
K (766.491 nm)	0.501635	ppm	0.050167	10.00	674.771000	0.501635
Li (670.783 nm)	0.008932	ppm	0.002271	25.42	674.383000	0.008932
Mg (279.078 nm)	4.934880	ppm	0.017730	0.36	14707.000000	4.934880
Mn (257.610 nm)	0.084386	ppm	0.000313	0.37	24694.400000	0.084386
Mo (202.032 nm)	0.000377 u	ppm	0.000391	> 100.00	7.369230	0.000377 u
Na (589.592 nm)	10.653000	ppm	0.013717	0.13	116481.000000	10.653000
Na H (589.593 nm)	10.027855 u	ppm	0.097305	0.97	83000.014246	10.027855 u
Ni (231.604 nm)	0.004754	ppm	0.000504	10.61	20.139100	0.004754
P (213.618 nm)	-0.002783 u	ppm	0.002525	90.73	-13.866700	-0.002783 u
Pb (220.353 nm)	-0.000537 u	ppm	0.000526	97.93	1.127030	-0.000537 u
S (181.972 nm)	10.188705	ppm	0.028254	0.28	3968.939910	10.188705
Sb (206.834 nm)	0.001973	ppm	0.000967	49.00	7.534030	0.001973
Se (196.026 nm)	0.000183 u	ppm	0.001736	> 100.00	4.703510	0.000183 u
Si (288.158 nm)	1.241150	ppm	0.003854	0.31	9877.550000	1.241150
Sn (189.925 nm)	-0.001522 u	ppm	0.001439	94.52	2.370140	-0.001522 u
Sr (421.552 nm)	0.009730	ppm	0.000044	0.45	2133.422664	0.009730
Th (288.505 nm)	0.000790 u	ppm	0.001389	> 100.00	30.487900	0.000790 u
Ti (336.122 nm)	-0.000019 u	ppm	0.000047	> 100.00	-110.906000	-0.000019 u
Tl (190.794 nm)	-0.000211 u	ppm	0.000802	> 100.00	-1.654630	-0.000211 u
U (409.013 nm)	0.004253	ppm	0.000480	11.29	21.414200	0.004253
V (292.401 nm)	0.000006 u	ppm	0.000207	> 100.00	-59.463800	0.000006 u
Zn (206.200 nm)	0.049693	ppm	0.000687	1.38	118.972000	0.049693
Zr (343.823 nm)	0.000032 u	ppm	0.000084	> 100.00	2.919650	0.000032 u

Solution Name: 280-191169-C-3-B MS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191169-C-3-B MS	5/14/2024 6:23:14 PM	1:22	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.056666	ppm	0.002734	0.26	2319013.541894	1.056666
Ag (328.068 nm)	0.049263	ppm	0.000209	0.42	1457.330000	0.049263
Al (394.401 nm)	10.020200 o	ppm	0.011265	0.11	132544.000000	10.020200 o
Al H (396.152 nm)	9.893780	ppm	0.017785	0.18	45306.500000	9.893780
As (188.980 nm)	1.011660	ppm	0.005421	0.54	582.356000	1.011660
B (249.678 nm)	2.124890	ppm	0.004357	0.21	16279.400000	2.124890
Ba (493.408 nm)	0.985682	ppm	0.001532	0.16	135789.000000	0.985682
Be (234.861 nm)	0.973672	ppm	0.005376	0.55	97887.800000	0.973672
Bi (223.061 nm)	-0.001725 u	ppm	0.000480	27.83	0.030915	-0.001725 u
Ca (315.887 nm)	71.223358 o	ppm	0.105464	0.15	59691.851164	71.223358 o
Cd (214.439 nm)	0.967277	ppm	0.004691	0.48	24706.800000	0.967277
Co (228.615 nm)	0.958024	ppm	0.002749	0.29	12535.900000	0.958024
Cr (205.560 nm)	0.958063	ppm	0.003181	0.33	6162.750000	0.958063
Cu (324.754 nm)	1.252560 o	ppm	0.003477	0.28	60060.400000	1.252560 o
Fe (238.204 nm)	10.029936 o	ppm	0.019810	0.20	32304.254773	10.029936 o
Fe H (259.940 nm)	10.028900	ppm	0.026307	0.26	13686.700000	10.028900
K (766.491 nm)	51.414800	ppm	0.174163	0.34	66092.600000	51.414800
Li (670.783 nm)	1.018180	ppm	0.002585	0.25	31642.100000	1.018180
Mg (279.078 nm)	74.003300 o	ppm	0.294541	0.40	220531.000000	74.003300 o
Mn (257.610 nm)	1.368800 o	ppm	0.004202	0.31	399945.000000	1.368800 o
Mo (202.032 nm)	0.989079	ppm	0.003568	0.36	5327.410000	0.989079
Na (589.592 nm)	100.388000 o	ppm	0.343908	0.34	1082160.000000	100.388000 o
Na H (589.593 nm)	100.300123	ppm	1.043341	1.04	779263.209523	100.300123
Ni (231.604 nm)	0.966848	ppm	0.002584	0.27	4565.300000	0.966848
P (213.618 nm)	20.249400 o	ppm	0.060700	0.30	24863.700000	20.249400 o
Pb (220.353 nm)	0.958217	ppm	0.004745	0.50	2040.680000	0.958217
S (181.972 nm)	71.729990 o	ppm	0.229677	0.32	27856.863984	71.729990 o
Sb (206.834 nm)	0.993939	ppm	0.003073	0.31	1427.890000	0.993939
Se (196.026 nm)	0.976164	ppm	0.002524	0.26	549.243000	0.976164
Si (288.158 nm)	15.747800 o	ppm	0.034538	0.22	117924.000000	15.747800 o
Sn (189.925 nm)	0.989792	ppm	0.009518	0.96	701.516000	0.989792
Sr (421.552 nm)	1.008952	ppm	0.001378	0.14	217363.783187	1.008952
Th (288.505 nm)	-0.011693 u	ppm	0.001313	11.23	-16.239500	-0.011693 u
Ti (336.122 nm)	0.973448	ppm	0.002810	0.29	132565.000000	0.973448
Tl (190.794 nm)	0.961051	ppm	0.004731	0.49	896.649000	0.961051
U (409.013 nm)	0.015039	ppm	0.002582	17.17	44.541600	0.015039
V (292.401 nm)	0.975316	ppm	0.002853	0.29	30332.200000	0.975316
Zn (206.200 nm)	1.195800 o	ppm	0.008167	0.68	2789.810000	1.195800 o
Zr (343.823 nm)	0.971301	ppm	0.002358	0.24	73927.900000	0.971301

Solution Name: 280-191169-C-3-C MSD

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191169-C-3-C MSD	5/14/2024 6:27:39 PM	1:23	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.069373	ppm	0.002233	0.21	2346927.014929	1.069373
Ag (328.068 nm)	0.049759	ppm	0.000219	0.44	1471.910000	0.049759
Al (394.401 nm)	10.107000 o	ppm	0.012082	0.12	133689.000000	10.107000 o
Al H (396.152 nm)	10.024400	ppm	0.031701	0.32	45901.200000	10.024400
As (188.980 nm)	1.016080	ppm	0.001445	0.14	584.911000	1.016080
B (249.678 nm)	2.152640	ppm	0.005745	0.27	16491.600000	2.152640
Ba (493.408 nm)	0.996017	ppm	0.001542	0.15	137214.000000	0.996017
Be (234.861 nm)	0.985904	ppm	0.006627	0.67	99117.700000	0.985904
Bi (223.061 nm)	-0.001089 u	ppm	0.000601	55.21	1.583630	-0.001089 u
Ca (315.887 nm)	72.679664 o	ppm	0.178257	0.25	60912.676148	72.679664 o
Cd (214.439 nm)	0.983479	ppm	0.003335	0.34	25120.600000	0.983479
Co (228.615 nm)	0.969754	ppm	0.002476	0.26	12689.400000	0.969754
Cr (205.560 nm)	0.971329	ppm	0.003197	0.33	6247.940000	0.971329
Cu (324.754 nm)	1.273870 o	ppm	0.004557	0.36	61072.000000	1.273870 o
Fe (238.204 nm)	10.176844 o	ppm	0.014504	0.14	32777.122895	10.176844 o
Fe H (259.940 nm)	10.153100	ppm	0.041627	0.41	13855.700000	10.153100
K (766.491 nm)	52.413700	ppm	0.072628	0.14	67376.100000	52.413700
Li (670.783 nm)	1.033610	ppm	0.001477	0.14	32115.900000	1.033610
Mg (279.078 nm)	75.692200 o	ppm	0.180519	0.24	225564.000000	75.692200 o
Mn (257.610 nm)	1.397400 o	ppm	0.002806	0.20	408301.000000	1.397400 o
Mo (202.032 nm)	1.006120	ppm	0.001555	0.15	5419.090000	1.006120
Na (589.592 nm)	103.341000 o	ppm	0.157889	0.15	1113790.000000	103.341000 o
Na H (589.593 nm)	102.348247	ppm	0.938025	0.92	795016.252954	102.348247
Ni (231.604 nm)	0.979638	ppm	0.002447	0.25	4625.720000	0.979638
P (213.618 nm)	20.504100 o	ppm	0.062651	0.31	25176.100000	20.504100 o
Pb (220.353 nm)	0.967839	ppm	0.004939	0.51	2061.130000	0.967839
S (181.972 nm)	73.849290 o	ppm	0.351790	0.48	28679.082291	73.849290 o
Sb (206.834 nm)	1.003660	ppm	0.006354	0.63	1441.780000	1.003660
Se (196.026 nm)	0.986321	ppm	0.004688	0.48	554.925000	0.986321
Si (288.158 nm)	16.200700 o	ppm	0.053041	0.33	121281.000000	16.200700 o
Sn (189.925 nm)	1.001800	ppm	0.007305	0.73	709.982000	1.001800
Sr (421.552 nm)	1.021159	ppm	0.001618	0.16	219993.080602	1.021159
Th (288.505 nm)	-0.011768 u	ppm	0.001057	8.98	-16.393500	-0.011768 u
Ti (336.122 nm)	0.985809	ppm	0.002232	0.23	134251.000000	0.985809
Tl (190.794 nm)	0.976144	ppm	0.001811	0.19	910.748000	0.976144
U (409.013 nm)	0.012811	ppm	0.003068	23.95	35.998400	0.012811
V (292.401 nm)	0.986217	ppm	0.002747	0.28	30671.300000	0.986217
Zn (206.200 nm)	1.222700 o	ppm	0.004916	0.40	2852.480000	1.222700 o
Zr (343.823 nm)	0.983751	ppm	0.003069	0.31	74875.500000	0.983751

Solution Name: 280-191169-C-3-A PDS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191169-C-3-A PDS	5/14/2024 6:32:03 PM	1:24	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.136357	ppm	0.000545	0.40	297287.315345	0.136357
Ag (328.068 nm)	0.047053	ppm	0.000241	0.51	1658.090000	0.047053
Al (394.401 nm)	1.037830	ppm	0.006003	0.58	14139.000000	1.037830
Al H (396.152 nm)	0.978919	ppm	0.003516	0.36	4719.240000	0.978919
As (188.980 nm)	0.197190	ppm	0.003791	1.92	112.879000	0.197190
B (249.678 nm)	0.222460	ppm	0.002041	0.92	1723.590000	0.222460
Ba (493.408 nm)	0.108328	ppm	0.000362	0.33	14864.500000	0.108328
Be (234.861 nm)	0.049495	ppm	0.000266	0.54	4988.910000	0.049495
Bi (223.061 nm)	0.000067 u	ppm	0.001277	> 100.00	4.406870	0.000067 u
Ca (315.887 nm)	41.447500 o	ppm	0.030943	0.07	34730.683641	41.447500 o
Cd (214.439 nm)	0.050529	ppm	0.000236	0.47	1287.690000	0.050529
Co (228.615 nm)	0.055625	ppm	0.000191	0.34	721.255000	0.055625
Cr (205.560 nm)	0.047811	ppm	0.000378	0.79	316.045000	0.047811
Cu (324.754 nm)	0.318344	ppm	0.001127	0.35	15730.900000	0.318344
Fe (238.204 nm)	1.115302	ppm	0.002112	0.19	3610.342475	1.115302
Fe H (259.940 nm)	1.090350 u	ppm	0.008633	0.79	1524.670000	1.090350 u
K (766.491 nm)	21.867000	ppm	0.009584	0.04	28126.900000	21.867000
Li (670.783 nm)	0.141529	ppm	0.001852	1.31	4766.370000	0.141529
Mg (279.078 nm)	43.246700	ppm	0.093220	0.22	128859.000000	43.246700
Mn (257.610 nm)	0.445800	ppm	0.000717	0.16	130284.000000	0.445800
Mo (202.032 nm)	0.050543	ppm	0.000488	0.97	277.304000	0.050543
Na (589.592 nm)	70.034900 o	ppm	0.115141	0.16	751584.000000	70.034900 o
Na H (589.593 nm)	68.911954	ppm	0.491360	0.71	534966.511011	68.911954
Ni (231.604 nm)	0.072408	ppm	0.000228	0.32	339.886000	0.072408
P (213.618 nm)	2.004770	ppm	0.008226	0.41	2445.640000	2.004770
Pb (220.353 nm)	0.096607	ppm	0.001671	1.73	208.738000	0.096607
S (181.972 nm)	51.968582 o	ppm	0.244269	0.47	20176.557760	51.968582 o
Sb (206.834 nm)	0.098195	ppm	0.002492	2.54	145.471000	0.098195
Se (196.026 nm)	0.191201	ppm	0.004032	2.11	111.650000	0.191201
Si (288.158 nm)	10.978200 o	ppm	0.062443	0.57	81893.300000	10.978200 o
Sn (189.925 nm)	0.098156	ppm	0.002184	2.23	72.670300	0.098156
Sr (421.552 nm)	0.095847	ppm	0.000142	0.15	20682.820861	0.095847
Th (288.505 nm)	0.185251	ppm	0.002946	1.59	452.011000	0.185251
Ti (336.122 nm)	0.048171	ppm	0.000190	0.40	6548.720000	0.048171
Tl (190.794 nm)	0.190346	ppm	0.002488	1.31	176.739000	0.190346
U (409.013 nm)	0.511028	ppm	0.004532	0.89	1925.340000	0.511028
V (292.401 nm)	0.049191	ppm	0.000119	0.24	1467.350000	0.049191
Zn (206.200 nm)	0.430162	ppm	0.001751	0.41	1005.600000	0.430162
Zr (343.823 nm)	0.049358	ppm	0.000138	0.28	3757.920000	0.049358

Solution Name: 280-191184-A-5-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191184-A-5-A	5/14/2024 6:36:27 PM	1:25	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.003195	ppm	0.000022	0.68	4777.603876	0.003195
Ag (328.068 nm)	0.000785	ppm	0.000188	23.97	-19.780600	0.000785
Al (394.401 nm)	0.009894	ppm	0.000171	1.73	529.428000	0.009894
Al H (396.152 nm)	-0.050252 u	ppm	0.003169	6.31	33.666300	-0.050252 u
As (188.980 nm)	0.006061	ppm	0.001737	28.66	2.681920	0.006061
B (249.678 nm)	0.024194	ppm	0.000673	2.78	206.634000	0.024194
Ba (493.408 nm)	0.024084	ppm	0.000226	0.94	3266.030000	0.024084
Be (234.861 nm)	-0.000054 u	ppm	0.000041	75.51	-3.429810	-0.000054 u
Bi (223.061 nm)	0.000097 u	ppm	0.001577	> 100.00	4.480300	0.000097 u
Ca (315.887 nm)	26.021293 o	ppm	0.092580	0.36	21798.859969	26.021293 o
Cd (214.439 nm)	0.000176	ppm	0.000069	39.26	1.018200	0.000176
Co (228.615 nm)	-0.000358 u	ppm	0.000116	32.47	-11.426000	-0.000358 u
Cr (205.560 nm)	0.003471	ppm	0.000584	16.83	31.267500	0.003471
Cu (324.754 nm)	0.000646	ppm	0.000200	30.89	639.737000	0.000646
Fe (238.204 nm)	0.018636	ppm	0.000224	1.20	81.091281	0.018636
Fe H (259.940 nm)	-0.003921 u	ppm	0.001136	28.97	35.765000	-0.003921 u
K (766.491 nm)	3.226730	ppm	0.048068	1.49	4176.220000	3.226730
Li (670.783 nm)	0.007690	ppm	0.003642	47.36	645.284000	0.007690
Mg (279.078 nm)	8.965860	ppm	0.036477	0.41	26718.600000	8.965860
Mn (257.610 nm)	0.000373	ppm	0.000005	1.27	149.554000	0.000373
Mo (202.032 nm)	0.009090	ppm	0.000706	7.77	54.257200	0.009090
Na (589.592 nm)	22.610100	ppm	0.064100	0.28	244367.000000	22.610100
Na H (589.593 nm)	22.003348 u	ppm	0.130309	0.59	174918.792963	22.003348 u
Ni (231.604 nm)	0.001357	ppm	0.000365	26.91	4.095850	0.001357
P (213.618 nm)	0.047108	ppm	0.001926	4.09	50.393200	0.047108
Pb (220.353 nm)	-0.002002 u	ppm	0.000807	40.34	-1.985910	-0.002002 u
S (181.972 nm)	6.843470	ppm	0.028784	0.42	2671.471263	6.843470
Sb (206.834 nm)	-0.001373 u	ppm	0.001691	> 100.00	2.701650	-0.001373 u
Se (196.026 nm)	-0.000038 u	ppm	0.004789	> 100.00	5.077110	-0.000038 u
Si (288.158 nm)	18.578100 o	ppm	0.107130	0.58	137956.000000	18.578100 o
Sn (189.925 nm)	0.000711 u	ppm	0.002896	> 100.00	3.945280	0.000711 u
Sr (421.552 nm)	0.105028	ppm	0.000515	0.49	22660.385518	0.105028
Th (288.505 nm)	-0.002736 u	ppm	0.000605	22.13	19.160600	-0.002736 u
Ti (336.122 nm)	-0.000097 u	ppm	0.000055	56.47	-63.291000	-0.000097 u
Tl (190.794 nm)	-0.000973 u	ppm	0.002865	> 100.00	-2.389780	-0.000973 u
U (409.013 nm)	0.015953	ppm	0.002068	12.96	65.235900	0.015953
V (292.401 nm)	0.029248	ppm	0.000304	1.04	857.764000	0.029248
Zn (206.200 nm)	0.003088	ppm	0.000588	19.05	10.366500	0.003088
Zr (343.823 nm)	0.000052	ppm	0.000030	58.34	4.373640	0.000052

Solution Name: 280-191184-A-5-B MS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191184-A-5-B MS	5/14/2024 6:40:49 PM	1:26	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.994577	ppm	0.001548	0.16	2182630.804290	0.994577
Ag (328.068 nm)	0.049564	ppm	0.000188	0.38	1451.920000	0.049564
Al (394.401 nm)	9.888860 o	ppm	0.009198	0.09	130817.000000	9.888860 o
Al H (396.152 nm)	9.904830	ppm	0.023237	0.23	45356.800000	9.904830
As (188.980 nm)	1.006730	ppm	0.000857	0.09	579.525000	1.006730
B (249.678 nm)	2.049310	ppm	0.004706	0.23	15701.000000	2.049310
Ba (493.408 nm)	1.004790	ppm	0.002000	0.20	138418.000000	1.004790
Be (234.861 nm)	0.983808	ppm	0.008119	0.83	98902.500000	0.983808
Bi (223.061 nm)	0.000109 u	ppm	0.001279	> 100.00	4.508490	0.000109 u
Ca (315.887 nm)	74.677670 o	ppm	0.185732	0.25	62587.609289	74.677670 o
Cd (214.439 nm)	0.977041	ppm	0.001008	0.10	24956.000000	0.977041
Co (228.615 nm)	0.957084	ppm	0.001170	0.12	12523.700000	0.957084
Cr (205.560 nm)	0.975144	ppm	0.002760	0.28	6272.540000	0.975144
Cu (324.754 nm)	0.978984	ppm	0.005412	0.55	47070.200000	0.978984
Fe (238.204 nm)	10.006067 o	ppm	0.018194	0.18	32227.552819	10.006067 o
Fe H (259.940 nm)	9.986760	ppm	0.032827	0.33	13629.400000	9.986760
K (766.491 nm)	52.320200	ppm	0.049619	0.09	67255.900000	52.320200
Li (670.783 nm)	0.977084	ppm	0.000775	0.08	30372.700000	0.977084
Mg (279.078 nm)	58.285400 o	ppm	0.080883	0.14	173703.000000	58.285400 o
Mn (257.610 nm)	0.970140	ppm	0.001113	0.11	283474.000000	0.970140
Mo (202.032 nm)	1.005060	ppm	0.003289	0.33	5413.420000	1.005060
Na (589.592 nm)	70.874100 o	ppm	0.233252	0.33	767021.000000	70.874100 o
Na H (589.593 nm)	70.361389	ppm	0.591413	0.84	549765.092718	70.361389
Ni (231.604 nm)	0.947225	ppm	0.000595	0.06	4472.630000	0.947225
P (213.618 nm)	20.400900 o	ppm	0.036139	0.18	25065.000000	20.400900 o
Pb (220.353 nm)	0.953562	ppm	0.002579	0.27	2030.740000	0.953562
S (181.972 nm)	26.549213 o	ppm	0.038569	0.15	10332.083950	26.549213 o
Sb (206.834 nm)	0.992649	ppm	0.001526	0.15	1426.040000	0.992649
Se (196.026 nm)	0.976644	ppm	0.006278	0.64	549.657000	0.976644
Si (288.158 nm)	27.977500 o	ppm	0.166530	0.60	208277.000000	27.977500 o
Sn (189.925 nm)	0.998246	ppm	0.004311	0.43	707.478000	0.998246
Sr (421.552 nm)	1.073228	ppm	0.002947	0.27	231208.628314	1.073228
Th (288.505 nm)	-0.007812 u	ppm	0.000734	9.39	-19.337800	-0.007812 u
Ti (336.122 nm)	0.977458	ppm	0.001664	0.17	133119.000000	0.977458
Tl (190.794 nm)	0.974360	ppm	0.005329	0.55	909.077000	0.974360
U (409.013 nm)	0.022674	ppm	0.003783	16.68	72.982700	0.022674
V (292.401 nm)	1.005710	ppm	0.000758	0.08	31281.400000	1.005710
Zn (206.200 nm)	0.973585	ppm	0.000652	0.07	2271.960000	0.973585
Zr (343.823 nm)	0.975535	ppm	0.000963	0.10	74250.000000	0.975535

Solution Name: 280-191184-A-5-C MSD

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191184-A-5-C MSD	5/14/2024 6:45:14 PM	1:27	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.996977	ppm	0.002619	0.26	2187904.423670	0.996977
Ag (328.068 nm)	0.049124	ppm	0.000438	0.89	1437.350000	0.049124
Al (394.401 nm)	9.929040 o	ppm	0.033218	0.33	131346.000000	9.929040 o
Al H (396.152 nm)	9.893730	ppm	0.024288	0.25	45306.200000	9.893730
As (188.980 nm)	1.002520	ppm	0.003160	0.32	577.099000	1.002520
B (249.678 nm)	2.058790	ppm	0.003602	0.17	15773.500000	2.058790
Ba (493.408 nm)	1.004330	ppm	0.005244	0.52	138357.000000	1.004330
Be (234.861 nm)	0.994603	ppm	0.009675	0.97	99987.700000	0.994603
Bi (223.061 nm)	0.000065 u	ppm	0.000774	> 100.00	4.401210	0.000065 u
Ca (315.887 nm)	74.800243 o	ppm	0.142365	0.19	62690.362079	74.800243 o
Cd (214.439 nm)	0.977945	ppm	0.002940	0.30	24979.100000	0.977945
Co (228.615 nm)	0.957462	ppm	0.002677	0.28	12528.800000	0.957462
Cr (205.560 nm)	0.975613	ppm	0.003787	0.39	6275.520000	0.975613
Cu (324.754 nm)	0.982219	ppm	0.007083	0.72	47224.300000	0.982219
Fe (238.204 nm)	10.141252 o	ppm	0.022722	0.22	32662.543361	10.141252 o
Fe H (259.940 nm)	10.110100	ppm	0.014586	0.14	13797.200000	10.110100
K (766.491 nm)	52.369500	ppm	0.188630	0.36	67319.300000	52.369500
Li (670.783 nm)	0.975811	ppm	0.002776	0.28	30333.800000	0.975811
Mg (279.078 nm)	58.384200 o	ppm	0.159143	0.27	173997.000000	58.384200 o
Mn (257.610 nm)	0.971708	ppm	0.002058	0.21	283932.000000	0.971708
Mo (202.032 nm)	1.012290	ppm	0.003014	0.30	5452.330000	1.012290
Na (589.592 nm)	70.940500 o	ppm	0.199988	0.28	767725.000000	70.940500 o
Na H (589.593 nm)	70.219634	ppm	0.635794	0.91	548675.392993	70.219634
Ni (231.604 nm)	0.949244	ppm	0.004900	0.52	4482.160000	0.949244
P (213.618 nm)	20.452800 o	ppm	0.066020	0.32	25128.600000	20.452800 o
Pb (220.353 nm)	0.952603	ppm	0.005075	0.53	2028.680000	0.952603
S (181.972 nm)	26.715544 o	ppm	0.115712	0.43	10396.629203	26.715544 o
Sb (206.834 nm)	1.002180	ppm	0.003300	0.33	1439.670000	1.002180
Se (196.026 nm)	0.978917	ppm	0.007442	0.76	550.922000	0.978917
Si (288.158 nm)	28.261900 o	ppm	0.174131	0.62	210386.000000	28.261900 o
Sn (189.925 nm)	1.006920	ppm	0.002934	0.29	713.596000	1.006920
Sr (421.552 nm)	1.074117	ppm	0.005833	0.54	231400.054576	1.074117
Th (288.505 nm)	-0.008221 u	ppm	0.001293	15.73	-20.352400	-0.008221 u
Ti (336.122 nm)	0.984372	ppm	0.002426	0.25	134061.000000	0.984372
Tl (190.794 nm)	0.972848	ppm	0.003315	0.34	907.634000	0.972848
U (409.013 nm)	0.020218	ppm	0.004369	21.61	63.699100	0.020218
V (292.401 nm)	1.005790	ppm	0.002589	0.26	31283.600000	1.005790
Zn (206.200 nm)	0.971948	ppm	0.001836	0.19	2268.140000	0.971948
Zr (343.823 nm)	0.983028	ppm	0.003075	0.31	74820.400000	0.983028

Solution Name: 280-191184-A-7-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191184-A-7-A	5/14/2024 6:49:38 PM	1:28	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.003312	ppm	0.000028	0.84	5034.334489	0.003312
Ag (328.068 nm)	0.001150	ppm	0.000180	15.62	-7.569310	0.001150
Al (394.401 nm)	0.009551	ppm	0.000841	8.80	528.442000	0.009551
Al H (396.152 nm)	-0.056931 u	ppm	0.000637	1.12	3.260650	-0.056931 u
As (188.980 nm)	0.005978	ppm	0.001294	21.65	2.642220	0.005978
B (249.678 nm)	0.023003	ppm	0.001138	4.95	197.522000	0.023003
Ba (493.408 nm)	0.026461	ppm	0.000346	1.31	3592.720000	0.026461
Be (234.861 nm)	0.000001 u	ppm	0.000020	> 100.00	2.179650	0.000001 u
Bi (223.061 nm)	-0.000130 u	ppm	0.002383	> 100.00	3.926200	-0.000130 u
Ca (315.887 nm)	29.406988 o	ppm	0.048443	0.16	24637.095972	29.406988 o
Cd (214.439 nm)	0.000224	ppm	0.000094	42.08	2.240750	0.000224
Co (228.615 nm)	-0.000637 u	ppm	0.000250	39.20	-15.065100	-0.000637 u
Cr (205.560 nm)	0.006700	ppm	0.000422	6.30	52.007400	0.006700
Cu (324.754 nm)	0.000246	ppm	0.000151	61.51	618.122000	0.000246
Fe (238.204 nm)	0.008041	ppm	0.000343	4.27	47.002210	0.008041
Fe H (259.940 nm)	-0.018771 u	ppm	0.001143	6.09	15.559500	-0.018771 u
K (766.491 nm)	3.199420	ppm	0.032944	1.03	4141.130000	3.199420
Li (670.783 nm)	0.007729	ppm	0.000547	7.07	645.253000	0.007729
Mg (279.078 nm)	9.523530	ppm	0.036442	0.38	28380.100000	9.523530
Mn (257.610 nm)	0.000159	ppm	0.000023	14.47	86.985300	0.000159
Mo (202.032 nm)	0.013629	ppm	0.000486	3.57	78.676400	0.013629
Na (589.592 nm)	17.057200	ppm	0.018444	0.11	185065.000000	17.057200
Na H (589.593 nm)	16.496385 u	ppm	0.109109	0.66	132699.568323	16.496385 u
Ni (231.604 nm)	-0.000623 u	ppm	0.000414	66.46	-5.254320	-0.000623 u
P (213.618 nm)	0.046657	ppm	0.000816	1.75	49.716500	0.046657
Pb (220.353 nm)	-0.001582 u	ppm	0.000875	55.28	-1.100800	-0.001582 u
S (181.972 nm)	7.937683	ppm	0.056642	0.71	3095.907103	7.937683
Sb (206.834 nm)	-0.000112 u	ppm	0.000469	> 100.00	4.502940	-0.000112 u
Se (196.026 nm)	0.004101	ppm	0.003558	86.76	7.470540	0.004101
Si (288.158 nm)	21.285500 o	ppm	0.048788	0.23	157954.000000	21.285500 o
Sn (189.925 nm)	-0.003380 u	ppm	0.001569	46.41	1.059510	-0.003380 u
Sr (421.552 nm)	0.120176	ppm	0.000366	0.30	25923.270014	0.120176
Th (288.505 nm)	-0.000473 u	ppm	0.000843	> 100.00	24.121700	-0.000473 u
Ti (336.122 nm)	-0.000004 u	ppm	0.000058	> 100.00	-41.353000	-0.000004 u
Tl (190.794 nm)	0.000747 u	ppm	0.001693	> 100.00	-0.787887	0.000747 u
U (409.013 nm)	0.012550	ppm	0.002747	21.89	52.354900	0.012550
V (292.401 nm)	0.031238	ppm	0.000333	1.07	919.190000	0.031238
Zn (206.200 nm)	0.001232	ppm	0.000621	50.37	6.042810	0.001232
Zr (343.823 nm)	0.000519	ppm	0.000100	19.18	39.950100	0.000519

Solution Name: 280-191185-A-2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191185-A-2-A	5/14/2024 6:53:59 PM	1:29	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.003446	ppm	0.000004	0.10	5329.839665	0.003446
Ag (328.068 nm)	0.001345	ppm	0.000110	8.18	14.677000	0.001345
Al (394.401 nm)	0.097818	ppm	0.000576	0.59	1718.210000	0.097818
Al H (396.152 nm)	0.016805 u	ppm	0.003663	21.80	338.960000	0.016805 u
As (188.980 nm)	0.004428	ppm	0.003115	70.35	1.868410	0.004428
B (249.678 nm)	0.033725	ppm	0.000701	2.08	279.559000	0.033725
Ba (493.408 nm)	0.063655	ppm	0.000532	0.84	8705.460000	0.063655
Be (234.861 nm)	-0.000009 u	ppm	0.000021	> 100.00	4.152070	-0.000009 u
Bi (223.061 nm)	0.000405	ppm	0.000475	> 100.00	5.231080	0.000405
Ca (315.887 nm)	81.967444 o	ppm	0.126745	0.15	68698.643094	81.967444 o
Cd (214.439 nm)	0.000229	ppm	0.000055	24.20	2.481630	0.000229
Co (228.615 nm)	0.001814	ppm	0.000513	28.28	17.118700	0.001814
Cr (205.560 nm)	0.012653	ppm	0.000720	5.69	90.314400	0.012653
Cu (324.754 nm)	0.000958	ppm	0.000279	29.13	635.541000	0.000958
Fe (238.204 nm)	0.223345	ppm	0.001103	0.49	739.785801	0.223345
Fe H (259.940 nm)	0.197484 u	ppm	0.005113	2.59	309.804000	0.197484 u
K (766.491 nm)	4.722000	ppm	0.058903	1.25	6097.470000	4.722000
Li (670.783 nm)	0.007131	ppm	0.000689	9.67	638.161000	0.007131
Mg (279.078 nm)	17.495700	ppm	0.070454	0.40	52131.900000	17.495700
Mn (257.610 nm)	0.007343	ppm	0.000044	0.59	2185.860000	0.007343
Mo (202.032 nm)	0.002136	ppm	0.000351	16.42	16.835200	0.002136
Na (589.592 nm)	17.041900	ppm	0.018963	0.11	185169.000000	17.041900
Na H (589.593 nm)	16.382054 u	ppm	0.189618	1.16	131975.192461	16.382054 u
Ni (231.604 nm)	0.015147	ppm	0.000367	2.43	69.228700	0.015147
P (213.618 nm)	0.044402	ppm	0.002263	5.10	47.208300	0.044402
Pb (220.353 nm)	-0.000618 u	ppm	0.000950	> 100.00	0.986138	-0.000618 u
S (181.972 nm)	26.648001 o	ppm	0.108103	0.41	10353.571277	26.648001 o
Sb (206.834 nm)	-0.000710 u	ppm	0.001853	> 100.00	3.743200	-0.000710 u
Se (196.026 nm)	0.001591 u	ppm	0.003759	> 100.00	5.787970	0.001591 u
Si (288.158 nm)	12.795200 o	ppm	0.020505	0.16	95234.000000	12.795200 o
Sn (189.925 nm)	-0.000917 u	ppm	0.001599	> 100.00	2.796920	-0.000917 u
Sr (421.552 nm)	0.414628	ppm	0.003237	0.78	89347.448030	0.414628
Th (288.505 nm)	-0.003939 u	ppm	0.003084	78.29	18.455200	-0.003939 u
Ti (336.122 nm)	0.006155	ppm	0.000152	2.47	940.068000	0.006155
Tl (190.794 nm)	-0.000545 u	ppm	0.002278	> 100.00	-1.981110	-0.000545 u
U (409.013 nm)	0.026004	ppm	0.002688	10.34	103.139000	0.026004
V (292.401 nm)	0.002231	ppm	0.000207	9.27	11.088700	0.002231
Zn (206.200 nm)	0.007852	ppm	0.001131	14.40	21.468000	0.007852
Zr (343.823 nm)	0.000309	ppm	0.000034	10.87	24.224300	0.000309

Solution Name: 280-191042-D-15-C @25

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191042-D-15-C @25	5/14/2024 6:58:21 PM	1:30	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000836	ppm	0.000008	0.96	-403.740188	0.000836
Ag (328.068 nm)	0.000431	ppm	0.000070	16.13	-16.883300	0.000431
Al (394.401 nm)	1.654190	ppm	0.001906	0.12	22200.800000	1.654190
Al H (396.152 nm)	1.567650	ppm	0.002787	0.18	7399.590000	1.567650
As (188.980 nm)	0.012570	ppm	0.003065	24.38	6.406240	0.012570
B (249.678 nm)	0.000612	ppm	0.000147	23.95	26.204300	0.000612
Ba (493.408 nm)	0.029934	ppm	0.000312	1.04	4070.360000	0.029934
Be (234.861 nm)	0.000436	ppm	0.000026	6.04	46.265200	0.000436
Bi (223.061 nm)	-0.000929 u	ppm	0.000558	60.08	1.975430	-0.000929 u
Ca (315.887 nm)	14.195785 o	ppm	0.021585	0.15	11885.510015	14.195785 o
Cd (214.439 nm)	0.000181	ppm	0.000020	10.85	1.465680	0.000181
Co (228.615 nm)	0.013562	ppm	0.000439	3.23	170.414000	0.013562
Cr (205.560 nm)	-0.000261 u	ppm	0.000183	70.14	7.309720	-0.000261 u
Cu (324.754 nm)	0.006712	ppm	0.000055	0.82	932.832000	0.006712
Fe (238.204 nm)	0.082194	ppm	0.000324	0.39	285.603691	0.082194
Fe H (259.940 nm)	0.058355 u	ppm	0.001570	2.69	120.500000	0.058355 u
K (766.491 nm)	0.308105	ppm	0.028932	9.39	426.107000	0.308105
Li (670.783 nm)	0.000153 u	ppm	0.000374	> 100.00	444.279000	0.000153 u
Mg (279.078 nm)	8.712700	ppm	0.023144	0.27	25961.800000	8.712700
Mn (257.610 nm)	1.515070 o	ppm	0.001807	0.12	442680.000000	1.515070 o
Mo (202.032 nm)	0.000213	ppm	0.000143	67.12	6.490610	0.000213
Na (589.592 nm)	111.551000 o	ppm	0.354335	0.32	1194520.000000	111.551000 o
Na H (589.593 nm)	111.725764	ppm	0.579327	0.52	862950.216084	111.725764
Ni (231.604 nm)	0.003641	ppm	0.000307	8.44	14.886100	0.003641
P (213.618 nm)	0.002412	ppm	0.002901	> 100.00	-4.746960	0.002412
Pb (220.353 nm)	0.002201	ppm	0.000941	42.77	6.753540	0.002201
S (181.972 nm)	0.167194	ppm	0.004528	2.71	85.006122	0.167194
Sb (206.834 nm)	-0.001230 u	ppm	0.000596	48.43	2.940970	-0.001230 u
Se (196.026 nm)	-0.004398 u	ppm	0.001328	30.20	2.977920	-0.004398 u
Si (288.158 nm)	0.146296	ppm	0.001536	1.05	1787.440000	0.146296
Sn (189.925 nm)	-0.003929 u	ppm	0.000618	15.72	0.672590	-0.003929 u
Sr (421.552 nm)	0.087103	ppm	0.000706	0.81	18799.425327	0.087103
Th (288.505 nm)	-0.018484 u	ppm	0.001238	6.70	22.288900	-0.018484 u
Ti (336.122 nm)	0.000454	ppm	0.000036	7.94	-20.385600	0.000454
Tl (190.794 nm)	0.000993	ppm	0.000663	66.75	-0.507914	0.000993
U (409.013 nm)	-0.045080 u	ppm	0.004076	9.04	-163.775000	-0.045080 u
V (292.401 nm)	0.000790	ppm	0.000012	1.54	-34.040100	0.000790
Zn (206.200 nm)	0.016871	ppm	0.000173	1.02	42.487200	0.016871
Zr (343.823 nm)	-0.000297 u	ppm	0.000043	14.59	-22.083900	-0.000297 u

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/14/2024 7:02:49 PM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000704	ppm	0.000011	1.51	-693.136420	0.000704
Ag (328.068 nm)	-0.000080 u	ppm	0.000062	78.24	62.535600	-0.000080 u
Al (394.401 nm)	50.378400 o	ppm	0.100854	0.20	663793.000000	50.378400 o
Al H (396.152 nm)	49.808300	ppm	0.056505	0.11	227028.000000	49.808300
As (188.980 nm)	-0.000424 u	ppm	0.002215	> 100.00	-1.436470	-0.000424 u
B (249.678 nm)	-0.002774 u	ppm	0.000269	9.69	0.301693	-0.002774 u
Ba (493.408 nm)	0.000337	ppm	0.000272	80.60	134.180000	0.000337
Be (234.861 nm)	0.000200	ppm	0.000095	47.44	345.285000	0.000200
Bi (223.061 nm)	0.000187 u	ppm	0.001021	> 100.00	4.700310	0.000187 u
Ca (315.887 nm)	-0.014047 u	ppm	0.002768	19.70	-26.623490	-0.014047 u
Cd (214.439 nm)	-0.000324 u	ppm	0.000035	10.85	6.313140	-0.000324 u
Co (228.615 nm)	-0.000299 u	ppm	0.000238	79.62	-10.647500	-0.000299 u
Cr (205.560 nm)	0.000659	ppm	0.000183	27.83	13.231300	0.000659
Cu (324.754 nm)	-0.004728 u	ppm	0.000259	5.48	1365.260000	-0.004728 u
Fe (238.204 nm)	50.833338 o	ppm	0.103796	0.20	163587.412415	50.833338 o
Fe H (259.940 nm)	50.608300	ppm	0.054074	0.11	68900.400000	50.608300
K (766.491 nm)	0.009541 u	ppm	0.014350	> 100.00	42.485700	0.009541 u
Li (670.783 nm)	0.004476	ppm	0.001350	30.16	621.749000	0.004476
Mg (279.078 nm)	0.010197	ppm	0.002250	22.07	-135.954000	0.010197
Mn (257.610 nm)	-0.000694 u	ppm	0.000031	4.51	-162.250000	-0.000694 u
Mo (202.032 nm)	-0.000249 u	ppm	0.000094	37.66	4.003240	-0.000249 u
Na (589.592 nm)	241.492000 o	ppm	0.710375	0.29	2582390.000000	241.492000 o
Na H (589.593 nm)	242.130801	ppm	0.871322	0.36	1862795.453779	242.130801
Ni (231.604 nm)	0.000898	ppm	0.000466	51.91	1.929540	0.000898
P (213.618 nm)	5.012740	ppm	0.013870	0.28	6172.780000	5.012740
Pb (220.353 nm)	-0.002476 u	ppm	0.001589	64.20	-4.502540	-0.002476 u
S (181.972 nm)	5.008765	ppm	0.005532	0.11	1962.581626	5.008765
Sb (206.834 nm)	0.002440	ppm	0.002291	93.86	12.414400	0.002440
Se (196.026 nm)	0.002237 u	ppm	0.005336	> 100.00	0.829864	0.002237 u
Si (288.158 nm)	0.005017	ppm	0.004413	87.95	747.634000	0.005017
Sn (189.925 nm)	0.001016	ppm	0.001145	> 100.00	4.159890	0.001016
Sr (421.552 nm)	0.000135	ppm	0.000112	82.93	66.715850	0.000135
Th (288.505 nm)	4.878290	ppm	0.008107	0.17	10904.700000	4.878290
Ti (336.122 nm)	0.000667	ppm	0.000039	5.92	-30.018300	0.000667
Tl (190.794 nm)	-0.008222 u	ppm	0.002363	28.74	-9.964580	-0.008222 u
U (409.013 nm)	2.502610 Q	ppm	0.005963	0.24	9504.720000 Q	2.502610 Q
V (292.401 nm)	0.000584	ppm	0.000208	35.54	171.304000	0.000584
Zn (206.200 nm)	0.002109	ppm	0.000651	30.86	8.085920	0.002109
Zr (343.823 nm)	0.000122	ppm	0.000069	56.58	75.156900	0.000122

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/14/2024 7:07:20 PM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.461762	ppm	0.000388	0.08	1012160.698278	0.461762
Ag (328.068 nm)	0.495305	ppm	0.001076	0.22	17817.100000	0.495305
Al (394.401 nm)	0.495431	ppm	0.002442	0.49	6915.360000	0.495431
Al H (396.152 nm)	0.477208 u	ppm	0.000466	0.10	2435.070000	0.477208 u
As (188.980 nm)	0.486602	ppm	0.002026	0.42	279.606000	0.486602
B (249.678 nm)	0.497219	ppm	0.001140	0.23	3825.810000	0.497219
Ba (493.408 nm)	0.498817	ppm	0.000073	0.01	68691.100000	0.498817
Be (234.861 nm)	0.498304	ppm	0.003291	0.66	50076.300000	0.498304
Bi (223.061 nm)	0.998445	ppm	0.001387	0.14	2442.190000	0.998445
Ca (315.887 nm)	4.978510	ppm	0.004145	0.08	4158.648496	4.978510
Cd (214.439 nm)	0.506468	ppm	0.001788	0.35	12933.900000	0.506468
Co (228.615 nm)	0.502825	ppm	0.000953	0.19	6575.830000	0.502825
Cr (205.560 nm)	0.497002	ppm	0.001420	0.29	3201.350000	0.497002
Cu (324.754 nm)	0.500465	ppm	0.000512	0.10	24374.600000	0.500465
Fe (238.204 nm)	2.540964	ppm	0.012871	0.51	8202.324763	2.540964
Fe H (259.940 nm)	2.514320 u	ppm	0.003279	0.13	3462.170000	2.514320 u
K (766.491 nm)	49.105200	ppm	0.145255	0.30	63125.000000	49.105200
Li (670.783 nm)	0.498163	ppm	0.000675	0.14	15668.300000	0.498163
Mg (279.078 nm)	19.720300	ppm	0.076954	0.39	58806.100000	19.720300
Mn (257.610 nm)	0.498935	ppm	0.001307	0.26	145808.000000	0.498935
Mo (202.032 nm)	0.502070	ppm	0.001234	0.25	2706.900000	0.502070
Na (589.592 nm)	24.708400	ppm	0.028741	0.12	270207.000000	24.708400
Na H (589.593 nm)	24.076039 u	ppm	0.138924	0.58	192761.960161	24.076039 u
Ni (231.604 nm)	0.505056	ppm	0.001908	0.38	2383.680000	0.505056
P (213.618 nm)	-0.017618 u	ppm	0.003873	21.98	-71.296800	-0.017618 u
Pb (220.353 nm)	0.488094	ppm	0.001745	0.36	1041.070000	0.488094
S (181.972 nm)	-0.037914 u	ppm	0.002127	5.61	11.836800	-0.037914 u
Sb (206.834 nm)	0.502292	ppm	0.004912	0.98	723.768000	0.502292
Se (196.026 nm)	0.490778	ppm	0.004440	0.90	278.422000	0.490778
Si (288.158 nm)	4.954990	ppm	0.038905	0.79	37761.000000	4.954990
Sn (189.925 nm)	0.504077	ppm	0.002757	0.55	358.955000	0.504077
Sr (421.552 nm)	0.493773	ppm	0.000464	0.09	106395.238019	0.493773
Th (288.505 nm)	0.003970	ppm	0.001576	39.70	21.844400	0.003970
Ti (336.122 nm)	0.493483	ppm	0.001052	0.21	67058.600000	0.493483
Tl (190.794 nm)	0.501045	ppm	0.001054	0.21	466.871000	0.501045
U (409.013 nm)	0.002369	ppm	0.001373	57.96	3.306950	0.002369
V (292.401 nm)	0.490136	ppm	0.001211	0.25	15208.200000	0.490136
Zn (206.200 nm)	0.505263	ppm	0.000593	0.12	1180.610000	0.505263
Zr (343.823 nm)	0.494181	ppm	0.001426	0.29	37610.100000	0.494181

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/14/2024 7:11:45 PM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000298	ppm	0.000016	5.51	-1586.814716	0.000298
Ag (328.068 nm)	0.000396	ppm	0.000244	61.46	-18.302200	0.000396
Al (394.401 nm)	-0.004047 u	ppm	0.000923	22.80	329.587000	-0.004047 u
Al H (396.152 nm)	-0.053693 u	ppm	0.001085	2.02	18.001000	-0.053693 u
As (188.980 nm)	0.000118 u	ppm	0.002705	> 100.00	-0.803459	0.000118 u
B (249.678 nm)	0.000007 u	ppm	0.000700	> 100.00	21.576800	0.000007 u
Ba (493.408 nm)	0.000003 u	ppm	0.000111	> 100.00	-43.933600	0.000003 u
Be (234.861 nm)	0.000026	ppm	0.000005	19.83	2.749190	0.000026
Bi (223.061 nm)	-0.000131 u	ppm	0.001259	> 100.00	3.924260	-0.000131 u
Ca (315.887 nm)	0.002926	ppm	0.002545	86.97	-12.394550	0.002926
Cd (214.439 nm)	0.000203	ppm	0.000142	70.13	1.713900	0.000203
Co (228.615 nm)	0.000050 u	ppm	0.000290	> 100.00	-6.101960	0.000050 u
Cr (205.560 nm)	0.000117 u	ppm	0.000224	> 100.00	9.741640	0.000117 u
Cu (324.754 nm)	0.000454	ppm	0.000154	34.01	640.302000	0.000454
Fe (238.204 nm)	0.003785	ppm	0.001239	32.73	33.309283	0.003785
Fe H (259.940 nm)	-0.015721 u	ppm	0.002243	14.27	19.709700	-0.015721 u
K (766.491 nm)	0.001753 u	ppm	0.055529	> 100.00	32.478900	0.001753 u
Li (670.783 nm)	0.007142 S	ppm	0.002577	36.08	614.662000 S	0.007142 S
Mg (279.078 nm)	0.001257	ppm	0.000993	79.04	7.866210	0.001257
Mn (257.610 nm)	0.000046	ppm	0.000007	15.79	53.873700	0.000046
Mo (202.032 nm)	0.000191 u	ppm	0.000431	> 100.00	6.370180	0.000191 u
Na (589.592 nm)	0.015444	ppm	0.000710	4.60	2827.180000	0.015444
Na H (589.593 nm)	-0.548914 u	ppm	0.009828	1.79	1884.932405	-0.548914 u
Ni (231.604 nm)	0.000238 u	ppm	0.000553	> 100.00	-1.186480	0.000238 u
P (213.618 nm)	-0.001392 u	ppm	0.002779	> 100.00	-9.125150	-0.001392 u
Pb (220.353 nm)	0.000147 u	ppm	0.001536	> 100.00	2.583880	0.000147 u
S (181.972 nm)	-0.009417 u	ppm	0.001946	20.66	13.216037	-0.009417 u
Sb (206.834 nm)	0.001366	ppm	0.000957	70.05	6.662060	0.001366
Se (196.026 nm)	-0.004321 u	ppm	0.003849	89.07	2.106910	-0.004321 u
Si (288.158 nm)	-0.007464 u	ppm	0.001854	24.84	653.765000	-0.007464 u
Sn (189.925 nm)	-0.001091 u	ppm	0.001978	> 100.00	2.673990	-0.001091 u
Sr (421.552 nm)	0.000032 u	ppm	0.000059	> 100.00	44.529571	0.000032 u
Th (288.505 nm)	0.001951	ppm	0.002252	> 100.00	30.941600	0.001951
Ti (336.122 nm)	0.000063	ppm	0.000035	56.58	-112.340000	0.000063
Tl (190.794 nm)	0.001925	ppm	0.001241	64.48	0.345092	0.001925
U (409.013 nm)	-0.002099 u	ppm	0.002151	> 100.00	-2.516080	-0.002099 u
V (292.401 nm)	-0.000069 u	ppm	0.000181	> 100.00	-62.208900	-0.000069 u
Zn (206.200 nm)	0.000542 u	ppm	0.000641	> 100.00	4.435040	0.000542 u
Zr (343.823 nm)	0.000143	ppm	0.000112	78.81	11.278700	0.000143

Solution Name: 280-191042-D-16-C @25

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191042-D-16-C @25	5/14/2024 7:15:47 PM	1:31	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001822	ppm	0.000018	0.96	1761.827137	0.001822
Ag (328.068 nm)	0.000253	ppm	0.000167	66.04	-22.681900	0.000253
Al (394.401 nm)	1.456010	ppm	0.005679	0.39	19578.500000	1.456010
Al H (396.152 nm)	1.287670	ppm	0.002760	0.21	6124.890000	1.287670
As (188.980 nm)	0.007567	ppm	0.004138	54.69	3.386770	0.007567
B (249.678 nm)	0.019028	ppm	0.000483	2.54	167.111000	0.019028
Ba (493.408 nm)	0.018499	ppm	0.000370	2.00	2548.860000	0.018499
Be (234.861 nm)	0.000582	ppm	0.000086	14.71	184.264000	0.000582
Bi (223.061 nm)	-0.002024 u	ppm	0.000730	36.08	-0.699629	-0.002024 u
Ca (315.887 nm)	8.414595	ppm	0.005110	0.06	7039.125647	8.414595
Cd (214.439 nm)	0.000086	ppm	0.000044	51.08	6.245410	0.000086
Co (228.615 nm)	0.027203	ppm	0.000154	0.57	348.611000	0.027203
Cr (205.560 nm)	-0.000335 u	ppm	0.000320	95.74	6.833120	-0.000335 u
Cu (324.754 nm)	0.012857	ppm	0.000051	0.39	1255.770000	0.012857
Fe (238.204 nm)	19.454627 o	ppm	0.018471	0.09	62620.226456	19.454627 o
Fe H (259.940 nm)	19.441300	ppm	0.007465	0.04	26493.500000	19.441300
K (766.491 nm)	0.911048	ppm	0.043491	4.77	1200.820000	0.911048
Li (670.783 nm)	0.001679	ppm	0.001316	78.37	590.717000	0.001679
Mg (279.078 nm)	6.350230	ppm	0.022642	0.36	18912.600000	6.350230
Mn (257.610 nm)	5.319920 o	ppm	0.010868	0.20	1554290.000000	5.319920 o
Mo (202.032 nm)	-0.000247 u	ppm	0.000136	55.17	4.015030	-0.000247 u
Na (589.592 nm)	379.164000 o	ppm	1.054300	0.28	4053190.000000	379.164000 o
Na H (589.593 nm)	390.313497	ppm	1.333655	0.34	2999162.626566	390.313497
Ni (231.604 nm)	0.006331	ppm	0.000378	5.97	27.596700	0.006331
P (213.618 nm)	0.000463 u	ppm	0.003008	> 100.00	-7.487520	0.000463 u
Pb (220.353 nm)	0.059207	ppm	0.000507	0.86	128.303000	0.059207
S (181.972 nm)	1.851917	ppm	0.019585	1.06	747.202900	1.851917
Sb (206.834 nm)	-0.001700 u	ppm	0.002325	> 100.00	3.870720	-0.001700 u
Se (196.026 nm)	-0.003429 u	ppm	0.001643	47.91	3.949270	-0.003429 u
Si (288.158 nm)	0.339670	ppm	0.005656	1.67	3217.370000	0.339670
Sn (189.925 nm)	-0.002145 u	ppm	0.001296	60.43	1.931210	-0.002145 u
Sr (421.552 nm)	0.070001	ppm	0.000967	1.38	15115.537842	0.070001
Th (288.505 nm)	-0.048094 u	ppm	0.001368	2.85	47.626200	-0.048094 u
Ti (336.122 nm)	0.000684	ppm	0.000114	16.70	-4.833310	0.000684
Tl (190.794 nm)	0.002090	ppm	0.001341	64.17	0.236215	0.002090
U (409.013 nm)	-0.067598 u	ppm	0.004436	6.56	-231.591000	-0.067598 u
V (292.401 nm)	0.000524	ppm	0.000299	57.08	-41.313200	0.000524
Zn (206.200 nm)	0.030914	ppm	0.000863	2.79	75.210700	0.030914
Zr (343.823 nm)	-0.000333 u	ppm	0.000032	9.73	0.150587	-0.000333 u

Solution Name: 280-191042-D-15-C @10

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191042-D-15-C @10	5/14/2024 7:20:44 PM	1:32	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001386	ppm	0.000002	0.15	803.073115	0.001386
Ag (328.068 nm)	0.000331	ppm	0.000170	51.33	-19.847600	0.000331
Al (394.401 nm)	3.009760 o	ppm	0.006037	0.20	40076.300000	3.009760 o
Al H (396.152 nm)	2.789690	ppm	0.003241	0.12	12963.200000	2.789690
As (188.980 nm)	0.023454	ppm	0.003699	15.77	12.704000	0.023454
B (249.678 nm)	0.000379	ppm	0.000226	59.61	24.420000	0.000379
Ba (493.408 nm)	0.052854	ppm	0.000053	0.10	7220.820000	0.052854
Be (234.861 nm)	0.000790	ppm	0.000022	2.80	83.410600	0.000790
Bi (223.061 nm)	-0.000763 u	ppm	0.000235	30.81	2.379550	-0.000763 u
Ca (315.887 nm)	24.674235 o	ppm	0.035750	0.14	20669.618577	24.674235 o
Cd (214.439 nm)	0.000295	ppm	0.000042	14.09	4.626740	0.000295
Co (228.615 nm)	0.023809	ppm	0.000041	0.17	304.282000	0.023809
Cr (205.560 nm)	-0.000557 u	ppm	0.000306	54.91	5.397020	-0.000557 u
Cu (324.754 nm)	0.011696	ppm	0.000067	0.58	1168.920000	0.011696
Fe (238.204 nm)	0.113489	ppm	0.000687	0.61	386.301943	0.113489
Fe H (259.940 nm)	0.086150 u	ppm	0.001350	1.57	158.319000	0.086150 u
K (766.491 nm)	0.602770	ppm	0.015100	2.51	804.719000	0.602770
Li (670.783 nm)	-0.002534 u	ppm	0.000962	37.97	395.735000	-0.002534 u
Mg (279.078 nm)	15.396000	ppm	0.053473	0.35	45873.000000	15.396000
Mn (257.610 nm)	2.635550 o	ppm	0.005434	0.21	770036.000000	2.635550 o
Mo (202.032 nm)	0.000374	ppm	0.000099	26.58	7.357210	0.000374
Na (589.592 nm)	193.200000 o	ppm	0.637355	0.33	2066890.000000	193.200000 o
Na H (589.593 nm)	198.063209	ppm	0.673055	0.34	1525094.910299	198.063209
Ni (231.604 nm)	0.007092	ppm	0.000195	2.76	31.185900	0.007092
P (213.618 nm)	0.005824	ppm	0.000998	17.14	-0.784029	0.005824
Pb (220.353 nm)	0.004216	ppm	0.000474	11.23	10.895300	0.004216
S (181.972 nm)	0.312500	ppm	0.004043	1.29	143.803762	0.312500
Sb (206.834 nm)	-0.002748 u	ppm	0.000177	6.45	0.761060	-0.002748 u
Se (196.026 nm)	-0.006740 u	ppm	0.000544	8.06	2.353250	-0.006740 u
Si (288.158 nm)	0.270108	ppm	0.000403	0.15	2702.880000	0.270108
Sn (189.925 nm)	-0.002330 u	ppm	0.000149	6.39	1.800340	-0.002330 u
Sr (421.552 nm)	0.154132	ppm	0.000053	0.03	33237.329457	0.154132
Th (288.505 nm)	-0.030429 u	ppm	0.001428	4.69	23.078200	-0.030429 u
Ti (336.122 nm)	0.000981	ppm	0.000074	7.52	79.900200	0.000981
Tl (190.794 nm)	0.000441	ppm	0.000100	22.67	-1.009420	0.000441
U (409.013 nm)	-0.083860 u	ppm	0.001776	2.12	-309.105000	-0.083860 u
V (292.401 nm)	0.001228	ppm	0.000110	8.94	-18.601900	0.001228
Zn (206.200 nm)	0.029071	ppm	0.000326	1.12	70.915400	0.029071
Zr (343.823 nm)	-0.000410 u	ppm	0.000029	7.19	-30.616700	-0.000410 u

Solution Name: 280-191042-D-16-C @10

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191042-D-16-C @10	5/14/2024 7:25:16 PM	1:33	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.003843	ppm	0.000015	0.40	6202.003732	0.003843
Ag (328.068 nm)	0.000249	ppm	0.000177	71.29	-22.423200	0.000249
Al (394.401 nm)	3.066150 o	ppm	0.009571	0.31	40807.700000	3.066150 o
Al H (396.152 nm)	2.740500	ppm	0.006375	0.23	12739.300000	2.740500
As (188.980 nm)	0.013761	ppm	0.003783	27.49	6.847500	0.013761
B (249.678 nm)	0.039912	ppm	0.000507	1.27	326.893000	0.039912
Ba (493.408 nm)	0.038595	ppm	0.000062	0.16	5364.670000	0.038595
Be (234.861 nm)	0.001029	ppm	0.000014	1.39	362.625000	0.001029
Bi (223.061 nm)	-0.000501 u	ppm	0.000433	86.46	3.019240	-0.000501 u
Ca (315.887 nm)	17.307519 o	ppm	0.012286	0.07	14494.083864	17.307519 o
Cd (214.439 nm)	0.000166	ppm	0.000067	40.37	16.250000	0.000166
Co (228.615 nm)	0.055294	ppm	0.000143	0.26	715.584000	0.055294
Cr (205.560 nm)	-0.000270 u	ppm	0.000241	89.31	7.238850	-0.000270 u
Cu (324.754 nm)	0.025809	ppm	0.000235	0.91	1898.520000	0.025809
Fe (238.204 nm)	40.135083 o	ppm	0.044427	0.11	129163.671308	40.135083 o
Fe H (259.940 nm)	39.994600	ppm	0.054274	0.14	54459.000000	39.994600
K (766.491 nm)	2.048170	ppm	0.059047	2.88	2661.890000	2.048170
Li (670.783 nm)	-0.003762 u	ppm	0.000353	9.39	577.898000	-0.003762 u
Mg (279.078 nm)	12.893400	ppm	0.004665	0.04	38395.200000	12.893400
Mn (257.610 nm)	10.544000 o	ppm	0.006242	0.06	3080560.000000	10.544000 o
Mo (202.032 nm)	0.000004 u	ppm	0.000166	> 100.00	5.366650	0.000004 u
Na (589.592 nm)	754.224000 o	ppm	2.191800	0.29	8059880.000000	754.224000 o
Na H (589.593 nm)	808.522584	ppm	2.255473	0.28	6206146.279897	808.522584
Ni (231.604 nm)	0.012280	ppm	0.000387	3.15	55.701000	0.012280
P (213.618 nm)	-0.002449 u	ppm	0.003811	> 100.00	-11.748400	-0.002449 u
Pb (220.353 nm)	0.121539	ppm	0.001037	0.85	260.988000	0.121539
S (181.972 nm)	3.933231	ppm	0.002878	0.07	1566.415587	3.933231
Sb (206.834 nm)	-0.000828 u	ppm	0.000117	14.16	6.828660	-0.000828 u
Se (196.026 nm)	-0.008682 u	ppm	0.004689	54.01	2.198100	-0.008682 u
Si (288.158 nm)	0.735597	ppm	0.012937	1.76	6142.000000	0.735597
Sn (189.925 nm)	-0.002679 u	ppm	0.001671	62.38	1.554300	-0.002679 u
Sr (421.552 nm)	0.146556	ppm	0.000113	0.08	31605.317666	0.146556
Th (288.505 nm)	-0.098556 u	ppm	0.002158	2.19	61.294200	-0.098556 u
Ti (336.122 nm)	0.001480	ppm	0.000014	0.91	127.719000	0.001480
Tl (190.794 nm)	0.003668	ppm	0.001242	33.86	1.433060	0.003668
U (409.013 nm)	-0.138146 u	ppm	0.002614	1.89	-478.581000	-0.138146 u
V (292.401 nm)	0.001187	ppm	0.000149	12.55	-18.516500	0.001187
Zn (206.200 nm)	0.060435	ppm	0.000749	1.24	144.006000	0.060435
Zr (343.823 nm)	-0.000770 u	ppm	0.000049	6.42	-6.571910	-0.000770 u

Solution Name: MB 280-652277/1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
MB 280-652277/1-A	5/14/2024 7:30:12 PM	1:34	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000259	ppm	0.000005	2.10	-1670.902507	0.000259
Ag (328.068 nm)	-0.000034 u	ppm	0.000106	> 100.00	-34.136700	-0.000034 u
Al (394.401 nm)	0.000085 u	ppm	0.000308	> 100.00	384.151000	0.000085 u
Al H (396.152 nm)	-0.049495 u	ppm	0.003574	7.22	37.112800	-0.049495 u
As (188.980 nm)	0.001716	ppm	0.001521	88.66	0.117298	0.001716
B (249.678 nm)	0.000038 u	ppm	0.000177	> 100.00	21.816300	0.000038 u
Ba (493.408 nm)	0.000103	ppm	0.000063	60.62	-29.994500	0.000103
Be (234.861 nm)	-0.000002 u	ppm	0.000021	> 100.00	0.255265	-0.000002 u
Bi (223.061 nm)	-0.001072 u	ppm	0.000246	23.00	1.625850	-0.001072 u
Ca (315.887 nm)	0.018768	ppm	0.002529	13.47	0.885519	0.018768
Cd (214.439 nm)	0.000046 u	ppm	0.000041	89.52	-2.281580	0.000046 u
Co (228.615 nm)	-0.000002 u	ppm	0.000481	> 100.00	-6.773090	-0.000002 u
Cr (205.560 nm)	0.000500	ppm	0.000281	56.21	12.209100	0.000500
Cu (324.754 nm)	0.000539	ppm	0.000064	11.93	644.636000	0.000539
Fe (238.204 nm)	0.056153	ppm	0.001973	3.51	201.810257	0.056153
Fe H (259.940 nm)	0.036409 u	ppm	0.003624	9.95	90.639200	0.036409 u
K (766.491 nm)	-0.000613 u	ppm	0.034255	> 100.00	29.438300	-0.000613 u
Li (670.783 nm)	0.007990	ppm	0.001437	17.99	640.836000	0.007990
Mg (279.078 nm)	0.001174	ppm	0.001081	92.04	7.524950	0.001174
Mn (257.610 nm)	0.000736	ppm	0.000186	25.20	255.654000	0.000736
Mo (202.032 nm)	0.000199	ppm	0.000299	> 100.00	6.412460	0.000199
Na (589.592 nm)	0.142124	ppm	0.016359	11.51	4181.870000	0.142124
Na H (589.593 nm)	-0.323017 u	ppm	0.015881	4.92	3617.964268	-0.323017 u
Ni (231.604 nm)	-0.000267 u	ppm	0.000583	> 100.00	-3.574070	-0.000267 u
P (213.618 nm)	-0.000551 u	ppm	0.001992	> 100.00	-8.094930	-0.000551 u
Pb (220.353 nm)	-0.000770 u	ppm	0.000559	72.61	0.632342	-0.000770 u
S (181.972 nm)	-0.007117 u	ppm	0.004175	58.66	14.118091	-0.007117 u
Sb (206.834 nm)	0.002108	ppm	0.001374	65.18	7.730360	0.002108
Se (196.026 nm)	-0.000837 u	ppm	0.000316	37.72	4.045230	-0.000837 u
Si (288.158 nm)	-0.003743 u	ppm	0.002293	61.27	682.068000	-0.003743 u
Sn (189.925 nm)	-0.000153 u	ppm	0.001579	> 100.00	3.336040	-0.000153 u
Sr (421.552 nm)	0.000042 u	ppm	0.000062	> 100.00	46.598039	0.000042 u
Th (288.505 nm)	0.002874	ppm	0.001858	64.65	32.992500	0.002874
Ti (336.122 nm)	0.000101	ppm	0.000053	51.93	-107.062000	0.000101
Tl (190.794 nm)	0.000107 u	ppm	0.000878	> 100.00	-1.358900	0.000107 u
U (409.013 nm)	0.000388 u	ppm	0.003961	> 100.00	6.887060	0.000388 u
V (292.401 nm)	0.000003 u	ppm	0.000144	> 100.00	-60.011000	0.000003 u
Zn (206.200 nm)	0.001203	ppm	0.000765	63.59	5.973450	0.001203
Zr (343.823 nm)	-0.000085 u	ppm	0.000108	> 100.00	-5.965620	-0.000085 u

Solution Name: LCS 280-652277/2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LCS 280-652277/2-A	5/14/2024 7:34:21 PM	1:35	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.945263	ppm	0.000804	0.09	2074309.338641	0.945263
Ag (328.068 nm)	0.047957	ppm	0.000089	0.19	1414.080000	0.047957
Al (394.401 nm)	9.681840 o	ppm	0.013008	0.13	128072.000000	9.681840 o
Al H (396.152 nm)	9.762890	ppm	0.021368	0.22	44710.600000	9.762890
As (188.980 nm)	0.969396	ppm	0.004698	0.48	557.946000	0.969396
B (249.678 nm)	1.982150	ppm	0.003389	0.17	15187.200000	1.982150
Ba (493.408 nm)	0.969826	ppm	0.002411	0.25	133610.000000	0.969826
Be (234.861 nm)	0.985276	ppm	0.002395	0.24	99047.300000	0.985276
Bi (223.061 nm)	-0.000461 u	ppm	0.000749	> 100.00	3.117060	-0.000461 u
Ca (315.887 nm)	48.459861 o	ppm	0.057408	0.12	40609.161018	48.459861 o
Cd (214.439 nm)	0.978651	ppm	0.002658	0.27	24996.800000	0.978651
Co (228.615 nm)	0.951101	ppm	0.002121	0.22	12445.300000	0.951101
Cr (205.560 nm)	0.952263	ppm	0.001818	0.19	6125.470000	0.952263
Cu (324.754 nm)	0.956444	ppm	0.001326	0.14	46009.900000	0.956444
Fe (238.204 nm)	9.938411 o	ppm	0.013582	0.14	32009.871449	9.938411 o
Fe H (259.940 nm)	9.892320	ppm	0.012973	0.13	13500.900000	9.892320
K (766.491 nm)	48.157100	ppm	0.038907	0.08	61906.800000	48.157100
Li (670.783 nm)	0.948943	ppm	0.002624	0.28	29496.800000	0.948943
Mg (279.078 nm)	48.858500 o	ppm	0.127252	0.26	145614.000000	48.858500 o
Mn (257.610 nm)	0.966536	ppm	0.001962	0.20	282421.000000	0.966536
Mo (202.032 nm)	0.997911	ppm	0.002296	0.23	5374.940000	0.997911
Na (589.592 nm)	47.746000	ppm	0.109794	0.23	519699.000000	47.746000
Na H (589.593 nm)	47.679017 u	ppm	0.418201	0.88	375686.017408	47.679017 u
Ni (231.604 nm)	0.942450	ppm	0.002370	0.25	4450.070000	0.942450
P (213.618 nm)	20.218900 o	ppm	0.026508	0.13	24842.100000	20.218900 o
Pb (220.353 nm)	0.932246	ppm	0.000697	0.07	1985.330000	0.932246
S (181.972 nm)	19.372145 o	ppm	0.050311	0.26	7547.931085	19.372145 o
Sb (206.834 nm)	0.981429	ppm	0.001780	0.18	1409.890000	0.981429
Se (196.026 nm)	0.954758	ppm	0.003587	0.38	536.877000	0.954758
Si (288.158 nm)	9.336850	ppm	0.038632	0.41	70561.600000	9.336850
Sn (189.925 nm)	0.990018	ppm	0.007556	0.76	701.674000	0.990018
Sr (421.552 nm)	0.961579	ppm	0.001921	0.20	207159.654263	0.961579
Th (288.505 nm)	-0.005382 u	ppm	0.000789	14.66	-12.059600	-0.005382 u
Ti (336.122 nm)	0.970989	ppm	0.001710	0.18	132168.000000	0.970989
Tl (190.794 nm)	0.975076	ppm	0.006489	0.67	909.768000	0.975076
U (409.013 nm)	0.010517	ppm	0.000560	5.32	27.433900	0.010517
V (292.401 nm)	0.960771	ppm	0.002179	0.23	29874.700000	0.960771
Zn (206.200 nm)	0.971303	ppm	0.002035	0.21	2266.640000	0.971303
Zr (343.823 nm)	0.970532	ppm	0.001457	0.15	73869.200000	0.970532

Solution Name: 550-217871-D-1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217871-D-1-A	5/14/2024 7:38:46 PM	1:36	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.048335	ppm	0.000158	0.33	103930.747031	0.048335
Ag (328.068 nm)	0.001804	ppm	0.000179	9.94	32.305400	0.001804
Al (394.401 nm)	0.024253	ppm	0.000708	2.92	742.035000	0.024253
Al H (396.152 nm)	-0.059824 u	ppm	0.002219	3.71	-9.912370	-0.059824 u
As (188.980 nm)	0.005104	ppm	0.002670	52.31	2.163980	0.005104
B (249.678 nm)	0.246494	ppm	0.001629	0.66	1907.480000	0.246494
Ba (493.408 nm)	0.018683	ppm	0.000221	1.18	2563.460000	0.018683
Be (234.861 nm)	-0.000027 u	ppm	0.000030	> 100.00	104.918000	-0.000027 u
Bi (223.061 nm)	0.000084 u	ppm	0.001440	> 100.00	4.448310	0.000084 u
Ca (315.887 nm)	82.417330 o	ppm	0.028944	0.04	69075.783506	82.417330 o
Cd (214.439 nm)	0.000182	ppm	0.000091	50.01	6.610890	0.000182
Co (228.615 nm)	-0.000698 u	ppm	0.000184	26.33	-15.872800	-0.000698 u
Cr (205.560 nm)	-0.000053 u	ppm	0.000358	> 100.00	8.638640	-0.000053 u
Cu (324.754 nm)	0.000251	ppm	0.000161	64.11	623.492000	0.000251
Fe (238.204 nm)	15.353036 o	ppm	0.014557	0.09	49422.548404	15.353036 o
Fe H (259.940 nm)	15.329200	ppm	0.013718	0.09	20898.500000	15.329200
K (766.491 nm)	4.444550	ppm	0.011470	0.26	5740.990000	4.444550
Li (670.783 nm)	0.044510	ppm	0.002216	4.98	2015.050000	0.044510
Mg (279.078 nm)	47.346800 o	ppm	0.089210	0.19	141057.000000	47.346800 o
Mn (257.610 nm)	0.283810	ppm	0.000690	0.24	82957.600000	0.283810
Mo (202.032 nm)	0.002052	ppm	0.000516	25.12	16.386300	0.002052
Na (589.592 nm)	635.328000 o	ppm	0.378623	0.06	6789640.000000	635.328000 o
Na H (589.593 nm)	657.655378	ppm	5.800719	0.88	5049186.146359	657.655378
Ni (231.604 nm)	-0.001814 u	ppm	0.000189	10.39	-10.880100	-0.001814 u
P (213.618 nm)	-0.000640 u	ppm	0.003831	> 100.00	-8.229300	-0.000640 u
Pb (220.353 nm)	-0.000517 u	ppm	0.001817	> 100.00	1.176110	-0.000517 u
S (181.972 nm)	105.328291 o	ppm	0.486160	0.46	40872.294649	105.328291 o
Sb (206.834 nm)	-0.000855 u	ppm	0.001809	> 100.00	4.730930	-0.000855 u
Se (196.026 nm)	-0.001266 u	ppm	0.006972	> 100.00	2.569120	-0.001266 u
Si (288.158 nm)	2.340890	ppm	0.003802	0.16	18002.500000	2.340890
Sn (189.925 nm)	-0.000521 u	ppm	0.000711	> 100.00	3.076110	-0.000521 u
Sr (421.552 nm)	1.018388	ppm	0.005515	0.54	219396.137951	1.018388
Th (288.505 nm)	-0.004741 u	ppm	0.002068	43.63	23.401400	-0.004741 u
Ti (336.122 nm)	-0.000289 u	ppm	0.000004	1.27	64.248900	-0.000289 u
Tl (190.794 nm)	-0.000112 u	ppm	0.002467	> 100.00	-1.810180	-0.000112 u
U (409.013 nm)	-0.002563 u	ppm	0.001795	70.04	8.776040	-0.002563 u
V (292.401 nm)	0.001266	ppm	0.000072	5.67	-15.123200	0.001266
Zn (206.200 nm)	0.002608	ppm	0.000564	21.62	9.248290	0.002608
Zr (343.823 nm)	0.000477	ppm	0.000096	20.17	56.456600	0.000477

Solution Name: 550-217871-D-1-A SD@5

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217871-D-1-A SD@5	5/14/2024 7:43:12 PM	1:37	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.008217	ppm	0.000039	0.47	15809.875300	0.008217
Ag (328.068 nm)	0.000743	ppm	0.000306	41.13	-5.904310	0.000743
Al (394.401 nm)	0.006761	ppm	0.001257	18.59	482.104000	0.006761
Al H (396.152 nm)	-0.054290 u	ppm	0.001773	3.27	15.285200	-0.054290 u
As (188.980 nm)	0.003291	ppm	0.001140	34.64	1.044080	0.003291
B (249.678 nm)	0.048164	ppm	0.000381	0.79	390.030000	0.048164
Ba (493.408 nm)	0.003815	ppm	0.000031	0.82	488.265000	0.003815
Be (234.861 nm)	0.000016 u	ppm	0.000049	> 100.00	23.763600	0.000016 u
Bi (223.061 nm)	-0.001740 u	ppm	0.000615	35.32	-0.005853	-0.001740 u
Ca (315.887 nm)	16.698718 o	ppm	0.018293	0.11	13983.724275	16.698718 o
Cd (214.439 nm)	0.000132	ppm	0.000052	39.27	1.005340	0.000132
Co (228.615 nm)	-0.000299 u	ppm	0.000189	63.29	-10.655200	-0.000299 u
Cr (205.560 nm)	-0.000049 u	ppm	0.000243	> 100.00	8.678460	-0.000049 u
Cu (324.754 nm)	0.000697	ppm	0.000165	23.69	648.883000	0.000697
Fe (238.204 nm)	3.161743	ppm	0.008380	0.27	10194.659588	3.161743
Fe H (259.940 nm)	3.130020 u	ppm	0.005111	0.16	4299.910000	3.130020 u
K (766.491 nm)	0.813848	ppm	0.060517	7.44	1075.930000	0.813848
Li (670.783 nm)	0.016209	ppm	0.000962	5.94	943.605000	0.016209
Mg (279.078 nm)	9.463240	ppm	0.053800	0.57	28196.500000	9.463240
Mn (257.610 nm)	0.058160	ppm	0.000282	0.48	17032.300000	0.058160
Mo (202.032 nm)	-0.000008 u	ppm	0.000159	> 100.00	5.299500	-0.000008 u
Na (589.592 nm)	129.712000 o	ppm	0.340751	0.26	1388330.000000	129.712000 o
Na H (589.593 nm)	129.625128	ppm	0.503531	0.39	1000097.275258	129.625128
Ni (231.604 nm)	-0.000902 u	ppm	0.001314	> 100.00	-6.572710	-0.000902 u
P (213.618 nm)	0.000172 u	ppm	0.006608	> 100.00	-7.195310	0.000172 u
Pb (220.353 nm)	-0.001284 u	ppm	0.000373	29.07	-0.465261	-0.001284 u
S (181.972 nm)	20.502277 o	ppm	0.143252	0.70	7969.445456	20.502277 o
Sb (206.834 nm)	-0.001903 u	ppm	0.000939	49.33	2.233250	-0.001903 u
Se (196.026 nm)	-0.001057 u	ppm	0.001706	> 100.00	3.670680	-0.001057 u
Si (288.158 nm)	0.444560	ppm	0.000843	0.19	3991.560000	0.444560
Sn (189.925 nm)	-0.003165 u	ppm	0.002554	80.68	1.211190	-0.003165 u
Sr (421.552 nm)	0.203727	ppm	0.001571	0.77	43919.964826	0.203727
Th (288.505 nm)	0.000466 u	ppm	0.001772	> 100.00	29.129400	0.000466 u
Ti (336.122 nm)	-0.000077 u	ppm	0.000026	34.20	-85.944400	-0.000077 u
Tl (190.794 nm)	-0.003309 u	ppm	0.002016	60.92	-4.606800	-0.003309 u
U (409.013 nm)	0.003363	ppm	0.001045	31.06	20.573400	0.003363
V (292.401 nm)	0.000276	ppm	0.000107	38.65	-50.753100	0.000276
Zn (206.200 nm)	0.000752	ppm	0.000523	69.57	4.924310	0.000752
Zr (343.823 nm)	-0.000029 u	ppm	0.000023	79.05	2.301610	-0.000029 u

Solution Name: 550-217871-D-1-B MS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217871-D-1-B MS	5/14/2024 7:47:35 PM	1:38	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.258996 o	ppm	0.004564	0.36	2763446.693627	1.258996 o
Ag (328.068 nm)	0.051727	ppm	0.000326	0.63	1541.160000	0.051727
Al (394.401 nm)	10.601100 o	ppm	0.034262	0.32	140232.000000	10.601100 o
Al H (396.152 nm)	10.029200	ppm	0.018606	0.19	45923.100000	10.029200
As (188.980 nm)	1.026530	ppm	0.003325	0.32	590.972000	1.026530
B (249.678 nm)	2.310630	ppm	0.006637	0.29	17700.400000	2.310630
Ba (493.408 nm)	1.009840	ppm	0.003085	0.31	139158.000000	1.009840
Be (234.861 nm)	1.012600	ppm	0.007760	0.77	101902.000000	1.012600
Bi (223.061 nm)	-0.001128 u	ppm	0.000428	37.94	1.488740	-0.001128 u
Ca (315.887 nm)	132.744190 o	ppm	0.161240	0.12	111264.902082	132.744190 o
Cd (214.439 nm)	0.973051	ppm	0.002725	0.28	24860.000000	0.973051
Co (228.615 nm)	0.975542	ppm	0.003464	0.36	12765.000000	0.975542
Cr (205.560 nm)	0.964739	ppm	0.002750	0.29	6205.620000	0.964739
Cu (324.754 nm)	1.033100	ppm	0.004596	0.44	49641.600000	1.033100
Fe (238.204 nm)	25.505071 o	ppm	0.047249	0.19	82098.613912	25.505071 o
Fe H (259.940 nm)	25.613700	ppm	0.042059	0.16	34891.900000	25.613700
K (766.491 nm)	56.619100	ppm	0.102938	0.18	72779.600000	56.619100
Li (670.783 nm)	1.047410	ppm	0.002995	0.29	32776.500000	1.047410
Mg (279.078 nm)	97.914400 o	ppm	0.242632	0.25	291763.000000	97.914400 o
Mn (257.610 nm)	1.261690 o	ppm	0.002588	0.21	368651.000000	1.261690 o
Mo (202.032 nm)	1.008400	ppm	0.002001	0.20	5431.380000	1.008400
Na (589.592 nm)	694.358000 o	ppm	1.250240	0.18	7427370.000000	694.358000 o
Na H (589.593 nm)	725.241028	ppm	6.871157	0.95	5571512.299656	725.241028
Ni (231.604 nm)	0.955750	ppm	0.004203	0.44	4512.850000	0.955750
P (213.618 nm)	21.502800 o	ppm	0.091972	0.43	26420.600000	21.502800 o
Pb (220.353 nm)	0.936199	ppm	0.005083	0.54	1993.660000	0.936199
S (181.972 nm)	127.914304 bo	ppm	0.692610	0.54	49650.497358	127.914304 bo
Sb (206.834 nm)	1.014100	ppm	0.006467	0.64	1458.010000	1.014100
Se (196.026 nm)	1.011710	ppm	0.008286	0.82	567.386000	1.011710
Si (288.158 nm)	11.903600 o	ppm	0.057301	0.48	89527.200000	11.903600 o
Sn (189.925 nm)	0.992769	ppm	0.006015	0.61	703.615000	0.992769
Sr (421.552 nm)	2.033275 o	ppm	0.004827	0.24	438000.880213	2.033275 o
Th (288.505 nm)	-0.009604 u	ppm	0.000523	5.44	-14.872400	-0.009604 u
Ti (336.122 nm)	0.987199	ppm	0.002650	0.27	134603.000000	0.987199
Tl (190.794 nm)	0.947591	ppm	0.006017	0.64	883.773000	0.947591
U (409.013 nm)	-0.004646 u	ppm	0.002324	50.01	-16.655000	-0.004646 u
V (292.401 nm)	0.985092	ppm	0.002699	0.27	30640.800000	0.985092
Zn (206.200 nm)	0.969586	ppm	0.001416	0.15	2262.640000	0.969586
Zr (343.823 nm)	0.985607	ppm	0.003089	0.31	75036.400000	0.985607

Solution Name: 550-217871-D-1-C MSD

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217871-D-1-C MSD	5/14/2024 7:52:02 PM	1:39	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.239041 o	ppm	0.001712	0.14	2719613.742451	1.239041 o
Ag (328.068 nm)	0.051005	ppm	0.000247	0.48	1520.090000	0.051005
Al (394.401 nm)	10.417200 o	ppm	0.018911	0.18	137805.000000	10.417200 o
Al H (396.152 nm)	9.911580	ppm	0.014580	0.15	45387.500000	9.911580
As (188.980 nm)	1.005860	ppm	0.003067	0.30	579.062000	1.005860
B (249.678 nm)	2.276910	ppm	0.005036	0.22	17442.400000	2.276910
Ba (493.408 nm)	0.995765	ppm	0.001462	0.15	137217.000000	0.995765
Be (234.861 nm)	0.996447	ppm	0.005687	0.57	100278.000000	0.996447
Bi (223.061 nm)	-0.001169 u	ppm	0.000325	27.76	1.388120	-0.001169 u
Ca (315.887 nm)	131.648471 o	ppm	0.201121	0.15	110346.358422	131.648471 o
Cd (214.439 nm)	0.962334	ppm	0.004949	0.51	24586.200000	0.962334
Co (228.615 nm)	0.962651	ppm	0.002624	0.27	12596.400000	0.962651
Cr (205.560 nm)	0.954829	ppm	0.002533	0.27	6141.950000	0.954829
Cu (324.754 nm)	1.011010	ppm	0.003593	0.36	48593.900000	1.011010
Fe (238.204 nm)	25.341902 o	ppm	0.050035	0.20	81573.470822	25.341902 o
Fe H (259.940 nm)	25.460200	ppm	0.040311	0.16	34683.100000	25.460200
K (766.491 nm)	55.941400	ppm	0.127933	0.23	71908.800000	55.941400
Li (670.783 nm)	1.035280	ppm	0.002758	0.27	32402.400000	1.035280
Mg (279.078 nm)	97.073100 o	ppm	0.538970	0.56	289255.000000	97.073100 o
Mn (257.610 nm)	1.248640 o	ppm	0.005019	0.40	364838.000000	1.248640 o
Mo (202.032 nm)	1.000660	ppm	0.004838	0.48	5389.720000	1.000660
Na (589.592 nm)	687.164000 o	ppm	1.590910	0.23	7350420.000000	687.164000 o
Na H (589.593 nm)	719.042765	ppm	4.719220	0.66	5523926.116127	719.042765
Ni (231.604 nm)	0.946774	ppm	0.006166	0.65	4470.440000	0.946774
P (213.618 nm)	21.170100 o	ppm	0.104594	0.49	26011.900000	21.170100 o
Pb (220.353 nm)	0.923257	ppm	0.003318	0.36	1966.110000	0.923257
S (181.972 nm)	126.288361 bo	ppm	0.405593	0.32	49019.576354	126.288361 bo
Sb (206.834 nm)	1.005780	ppm	0.003657	0.36	1446.090000	1.005780
Se (196.026 nm)	0.995287	ppm	0.007163	0.72	558.233000	0.995287
Si (288.158 nm)	11.744300 o	ppm	0.011824	0.10	88340.400000	11.744300 o
Sn (189.925 nm)	0.981193	ppm	0.003969	0.40	695.450000	0.981193
Sr (421.552 nm)	2.010919 o	ppm	0.003077	0.15	433185.396292	2.010919 o
Th (288.505 nm)	-0.009670 u	ppm	0.000566	5.85	-14.618400	-0.009670 u
Ti (336.122 nm)	0.978122	ppm	0.003071	0.31	133365.000000	0.978122
Tl (190.794 nm)	0.934700	ppm	0.008079	0.86	871.710000	0.934700
U (409.013 nm)	-0.006472 u	ppm	0.000820	12.68	-23.399400	-0.006472 u
V (292.401 nm)	0.972123	ppm	0.003868	0.40	30236.100000	0.972123
Zn (206.200 nm)	0.961120	ppm	0.007098	0.74	2242.910000	0.961120
Zr (343.823 nm)	0.976773	ppm	0.002901	0.30	74363.900000	0.976773

Solution Name: 550-217871-D-1-A PDS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217871-D-1-A PDS	5/14/2024 7:56:29 PM	1:40	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.164838	ppm	0.000524	0.32	359847.645103	0.164838
Ag (328.068 nm)	0.050071	ppm	0.000288	0.57	1767.830000	0.050071
Al (394.401 nm)	1.054910	ppm	0.004129	0.39	14390.200000	1.054910
Al H (396.152 nm)	0.912635	ppm	0.005790	0.63	4417.470000	0.912635
As (188.980 nm)	0.205405	ppm	0.002033	0.99	117.654000	0.205405
B (249.678 nm)	0.345158	ppm	0.001826	0.53	2662.370000	0.345158
Ba (493.408 nm)	0.114189	ppm	0.000298	0.26	15707.400000	0.114189
Be (234.861 nm)	0.049115	ppm	0.000285	0.58	5049.280000	0.049115
Bi (223.061 nm)	-0.000889 u	ppm	0.001274	> 100.00	2.071660	-0.000889 u
Ca (315.887 nm)	99.004644 o	ppm	0.306648	0.31	82980.965312	99.004644 o
Cd (214.439 nm)	0.048833	ppm	0.000125	0.26	1249.450000	0.048833
Co (228.615 nm)	0.048111	ppm	0.000135	0.28	623.053000	0.048111
Cr (205.560 nm)	0.047796	ppm	0.000434	0.91	315.986000	0.047796
Cu (324.754 nm)	0.051110	ppm	0.000307	0.60	3044.760000	0.051110
Fe (238.204 nm)	15.834658 o	ppm	0.060059	0.38	50972.758068	15.834658 o
Fe H (259.940 nm)	15.847900	ppm	0.020694	0.13	21604.300000	15.847900
K (766.491 nm)	24.826400	ppm	0.056143	0.23	31929.500000	24.826400
Li (670.783 nm)	0.141551	ppm	0.002400	1.70	4992.410000	0.141551
Mg (279.078 nm)	65.357900 o	ppm	0.237747	0.36	194726.000000	65.357900 o
Mn (257.610 nm)	0.322328	ppm	0.000869	0.27	94210.700000	0.322328
Mo (202.032 nm)	0.051531	ppm	0.000291	0.57	282.620000	0.051531
Na (589.592 nm)	635.230000 o	ppm	1.076520	0.17	6789270.000000	635.230000 o
Na H (589.593 nm)	658.979374	ppm	4.631307	0.70	5059729.429412	658.979374
Ni (231.604 nm)	0.046093	ppm	0.000904	1.96	215.581000	0.046093
P (213.618 nm)	2.095960	ppm	0.010096	0.48	2572.690000	2.095960
Pb (220.353 nm)	0.089522	ppm	0.002829	3.16	193.640000	0.089522
S (181.972 nm)	103.794648 o	ppm	0.479247	0.46	40279.219904	103.794648 o
Sb (206.834 nm)	0.097341	ppm	0.002665	2.74	145.460000	0.097341
Se (196.026 nm)	0.198338	ppm	0.003173	1.60	114.008000	0.198338
Si (288.158 nm)	7.092990	ppm	0.021646	0.31	53191.100000	7.092990
Sn (189.925 nm)	0.097575	ppm	0.001519	1.56	72.260400	0.097575
Sr (421.552 nm)	1.043884	ppm	0.001341	0.13	224887.909149	1.043884
Th (288.505 nm)	0.184966	ppm	0.001836	0.99	448.449000	0.184966
Ti (336.122 nm)	0.048194	ppm	0.000049	0.10	6708.300000	0.048194
Tl (190.794 nm)	0.184116	ppm	0.002116	1.15	170.657000	0.184116
U (409.013 nm)	0.497772	ppm	0.005672	1.14	1888.030000	0.497772
V (292.401 nm)	0.049602	ppm	0.000364	0.73	1484.110000	0.049602
Zn (206.200 nm)	0.196911	ppm	0.000539	0.27	462.042000	0.196911
Zr (343.823 nm)	0.049531	ppm	0.000238	0.48	3789.990000	0.049531

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/14/2024 8:00:55 PM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000757	ppm	0.000017	2.25	-576.557811	0.000757
Ag (328.068 nm)	-0.000220 u	ppm	0.000104	47.11	56.962400	-0.000220 u
Al (394.401 nm)	50.207200 o	ppm	0.097948	0.20	661539.000000	50.207200 o
Al H (396.152 nm)	49.579900	ppm	0.089479	0.18	225988.000000	49.579900
As (188.980 nm)	0.001153 u	ppm	0.005347	> 100.00	-0.526156	0.001153 u
B (249.678 nm)	-0.001688 u	ppm	0.000205	12.15	8.605240	-0.001688 u
Ba (493.408 nm)	0.000181 u	ppm	0.000173	95.52	112.230000	0.000181 u
Be (234.861 nm)	0.000243	ppm	0.000078	32.17	348.478000	0.000243
Bi (223.061 nm)	0.000684	ppm	0.000561	82.10	5.912910	0.000684
Ca (315.887 nm)	-0.017234 u	ppm	0.003648	21.17	-29.295003	-0.017234 u
Cd (214.439 nm)	-0.000264 u	ppm	0.000097	36.85	7.805370	-0.000264 u
Co (228.615 nm)	-0.000405 u	ppm	0.000189	46.66	-12.034300	-0.000405 u
Cr (205.560 nm)	0.000502	ppm	0.000118	23.60	12.218800	0.000502
Cu (324.754 nm)	-0.004445 u	ppm	0.000203	4.56	1374.350000	-0.004445 u
Fe (238.204 nm)	50.742004 o	ppm	0.131584	0.26	163293.527346	50.742004 o
Fe H (259.940 nm)	50.489000	ppm	0.116659	0.23	68738.100000	50.489000
K (766.491 nm)	0.044369 u	ppm	0.052451	> 100.00	87.235600	0.044369 u
Li (670.783 nm)	0.008962	ppm	0.002405	26.84	759.207000	0.008962
Mg (279.078 nm)	0.011862	ppm	0.000728	6.14	-130.097000	0.011862
Mn (257.610 nm)	-0.000746 u	ppm	0.000015	2.04	-177.355000	-0.000746 u
Mo (202.032 nm)	-0.000058 u	ppm	0.000318	> 100.00	5.031440	-0.000058 u
Na (589.592 nm)	239.903000 o	ppm	0.517809	0.22	2565410.000000	239.903000 o
Na H (589.593 nm)	241.473226	ppm	1.542195	0.64	1857753.286695	241.473226
Ni (231.604 nm)	0.000666	ppm	0.000415	62.36	0.834703	0.000666
P (213.618 nm)	4.995560	ppm	0.016184	0.32	6151.510000	4.995560
Pb (220.353 nm)	-0.002775 u	ppm	0.002066	74.44	-5.142260	-0.002775 u
S (181.972 nm)	5.031153	ppm	0.016341	0.32	1971.260216	5.031153
Sb (206.834 nm)	0.000708 u	ppm	0.002216	> 100.00	9.915310	0.000708 u
Se (196.026 nm)	0.005208	ppm	0.002952	56.69	2.503790	0.005208
Si (288.158 nm)	0.008662	ppm	0.004051	46.77	771.725000	0.008662
Sn (189.925 nm)	-0.000982 u	ppm	0.001896	> 100.00	2.751070	-0.000982 u
Sr (421.552 nm)	0.000217	ppm	0.000040	18.39	84.292898	0.000217
Th (288.505 nm)	4.844370	ppm	0.013180	0.27	10829.000000	4.844370
Ti (336.122 nm)	0.000703	ppm	0.000046	6.54	-25.078800	0.000703
Tl (190.794 nm)	-0.007395 u	ppm	0.002167	29.31	-9.186950	-0.007395 u
U (409.013 nm)	2.486530 Q	ppm	0.005763	0.23	9443.930000 Q	2.486530 Q
V (292.401 nm)	0.000669	ppm	0.000100	14.99	173.134000	0.000669
Zn (206.200 nm)	0.002352	ppm	0.000733	31.17	8.651240	0.002352
Zr (343.823 nm)	-0.000313 u	ppm	0.000073	23.34	41.784500	-0.000313 u

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/14/2024 8:05:25 PM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.458492	ppm	0.000782	0.17	1004977.691009	0.458492
Ag (328.068 nm)	0.492495	ppm	0.000635	0.13	17715.700000	0.492495
Al (394.401 nm)	0.488213	ppm	0.001848	0.38	6820.850000	0.488213
Al H (396.152 nm)	0.474490 u	ppm	0.002308	0.49	2422.690000	0.474490 u
As (188.980 nm)	0.476680	ppm	0.002914	0.61	273.887000	0.476680
B (249.678 nm)	0.494645	ppm	0.000937	0.19	3806.120000	0.494645
Ba (493.408 nm)	0.495674	ppm	0.000488	0.10	68257.900000	0.495674
Be (234.861 nm)	0.495945	ppm	0.001592	0.32	49839.200000	0.495945
Bi (223.061 nm)	0.994081	ppm	0.001154	0.12	2431.530000	0.994081
Ca (315.887 nm)	4.930170	ppm	0.018132	0.37	4118.124377	4.930170
Cd (214.439 nm)	0.506292	ppm	0.002289	0.45	12929.400000	0.506292
Co (228.615 nm)	0.500473	ppm	0.000217	0.04	6545.050000	0.500473
Cr (205.560 nm)	0.494874	ppm	0.001770	0.36	3187.670000	0.494874
Cu (324.754 nm)	0.496611	ppm	0.001140	0.23	24191.600000	0.496611
Fe (238.204 nm)	2.522156	ppm	0.003716	0.15	8141.805638	2.522156
Fe H (259.940 nm)	2.496860 u	ppm	0.004428	0.18	3438.410000	2.496860 u
K (766.491 nm)	48.851700	ppm	0.100898	0.21	62799.300000	48.851700
Li (670.783 nm)	0.492864	ppm	0.001111	0.23	15506.000000	0.492864
Mg (279.078 nm)	19.673500	ppm	0.091423	0.46	58666.400000	19.673500
Mn (257.610 nm)	0.497349	ppm	0.001514	0.30	145344.000000	0.497349
Mo (202.032 nm)	0.502323	ppm	0.001340	0.27	2708.260000	0.502323
Na (589.592 nm)	24.613400	ppm	0.055129	0.22	269174.000000	24.613400
Na H (589.593 nm)	24.155665 u	ppm	0.179724	0.74	193362.353211	24.155665 u
Ni (231.604 nm)	0.502843	ppm	0.001669	0.33	2373.230000	0.502843
P (213.618 nm)	-0.018159 u	ppm	0.001230	6.77	-71.756900	-0.018159 u
Pb (220.353 nm)	0.481339	ppm	0.002184	0.45	1026.680000	0.481339
S (181.972 nm)	-0.036748 u	ppm	0.003166	8.62	12.225729	-0.036748 u
Sb (206.834 nm)	0.496004	ppm	0.002289	0.46	714.748000	0.496004
Se (196.026 nm)	0.484495	ppm	0.003319	0.69	274.918000	0.484495
Si (288.158 nm)	4.886140	ppm	0.060177	1.23	37250.500000	4.886140
Sn (189.925 nm)	0.502113	ppm	0.004289	0.85	357.569000	0.502113
Sr (421.552 nm)	0.492002	ppm	0.000550	0.11	106013.704840	0.492002
Th (288.505 nm)	0.004853	ppm	0.001115	22.97	23.961900	0.004853
Ti (336.122 nm)	0.491500	ppm	0.001077	0.22	66788.700000	0.491500
Tl (190.794 nm)	0.501600	ppm	0.003409	0.68	467.391000	0.501600
U (409.013 nm)	-0.002164 u	ppm	0.002543	> 100.00	-13.654400	-0.002164 u
V (292.401 nm)	0.486726	ppm	0.000332	0.07	15101.300000	0.486726
Zn (206.200 nm)	0.503183	ppm	0.003019	0.60	1175.760000	0.503183
Zr (343.823 nm)	0.492022	ppm	0.001069	0.22	37445.800000	0.492022

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/14/2024 8:09:53 PM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000262	ppm	0.000008	2.97	-1665.113218	0.000262
Ag (328.068 nm)	0.000302	ppm	0.000188	62.16	-21.792900	0.000302
Al (394.401 nm)	-0.002223 u	ppm	0.000757	34.04	352.783000	-0.002223 u
Al H (396.152 nm)	-0.052079 u	ppm	0.004118	7.91	25.351700	-0.052079 u
As (188.980 nm)	-0.001259 u	ppm	0.003274	> 100.00	-1.597270	-0.001259 u
B (249.678 nm)	0.000806	ppm	0.000571	70.83	27.686400	0.000806
Ba (493.408 nm)	0.000080	ppm	0.000097	> 100.00	-33.336200	0.000080
Be (234.861 nm)	0.000007 u	ppm	0.000037	> 100.00	0.783540	0.000007 u
Bi (223.061 nm)	0.001614	ppm	0.000426	26.40	8.183930	0.001614
Ca (315.887 nm)	0.008150	ppm	0.002881	35.35	-8.015972	0.008150
Cd (214.439 nm)	0.000129 u	ppm	0.000172	> 100.00	-0.174524	0.000129 u
Co (228.615 nm)	-0.000195 u	ppm	0.000398	> 100.00	-9.289720	-0.000195 u
Cr (205.560 nm)	0.000288	ppm	0.000224	77.83	10.845000	0.000288
Cu (324.754 nm)	0.000551	ppm	0.000152	27.50	645.364000	0.000551
Fe (238.204 nm)	0.005731	ppm	0.001125	19.63	39.568066	0.005731
Fe H (259.940 nm)	-0.016395 u	ppm	0.003698	22.56	18.792700	-0.016395 u
K (766.491 nm)	-0.027098 u	ppm	0.021191	78.20	-4.591590	-0.027098 u
Li (670.783 nm)	0.009444 S	ppm	0.001550	16.41	685.299000 S	0.009444 S
Mg (279.078 nm)	0.001433	ppm	0.001643	> 100.00	8.363040	0.001433
Mn (257.610 nm)	0.000046	ppm	0.000031	68.69	53.885800	0.000046
Mo (202.032 nm)	0.000065 u	ppm	0.000535	> 100.00	5.693310	0.000065 u
Na (589.592 nm)	0.132118	ppm	0.009944	7.53	4075.290000	0.132118
Na H (589.593 nm)	-0.423823 u	ppm	0.016435	3.88	2845.144446	-0.423823 u
Ni (231.604 nm)	0.000045 u	ppm	0.000583	> 100.00	-2.099190	0.000045 u
P (213.618 nm)	-0.002260 u	ppm	0.002187	96.77	-10.194800	-0.002260 u
Pb (220.353 nm)	-0.000146 u	ppm	0.001169	> 100.00	1.957120	-0.000146 u
S (181.972 nm)	-0.012859 u	ppm	0.004395	34.18	11.873653	-0.012859 u
Sb (206.834 nm)	-0.000570 u	ppm	0.002842	> 100.00	3.885460	-0.000570 u
Se (196.026 nm)	-0.000957 u	ppm	0.001934	> 100.00	3.982880	-0.000957 u
Si (288.158 nm)	-0.007654 u	ppm	0.001271	16.61	652.564000	-0.007654 u
Sn (189.925 nm)	-0.000855 u	ppm	0.001196	> 100.00	2.840860	-0.000855 u
Sr (421.552 nm)	0.000012 u	ppm	0.000042	> 100.00	40.097090	0.000012 u
Th (288.505 nm)	0.001930	ppm	0.001212	62.79	30.829600	0.001930
Ti (336.122 nm)	0.000074 u	ppm	0.000109	> 100.00	-110.689000	0.000074 u
Tl (190.794 nm)	-0.001899 u	ppm	0.002727	> 100.00	-3.236700	-0.001899 u
U (409.013 nm)	-0.002277 u	ppm	0.000735	32.27	-3.159670	-0.002277 u
V (292.401 nm)	-0.000169 u	ppm	0.000311	> 100.00	-65.229300	-0.000169 u
Zn (206.200 nm)	0.000626	ppm	0.000702	> 100.00	4.630850	0.000626
Zr (343.823 nm)	0.000103 u	ppm	0.000168	> 100.00	8.262970	0.000103 u

Solution Name: 550-217871-B-2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217871-B-2-A	5/14/2024 8:13:56 PM	1:41	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.050272	ppm	0.000253	0.50	108184.582127	0.050272
Ag (328.068 nm)	0.001905	ppm	0.000106	5.57	36.060000	0.001905
Al (394.401 nm)	0.019516	ppm	0.001249	6.40	679.990000	0.019516
Al H (396.152 nm)	-0.066524 u	ppm	0.002919	4.39	-40.414800	-0.066524 u
As (188.980 nm)	0.002504	ppm	0.002077	82.95	0.673158	0.002504
B (249.678 nm)	0.255293	ppm	0.000730	0.29	1974.800000	0.255293
Ba (493.408 nm)	0.019701	ppm	0.000115	0.58	2702.610000	0.019701
Be (234.861 nm)	-0.000058 u	ppm	0.000009	15.25	100.337000	-0.000058 u
Bi (223.061 nm)	0.000016 u	ppm	0.001003	> 100.00	4.281370	0.000016 u
Ca (315.887 nm)	85.050086 o	ppm	0.117482	0.14	71282.828726	85.050086 o
Cd (214.439 nm)	0.000241	ppm	0.000038	15.61	8.034050	0.000241
Co (228.615 nm)	-0.000543 u	ppm	0.000037	6.82	-13.854100	-0.000543 u
Cr (205.560 nm)	0.000220 u	ppm	0.000340	> 100.00	10.398000	0.000220 u
Cu (324.754 nm)	0.000347	ppm	0.000168	48.34	627.196000	0.000347
Fe (238.204 nm)	15.059959 o	ppm	0.023687	0.16	48479.515485	15.059959 o
Fe H (259.940 nm)	15.070600	ppm	0.013576	0.09	20546.700000	15.070600
K (766.491 nm)	4.646100	ppm	0.036928	0.79	5999.960000	4.646100
Li (670.783 nm)	0.046213	ppm	0.000668	1.45	2077.900000	0.046213
Mg (279.078 nm)	48.618400 o	ppm	0.113207	0.23	144845.000000	48.618400 o
Mn (257.610 nm)	0.288497	ppm	0.000380	0.13	84326.800000	0.288497
Mo (202.032 nm)	0.001678	ppm	0.000272	16.24	14.370200	0.001678
Na (589.592 nm)	655.327000 o	ppm	1.952700	0.30	7003280.000000	655.327000 o
Na H (589.593 nm)	677.594915	ppm	2.296143	0.34	5202089.511768	677.594915
Ni (231.604 nm)	-0.002231 u	ppm	0.000497	22.27	-12.849900	-0.002231 u
P (213.618 nm)	-0.000845 u	ppm	0.001087	> 100.00	-8.477650	-0.000845 u
Pb (220.353 nm)	0.000116 u	ppm	0.001402	> 100.00	2.523560	0.000116 u
S (181.972 nm)	108.249513 o	ppm	0.441711	0.41	42005.354356	108.249513 o
Sb (206.834 nm)	-0.001453 u	ppm	0.002292	> 100.00	3.853630	-0.001453 u
Se (196.026 nm)	-0.006477 u	ppm	0.005685	87.76	-0.306278	-0.006477 u
Si (288.158 nm)	2.388950	ppm	0.003246	0.14	18357.100000	2.388950
Sn (189.925 nm)	-0.001222 u	ppm	0.001859	> 100.00	2.581790	-0.001222 u
Sr (421.552 nm)	1.056115	ppm	0.001795	0.17	227522.577785	1.056115
Th (288.505 nm)	-0.004613 u	ppm	0.000910	19.73	23.840400	-0.004613 u
Ti (336.122 nm)	-0.000446 u	ppm	0.000072	16.13	50.014500	-0.000446 u
Tl (190.794 nm)	-0.000410 u	ppm	0.001937	> 100.00	-2.083170	-0.000410 u
U (409.013 nm)	-0.006783 u	ppm	0.000590	8.70	-7.268080	-0.006783 u
V (292.401 nm)	0.000964	ppm	0.000073	7.53	-24.279500	0.000964
Zn (206.200 nm)	0.000823	ppm	0.000611	74.26	5.088550	0.000823
Zr (343.823 nm)	0.000111	ppm	0.000069	62.37	28.271100	0.000111

Solution Name: 550-217871-D-4-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217871-D-4-A	5/14/2024 8:18:23 PM	1:42	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.165668	ppm	0.000311	0.19	361659.542123	0.165668
Ag (328.068 nm)	0.002868	ppm	0.000373	13.00	70.150100	0.002868
Al (394.401 nm)	0.244878	ppm	0.002948	1.20	3849.380000	0.244878
Al H (396.152 nm)	0.079608 u	ppm	0.004970	6.24	624.889000	0.079608 u
As (188.980 nm)	0.011019	ppm	0.005372	48.75	6.612110	0.011019
B (249.678 nm)	0.376355	ppm	0.002558	0.68	2901.060000	0.376355
Ba (493.408 nm)	0.023882	ppm	0.000411	1.72	3248.200000	0.023882
Be (234.861 nm)	-0.000352 u	ppm	0.000039	11.13	33.793100	-0.000352 u
Bi (223.061 nm)	0.002116	ppm	0.001290	60.95	9.410260	0.002116
Ca (315.887 nm)	501.635932 o	ppm	0.284121	0.06	420507.669294	501.635932 o
Cd (214.439 nm)	0.000321	ppm	0.000010	3.25	6.186390	0.000321
Co (228.615 nm)	0.004420	ppm	0.000198	4.49	51.048700	0.004420
Cr (205.560 nm)	0.001536	ppm	0.000226	14.70	18.846200	0.001536
Cu (324.754 nm)	-0.001303 u	ppm	0.000306	23.45	397.340000	-0.001303 u
Fe (238.204 nm)	3.871881	ppm	0.006077	0.16	12479.669819	3.871881
Fe H (259.940 nm)	3.841180 u	ppm	0.006509	0.17	5267.540000	3.841180 u
K (766.491 nm)	13.544700	ppm	0.011515	0.09	17433.700000	13.544700
Li (670.783 nm)	0.138620	ppm	0.001730	1.25	5056.650000	0.138620
Mg (279.078 nm)	220.206000 o	ppm	0.935479	0.42	656062.000000	220.206000 o
Mn (257.610 nm)	1.451560 o	ppm	0.005078	0.35	424124.000000	1.451560 o
Mo (202.032 nm)	0.002731	ppm	0.000508	18.59	20.039600	0.002731
Na (589.592 nm)	798.709000 o	ppm	2.180120	0.27	8534980.000000	798.709000 o
Na H (589.593 nm)	853.028053	ppm	10.993095	1.29	6547357.647996	853.028053
Ni (231.604 nm)	0.005547	ppm	0.000538	9.69	23.890500	0.005547
P (213.618 nm)	0.026820	ppm	0.002511	9.36	25.425600	0.026820
Pb (220.353 nm)	-0.000755 u	ppm	0.001488	> 100.00	0.650385	-0.000755 u
S (181.972 nm)	494.350402 bo	ppm	2.101147	0.43	191766.199574	494.350402 bo
Sb (206.834 nm)	-0.002881 u	ppm	0.001535	53.28	0.878844	-0.002881 u
Se (196.026 nm)	-0.000887 u	ppm	0.001260	> 100.00	4.759600	-0.000887 u
Si (288.158 nm)	7.413220	ppm	0.039611	0.53	55471.400000	7.413220
Sn (189.925 nm)	-0.003229 u	ppm	0.000812	25.13	1.166350	-0.003229 u
Sr (421.552 nm)	7.100576 o	ppm	0.088318	1.24	1529487.082527	7.100576 o
Th (288.505 nm)	-0.017335 u	ppm	0.004637	26.75	27.935600	-0.017335 u
Ti (336.122 nm)	0.001916	ppm	0.000066	3.43	1505.210000	0.001916
Tl (190.794 nm)	-0.000221 u	ppm	0.001849	> 100.00	-1.726830	-0.000221 u
U (409.013 nm)	-0.007442 u	ppm	0.005754	77.32	-19.098100	-0.007442 u
V (292.401 nm)	0.003192	ppm	0.000179	5.61	71.458300	0.003192
Zn (206.200 nm)	0.006282	ppm	0.000502	8.00	17.810500	0.006282
Zr (343.823 nm)	0.000111	ppm	0.000022	19.91	13.882400	0.000111

Solution Name: 550-217871-H-6-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217871-H-6-A	5/14/2024 8:22:52 PM	1:43	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	11.843206 o	ppm	0.078199	0.66	26012156.222320	11.843206 o
Ag (328.068 nm)	0.010189	ppm	0.000458	4.50	286.383000	0.010189
Al (394.401 nm)	1.684860	ppm	0.014561	0.86	22739.000000	1.684860
Al H (396.152 nm)	1.122960	ppm	0.003722	0.33	5375.040000	1.122960
As (188.980 nm)	1.147750 o	ppm	0.023188	2.02	661.254000	1.147750 o
B (249.678 nm)	988.744000 bo	ppm	2.486230	0.25	7565030.000000	988.744000 bo
Ba (493.408 nm)	0.121421	ppm	0.001237	1.02	16648.300000	0.121421
Be (234.861 nm)	-0.007461 bu	ppm	0.000056	0.75	684.377000	-0.007461 bu
Bi (223.061 nm)	0.009334	ppm	0.005397	57.82	27.034900	0.009334
Ca (315.887 nm)	242.888690 o	ppm	0.650511	0.27	203599.281371	242.888690 o
Cd (214.439 nm)	0.000791	ppm	0.000089	11.20	17.198600	0.000791
Co (228.615 nm)	0.009119	ppm	0.000936	10.26	113.287000	0.009119
Cr (205.560 nm)	0.013031	ppm	0.000305	2.34	89.743000	0.013031
Cu (324.754 nm)	0.002999	ppm	0.000507	16.91	681.128000	0.002999
Fe (238.204 nm)	0.733325	ppm	0.003284	0.45	2380.756900	0.733325
Fe H (259.940 nm)	0.717415 u	ppm	0.014603	2.04	1017.240000	0.717415 u
K (766.491 nm)	948.895000 bo	ppm	4.797940	0.51	1219260.000000	948.895000 bo
Li (670.783 nm)	13.891200 o	ppm	0.104969	0.76	426029.000000	13.891200 o
Mg (279.078 nm)	7078.860000 bo	ppm	43.405400	0.61	21090600.000000	7078.860000 bo
Mn (257.610 nm)	31.172200 bo	ppm	0.078898	0.25	9107230.000000	31.172200 bo
Mo (202.032 nm)	0.553922	ppm	0.002410	0.44	2985.910000	0.553922
Na (589.592 nm)	####	ppm	N/A	N/A	####	####
Na H (589.593 nm)	####	ppm	N/A	N/A	####	####
Ni (231.604 nm)	0.232765	ppm	0.002540	1.09	1097.110000	0.232765
P (213.618 nm)	0.299173	ppm	0.006995	2.34	344.833000	0.299173
Pb (220.353 nm)	0.011347	ppm	0.001757	15.49	25.614200	0.011347
S (181.972 nm)	5035.958916 bo	ppm	13.478329	0.27	1953355.748523	5035.958916 bo
Sb (206.834 nm)	0.131220	ppm	0.002245	1.71	189.951000	0.131220
Se (196.026 nm)	0.720844 b	ppm	0.001246	0.17	426.198000	0.720844 b
Si (288.158 nm)	25.912500 o	ppm	0.017040	0.07	192144.000000	25.912500 o
Sn (189.925 nm)	0.005510	ppm	0.004981	90.39	7.330010	0.005510
Sr (421.552 nm)	17.339955 bo	ppm	0.179723	1.04	3735028.365960	17.339955 bo
Th (288.505 nm)	-0.413302 bu	ppm	0.009511	2.30	25.309100	-0.413302 bu
Ti (336.122 nm)	0.029414	ppm	0.000214	0.73	4544.170000	0.029414
Tl (190.794 nm)	0.002288 u	ppm	0.005775	> 100.00	-0.549316	0.002288 u
U (409.013 nm)	0.090141	ppm	0.008556	9.49	344.785000	0.090141
V (292.401 nm)	0.098676	ppm	0.001260	1.28	3034.590000	0.098676
Zn (206.200 nm)	0.019859	ppm	0.001748	8.80	49.450500	0.019859
Zr (343.823 nm)	0.003600	ppm	0.000373	10.38	275.294000	0.003600

Solution Name: 550-217871-H-8-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217871-H-8-A	5/14/2024 8:27:49 PM	1:44	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.711812	ppm	0.001853	0.26	1561301.719727	0.711812
Ag (328.068 nm)	0.003571	ppm	0.000135	3.77	94.335200	0.003571
Al (394.401 nm)	0.069225	ppm	0.001206	1.74	1639.590000	0.069225
Al H (396.152 nm)	-0.112083 u	ppm	0.002203	1.97	-247.836000	-0.112083 u
As (188.980 nm)	0.031908	ppm	0.002063	6.47	19.152800	0.031908
B (249.678 nm)	57.468900 bo	ppm	0.269680	0.47	439723.000000	57.468900 bo
Ba (493.408 nm)	0.005770	ppm	0.000110	1.90	750.329000	0.005770
Be (234.861 nm)	-0.000863 u	ppm	0.000020	2.32	15.738500	-0.000863 u
Bi (223.061 nm)	0.001371	ppm	0.000485	35.39	7.591240	0.001371
Ca (315.887 nm)	709.661521 o	ppm	0.257761	0.04	594895.983315	709.661521 o
Cd (214.439 nm)	0.000372	ppm	0.000145	38.82	6.264200	0.000372
Co (228.615 nm)	0.001096	ppm	0.000076	6.95	7.690580	0.001096
Cr (205.560 nm)	0.043614	ppm	0.000324	0.74	289.217000	0.043614
Cu (324.754 nm)	0.002794	ppm	0.000016	0.57	515.490000	0.002794
Fe (238.204 nm)	0.580565	ppm	0.003690	0.64	1889.213132	0.580565
Fe H (259.940 nm)	0.537761 u	ppm	0.006104	1.13	772.795000	0.537761 u
K (766.491 nm)	47.262700	ppm	0.160331	0.34	60757.700000	47.262700
Li (670.783 nm)	0.628922 b	ppm	0.002377	0.38	19816.100000	0.628922 b
Mg (279.078 nm)	490.582000 o	ppm	1.176860	0.24	1461610.000000	490.582000 o
Mn (257.610 nm)	0.182042	ppm	0.000771	0.42	53225.300000	0.182042
Mo (202.032 nm)	0.029678	ppm	0.000671	2.26	165.035000	0.029678
Na (589.592 nm)	####	ppm	N/A	N/A	####	####
Na H (589.593 nm)	####	ppm	N/A	N/A	####	####
Ni (231.604 nm)	0.034159	ppm	0.000765	2.24	159.029000	0.034159
P (213.618 nm)	0.016022	ppm	0.000740	4.62	10.952000	0.016022
Pb (220.353 nm)	0.003285	ppm	0.002097	63.83	9.276740	0.003285
S (181.972 nm)	1392.745719 bo	ppm	5.402216	0.39	540221.399682	1392.745719 bo
Sb (206.834 nm)	-0.003376 u	ppm	0.003323	98.44	-0.019836	-0.003376 u
Se (196.026 nm)	0.005007	ppm	0.004980	99.46	7.559140	0.005007
Si (288.158 nm)	6.254650	ppm	0.015839	0.25	46913.500000	6.254650
Sn (189.925 nm)	-0.003436 u	ppm	0.001701	49.50	1.020720	-0.003436 u
Sr (421.552 nm)	15.428398 bo	ppm	0.117154	0.76	3323282.830504	15.428398 bo
Th (288.505 nm)	-0.005523 u	ppm	0.001643	29.74	29.849500	-0.005523 u
Ti (336.122 nm)	0.004054	ppm	0.000061	1.50	2362.250000	0.004054
Tl (190.794 nm)	-0.001447 u	ppm	0.003058	> 100.00	-2.888920	-0.001447 u
U (409.013 nm)	-0.036330 u	ppm	0.003765	10.36	-130.383000	-0.036330 u
V (292.401 nm)	0.005052	ppm	0.000173	3.43	131.354000	0.005052
Zn (206.200 nm)	0.007544	ppm	0.001401	18.58	20.751200	0.007544
Zr (343.823 nm)	-0.000127 u	ppm	0.000131	> 100.00	-8.507440	-0.000127 u

Solution Name: 550-217871-H-10-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217871-H-10-A	5/14/2024 8:32:12 PM	1:45	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.748524	ppm	0.002035	0.27	1641942.234173	0.748524
Ag (328.068 nm)	0.003450	ppm	0.000429	12.44	88.837800	0.003450
Al (394.401 nm)	0.605992	ppm	0.003312	0.55	8726.930000	0.605992
Al H (396.152 nm)	0.409050 u	ppm	0.001731	0.42	2124.760000	0.409050 u
As (188.980 nm)	0.029717	ppm	0.005610	18.88	17.893100	0.029717
B (249.678 nm)	67.856000 bo	ppm	0.219664	0.32	519196.000000	67.856000 bo
Ba (493.408 nm)	0.012970	ppm	0.000295	2.28	1746.660000	0.012970
Be (234.861 nm)	-0.001016 u	ppm	0.000030	2.92	34.582500	-0.001016 u
Bi (223.061 nm)	0.002259	ppm	0.002061	91.25	9.758230	0.002259
Ca (315.887 nm)	718.352417 o	ppm	2.116605	0.29	602181.580760	718.352417 o
Cd (214.439 nm)	0.000417	ppm	0.000050	11.93	8.338220	0.000417
Co (228.615 nm)	0.001231	ppm	0.000270	21.90	9.522770	0.001231
Cr (205.560 nm)	0.166619	ppm	0.000387	0.23	1079.980000	0.166619
Cu (324.754 nm)	0.003724	ppm	0.000290	7.79	558.675000	0.003724
Fe (238.204 nm)	3.201182	ppm	0.004194	0.13	10321.564836	3.201182
Fe H (259.940 nm)	3.200760 u	ppm	0.009651	0.30	4396.160000	3.200760 u
K (766.491 nm)	56.408200	ppm	0.129278	0.23	72508.500000	56.408200
Li (670.783 nm)	0.683089	ppm	0.002425	0.36	21477.500000	0.683089
Mg (279.078 nm)	578.276000 o	ppm	0.783031	0.14	1722880.000000	578.276000 o
Mn (257.610 nm)	0.089517	ppm	0.000157	0.18	26193.500000	0.089517
Mo (202.032 nm)	0.045389	ppm	0.001099	2.42	249.572000	0.045389
Na (589.592 nm)	####	ppm	N/A	N/A	####	####
Na H (589.593 nm)	####	ppm	N/A	N/A	####	####
Ni (231.604 nm)	0.065059	ppm	0.000917	1.41	304.973000	0.065059
P (213.618 nm)	0.066431	ppm	0.002775	4.18	72.611500	0.066431
Pb (220.353 nm)	0.002289	ppm	0.000725	31.67	7.106190	0.002289
S (181.972 nm)	1535.775234 bo	ppm	3.664923	0.24	595697.523334	1535.775234 bo
Sb (206.834 nm)	-0.002887 u	ppm	0.000780	27.01	1.495050	-0.002887 u
Se (196.026 nm)	0.000377 u	ppm	0.005242	> 100.00	4.771660	0.000377 u
Si (288.158 nm)	9.598170	ppm	0.011708	0.12	71617.800000	9.598170
Sn (189.925 nm)	0.001800 u	ppm	0.005866	> 100.00	4.712940	0.001800 u
Sr (421.552 nm)	16.419211 bo	ppm	0.108727	0.66	3536702.050552	16.419211 bo
Th (288.505 nm)	-0.009285 u	ppm	0.003893	41.92	21.125100	-0.009285 u
Ti (336.122 nm)	0.005419	ppm	0.000032	0.60	2571.930000	0.005419
Tl (190.794 nm)	-0.003046 u	ppm	0.000832	27.32	-4.463210	-0.003046 u
U (409.013 nm)	-0.013353 u	ppm	0.003993	29.91	-41.947500	-0.013353 u
V (292.401 nm)	0.007181	ppm	0.000345	4.80	169.748000	0.007181
Zn (206.200 nm)	0.014619	ppm	0.000774	5.30	37.238000	0.014619
Zr (343.823 nm)	0.000267	ppm	0.000199	74.52	24.887900	0.000267

Solution Name: 550-217871-H-12-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217871-H-12-A	5/14/2024 8:36:36 PM	1:46	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.564749	ppm	0.001079	0.19	1238268.004578	0.564749
Ag (328.068 nm)	0.003459	ppm	0.000217	6.29	90.663100	0.003459
Al (394.401 nm)	0.019907	ppm	0.000719	3.61	989.730000	0.019907
Al H (396.152 nm)	-0.146348 u	ppm	0.002847	1.95	-403.833000	-0.146348 u
As (188.980 nm)	0.007979 u	ppm	0.008017	> 100.00	5.361460	0.007979 u
B (249.678 nm)	34.836600	ppm	0.014453	0.04	266560.000000	34.836600
Ba (493.408 nm)	0.009829	ppm	0.000163	1.66	1306.750000	0.009829
Be (234.861 nm)	-0.000422 u	ppm	0.000018	4.19	6.655150	-0.000422 u
Bi (223.061 nm)	0.002945	ppm	0.002972	> 100.00	11.434900	0.002945
Ca (315.887 nm)	708.938893 o	ppm	1.807496	0.25	594290.202228	708.938893 o
Cd (214.439 nm)	0.000385	ppm	0.000072	18.63	6.453220	0.000385
Co (228.615 nm)	0.003968	ppm	0.000266	6.69	45.089600	0.003968
Cr (205.560 nm)	0.000344 u	ppm	0.000358	> 100.00	9.806540	0.000344 u
Cu (324.754 nm)	0.000624	ppm	0.000052	8.29	412.632000	0.000624
Fe (238.204 nm)	0.033186	ppm	0.000572	1.72	127.911640	0.033186
Fe H (259.940 nm)	-0.002748 u	ppm	0.005315	> 100.00	37.361500	-0.002748 u
K (766.491 nm)	31.093000	ppm	0.049592	0.16	39981.300000	31.093000
Li (670.783 nm)	0.451912 b	ppm	0.003078	0.68	15597.400000	0.451912 b
Mg (279.078 nm)	249.474000 o	ppm	1.467940	0.59	743275.000000	249.474000 o
Mn (257.610 nm)	1.196750 o	ppm	0.004178	0.35	349678.000000	1.196750 o
Mo (202.032 nm)	0.284546	ppm	0.001988	0.70	1536.440000	0.284546
Na (589.592 nm)	####	ppm	N/A	N/A	####	####
Na H (589.593 nm)	3601.588178 bo	ppm	14.421219	0.40	27623730.811004	3601.588178 bo
Ni (231.604 nm)	0.019055	ppm	0.000211	1.11	87.685700	0.019055
P (213.618 nm)	0.003361 u	ppm	0.004604	> 100.00	-12.040900	0.003361 u
Pb (220.353 nm)	0.002497 u	ppm	0.003149	> 100.00	7.172810	0.002497 u
S (181.972 nm)	1077.720113 bo	ppm	3.250521	0.30	418035.508218	1077.720113 bo
Sb (206.834 nm)	-0.002797 u	ppm	0.001781	63.68	-0.879362	-0.002797 u
Se (196.026 nm)	-0.003612 u	ppm	0.005248	> 100.00	3.447860	-0.003612 u
Si (288.158 nm)	7.097350	ppm	0.031001	0.44	53138.900000	7.097350
Sn (189.925 nm)	-0.002444 u	ppm	0.001664	68.08	1.720050	-0.002444 u
Sr (421.552 nm)	14.877982 bo	ppm	0.068385	0.46	3204724.382731	14.877982 bo
Th (288.505 nm)	-0.013445 u	ppm	0.002735	20.34	31.386400	-0.013445 u
Ti (336.122 nm)	-0.001935 u	ppm	0.000067	3.47	1544.970000	-0.001935 u
Tl (190.794 nm)	-0.000886 u	ppm	0.004169	> 100.00	-2.900090	-0.000886 u
U (409.013 nm)	-0.007498 u	ppm	0.005428	72.38	-22.578700	-0.007498 u
V (292.401 nm)	0.004606	ppm	0.000154	3.34	122.205000	0.004606
Zn (206.200 nm)	0.004430	ppm	0.000435	9.83	13.494200	0.004430
Zr (343.823 nm)	-0.000167 u	ppm	0.000020	11.92	-12.236200	-0.000167 u

Solution Name: 550-217871-H-14-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217871-H-14-A	5/14/2024 8:40:59 PM	1:47	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.607491	ppm	0.002430	0.40	1332153.548667	0.607491
Ag (328.068 nm)	0.003239	ppm	0.000237	7.31	83.083600	0.003239
Al (394.401 nm)	0.068255	ppm	0.000668	0.98	1645.220000	0.068255
Al H (396.152 nm)	-0.114161 u	ppm	0.001798	1.57	-257.295000	-0.114161 u
As (188.980 nm)	0.005088	ppm	0.002310	45.39	3.776490	0.005088
B (249.678 nm)	4.116830	ppm	0.028755	0.70	31519.900000	4.116830
Ba (493.408 nm)	0.015390	ppm	0.000251	1.63	2078.080000	0.015390
Be (234.861 nm)	-0.000467 u	ppm	0.000015	3.12	23.386500	-0.000467 u
Bi (223.061 nm)	0.001260	ppm	0.001174	93.13	7.320670	0.001260
Ca (315.887 nm)	751.287472 o	ppm	1.485574	0.20	629791.110608	751.287472 o
Cd (214.439 nm)	0.000465	ppm	0.000035	7.59	9.370990	0.000465
Co (228.615 nm)	0.000132	ppm	0.000127	96.39	-4.992000	0.000132
Cr (205.560 nm)	0.000725	ppm	0.000404	55.70	13.605400	0.000725
Cu (324.754 nm)	-0.002028 u	ppm	0.000098	4.83	278.175000	-0.002028 u
Fe (238.204 nm)	2.747483	ppm	0.010632	0.39	8861.699931	2.747483
Fe H (259.940 nm)	2.723650 u	ppm	0.008663	0.32	3746.990000	2.723650 u
K (766.491 nm)	9.310400	ppm	0.009840	0.11	11993.100000	9.310400
Li (670.783 nm)	0.484612	ppm	0.002572	0.53	16261.800000	0.484612
Mg (279.078 nm)	261.837000 o	ppm	0.484818	0.19	780086.000000	261.837000 o
Mn (257.610 nm)	5.405800 o	ppm	0.008183	0.15	1579380.000000	5.405800 o
Mo (202.032 nm)	0.007483	ppm	0.000272	3.64	45.606400	0.007483
Na (589.592 nm)	2027.660000 o	ppm	6.422530	0.32	21663000.000000	2027.660000 o
Na H (589.593 nm)	2485.683041	ppm	19.806905	0.80	19066801.100243	2485.683041
Ni (231.604 nm)	0.004425	ppm	0.001083	24.47	18.591000	0.004425
P (213.618 nm)	0.006538	ppm	0.003827	58.53	0.198578	0.006538
Pb (220.353 nm)	-0.000062 u	ppm	0.001664	> 100.00	2.208400	-0.000062 u
S (181.972 nm)	909.790361 bo	ppm	3.620243	0.40	352911.008950	909.790361 bo
Sb (206.834 nm)	-0.004381 u	ppm	0.001605	36.65	-1.397030	-0.004381 u
Se (196.026 nm)	0.003473 u	ppm	0.005128	> 100.00	9.572640	0.003473 u
Si (288.158 nm)	3.324500	ppm	0.006216	0.19	25267.200000	3.324500
Sn (189.925 nm)	-0.002919 u	ppm	0.000348	11.91	1.385330	-0.002919 u
Sr (421.552 nm)	15.910642 bo	ppm	0.056422	0.35	3427157.175713	15.910642 bo
Th (288.505 nm)	-0.051934 u	ppm	0.001065	2.05	47.903800	-0.051934 u
Ti (336.122 nm)	0.001437	ppm	0.000082	5.69	2119.740000	0.001437
Tl (190.794 nm)	0.000903 u	ppm	0.001831	> 100.00	-0.672654	0.000903 u
U (409.013 nm)	0.006022	ppm	0.004969	82.52	30.617000	0.006022
V (292.401 nm)	0.003021	ppm	0.000418	13.82	80.824100	0.003021
Zn (206.200 nm)	0.003772	ppm	0.000977	25.91	11.960600	0.003772
Zr (343.823 nm)	-0.000285 u	ppm	0.000142	49.89	-17.693600	-0.000285 u

Solution Name: 550-217871-H-16-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217871-H-16-A	5/14/2024 8:45:22 PM	1:48	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.690969	ppm	0.002202	0.32	1515519.928111	0.690969
Ag (328.068 nm)	0.003638	ppm	0.000065	1.77	95.432200	0.003638
Al (394.401 nm)	0.023762	ppm	0.001093	4.60	1031.190000	0.023762
Al H (396.152 nm)	-0.146070 u	ppm	0.005544	3.80	-402.568000	-0.146070 u
As (188.980 nm)	0.003289	ppm	0.002671	81.20	2.559260	0.003289
B (249.678 nm)	8.689320	ppm	0.030016	0.35	66504.600000	8.689320
Ba (493.408 nm)	0.009562	ppm	0.000141	1.48	1270.650000	0.009562
Be (234.861 nm)	-0.000532 u	ppm	0.000043	8.08	6.666360	-0.000532 u
Bi (223.061 nm)	0.003099	ppm	0.000689	22.23	11.810800	0.003099
Ca (315.887 nm)	666.476139 o	ppm	2.201591	0.33	558693.581163	666.476139 o
Cd (214.439 nm)	0.000629	ppm	0.000110	17.52	12.675600	0.000629
Co (228.615 nm)	0.000001 u	ppm	0.000420	> 100.00	-6.742840	0.000001 u
Cr (205.560 nm)	0.001138	ppm	0.000380	33.42	16.111000	0.001138
Cu (324.754 nm)	-0.000115 u	ppm	0.000276	> 100.00	389.794000	-0.000115 u
Fe (238.204 nm)	0.257262	ppm	0.001050	0.41	848.923953	0.257262
Fe H (259.940 nm)	0.219020 u	ppm	0.000679	0.31	339.106000	0.219020 u
K (766.491 nm)	9.909300	ppm	0.081977	0.83	12762.600000	9.909300
Li (670.783 nm)	0.556048	ppm	0.002855	0.51	18505.500000	0.556048
Mg (279.078 nm)	291.255000 o	ppm	0.961512	0.33	867730.000000	291.255000 o
Mn (257.610 nm)	2.194870 o	ppm	0.003783	0.17	641287.000000	2.194870 o
Mo (202.032 nm)	0.039672	ppm	0.000244	0.62	218.811000	0.039672
Na (589.592 nm)	2152.880000 o	ppm	11.472900	0.53	23000700.000000	2152.880000 o
Na H (589.593 nm)	2692.808478	ppm	25.186355	0.94	20655050.580964	2692.808478
Ni (231.604 nm)	0.004482	ppm	0.001157	25.81	18.860100	0.004482
P (213.618 nm)	0.008014	ppm	0.002968	37.04	0.980147	0.008014
Pb (220.353 nm)	0.000654 u	ppm	0.001397	> 100.00	3.768680	0.000654 u
S (181.972 nm)	1076.586480 bo	ppm	2.683844	0.25	417597.871092	1076.586480 bo
Sb (206.834 nm)	-0.002568 u	ppm	0.003500	> 100.00	0.827207	-0.002568 u
Se (196.026 nm)	0.006365 u	ppm	0.005997	94.21	9.509600	0.006365 u
Si (288.158 nm)	4.315900	ppm	0.022651	0.52	32591.100000	4.315900
Sn (189.925 nm)	-0.002811 u	ppm	0.003254	> 100.00	1.461000	-0.002811 u
Sr (421.552 nm)	13.668613 bo	ppm	0.116783	0.85	2944228.838476	13.668613 bo
Th (288.505 nm)	-0.024505 u	ppm	0.002624	10.71	32.031500	-0.024505 u
Ti (336.122 nm)	-0.001989 u	ppm	0.000085	4.26	1422.610000	-0.001989 u
Tl (190.794 nm)	0.000983 u	ppm	0.001864	> 100.00	-0.626315	0.000983 u
U (409.013 nm)	0.065088	ppm	0.003599	5.53	250.103000	0.065088
V (292.401 nm)	0.005062	ppm	0.000332	6.56	136.359000	0.005062
Zn (206.200 nm)	0.002475	ppm	0.001070	43.24	8.938720	0.002475
Zr (343.823 nm)	-0.000345 u	ppm	0.000135	39.22	-25.493100	-0.000345 u

Solution Name: 550-217871-H-18-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217871-H-18-A	5/14/2024 8:49:44 PM	1:49	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.723462	ppm	0.002331	0.32	1586891.818565	0.723462
Ag (328.068 nm)	0.005181	ppm	0.000202	3.89	113.182000	0.005181
Al (394.401 nm)	0.088601	ppm	0.000757	0.85	1900.980000	0.088601
Al H (396.152 nm)	-0.084162 u	ppm	0.003755	4.46	-120.716000	-0.084162 u
As (188.980 nm)	0.026513	ppm	0.006677	25.18	15.861500	0.026513
B (249.678 nm)	13.778400	ppm	0.042010	0.30	105442.000000	13.778400
Ba (493.408 nm)	0.010224	ppm	0.000215	2.10	1420.120000	0.010224
Be (234.861 nm)	-0.000424 u	ppm	0.000018	4.26	165.995000	-0.000424 u
Bi (223.061 nm)	0.001800	ppm	0.000971	53.95	8.638460	0.001800
Ca (315.887 nm)	691.416058 o	ppm	3.500152	0.51	579600.771013	691.416058 o
Cd (214.439 nm)	0.000560	ppm	0.000176	31.43	18.939100	0.000560
Co (228.615 nm)	0.000526	ppm	0.000451	85.67	0.137448	0.000526
Cr (205.560 nm)	0.027981	ppm	0.000174	0.62	187.824000	0.027981
Cu (324.754 nm)	0.008627	ppm	0.000339	3.93	823.137000	0.008627
Fe (238.204 nm)	22.820067 o	ppm	0.110699	0.49	73449.199892	22.820067 o
Fe H (259.940 nm)	23.056100	ppm	0.087466	0.38	31411.900000	23.056100
K (766.491 nm)	19.905300	ppm	0.098259	0.49	25606.400000	19.905300
Li (670.783 nm)	0.579347 b	ppm	0.003684	0.64	19309.700000	0.579347 b
Mg (279.078 nm)	316.845000 o	ppm	0.226194	0.07	943965.000000	316.845000 o
Mn (257.610 nm)	1.992130 o	ppm	0.001324	0.07	582056.000000	1.992130 o
Mo (202.032 nm)	0.215978	ppm	0.000652	0.30	1167.490000	0.215978
Na (589.592 nm)	2341.680000 bo	ppm	10.154600	0.43	25017600.000000	2341.680000 bo
Na H (589.593 nm)	2946.769187 bo	ppm	22.910922	0.78	22602469.699559	2946.769187 bo
Ni (231.604 nm)	0.023371	ppm	0.000550	2.35	108.080000	0.023371
P (213.618 nm)	0.300438	ppm	0.003448	1.15	355.941000	0.300438
Pb (220.353 nm)	0.000905 u	ppm	0.000816	90.23	3.989000	0.000905 u
S (181.972 nm)	1126.113815 bo	ppm	1.889370	0.17	436808.638025	1126.113815 bo
Sb (206.834 nm)	-0.003382 u	ppm	0.004010	> 100.00	0.693435	-0.003382 u
Se (196.026 nm)	0.008030	ppm	0.004677	58.24	8.176200	0.008030
Si (288.158 nm)	5.891500	ppm	0.012004	0.20	44233.500000	5.891500
Sn (189.925 nm)	0.000762 u	ppm	0.002363	> 100.00	3.981310	0.000762 u
Sr (421.552 nm)	13.587982 bo	ppm	0.081852	0.60	2926860.924166	13.587982 bo
Th (288.505 nm)	-0.020757 u	ppm	0.003614	17.41	31.304500	-0.020757 u
Ti (336.122 nm)	-0.001312 u	ppm	0.000148	11.27	1582.810000	-0.001312 u
Tl (190.794 nm)	0.001895 u	ppm	0.003836	> 100.00	-0.511608	0.001895 u
U (409.013 nm)	0.060509	ppm	0.006236	10.31	251.875000	0.060509
V (292.401 nm)	0.079371	ppm	0.000034	0.04	2459.900000	0.079371
Zn (206.200 nm)	0.002851	ppm	0.001229	43.12	9.814430	0.002851
Zr (343.823 nm)	-0.000315 u	ppm	0.000205	65.18	5.770620	-0.000315 u

Solution Name: 550-217871-H-20-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217871-H-20-A	5/14/2024 8:54:12 PM	1:50	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.505599	ppm	0.001685	0.33	1108341.277161	0.505599
Ag (328.068 nm)	0.003460	ppm	0.000172	4.98	87.367900	0.003460
Al (394.401 nm)	0.020464	ppm	0.000932	4.56	1022.920000	0.020464
Al H (396.152 nm)	-0.151392 u	ppm	0.005821	3.84	-426.801000	-0.151392 u
As (188.980 nm)	0.008999	ppm	0.000673	7.48	6.090000	0.008999
B (249.678 nm)	32.347400	ppm	0.132406	0.41	247516.000000	32.347400
Ba (493.408 nm)	0.010993	ppm	0.000184	1.67	1466.680000	0.010993
Be (234.861 nm)	-0.000307 u	ppm	0.000028	9.03	4.432540	-0.000307 u
Bi (223.061 nm)	0.002937	ppm	0.001557	53.01	11.415300	0.002937
Ca (315.887 nm)	769.721735 o	ppm	1.679604	0.22	645244.594544	769.721735 o
Cd (214.439 nm)	0.000477	ppm	0.000082	17.13	8.758790	0.000477
Co (228.615 nm)	0.002224	ppm	0.000301	13.53	22.301300	0.002224
Cr (205.560 nm)	0.002355	ppm	0.000364	15.45	22.463100	0.002355
Cu (324.754 nm)	0.006832	ppm	0.000159	2.33	687.769000	0.006832
Fe (238.204 nm)	0.036862	ppm	0.000496	1.35	139.742261	0.036862
Fe H (259.940 nm)	0.005051 u	ppm	0.004732	93.69	47.972600	0.005051 u
K (766.491 nm)	27.280900	ppm	0.147690	0.54	35083.200000	27.280900
Li (670.783 nm)	0.403701 b	ppm	0.002456	0.61	14130.800000	0.403701 b
Mg (279.078 nm)	182.711000 o	ppm	0.296077	0.16	544369.000000	182.711000 o
Mn (257.610 nm)	0.972588	ppm	0.001781	0.18	284189.000000	0.972588
Mo (202.032 nm)	0.342002	ppm	0.000514	0.15	1845.600000	0.342002
Na (589.592 nm)	2679.990000 bo	ppm	14.187200	0.53	28631600.000000	2679.990000 bo
Na H (589.593 nm)	3540.826519 bo	ppm	18.103035	0.51	27157804.271576	3540.826519 bo
Ni (231.604 nm)	0.017753	ppm	0.000358	2.02	81.541100	0.017753
P (213.618 nm)	0.001169 u	ppm	0.002675	> 100.00	-16.772600	0.001169 u
Pb (220.353 nm)	0.001188	ppm	0.000590	49.71	4.257790	0.001188
S (181.972 nm)	1010.759874 bo	ppm	4.493616	0.44	392064.043213	1010.759874 bo
Sb (206.834 nm)	-0.000277 u	ppm	0.001144	> 100.00	2.425290	-0.000277 u
Se (196.026 nm)	-0.000931 u	ppm	0.002638	> 100.00	4.772880	-0.000931 u
Si (288.158 nm)	6.004950	ppm	0.030661	0.51	45069.300000	6.004950
Sn (189.925 nm)	-0.002704 u	ppm	0.000427	15.81	1.536540	-0.002704 u
Sr (421.552 nm)	15.727714 bo	ppm	0.148072	0.94	3387754.930087	15.727714 bo
Th (288.505 nm)	-0.009534 u	ppm	0.002335	24.49	32.716300	-0.009534 u
Ti (336.122 nm)	-0.001936 u	ppm	0.000062	3.21	1711.170000	-0.001936 u
Tl (190.794 nm)	0.001367 u	ppm	0.001804	> 100.00	-0.917913	0.001367 u
U (409.013 nm)	-0.028380 u	ppm	0.005797	20.43	-100.953000	-0.028380 u
V (292.401 nm)	0.011808	ppm	0.000218	1.85	351.260000	0.011808
Zn (206.200 nm)	0.003818	ppm	0.000719	18.82	12.067500	0.003818
Zr (343.823 nm)	-0.000134 u	ppm	0.000123	91.89	-9.721690	-0.000134 u

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/14/2024 8:58:35 PM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000845	ppm	0.000026	3.12	-383.135993	0.000845
Ag (328.068 nm)	-0.000067 u	ppm	0.000134	> 100.00	62.266600	-0.000067 u
Al (394.401 nm)	49.781200 o	ppm	0.116915	0.23	655923.000000	49.781200 o
Al H (396.152 nm)	49.359800	ppm	0.091636	0.19	224986.000000	49.359800
As (188.980 nm)	-0.000746 u	ppm	0.002294	> 100.00	-1.618110	-0.000746 u
B (249.678 nm)	0.085172	ppm	0.010499	12.33	673.183000	0.085172
Ba (493.408 nm)	0.000188	ppm	0.000044	23.57	112.152000	0.000188
Be (234.861 nm)	0.000174	ppm	0.000095	54.54	338.916000	0.000174
Bi (223.061 nm)	0.000481	ppm	0.000307	63.78	5.418160	0.000481
Ca (315.887 nm)	-0.003840 u	ppm	0.003191	83.10	-18.066956	-0.003840 u
Cd (214.439 nm)	-0.000264 u	ppm	0.000064	24.28	7.635730	-0.000264 u
Co (228.615 nm)	-0.000381 u	ppm	0.000125	32.73	-11.729100	-0.000381 u
Cr (205.560 nm)	0.000939	ppm	0.000461	49.17	15.025600	0.000939
Cu (324.754 nm)	-0.004626 u	ppm	0.000241	5.20	1362.660000	-0.004626 u
Fe (238.204 nm)	50.369402 o	ppm	0.072202	0.14	162094.608222	50.369402 o
Fe H (259.940 nm)	50.146000	ppm	0.051613	0.10	68271.300000	50.146000
K (766.491 nm)	0.024749	ppm	0.014795	59.78	62.025600	0.024749
Li (670.783 nm)	0.010371	ppm	0.002519	24.29	802.553000	0.010371
Mg (279.078 nm)	0.014858	ppm	0.002102	14.15	-120.503000	0.014858
Mn (257.610 nm)	-0.000740 u	ppm	0.000013	1.76	-175.749000	-0.000740 u
Mo (202.032 nm)	0.000367	ppm	0.000087	23.60	7.317280	0.000367
Na (589.592 nm)	237.313000 o	ppm	0.418236	0.18	2537740.000000	237.313000 o
Na H (589.593 nm)	240.774348	ppm	2.461379	1.02	1852394.046570	240.774348
Ni (231.604 nm)	0.000077 u	ppm	0.000492	> 100.00	-1.949990	0.000077 u
P (213.618 nm)	4.941260	ppm	0.014120	0.29	6084.540000	4.941260
Pb (220.353 nm)	-0.001763 u	ppm	0.000734	41.62	-2.978610	-0.001763 u
S (181.972 nm)	5.039345	ppm	0.051982	1.03	1974.407743	5.039345
Sb (206.834 nm)	0.001392 u	ppm	0.002477	> 100.00	10.859000	0.001392 u
Se (196.026 nm)	0.004828	ppm	0.003672	76.06	2.332530	0.004828
Si (288.158 nm)	0.000570 u	ppm	0.004869	> 100.00	715.257000	0.000570 u
Sn (189.925 nm)	0.001418	ppm	0.001009	71.15	4.443830	0.001418
Sr (421.552 nm)	0.000259	ppm	0.000118	45.40	93.396482	0.000259
Th (288.505 nm)	4.819630	ppm	0.011160	0.23	10773.900000	4.819630
Ti (336.122 nm)	0.000784	ppm	0.000079	10.13	-14.118300	0.000784
Tl (190.794 nm)	-0.007692 u	ppm	0.001447	18.82	-9.459790	-0.007692 u
U (409.013 nm)	2.472530 Q	ppm	0.010116	0.41	9390.840000 Q	2.472530 Q
V (292.401 nm)	0.000868	ppm	0.000164	18.92	178.880000	0.000868
Zn (206.200 nm)	0.001955	ppm	0.000438	22.40	7.727510	0.001955
Zr (343.823 nm)	-0.000438 u	ppm	0.000095	21.65	31.720400	-0.000438 u

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/14/2024 9:03:02 PM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.455625	ppm	0.000665	0.15	998678.817106	0.455625
Ag (328.068 nm)	0.491295	ppm	0.000558	0.11	17673.700000	0.491295
Al (394.401 nm)	0.488324	ppm	0.000626	0.13	6821.240000	0.488324
Al H (396.152 nm)	0.469182 u	ppm	0.003408	0.73	2398.530000	0.469182 u
As (188.980 nm)	0.476493	ppm	0.001128	0.24	273.779000	0.476493
B (249.678 nm)	0.548668	ppm	0.001367	0.25	4219.450000	0.548668
Ba (493.408 nm)	0.495677	ppm	0.000633	0.13	68257.900000	0.495677
Be (234.861 nm)	0.496211	ppm	0.004425	0.89	49865.800000	0.496211
Bi (223.061 nm)	0.993437	ppm	0.000928	0.09	2429.960000	0.993437
Ca (315.887 nm)	4.913414	ppm	0.016275	0.33	4104.078012	4.913414
Cd (214.439 nm)	0.498551	ppm	0.001905	0.38	12731.800000	0.498551
Co (228.615 nm)	0.498516	ppm	0.000994	0.20	6519.420000	0.498516
Cr (205.560 nm)	0.489408	ppm	0.001354	0.28	3152.570000	0.489408
Cu (324.754 nm)	0.496617	ppm	0.000839	0.17	24192.400000	0.496617
Fe (238.204 nm)	2.502421	ppm	0.002477	0.10	8078.227241	2.502421
Fe H (259.940 nm)	2.485310 u	ppm	0.008081	0.33	3422.690000	2.485310 u
K (766.491 nm)	48.520000	ppm	0.099743	0.21	62373.200000	48.520000
Li (670.783 nm)	0.488257	ppm	0.002457	0.50	15365.400000	0.488257
Mg (279.078 nm)	19.405300	ppm	0.053504	0.28	57867.000000	19.405300
Mn (257.610 nm)	0.493248	ppm	0.000886	0.18	144146.000000	0.493248
Mo (202.032 nm)	0.497030	ppm	0.001041	0.21	2679.780000	0.497030
Na (589.592 nm)	24.929300	ppm	0.039255	0.16	272543.000000	24.929300
Na H (589.593 nm)	24.936833 u	ppm	0.238589	0.96	199348.859170	24.936833 u
Ni (231.604 nm)	0.496627	ppm	0.001990	0.40	2343.860000	0.496627
P (213.618 nm)	-0.015859 u	ppm	0.001002	6.31	-68.757900	-0.015859 u
Pb (220.353 nm)	0.475589	ppm	0.002322	0.49	1014.430000	0.475589
S (181.972 nm)	0.022861	ppm	0.005041	22.05	35.341170	0.022861
Sb (206.834 nm)	0.490947	ppm	0.004847	0.99	707.499000	0.490947
Se (196.026 nm)	0.486483	ppm	0.008041	1.65	276.027000	0.486483
Si (288.158 nm)	4.914740	ppm	0.055157	1.12	37455.900000	4.914740
Sn (189.925 nm)	0.495396	ppm	0.003024	0.61	352.832000	0.495396
Sr (421.552 nm)	0.493057	ppm	0.000348	0.07	106241.000779	0.493057
Th (288.505 nm)	0.005914	ppm	0.001708	28.88	26.421100	0.005914
Ti (336.122 nm)	0.489364	ppm	0.000838	0.17	66497.800000	0.489364
Tl (190.794 nm)	0.496196	ppm	0.000856	0.17	462.341000	0.496196
U (409.013 nm)	-0.003131 u	ppm	0.001817	58.03	-17.216800	-0.003131 u
V (292.401 nm)	0.482467	ppm	0.001268	0.26	14969.200000	0.482467
Zn (206.200 nm)	0.493748	ppm	0.001321	0.27	1153.770000	0.493748
Zr (343.823 nm)	0.489662	ppm	0.001224	0.25	37266.100000	0.489662

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/14/2024 9:07:32 PM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000413	ppm	0.000022	5.27	-1333.655153	0.000413
Ag (328.068 nm)	0.000348	ppm	0.000088	25.24	-20.205900	0.000348
Al (394.401 nm)	-0.003843 u	ppm	0.000939	24.44	331.355000	-0.003843 u
Al H (396.152 nm)	-0.051497 u	ppm	0.002125	4.13	28.002000	-0.051497 u
As (188.980 nm)	0.001851 u	ppm	0.002888	> 100.00	0.195384	0.001851 u
B (249.678 nm)	0.036612 Z	ppm	0.001511	4.13	301.643000 Z	0.036612 Z
Ba (493.408 nm)	-0.000034 u	ppm	0.000073	> 100.00	-48.921100	-0.000034 u
Be (234.861 nm)	0.000016 u	ppm	0.000070	> 100.00	1.731810	0.000016 u
Bi (223.061 nm)	0.000161 u	ppm	0.000463	> 100.00	4.635690	0.000161 u
Ca (315.887 nm)	0.006484	ppm	0.002350	36.24	-9.412415	0.006484
Cd (214.439 nm)	0.000077 u	ppm	0.000072	93.40	-1.495390	0.000077 u
Co (228.615 nm)	0.000004 u	ppm	0.000092	> 100.00	-6.699310	0.000004 u
Cr (205.560 nm)	0.000257	ppm	0.000156	60.51	10.645300	0.000257
Cu (324.754 nm)	0.000180	ppm	0.000120	66.72	628.089000	0.000180
Fe (238.204 nm)	0.004567	ppm	0.000773	16.93	35.824013	0.004567
Fe H (259.940 nm)	-0.017997 u	ppm	0.001232	6.85	16.613600	-0.017997 u
K (766.491 nm)	0.011922 u	ppm	0.019075	> 100.00	45.543900	0.011922 u
Li (670.783 nm)	0.012916 S	ppm	0.000912	7.06	792.206000 S	0.012916 S
Mg (279.078 nm)	0.003274	ppm	0.000498	15.20	13.810300	0.003274
Mn (257.610 nm)	0.000049	ppm	0.000017	35.07	54.835400	0.000049
Mo (202.032 nm)	0.000365	ppm	0.000081	22.06	7.308880	0.000365
Na (589.592 nm)	0.759565 Z	ppm	0.015569	2.05	10776.300000 Z	0.759565 Z
Na H (589.593 nm)	0.298742 u	ppm	0.033329	11.16	8384.937461	0.298742 u
Ni (231.604 nm)	-0.000344 u	ppm	0.001092	> 100.00	-3.936630	-0.000344 u
P (213.618 nm)	-0.002197 u	ppm	0.002561	> 100.00	-10.102100	-0.002197 u
Pb (220.353 nm)	-0.000346 u	ppm	0.001666	> 100.00	1.533830	-0.000346 u
S (181.972 nm)	0.026684	ppm	0.001306	4.89	27.223220	0.026684
Sb (206.834 nm)	0.000477 u	ppm	0.001322	> 100.00	5.386140	0.000477 u
Se (196.026 nm)	-0.001974 u	ppm	0.004081	> 100.00	3.415390	-0.001974 u
Si (288.158 nm)	-0.011363 u	ppm	0.001770	15.58	625.089000	-0.011363 u
Sn (189.925 nm)	-0.000973 u	ppm	0.001855	> 100.00	2.757500	-0.000973 u
Sr (421.552 nm)	-0.000002 u	ppm	0.000044	> 100.00	37.065349	-0.000002 u
Th (288.505 nm)	0.003569	ppm	0.001962	54.97	34.514400	0.003569
Ti (336.122 nm)	0.000100	ppm	0.000042	42.21	-107.255000	0.000100
Tl (190.794 nm)	-0.000444 u	ppm	0.001666	> 100.00	-1.874080	-0.000444 u
U (409.013 nm)	0.000480 u	ppm	0.001930	> 100.00	7.216640	0.000480 u
V (292.401 nm)	-0.000119 u	ppm	0.000143	> 100.00	-63.595400	-0.000119 u
Zn (206.200 nm)	0.000348	ppm	0.000200	57.45	3.982150	0.000348
Zr (343.823 nm)	0.000052 u	ppm	0.000089	> 100.00	4.414420	0.000052 u

Solution Name: 550-217871-H-22-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217871-H-22-A	5/14/2024 9:11:33 PM	1:51	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.597233	ppm	0.001927	0.32	1309622.778555	0.597233
Ag (328.068 nm)	0.003025	ppm	0.000151	4.99	72.784600	0.003025
Al (394.401 nm)	0.037967	ppm	0.000778	2.05	1234.560000	0.037967
Al H (396.152 nm)	-0.126638 u	ppm	0.001845	1.46	-314.099000	-0.126638 u
As (188.980 nm)	0.005778	ppm	0.002086	36.11	4.071100	0.005778
B (249.678 nm)	20.567800	ppm	0.106140	0.52	157388.000000	20.567800
Ba (493.408 nm)	0.010437	ppm	0.000205	1.97	1390.830000	0.010437
Be (234.861 nm)	-0.000415 u	ppm	0.000030	7.14	3.985730	-0.000415 u
Bi (223.061 nm)	0.000922	ppm	0.000770	83.55	6.494000	0.000922
Ca (315.887 nm)	699.798681 o	ppm	0.411895	0.06	586627.942371	699.798681 o
Cd (214.439 nm)	0.000414	ppm	0.000065	15.57	7.228590	0.000414
Co (228.615 nm)	0.001890	ppm	0.000101	5.36	17.938200	0.001890
Cr (205.560 nm)	0.000640	ppm	0.000111	17.39	10.930900	0.000640
Cu (324.754 nm)	0.002982	ppm	0.000128	4.30	524.500000	0.002982
Fe (238.204 nm)	0.236370	ppm	0.001243	0.53	781.698866	0.236370
Fe H (259.940 nm)	0.193721 u	ppm	0.003634	1.88	304.683000	0.193721 u
K (766.491 nm)	27.779000	ppm	0.066511	0.24	35723.200000	27.779000
Li (670.783 nm)	0.478969 b	ppm	0.001768	0.37	16263.400000	0.478969 b
Mg (279.078 nm)	231.000000 o	ppm	0.816911	0.35	688233.000000	231.000000 o
Mn (257.610 nm)	0.982668	ppm	0.001197	0.12	287134.000000	0.982668
Mo (202.032 nm)	0.449025	ppm	0.000217	0.05	2421.470000	0.449025
Na (589.592 nm)	2361.620000 bo	ppm	5.826000	0.25	25230600.000000	2361.620000 bo
Na H (589.593 nm)	3020.713953 bo	ppm	38.011027	1.26	23169489.752053	3020.713953 bo
Ni (231.604 nm)	0.012633	ppm	0.000869	6.88	57.360100	0.012633
P (213.618 nm)	0.010253	ppm	0.005728	55.86	-8.485380	0.010253
Pb (220.353 nm)	0.000451 u	ppm	0.001466	> 100.00	2.603990	0.000451 u
S (181.972 nm)	1042.615290 bo	ppm	0.878275	0.08	404418.741786	1042.615290 bo
Sb (206.834 nm)	-0.004367 u	ppm	0.001402	32.11	-4.026430	-0.004367 u
Se (196.026 nm)	0.001794	ppm	0.000974	54.26	6.261180	0.001794
Si (288.158 nm)	5.415580	ppm	0.016832	0.31	40714.700000	5.415580
Sn (189.925 nm)	-0.003032 u	ppm	0.001599	52.75	1.305250	-0.003032 u
Sr (421.552 nm)	14.014467 bo	ppm	0.066338	0.47	3018725.107514	14.014467 bo
Th (288.505 nm)	-0.011622 u	ppm	0.001465	12.61	29.924800	-0.011622 u
Ti (336.122 nm)	-0.001485 u	ppm	0.000016	1.08	1582.370000	-0.001485 u
Tl (190.794 nm)	0.003373	ppm	0.003664	> 100.00	0.724933	0.003373
U (409.013 nm)	0.051263	ppm	0.004407	8.60	198.075000	0.051263
V (292.401 nm)	0.007311	ppm	0.000173	2.36	201.508000	0.007311
Zn (206.200 nm)	0.003531	ppm	0.000921	26.08	11.400100	0.003531
Zr (343.823 nm)	0.000247	ppm	0.000132	53.37	19.508000	0.000247

Solution Name: 550-217871-H-24-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
550-217871-H-24-A	5/14/2024 9:15:57 PM	1:52	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000428	ppm	0.000015	3.57	-1300.167575	0.000428
Ag (328.068 nm)	0.000310	ppm	0.000077	24.91	-21.684500	0.000310
Al (394.401 nm)	0.001902	ppm	0.000381	20.03	407.994000	0.001902
Al H (396.152 nm)	-0.046167 u	ppm	0.001963	4.25	52.266200	-0.046167 u
As (188.980 nm)	0.000062 u	ppm	0.001055	> 100.00	-0.835960	0.000062 u
B (249.678 nm)	0.042321	ppm	0.005155	12.18	345.325000	0.042321
Ba (493.408 nm)	0.000058 u	ppm	0.000173	> 100.00	-36.257200	0.000058 u
Be (234.861 nm)	-0.000042 u	ppm	0.000021	50.45	-3.932250	-0.000042 u
Bi (223.061 nm)	0.000757	ppm	0.000660	87.19	6.092170	0.000757
Ca (315.887 nm)	0.072631	ppm	0.013067	17.99	46.038498	0.072631
Cd (214.439 nm)	0.000053 u	ppm	0.000081	> 100.00	-2.114920	0.000053 u
Co (228.615 nm)	-0.000103 u	ppm	0.000352	> 100.00	-8.099360	-0.000103 u
Cr (205.560 nm)	0.000236	ppm	0.000101	42.95	10.506000	0.000236
Cu (324.754 nm)	0.000797	ppm	0.000108	13.56	656.761000	0.000797
Fe (238.204 nm)	0.030850	ppm	0.001075	3.48	120.393408	0.030850
Fe H (259.940 nm)	0.011517 u	ppm	0.001430	12.42	56.771300	0.011517 u
K (766.491 nm)	0.040357 u	ppm	0.055685	> 100.00	82.080100	0.040357 u
Li (670.783 nm)	0.011527	ppm	0.002493	21.63	749.980000	0.011527
Mg (279.078 nm)	0.018997	ppm	0.004837	25.46	60.712900	0.018997
Mn (257.610 nm)	0.000462	ppm	0.000035	7.58	175.546000	0.000462
Mo (202.032 nm)	0.000097 u	ppm	0.000161	> 100.00	5.866750	0.000097 u
Na (589.592 nm)	0.960640	ppm	0.019458	2.03	12924.500000	0.960640
Na H (589.593 nm)	0.599596 u	ppm	0.030117	5.02	10692.090891	0.599596 u
Ni (231.604 nm)	0.001239	ppm	0.000669	54.03	3.539460	0.001239
P (213.618 nm)	0.000387 u	ppm	0.002538	> 100.00	-6.940680	0.000387 u
Pb (220.353 nm)	-0.000139 u	ppm	0.000419	> 100.00	1.974440	-0.000139 u
S (181.972 nm)	0.093174	ppm	0.021745	23.34	53.013559	0.093174
Sb (206.834 nm)	-0.002278 u	ppm	0.001687	74.07	1.438060	-0.002278 u
Se (196.026 nm)	-0.000955 u	ppm	0.000857	89.71	3.981420	-0.000955 u
Si (288.158 nm)	-0.009840 u	ppm	0.001760	17.88	635.531000	-0.009840 u
Sn (189.925 nm)	-0.001970 u	ppm	0.002056	> 100.00	2.054160	-0.001970 u
Sr (421.552 nm)	0.000674	ppm	0.000142	21.05	182.794549	0.000674
Th (288.505 nm)	0.001910	ppm	0.000837	43.84	30.822900	0.001910
Ti (336.122 nm)	0.000140	ppm	0.000038	27.26	-101.642000	0.000140
Tl (190.794 nm)	0.001165 u	ppm	0.001829	> 100.00	-0.366280	0.001165 u
U (409.013 nm)	-0.001347 u	ppm	0.002337	> 100.00	0.346469	-0.001347 u
V (292.401 nm)	0.000030 u	ppm	0.000197	> 100.00	-59.118600	0.000030 u
Zn (206.200 nm)	0.001548	ppm	0.000389	25.15	6.777790	0.001548
Zr (343.823 nm)	-0.000123 u	ppm	0.000036	29.63	-8.890280	-0.000123 u

Solution Name: 280-190977-A-5-C

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190977-A-5-C	5/14/2024 9:19:58 PM	1:53	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001124	ppm	0.000019	1.68	227.890264	0.001124
Ag (328.068 nm)	0.000282	ppm	0.000104	36.89	-22.701300	0.000282
Al (394.401 nm)	0.069795	ppm	0.000195	0.28	1305.330000	0.069795
Al H (396.152 nm)	0.017371 u	ppm	0.000785	4.52	341.539000	0.017371 u
As (188.980 nm)	0.007160	ppm	0.002113	29.52	3.231190	0.007160
B (249.678 nm)	0.038825	ppm	0.000717	1.85	318.575000	0.038825
Ba (493.408 nm)	0.032160	ppm	0.000286	0.89	4392.110000	0.032160
Be (234.861 nm)	0.000004 u	ppm	0.000014	> 100.00	41.136900	0.000004 u
Bi (223.061 nm)	-0.001342 u	ppm	0.000820	61.11	0.965603	-0.001342 u
Ca (315.887 nm)	6.310940	ppm	0.016009	0.25	5275.627118	6.310940
Cd (214.439 nm)	0.000042	ppm	0.000017	41.02	-0.161010	0.000042
Co (228.615 nm)	0.001021	ppm	0.000317	31.04	6.595380	0.001021
Cr (205.560 nm)	-0.000017 u	ppm	0.000225	> 100.00	8.877730	-0.000017 u
Cu (324.754 nm)	0.000541	ppm	0.000174	32.22	650.814000	0.000541
Fe (238.204 nm)	6.243600 o	ppm	0.025286	0.40	20111.142531	6.243600 o
Fe H (259.940 nm)	6.194900	ppm	0.020429	0.33	8470.080000	6.194900
K (766.491 nm)	0.646454	ppm	0.025300	3.91	860.849000	0.646454
Li (670.783 nm)	0.013328	ppm	0.002272	17.04	856.810000	0.013328
Mg (279.078 nm)	3.788760	ppm	0.011850	0.31	11288.800000	3.788760
Mn (257.610 nm)	0.279892	ppm	0.000733	0.26	81813.000000	0.279892
Mo (202.032 nm)	0.000722	ppm	0.000340	47.14	9.225270	0.000722
Na (589.592 nm)	137.965000 o	ppm	0.362402	0.26	1476700.000000	137.965000 o
Na H (589.593 nm)	138.256154	ppm	0.505741	0.37	1066398.236576	138.256154
Ni (231.604 nm)	0.000335	ppm	0.000162	48.40	-0.729341	0.000335
P (213.618 nm)	0.040790	ppm	0.003124	7.66	42.888900	0.040790
Pb (220.353 nm)	-0.000473 u	ppm	0.001369	> 100.00	1.251270	-0.000473 u
S (181.972 nm)	36.845489 o	ppm	0.136631	0.37	14308.942428	36.845489 o
Sb (206.834 nm)	-0.000308 u	ppm	0.000509	> 100.00	4.771090	-0.000308 u
Se (196.026 nm)	0.000466 u	ppm	0.003815	> 100.00	4.535880	0.000466 u
Si (288.158 nm)	6.186820	ppm	0.015228	0.25	46412.900000	6.186820
Sn (189.925 nm)	-0.002346 u	ppm	0.001676	71.42	1.788810	-0.002346 u
Sr (421.552 nm)	0.080072	ppm	0.000424	0.53	17284.949618	0.080072
Th (288.505 nm)	-0.001216 u	ppm	0.001296	> 100.00	30.523900	-0.001216 u
Ti (336.122 nm)	0.000767	ppm	0.000018	2.31	0.715458	0.000767
Tl (190.794 nm)	-0.000940 u	ppm	0.000700	74.53	-2.437390	-0.000940 u
U (409.013 nm)	0.000669 u	ppm	0.003383	> 100.00	13.173300	0.000669 u
V (292.401 nm)	0.000367	ppm	0.000168	45.90	-47.962800	0.000367
Zn (206.200 nm)	0.002069	ppm	0.000052	2.53	7.993540	0.002069
Zr (343.823 nm)	-0.000002 u	ppm	0.000016	> 100.00	8.291590	-0.000002 u

Solution Name: 280-190990-G-1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190990-G-1-A	5/14/2024 9:24:23 PM	1:54	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.568931	ppm	0.001031	0.18	1247455.517287	0.568931
Ag (328.068 nm)	0.004565	ppm	0.000294	6.44	129.982000	0.004565
Al (394.401 nm)	0.023726	ppm	0.000558	2.35	1094.380000	0.023726
Al H (396.152 nm)	-0.159617 u	ppm	0.002300	1.44	-464.244000	-0.159617 u
As (188.980 nm)	0.195899	ppm	0.006471	3.30	113.926000	0.195899
B (249.678 nm)	7.193020	ppm	0.018726	0.26	55056.200000	7.193020
Ba (493.408 nm)	0.102905	ppm	0.000397	0.39	14100.000000	0.102905
Be (234.861 nm)	-0.003444 bu	ppm	0.000054	1.57	11.692600	-0.003444 bu
Bi (223.061 nm)	0.003169	ppm	0.001080	34.09	11.980600	0.003169
Ca (315.887 nm)	816.487289 o	ppm	1.840037	0.23	684448.262386	816.487289 o
Cd (214.439 nm)	0.000841	ppm	0.000152	18.04	18.277400	0.000841
Co (228.615 nm)	0.011009	ppm	0.000723	6.57	137.470000	0.011009
Cr (205.560 nm)	0.000785	ppm	0.000482	61.41	11.584800	0.000785
Cu (324.754 nm)	0.010581	ppm	0.000475	4.49	847.105000	0.010581
Fe (238.204 nm)	0.104883	ppm	0.001364	1.30	358.618160	0.104883
Fe H (259.940 nm)	0.067862 u	ppm	0.009546	14.07	133.436000	0.067862 u
K (766.491 nm)	1526.850000 bo	ppm	5.616680	0.37	1961860.000000	1526.850000 bo
Li (670.783 nm)	0.579750	ppm	0.003133	0.54	18332.400000	0.579750
Mg (279.078 nm)	1780.910000 bo	ppm	8.552890	0.48	5307290.000000	1780.910000 bo
Mn (257.610 nm)	0.023745	ppm	0.000058	0.24	6977.840000	0.023745
Mo (202.032 nm)	0.401722	ppm	0.001676	0.42	2166.940000	0.401722
Na (589.592 nm)	####	ppm	N/A	N/A	####	####
Na H (589.593 nm)	####	ppm	N/A	N/A	####	####
Ni (231.604 nm)	0.328629	ppm	0.001649	0.50	1549.870000	0.328629
P (213.618 nm)	0.043618	ppm	0.004227	9.69	33.571400	0.043618
Pb (220.353 nm)	0.001150 u	ppm	0.002353	> 100.00	4.086060	0.001150 u
S (181.972 nm)	2182.629318 bo	ppm	7.152633	0.33	846589.869769	2182.629318 bo
Sb (206.834 nm)	0.000138 u	ppm	0.000685	> 100.00	2.687730	0.000138 u
Se (196.026 nm)	0.028803	ppm	0.005422	18.83	20.887800	0.028803
Si (288.158 nm)	9.711200	ppm	0.011398	0.12	72454.100000	9.711200
Sn (189.925 nm)	0.003861 u	ppm	0.007267	> 100.00	6.166680	0.003861 u
Sr (421.552 nm)	13.249882 bo	ppm	0.063034	0.48	2854035.018216	13.249882 bo
Th (288.505 nm)	-0.027099 bu	ppm	0.000916	3.38	8.088010	-0.027099 bu
Ti (336.122 nm)	-0.000532 u	ppm	0.000052	9.75	2031.370000	-0.000532 u
Tl (190.794 nm)	0.000447 u	ppm	0.005517	> 100.00	-1.894890	0.000447 u
U (409.013 nm)	-0.055361 u	ppm	0.005055	9.13	-202.314000	-0.055361 u
V (292.401 nm)	0.006870	ppm	0.000405	5.90	196.933000	0.006870
Zn (206.200 nm)	0.288590	ppm	0.001461	0.51	675.685000	0.288590
Zr (343.823 nm)	-0.000207 u	ppm	0.000061	29.16	-15.225900	-0.000207 u

Solution Name: 280-190997-A-2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190997-A-2-A	5/14/2024 9:28:47 PM	1:55	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000461	ppm	0.000120	26.07	-1227.769697	0.000461
Ag (328.068 nm)	0.000294	ppm	0.000125	42.52	-21.964400	0.000294
Al (394.401 nm)	0.001231	ppm	0.001089	88.49	399.129000	0.001231
Al H (396.152 nm)	-0.046341 u	ppm	0.001169	2.52	51.473600	-0.046341 u
As (188.980 nm)	0.002345	ppm	0.000887	37.85	0.479476	0.002345
B (249.678 nm)	0.020906	ppm	0.003050	14.59	181.477000	0.020906
Ba (493.408 nm)	0.000521	ppm	0.000160	30.77	27.528400	0.000521
Be (234.861 nm)	-0.000014 u	ppm	0.000016	> 100.00	-0.553489	-0.000014 u
Bi (223.061 nm)	-0.000391 u	ppm	0.001276	> 100.00	3.287550	-0.000391 u
Ca (315.887 nm)	0.076838	ppm	0.003080	4.01	49.565883	0.076838
Cd (214.439 nm)	0.000093	ppm	0.000026	27.55	-1.069030	0.000093
Co (228.615 nm)	-0.000113 u	ppm	0.000062	54.60	-8.232660	-0.000113 u
Cr (205.560 nm)	-0.000430 u	ppm	0.000374	87.02	6.227650	-0.000430 u
Cu (324.754 nm)	0.000173	ppm	0.000138	79.53	627.223000	0.000173
Fe (238.204 nm)	0.107078	ppm	0.001086	1.01	365.672377	0.107078
Fe H (259.940 nm)	0.086054 u	ppm	0.001294	1.50	158.188000	0.086054 u
K (766.491 nm)	0.333414	ppm	0.167292	50.18	458.626000	0.333414
Li (670.783 nm)	0.011414	ppm	0.002937	25.73	747.202000	0.011414
Mg (279.078 nm)	0.069450	ppm	0.015818	22.78	211.282000	0.069450
Mn (257.610 nm)	0.000491	ppm	0.000014	2.82	183.942000	0.000491
Mo (202.032 nm)	0.000202	ppm	0.000057	28.44	6.427560	0.000202
Na (589.592 nm)	1.864200	ppm	0.747040	40.07	22579.200000	1.864200
Na H (589.593 nm)	1.419325 u	ppm	0.078561	5.54	16979.343756	1.419325 u
Ni (231.604 nm)	0.000370 u	ppm	0.000414	> 100.00	-0.563320	0.000370 u
P (213.618 nm)	0.008031	ppm	0.002315	28.82	2.515120	0.008031
Pb (220.353 nm)	-0.000055 u	ppm	0.001261	> 100.00	2.155060	-0.000055 u
S (181.972 nm)	0.497276	ppm	0.672230	> 100.00	209.757183	0.497276
Sb (206.834 nm)	-0.000351 u	ppm	0.002628	> 100.00	4.204990	-0.000351 u
Se (196.026 nm)	-0.001043 u	ppm	0.004292	> 100.00	3.925790	-0.001043 u
Si (288.158 nm)	0.015053	ppm	0.001639	10.89	819.411000	0.015053
Sn (189.925 nm)	-0.001976 u	ppm	0.003495	> 100.00	2.049770	-0.001976 u
Sr (421.552 nm)	0.000388	ppm	0.000017	4.36	121.034858	0.000388
Th (288.505 nm)	0.002368	ppm	0.001115	47.06	31.903200	0.002368
Ti (336.122 nm)	0.000173	ppm	0.000052	30.25	-97.161100	0.000173
Tl (190.794 nm)	-0.001284 u	ppm	0.002884	> 100.00	-2.663000	-0.001284 u
U (409.013 nm)	0.000904 u	ppm	0.003049	> 100.00	8.861070	0.000904 u
V (292.401 nm)	0.000222	ppm	0.000134	60.43	-52.940500	0.000222
Zn (206.200 nm)	0.002302	ppm	0.001337	58.08	8.534530	0.002302
Zr (343.823 nm)	-0.000174 u	ppm	0.000053	30.54	-12.676200	-0.000174 u

Solution Name: 280-190999-A-2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190999-A-2-A	5/14/2024 9:33:05 PM	1:56	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000434	ppm	0.000020	4.71	-1286.841190	0.000434
Ag (328.068 nm)	0.000145 u	ppm	0.000255	> 100.00	-27.602600	0.000145 u
Al (394.401 nm)	0.002288	ppm	0.000292	12.77	412.751000	0.002288
Al H (396.152 nm)	-0.043324 u	ppm	0.004901	11.31	65.210900	-0.043324 u
As (188.980 nm)	-0.000067 u	ppm	0.001337	> 100.00	-0.909833	-0.000067 u
B (249.678 nm)	0.013276	ppm	0.000110	0.83	123.098000	0.013276
Ba (493.408 nm)	0.000489	ppm	0.000156	31.89	23.022500	0.000489
Be (234.861 nm)	-0.000019 u	ppm	0.000039	> 100.00	-1.543570	-0.000019 u
Bi (223.061 nm)	-0.000655 u	ppm	0.000796	> 100.00	2.644230	-0.000655 u
Ca (315.887 nm)	0.157777	ppm	0.002709	1.72	117.417081	0.157777
Cd (214.439 nm)	0.000039 u	ppm	0.000081	> 100.00	-2.469060	0.000039 u
Co (228.615 nm)	0.000019 u	ppm	0.000169	> 100.00	-6.504600	0.000019 u
Cr (205.560 nm)	0.000391	ppm	0.000239	61.29	11.504800	0.000391
Cu (324.754 nm)	0.000336	ppm	0.000084	25.11	635.065000	0.000336
Fe (238.204 nm)	0.035485	ppm	0.000986	2.78	135.309240	0.035485
Fe H (259.940 nm)	0.012998 u	ppm	0.001327	10.21	58.785900	0.012998 u
K (766.491 nm)	0.170140	ppm	0.054537	32.05	248.838000	0.170140
Li (670.783 nm)	0.013946	ppm	0.001105	7.92	824.047000	0.013946
Mg (279.078 nm)	0.029481	ppm	0.012925	43.84	92.067400	0.029481
Mn (257.610 nm)	0.000952	ppm	0.000015	1.60	318.735000	0.000952
Mo (202.032 nm)	-0.000117 u	ppm	0.000744	> 100.00	4.712120	-0.000117 u
Na (589.592 nm)	0.923485	ppm	0.034571	3.74	12530.100000	0.923485
Na H (589.593 nm)	0.715957 u	ppm	0.034980	4.89	11585.775382	0.715957 u
Ni (231.604 nm)	-0.000069 u	ppm	0.000579	> 100.00	-2.639210	-0.000069 u
P (213.618 nm)	0.008511	ppm	0.000626	7.36	3.111450	0.008511
Pb (220.353 nm)	-0.001211 u	ppm	0.000364	30.03	-0.309082	-0.001211 u
S (181.972 nm)	0.119950	ppm	0.009002	7.50	63.402918	0.119950
Sb (206.834 nm)	-0.000739 u	ppm	0.001928	> 100.00	3.647560	-0.000739 u
Se (196.026 nm)	-0.002385 u	ppm	0.003636	> 100.00	3.184490	-0.002385 u
Si (288.158 nm)	0.008537	ppm	0.001667	19.52	771.350000	0.008537
Sn (189.925 nm)	-0.001872 u	ppm	0.000560	29.92	2.123670	-0.001872 u
Sr (421.552 nm)	0.000412	ppm	0.000039	9.49	126.265161	0.000412
Th (288.505 nm)	0.003552	ppm	0.000748	21.05	34.507000	0.003552
Ti (336.122 nm)	0.000170	ppm	0.000087	51.47	-97.331300	0.000170
Tl (190.794 nm)	-0.001172 u	ppm	0.002430	> 100.00	-2.555710	-0.001172 u
U (409.013 nm)	0.001316	ppm	0.001826	> 100.00	10.357300	0.001316
V (292.401 nm)	0.000037 u	ppm	0.000136	> 100.00	-58.832900	0.000037 u
Zn (206.200 nm)	0.001283	ppm	0.000621	48.43	6.160280	0.001283
Zr (343.823 nm)	-0.000150 u	ppm	0.000117	78.09	-10.966900	-0.000150 u

Solution Name: 280-190999-A-2-B MS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190999-A-2-B MS	5/14/2024 9:37:08 PM	1:57	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.960157	ppm	0.004322	0.45	2107026.725516	0.960157
Ag (328.068 nm)	0.048502	ppm	0.000132	0.27	1430.330000	0.048502
Al (394.401 nm)	9.851900 o	ppm	0.030703	0.31	130315.000000	9.851900 o
Al H (396.152 nm)	9.938100	ppm	0.027220	0.27	45508.300000	9.938100
As (188.980 nm)	0.972450	ppm	0.005062	0.52	559.708000	0.972450
B (249.678 nm)	2.033000	ppm	0.000527	0.03	15576.200000	2.033000
Ba (493.408 nm)	0.993497	ppm	0.000484	0.05	136870.000000	0.993497
Be (234.861 nm)	1.006120	ppm	0.026161	2.60	101142.000000	1.006120
Bi (223.061 nm)	-0.001583 u	ppm	0.000229	14.49	0.378066	-0.001583 u
Ca (315.887 nm)	49.440793 o	ppm	0.027557	0.06	41431.478970	49.440793 o
Cd (214.439 nm)	0.983573	ppm	0.004574	0.46	25122.900000	0.983573
Co (228.615 nm)	0.966211	ppm	0.002129	0.22	12643.100000	0.966211
Cr (205.560 nm)	0.963800	ppm	0.003102	0.32	6199.580000	0.963800
Cu (324.754 nm)	0.978806	ppm	0.003654	0.37	47071.200000	0.978806
Fe (238.204 nm)	10.090785 o	ppm	0.016208	0.16	32500.212779	10.090785 o
Fe H (259.940 nm)	10.033400	ppm	0.018910	0.19	13692.900000	10.033400
K (766.491 nm)	49.060700	ppm	0.083442	0.17	63067.900000	49.060700
Li (670.783 nm)	0.962842	ppm	0.001433	0.15	29923.900000	0.962842
Mg (279.078 nm)	49.307500 o	ppm	0.216704	0.44	146952.000000	49.307500 o
Mn (257.610 nm)	0.977468	ppm	0.003223	0.33	285615.000000	0.977468
Mo (202.032 nm)	1.010460	ppm	0.003247	0.32	5442.440000	1.010460
Na (589.592 nm)	48.860300	ppm	0.081761	0.17	531773.000000	48.860300
Na H (589.593 nm)	49.739649 u	ppm	0.305734	0.61	391584.543305	49.739649 u
Ni (231.604 nm)	0.950169	ppm	0.004649	0.49	4486.540000	0.950169
P (213.618 nm)	20.454100 o	ppm	0.022309	0.11	25130.500000	20.454100 o
Pb (220.353 nm)	0.937395	ppm	0.003865	0.41	1996.240000	0.937395
S (181.972 nm)	19.775709 o	ppm	0.060602	0.31	7704.745253	19.775709 o
Sb (206.834 nm)	0.992379	ppm	0.008361	0.84	1425.570000	0.992379
Se (196.026 nm)	0.966802	ppm	0.008978	0.93	543.593000	0.966802
Si (288.158 nm)	9.501150	ppm	0.017662	0.19	71779.500000	9.501150
Sn (189.925 nm)	0.994063	ppm	0.005111	0.51	704.527000	0.994063
Sr (421.552 nm)	0.987844	ppm	0.000668	0.07	212817.199984	0.987844
Th (288.505 nm)	-0.002475 u	ppm	0.001111	44.87	-6.041540	-0.002475 u
Ti (336.122 nm)	0.985406	ppm	0.002946	0.30	134133.000000	0.985406
Tl (190.794 nm)	0.986189	ppm	0.010981	1.11	920.156000	0.986189
U (409.013 nm)	0.011596	ppm	0.003100	26.73	31.198300	0.011596
V (292.401 nm)	0.972464	ppm	0.002503	0.26	30238.900000	0.972464
Zn (206.200 nm)	0.970036	ppm	0.005507	0.57	2263.690000	0.970036
Zr (343.823 nm)	0.985730	ppm	0.003042	0.31	75025.900000	0.985730

Solution Name: 280-190999-A-2-C MSD

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190999-A-2-C MSD	5/14/2024 9:41:33 PM	1:58	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.942460	ppm	0.002430	0.26	2068151.990204	0.942460
Ag (328.068 nm)	0.047891	ppm	0.000313	0.65	1412.060000	0.047891
Al (394.401 nm)	9.718000 o	ppm	0.006056	0.06	128549.000000	9.718000 o
Al H (396.152 nm)	9.776190	ppm	0.019721	0.20	44771.100000	9.776190
As (188.980 nm)	0.957930	ppm	0.002895	0.30	551.337000	0.957930
B (249.678 nm)	2.006480	ppm	0.001989	0.10	15373.300000	2.006480
Ba (493.408 nm)	0.980523	ppm	0.001987	0.20	135076.000000	0.980523
Be (234.861 nm)	0.973031	ppm	0.021276	2.19	97817.300000	0.973031
Bi (223.061 nm)	-0.001139 u	ppm	0.000234	20.56	1.462720	-0.001139 u
Ca (315.887 nm)	48.735098 o	ppm	0.116542	0.24	40839.893357	48.735098 o
Cd (214.439 nm)	0.972548	ppm	0.006289	0.65	24841.200000	0.972548
Co (228.615 nm)	0.953347	ppm	0.003401	0.36	12474.600000	0.953347
Cr (205.560 nm)	0.950831	ppm	0.004609	0.48	6116.280000	0.950831
Cu (324.754 nm)	0.964881	ppm	0.001776	0.18	46410.500000	0.964881
Fe (238.204 nm)	9.954286 o	ppm	0.018624	0.19	32060.889889	9.954286 o
Fe H (259.940 nm)	9.943390	ppm	0.030623	0.31	13570.400000	9.943390
K (766.491 nm)	48.484400	ppm	0.077396	0.16	62327.400000	48.484400
Li (670.783 nm)	0.947895	ppm	0.001635	0.17	29465.300000	0.947895
Mg (279.078 nm)	48.729300 o	ppm	0.302380	0.62	145229.000000	48.729300 o
Mn (257.610 nm)	0.965342	ppm	0.004314	0.45	282072.000000	0.965342
Mo (202.032 nm)	0.996100	ppm	0.004979	0.50	5365.190000	0.996100
Na (589.592 nm)	48.298900	ppm	0.081623	0.17	525687.000000	48.298900
Na H (589.593 nm)	48.753742 u	ppm	0.316146	0.65	383973.181380	48.753742 u
Ni (231.604 nm)	0.939363	ppm	0.006612	0.70	4435.480000	0.939363
P (213.618 nm)	20.234600 o	ppm	0.044813	0.22	24861.000000	20.234600 o
Pb (220.353 nm)	0.925557	ppm	0.001882	0.20	1971.070000	0.925557
S (181.972 nm)	19.658909 o	ppm	0.041443	0.21	7659.130524	19.658909 o
Sb (206.834 nm)	0.981832	ppm	0.001797	0.18	1410.490000	0.981832
Se (196.026 nm)	0.956113	ppm	0.003809	0.40	537.630000	0.956113
Si (288.158 nm)	9.281250	ppm	0.023798	0.26	70142.800000	9.281250
Sn (189.925 nm)	0.980215	ppm	0.005808	0.59	694.761000	0.980215
Sr (421.552 nm)	0.974508	ppm	0.001891	0.19	209944.596095	0.974508
Th (288.505 nm)	-0.002428 u	ppm	0.001162	47.86	-5.355890	-0.002428 u
Ti (336.122 nm)	0.970713	ppm	0.002415	0.25	132131.000000	0.970713
Tl (190.794 nm)	0.972236	ppm	0.007929	0.82	907.120000	0.972236
U (409.013 nm)	0.015998	ppm	0.003972	24.83	48.004900	0.015998
V (292.401 nm)	0.959003	ppm	0.004405	0.46	29819.400000	0.959003
Zn (206.200 nm)	0.962021	ppm	0.005438	0.57	2245.010000	0.962021
Zr (343.823 nm)	0.971429	ppm	0.002465	0.25	73937.400000	0.971429

Solution Name: 280-191054-D-1-B

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191054-D-1-B	5/14/2024 9:45:58 PM	1:59	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.540145	ppm	0.000950	0.18	1184228.448635	0.540145
Ag (328.068 nm)	0.002645	ppm	0.000155	5.85	54.822900	0.002645
Al (394.401 nm)	7.589440 o	ppm	0.014076	0.19	100648.000000	7.589440 o
Al H (396.152 nm)	7.257860	ppm	0.001934	0.03	33305.800000	7.257860
As (188.980 nm)	0.012125	ppm	0.002175	17.94	6.965090	0.012125
B (249.678 nm)	0.719187	ppm	0.001376	0.19	5524.110000	0.719187
Ba (493.408 nm)	0.097842	ppm	0.000476	0.49	13433.500000	0.097842
Be (234.861 nm)	0.000165	ppm	0.000014	8.50	154.395000	0.000165
Bi (223.061 nm)	0.000986	ppm	0.000355	36.07	6.649450	0.000986
Ca (315.887 nm)	398.753044 o	ppm	0.277375	0.07	334260.715819	398.753044 o
Cd (214.439 nm)	0.001113	ppm	0.000041	3.71	29.127900	0.001113
Co (228.615 nm)	0.004925	ppm	0.000196	3.99	63.728200	0.004925
Cr (205.560 nm)	0.014943	ppm	0.000136	0.91	104.967000	0.014943
Cu (324.754 nm)	0.022672	ppm	0.000106	0.47	1575.920000	0.022672
Fe (238.204 nm)	11.482926 o	ppm	0.013013	0.11	36969.716241	11.482926 o
Fe H (259.940 nm)	11.510600	ppm	0.013491	0.12	15702.800000	11.510600
K (766.491 nm)	22.837900	ppm	0.083033	0.36	29374.400000	22.837900
Li (670.783 nm)	0.482600	ppm	0.001870	0.39	15331.000000	0.482600
Mg (279.078 nm)	321.094000 o	ppm	1.123820	0.35	956635.000000	321.094000 o
Mn (257.610 nm)	0.707156	ppm	0.001817	0.26	206641.000000	0.707156
Mo (202.032 nm)	0.003616	ppm	0.000512	14.16	24.801400	0.003616
Na (589.592 nm)	173.798000 o	ppm	0.207676	0.12	1859950.000000	173.798000 o
Na H (589.593 nm)	174.904564	ppm	1.438643	0.82	1347692.746264	174.904564
Ni (231.604 nm)	0.051810	ppm	0.000202	0.39	242.396000	0.051810
P (213.618 nm)	0.398525	ppm	0.002284	0.57	482.507000	0.398525
Pb (220.353 nm)	0.006936	ppm	0.000546	7.87	16.151100	0.006936
S (181.972 nm)	679.145585 bo	ppm	1.936659	0.29	263439.700718	679.145585 bo
Sb (206.834 nm)	-0.002276 u	ppm	0.002534	> 100.00	1.742030	-0.002276 u
Se (196.026 nm)	0.017503	ppm	0.005375	30.71	14.132100	0.017503
Si (288.158 nm)	17.143400 o	ppm	0.086543	0.50	127377.000000	17.143400 o
Sn (189.925 nm)	0.000747 u	ppm	0.001525	> 100.00	3.970250	0.000747 u
Sr (421.552 nm)	8.669471 o	ppm	0.059014	0.68	1867423.762717	8.669471 o
Th (288.505 nm)	-0.008395 u	ppm	0.003147	37.49	30.723000	-0.008395 u
Ti (336.122 nm)	0.225202	ppm	0.000425	0.19	31613.400000	0.225202
Tl (190.794 nm)	0.001985	ppm	0.001198	60.33	-0.096554	0.001985
U (409.013 nm)	0.006056	ppm	0.004604	76.02	37.548200	0.006056
V (292.401 nm)	0.022871	ppm	0.000327	1.43	682.762000	0.022871
Zn (206.200 nm)	0.061403	ppm	0.000575	0.94	146.261000	0.061403
Zr (343.823 nm)	0.013412	ppm	0.000118	0.88	1035.790000	0.013412

Solution Name: 280-191054-D-2-B

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191054-D-2-B	5/14/2024 9:50:24 PM	1:60	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.148809	ppm	0.000457	0.31	324627.654145	0.148809
Ag (328.068 nm)	0.002258	ppm	0.000177	7.83	48.455900	0.002258
Al (394.401 nm)	0.029090	ppm	0.000547	1.88	949.608000	0.029090
Al H (396.152 nm)	-0.110740 u	ppm	0.001827	1.65	-241.722000	-0.110740 u
As (188.980 nm)	0.003520	ppm	0.001256	35.69	2.019840	0.003520
B (249.678 nm)	0.135682	ppm	0.000952	0.70	1059.640000	0.135682
Ba (493.408 nm)	0.049418	ppm	0.000799	1.62	6761.200000	0.049418
Be (234.861 nm)	-0.000253 u	ppm	0.000072	28.56	36.350000	-0.000253 u
Bi (223.061 nm)	0.001418 u	ppm	0.002838	> 100.00	7.706300	0.001418 u
Ca (315.887 nm)	387.613737 o	ppm	0.731139	0.19	324922.610177	387.613737 o
Cd (214.439 nm)	0.000292	ppm	0.000007	2.24	5.764160	0.000292
Co (228.615 nm)	-0.000957 u	ppm	0.000198	20.67	-19.266500	-0.000957 u
Cr (205.560 nm)	0.000106 u	ppm	0.000768	> 100.00	9.669490	0.000106 u
Cu (324.754 nm)	-0.002372 u	ppm	0.000263	11.10	385.853000	-0.002372 u
Fe (238.204 nm)	5.096179	ppm	0.004760	0.09	16419.091505	5.096179
Fe H (259.940 nm)	5.057180	ppm	0.006507	0.13	6922.060000	5.057180
K (766.491 nm)	13.613800	ppm	0.011787	0.09	17522.500000	13.613800
Li (670.783 nm)	0.149032	ppm	0.002631	1.77	5084.120000	0.149032
Mg (279.078 nm)	144.678000 o	ppm	0.480244	0.33	431044.000000	144.678000 o
Mn (257.610 nm)	1.105030 o	ppm	0.003012	0.27	322884.000000	1.105030 o
Mo (202.032 nm)	0.000946	ppm	0.000435	45.99	10.431600	0.000946
Na (589.592 nm)	105.525000 o	ppm	0.288377	0.27	1130270.000000	105.525000 o
Na H (589.593 nm)	106.054760	ppm	0.546756	0.52	819542.182690	106.054760
Ni (231.604 nm)	-0.003581 u	ppm	0.000744	20.78	-19.226700	-0.003581 u
P (213.618 nm)	0.019356	ppm	0.002960	15.29	16.402600	0.019356
Pb (220.353 nm)	-0.001786 u	ppm	0.000938	52.51	-1.522050	-0.001786 u
S (181.972 nm)	432.110551 bo	ppm	1.878375	0.43	167623.734543	432.110551 bo
Sb (206.834 nm)	-0.000249 u	ppm	0.002834	> 100.00	4.763430	-0.000249 u
Se (196.026 nm)	-0.003205 u	ppm	0.002970	92.69	3.227170	-0.003205 u
Si (288.158 nm)	10.198300	ppm	0.044796	0.44	76046.800000	10.198300
Sn (189.925 nm)	-0.003576 u	ppm	0.003063	85.67	0.921758	-0.003576 u
Sr (421.552 nm)	5.044094 o	ppm	0.063510	1.26	1086524.996352	5.044094 o
Th (288.505 nm)	-0.010305 u	ppm	0.002161	20.97	33.510100	-0.010305 u
Ti (336.122 nm)	-0.001257 u	ppm	0.000035	2.76	763.806000	-0.001257 u
Tl (190.794 nm)	0.001127 u	ppm	0.001276	> 100.00	-0.484135	0.001127 u
U (409.013 nm)	0.006766	ppm	0.001917	28.34	35.221800	0.006766
V (292.401 nm)	0.002233	ppm	0.000296	13.25	34.607700	0.002233
Zn (206.200 nm)	0.003466	ppm	0.000289	8.35	11.248800	0.003466
Zr (343.823 nm)	0.000033	ppm	0.000052	> 100.00	9.465260	0.000033

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/14/2024 9:54:49 PM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000828	ppm	0.000007	0.82	-420.205141	0.000828
Ag (328.068 nm)	0.000145	ppm	0.000135	93.05	70.360500	0.000145
Al (394.401 nm)	49.651300 o	ppm	0.018832	0.04	654207.000000	49.651300 o
Al H (396.152 nm)	49.414300	ppm	0.059842	0.12	225234.000000	49.414300
As (188.980 nm)	0.000159 u	ppm	0.001582	> 100.00	-1.096640	0.000159 u
B (249.678 nm)	0.003487	ppm	0.000869	24.91	48.200900	0.003487
Ba (493.408 nm)	0.000291	ppm	0.000051	17.62	126.361000	0.000291
Be (234.861 nm)	0.000201	ppm	0.000025	12.32	341.686000	0.000201
Bi (223.061 nm)	0.000731 u	ppm	0.001866	> 100.00	6.028210	0.000731 u
Ca (315.887 nm)	0.000386 u	ppm	0.005237	> 100.00	-14.524027	0.000386 u
Cd (214.439 nm)	-0.000247 u	ppm	0.000133	53.94	8.073680	-0.000247 u
Co (228.615 nm)	-0.000339 u	ppm	0.000169	49.80	-11.173100	-0.000339 u
Cr (205.560 nm)	0.000378	ppm	0.000292	77.38	11.421500	0.000378
Cu (324.754 nm)	-0.004482 u	ppm	0.000214	4.78	1371.870000	-0.004482 u
Fe (238.204 nm)	50.429449 o	ppm	0.031857	0.06	162287.822748	50.429449 o
Fe H (259.940 nm)	50.152100	ppm	0.014958	0.03	68279.600000	50.152100
K (766.491 nm)	0.078279	ppm	0.049400	63.11	130.806000	0.078279
Li (670.783 nm)	0.010936	ppm	0.001060	9.69	819.178000	0.010936
Mg (279.078 nm)	0.017438	ppm	0.001249	7.16	-112.960000	0.017438
Mn (257.610 nm)	-0.000730 u	ppm	0.000023	3.21	-172.747000	-0.000730 u
Mo (202.032 nm)	-0.000021 u	ppm	0.000232	> 100.00	5.228990	-0.000021 u
Na (589.592 nm)	237.042000 o	ppm	1.295440	0.55	2534850.000000	237.042000 o
Na H (589.593 nm)	240.013637	ppm	1.527346	0.64	1846560.954776	240.013637
Ni (231.604 nm)	0.000714 u	ppm	0.001036	> 100.00	1.061220	0.000714 u
P (213.618 nm)	4.951960	ppm	0.021723	0.44	6097.750000	4.951960
Pb (220.353 nm)	-0.003423 u	ppm	0.000902	26.34	-6.522920	-0.003423 u
S (181.972 nm)	5.015028	ppm	0.017274	0.34	1964.974309	5.015028
Sb (206.834 nm)	0.001603	ppm	0.000114	7.10	11.161500	0.001603
Se (196.026 nm)	0.002518	ppm	0.003015	> 100.00	1.043010	0.002518
Si (288.158 nm)	0.002707 u	ppm	0.004635	> 100.00	730.729000	0.002707 u
Sn (189.925 nm)	0.000115 u	ppm	0.000918	> 100.00	3.524430	0.000115 u
Sr (421.552 nm)	0.000294	ppm	0.000082	28.02	100.853388	0.000294
Th (288.505 nm)	4.822150	ppm	0.005863	0.12	10779.500000	4.822150
Ti (336.122 nm)	0.000760	ppm	0.000033	4.32	-17.304600	0.000760
Tl (190.794 nm)	-0.006426 u	ppm	0.002269	35.30	-8.273740	-0.006426 u
U (409.013 nm)	2.470590 Q	ppm	0.004376	0.18	9383.720000 Q	2.470590 Q
V (292.401 nm)	0.000792	ppm	0.000243	30.62	177.318000	0.000792
Zn (206.200 nm)	0.001222	ppm	0.000860	70.41	6.018460	0.001222
Zr (343.823 nm)	0.000020 u	ppm	0.000135	> 100.00	66.611400	0.000020 u

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/14/2024 9:59:16 PM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.453628	ppm	0.001144	0.25	994292.985015	0.453628
Ag (328.068 nm)	0.490621	ppm	0.001383	0.28	17648.500000	0.490621
Al (394.401 nm)	0.485290	ppm	0.002019	0.42	6781.310000	0.485290
Al H (396.152 nm)	0.471149 u	ppm	0.001577	0.33	2407.480000	0.471149 u
As (188.980 nm)	0.467804	ppm	0.004092	0.87	268.770000	0.467804
B (249.678 nm)	0.497084	ppm	0.000759	0.15	3824.780000	0.497084
Ba (493.408 nm)	0.494397	ppm	0.000368	0.07	68085.300000	0.494397
Be (234.861 nm)	0.508256	ppm	0.002933	0.58	51075.800000	0.508256
Bi (223.061 nm)	0.994498	ppm	0.003265	0.33	2432.550000	0.994498
Ca (315.887 nm)	4.927852	ppm	0.008644	0.18	4116.181638	4.927852
Cd (214.439 nm)	0.502604	ppm	0.001861	0.37	12835.200000	0.502604
Co (228.615 nm)	0.497626	ppm	0.001105	0.22	6507.790000	0.497626
Cr (205.560 nm)	0.491171	ppm	0.000945	0.19	3163.880000	0.491171
Cu (324.754 nm)	0.494505	ppm	0.001870	0.38	24092.000000	0.494505
Fe (238.204 nm)	2.513415	ppm	0.005373	0.21	8113.641766	2.513415
Fe H (259.940 nm)	2.486010 u	ppm	0.004127	0.17	3423.650000	2.486010 u
K (766.491 nm)	48.697800	ppm	0.047160	0.10	62601.500000	48.697800
Li (670.783 nm)	0.489984	ppm	0.002267	0.46	15417.900000	0.489984
Mg (279.078 nm)	19.514200	ppm	0.053512	0.27	58191.800000	19.514200
Mn (257.610 nm)	0.494531	ppm	0.001003	0.20	144521.000000	0.494531
Mo (202.032 nm)	0.499407	ppm	0.001842	0.37	2692.570000	0.499407
Na (589.592 nm)	24.625500	ppm	0.053067	0.22	269286.000000	24.625500
Na H (589.593 nm)	24.365770 u	ppm	0.181326	0.74	194963.677175	24.365770 u
Ni (231.604 nm)	0.499060	ppm	0.001509	0.30	2355.360000	0.499060
P (213.618 nm)	-0.013930 u	ppm	0.003202	22.99	-66.335700	-0.013930 u
Pb (220.353 nm)	0.473965	ppm	0.002738	0.58	1010.960000	0.473965
S (181.972 nm)	-0.007258 u	ppm	0.005525	76.11	23.692571	-0.007258 u
Sb (206.834 nm)	0.492215	ppm	0.000409	0.08	709.321000	0.492215
Se (196.026 nm)	0.482482	ppm	0.003665	0.76	273.795000	0.482482
Si (288.158 nm)	4.876380	ppm	0.055248	1.13	37175.500000	4.876380
Sn (189.925 nm)	0.499318	ppm	0.002009	0.40	355.598000	0.499318
Sr (421.552 nm)	0.493266	ppm	0.000186	0.04	106286.083556	0.493266
Th (288.505 nm)	0.004406	ppm	0.002607	59.19	22.932400	0.004406
Ti (336.122 nm)	0.489319	ppm	0.000903	0.18	66491.800000	0.489319
Tl (190.794 nm)	0.502092	ppm	0.005473	1.09	467.858000	0.502092
U (409.013 nm)	0.000335 u	ppm	0.000996	> 100.00	-4.214220	0.000335 u
V (292.401 nm)	0.483170	ppm	0.000968	0.20	14990.700000	0.483170
Zn (206.200 nm)	0.497489	ppm	0.002431	0.49	1162.490000	0.497489
Zr (343.823 nm)	0.489590	ppm	0.000812	0.17	37260.700000	0.489590

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/14/2024 10:03:45 PM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000436	ppm	0.000016	3.63	-1283.684622	0.000436
Ag (328.068 nm)	0.000210	ppm	0.000145	68.97	-25.041200	0.000210
Al (394.401 nm)	-0.002851 u	ppm	0.000725	25.45	344.043000	-0.002851 u
Al H (396.152 nm)	-0.053354 u	ppm	0.002845	5.33	19.547400	-0.053354 u
As (188.980 nm)	-0.000699 u	ppm	0.000708	> 100.00	-1.274250	-0.000699 u
B (249.678 nm)	0.004355	ppm	0.000444	10.20	54.842400	0.004355
Ba (493.408 nm)	-0.000013 u	ppm	0.000073	> 100.00	-46.140600	-0.000013 u
Be (234.861 nm)	-0.000002 u	ppm	0.000017	> 100.00	-0.063102	-0.000002 u
Bi (223.061 nm)	0.000737 u	ppm	0.001205	> 100.00	6.042370	0.000737 u
Ca (315.887 nm)	0.006138	ppm	0.004975	81.05	-9.702177	0.006138
Cd (214.439 nm)	0.000006 u	ppm	0.000008	> 100.00	-3.315870	0.000006 u
Co (228.615 nm)	-0.000224 u	ppm	0.000110	49.06	-9.668960	-0.000224 u
Cr (205.560 nm)	0.000190 u	ppm	0.000272	> 100.00	10.215400	0.000190 u
Cu (324.754 nm)	0.000251	ppm	0.000206	82.08	631.385000	0.000251
Fe (238.204 nm)	0.004855	ppm	0.001182	24.36	36.748173	0.004855
Fe H (259.940 nm)	-0.015839 u	ppm	0.001277	8.06	19.549100	-0.015839 u
K (766.491 nm)	0.109916	ppm	0.058032	52.80	171.456000	0.109916
Li (670.783 nm)	0.015565 S	ppm	0.002530	16.26	873.007000 S	0.015565 S
Mg (279.078 nm)	0.001661	ppm	0.000177	10.64	9.193790	0.001661
Mn (257.610 nm)	0.000068	ppm	0.000002	2.41	60.324900	0.000068
Mo (202.032 nm)	0.000390	ppm	0.000077	19.80	7.440030	0.000390
Na (589.592 nm)	0.320389	ppm	0.012274	3.83	6085.020000	0.320389
Na H (589.593 nm)	-0.117972 u	ppm	0.019117	16.20	5189.631810	-0.117972 u
Ni (231.604 nm)	0.000040 u	ppm	0.000705	> 100.00	-2.124790	0.000040 u
P (213.618 nm)	-0.001049 u	ppm	0.000585	55.71	-8.687640	-0.001049 u
Pb (220.353 nm)	-0.001715 u	ppm	0.000401	23.37	-1.388560	-0.001715 u
S (181.972 nm)	0.008418	ppm	0.000491	5.83	20.131746	0.008418
Sb (206.834 nm)	0.001293	ppm	0.001036	80.15	6.555730	0.001293
Se (196.026 nm)	-0.001816 u	ppm	0.001286	70.81	3.503620	-0.001816 u
Si (288.158 nm)	-0.009961 u	ppm	0.001161	11.65	635.667000	-0.009961 u
Sn (189.925 nm)	-0.000680 u	ppm	0.000826	> 100.00	2.963880	-0.000680 u
Sr (421.552 nm)	-0.000018 u	ppm	0.000008	45.51	33.593964	-0.000018 u
Th (288.505 nm)	0.004370	ppm	0.001012	23.16	36.295500	0.004370
Ti (336.122 nm)	0.000080	ppm	0.000081	> 100.00	-109.960000	0.000080
Tl (190.794 nm)	-0.000638 u	ppm	0.001233	> 100.00	-2.055980	-0.000638 u
U (409.013 nm)	-0.002636 u	ppm	0.002728	> 100.00	-4.492040	-0.002636 u
V (292.401 nm)	-0.000180 u	ppm	0.000269	> 100.00	-65.443000	-0.000180 u
Zn (206.200 nm)	0.000733	ppm	0.000164	22.33	4.878770	0.000733
Zr (343.823 nm)	0.000120	ppm	0.000094	78.54	9.529640	0.000120

Solution Name: MB 280-652097/1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
MB 280-652097/1-A	5/14/2024 10:07:48 PM	1:61	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000447	ppm	0.000020	4.53	-1257.963614	0.000447
Ag (328.068 nm)	0.000195	ppm	0.000158	81.12	-25.686900	0.000195
Al (394.401 nm)	-0.002527 u	ppm	0.001068	42.26	348.816000	-0.002527 u
Al H (396.152 nm)	-0.050640 u	ppm	0.002228	4.40	31.900000	-0.050640 u
As (188.980 nm)	0.001917 u	ppm	0.002834	> 100.00	0.233500	0.001917 u
B (249.678 nm)	0.003126	ppm	0.000351	11.23	45.440600	0.003126
Ba (493.408 nm)	0.000117 u	ppm	0.000148	> 100.00	-28.218900	0.000117 u
Be (234.861 nm)	-0.000018 u	ppm	0.000020	> 100.00	-1.612080	-0.000018 u
Bi (223.061 nm)	-0.001875 u	ppm	0.000489	26.07	-0.336070	-0.001875 u
Ca (315.887 nm)	0.021269	ppm	0.005904	27.76	2.982255	0.021269
Cd (214.439 nm)	0.000097	ppm	0.000057	58.47	-0.989907	0.000097
Co (228.615 nm)	-0.000092 u	ppm	0.000257	> 100.00	-7.956070	-0.000092 u
Cr (205.560 nm)	0.000024 u	ppm	0.000221	> 100.00	9.147680	0.000024 u
Cu (324.754 nm)	0.000949	ppm	0.000102	10.79	664.408000	0.000949
Fe (238.204 nm)	0.010520	ppm	0.000754	7.16	54.977859	0.010520
Fe H (259.940 nm)	-0.011361 u	ppm	0.003770	33.18	25.641600	-0.011361 u
K (766.491 nm)	0.077832	ppm	0.022888	29.41	130.232000	0.077832
Li (670.783 nm)	0.014908	ppm	0.001477	9.91	852.840000	0.014908
Mg (279.078 nm)	0.000963 u	ppm	0.001137	> 100.00	6.995370	0.000963 u
Mn (257.610 nm)	0.000059	ppm	0.000005	8.01	57.681000	0.000059
Mo (202.032 nm)	0.000316	ppm	0.000134	42.41	7.040890	0.000316
Na (589.592 nm)	0.320331	ppm	0.011418	3.56	6084.830000	0.320331
Na H (589.593 nm)	-0.158499 u	ppm	0.024667	15.56	4879.106073	-0.158499 u
Ni (231.604 nm)	0.000067 u	ppm	0.000289	> 100.00	-1.997360	0.000067 u
P (213.618 nm)	0.000433 u	ppm	0.002020	> 100.00	-6.900930	0.000433 u
Pb (220.353 nm)	-0.000643 u	ppm	0.001458	> 100.00	0.898763	-0.000643 u
S (181.972 nm)	0.005870	ppm	0.002508	42.73	19.158365	0.005870
Sb (206.834 nm)	0.000324 u	ppm	0.001724	> 100.00	5.167140	0.000324 u
Se (196.026 nm)	0.000022 u	ppm	0.001257	> 100.00	4.528000	0.000022 u
Si (288.158 nm)	-0.012702 u	ppm	0.000741	5.84	614.806000	-0.012702 u
Sn (189.925 nm)	-0.001879 u	ppm	0.001007	53.57	2.118170	-0.001879 u
Sr (421.552 nm)	0.000021 u	ppm	0.000029	> 100.00	42.031395	0.000021 u
Th (288.505 nm)	0.003912	ppm	0.001123	28.71	35.295000	0.003912
Ti (336.122 nm)	0.000094	ppm	0.000028	29.68	-108.002000	0.000094
Tl (190.794 nm)	-0.001010 u	ppm	0.000659	65.25	-2.404100	-0.001010 u
U (409.013 nm)	-0.003898 u	ppm	0.000791	20.30	-9.220230	-0.003898 u
V (292.401 nm)	-0.000060 u	ppm	0.000149	> 100.00	-61.758600	-0.000060 u
Zn (206.200 nm)	0.001097	ppm	0.000807	73.58	5.726480	0.001097
Zr (343.823 nm)	-0.000104 u	ppm	0.000064	61.49	-7.457050	-0.000104 u

Solution Name: LCS 280-652097/2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LCS 280-652097/2-A	5/14/2024 10:11:50 PM	1:62	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.977250	ppm	0.001896	0.19	2144573.668101	0.977250
Ag (328.068 nm)	0.049181	ppm	0.000277	0.56	1446.580000	0.049181
Al (394.401 nm)	10.046100 o	ppm	0.020976	0.21	132877.000000	10.046100 o
Al H (396.152 nm)	10.113600	ppm	0.021526	0.21	46307.300000	10.113600
As (188.980 nm)	0.991699	ppm	0.002520	0.25	570.804000	0.991699
B (249.678 nm)	2.066750	ppm	0.004983	0.24	15834.500000	2.066750
Ba (493.408 nm)	1.010850	ppm	0.003458	0.34	139261.000000	1.010850
Be (234.861 nm)	1.022990	ppm	0.018795	1.84	102838.000000	1.022990
Bi (223.061 nm)	-0.000448 u	ppm	0.001205	> 100.00	3.150210	-0.000448 u
Ca (315.887 nm)	50.185035 o	ppm	0.080157	0.16	42055.378268	50.185035 o
Cd (214.439 nm)	1.004160	ppm	0.003698	0.37	25648.700000	1.004160
Co (228.615 nm)	0.984217	ppm	0.002460	0.25	12878.400000	0.984217
Cr (205.560 nm)	0.981659	ppm	0.002715	0.28	6314.360000	0.981659
Cu (324.754 nm)	0.998537	ppm	0.003483	0.35	48007.600000	0.998537
Fe (238.204 nm)	10.294204 o	ppm	0.016129	0.16	33154.962958	10.294204 o
Fe H (259.940 nm)	10.254200	ppm	0.009016	0.09	13993.300000	10.254200
K (766.491 nm)	50.235800	ppm	0.102413	0.20	64577.800000	50.235800
Li (670.783 nm)	0.981285	ppm	0.003853	0.39	30488.800000	0.981285
Mg (279.078 nm)	50.210400 o	ppm	0.184578	0.37	149644.000000	50.210400 o
Mn (257.610 nm)	0.995630	ppm	0.003043	0.31	290921.000000	0.995630
Mo (202.032 nm)	1.016420	ppm	0.003877	0.38	5474.550000	1.016420
Na (589.592 nm)	49.774600	ppm	0.212953	0.43	541662.000000	49.774600
Na H (589.593 nm)	49.752534 u	ppm	0.308697	0.62	391752.934157	49.752534 u
Ni (231.604 nm)	0.969072	ppm	0.003838	0.40	4575.840000	0.969072
P (213.618 nm)	20.925600 o	ppm	0.041908	0.20	25710.600000	20.925600 o
Pb (220.353 nm)	0.951837	ppm	0.002819	0.30	2026.980000	0.951837
S (181.972 nm)	20.123522 o	ppm	0.068705	0.34	7840.010541	20.123522 o
Sb (206.834 nm)	0.998212	ppm	0.002740	0.27	1434.010000	0.998212
Se (196.026 nm)	0.989559	ppm	0.004231	0.43	556.279000	0.989559
Si (288.158 nm)	9.603560	ppm	0.031289	0.33	72540.900000	9.603560
Sn (189.925 nm)	0.999837	ppm	0.007953	0.80	708.600000	0.999837
Sr (421.552 nm)	1.004791	ppm	0.003629	0.36	216467.395733	1.004791
Th (288.505 nm)	-0.004030 u	ppm	0.001628	40.41	-9.938620	-0.004030 u
Ti (336.122 nm)	0.989406	ppm	0.002772	0.28	134679.000000	0.989406
Tl (190.794 nm)	1.007800	ppm	0.004215	0.42	940.404000	1.007800
U (409.013 nm)	0.012807	ppm	0.004054	31.65	35.788200	0.012807
V (292.401 nm)	0.989901	ppm	0.003463	0.35	30781.900000	0.989901
Zn (206.200 nm)	0.990332	ppm	0.005489	0.55	2310.990000	0.990332
Zr (343.823 nm)	0.990101	ppm	0.002739	0.28	75358.800000	0.990101

Solution Name: 280-190977-A-1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190977-A-1-A	5/14/2024 10:16:14 PM	1:63	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.020584	ppm	0.000045	0.22	42973.236634	0.020584
Ag (328.068 nm)	0.001570	ppm	0.000296	18.86	22.321700	0.001570
Al (394.401 nm)	0.042875	ppm	0.000904	2.11	983.427000	0.042875
Al H (396.152 nm)	-0.034788 u	ppm	0.007250	20.84	104.074000	-0.034788 u
As (188.980 nm)	0.003405	ppm	0.003375	99.12	1.252060	0.003405
B (249.678 nm)	0.021353	ppm	0.000620	2.90	184.898000	0.021353
Ba (493.408 nm)	0.386311	ppm	0.000538	0.14	53052.800000	0.386311
Be (234.861 nm)	0.000011 u	ppm	0.000042	> 100.00	7.382480	0.000011 u
Bi (223.061 nm)	-0.000594 u	ppm	0.001095	> 100.00	2.792930	-0.000594 u
Ca (315.887 nm)	69.695257 o	ppm	0.144079	0.21	58410.841377	69.695257 o
Cd (214.439 nm)	0.000381	ppm	0.000045	11.84	6.264110	0.000381
Co (228.615 nm)	-0.000663 u	ppm	0.000266	40.18	-15.409100	-0.000663 u
Cr (205.560 nm)	0.000114 u	ppm	0.000565	> 100.00	9.719560	0.000114 u
Cu (324.754 nm)	0.002086	ppm	0.000504	24.15	694.640000	0.002086
Fe (238.204 nm)	0.047221	ppm	0.005871	12.43	173.073030	0.047221
Fe H (259.940 nm)	0.022360 u	ppm	0.004161	18.61	71.523800	0.022360 u
K (766.491 nm)	0.633095	ppm	0.072093	11.39	843.683000	0.633095
Li (670.783 nm)	0.033920	ppm	0.000536	1.58	1500.420000	0.033920
Mg (279.078 nm)	28.903200	ppm	0.051708	0.18	86113.800000	28.903200
Mn (257.610 nm)	0.015181	ppm	0.000014	0.09	4475.860000	0.015181
Mo (202.032 nm)	0.001797	ppm	0.000276	15.39	15.012000	0.001797
Na (589.592 nm)	136.624000 o	ppm	0.074239	0.05	1464910.000000	136.624000 o
Na H (589.593 nm)	137.335260	ppm	0.623601	0.45	1060785.841272	137.335260
Ni (231.604 nm)	-0.001702 u	ppm	0.000875	51.38	-10.351300	-0.001702 u
P (213.618 nm)	0.145722	ppm	0.002407	1.65	172.105000	0.145722
Pb (220.353 nm)	-0.002181 u	ppm	0.001539	70.57	-2.362410	-0.002181 u
S (181.972 nm)	7.228730	ppm	0.025352	0.35	2821.383235	7.228730
Sb (206.834 nm)	-0.000919 u	ppm	0.000395	42.95	3.377680	-0.000919 u
Se (196.026 nm)	-0.000195 u	ppm	0.003078	> 100.00	4.947970	-0.000195 u
Si (288.158 nm)	17.122400 o	ppm	0.040354	0.24	127200.000000	17.122400 o
Sn (189.925 nm)	-0.001424 u	ppm	0.001912	> 100.00	2.439700	-0.001424 u
Sr (421.552 nm)	0.342398	ppm	0.000507	0.15	73789.396847	0.342398
Th (288.505 nm)	-0.000429 u	ppm	0.001413	> 100.00	26.511700	-0.000429 u
Ti (336.122 nm)	0.000154	ppm	0.000008	5.25	90.060200	0.000154
Tl (190.794 nm)	0.001564 u	ppm	0.003260	> 100.00	0.002306	0.001564 u
U (409.013 nm)	0.018464	ppm	0.000810	4.39	74.725200	0.018464
V (292.401 nm)	0.003716	ppm	0.000388	10.43	60.574500	0.003716
Zn (206.200 nm)	0.002264	ppm	0.000901	39.80	8.446040	0.002264
Zr (343.823 nm)	0.000549	ppm	0.000051	9.27	42.263500	0.000549

Solution Name: 280-190977-A-2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190977-A-2-A	5/14/2024 10:20:33 PM	1:64	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.017658	ppm	0.000018	0.10	36545.599672	0.017658
Ag (328.068 nm)	0.001547	ppm	0.000315	20.33	23.193300	0.001547
Al (394.401 nm)	0.102858	ppm	0.001100	1.07	1774.290000	0.102858
Al H (396.152 nm)	0.021671 u	ppm	0.003921	18.09	361.114000	0.021671 u
As (188.980 nm)	0.008444	ppm	0.003332	39.46	4.157320	0.008444
B (249.678 nm)	0.038633	ppm	0.000118	0.31	317.109000	0.038633
Ba (493.408 nm)	0.505690	ppm	0.000541	0.11	69463.400000	0.505690
Be (234.861 nm)	-0.000052 u	ppm	0.000064	> 100.00	7.113560	-0.000052 u
Bi (223.061 nm)	0.000320 u	ppm	0.000918	> 100.00	5.024910	0.000320 u
Ca (315.887 nm)	72.576540 o	ppm	0.079553	0.11	60826.226767	72.576540 o
Cd (214.439 nm)	0.000311	ppm	0.000102	32.74	4.790360	0.000311
Co (228.615 nm)	-0.000024 u	ppm	0.000163	> 100.00	-7.046950	-0.000024 u
Cr (205.560 nm)	0.000359	ppm	0.000273	75.96	11.293700	0.000359
Cu (324.754 nm)	-0.000125 u	ppm	0.000216	> 100.00	590.694000	-0.000125 u
Fe (238.204 nm)	0.949403	ppm	0.002467	0.26	3076.020699	0.949403
Fe H (259.940 nm)	0.921348 u	ppm	0.001219	0.13	1294.720000	0.921348 u
K (766.491 nm)	1.357560	ppm	0.037029	2.73	1774.540000	1.357560
Li (670.783 nm)	0.029185	ppm	0.000850	2.91	1355.380000	0.029185
Mg (279.078 nm)	30.473500	ppm	0.131354	0.43	90792.500000	30.473500
Mn (257.610 nm)	1.034090	ppm	0.003290	0.32	302156.000000	1.034090
Mo (202.032 nm)	0.001966	ppm	0.000464	23.58	15.922300	0.001966
Na (589.592 nm)	134.709000 o	ppm	0.163239	0.12	1445310.000000	134.709000 o
Na H (589.593 nm)	135.252172	ppm	0.703266	0.52	1045301.183885	135.252172
Ni (231.604 nm)	-0.001621 u	ppm	0.000503	31.05	-9.972340	-0.001621 u
P (213.618 nm)	0.157415	ppm	0.000894	0.57	186.634000	0.157415
Pb (220.353 nm)	-0.001625 u	ppm	0.001011	62.20	-1.186910	-0.001625 u
S (181.972 nm)	1.571285	ppm	0.004672	0.30	629.174561	1.571285
Sb (206.834 nm)	-0.002088 u	ppm	0.000528	25.26	1.774410	-0.002088 u
Se (196.026 nm)	-0.003746 u	ppm	0.002603	69.48	3.476050	-0.003746 u
Si (288.158 nm)	16.373400 o	ppm	0.020646	0.13	121666.000000	16.373400 o
Sn (189.925 nm)	-0.002819 u	ppm	0.001043	37.00	1.455520	-0.002819 u
Sr (421.552 nm)	0.362570	ppm	0.000641	0.18	78134.322415	0.362570
Th (288.505 nm)	-0.009666 u	ppm	0.002275	23.54	30.881800	-0.009666 u
Ti (336.122 nm)	0.001066	ppm	0.000099	9.32	221.905000	0.001066
Tl (190.794 nm)	0.000596 u	ppm	0.001109	> 100.00	-0.920325	0.000596 u
U (409.013 nm)	0.015577	ppm	0.004054	26.03	64.706300	0.015577
V (292.401 nm)	0.001392	ppm	0.000261	18.76	-11.980200	0.001392
Zn (206.200 nm)	0.001292	ppm	0.000947	73.31	6.182150	0.001292
Zr (343.823 nm)	0.000129	ppm	0.000129	> 100.00	11.439000	0.000129

Solution Name: 280-190977-A-4-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190977-A-4-A	5/14/2024 10:24:55 PM	1:65	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.026551	ppm	0.000149	0.56	56080.267681	0.026551
Ag (328.068 nm)	0.001866	ppm	0.000192	10.30	33.076900	0.001866
Al (394.401 nm)	0.032256	ppm	0.002569	7.97	871.003000	0.032256
Al H (396.152 nm)	-0.062097 u	ppm	0.000512	0.83	-20.261300	-0.062097 u
As (188.980 nm)	0.003208	ppm	0.002399	74.78	1.264150	0.003208
B (249.678 nm)	0.019087	ppm	0.000806	4.23	167.563000	0.019087
Ba (493.408 nm)	0.615194	ppm	0.000637	0.10	84511.900000	0.615194
Be (234.861 nm)	-0.000084 u	ppm	0.000039	46.37	4.539900	-0.000084 u
Bi (223.061 nm)	-0.000027 u	ppm	0.000753	> 100.00	4.177990	-0.000027 u
Ca (315.887 nm)	124.267562 o	ppm	0.183978	0.15	104158.925761	124.267562 o
Cd (214.439 nm)	0.000264	ppm	0.000098	37.09	3.269470	0.000264
Co (228.615 nm)	-0.000676 u	ppm	0.000489	72.29	-15.590500	-0.000676 u
Cr (205.560 nm)	0.000288	ppm	0.000215	74.52	10.840100	0.000288
Cu (324.754 nm)	-0.000508 u	ppm	0.000318	62.52	553.215000	-0.000508 u
Fe (238.204 nm)	0.046025	ppm	0.001266	2.75	169.221712	0.046025
Fe H (259.940 nm)	0.017285 u	ppm	0.002116	12.24	64.618600	0.017285 u
K (766.491 nm)	0.988972	ppm	0.002736	0.28	1300.950000	0.988972
Li (670.783 nm)	0.038902	ppm	0.001843	4.74	1659.610000	0.038902
Mg (279.078 nm)	62.167700 o	ppm	0.110038	0.18	185217.000000	62.167700 o
Mn (257.610 nm)	0.149683	ppm	0.000397	0.27	43771.400000	0.149683
Mo (202.032 nm)	0.001401	ppm	0.000265	18.91	12.878800	0.001401
Na (589.592 nm)	121.973000 o	ppm	0.286336	0.23	1310050.000000	121.973000 o
Na H (589.593 nm)	122.663442	ppm	0.932671	0.76	949215.812219	122.663442
Ni (231.604 nm)	-0.002314 u	ppm	0.000201	8.69	-13.241100	-0.002314 u
P (213.618 nm)	0.057988	ppm	0.003589	6.19	64.054200	0.057988
Pb (220.353 nm)	-0.002367 u	ppm	0.000662	27.98	-2.738790	-0.002367 u
S (181.972 nm)	4.275748	ppm	0.028549	0.67	1676.843164	4.275748
Sb (206.834 nm)	-0.003597 u	ppm	0.002097	58.29	-0.460016	-0.003597 u
Se (196.026 nm)	-0.004701 u	ppm	0.004002	85.14	2.447090	-0.004701 u
Si (288.158 nm)	14.875500 o	ppm	0.031899	0.21	110603.000000	14.875500 o
Sn (189.925 nm)	0.000665 u	ppm	0.002513	> 100.00	3.912460	0.000665 u
Sr (421.552 nm)	0.807076	ppm	0.001058	0.13	173880.097468	0.807076
Th (288.505 nm)	-0.003550 u	ppm	0.000915	25.79	23.667500	-0.003550 u
Ti (336.122 nm)	-0.000418 u	ppm	0.000076	18.19	160.795000	-0.000418 u
Tl (190.794 nm)	-0.000010 u	ppm	0.003210	> 100.00	-1.471380	-0.000010 u
U (409.013 nm)	0.028238	ppm	0.002097	7.43	111.453000	0.028238
V (292.401 nm)	0.003321	ppm	0.000345	10.38	51.211300	0.003321
Zn (206.200 nm)	0.002374	ppm	0.000815	34.31	8.703050	0.002374
Zr (343.823 nm)	0.000117	ppm	0.000101	85.64	9.423410	0.000117

Solution Name: 280-190977-A-6-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190977-A-6-A	5/14/2024 10:29:14 PM	1:66	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.014253	ppm	0.000044	0.31	29067.597984	0.014253
Ag (328.068 nm)	0.001134	ppm	0.000161	14.22	6.118430	0.001134
Al (394.401 nm)	2.668360	ppm	0.008979	0.34	35589.400000	2.668360
Al H (396.152 nm)	2.685630	ppm	0.004981	0.19	12489.500000	2.685630
As (188.980 nm)	0.017293	ppm	0.002049	11.85	9.177820	0.017293
B (249.678 nm)	0.054536	ppm	0.000424	0.78	438.787000	0.054536
Ba (493.408 nm)	0.462743	ppm	0.000402	0.09	63565.400000	0.462743
Be (234.861 nm)	0.000135	ppm	0.000038	27.96	35.327800	0.000135
Bi (223.061 nm)	-0.000379 u	ppm	0.000342	90.22	3.317760	-0.000379 u
Ca (315.887 nm)	42.918640 o	ppm	0.166300	0.39	35963.943766	42.918640 o
Cd (214.439 nm)	0.000275	ppm	0.000100	36.21	4.568490	0.000275
Co (228.615 nm)	0.000897	ppm	0.000074	8.24	6.849790	0.000897
Cr (205.560 nm)	0.002847	ppm	0.000271	9.52	27.284300	0.002847
Cu (324.754 nm)	0.009597	ppm	0.009528	99.28	1063.410000	0.009597
Fe (238.204 nm)	2.841135	ppm	0.012685	0.45	9163.041447	2.841135
Fe H (259.940 nm)	2.812930 u	ppm	0.002113	0.08	3868.460000	2.812930 u
K (766.491 nm)	2.535300	ppm	0.033053	1.30	3287.810000	2.535300
Li (670.783 nm)	0.027525	ppm	0.001335	4.85	1272.920000	0.027525
Mg (279.078 nm)	16.759000	ppm	0.086225	0.51	49933.800000	16.759000
Mn (257.610 nm)	0.674502	ppm	0.001961	0.29	197101.000000	0.674502
Mo (202.032 nm)	0.002576	ppm	0.000228	8.87	19.202600	0.002576
Na (589.592 nm)	66.302300 o	ppm	0.280699	0.42	714258.000000	66.302300 o
Na H (589.593 nm)	66.142198	ppm	0.400194	0.61	515177.939517	66.142198
Ni (231.604 nm)	0.002255	ppm	0.000580	25.72	8.338030	0.002255
P (213.618 nm)	0.393782	ppm	0.002298	0.58	477.561000	0.393782
Pb (220.353 nm)	0.000082 u	ppm	0.001372	> 100.00	2.123160	0.000082 u
S (181.972 nm)	0.445396	ppm	0.007942	1.78	191.606462	0.445396
Sb (206.834 nm)	-0.001345 u	ppm	0.002284	> 100.00	2.790490	-0.001345 u
Se (196.026 nm)	-0.005018 u	ppm	0.000998	19.88	2.499850	-0.005018 u
Si (288.158 nm)	20.674100 o	ppm	0.076683	0.37	153443.000000	20.674100 o
Sn (189.925 nm)	-0.003685 u	ppm	0.000840	22.81	0.844825	-0.003685 u
Sr (421.552 nm)	0.296632	ppm	0.000238	0.08	63931.445592	0.296632
Th (288.505 nm)	-0.005678 u	ppm	0.001346	23.70	30.447100	-0.005678 u
Ti (336.122 nm)	0.069390	ppm	0.000299	0.43	9439.320000	0.069390
Tl (190.794 nm)	-0.001476 u	ppm	0.002834	> 100.00	-2.988760	-0.001476 u
U (409.013 nm)	0.011966	ppm	0.004005	33.47	52.657800	0.011966
V (292.401 nm)	0.005596	ppm	0.000185	3.30	118.587000	0.005596
Zn (206.200 nm)	0.011687	ppm	0.000612	5.23	30.405400	0.011687
Zr (343.823 nm)	0.002472	ppm	0.000103	4.17	192.166000	0.002472

Solution Name: 280-190977-A-7-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190977-A-7-A	5/14/2024 10:33:37 PM	1:67	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.010445	ppm	0.000053	0.51	20703.596371	0.010445
Ag (328.068 nm)	0.001468	ppm	0.000236	16.09	18.415600	0.001468
Al (394.401 nm)	0.088770	ppm	0.001286	1.45	1594.920000	0.088770
Al H (396.152 nm)	0.012017 u	ppm	0.000879	7.32	317.163000	0.012017 u
As (188.980 nm)	0.004452	ppm	0.003496	78.52	1.877620	0.004452
B (249.678 nm)	0.012103	ppm	0.000193	1.60	114.127000	0.012103
Ba (493.408 nm)	0.686263	ppm	0.001257	0.18	94280.200000	0.686263
Be (234.861 nm)	-0.000097 u	ppm	0.000038	39.35	1.753710	-0.000097 u
Bi (223.061 nm)	0.000566 u	ppm	0.000885	> 100.00	5.624380	0.000566 u
Ca (315.887 nm)	79.490990 o	ppm	0.228896	0.29	66622.626059	79.490990 o
Cd (214.439 nm)	0.000290	ppm	0.000101	34.76	3.945140	0.000290
Co (228.615 nm)	-0.000515 u	ppm	0.000139	27.02	-13.467200	-0.000515 u
Cr (205.560 nm)	0.000292	ppm	0.000165	56.51	10.861500	0.000292
Cu (324.754 nm)	-0.000255 u	ppm	0.000185	72.57	579.776000	-0.000255 u
Fe (238.204 nm)	0.071070	ppm	0.000658	0.93	249.809351	0.071070
Fe H (259.940 nm)	0.045947 u	ppm	0.000511	1.11	103.618000	0.045947 u
K (766.491 nm)	0.247409	ppm	0.072452	29.28	348.119000	0.247409
Li (670.783 nm)	0.025206	ppm	0.001413	5.61	1217.510000	0.025206
Mg (279.078 nm)	54.131800 o	ppm	0.155023	0.29	161275.000000	54.131800 o
Mn (257.610 nm)	0.018747	ppm	0.000029	0.15	5517.500000	0.018747
Mo (202.032 nm)	0.001321	ppm	0.000182	13.81	12.448500	0.001321
Na (589.592 nm)	87.048200 o	ppm	0.157906	0.18	937481.000000	87.048200 o
Na H (589.593 nm)	86.861489	ppm	0.589673	0.68	674971.168964	86.861489
Ni (231.604 nm)	-0.001586 u	ppm	0.000598	37.70	-9.804230	-0.001586 u
P (213.618 nm)	0.013076	ppm	0.002371	18.13	8.682000	0.013076
Pb (220.353 nm)	-0.001044 u	ppm	0.000406	38.89	0.069320	-0.001044 u
S (181.972 nm)	10.424617	ppm	0.077639	0.74	4061.068417	10.424617
Sb (206.834 nm)	-0.000691 u	ppm	0.001749	> 100.00	3.709240	-0.000691 u
Se (196.026 nm)	-0.000916 u	ppm	0.002834	> 100.00	4.361080	-0.000916 u
Si (288.158 nm)	11.212100 o	ppm	0.061846	0.55	83537.300000	11.212100 o
Sn (189.925 nm)	-0.002432 u	ppm	0.002021	83.08	1.728350	-0.002432 u
Sr (421.552 nm)	0.667128	ppm	0.000994	0.15	143735.620958	0.667128
Th (288.505 nm)	-0.001459 u	ppm	0.002127	> 100.00	24.935900	-0.001459 u
Ti (336.122 nm)	0.000480	ppm	0.000051	10.61	161.092000	0.000480
Tl (190.794 nm)	0.000195 u	ppm	0.003700	> 100.00	-1.279640	0.000195 u
U (409.013 nm)	0.023921	ppm	0.002984	12.48	95.227500	0.023921
V (292.401 nm)	0.003845	ppm	0.000263	6.83	64.930900	0.003845
Zn (206.200 nm)	0.004272	ppm	0.000567	13.27	13.127500	0.004272
Zr (343.823 nm)	0.000497	ppm	0.000042	8.53	38.330100	0.000497

Solution Name: 280-190977-A-8-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190977-A-8-A	5/14/2024 10:37:55 PM	1:68	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.002210	ppm	0.000017	0.76	2614.750036	0.002210
Ag (328.068 nm)	0.000968	ppm	0.000117	12.06	1.874400	0.000968
Al (394.401 nm)	0.040073	ppm	0.000563	1.40	930.315000	0.040073
Al H (396.152 nm)	-0.026263 u	ppm	0.000466	1.77	142.883000	-0.026263 u
As (188.980 nm)	0.003869 u	ppm	0.006227	> 100.00	1.438990	0.003869 u
B (249.678 nm)	0.053852	ppm	0.000188	0.35	433.555000	0.053852
Ba (493.408 nm)	0.244781	ppm	0.000220	0.09	33602.200000	0.244781
Be (234.861 nm)	-0.000050 u	ppm	0.000026	52.24	4.467320	-0.000050 u
Bi (223.061 nm)	-0.000148 u	ppm	0.001199	> 100.00	3.882840	-0.000148 u
Ca (315.887 nm)	37.195819 o	ppm	0.052485	0.14	31166.490126	37.195819 o
Cd (214.439 nm)	0.000200	ppm	0.000024	12.01	1.946090	0.000200
Co (228.615 nm)	0.000095 u	ppm	0.000286	> 100.00	-5.511370	0.000095 u
Cr (205.560 nm)	0.000157 u	ppm	0.000612	> 100.00	9.988480	0.000157 u
Cu (324.754 nm)	0.000032 u	ppm	0.000248	> 100.00	608.950000	0.000032 u
Fe (238.204 nm)	0.897852	ppm	0.002587	0.29	2910.142966	0.897852
Fe H (259.940 nm)	0.871498 u	ppm	0.002700	0.31	1226.890000	0.871498 u
K (766.491 nm)	1.233880	ppm	0.034305	2.78	1615.620000	1.233880
Li (670.783 nm)	0.017276	ppm	0.001461	8.46	963.291000	0.017276
Mg (279.078 nm)	17.875000	ppm	0.006454	0.04	53258.500000	17.875000
Mn (257.610 nm)	0.191299	ppm	0.000245	0.13	55929.700000	0.191299
Mo (202.032 nm)	0.002828	ppm	0.000228	8.06	20.561100	0.002828
Na (589.592 nm)	81.545700 o	ppm	0.255441	0.31	875524.000000	81.545700 o
Na H (589.593 nm)	81.327187	ppm	0.561898	0.69	630724.995285	81.327187
Ni (231.604 nm)	-0.001522 u	ppm	0.000667	43.81	-9.499870	-0.001522 u
P (213.618 nm)	0.465287	ppm	0.004393	0.94	566.244000	0.465287
Pb (220.353 nm)	0.000131 u	ppm	0.000556	> 100.00	2.555620	0.000131 u
S (181.972 nm)	0.200776	ppm	0.005008	2.49	95.557345	0.200776
Sb (206.834 nm)	-0.001482 u	ppm	0.001870	> 100.00	2.634740	-0.001482 u
Se (196.026 nm)	-0.001278 u	ppm	0.002217	> 100.00	4.179800	-0.001278 u
Si (288.158 nm)	11.073000 o	ppm	0.037741	0.34	82508.800000	11.073000 o
Sn (189.925 nm)	-0.002880 u	ppm	0.002317	80.45	1.412600	-0.002880 u
Sr (421.552 nm)	0.251260	ppm	0.000289	0.12	54158.428819	0.251260
Th (288.505 nm)	-0.001473 u	ppm	0.002891	> 100.00	28.321700	-0.001473 u
Ti (336.122 nm)	0.000171	ppm	0.000038	21.96	3.762380	0.000171
Tl (190.794 nm)	0.000777 u	ppm	0.002756	> 100.00	-0.749682	0.000777 u
U (409.013 nm)	0.010942	ppm	0.004009	36.63	47.204000	0.010942
V (292.401 nm)	0.000729	ppm	0.000138	18.87	-35.121800	0.000729
Zn (206.200 nm)	0.002328	ppm	0.000600	25.79	8.596860	0.002328
Zr (343.823 nm)	0.000067	ppm	0.000017	24.68	6.700350	0.000067

Solution Name: 280-190977-A-9-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190977-A-9-A	5/14/2024 10:42:16 PM	1:69	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.002114	ppm	0.000011	0.51	2402.573621	0.002114
Ag (328.068 nm)	0.000970	ppm	0.000022	2.24	1.973980	0.000970
Al (394.401 nm)	0.050740	ppm	0.001204	2.37	1070.470000	0.050740
Al H (396.152 nm)	-0.016607 u	ppm	0.000706	4.25	186.846000	-0.016607 u
As (188.980 nm)	0.000620 u	ppm	0.002428	> 100.00	-0.431705	0.000620 u
B (249.678 nm)	0.041099	ppm	0.000229	0.56	335.974000	0.041099
Ba (493.408 nm)	0.320070	ppm	0.000501	0.16	43949.900000	0.320070
Be (234.861 nm)	-0.000048 u	ppm	0.000035	74.01	3.967040	-0.000048 u
Bi (223.061 nm)	0.000491 u	ppm	0.000731	> 100.00	5.442810	0.000491 u
Ca (315.887 nm)	37.536855 o	ppm	0.075436	0.20	31452.380976	37.536855 o
Cd (214.439 nm)	0.000160	ppm	0.000106	66.06	0.864055	0.000160
Co (228.615 nm)	-0.000033 u	ppm	0.000270	> 100.00	-7.173310	-0.000033 u
Cr (205.560 nm)	0.000369	ppm	0.000224	60.70	11.355800	0.000369
Cu (324.754 nm)	0.000526	ppm	0.000180	34.19	632.453000	0.000526
Fe (238.204 nm)	0.714964	ppm	0.002420	0.34	2321.665481	0.714964
Fe H (259.940 nm)	0.689206 u	ppm	0.002668	0.39	978.857000	0.689206 u
K (766.491 nm)	1.228900	ppm	0.007439	0.61	1609.230000	1.228900
Li (670.783 nm)	0.016379	ppm	0.002448	14.94	940.568000	0.016379
Mg (279.078 nm)	20.377200	ppm	0.072034	0.35	60713.400000	20.377200
Mn (257.610 nm)	0.212925	ppm	0.000656	0.31	62248.100000	0.212925
Mo (202.032 nm)	0.002183	ppm	0.000219	10.05	17.087200	0.002183
Na (589.592 nm)	94.524300 o	ppm	0.276605	0.29	1014710.000000	94.524300 o
Na H (589.593 nm)	94.307592	ppm	0.683440	0.72	730570.141681	94.307592
Ni (231.604 nm)	-0.001532 u	ppm	0.000552	36.03	-9.550500	-0.001532 u
P (213.618 nm)	0.329121	ppm	0.003058	0.93	398.334000	0.329121
Pb (220.353 nm)	-0.001701 u	ppm	0.001354	79.55	-1.352490	-0.001701 u
S (181.972 nm)	1.466823	ppm	0.001699	0.12	586.648871	1.466823
Sb (206.834 nm)	-0.000776 u	ppm	0.001406	> 100.00	3.637170	-0.000776 u
Se (196.026 nm)	-0.000537 u	ppm	0.002559	> 100.00	4.609080	-0.000537 u
Si (288.158 nm)	10.597600	ppm	0.026195	0.25	78997.300000	10.597600
Sn (189.925 nm)	-0.002854 u	ppm	0.001430	50.11	1.430970	-0.002854 u
Sr (421.552 nm)	0.294373	ppm	0.000378	0.13	63444.788404	0.294373
Th (288.505 nm)	-0.002616 u	ppm	0.002167	82.85	26.347000	-0.002616 u
Ti (336.122 nm)	0.000207	ppm	0.000026	12.81	9.588370	0.000207
Tl (190.794 nm)	0.000366 u	ppm	0.001401	> 100.00	-1.131210	0.000366 u
U (409.013 nm)	0.010295	ppm	0.001527	14.84	44.638600	0.010295
V (292.401 nm)	0.000851	ppm	0.000189	22.17	-31.148500	0.000851
Zn (206.200 nm)	0.003063	ppm	0.000996	32.51	10.308000	0.003063
Zr (343.823 nm)	0.000125	ppm	0.000037	29.43	10.861000	0.000125

Solution Name: 280-190981-C-2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190981-C-2-A	5/14/2024 10:46:36 PM	1:70	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.030238	ppm	0.000012	0.04	64179.010298	0.030238
Ag (328.068 nm)	0.002191	ppm	0.000159	7.24	44.557600	0.002191
Al (394.401 nm)	0.448103	ppm	0.000625	0.14	6498.570000	0.448103
Al H (396.152 nm)	0.305721 u	ppm	0.000330	0.11	1654.330000	0.305721 u
As (188.980 nm)	0.020451	ppm	0.007201	35.21	11.760800	0.020451
B (249.678 nm)	0.239329	ppm	0.001336	0.56	1852.660000	0.239329
Ba (493.408 nm)	1.823020	ppm	0.000871	0.05	250585.000000	1.823020
Be (234.861 nm)	0.000056	ppm	0.000029	50.66	165.038000	0.000056
Bi (223.061 nm)	0.000278 u	ppm	0.001347	> 100.00	4.921740	0.000278 u
Ca (315.887 nm)	430.593235 o	ppm	0.507438	0.12	360952.418291	430.593235 o
Cd (214.439 nm)	0.000314	ppm	0.000048	15.27	12.961800	0.000314
Co (228.615 nm)	0.000201	ppm	0.000152	75.87	-3.929140	0.000201
Cr (205.560 nm)	0.000640	ppm	0.000331	51.72	13.087000	0.000640
Cu (324.754 nm)	0.001425	ppm	0.000440	30.91	573.873000	0.001425
Fe (238.204 nm)	23.787260 o	ppm	0.034215	0.14	76561.330509	23.787260 o
Fe H (259.940 nm)	23.900400	ppm	0.036612	0.15	32560.800000	23.900400
K (766.491 nm)	12.395000	ppm	0.039887	0.32	15956.500000	12.395000
Li (670.783 nm)	0.043711	ppm	0.001508	3.45	1841.770000	0.043711
Mg (279.078 nm)	37.906000	ppm	0.177993	0.47	112933.000000	37.906000
Mn (257.610 nm)	1.307180 o	ppm	0.004260	0.33	381943.000000	1.307180 o
Mo (202.032 nm)	0.003783	ppm	0.000224	5.92	25.697900	0.003783
Na (589.592 nm)	37.221700	ppm	0.140583	0.38	413392.000000	37.221700
Na H (589.593 nm)	36.880584 u	ppm	0.244084	0.66	296363.860438	36.880584 u
Ni (231.604 nm)	-0.000176 u	ppm	0.000512	> 100.00	-3.142370	-0.000176 u
P (213.618 nm)	0.108588	ppm	0.002055	1.89	126.206000	0.108588
Pb (220.353 nm)	-0.001778 u	ppm	0.001631	91.73	-1.546420	-0.001778 u
S (181.972 nm)	0.705396	ppm	0.002480	0.35	298.864835	0.705396
Sb (206.834 nm)	0.003418	ppm	0.000940	27.51	11.522000	0.003418
Se (196.026 nm)	0.001854 u	ppm	0.003627	> 100.00	4.344360	0.001854 u
Si (288.158 nm)	9.545110	ppm	0.009717	0.10	71230.400000	9.545110
Sn (189.925 nm)	0.007114	ppm	0.002521	35.44	8.460770	0.007114
Sr (421.552 nm)	3.222182 o	ppm	0.004049	0.13	694088.899395	3.222182 o
Th (288.505 nm)	-0.011311 u	ppm	0.002732	24.15	33.160300	-0.011311 u
Ti (336.122 nm)	0.007849	ppm	0.000025	0.32	2120.470000	0.007849
Tl (190.794 nm)	0.002093	ppm	0.000586	27.99	0.109136	0.002093
U (409.013 nm)	0.011080	ppm	0.005058	45.65	67.095200	0.011080
V (292.401 nm)	0.005316	ppm	0.000047	0.88	133.399000	0.005316
Zn (206.200 nm)	0.008771	ppm	0.001140	13.00	23.610600	0.008771
Zr (343.823 nm)	0.000808	ppm	0.000043	5.35	92.396500	0.000808

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/14/2024 10:51:03 PM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000895	ppm	0.000027	3.03	-273.679168	0.000895
Ag (328.068 nm)	0.000263	ppm	0.000211	80.42	74.536900	0.000263
Al (394.401 nm)	49.620800 o	ppm	0.124241	0.25	653806.000000	49.620800 o
Al H (396.152 nm)	49.119400	ppm	0.049560	0.10	223891.000000	49.119400
As (188.980 nm)	-0.001533 u	ppm	0.003602	> 100.00	-2.070460	-0.001533 u
B (249.678 nm)	-0.001369 u	ppm	0.000295	21.53	11.045700	-0.001369 u
Ba (493.408 nm)	0.000191	ppm	0.000091	47.50	111.886000	0.000191
Be (234.861 nm)	0.000139	ppm	0.000063	45.54	333.766000	0.000139
Bi (223.061 nm)	0.000620	ppm	0.000297	47.92	5.756880	0.000620
Ca (315.887 nm)	-0.012637 u	ppm	0.004611	36.49	-25.441646	-0.012637 u
Cd (214.439 nm)	-0.000292 u	ppm	0.000129	44.20	6.836300	-0.000292 u
Co (228.615 nm)	0.000247	ppm	0.000325	> 100.00	-3.519630	0.000247
Cr (205.560 nm)	0.000833	ppm	0.000264	31.72	14.350900	0.000833
Cu (324.754 nm)	-0.004286 u	ppm	0.000237	5.53	1379.120000	-0.004286 u
Fe (238.204 nm)	50.207736 o	ppm	0.044105	0.09	161574.416791	50.207736 o
Fe H (259.940 nm)	49.950700	ppm	0.091016	0.18	68005.700000	49.950700
K (766.491 nm)	0.065812	ppm	0.061519	93.48	114.787000	0.065812
Li (670.783 nm)	0.014677	ppm	0.002362	16.09	933.338000	0.014677
Mg (279.078 nm)	0.018688	ppm	0.006658	35.63	-108.785000	0.018688
Mn (257.610 nm)	-0.000587 u	ppm	0.000215	36.57	-131.103000	-0.000587 u
Mo (202.032 nm)	-0.000640 u	ppm	0.000232	36.23	1.896960	-0.000640 u
Na (589.592 nm)	237.074000 o	ppm	0.454006	0.19	2535190.000000	237.074000 o
Na H (589.593 nm)	238.499364	ppm	1.801934	0.76	1834949.257840	238.499364
Ni (231.604 nm)	0.000858	ppm	0.000518	60.41	1.741950	0.000858
P (213.618 nm)	4.962700	ppm	0.026619	0.54	6111.020000	4.962700
Pb (220.353 nm)	-0.002168 u	ppm	0.000500	23.08	-3.823430	-0.002168 u
S (181.972 nm)	4.966002	ppm	0.021212	0.43	1945.952260	4.966002
Sb (206.834 nm)	0.001646	ppm	0.000584	35.48	11.206200	0.001646
Se (196.026 nm)	0.002374	ppm	0.002366	99.68	0.989582	0.002374
Si (288.158 nm)	0.013426	ppm	0.000969	7.22	810.111000	0.013426
Sn (189.925 nm)	0.001298 u	ppm	0.001703	> 100.00	4.358930	0.001298 u
Sr (421.552 nm)	0.000212	ppm	0.000041	19.53	83.244823	0.000212
Th (288.505 nm)	4.807890	ppm	0.006346	0.13	10747.700000	4.807890
Ti (336.122 nm)	0.000767	ppm	0.000068	8.83	-16.342300	0.000767
Tl (190.794 nm)	-0.007365 u	ppm	0.004001	54.33	-9.146650	-0.007365 u
U (409.013 nm)	2.466600 Q	ppm	0.007558	0.31	9368.360000 Q	2.466600 Q
V (292.401 nm)	0.000783	ppm	0.000330	42.19	176.594000	0.000783
Zn (206.200 nm)	0.001962	ppm	0.000472	24.06	7.742430	0.001962
Zr (343.823 nm)	-0.000173 u	ppm	0.000088	51.05	51.607000	-0.000173 u

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/14/2024 10:55:30 PM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.452163	ppm	0.000683	0.15	991073.352429	0.452163
Ag (328.068 nm)	0.489572	ppm	0.000272	0.06	17611.300000	0.489572
Al (394.401 nm)	0.485607	ppm	0.001378	0.28	6786.450000	0.485607
Al H (396.152 nm)	0.475782 u	ppm	0.003337	0.70	2428.570000	0.475782 u
As (188.980 nm)	0.467164	ppm	0.001271	0.27	268.402000	0.467164
B (249.678 nm)	0.494774	ppm	0.000738	0.15	3807.100000	0.494774
Ba (493.408 nm)	0.494172	ppm	0.000735	0.15	68053.000000	0.494172
Be (234.861 nm)	0.505317	ppm	0.005207	1.03	50780.500000	0.505317
Bi (223.061 nm)	0.989237	ppm	0.000747	0.08	2419.710000	0.989237
Ca (315.887 nm)	4.919172	ppm	0.006130	0.12	4108.905386	4.919172
Cd (214.439 nm)	0.500183	ppm	0.001807	0.36	12773.400000	0.500183
Co (228.615 nm)	0.497445	ppm	0.001624	0.33	6505.370000	0.497445
Cr (205.560 nm)	0.487511	ppm	0.001365	0.28	3140.370000	0.487511
Cu (324.754 nm)	0.494701	ppm	0.000449	0.09	24101.000000	0.494701
Fe (238.204 nm)	2.513547	ppm	0.004058	0.16	8114.043874	2.513547
Fe H (259.940 nm)	2.484940 u	ppm	0.006735	0.27	3422.190000	2.484940 u
K (766.491 nm)	48.604700	ppm	0.031274	0.06	62481.900000	48.604700
Li (670.783 nm)	0.493650	ppm	0.002264	0.46	15530.000000	0.493650
Mg (279.078 nm)	19.356100	ppm	0.048576	0.25	57720.600000	19.356100
Mn (257.610 nm)	0.492746	ppm	0.000908	0.18	144000.000000	0.492746
Mo (202.032 nm)	0.498108	ppm	0.000680	0.14	2685.580000	0.498108
Na (589.592 nm)	24.498500	ppm	0.019432	0.08	267926.000000	24.498500
Na H (589.593 nm)	24.031451 u	ppm	0.249037	1.04	192397.976019	24.031451 u
Ni (231.604 nm)	0.494025	ppm	0.002016	0.41	2331.570000	0.494025
P (213.618 nm)	-0.016736 u	ppm	0.000890	5.32	-69.742900	-0.016736 u
Pb (220.353 nm)	0.468170	ppm	0.000371	0.08	998.620000	0.468170
S (181.972 nm)	-0.027034 u	ppm	0.001990	7.36	15.999121	-0.027034 u
Sb (206.834 nm)	0.491589	ppm	0.001677	0.34	708.422000	0.491589
Se (196.026 nm)	0.478276	ppm	0.002874	0.60	271.450000	0.478276
Si (288.158 nm)	4.910990	ppm	0.042038	0.86	37430.800000	4.910990
Sn (189.925 nm)	0.499176	ppm	0.006271	1.26	355.498000	0.499176
Sr (421.552 nm)	0.493663	ppm	0.000609	0.12	106371.565749	0.493663
Th (288.505 nm)	0.005937	ppm	0.001389	23.40	26.527800	0.005937
Ti (336.122 nm)	0.487451	ppm	0.000529	0.11	66237.500000	0.487451
Tl (190.794 nm)	0.499356	ppm	0.001776	0.36	465.301000	0.499356
U (409.013 nm)	-0.000700 u	ppm	0.001728	> 100.00	-8.076490	-0.000700 u
V (292.401 nm)	0.480026	ppm	0.000806	0.17	14892.500000	0.480026
Zn (206.200 nm)	0.493737	ppm	0.002477	0.50	1153.750000	0.493737
Zr (343.823 nm)	0.488379	ppm	0.000712	0.15	37168.500000	0.488379

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/14/2024 10:59:55 PM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000495	ppm	0.000007	1.51	-1153.783868	0.000495
Ag (328.068 nm)	0.000213 u	ppm	0.000520	> 100.00	-25.098500	0.000213 u
Al (394.401 nm)	-0.004019 u	ppm	0.000546	13.59	329.391000	-0.004019 u
Al H (396.152 nm)	-0.051489 u	ppm	0.000853	1.66	28.034500	-0.051489 u
As (188.980 nm)	0.000627 u	ppm	0.001808	> 100.00	-0.509849	0.000627 u
B (249.678 nm)	0.001726	ppm	0.000467	27.04	34.729400	0.001726
Ba (493.408 nm)	0.000182	ppm	0.000142	77.86	-19.320900	0.000182
Be (234.861 nm)	0.000037	ppm	0.000004	10.33	3.860890	0.000037
Bi (223.061 nm)	-0.000085 u	ppm	0.001207	> 100.00	4.036600	-0.000085 u
Ca (315.887 nm)	0.010605	ppm	0.005222	49.24	-5.957435	0.010605
Cd (214.439 nm)	0.000050	ppm	0.000020	40.66	-2.196560	0.000050
Co (228.615 nm)	-0.000003 u	ppm	0.000055	> 100.00	-6.790440	-0.000003 u
Cr (205.560 nm)	-0.000002 u	ppm	0.000134	> 100.00	8.979920	-0.000002 u
Cu (324.754 nm)	0.000390	ppm	0.000060	15.50	637.875000	0.000390
Fe (238.204 nm)	0.004415	ppm	0.001307	29.60	35.333927	0.004415
Fe H (259.940 nm)	-0.014673 u	ppm	0.005022	34.23	21.135400	-0.014673 u
K (766.491 nm)	0.027153 u	ppm	0.051962	> 100.00	65.114400	0.027153 u
Li (670.783 nm)	0.017638 S	ppm	0.002297	13.02	936.359000 S	0.017638 S
Mg (279.078 nm)	0.001412	ppm	0.000940	66.58	8.256950	0.001412
Mn (257.610 nm)	0.000057	ppm	0.000011	18.68	57.282200	0.000057
Mo (202.032 nm)	0.000370	ppm	0.000243	65.61	7.335730	0.000370
Na (589.592 nm)	0.219889	ppm	0.009055	4.12	5012.570000	0.219889
Na H (589.593 nm)	-0.320321 u	ppm	0.013064	4.08	3638.629119	-0.320321 u
Ni (231.604 nm)	-0.000006 u	ppm	0.000787	> 100.00	-2.343740	-0.000006 u
P (213.618 nm)	-0.000127 u	ppm	0.002330	> 100.00	-7.554620	-0.000127 u
Pb (220.353 nm)	-0.001160 u	ppm	0.000657	56.58	-0.200065	-0.001160 u
S (181.972 nm)	-0.002798 u	ppm	0.003602	> 100.00	15.792187	-0.002798 u
Sb (206.834 nm)	-0.000516 u	ppm	0.001452	> 100.00	3.960090	-0.000516 u
Se (196.026 nm)	0.000494 u	ppm	0.003009	> 100.00	4.792270	0.000494 u
Si (288.158 nm)	-0.006320 u	ppm	0.001031	16.32	661.631000	-0.006320 u
Sn (189.925 nm)	-0.001826 u	ppm	0.000674	36.89	2.155720	-0.001826 u
Sr (421.552 nm)	0.000089	ppm	0.000067	75.79	56.646398	0.000089
Th (288.505 nm)	0.004628	ppm	0.001161	25.08	36.882200	0.004628
Ti (336.122 nm)	0.000109	ppm	0.000013	12.25	-105.956000	0.000109
Tl (190.794 nm)	-0.000700 u	ppm	0.000870	> 100.00	-2.114590	-0.000700 u
U (409.013 nm)	0.001606 u	ppm	0.002916	> 100.00	11.432500	0.001606 u
V (292.401 nm)	-0.000066 u	ppm	0.000068	> 100.00	-61.952000	-0.000066 u
Zn (206.200 nm)	0.000515 u	ppm	0.000602	> 100.00	4.371140	0.000515 u
Zr (343.823 nm)	0.000053 u	ppm	0.000114	> 100.00	4.475910	0.000053 u

Solution Name: 280-190981-C-3-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190981-C-3-A	5/14/2024 11:03:57 PM	1:71	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.061200	ppm	0.000362	0.59	132189.162482	0.061200
Ag (328.068 nm)	0.001919	ppm	0.000133	6.91	33.575900	0.001919
Al (394.401 nm)	0.411953	ppm	0.002177	0.53	5926.070000	0.411953
Al H (396.152 nm)	0.299553 u	ppm	0.001194	0.40	1626.250000	0.299553 u
As (188.980 nm)	0.008123	ppm	0.002298	28.29	4.072170	0.008123
B (249.678 nm)	0.473157	ppm	0.003934	0.83	3641.710000	0.473157
Ba (493.408 nm)	1.050750	ppm	0.001373	0.13	144484.000000	1.050750
Be (234.861 nm)	0.001541	ppm	0.000129	8.35	426.423000	0.001541
Bi (223.061 nm)	-0.000643 u	ppm	0.000597	92.96	2.674160	-0.000643 u
Ca (315.887 nm)	225.158601 o	ppm	0.185513	0.08	188736.108199	225.158601 o
Cd (214.439 nm)	0.000181	ppm	0.000058	31.79	15.732700	0.000181
Co (228.615 nm)	0.001647	ppm	0.000033	2.02	14.792300	0.001647
Cr (205.560 nm)	0.002600	ppm	0.000444	17.09	25.698800	0.002600
Cu (324.754 nm)	0.001216	ppm	0.000171	14.09	652.793000	0.001216
Fe (238.204 nm)	41.117243 o	ppm	0.031631	0.08	132323.965256	41.117243 o
Fe H (259.940 nm)	41.018000	ppm	0.005041	0.01	55851.500000	41.018000
K (766.491 nm)	7.194170	ppm	0.040300	0.56	9273.950000	7.194170
Li (670.783 nm)	0.073589	ppm	0.000680	0.92	2736.790000	0.073589
Mg (279.078 nm)	48.145100 o	ppm	0.091792	0.19	143423.000000	48.145100 o
Mn (257.610 nm)	1.239580 o	ppm	0.001824	0.15	362193.000000	1.239580 o
Mo (202.032 nm)	0.001013	ppm	0.000139	13.69	10.795800	0.001013
Na (589.592 nm)	102.619000 o	ppm	0.415468	0.40	1106440.000000	102.619000 o
Na H (589.593 nm)	102.669387	ppm	0.391071	0.38	797682.511575	102.669387
Ni (231.604 nm)	0.004643	ppm	0.001044	22.48	19.618600	0.004643
P (213.618 nm)	0.204766	ppm	0.002432	1.19	245.002000	0.204766
Pb (220.353 nm)	-0.001799 u	ppm	0.001053	58.51	-1.583940	-0.001799 u
S (181.972 nm)	2.513994	ppm	0.015261	0.61	999.139881	2.513994
Sb (206.834 nm)	-0.000868 u	ppm	0.001371	> 100.00	6.843940	-0.000868 u
Se (196.026 nm)	-0.001792 u	ppm	0.003801	> 100.00	0.695201	-0.001792 u
Si (288.158 nm)	12.730600 o	ppm	0.011943	0.09	94767.100000	12.730600 o
Sn (189.925 nm)	0.013248	ppm	0.005777	43.61	12.787100	0.013248
Sr (421.552 nm)	2.497101 o	ppm	0.000079	0.00	537908.068841	2.497101 o
Th (288.505 nm)	-0.012277 u	ppm	0.001769	14.41	28.754000	-0.012277 u
Ti (336.122 nm)	0.000785	ppm	0.000058	7.43	599.624000	0.000785
Tl (190.794 nm)	-0.000272 u	ppm	0.000362	> 100.00	-2.361890	-0.000272 u
U (409.013 nm)	0.013007	ppm	0.001752	13.47	88.826700	0.013007
V (292.401 nm)	0.006856	ppm	0.000225	3.29	167.969000	0.006856
Zn (206.200 nm)	0.038588	ppm	0.001188	3.08	93.094400	0.038588
Zr (343.823 nm)	0.000702	ppm	0.000049	7.04	106.524000	0.000702

Solution Name: 280-190980-F-1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190980-F-1-A	5/14/2024 11:08:25 PM	1:72	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000942	ppm	0.000015	1.56	-171.907847	0.000942
Ag (328.068 nm)	0.000674	ppm	0.000037	5.43	-9.896540	0.000674
Al (394.401 nm)	0.270446	ppm	0.001435	0.53	3964.560000	0.270446
Al H (396.152 nm)	0.229961 u	ppm	0.001631	0.71	1309.410000	0.229961 u
As (188.980 nm)	0.000421 u	ppm	0.001195	> 100.00	-0.579705	0.000421 u
B (249.678 nm)	0.012808	ppm	0.000293	2.29	119.518000	0.012808
Ba (493.408 nm)	0.111054	ppm	0.000535	0.48	15220.400000	0.111054
Be (234.861 nm)	0.000001 u	ppm	0.000050	> 100.00	2.154890	0.000001 u
Bi (223.061 nm)	-0.000993 u	ppm	0.000155	15.60	1.818040	-0.000993 u
Ca (315.887 nm)	22.071375 o	ppm	0.047919	0.22	18487.635051	22.071375 o
Cd (214.439 nm)	0.000177	ppm	0.000034	19.19	1.122300	0.000177
Co (228.615 nm)	-0.000142 u	ppm	0.000028	19.56	-8.503480	-0.000142 u
Cr (205.560 nm)	0.000741	ppm	0.000462	62.38	13.750900	0.000741
Cu (324.754 nm)	0.002009	ppm	0.000262	13.04	704.760000	0.002009
Fe (238.204 nm)	0.262175	ppm	0.001791	0.68	864.727098	0.262175
Fe H (259.940 nm)	0.239632 u	ppm	0.001816	0.76	367.151000	0.239632 u
K (766.491 nm)	1.795710	ppm	0.018410	1.03	2337.510000	1.795710
Li (670.783 nm)	0.016699	ppm	0.001776	10.64	912.847000	0.016699
Mg (279.078 nm)	1.479320	ppm	0.008098	0.55	4413.020000	1.479320
Mn (257.610 nm)	0.003648	ppm	0.000119	3.27	1106.460000	0.003648
Mo (202.032 nm)	0.000770	ppm	0.000128	16.68	9.483640	0.000770
Na (589.592 nm)	1.539730	ppm	0.010795	0.70	19907.900000	1.539730
Na H (589.593 nm)	1.016143 u	ppm	0.042882	4.22	14340.058988	1.016143 u
Ni (231.604 nm)	0.000468	ppm	0.000367	78.52	-0.106197	0.000468
P (213.618 nm)	0.064522	ppm	0.001682	2.61	72.048400	0.064522
Pb (220.353 nm)	-0.001056 u	ppm	0.001366	> 100.00	0.005680	-0.001056 u
S (181.972 nm)	0.544950	ppm	0.009806	1.80	228.477980	0.544950
Sb (206.834 nm)	-0.000762 u	ppm	0.001156	> 100.00	3.617800	-0.000762 u
Se (196.026 nm)	-0.002048 u	ppm	0.001113	54.36	3.431710	-0.002048 u
Si (288.158 nm)	2.554660	ppm	0.006220	0.24	19581.700000	2.554660
Sn (189.925 nm)	-0.001026 u	ppm	0.001578	> 100.00	2.720340	-0.001026 u
Sr (421.552 nm)	0.053623	ppm	0.000179	0.33	11587.830035	0.053623
Th (288.505 nm)	-0.000233 u	ppm	0.002851	> 100.00	26.116300	-0.000233 u
Ti (336.122 nm)	0.004447	ppm	0.000048	1.07	544.373000	0.004447
Tl (190.794 nm)	-0.001744 u	ppm	0.001162	66.66	-3.102340	-0.001744 u
U (409.013 nm)	0.008961	ppm	0.005242	58.49	39.110600	0.008961
V (292.401 nm)	0.002359	ppm	0.000235	9.95	14.252300	0.002359
Zn (206.200 nm)	0.005117	ppm	0.000492	9.62	15.096000	0.005117
Zr (343.823 nm)	0.000185	ppm	0.000048	26.24	14.821300	0.000185

Solution Name: 280-190980-F-3-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190980-F-3-A	5/14/2024 11:12:46 PM	1:73	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001581	ppm	0.000027	1.70	1233.479442	0.001581
Ag (328.068 nm)	0.000685	ppm	0.000059	8.56	-9.601640	0.000685
Al (394.401 nm)	0.195702	ppm	0.001077	0.55	2973.640000	0.195702
Al H (396.152 nm)	0.152043 u	ppm	0.002225	1.46	954.667000	0.152043 u
As (188.980 nm)	0.000340 u	ppm	0.002092	> 100.00	-0.636051	0.000340 u
B (249.678 nm)	0.018878	ppm	0.000188	1.00	165.960000	0.018878
Ba (493.408 nm)	0.072971	ppm	0.001031	1.41	9985.620000	0.072971
Be (234.861 nm)	-0.000007 u	ppm	0.000003	44.49	0.814992	-0.000007 u
Bi (223.061 nm)	-0.000065 u	ppm	0.000582	> 100.00	4.083520	-0.000065 u
Ca (315.887 nm)	17.571120 o	ppm	0.005823	0.03	14715.061108	17.571120 o
Cd (214.439 nm)	0.000195	ppm	0.000015	7.58	1.561920	0.000195
Co (228.615 nm)	0.000228 u	ppm	0.000422	> 100.00	-3.716640	0.000228 u
Cr (205.560 nm)	0.003242	ppm	0.000421	12.98	29.829600	0.003242
Cu (324.754 nm)	0.005490	ppm	0.000109	1.98	873.391000	0.005490
Fe (238.204 nm)	0.141569	ppm	0.000979	0.69	476.656997	0.141569
Fe H (259.940 nm)	0.121115 u	ppm	0.001316	1.09	205.893000	0.121115 u
K (766.491 nm)	7.607740	ppm	0.032586	0.43	9805.340000	7.607740
Li (670.783 nm)	0.018917	ppm	0.001247	6.59	981.594000	0.018917
Mg (279.078 nm)	2.718860	ppm	0.007487	0.28	8111.510000	2.718860
Mn (257.610 nm)	0.030281	ppm	0.000059	0.20	8887.270000	0.030281
Mo (202.032 nm)	0.002107	ppm	0.000222	10.51	16.678300	0.002107
Na (589.592 nm)	6.489230	ppm	0.004684	0.07	72507.400000	6.489230
Na H (589.593 nm)	5.925957 u	ppm	0.022718	0.38	51833.930375	5.925957 u
Ni (231.604 nm)	0.000378 u	ppm	0.000530	> 100.00	-0.526776	0.000378 u
P (213.618 nm)	0.047725	ppm	0.001860	3.90	51.090000	0.047725
Pb (220.353 nm)	-0.000534 u	ppm	0.001005	> 100.00	1.121950	-0.000534 u
S (181.972 nm)	1.590515	ppm	0.006134	0.39	634.016874	1.590515
Sb (206.834 nm)	0.000198 u	ppm	0.000809	> 100.00	4.998560	0.000198 u
Se (196.026 nm)	-0.003980 u	ppm	0.002426	60.96	2.411190	-0.003980 u
Si (288.158 nm)	3.482040	ppm	0.002716	0.08	26432.200000	3.482040
Sn (189.925 nm)	-0.001570 u	ppm	0.001509	96.09	2.336380	-0.001570 u
Sr (421.552 nm)	0.075691	ppm	0.000872	1.15	16341.284479	0.075691
Th (288.505 nm)	0.001083 u	ppm	0.001190	> 100.00	29.657900	0.001083 u
Ti (336.122 nm)	0.002327	ppm	0.000084	3.59	243.649000	0.002327
Tl (190.794 nm)	-0.000981 u	ppm	0.000634	64.66	-2.385360	-0.000981 u
U (409.013 nm)	0.008974	ppm	0.000334	3.72	39.173600	0.008974
V (292.401 nm)	0.002958	ppm	0.000175	5.90	32.822600	0.002958
Zn (206.200 nm)	0.011951	ppm	0.000574	4.80	31.022000	0.011951
Zr (343.823 nm)	0.000105	ppm	0.000025	24.33	8.563230	0.000105

Solution Name: 280-190980-F-5-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190980-F-5-A	5/14/2024 11:17:07 PM	1:74	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000869	ppm	0.000014	1.56	-331.722987	0.000869
Ag (328.068 nm)	0.000663	ppm	0.000290	43.71	-9.694630	0.000663
Al (394.401 nm)	0.274059	ppm	0.000860	0.31	4002.210000	0.274059
Al H (396.152 nm)	0.248988 u	ppm	0.002433	0.98	1396.040000	0.248988 u
As (188.980 nm)	0.001644 u	ppm	0.002246	> 100.00	0.095811	0.001644 u
B (249.678 nm)	0.018913	ppm	0.000111	0.59	166.229000	0.018913
Ba (493.408 nm)	0.038893	ppm	0.000520	1.34	5302.100000	0.038893
Be (234.861 nm)	0.000006 u	ppm	0.000019	> 100.00	2.465990	0.000006 u
Bi (223.061 nm)	-0.001913 u	ppm	0.001064	55.61	-0.428366	-0.001913 u
Ca (315.887 nm)	9.268059	ppm	0.027082	0.29	7754.586232	9.268059
Cd (214.439 nm)	0.001276	ppm	0.000135	10.55	29.176400	0.001276
Co (228.615 nm)	0.000229	ppm	0.000237	> 100.00	-3.643830	0.000229
Cr (205.560 nm)	0.001891	ppm	0.000157	8.29	21.147000	0.001891
Cu (324.754 nm)	0.003276	ppm	0.000181	5.52	771.287000	0.003276
Fe (238.204 nm)	0.251276	ppm	0.001138	0.45	829.670152	0.251276
Fe H (259.940 nm)	0.228697 u	ppm	0.001094	0.48	352.273000	0.228697 u
K (766.491 nm)	0.404823	ppm	0.006223	1.54	550.380000	0.404823
Li (670.783 nm)	0.017943	ppm	0.002522	14.06	947.821000	0.017943
Mg (279.078 nm)	0.567418	ppm	0.001940	0.34	1694.880000	0.567418
Mn (257.610 nm)	0.012291	ppm	0.000030	0.25	3631.320000	0.012291
Mo (202.032 nm)	0.000366	ppm	0.000117	32.06	7.312220	0.000366
Na (589.592 nm)	0.653902	ppm	0.013798	2.11	9928.210000	0.653902
Na H (589.593 nm)	0.077241 u	ppm	0.021290	27.56	6846.193222	0.077241 u
Ni (231.604 nm)	0.000976	ppm	0.000393	40.29	2.296150	0.000976
P (213.618 nm)	0.023674	ppm	0.000995	4.21	21.614700	0.023674
Pb (220.353 nm)	0.000304 u	ppm	0.000607	> 100.00	2.893610	0.000304 u
S (181.972 nm)	0.343603	ppm	0.007824	2.28	150.294535	0.343603
Sb (206.834 nm)	-0.000239 u	ppm	0.000502	> 100.00	4.376040	-0.000239 u
Se (196.026 nm)	0.002341 u	ppm	0.004018	> 100.00	5.836860	0.002341 u
Si (288.158 nm)	0.998624	ppm	0.002115	0.21	8084.580000	0.998624
Sn (189.925 nm)	-0.003644 u	ppm	0.001573	43.18	0.873806	-0.003644 u
Sr (421.552 nm)	0.023702	ppm	0.000147	0.62	5142.837798	0.023702
Th (288.505 nm)	0.001034 u	ppm	0.001546	> 100.00	29.150900	0.001034 u
Ti (336.122 nm)	0.004438	ppm	0.000044	0.99	508.298000	0.004438
Tl (190.794 nm)	-0.001303 u	ppm	0.002406	> 100.00	-2.688140	-0.001303 u
U (409.013 nm)	0.004556 u	ppm	0.004914	> 100.00	22.676400	0.004556 u
V (292.401 nm)	0.001727	ppm	0.000110	6.37	-5.793920	0.001727
Zn (206.200 nm)	0.015189	ppm	0.000615	4.05	38.566200	0.015189
Zr (343.823 nm)	0.000082	ppm	0.000069	84.52	6.975090	0.000082

Solution Name: 280-190980-F-5-A SD@5

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190980-F-5-A SD@5	5/14/2024 11:21:27 PM	1:75	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000524	ppm	0.000032	6.08	-1089.304186	0.000524
Ag (328.068 nm)	0.000474	ppm	0.000183	38.49	-15.733300	0.000474
Al (394.401 nm)	0.056402	ppm	0.001659	2.94	1127.230000	0.056402
Al H (396.152 nm)	0.014857 u	ppm	0.002274	15.31	330.092000	0.014857 u
As (188.980 nm)	0.000131 u	ppm	0.001675	> 100.00	-0.792339	0.000131 u
B (249.678 nm)	0.003853	ppm	0.000425	11.04	50.999900	0.003853
Ba (493.408 nm)	0.007927	ppm	0.000135	1.71	1045.450000	0.007927
Be (234.861 nm)	-0.000010 u	ppm	0.000017	> 100.00	-0.298005	-0.000010 u
Bi (223.061 nm)	-0.000635 u	ppm	0.000539	84.96	2.692950	-0.000635 u
Ca (315.887 nm)	1.875414	ppm	0.001742	0.09	1557.315504	1.875414
Cd (214.439 nm)	0.000291	ppm	0.000021	7.19	3.989170	0.000291
Co (228.615 nm)	-0.000016 u	ppm	0.000061	> 100.00	-6.945450	-0.000016 u
Cr (205.560 nm)	0.000127 u	ppm	0.000168	> 100.00	9.808950	0.000127 u
Cu (324.754 nm)	0.000917	ppm	0.000171	18.59	661.983000	0.000917
Fe (238.204 nm)	0.087852	ppm	0.000582	0.66	303.810744	0.087852
Fe H (259.940 nm)	0.066625 u	ppm	0.003518	5.28	131.753000	0.066625 u
K (766.491 nm)	0.038364 u	ppm	0.041984	> 100.00	79.519700	0.038364 u
Li (670.783 nm)	0.014484	ppm	0.001168	8.06	840.114000	0.014484
Mg (279.078 nm)	0.115727	ppm	0.001567	1.35	348.921000	0.115727
Mn (257.610 nm)	0.002608	ppm	0.000009	0.34	802.328000	0.002608
Mo (202.032 nm)	0.000145 u	ppm	0.000158	> 100.00	6.123220	0.000145 u
Na (589.592 nm)	0.287993	ppm	0.012858	4.46	5795.310000	0.287993
Na H (589.593 nm)	-0.304396 u	ppm	0.010473	3.44	3792.180284	-0.304396 u
Ni (231.604 nm)	-0.000020 u	ppm	0.000620	> 100.00	-2.405820	-0.000020 u
P (213.618 nm)	0.003793	ppm	0.002166	57.11	-2.748160	0.003793
Pb (220.353 nm)	-0.000102 u	ppm	0.000383	> 100.00	2.045960	-0.000102 u
S (181.972 nm)	0.061483	ppm	0.003648	5.93	40.732295	0.061483
Sb (206.834 nm)	0.000002 u	ppm	0.001867	> 100.00	4.710280	0.000002 u
Se (196.026 nm)	-0.000117 u	ppm	0.000541	> 100.00	4.450810	-0.000117 u
Si (288.158 nm)	0.185487	ppm	0.001587	0.86	2079.210000	0.185487
Sn (189.925 nm)	-0.001453 u	ppm	0.001104	76.02	2.419130	-0.001453 u
Sr (421.552 nm)	0.004678	ppm	0.000038	0.80	1045.155555	0.004678
Th (288.505 nm)	0.001582 u	ppm	0.003706	> 100.00	30.109100	0.001582 u
Ti (336.122 nm)	0.000962	ppm	0.000104	10.78	15.168600	0.000962
Tl (190.794 nm)	0.000562 u	ppm	0.001149	> 100.00	-0.934199	0.000562 u
U (409.013 nm)	-0.001090 u	ppm	0.000647	59.35	1.359220	-0.001090 u
V (292.401 nm)	0.000256	ppm	0.000092	35.93	-51.818300	0.000256
Zn (206.200 nm)	0.003309	ppm	0.000472	14.27	10.882400	0.003309
Zr (343.823 nm)	-0.000081 u	ppm	0.000033	40.15	-5.626650	-0.000081 u

Solution Name: 280-190980-F-5-B MS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190980-F-5-B MS	5/14/2024 11:25:44 PM	1:76	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.978443	ppm	0.001180	0.12	2147195.009629	0.978443
Ag (328.068 nm)	0.049395	ppm	0.000075	0.15	1453.660000	0.049395
Al (394.401 nm)	10.492400 o	ppm	0.014750	0.14	138766.000000	10.492400 o
Al H (396.152 nm)	10.542700	ppm	0.007159	0.07	48260.700000	10.542700
As (188.980 nm)	0.981940	ppm	0.001973	0.20	565.198000	0.981940
B (249.678 nm)	2.081770	ppm	0.000361	0.02	15949.400000	2.081770
Ba (493.408 nm)	1.048380	ppm	0.001519	0.14	144419.000000	1.048380
Be (234.861 nm)	1.024880	ppm	0.007746	0.76	103030.000000	1.024880
Bi (223.061 nm)	-0.000917 u	ppm	0.001259	> 100.00	2.003600	-0.000917 u
Ca (315.887 nm)	59.130020 o	ppm	0.084957	0.14	49553.979210	59.130020 o
Cd (214.439 nm)	1.003070	ppm	0.001596	0.16	25621.000000	1.003070
Co (228.615 nm)	0.982905	ppm	0.001172	0.12	12861.300000	0.982905
Cr (205.560 nm)	0.981103	ppm	0.001197	0.12	6310.800000	0.981103
Cu (324.754 nm)	1.000370	ppm	0.004243	0.42	48092.100000	1.000370
Fe (238.204 nm)	10.483880 o	ppm	0.014117	0.13	33765.271648	10.483880 o
Fe H (259.940 nm)	10.454900	ppm	0.029799	0.29	14266.400000	10.454900
K (766.491 nm)	50.343100	ppm	0.091048	0.18	64715.500000	50.343100
Li (670.783 nm)	0.981062	ppm	0.001409	0.14	30483.900000	0.981062
Mg (279.078 nm)	50.613600 o	ppm	0.070619	0.14	150845.000000	50.613600 o
Mn (257.610 nm)	1.004850	ppm	0.001042	0.10	293613.000000	1.004850
Mo (202.032 nm)	1.013160	ppm	0.001319	0.13	5456.970000	1.013160
Na (589.592 nm)	49.934500	ppm	0.117214	0.23	543638.000000	49.934500
Na H (589.593 nm)	49.758690 u	ppm	0.569397	1.14	391952.107396	49.758690 u
Ni (231.604 nm)	0.963561	ppm	0.002781	0.29	4549.800000	0.963561
P (213.618 nm)	20.988000 o	ppm	0.051491	0.25	25787.600000	20.988000 o
Pb (220.353 nm)	0.942977	ppm	0.003924	0.42	2008.050000	0.942977
S (181.972 nm)	20.472049 o	ppm	0.039334	0.19	7975.306213	20.472049 o
Sb (206.834 nm)	0.998002	ppm	0.005058	0.51	1433.750000	0.998002
Se (196.026 nm)	0.983577	ppm	0.006094	0.62	552.971000	0.983577
Si (288.158 nm)	10.879900	ppm	0.049076	0.45	81966.900000	10.879900
Sn (189.925 nm)	0.996908	ppm	0.003745	0.38	706.534000	0.996908
Sr (421.552 nm)	1.028715	ppm	0.000997	0.10	221620.585193	1.028715
Th (288.505 nm)	-0.003049 u	ppm	0.002844	93.28	-7.488390	-0.003049 u
Ti (336.122 nm)	0.990147	ppm	0.001368	0.14	134804.000000	0.990147
Tl (190.794 nm)	1.005600	ppm	0.000172	0.02	938.354000	1.005600
U (409.013 nm)	0.013540	ppm	0.003933	29.04	38.818000	0.013540
V (292.401 nm)	0.988542	ppm	0.001947	0.20	30739.900000	0.988542
Zn (206.200 nm)	1.002750	ppm	0.003579	0.36	2339.920000	1.002750
Zr (343.823 nm)	0.986335	ppm	0.001518	0.15	75072.400000	0.986335

Solution Name: 280-190980-F-5-C MSD

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190980-F-5-C MSD	5/14/2024 11:30:08 PM	1:77	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.979897	ppm	0.003727	0.38	2150390.120499	0.979897
Ag (328.068 nm)	0.049244	ppm	0.000498	1.01	1451.610000	0.049244
Al (394.401 nm)	10.505500 o	ppm	0.052955	0.50	138937.000000	10.505500 o
Al H (396.152 nm)	10.500000	ppm	0.025522	0.24	48066.400000	10.500000
As (188.980 nm)	0.987756	ppm	0.002487	0.25	568.550000	0.987756
B (249.678 nm)	2.087880	ppm	0.006441	0.31	15996.100000	2.087880
Ba (493.408 nm)	1.047380	ppm	0.002036	0.19	144277.000000	1.047380
Be (234.861 nm)	1.006970	ppm	0.003651	0.36	101230.000000	1.006970
Bi (223.061 nm)	-0.000928 u	ppm	0.000399	42.97	1.976850	-0.000928 u
Ca (315.887 nm)	58.819681 o	ppm	0.175825	0.30	49293.821501	58.819681 o
Cd (214.439 nm)	0.997287	ppm	0.004184	0.42	25473.300000	0.997287
Co (228.615 nm)	0.981129	ppm	0.003418	0.35	12838.300000	0.981129
Cr (205.560 nm)	0.976150	ppm	0.003621	0.37	6278.920000	0.976150
Cu (324.754 nm)	0.998809	ppm	0.003017	0.30	48018.000000	0.998809
Fe (238.204 nm)	10.429859 o	ppm	0.042660	0.41	33591.391882	10.429859 o
Fe H (259.940 nm)	10.425200	ppm	0.033479	0.32	14226.000000	10.425200
K (766.491 nm)	50.387600	ppm	0.122401	0.24	64772.700000	50.387600
Li (670.783 nm)	0.977731	ppm	0.003534	0.36	30381.700000	0.977731
Mg (279.078 nm)	50.385900 o	ppm	0.246974	0.49	150167.000000	50.385900 o
Mn (257.610 nm)	1.001550	ppm	0.003835	0.38	292650.000000	1.001550
Mo (202.032 nm)	1.021040	ppm	0.005156	0.50	5499.410000	1.021040
Na (589.592 nm)	49.809100	ppm	0.120562	0.24	542294.000000	49.809100
Na H (589.593 nm)	49.745658 u	ppm	0.265511	0.53	391849.454995	49.745658 u
Ni (231.604 nm)	0.961170	ppm	0.004601	0.48	4538.510000	0.961170
P (213.618 nm)	20.975100 o	ppm	0.084250	0.40	25771.500000	20.975100 o
Pb (220.353 nm)	0.942199	ppm	0.003294	0.35	2006.380000	0.942199
S (181.972 nm)	20.497228 o	ppm	0.110915	0.54	7984.955359	20.497228 o
Sb (206.834 nm)	1.006130	ppm	0.001907	0.19	1445.310000	1.006130
Se (196.026 nm)	0.986946	ppm	0.000564	0.06	554.856000	0.986946
Si (288.158 nm)	10.972600	ppm	0.004123	0.04	82661.300000	10.972600
Sn (189.925 nm)	1.007490	ppm	0.003636	0.36	713.994000	1.007490
Sr (421.552 nm)	1.027457	ppm	0.002182	0.21	221349.761043	1.027457
Th (288.505 nm)	-0.005092 u	ppm	0.002192	43.05	-11.815000	-0.005092 u
Ti (336.122 nm)	0.998174	ppm	0.003067	0.31	135896.000000	0.998174
Tl (190.794 nm)	1.004390	ppm	0.004803	0.48	937.187000	1.004390
U (409.013 nm)	0.010046	ppm	0.000444	4.42	25.414700	0.010046
V (292.401 nm)	0.985809	ppm	0.004612	0.47	30655.400000	0.985809
Zn (206.200 nm)	0.993896	ppm	0.004771	0.48	2319.290000	0.993896
Zr (343.823 nm)	0.994939	ppm	0.002643	0.27	75727.100000	0.994939

Solution Name: 280-190980-F-5-A PDS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190980-F-5-A PDS	5/14/2024 11:34:32 PM	1:78	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.086566	ppm	0.000380	0.44	187918.892171	0.086566
Ag (328.068 nm)	0.047080	ppm	0.000277	0.59	1658.450000	0.047080
Al (394.401 nm)	1.235300	ppm	0.006171	0.50	16739.900000	1.235300
Al H (396.152 nm)	1.211080	ppm	0.001757	0.15	5776.230000	1.211080
As (188.980 nm)	0.189995	ppm	0.001257	0.66	108.701000	0.189995
B (249.678 nm)	0.124210	ppm	0.001595	1.28	971.871000	0.124210
Ba (493.408 nm)	0.134057	ppm	0.000306	0.23	18401.000000	0.134057
Be (234.861 nm)	0.049692	ppm	0.000897	1.81	5004.670000	0.049692
Bi (223.061 nm)	-0.001128 u	ppm	0.000744	65.94	1.488850	-0.001128 u
Ca (315.887 nm)	28.257858 o	ppm	0.012990	0.05	23673.777549	28.257858 o
Cd (214.439 nm)	0.050806	ppm	0.000193	0.38	1294.620000	0.050806
Co (228.615 nm)	0.048585	ppm	0.000243	0.50	629.378000	0.048585
Cr (205.560 nm)	0.049534	ppm	0.000089	0.18	327.161000	0.049534
Cu (324.754 nm)	0.051626	ppm	0.000356	0.69	3072.090000	0.051626
Fe (238.204 nm)	1.225386	ppm	0.001243	0.10	3964.562884	1.225386
Fe H (259.940 nm)	1.204640 u	ppm	0.009367	0.78	1680.170000	1.204640 u
K (766.491 nm)	19.601500	ppm	0.040482	0.21	25216.000000	19.601500
Li (670.783 nm)	0.110550	ppm	0.001105	1.00	3796.170000	0.110550
Mg (279.078 nm)	19.663900	ppm	0.041977	0.21	58596.100000	19.663900
Mn (257.610 nm)	0.060224	ppm	0.000201	0.33	17635.400000	0.060224
Mo (202.032 nm)	0.050522	ppm	0.000888	1.76	277.194000	0.050522
Na (589.592 nm)	19.804600	ppm	0.028499	0.14	215186.000000	19.804600
Na H (589.593 nm)	19.214727 u	ppm	0.235335	1.22	153983.973742	19.214727 u
Ni (231.604 nm)	0.047096	ppm	0.000111	0.24	220.329000	0.047096
P (213.618 nm)	2.026770	ppm	0.008224	0.41	2487.400000	2.026770
Pb (220.353 nm)	0.092719	ppm	0.001743	1.88	200.446000	0.092719
S (181.972 nm)	1.415971	ppm	0.005838	0.41	568.025370	1.415971
Sb (206.834 nm)	0.099078	ppm	0.002655	2.68	146.747000	0.099078
Se (196.026 nm)	0.191202	ppm	0.002614	1.37	111.244000	0.191202
Si (288.158 nm)	5.760100	ppm	0.015990	0.28	43344.200000	5.760100
Sn (189.925 nm)	0.097022	ppm	0.001926	1.98	71.870700	0.097022
Sr (421.552 nm)	0.071661	ppm	0.000104	0.15	15473.064222	0.071661
Th (288.505 nm)	0.186703	ppm	0.001343	0.72	445.417000	0.186703
Ti (336.122 nm)	0.052274	ppm	0.000134	0.26	7070.790000	0.052274
Tl (190.794 nm)	0.196347	ppm	0.003943	2.01	182.341000	0.196347
U (409.013 nm)	0.511933	ppm	0.002675	0.52	1928.750000	0.511933
V (292.401 nm)	0.049808	ppm	0.000136	0.27	1484.900000	0.049808
Zn (206.200 nm)	0.208414	ppm	0.001216	0.58	488.847000	0.208414
Zr (343.823 nm)	0.049376	ppm	0.000246	0.50	3759.460000	0.049376

Solution Name: 280-190980-F-7-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190980-F-7-A	5/14/2024 11:38:54 PM	1:79	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001204	ppm	0.000033	2.71	404.370134	0.001204
Ag (328.068 nm)	0.000370	ppm	0.000072	19.37	-20.481300	0.000370
Al (394.401 nm)	0.525019	ppm	0.000894	0.17	7310.000000	0.525019
Al H (396.152 nm)	0.520190 u	ppm	0.001837	0.35	2630.750000	0.520190 u
As (188.980 nm)	0.002595	ppm	0.001203	46.37	0.641011	0.002595
B (249.678 nm)	0.015389	ppm	0.000673	4.37	139.267000	0.015389
Ba (493.408 nm)	0.046528	ppm	0.000366	0.79	6352.210000	0.046528
Be (234.861 nm)	0.000018 u	ppm	0.000029	> 100.00	5.424660	0.000018 u
Bi (223.061 nm)	-0.001061 u	ppm	0.000622	58.60	1.651370	-0.001061 u
Ca (315.887 nm)	8.603041	ppm	0.009751	0.11	7197.100451	8.603041
Cd (214.439 nm)	0.000713	ppm	0.000097	13.63	14.900100	0.000713
Co (228.615 nm)	0.000361	ppm	0.000117	32.49	-1.826760	0.000361
Cr (205.560 nm)	0.005099	ppm	0.000075	1.46	41.767100	0.005099
Cu (324.754 nm)	0.003685	ppm	0.000352	9.55	791.825000	0.003685
Fe (238.204 nm)	0.518150	ppm	0.001715	0.33	1688.384592	0.518150
Fe H (259.940 nm)	0.492186 u	ppm	0.005996	1.22	710.784000	0.492186 u
K (766.491 nm)	1.314800	ppm	0.032099	2.44	1719.600000	1.314800
Li (670.783 nm)	0.016891	ppm	0.000962	5.70	915.701000	0.016891
Mg (279.078 nm)	0.970175	ppm	0.003415	0.35	2895.550000	0.970175
Mn (257.610 nm)	0.035582	ppm	0.000114	0.32	10436.200000	0.035582
Mo (202.032 nm)	0.001526	ppm	0.000326	21.35	13.553600	0.001526
Na (589.592 nm)	1.365500	ppm	0.012099	0.89	17584.600000	1.365500
Na H (589.593 nm)	0.759655 u	ppm	0.024815	3.27	12110.261156	0.759655 u
Ni (231.604 nm)	0.001118	ppm	0.000310	27.71	2.966860	0.001118
P (213.618 nm)	0.052961	ppm	0.000982	1.85	57.676300	0.052961
Pb (220.353 nm)	0.000021 u	ppm	0.001560	> 100.00	2.253440	0.000021 u
S (181.972 nm)	0.524496	ppm	0.001898	0.36	220.496536	0.524496
Sb (206.834 nm)	-0.000714 u	ppm	0.001414	> 100.00	3.715650	-0.000714 u
Se (196.026 nm)	-0.000447 u	ppm	0.001875	> 100.00	4.291820	-0.000447 u
Si (288.158 nm)	1.682360	ppm	0.001284	0.08	13138.100000	1.682360
Sn (189.925 nm)	-0.001026 u	ppm	0.001642	> 100.00	2.720050	-0.001026 u
Sr (421.552 nm)	0.033077	ppm	0.000200	0.61	7162.265941	0.033077
Th (288.505 nm)	0.003445	ppm	0.000983	28.54	35.009400	0.003445
Ti (336.122 nm)	0.008219	ppm	0.000069	0.83	1021.070000	0.008219
Tl (190.794 nm)	-0.000473 u	ppm	0.001811	> 100.00	-1.922630	-0.000473 u
U (409.013 nm)	0.001819	ppm	0.001114	61.21	12.658400	0.001819
V (292.401 nm)	0.002312	ppm	0.000157	6.80	12.064800	0.002312
Zn (206.200 nm)	0.020953	ppm	0.000345	1.65	51.997800	0.020953
Zr (343.823 nm)	0.000301	ppm	0.000039	13.06	24.032500	0.000301

Solution Name: 280-190980-F-9-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190980-F-9-A	5/14/2024 11:43:11 PM	1:80	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001151	ppm	0.000013	1.13	288.301117	0.001151
Ag (328.068 nm)	0.000749	ppm	0.000137	18.24	-6.946220	0.000749
Al (394.401 nm)	0.370182	ppm	0.001233	0.33	5273.010000	0.370182
Al H (396.152 nm)	0.346571 u	ppm	0.004978	1.44	1840.310000	0.346571 u
As (188.980 nm)	-0.000510 u	ppm	0.003455	> 100.00	-1.135330	-0.000510 u
B (249.678 nm)	0.009504	ppm	0.000408	4.29	94.243300	0.009504
Ba (493.408 nm)	0.037231	ppm	0.000204	0.55	5073.890000	0.037231
Be (234.861 nm)	-0.000022 u	ppm	0.000038	> 100.00	0.428332	-0.000022 u
Bi (223.061 nm)	-0.000475 u	ppm	0.001292	> 100.00	3.084060	-0.000475 u
Ca (315.887 nm)	14.133256 o	ppm	0.058679	0.42	11833.092361	14.133256 o
Cd (214.439 nm)	0.000232	ppm	0.000024	10.29	2.568750	0.000232
Co (228.615 nm)	0.000220	ppm	0.000201	91.60	-3.710810	0.000220
Cr (205.560 nm)	0.001782	ppm	0.000076	4.27	20.447200	0.001782
Cu (324.754 nm)	0.002637	ppm	0.000085	3.21	739.003000	0.002637
Fe (238.204 nm)	0.359293	ppm	0.002802	0.78	1177.223329	0.359293
Fe H (259.940 nm)	0.337746 u	ppm	0.001226	0.36	500.649000	0.337746 u
K (766.491 nm)	1.392360	ppm	0.026687	1.92	1819.260000	1.392360
Li (670.783 nm)	0.019600	ppm	0.001494	7.62	999.890000	0.019600
Mg (279.078 nm)	1.188960	ppm	0.006403	0.54	3547.530000	1.188960
Mn (257.610 nm)	0.010790	ppm	0.000025	0.23	3193.020000	0.010790
Mo (202.032 nm)	0.000687 u	ppm	0.000603	87.79	9.039870	0.000687 u
Na (589.592 nm)	1.418870	ppm	0.010311	0.73	18088.200000	1.418870
Na H (589.593 nm)	0.820324 u	ppm	0.018438	2.25	12537.585225	0.820324 u
Ni (231.604 nm)	0.000379	ppm	0.000194	51.29	-0.524005	0.000379
P (213.618 nm)	0.089288	ppm	0.001348	1.51	102.561000	0.089288
Pb (220.353 nm)	-0.002734 u	ppm	0.000245	8.98	-3.590830	-0.002734 u
S (181.972 nm)	0.525326	ppm	0.006525	1.24	220.809096	0.525326
Sb (206.834 nm)	0.001461	ppm	0.001075	73.60	6.813770	0.001461
Se (196.026 nm)	-0.000408 u	ppm	0.004790	> 100.00	4.310650	-0.000408 u
Si (288.158 nm)	1.572650	ppm	0.005192	0.33	12327.400000	1.572650
Sn (189.925 nm)	-0.001127 u	ppm	0.000823	73.06	2.648860	-0.001127 u
Sr (421.552 nm)	0.036212	ppm	0.000174	0.48	7837.498360	0.036212
Th (288.505 nm)	0.001247	ppm	0.000988	79.25	29.549800	0.001247
Ti (336.122 nm)	0.006767	ppm	0.000032	0.47	838.504000	0.006767
Tl (190.794 nm)	0.000385 u	ppm	0.003434	> 100.00	-1.113070	0.000385 u
U (409.013 nm)	0.007123	ppm	0.002315	32.51	32.384500	0.007123
V (292.401 nm)	0.002488	ppm	0.000081	3.25	18.202300	0.002488
Zn (206.200 nm)	0.018841	ppm	0.000767	4.07	47.077300	0.018841
Zr (343.823 nm)	0.000239	ppm	0.000043	17.96	19.107500	0.000239

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/14/2024 11:47:30 PM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000916	ppm	0.000024	2.57	-227.982772	0.000916
Ag (328.068 nm)	0.000204 u	ppm	0.000255	> 100.00	72.520800	0.000204 u
Al (394.401 nm)	49.390900 o	ppm	0.231094	0.47	650773.000000	49.390900 o
Al H (396.152 nm)	49.039400	ppm	0.054348	0.11	223527.000000	49.039400
As (188.980 nm)	-0.000926 u	ppm	0.003623	> 100.00	-1.719710	-0.000926 u
B (249.678 nm)	-0.002170 u	ppm	0.000430	19.81	4.919100	-0.002170 u
Ba (493.408 nm)	0.000180	ppm	0.000178	98.53	110.069000	0.000180
Be (234.861 nm)	0.000097	ppm	0.000014	14.09	328.731000	0.000097
Bi (223.061 nm)	0.001145	ppm	0.001167	> 100.00	7.037740	0.001145
Ca (315.887 nm)	-0.008099 u	ppm	0.004968	61.35	-21.636945	-0.008099 u
Cd (214.439 nm)	-0.000234 u	ppm	0.000038	16.24	8.268970	-0.000234 u
Co (228.615 nm)	-0.000550 u	ppm	0.000158	28.69	-13.925700	-0.000550 u
Cr (205.560 nm)	0.000518	ppm	0.000266	51.35	12.321000	0.000518
Cu (324.754 nm)	-0.004254 u	ppm	0.000288	6.77	1381.000000	-0.004254 u
Fe (238.204 nm)	50.143011 o	ppm	0.057396	0.11	161366.148992	50.143011 o
Fe H (259.940 nm)	49.869500	ppm	0.035057	0.07	67895.200000	49.869500
K (766.491 nm)	-0.002022 u	ppm	0.028700	> 100.00	27.628000	-0.002022 u
Li (670.783 nm)	0.016531	ppm	0.001146	6.93	989.560000	0.016531
Mg (279.078 nm)	0.012843	ppm	0.000381	2.97	-126.075000	0.012843
Mn (257.610 nm)	-0.000773 u	ppm	0.000011	1.48	-185.219000	-0.000773 u
Mo (202.032 nm)	-0.000238 u	ppm	0.000155	65.24	4.063480	-0.000238 u
Na (589.592 nm)	235.925000 o	ppm	0.934197	0.40	2522910.000000	235.925000 o
Na H (589.593 nm)	237.899372	ppm	2.262068	0.95	1830348.090372	237.899372
Ni (231.604 nm)	0.000910	ppm	0.000599	65.84	1.987310	0.000910
P (213.618 nm)	4.965960	ppm	0.020737	0.42	6115.020000	4.965960
Pb (220.353 nm)	-0.002061 u	ppm	0.000982	47.64	-3.599860	-0.002061 u
S (181.972 nm)	4.968651	ppm	0.023826	0.48	1946.964517	4.968651
Sb (206.834 nm)	0.000848	ppm	0.000329	38.84	10.048300	0.000848
Se (196.026 nm)	0.000507 u	ppm	0.002248	> 100.00	-0.040560	0.000507 u
Si (288.158 nm)	-0.001149 u	ppm	0.001621	> 100.00	699.732000	-0.001149 u
Sn (189.925 nm)	-0.001974 u	ppm	0.000761	38.58	2.051660	-0.001974 u
Sr (421.552 nm)	0.000151	ppm	0.000021	13.79	70.112961	0.000151
Th (288.505 nm)	4.798650	ppm	0.010095	0.21	10727.100000	4.798650
Ti (336.122 nm)	0.000681	ppm	0.000075	11.07	-28.106600	0.000681
Tl (190.794 nm)	-0.006725 u	ppm	0.003126	46.48	-8.547290	-0.006725 u
U (409.013 nm)	2.459590 Q	ppm	0.007949	0.32	9341.960000 Q	2.459590 Q
V (292.401 nm)	0.001123	ppm	0.000242	21.55	187.655000	0.001123
Zn (206.200 nm)	0.001869	ppm	0.000253	13.51	7.526070	0.001869
Zr (343.823 nm)	-0.000425 u	ppm	0.000075	17.62	32.288700	-0.000425 u

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/14/2024 11:51:59 PM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.451694	ppm	0.000316	0.07	990044.429138	0.451694
Ag (328.068 nm)	0.489478	ppm	0.000924	0.19	17607.700000	0.489478
Al (394.401 nm)	0.487976	ppm	0.003808	0.78	6817.350000	0.487976
Al H (396.152 nm)	0.470642 u	ppm	0.002578	0.55	2405.170000	0.470642 u
As (188.980 nm)	0.462696	ppm	0.011545	2.50	265.826000	0.462696
B (249.678 nm)	0.494879	ppm	0.000416	0.08	3807.910000	0.494879
Ba (493.408 nm)	0.493676	ppm	0.000876	0.18	67982.400000	0.493676
Be (234.861 nm)	0.497006	ppm	0.005419	1.09	49945.600000	0.497006
Bi (223.061 nm)	0.990266	ppm	0.002076	0.21	2422.220000	0.990266
Ca (315.887 nm)	4.877132	ppm	0.009526	0.20	4073.662961	4.877132
Cd (214.439 nm)	0.500442	ppm	0.002930	0.59	12780.000000	0.500442
Co (228.615 nm)	0.497556	ppm	0.000545	0.11	6506.800000	0.497556
Cr (205.560 nm)	0.485986	ppm	0.003043	0.63	3130.560000	0.485986
Cu (324.754 nm)	0.494065	ppm	0.000480	0.10	24070.900000	0.494065
Fe (238.204 nm)	2.507319	ppm	0.001461	0.06	8094.008162	2.507319
Fe H (259.940 nm)	2.477680 u	ppm	0.005222	0.21	3412.310000	2.477680 u
K (766.491 nm)	48.323500	ppm	0.120602	0.25	62120.700000	48.323500
Li (670.783 nm)	0.489015	ppm	0.002680	0.55	15387.900000	0.489015
Mg (279.078 nm)	19.355500	ppm	0.076600	0.40	57718.400000	19.355500
Mn (257.610 nm)	0.492140	ppm	0.001394	0.28	143823.000000	0.492140
Mo (202.032 nm)	0.499611	ppm	0.001349	0.27	2693.670000	0.499611
Na (589.592 nm)	24.352600	ppm	0.013152	0.05	266362.000000	24.352600
Na H (589.593 nm)	23.879677 u	ppm	0.156603	0.66	191231.382129	23.879677 u
Ni (231.604 nm)	0.493577	ppm	0.002261	0.46	2329.460000	0.493577
P (213.618 nm)	-0.012962 u	ppm	0.002165	16.70	-65.101100	-0.012962 u
Pb (220.353 nm)	0.464733	ppm	0.001785	0.38	991.287000	0.464733
S (181.972 nm)	-0.029870 u	ppm	0.004789	16.03	14.858629	-0.029870 u
Sb (206.834 nm)	0.492246	ppm	0.003751	0.76	709.352000	0.492246
Se (196.026 nm)	0.480255	ppm	0.004770	0.99	272.553000	0.480255
Si (288.158 nm)	4.880400	ppm	0.031718	0.65	37205.100000	4.880400
Sn (189.925 nm)	0.499802	ppm	0.004568	0.91	355.940000	0.499802
Sr (421.552 nm)	0.493561	ppm	0.001073	0.22	106349.538033	0.493561
Th (288.505 nm)	0.006821	ppm	0.001131	16.58	28.538600	0.006821
Ti (336.122 nm)	0.486898	ppm	0.000853	0.18	66162.000000	0.486898
Tl (190.794 nm)	0.501988	ppm	0.002920	0.58	467.766000	0.501988
U (409.013 nm)	0.001268	ppm	0.001285	> 100.00	-0.673310	0.001268
V (292.401 nm)	0.479733	ppm	0.001330	0.28	14883.700000	0.479733
Zn (206.200 nm)	0.492820	ppm	0.003173	0.64	1151.610000	0.492820
Zr (343.823 nm)	0.487335	ppm	0.001485	0.30	37089.100000	0.487335

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/14/2024 11:56:24 PM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000479	ppm	0.000020	4.19	-1188.957131	0.000479
Ag (328.068 nm)	0.000324	ppm	0.000136	42.04	-20.906000	0.000324
Al (394.401 nm)	-0.002709 u	ppm	0.000533	19.67	346.720000	-0.002709 u
Al H (396.152 nm)	-0.052525 u	ppm	0.002059	3.92	23.318200	-0.052525 u
As (188.980 nm)	-0.001289 u	ppm	0.003757	> 100.00	-1.614310	-0.001289 u
B (249.678 nm)	0.001311	ppm	0.000350	26.69	31.555200	0.001311
Ba (493.408 nm)	0.000252	ppm	0.000195	77.21	-9.670420	0.000252
Be (234.861 nm)	0.000017 u	ppm	0.000044	> 100.00	1.850200	0.000017 u
Bi (223.061 nm)	-0.000243 u	ppm	0.000474	> 100.00	3.649250	-0.000243 u
Ca (315.887 nm)	0.010297	ppm	0.005707	55.42	-6.215792	0.010297
Cd (214.439 nm)	0.000032 u	ppm	0.000096	> 100.00	-2.647720	0.000032 u
Co (228.615 nm)	0.000013 u	ppm	0.000102	> 100.00	-6.573880	0.000013 u
Cr (205.560 nm)	0.000019 u	ppm	0.000416	> 100.00	9.115020	0.000019 u
Cu (324.754 nm)	0.000448	ppm	0.000361	80.53	640.586000	0.000448
Fe (238.204 nm)	0.003660	ppm	0.001285	35.10	32.905236	0.003660
Fe H (259.940 nm)	-0.019303 u	ppm	0.000446	2.31	14.835900	-0.019303 u
K (766.491 nm)	-0.015308 u	ppm	0.015439	> 100.00	10.557600	-0.015308 u
Li (670.783 nm)	0.018650 S	ppm	0.000459	2.46	967.296000 S	0.018650 S
Mg (279.078 nm)	0.002790	ppm	0.002064	73.97	12.282900	0.002790
Mn (257.610 nm)	0.000063	ppm	0.000032	51.26	58.789700	0.000063
Mo (202.032 nm)	0.000178 u	ppm	0.000622	> 100.00	6.302560	0.000178 u
Na (589.592 nm)	0.163176	ppm	0.004801	2.94	4407.050000	0.163176
Na H (589.593 nm)	-0.413427 u	ppm	0.012733	3.08	2924.848899	-0.413427 u
Ni (231.604 nm)	0.000097 u	ppm	0.000467	> 100.00	-1.855310	0.000097 u
P (213.618 nm)	-0.002808 u	ppm	0.002328	82.90	-10.875400	-0.002808 u
Pb (220.353 nm)	-0.000147 u	ppm	0.000854	> 100.00	1.959620	-0.000147 u
S (181.972 nm)	-0.005144 u	ppm	0.001512	29.39	14.867687	-0.005144 u
Sb (206.834 nm)	-0.000228 u	ppm	0.000827	> 100.00	4.375150	-0.000228 u
Se (196.026 nm)	-0.003535 u	ppm	0.001005	28.43	2.545040	-0.003535 u
Si (288.158 nm)	-0.009777 u	ppm	0.001638	16.75	636.787000	-0.009777 u
Sn (189.925 nm)	-0.000959 u	ppm	0.002032	> 100.00	2.767180	-0.000959 u
Sr (421.552 nm)	-0.000018 u	ppm	0.000109	> 100.00	33.578031	-0.000018 u
Th (288.505 nm)	0.004788	ppm	0.000155	3.24	37.251600	0.004788
Ti (336.122 nm)	0.000032 u	ppm	0.000090	> 100.00	-116.433000	0.000032 u
Tl (190.794 nm)	0.000775 u	ppm	0.001264	> 100.00	-0.732548	0.000775 u
U (409.013 nm)	-0.001900 u	ppm	0.000567	29.83	-1.725260	-0.001900 u
V (292.401 nm)	-0.000049 u	ppm	0.000175	> 100.00	-61.467900	-0.000049 u
Zn (206.200 nm)	-0.000238 u	ppm	0.000736	> 100.00	2.616760	-0.000238 u
Zr (343.823 nm)	0.000090	ppm	0.000074	81.45	7.309410	0.000090

Solution Name: 280-190980-F-11-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190980-F-11-A	5/15/2024 12:00:25 AM	1:81	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001480	ppm	0.000012	0.83	1009.542383	0.001480
Ag (328.068 nm)	0.000446	ppm	0.000124	27.82	-17.984100	0.000446
Al (394.401 nm)	0.529786	ppm	0.001142	0.22	7374.580000	0.529786
Al H (396.152 nm)	0.523339 u	ppm	0.000598	0.11	2645.090000	0.523339 u
As (188.980 nm)	0.004569	ppm	0.002385	52.20	1.784490	0.004569
B (249.678 nm)	0.017759	ppm	0.000184	1.03	157.400000	0.017759
Ba (493.408 nm)	0.056796	ppm	0.000595	1.05	7763.390000	0.056796
Be (234.861 nm)	0.000040	ppm	0.000017	42.83	7.667820	0.000040
Bi (223.061 nm)	-0.001561 u	ppm	0.000458	29.34	0.430473	-0.001561 u
Ca (315.887 nm)	10.987292	ppm	0.015051	0.14	9195.823203	10.987292
Cd (214.439 nm)	0.000542	ppm	0.000081	14.90	10.535800	0.000542
Co (228.615 nm)	0.000137 u	ppm	0.000195	> 100.00	-4.756770	0.000137 u
Cr (205.560 nm)	0.005593	ppm	0.000051	0.92	44.944000	0.005593
Cu (324.754 nm)	0.030400	ppm	0.000169	0.56	2058.870000	0.030400
Fe (238.204 nm)	0.515701	ppm	0.002268	0.44	1680.503876	0.515701
Fe H (259.940 nm)	0.492195 u	ppm	0.002722	0.55	710.797000	0.492195 u
K (766.491 nm)	1.756980	ppm	0.013717	0.78	2287.750000	1.756980
Li (670.783 nm)	0.019198	ppm	0.001277	6.65	987.180000	0.019198
Mg (279.078 nm)	1.385900	ppm	0.003755	0.27	4134.570000	1.385900
Mn (257.610 nm)	0.016483	ppm	0.000021	0.13	4856.000000	0.016483
Mo (202.032 nm)	0.001314	ppm	0.000400	30.48	12.411400	0.001314
Na (589.592 nm)	2.114300	ppm	0.001765	0.08	25656.500000	2.114300
Na H (589.593 nm)	1.507422 u	ppm	0.028244	1.87	17885.791073	1.507422 u
Ni (231.604 nm)	0.000889	ppm	0.000130	14.62	1.884940	0.000889
P (213.618 nm)	0.060480	ppm	0.002177	3.60	65.494900	0.060480
Pb (220.353 nm)	0.000559	ppm	0.000320	57.27	3.401670	0.000559
S (181.972 nm)	0.816240	ppm	0.008170	1.00	333.634957	0.816240
Sb (206.834 nm)	0.000396 u	ppm	0.001689	> 100.00	5.311620	0.000396 u
Se (196.026 nm)	-0.003049 u	ppm	0.001582	51.87	2.842230	-0.003049 u
Si (288.158 nm)	2.085160	ppm	0.004686	0.22	16113.200000	2.085160
Sn (189.925 nm)	-0.001724 u	ppm	0.001589	92.18	2.227910	-0.001724 u
Sr (421.552 nm)	0.047966	ppm	0.000254	0.53	10369.215387	0.047966
Th (288.505 nm)	0.000566 u	ppm	0.002968	> 100.00	28.135900	0.000566 u
Ti (336.122 nm)	0.008088	ppm	0.000097	1.20	1009.690000	0.008088
Tl (190.794 nm)	-0.001031 u	ppm	0.003550	> 100.00	-2.445340	-0.001031 u
U (409.013 nm)	0.003949	ppm	0.002993	75.80	20.621500	0.003949
V (292.401 nm)	0.002873	ppm	0.000147	5.13	29.603400	0.002873
Zn (206.200 nm)	0.022892	ppm	0.000365	1.59	56.516200	0.022892
Zr (343.823 nm)	0.000424	ppm	0.000069	16.21	33.319700	0.000424

Solution Name: 280-190980-F-13-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190980-F-13-A	5/15/2024 12:04:46 AM	1:82	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.003380	ppm	0.000011	0.32	5184.374915	0.003380
Ag (328.068 nm)	0.000909	ppm	0.000057	6.30	-4.510500	0.000909
Al (394.401 nm)	3.031270 o	ppm	0.011291	0.37	40365.800000	3.031270 o
Al H (396.152 nm)	3.209850	ppm	0.004030	0.13	14876.200000	3.209850
As (188.980 nm)	0.001974	ppm	0.000555	28.13	0.298576	0.001974
B (249.678 nm)	0.030720	ppm	0.000217	0.70	256.562000	0.030720
Ba (493.408 nm)	0.132419	ppm	0.000220	0.17	18162.500000	0.132419
Be (234.861 nm)	0.000112	ppm	0.000033	29.76	27.575600	0.000112
Bi (223.061 nm)	-0.000890 u	ppm	0.000539	60.62	2.070450	-0.000890 u
Ca (315.887 nm)	20.497025 o	ppm	0.054092	0.26	17167.853620	20.497025 o
Cd (214.439 nm)	0.000187	ppm	0.000051	27.29	2.182930	0.000187
Co (228.615 nm)	0.000761	ppm	0.000321	42.24	4.142450	0.000761
Cr (205.560 nm)	0.004280	ppm	0.000280	6.55	36.497200	0.004280
Cu (324.754 nm)	0.003866	ppm	0.000163	4.21	797.720000	0.003866
Fe (238.204 nm)	2.431362	ppm	0.009523	0.39	7844.513385	2.431362
Fe H (259.940 nm)	2.392850 u	ppm	0.003988	0.17	3296.890000	2.392850 u
K (766.491 nm)	4.572570	ppm	0.018280	0.40	5905.470000	4.572570
Li (670.783 nm)	0.022645	ppm	0.001493	6.59	1097.520000	0.022645
Mg (279.078 nm)	3.624530	ppm	0.009298	0.26	10805.500000	3.624530
Mn (257.610 nm)	0.067640	ppm	0.000199	0.29	19802.100000	0.067640
Mo (202.032 nm)	0.002187	ppm	0.000147	6.73	17.110400	0.002187
Na (589.592 nm)	9.392960	ppm	0.032113	0.34	103952.000000	9.392960
Na H (589.593 nm)	8.767071 u	ppm	0.084677	0.97	73862.638110	8.767071 u
Ni (231.604 nm)	0.002402	ppm	0.000492	20.46	9.032750	0.002402
P (213.618 nm)	0.072724	ppm	0.001080	1.48	82.025800	0.072724
Pb (220.353 nm)	-0.000005 u	ppm	0.001785	> 100.00	1.898130	-0.000005 u
S (181.972 nm)	3.068990	ppm	0.008860	0.29	1207.707831	3.068990
Sb (206.834 nm)	0.000484 u	ppm	0.001681	> 100.00	5.497680	0.000484 u
Se (196.026 nm)	0.000171 u	ppm	0.001825	> 100.00	4.667350	0.000171 u
Si (288.158 nm)	7.943900	ppm	0.036369	0.46	59396.000000	7.943900
Sn (189.925 nm)	-0.002760 u	ppm	0.000362	13.12	1.496910	-0.002760 u
Sr (421.552 nm)	0.097845	ppm	0.000093	0.09	21113.086397	0.097845
Th (288.505 nm)	0.000950	ppm	0.000930	97.85	29.873500	0.000950
Ti (336.122 nm)	0.035302	ppm	0.000076	0.22	4739.300000	0.035302
Tl (190.794 nm)	-0.001212 u	ppm	0.001135	93.64	-2.684430	-0.001212 u
U (409.013 nm)	0.009393	ppm	0.000570	6.07	42.624900	0.009393
V (292.401 nm)	0.009498	ppm	0.000193	2.04	238.440000	0.009498
Zn (206.200 nm)	0.013777	ppm	0.000449	3.26	35.276600	0.013777
Zr (343.823 nm)	0.001673	ppm	0.000089	5.29	130.825000	0.001673

Solution Name: 280-190980-F-17-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190980-F-17-A	5/15/2024 12:09:08 AM	1:83	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.005608	ppm	0.000052	0.92	10078.248310	0.005608
Ag (328.068 nm)	0.000660	ppm	0.000067	10.14	-18.070500	0.000660
Al (394.401 nm)	7.266940 o	ppm	0.068741	0.95	96217.100000	7.266940 o
Al H (396.152 nm)	7.705330	ppm	0.006687	0.09	35343.000000	7.705330
As (188.980 nm)	0.003898	ppm	0.004904	> 100.00	1.385750	0.003898
B (249.678 nm)	0.033129	ppm	0.000458	1.38	274.997000	0.033129
Ba (493.408 nm)	0.223159	ppm	0.000172	0.08	30643.200000	0.223159
Be (234.861 nm)	0.000278	ppm	0.000061	22.05	66.008600	0.000278
Bi (223.061 nm)	-0.000426 u	ppm	0.000803	> 100.00	3.202340	-0.000426 u
Ca (315.887 nm)	20.474177 o	ppm	0.030650	0.15	17148.700041	20.474177 o
Cd (214.439 nm)	0.000241	ppm	0.000071	29.60	4.783950	0.000241
Co (228.615 nm)	0.002069	ppm	0.000273	13.21	22.487800	0.002069
Cr (205.560 nm)	0.009429	ppm	0.000160	1.70	69.591700	0.009429
Cu (324.754 nm)	0.005889	ppm	0.000242	4.12	897.850000	0.005889
Fe (238.204 nm)	5.865776 o	ppm	0.011404	0.19	18895.420159	5.865776 o
Fe H (259.940 nm)	5.804370	ppm	0.007373	0.13	7938.720000	5.804370
K (766.491 nm)	6.214130	ppm	0.013259	0.21	8014.700000	6.214130
Li (670.783 nm)	0.024143	ppm	0.001466	6.07	1143.210000	0.024143
Mg (279.078 nm)	3.532320	ppm	0.003671	0.10	10530.500000	3.532320
Mn (257.610 nm)	0.119481	ppm	0.000173	0.15	34947.600000	0.119481
Mo (202.032 nm)	0.003677	ppm	0.000274	7.45	25.126300	0.003677
Na (589.592 nm)	8.812430	ppm	0.031900	0.36	98403.400000	8.812430
Na H (589.593 nm)	8.150350 u	ppm	0.072367	0.89	69504.848143	8.150350 u
Ni (231.604 nm)	0.005507	ppm	0.000679	12.33	23.696000	0.005507
P (213.618 nm)	0.065881	ppm	0.000658	1.00	73.446200	0.065881
Pb (220.353 nm)	0.002020 u	ppm	0.002172	> 100.00	5.689240	0.002020 u
S (181.972 nm)	3.198490	ppm	0.020688	0.65	1258.252403	3.198490
Sb (206.834 nm)	-0.000882 u	ppm	0.001527	> 100.00	3.693960	-0.000882 u
Se (196.026 nm)	-0.000940 u	ppm	0.005860	> 100.00	4.025930	-0.000940 u
Si (288.158 nm)	16.866500 o	ppm	0.048586	0.29	125317.000000	16.866500 o
Sn (189.925 nm)	-0.002017 u	ppm	0.001648	81.70	2.021220	-0.002017 u
Sr (421.552 nm)	0.112100	ppm	0.000279	0.25	24183.537505	0.112100
Th (288.505 nm)	-0.000685 u	ppm	0.000675	98.62	26.804600	-0.000685 u
Ti (336.122 nm)	0.080854	ppm	0.000242	0.30	10938.400000	0.080854
Tl (190.794 nm)	-0.000254 u	ppm	0.001710	> 100.00	-1.908680	-0.000254 u
U (409.013 nm)	0.006628	ppm	0.001806	27.24	35.078400	0.006628
V (292.401 nm)	0.019278	ppm	0.000307	1.59	545.055000	0.019278
Zn (206.200 nm)	0.018194	ppm	0.000159	0.87	45.569500	0.018194
Zr (343.823 nm)	0.004037	ppm	0.000057	1.40	315.176000	0.004037

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/15/2024 12:13:33 AM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000964	ppm	0.000006	0.67	-121.989238	0.000964
Ag (328.068 nm)	0.000515	ppm	0.000212	41.23	83.728400	0.000515
Al (394.401 nm)	49.409000 o	ppm	0.180642	0.37	651013.000000	49.409000 o
Al H (396.152 nm)	48.958000	ppm	0.052836	0.11	223157.000000	48.958000
As (188.980 nm)	-0.000138 u	ppm	0.004268	> 100.00	-1.265150	-0.000138 u
B (249.678 nm)	-0.002862 u	ppm	0.000122	4.27	-0.374492	-0.002862 u
Ba (493.408 nm)	0.000099	ppm	0.000146	> 100.00	98.769300	0.000099
Be (234.861 nm)	0.000095	ppm	0.000033	34.85	328.237000	0.000095
Bi (223.061 nm)	0.000946	ppm	0.000166	17.55	6.552990	0.000946
Ca (315.887 nm)	-0.015969 u	ppm	0.001786	11.18	-28.234899	-0.015969 u
Cd (214.439 nm)	-0.000198 u	ppm	0.000176	88.76	9.186700	-0.000198 u
Co (228.615 nm)	-0.000171 u	ppm	0.000313	> 100.00	-8.984400	-0.000171 u
Cr (205.560 nm)	0.000602	ppm	0.000302	50.15	12.862900	0.000602
Cu (324.754 nm)	-0.004109 u	ppm	0.000147	3.59	1386.770000	-0.004109 u
Fe (238.204 nm)	50.114655 o	ppm	0.082126	0.16	161274.908711	50.114655 o
Fe H (259.940 nm)	49.882700	ppm	0.056700	0.11	67913.100000	49.882700
K (766.491 nm)	0.002473 u	ppm	0.038251	> 100.00	33.403100	0.002473 u
Li (670.783 nm)	0.017995	ppm	0.001223	6.80	1034.660000	0.017995
Mg (279.078 nm)	0.013229	ppm	0.001184	8.95	-124.839000	0.013229
Mn (257.610 nm)	-0.000775 u	ppm	0.000006	0.78	-185.769000	-0.000775 u
Mo (202.032 nm)	-0.000556 u	ppm	0.000312	56.19	2.350700	-0.000556 u
Na (589.592 nm)	236.514000 o	ppm	0.624287	0.26	2529200.000000	236.514000 o
Na H (589.593 nm)	237.649387	ppm	2.000556	0.84	1828432.097573	237.649387
Ni (231.604 nm)	0.000189 u	ppm	0.001190	> 100.00	-1.422580	0.000189 u
P (213.618 nm)	4.974430	ppm	0.015439	0.31	6125.480000	4.974430
Pb (220.353 nm)	-0.001982 u	ppm	0.002019	> 100.00	-3.416550	-0.001982 u
S (181.972 nm)	4.973209	ppm	0.019368	0.39	1948.739156	4.973209
Sb (206.834 nm)	-0.001801 u	ppm	0.001355	75.26	6.246700	-0.001801 u
Se (196.026 nm)	0.002575	ppm	0.001766	68.56	1.117470	0.002575
Si (288.158 nm)	0.001960 u	ppm	0.003170	> 100.00	725.595000	0.001960 u
Sn (189.925 nm)	0.001663 u	ppm	0.001718	> 100.00	4.616540	0.001663 u
Sr (421.552 nm)	0.000140	ppm	0.000061	43.29	67.695642	0.000140
Th (288.505 nm)	4.786750	ppm	0.008075	0.17	10700.600000	4.786750
Ti (336.122 nm)	0.000680	ppm	0.000037	5.42	-28.210900	0.000680
Tl (190.794 nm)	-0.006311 u	ppm	0.000779	12.34	-8.157280	-0.006311 u
U (409.013 nm)	2.461520 Q	ppm	0.002576	0.10	9349.090000 Q	2.461520 Q
V (292.401 nm)	0.001089	ppm	0.000086	7.91	186.179000	0.001089
Zn (206.200 nm)	0.001768	ppm	0.000609	34.46	7.291960	0.001768
Zr (343.823 nm)	0.000215	ppm	0.000079	36.85	80.889600	0.000215

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/15/2024 12:18:01 AM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.449621 Q	ppm	0.000358	0.08	985491.112556 Q	0.449621 Q
Ag (328.068 nm)	0.488459	ppm	0.000577	0.12	17570.700000	0.488459
Al (394.401 nm)	0.484223	ppm	0.003589	0.74	6767.480000	0.484223
Al H (396.152 nm)	0.470664 u	ppm	0.005345	1.14	2405.270000	0.470664 u
As (188.980 nm)	0.462607	ppm	0.005291	1.14	265.775000	0.462607
B (249.678 nm)	0.490931	ppm	0.000960	0.20	3777.700000	0.490931
Ba (493.408 nm)	0.492883	ppm	0.001057	0.21	67872.300000	0.492883
Be (234.861 nm)	0.493556	ppm	0.002262	0.46	49599.000000	0.493556
Bi (223.061 nm)	0.990222	ppm	0.005609	0.57	2422.110000	0.990222
Ca (315.887 nm)	4.880609	ppm	0.011731	0.24	4076.577915	4.880609
Cd (214.439 nm)	0.502870	ppm	0.000179	0.04	12842.000000	0.502870
Co (228.615 nm)	0.497622	ppm	0.000269	0.05	6507.650000	0.497622
Cr (205.560 nm)	0.486832	ppm	0.000749	0.15	3135.990000	0.486832
Cu (324.754 nm)	0.492790	ppm	0.000873	0.18	24010.600000	0.492790
Fe (238.204 nm)	2.503067	ppm	0.005578	0.22	8080.349335	2.503067
Fe H (259.940 nm)	2.480130 u	ppm	0.007068	0.28	3415.650000	2.480130 u
K (766.491 nm)	48.339400	ppm	0.094186	0.19	62141.100000	48.339400
Li (670.783 nm)	0.490627	ppm	0.002173	0.44	15437.200000	0.490627
Mg (279.078 nm)	19.414900	ppm	0.010061	0.05	57895.500000	19.414900
Mn (257.610 nm)	0.493115	ppm	0.000803	0.16	144107.000000	0.493115
Mo (202.032 nm)	0.499899	ppm	0.000616	0.12	2695.210000	0.499899
Na (589.592 nm)	24.366200	ppm	0.036592	0.15	266504.000000	24.366200
Na H (589.593 nm)	23.871549 u	ppm	0.069195	0.29	191166.839513	23.871549 u
Ni (231.604 nm)	0.496243	ppm	0.000154	0.03	2342.050000	0.496243
P (213.618 nm)	-0.012960 u	ppm	0.004317	33.31	-65.040200	-0.012960 u
Pb (220.353 nm)	0.463756	ppm	0.001146	0.25	989.205000	0.463756
S (181.972 nm)	-0.031974 u	ppm	0.002948	9.22	14.021801	-0.031974 u
Sb (206.834 nm)	0.492067	ppm	0.001551	0.32	709.101000	0.492067
Se (196.026 nm)	0.478329	ppm	0.002264	0.47	271.481000	0.478329
Si (288.158 nm)	4.889500	ppm	0.046922	0.96	37272.500000	4.889500
Sn (189.925 nm)	0.500197	ppm	0.000827	0.17	356.218000	0.500197
Sr (421.552 nm)	0.493000	ppm	0.000899	0.18	106228.774966	0.493000
Th (288.505 nm)	0.006477	ppm	0.002243	34.64	27.839800	0.006477
Ti (336.122 nm)	0.486513	ppm	0.000866	0.18	66109.700000	0.486513
Tl (190.794 nm)	0.499752	ppm	0.002790	0.56	465.671000	0.499752
U (409.013 nm)	0.001001 u	ppm	0.002717	> 100.00	-1.665620	0.001001 u
V (292.401 nm)	0.479416	ppm	0.000419	0.09	14873.500000	0.479416
Zn (206.200 nm)	0.498526	ppm	0.001847	0.37	1164.910000	0.498526
Zr (343.823 nm)	0.487364	ppm	0.001048	0.21	37091.300000	0.487364

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/15/2024 12:22:27 AM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000528	ppm	0.000056	10.57	-1080.960769	0.000528
Ag (328.068 nm)	0.000400	ppm	0.000267	66.71	-18.388800	0.000400
Al (394.401 nm)	-0.004695 u	ppm	0.000881	18.77	320.510000	-0.004695 u
Al H (396.152 nm)	-0.050154 u	ppm	0.001049	2.09	34.114600	-0.050154 u
As (188.980 nm)	-0.000029 u	ppm	0.002987	> 100.00	-0.888126	-0.000029 u
B (249.678 nm)	0.000553	ppm	0.000285	51.57	25.751000	0.000553
Ba (493.408 nm)	-0.000048 u	ppm	0.000089	> 100.00	-50.901500	-0.000048 u
Be (234.861 nm)	0.000051	ppm	0.000065	> 100.00	5.287100	0.000051
Bi (223.061 nm)	0.000032 u	ppm	0.000083	> 100.00	4.321980	0.000032 u
Ca (315.887 nm)	0.010975	ppm	0.003070	27.97	-5.647727	0.010975
Cd (214.439 nm)	-0.000006 u	ppm	0.000098	> 100.00	-3.605290	-0.000006 u
Co (228.615 nm)	-0.000148 u	ppm	0.000222	> 100.00	-8.677340	-0.000148 u
Cr (205.560 nm)	0.000157 u	ppm	0.000385	> 100.00	9.998810	0.000157 u
Cu (324.754 nm)	0.000249 u	ppm	0.000269	> 100.00	630.900000	0.000249 u
Fe (238.204 nm)	0.004349	ppm	0.000363	8.34	35.123318	0.004349
Fe H (259.940 nm)	-0.015478 u	ppm	0.003154	20.37	20.040600	-0.015478 u
K (766.491 nm)	-0.032678 u	ppm	0.030484	93.29	-11.761000	-0.032678 u
Li (670.783 nm)	0.020561 S	ppm	0.001733	8.43	1025.840000 S	0.020561 S
Mg (279.078 nm)	0.005042	ppm	0.001948	38.64	19.116500	0.005042
Mn (257.610 nm)	0.000094	ppm	0.000080	84.89	67.963000	0.000094
Mo (202.032 nm)	0.000645 u	ppm	0.000583	90.34	8.813720	0.000645 u
Na (589.592 nm)	0.144121	ppm	0.006220	4.32	4202.210000	0.144121
Na H (589.593 nm)	-0.404338 u	ppm	0.048313	11.95	2993.819023	-0.404338 u
Ni (231.604 nm)	-0.000026 u	ppm	0.000748	> 100.00	-2.438300	-0.000026 u
P (213.618 nm)	-0.004274 u	ppm	0.002274	53.22	-12.674400	-0.004274 u
Pb (220.353 nm)	-0.000423 u	ppm	0.000799	> 100.00	1.366650	-0.000423 u
S (181.972 nm)	-0.007979 u	ppm	0.002930	36.72	13.775572	-0.007979 u
Sb (206.834 nm)	0.001042 u	ppm	0.002699	> 100.00	6.194460	0.001042 u
Se (196.026 nm)	0.001060 u	ppm	0.003672	> 100.00	5.107880	0.001060 u
Si (288.158 nm)	-0.009589 u	ppm	0.001597	16.65	638.908000	-0.009589 u
Sn (189.925 nm)	-0.000087 u	ppm	0.001367	> 100.00	3.382540	-0.000087 u
Sr (421.552 nm)	-0.000048 u	ppm	0.000012	25.24	27.217480	-0.000048 u
Th (288.505 nm)	0.004027	ppm	0.002638	65.52	35.513700	0.004027
Ti (336.122 nm)	0.000142	ppm	0.000132	93.46	-101.539000	0.000142
Tl (190.794 nm)	-0.001065 u	ppm	0.002879	> 100.00	-2.455960	-0.001065 u
U (409.013 nm)	-0.001338 u	ppm	0.001784	> 100.00	0.358139	-0.001338 u
V (292.401 nm)	0.000035 u	ppm	0.000171	> 100.00	-58.885900	0.000035 u
Zn (206.200 nm)	0.000024 u	ppm	0.000176	> 100.00	3.226580	0.000024 u
Zr (343.823 nm)	0.000120	ppm	0.000023	19.53	9.573140	0.000120

Solution Name: MB 280-653143/1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
MB 280-653143/1-A	5/15/2024 12:26:28 AM	2:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000512	ppm	0.000006	1.21	-1116.203577	0.000512
Ag (328.068 nm)	0.000418	ppm	0.000166	39.70	-17.415300	0.000418
Al (394.401 nm)	0.000849	ppm	0.000863	> 100.00	394.329000	0.000849
Al H (396.152 nm)	-0.045003 u	ppm	0.000784	1.74	57.566600	-0.045003 u
As (188.980 nm)	0.001228	ppm	0.000259	21.09	-0.163819	0.001228
B (249.678 nm)	0.000447	ppm	0.000159	35.44	24.946900	0.000447
Ba (493.408 nm)	0.000124	ppm	0.000136	> 100.00	-27.234100	0.000124
Be (234.861 nm)	-0.000011 u	ppm	0.000018	> 100.00	-0.959135	-0.000011 u
Bi (223.061 nm)	-0.001499 u	ppm	0.000435	29.04	0.583860	-0.001499 u
Ca (315.887 nm)	0.027963	ppm	0.007493	26.79	8.593761	0.027963
Cd (214.439 nm)	-0.000004 u	ppm	0.000022	> 100.00	-3.567480	-0.000004 u
Co (228.615 nm)	0.000009 u	ppm	0.000161	> 100.00	-6.631270	0.000009 u
Cr (205.560 nm)	0.000032 u	ppm	0.000148	> 100.00	9.201120	0.000032 u
Cu (324.754 nm)	0.000202	ppm	0.000166	81.82	628.512000	0.000202
Fe (238.204 nm)	0.006953	ppm	0.000961	13.82	43.501625	0.006953
Fe H (259.940 nm)	-0.013546 u	ppm	0.001704	12.58	22.670000	-0.013546 u
K (766.491 nm)	-0.031829 u	ppm	0.023734	74.57	-10.670400	-0.031829 u
Li (670.783 nm)	0.018525	ppm	0.000757	4.09	963.464000	0.018525
Mg (279.078 nm)	0.002242 u	ppm	0.002826	> 100.00	10.726500	0.002242 u
Mn (257.610 nm)	0.000052	ppm	0.000035	66.81	55.864500	0.000052
Mo (202.032 nm)	0.000287 u	ppm	0.000705	> 100.00	6.887660	0.000287 u
Na (589.592 nm)	0.184849	ppm	0.008396	4.54	4637.120000	0.184849
Na H (589.593 nm)	-0.427093 u	ppm	0.010863	2.54	2819.230842	-0.427093 u
Ni (231.604 nm)	-0.000097 u	ppm	0.000490	> 100.00	-2.770620	-0.000097 u
P (213.618 nm)	0.000030 u	ppm	0.001265	> 100.00	-7.357270	0.000030 u
Pb (220.353 nm)	-0.001446 u	ppm	0.000612	42.30	-0.808653	-0.001446 u
S (181.972 nm)	-0.007514 u	ppm	0.004840	64.41	13.957936	-0.007514 u
Sb (206.834 nm)	-0.000394 u	ppm	0.001009	> 100.00	4.135740	-0.000394 u
Se (196.026 nm)	-0.000699 u	ppm	0.001360	> 100.00	4.126190	-0.000699 u
Si (288.158 nm)	-0.011865 u	ppm	0.001383	11.66	620.646000	-0.011865 u
Sn (189.925 nm)	-0.001914 u	ppm	0.002071	> 100.00	2.093620	-0.001914 u
Sr (421.552 nm)	-0.000019 u	ppm	0.000044	> 100.00	33.458889	-0.000019 u
Th (288.505 nm)	0.003366	ppm	0.002124	63.12	34.126200	0.003366
Ti (336.122 nm)	0.000225	ppm	0.000052	22.94	-90.250700	0.000225
Tl (190.794 nm)	-0.000219 u	ppm	0.002139	> 100.00	-1.663660	-0.000219 u
U (409.013 nm)	-0.001164 u	ppm	0.004220	> 100.00	1.019990	-0.001164 u
V (292.401 nm)	-0.000064 u	ppm	0.000117	> 100.00	-62.049000	-0.000064 u
Zn (206.200 nm)	0.001669	ppm	0.000474	28.40	7.061530	0.001669
Zr (343.823 nm)	-0.000155 u	ppm	0.000099	64.03	-11.339700	-0.000155 u

Solution Name: LCS 280-653143/2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LCS 280-653143/2-A	5/15/2024 12:30:30 AM	2:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.949981	ppm	0.002439	0.26	2084672.089510	0.949981
Ag (328.068 nm)	0.048658	ppm	0.000304	0.62	1437.320000	0.048658
Al (394.401 nm)	9.809010 o	ppm	0.007711	0.08	129748.000000	9.809010 o
Al H (396.152 nm)	9.837090	ppm	0.013944	0.14	45048.400000	9.837090
As (188.980 nm)	0.951475	ppm	0.004535	0.48	547.617000	0.951475
B (249.678 nm)	2.022830	ppm	0.003283	0.16	15498.400000	2.022830
Ba (493.408 nm)	0.985744	ppm	0.001182	0.12	135801.000000	0.985744
Be (234.861 nm)	1.003480	ppm	0.005504	0.55	100876.000000	1.003480
Bi (223.061 nm)	-0.001269 u	ppm	0.000540	42.59	1.145210	-0.001269 u
Ca (315.887 nm)	48.721029 o	ppm	0.086210	0.18	40828.098881	48.721029 o
Cd (214.439 nm)	0.980880	ppm	0.005115	0.52	25054.000000	0.980880
Co (228.615 nm)	0.962917	ppm	0.002884	0.30	12599.600000	0.962917
Cr (205.560 nm)	0.951614	ppm	0.004018	0.42	6121.300000	0.951614
Cu (324.754 nm)	0.973764	ppm	0.004530	0.47	46832.500000	0.973764
Fe (238.204 nm)	10.029342 o	ppm	0.027102	0.27	32302.481751	10.029342 o
Fe H (259.940 nm)	9.980210	ppm	0.020485	0.21	13620.500000	9.980210
K (766.491 nm)	48.651500	ppm	0.134471	0.28	62542.000000	48.651500
Li (670.783 nm)	0.951575	ppm	0.001946	0.20	29577.600000	0.951575
Mg (279.078 nm)	48.811200 o	ppm	0.220560	0.45	145473.000000	48.811200 o
Mn (257.610 nm)	0.971395	ppm	0.003455	0.36	283840.000000	0.971395
Mo (202.032 nm)	1.000540	ppm	0.004221	0.42	5389.060000	1.000540
Na (589.592 nm)	48.156300	ppm	0.109873	0.23	524200.000000	48.156300
Na H (589.593 nm)	48.183989 u	ppm	0.463392	0.96	379625.287607	48.183989 u
Ni (231.604 nm)	0.939858	ppm	0.005224	0.56	4437.830000	0.939858
P (213.618 nm)	20.583700 o	ppm	0.052128	0.25	25290.900000	20.583700 o
Pb (220.353 nm)	0.910724	ppm	0.003648	0.40	1939.420000	0.910724
S (181.972 nm)	19.670926 o	ppm	0.066690	0.34	7664.044047	19.670926 o
Sb (206.834 nm)	0.982158	ppm	0.007559	0.77	1410.970000	0.982158
Se (196.026 nm)	0.961047	ppm	0.002418	0.25	540.389000	0.961047
Si (288.158 nm)	9.492980	ppm	0.031461	0.33	71709.500000	9.492980
Sn (189.925 nm)	0.984668	ppm	0.008426	0.86	697.902000	0.984668
Sr (421.552 nm)	0.984857	ppm	0.001400	0.14	212173.652318	0.984857
Th (288.505 nm)	0.000084 u	ppm	0.001023	> 100.00	0.066013	0.000084 u
Ti (336.122 nm)	0.970767	ppm	0.002886	0.30	132138.000000	0.970767
Tl (190.794 nm)	0.986562	ppm	0.004756	0.48	920.549000	0.986562
U (409.013 nm)	0.009668	ppm	0.004240	43.86	24.255500	0.009668
V (292.401 nm)	0.961160	ppm	0.003919	0.41	29886.500000	0.961160
Zn (206.200 nm)	0.966047	ppm	0.004256	0.44	2254.390000	0.966047
Zr (343.823 nm)	0.972241	ppm	0.003405	0.35	73999.300000	0.972241

Solution Name: 280-191382-E-1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191382-E-1-A	5/15/2024 12:34:54 AM	2:3	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.018726	ppm	0.000046	0.24	38893.319973	0.018726
Ag (328.068 nm)	0.000832	ppm	0.000119	14.30	-3.778500	0.000832
Al (394.401 nm)	0.341617	ppm	0.001574	0.46	4900.650000	0.341617
Al H (396.152 nm)	0.284934 u	ppm	0.002807	0.99	1559.690000	0.284934 u
As (188.980 nm)	0.011874	ppm	0.001279	10.77	6.025510	0.011874
B (249.678 nm)	0.513387	ppm	0.001896	0.37	3949.510000	0.513387
Ba (493.408 nm)	0.008712	ppm	0.000031	0.36	1153.740000	0.008712
Be (234.861 nm)	0.000040	ppm	0.000017	41.85	6.308970	0.000040
Bi (223.061 nm)	-0.000539 u	ppm	0.001084	> 100.00	2.927100	-0.000539 u
Ca (315.887 nm)	23.400155 o	ppm	0.013868	0.06	19601.554213	23.400155 o
Cd (214.439 nm)	0.000281	ppm	0.000144	51.42	3.787620	0.000281
Co (228.615 nm)	0.000044 u	ppm	0.000147	> 100.00	-6.090890	0.000044 u
Cr (205.560 nm)	0.005164	ppm	0.000107	2.08	42.106400	0.005164
Cu (324.754 nm)	0.008729	ppm	0.000160	1.84	1025.510000	0.008729
Fe (238.204 nm)	0.233218	ppm	0.001903	0.82	771.553758	0.233218
Fe H (259.940 nm)	0.209811 u	ppm	0.004060	1.94	326.577000	0.209811 u
K (766.491 nm)	1.912570	ppm	0.056425	2.95	2487.670000	1.912570
Li (670.783 nm)	0.036638	ppm	0.002341	6.39	1560.580000	0.036638
Mg (279.078 nm)	3.702320	ppm	0.019748	0.53	11035.800000	3.702320
Mn (257.610 nm)	0.009933	ppm	0.000054	0.55	2942.540000	0.009933
Mo (202.032 nm)	0.017975	ppm	0.000506	2.81	102.064000	0.017975
Na (589.592 nm)	101.460000 o	ppm	0.170151	0.17	1086560.000000	101.460000 o
Na H (589.593 nm)	100.926601	ppm	0.673893	0.67	780052.231943	100.926601
Ni (231.604 nm)	0.001161	ppm	0.000114	9.83	3.169540	0.001161
P (213.618 nm)	0.162755	ppm	0.000448	0.27	192.295000	0.162755
Pb (220.353 nm)	-0.002242 u	ppm	0.000922	41.12	-2.558560	-0.002242 u
S (181.972 nm)	15.930404 o	ppm	0.058650	0.37	6195.987812	15.930404 o
Sb (206.834 nm)	0.001602	ppm	0.000330	20.58	6.939970	0.001602
Se (196.026 nm)	0.003864 u	ppm	0.005718	> 100.00	6.923660	0.003864 u
Si (288.158 nm)	8.598590	ppm	0.033848	0.39	64231.100000	8.598590
Sn (189.925 nm)	-0.001040 u	ppm	0.000625	60.12	2.710340	-0.001040 u
Sr (421.552 nm)	0.172160	ppm	0.000575	0.33	37120.427172	0.172160
Th (288.505 nm)	0.001784 u	ppm	0.001894	> 100.00	30.875900	0.001784 u
Ti (336.122 nm)	0.003627	ppm	0.000037	1.02	436.583000	0.003627
Tl (190.794 nm)	-0.000579 u	ppm	0.002569	> 100.00	-2.046190	-0.000579 u
U (409.013 nm)	0.018119	ppm	0.005871	32.40	73.558800	0.018119
V (292.401 nm)	0.002792	ppm	0.000274	9.82	27.254200	0.002792
Zn (206.200 nm)	0.004141	ppm	0.000090	2.18	12.821300	0.004141
Zr (343.823 nm)	0.001278	ppm	0.000084	6.61	97.985700	0.001278

Solution Name: 280-191382-E-2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191382-E-2-A	5/15/2024 12:39:15 AM	2:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.101661	ppm	0.000292	0.29	221064.597081	0.101661
Ag (328.068 nm)	0.001689	ppm	0.000474	28.08	25.404600	0.001689
Al (394.401 nm)	0.072466	ppm	0.000221	0.31	1399.820000	0.072466
Al H (396.152 nm)	-0.016748 u	ppm	0.002855	17.05	186.202000	-0.016748 u
As (188.980 nm)	0.005885	ppm	0.003428	58.24	2.790550	0.005885
B (249.678 nm)	0.803381	ppm	0.003384	0.42	6168.290000	0.803381
Ba (493.408 nm)	0.065634	ppm	0.000606	0.92	8977.000000	0.065634
Be (234.861 nm)	-0.000003 u	ppm	0.000022	> 100.00	5.345300	-0.000003 u
Bi (223.061 nm)	-0.001817 u	ppm	0.001163	63.98	-0.194084	-0.001817 u
Ca (315.887 nm)	116.848617 o	ppm	0.220736	0.19	97939.607951	116.848617 o
Cd (214.439 nm)	0.000277	ppm	0.000079	28.64	3.630590	0.000277
Co (228.615 nm)	-0.000181 u	ppm	0.000208	> 100.00	-9.105870	-0.000181 u
Cr (205.560 nm)	0.001709	ppm	0.000082	4.81	19.820300	0.001709
Cu (324.754 nm)	0.002509	ppm	0.000276	10.99	697.369000	0.002509
Fe (238.204 nm)	0.053273	ppm	0.001667	3.13	192.544591	0.053273
Fe H (259.940 nm)	0.026536 u	ppm	0.001628	6.13	77.206100	0.026536 u
K (766.491 nm)	27.823000	ppm	0.124407	0.45	35779.700000	27.823000
Li (670.783 nm)	0.105417	ppm	0.003003	2.85	3743.150000	0.105417
Mg (279.078 nm)	26.497200	ppm	0.054900	0.21	78972.500000	26.497200
Mn (257.610 nm)	0.015401	ppm	0.000035	0.22	4539.900000	0.015401
Mo (202.032 nm)	0.033050	ppm	0.000018	0.05	183.177000	0.033050
Na (589.592 nm)	250.403000 o	ppm	1.216180	0.49	2678040.000000	250.403000 o
Na H (589.593 nm)	251.140641	ppm	2.135590	0.85	1932152.931661	251.140641
Ni (231.604 nm)	0.000423 u	ppm	0.000536	> 100.00	-0.309367	0.000423 u
P (213.618 nm)	0.080069	ppm	0.003177	3.97	90.194900	0.080069
Pb (220.353 nm)	-0.001669 u	ppm	0.000885	53.02	-1.310740	-0.001669 u
S (181.972 nm)	157.964334 bo	ppm	0.748022	0.47	61286.872114	157.964334 bo
Sb (206.834 nm)	-0.001220 u	ppm	0.000242	19.85	2.781100	-0.001220 u
Se (196.026 nm)	0.013197	ppm	0.001971	14.93	12.100000	0.013197
Si (288.158 nm)	7.019770	ppm	0.021003	0.30	52566.900000	7.019770
Sn (189.925 nm)	-0.001630 u	ppm	0.000675	41.40	2.294140	-0.001630 u
Sr (421.552 nm)	1.225708 o	ppm	0.010001	0.82	264052.573979	1.225708 o
Th (288.505 nm)	-0.003649 u	ppm	0.001494	40.94	19.299300	-0.003649 u
Ti (336.122 nm)	0.000666	ppm	0.000031	4.62	288.478000	0.000666
Tl (190.794 nm)	0.001944	ppm	0.001956	> 100.00	0.290671	0.001944
U (409.013 nm)	0.027195	ppm	0.000184	0.68	107.448000	0.027195
V (292.401 nm)	0.006001	ppm	0.000038	0.63	133.563000	0.006001
Zn (206.200 nm)	0.002062	ppm	0.000676	32.78	7.975240	0.002062
Zr (343.823 nm)	0.000162	ppm	0.000034	20.83	12.860400	0.000162

Solution Name: 280-191382-E-3-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191382-E-3-A	5/15/2024 12:43:34 AM	2:5	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.036656	ppm	0.000313	0.85	78276.537464	0.036656
Ag (328.068 nm)	0.001580	ppm	0.000062	3.95	22.949000	0.001580
Al (394.401 nm)	0.027738	ppm	0.000688	2.48	814.982000	0.027738
Al H (396.152 nm)	-0.066905 u	ppm	0.001125	1.68	-42.150400	-0.066905 u
As (188.980 nm)	0.001958 u	ppm	0.002552	> 100.00	0.537510	0.001958 u
B (249.678 nm)	0.449713	ppm	0.004204	0.93	3462.330000	0.449713
Ba (493.408 nm)	0.070969	ppm	0.000329	0.46	9710.150000	0.070969
Be (234.861 nm)	-0.000041 u	ppm	0.000050	> 100.00	0.581159	-0.000041 u
Bi (223.061 nm)	-0.000695 u	ppm	0.001001	> 100.00	2.545180	-0.000695 u
Ca (315.887 nm)	121.331734 o	ppm	0.246938	0.20	101697.814844	121.331734 o
Cd (214.439 nm)	0.000232	ppm	0.000026	11.07	2.455070	0.000232
Co (228.615 nm)	-0.000130 u	ppm	0.000321	> 100.00	-8.452760	-0.000130 u
Cr (205.560 nm)	0.000221	ppm	0.000093	41.93	10.396800	0.000221
Cu (324.754 nm)	0.000454	ppm	0.000218	47.99	597.645000	0.000454
Fe (238.204 nm)	0.016637	ppm	0.000748	4.50	74.663321	0.016637
Fe H (259.940 nm)	-0.010085 u	ppm	0.004917	48.76	27.379100	-0.010085 u
K (766.491 nm)	2.714740	ppm	0.066803	2.46	3518.370000	2.714740
Li (670.783 nm)	0.053478	ppm	0.001208	2.26	2112.170000	0.053478
Mg (279.078 nm)	22.139400	ppm	0.052186	0.24	65964.800000	22.139400
Mn (257.610 nm)	0.000395	ppm	0.000008	2.13	155.905000	0.000395
Mo (202.032 nm)	0.003179	ppm	0.000467	14.70	22.446900	0.003179
Na (589.592 nm)	140.242000 o	ppm	0.590876	0.42	1501290.000000	140.242000 o
Na H (589.593 nm)	140.347407	ppm	0.345697	0.25	1082592.532320	140.347407
Ni (231.604 nm)	0.000817	ppm	0.000680	83.19	1.546180	0.000817
P (213.618 nm)	0.011389	ppm	0.001621	14.23	6.501190	0.011389
Pb (220.353 nm)	-0.002401 u	ppm	0.001606	66.91	-2.792100	-0.002401 u
S (181.972 nm)	63.972043 o	ppm	0.436790	0.68	24830.595121	63.972043 o
Sb (206.834 nm)	-0.002270 u	ppm	0.003347	> 100.00	1.431440	-0.002270 u
Se (196.026 nm)	0.000257 u	ppm	0.002608	> 100.00	4.909440	0.000257 u
Si (288.158 nm)	8.022850	ppm	0.012505	0.16	59977.400000	8.022850
Sn (189.925 nm)	-0.001296 u	ppm	0.000754	58.19	2.529300	-0.001296 u
Sr (421.552 nm)	0.804438	ppm	0.004178	0.52	173311.933796	0.804438
Th (288.505 nm)	-0.001814 u	ppm	0.002270	> 100.00	23.133500	-0.001814 u
Ti (336.122 nm)	-0.000398 u	ppm	0.000075	18.94	155.944000	-0.000398 u
Tl (190.794 nm)	-0.000103 u	ppm	0.000948	> 100.00	-1.560670	-0.000103 u
U (409.013 nm)	0.044102	ppm	0.000722	1.64	170.878000	0.044102
V (292.401 nm)	0.002422	ppm	0.000170	7.00	21.892800	0.002422
Zn (206.200 nm)	0.003011	ppm	0.000137	4.55	10.188200	0.003011
Zr (343.823 nm)	0.000096	ppm	0.000027	27.63	7.768240	0.000096

Solution Name: 280-191382-E-4-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191382-E-4-A	5/15/2024 12:47:54 AM	2:6	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.125368	ppm	0.000056	0.04	273139.082342	0.125368
Ag (328.068 nm)	0.002024	ppm	0.000282	13.91	40.192200	0.002024
Al (394.401 nm)	0.251927	ppm	0.000820	0.33	3854.310000	0.251927
Al H (396.152 nm)	0.120348 u	ppm	0.003862	3.21	810.369000	0.120348 u
As (188.980 nm)	0.003622 u	ppm	0.007558	> 100.00	1.936510	0.003622 u
B (249.678 nm)	3.482240	ppm	0.003778	0.11	26664.600000	3.482240
Ba (493.408 nm)	0.033540	ppm	0.000135	0.40	4566.230000	0.033540
Be (234.861 nm)	-0.000083 u	ppm	0.000022	26.90	-1.666880	-0.000083 u
Bi (223.061 nm)	0.000560	ppm	0.000332	59.17	5.611210	0.000560
Ca (315.887 nm)	312.458586 o	ppm	0.331564	0.11	261919.879594	312.458586 o
Cd (214.439 nm)	0.000375	ppm	0.000185	49.39	6.171260	0.000375
Co (228.615 nm)	0.000433	ppm	0.000375	86.63	-1.007720	0.000433
Cr (205.560 nm)	0.000363 u	ppm	0.000466	> 100.00	10.961000	0.000363 u
Cu (324.754 nm)	-0.000087 u	ppm	0.000007	8.15	511.003000	-0.000087 u
Fe (238.204 nm)	0.217531	ppm	0.001094	0.50	721.078523	0.217531
Fe H (259.940 nm)	0.184515 u	ppm	0.005511	2.99	292.157000	0.184515 u
K (766.491 nm)	7.169830	ppm	0.047624	0.66	9242.670000	7.169830
Li (670.783 nm)	0.123352	ppm	0.000916	0.74	4364.390000	0.123352
Mg (279.078 nm)	27.340400	ppm	0.049178	0.18	81464.400000	27.340400
Mn (257.610 nm)	0.121755	ppm	0.000133	0.11	35611.900000	0.121755
Mo (202.032 nm)	0.067719	ppm	0.000447	0.66	369.726000	0.067719
Na (589.592 nm)	329.248000 o	ppm	0.544553	0.17	3520070.000000	329.248000 o
Na H (589.593 nm)	334.531712	ppm	1.372793	0.41	2571477.779270	334.531712
Ni (231.604 nm)	0.025230	ppm	0.000255	1.01	116.854000	0.025230
P (213.618 nm)	0.007422	ppm	0.003790	51.06	-0.357577	0.007422
Pb (220.353 nm)	0.001517	ppm	0.000641	42.26	5.371750	0.001517
S (181.972 nm)	340.470130 bo	ppm	0.339850	0.10	132077.040064	340.470130 bo
Sb (206.834 nm)	-0.001479 u	ppm	0.000786	53.12	2.220000	-0.001479 u
Se (196.026 nm)	0.213010	ppm	0.001601	0.75	123.483000	0.213010
Si (288.158 nm)	3.957960	ppm	0.020477	0.52	29949.100000	3.957960
Sn (189.925 nm)	-0.000167 u	ppm	0.001611	> 100.00	3.325790	-0.000167 u
Sr (421.552 nm)	2.852093 o	ppm	0.012899	0.45	614372.609899	2.852093 o
Th (288.505 nm)	-0.001895 u	ppm	0.003147	> 100.00	25.928000	-0.001895 u
Ti (336.122 nm)	0.002387	ppm	0.000120	5.04	1056.250000	0.002387
Tl (190.794 nm)	-0.000733 u	ppm	0.001753	> 100.00	-2.296910	-0.000733 u
U (409.013 nm)	0.004109	ppm	0.000196	4.76	20.986600	0.004109
V (292.401 nm)	0.002609	ppm	0.000039	1.48	40.061400	0.002609
Zn (206.200 nm)	0.004257	ppm	0.000695	16.33	13.091200	0.004257
Zr (343.823 nm)	0.000177	ppm	0.000013	7.24	14.157100	0.000177

Solution Name: 280-191382-E-5-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191382-E-5-A	5/15/2024 12:52:15 AM	2:7	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.059174	ppm	0.000264	0.45	127738.211138	0.059174
Ag (328.068 nm)	0.001647	ppm	0.000391	23.73	26.709800	0.001647
Al (394.401 nm)	0.036815	ppm	0.000233	0.63	930.182000	0.036815
Al H (396.152 nm)	-0.054017 u	ppm	0.003149	5.83	16.525900	-0.054017 u
As (188.980 nm)	0.002043 u	ppm	0.002022	98.97	0.596420	0.002043 u
B (249.678 nm)	0.312639	ppm	0.002519	0.81	2413.570000	0.312639
Ba (493.408 nm)	0.017474	ppm	0.000204	1.17	2357.550000	0.017474
Be (234.861 nm)	0.000000 u	ppm	0.000034	> 100.00	1.327210	0.000000 u
Bi (223.061 nm)	0.000160 u	ppm	0.000956	> 100.00	4.634020	0.000160 u
Ca (315.887 nm)	125.766416 o	ppm	0.134301	0.11	105415.418246	125.766416 o
Cd (214.439 nm)	0.000255	ppm	0.000097	38.12	3.069340	0.000255
Co (228.615 nm)	-0.000183 u	ppm	0.000430	> 100.00	-9.141390	-0.000183 u
Cr (205.560 nm)	0.000314 u	ppm	0.000376	> 100.00	10.686300	0.000314 u
Cu (324.754 nm)	-0.000270 u	ppm	0.000050	18.50	563.818000	-0.000270 u
Fe (238.204 nm)	0.058823	ppm	0.000369	0.63	210.404532	0.058823
Fe H (259.940 nm)	0.032348 u	ppm	0.002906	8.98	85.114500	0.032348 u
K (766.491 nm)	1.584570	ppm	0.016572	1.05	2066.220000	1.584570
Li (670.783 nm)	0.072898	ppm	0.001513	2.08	2727.290000	0.072898
Mg (279.078 nm)	5.798320	ppm	0.007403	0.13	17280.100000	5.798320
Mn (257.610 nm)	0.366420	ppm	0.000220	0.06	107093.000000	0.366420
Mo (202.032 nm)	0.066026	ppm	0.000534	0.81	360.616000	0.066026
Na (589.592 nm)	195.253000 o	ppm	0.374757	0.19	2088560.000000	195.253000 o
Na H (589.593 nm)	196.022075	ppm	2.098091	1.07	1509296.309893	196.022075
Ni (231.604 nm)	0.006485	ppm	0.000825	12.71	28.317100	0.006485
P (213.618 nm)	0.005333	ppm	0.002957	55.44	-2.772660	0.005333
Pb (220.353 nm)	-0.002581 u	ppm	0.001696	65.68	-3.332980	-0.002581 u
S (181.972 nm)	150.920750 bo	ppm	0.815559	0.54	58555.587822	150.920750 bo
Sb (206.834 nm)	-0.000684 u	ppm	0.003039	> 100.00	3.362170	-0.000684 u
Se (196.026 nm)	-0.000722 u	ppm	0.002420	> 100.00	4.482840	-0.000722 u
Si (288.158 nm)	4.831480	ppm	0.026839	0.56	36401.900000	4.831480
Sn (189.925 nm)	-0.000423 u	ppm	0.001473	> 100.00	3.145620	-0.000423 u
Sr (421.552 nm)	0.508691	ppm	0.003802	0.75	109608.585347	0.508691
Th (288.505 nm)	-0.006418 u	ppm	0.001745	27.18	21.359000	-0.006418 u
Ti (336.122 nm)	0.000021 u	ppm	0.000075	> 100.00	225.017000	0.000021 u
Tl (190.794 nm)	-0.001321 u	ppm	0.002729	> 100.00	-2.838910	-0.001321 u
U (409.013 nm)	0.015767	ppm	0.002835	17.98	64.601200	0.015767
V (292.401 nm)	0.001502	ppm	0.000302	20.12	-6.622430	0.001502
Zn (206.200 nm)	0.001755	ppm	0.000637	36.31	7.261590	0.001755
Zr (343.823 nm)	0.000003 u	ppm	0.000066	> 100.00	0.726531	0.000003 u

Solution Name: 280-191382-E-6-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191382-E-6-A	5/15/2024 12:56:33 AM	2:8	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.015736	ppm	0.000038	0.24	32324.239296	0.015736
Ag (328.068 nm)	0.000878	ppm	0.000149	17.02	-0.960689	0.000878
Al (394.401 nm)	0.007378	ppm	0.001010	13.69	489.310000	0.007378
Al H (396.152 nm)	-0.049287 u	ppm	0.003450	7.00	38.061800	-0.049287 u
As (188.980 nm)	-0.000184 u	ppm	0.001253	> 100.00	-0.933881	-0.000184 u
B (249.678 nm)	0.071595	ppm	0.000380	0.53	569.304000	0.071595
Ba (493.408 nm)	0.005491	ppm	0.000069	1.26	710.528000	0.005491
Be (234.861 nm)	-0.000052 u	ppm	0.000009	18.02	-4.473400	-0.000052 u
Bi (223.061 nm)	0.000431 u	ppm	0.001259	> 100.00	5.295400	0.000431 u
Ca (315.887 nm)	18.990915 o	ppm	0.060239	0.32	15905.278678	18.990915 o
Cd (214.439 nm)	0.000148	ppm	0.000025	17.05	0.317438	0.000148
Co (228.615 nm)	-0.000219 u	ppm	0.000212	96.83	-9.613610	-0.000219 u
Cr (205.560 nm)	0.000027 u	ppm	0.000481	> 100.00	9.157210	0.000027 u
Cu (324.754 nm)	0.000560	ppm	0.000200	35.83	639.087000	0.000560
Fe (238.204 nm)	0.027854	ppm	0.000632	2.27	110.751738	0.027854
Fe H (259.940 nm)	0.005962 u	ppm	0.002522	42.30	49.212200	0.005962 u
K (766.491 nm)	0.564720	ppm	0.011743	2.08	755.829000	0.564720
Li (670.783 nm)	0.037268	ppm	0.000818	2.20	1571.700000	0.037268
Mg (279.078 nm)	2.253940	ppm	0.005448	0.24	6719.700000	2.253940
Mn (257.610 nm)	0.069966	ppm	0.000045	0.06	20481.600000	0.069966
Mo (202.032 nm)	0.001547	ppm	0.000382	24.71	13.668200	0.001547
Na (589.592 nm)	81.686400 o	ppm	0.135453	0.17	875309.000000	81.686400 o
Na H (589.593 nm)	81.264893	ppm	0.648532	0.80	629269.411045	81.264893
Ni (231.604 nm)	-0.000188 u	ppm	0.000082	43.37	-3.203660	-0.000188 u
P (213.618 nm)	0.003915	ppm	0.001148	29.32	-2.615920	0.003915
Pb (220.353 nm)	0.000121 u	ppm	0.001036	> 100.00	2.528430	0.000121 u
S (181.972 nm)	17.627413 o	ppm	0.023864	0.14	6854.248721	17.627413 o
Sb (206.834 nm)	-0.000219 u	ppm	0.000585	> 100.00	4.381970	-0.000219 u
Se (196.026 nm)	-0.002670 u	ppm	0.001212	45.37	3.217880	-0.002670 u
Si (288.158 nm)	4.806220	ppm	0.017989	0.37	36213.400000	4.806220
Sn (189.925 nm)	-0.002844 u	ppm	0.000955	33.58	1.437870	-0.002844 u
Sr (421.552 nm)	0.109817	ppm	0.000132	0.12	23691.831190	0.109817
Th (288.505 nm)	-0.000366 u	ppm	0.001533	> 100.00	27.493200	-0.000366 u
Ti (336.122 nm)	-0.000034 u	ppm	0.000039	> 100.00	-73.821800	-0.000034 u
Tl (190.794 nm)	-0.000088 u	ppm	0.001181	> 100.00	-1.544240	-0.000088 u
U (409.013 nm)	0.003549	ppm	0.004085	> 100.00	18.713600	0.003549
V (292.401 nm)	0.000618	ppm	0.000252	40.82	-39.499900	0.000618
Zn (206.200 nm)	0.001186	ppm	0.000543	45.77	5.935670	0.001186
Zr (343.823 nm)	-0.000175 u	ppm	0.000076	43.76	-12.829200	-0.000175 u

Solution Name: 280-191382-E-7-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191382-E-7-A	5/15/2024 1:00:48 AM	2:9	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000583	ppm	0.000025	4.34	-959.518752	0.000583
Ag (328.068 nm)	0.000244	ppm	0.000196	80.16	-23.809200	0.000244
Al (394.401 nm)	0.010898	ppm	0.000916	8.41	526.647000	0.010898
Al H (396.152 nm)	-0.034934 u	ppm	0.000334	0.96	103.406000	-0.034934 u
As (188.980 nm)	-0.001636 u	ppm	0.004554	> 100.00	-1.814680	-0.001636 u
B (249.678 nm)	0.001266	ppm	0.000407	32.17	31.213300	0.001266
Ba (493.408 nm)	0.000643	ppm	0.000055	8.57	44.108100	0.000643
Be (234.861 nm)	-0.000016 u	ppm	0.000028	> 100.00	-1.246090	-0.000016 u
Bi (223.061 nm)	-0.000082 u	ppm	0.000323	> 100.00	4.042850	-0.000082 u
Ca (315.887 nm)	0.095751	ppm	0.002680	2.80	65.420065	0.095751
Cd (214.439 nm)	0.000117	ppm	0.000022	18.76	-0.467318	0.000117
Co (228.615 nm)	0.000011 u	ppm	0.000328	> 100.00	-6.585490	0.000011 u
Cr (205.560 nm)	0.000163	ppm	0.000172	> 100.00	10.041900	0.000163
Cu (324.754 nm)	0.000584	ppm	0.000045	7.72	646.668000	0.000584
Fe (238.204 nm)	0.034463	ppm	0.000506	1.47	132.021142	0.034463
Fe H (259.940 nm)	0.013895 u	ppm	0.002340	16.84	60.006100	0.013895 u
K (766.491 nm)	0.000898 u	ppm	0.044989	> 100.00	31.379400	0.000898 u
Li (670.783 nm)	0.020742	ppm	0.001250	6.02	1031.530000	0.020742
Mg (279.078 nm)	0.009002	ppm	0.001472	16.36	30.935200	0.009002
Mn (257.610 nm)	0.000457	ppm	0.000007	1.45	174.021000	0.000457
Mo (202.032 nm)	-0.000033 u	ppm	0.000250	> 100.00	5.164490	-0.000033 u
Na (589.592 nm)	0.410954	ppm	0.011943	2.91	7055.770000	0.410954
Na H (589.593 nm)	-0.163891 u	ppm	0.012756	7.78	4839.391947	-0.163891 u
Ni (231.604 nm)	0.000144 u	ppm	0.000305	> 100.00	-1.632080	0.000144 u
P (213.618 nm)	0.039011	ppm	0.002494	6.39	40.706000	0.039011
Pb (220.353 nm)	-0.000387 u	ppm	0.001831	> 100.00	1.448210	-0.000387 u
S (181.972 nm)	0.014094	ppm	0.007878	55.90	22.330799	0.014094
Sb (206.834 nm)	0.000270 u	ppm	0.000755	> 100.00	5.089920	0.000270 u
Se (196.026 nm)	-0.001973 u	ppm	0.002482	> 100.00	3.414420	-0.001973 u
Si (288.158 nm)	0.008693	ppm	0.001708	19.65	774.376000	0.008693
Sn (189.925 nm)	0.000323 u	ppm	0.003413	> 100.00	3.671660	0.000323 u
Sr (421.552 nm)	0.000253	ppm	0.000008	3.30	92.036454	0.000253
Th (288.505 nm)	0.003809	ppm	0.000544	14.29	35.079800	0.003809
Ti (336.122 nm)	0.001123	ppm	0.000075	6.67	32.254200	0.001123
Tl (190.794 nm)	-0.000444 u	ppm	0.001911	> 100.00	-1.874540	-0.000444 u
U (409.013 nm)	0.000649	ppm	0.000788	> 100.00	7.849280	0.000649
V (292.401 nm)	-0.000021 u	ppm	0.000101	> 100.00	-60.668600	-0.000021 u
Zn (206.200 nm)	0.005156	ppm	0.000729	14.14	15.186300	0.005156
Zr (343.823 nm)	-0.000191 u	ppm	0.000062	32.23	-14.090100	-0.000191 u

Solution Name: 280-191382-E-8-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191382-E-8-A	5/15/2024 1:04:50 AM	2:10	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.015881	ppm	0.000041	0.26	32642.460430	0.015881
Ag (328.068 nm)	0.000883	ppm	0.000089	10.06	-0.692923	0.000883
Al (394.401 nm)	0.014804	ppm	0.000551	3.73	586.733000	0.014804
Al H (396.152 nm)	-0.044695 u	ppm	0.001491	3.34	58.968900	-0.044695 u
As (188.980 nm)	0.001684 u	ppm	0.002203	> 100.00	0.142653	0.001684 u
B (249.678 nm)	0.069997	ppm	0.000373	0.53	557.078000	0.069997
Ba (493.408 nm)	0.005722	ppm	0.000098	1.70	742.261000	0.005722
Be (234.861 nm)	-0.000041 u	ppm	0.000003	8.53	-3.337180	-0.000041 u
Bi (223.061 nm)	-0.000400 u	ppm	0.002239	> 100.00	3.266850	-0.000400 u
Ca (315.887 nm)	18.961935 o	ppm	0.010265	0.05	15880.984059	18.961935 o
Cd (214.439 nm)	0.000130	ppm	0.000077	59.23	-0.134617	0.000130
Co (228.615 nm)	-0.000055 u	ppm	0.000085	> 100.00	-7.465230	-0.000055 u
Cr (205.560 nm)	-0.000095 u	ppm	0.000177	> 100.00	8.372470	-0.000095 u
Cu (324.754 nm)	0.000351	ppm	0.000105	30.05	629.508000	0.000351
Fe (238.204 nm)	0.034771	ppm	0.001103	3.17	133.009516	0.034771
Fe H (259.940 nm)	0.011577 u	ppm	0.003326	28.73	56.851800	0.011577 u
K (766.491 nm)	0.542783	ppm	0.015653	2.88	727.642000	0.542783
Li (670.783 nm)	0.035302	ppm	0.001453	4.12	1511.850000	0.035302
Mg (279.078 nm)	2.214890	ppm	0.004237	0.19	6603.280000	2.214890
Mn (257.610 nm)	0.072508	ppm	0.000115	0.16	21224.200000	0.072508
Mo (202.032 nm)	0.001689	ppm	0.000113	6.69	14.432000	0.001689
Na (589.592 nm)	82.382900 o	ppm	0.120290	0.15	882752.000000	82.382900 o
Na H (589.593 nm)	81.536530	ppm	0.413681	0.51	631353.539293	81.536530
Ni (231.604 nm)	0.000185 u	ppm	0.000293	> 100.00	-1.436220	0.000185 u
P (213.618 nm)	0.015859	ppm	0.002296	14.48	12.104900	0.015859
Pb (220.353 nm)	-0.000195 u	ppm	0.000657	> 100.00	1.853030	-0.000195 u
S (181.972 nm)	17.687872 o	ppm	0.058676	0.33	6877.705159	17.687872 o
Sb (206.834 nm)	-0.000959 u	ppm	0.001525	> 100.00	3.319290	-0.000959 u
Se (196.026 nm)	-0.000556 u	ppm	0.000920	> 100.00	4.399120	-0.000556 u
Si (288.158 nm)	4.839140	ppm	0.033915	0.70	36457.100000	4.839140
Sn (189.925 nm)	-0.002102 u	ppm	0.001202	57.16	1.961100	-0.002102 u
Sr (421.552 nm)	0.109317	ppm	0.001597	1.46	23584.155100	0.109317
Th (288.505 nm)	0.001206 u	ppm	0.001433	> 100.00	31.067400	0.001206 u
Ti (336.122 nm)	0.000355	ppm	0.000031	8.64	-20.831800	0.000355
Tl (190.794 nm)	-0.000506 u	ppm	0.001401	> 100.00	-1.935830	-0.000506 u
U (409.013 nm)	0.004148 u	ppm	0.004353	> 100.00	20.981100	0.004148 u
V (292.401 nm)	0.000527	ppm	0.000274	52.02	-42.247400	0.000527
Zn (206.200 nm)	0.001801	ppm	0.000283	15.72	7.368560	0.001801
Zr (343.823 nm)	-0.000012 u	ppm	0.000022	> 100.00	-0.464939	-0.000012 u

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/15/2024 1:09:05 AM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001010	ppm	0.000021	2.13	-21.274504	0.001010
Ag (328.068 nm)	0.000298	ppm	0.000052	17.46	75.621000	0.000298
Al (394.401 nm)	49.594400 o	ppm	0.112905	0.23	653459.000000	49.594400 o
Al H (396.152 nm)	48.802700	ppm	0.029412	0.06	222450.000000	48.802700
As (188.980 nm)	0.000358 u	ppm	0.002261	> 100.00	-0.978459	0.000358 u
B (249.678 nm)	-0.002750 u	ppm	0.000468	17.01	0.483643	-0.002750 u
Ba (493.408 nm)	0.000115 u	ppm	0.000174	> 100.00	100.745000	0.000115 u
Be (234.861 nm)	0.000126	ppm	0.000066	52.12	330.785000	0.000126
Bi (223.061 nm)	0.001162 u	ppm	0.001071	92.14	7.079970	0.001162 u
Ca (315.887 nm)	-0.007793 u	ppm	0.001887	24.21	-21.380323	-0.007793 u
Cd (214.439 nm)	-0.000169 u	ppm	0.000103	61.02	9.898140	-0.000169 u
Co (228.615 nm)	-0.000160 u	ppm	0.000147	91.95	-8.827260	-0.000160 u
Cr (205.560 nm)	0.000686	ppm	0.000197	28.78	13.403200	0.000686
Cu (324.754 nm)	-0.004125 u	ppm	0.000392	9.51	1384.700000	-0.004125 u
Fe (238.204 nm)	50.052075 o	ppm	0.056967	0.11	161073.548370	50.052075 o
Fe H (259.940 nm)	49.741400	ppm	0.025080	0.05	67720.800000	49.741400
K (766.491 nm)	0.020166 u	ppm	0.025868	> 100.00	56.137000	0.020166 u
Li (670.783 nm)	0.018436	ppm	0.000739	4.01	1047.070000	0.018436
Mg (279.078 nm)	0.013938	ppm	0.001383	9.92	-122.494000	0.013938
Mn (257.610 nm)	-0.000778 u	ppm	0.000011	1.41	-186.860000	-0.000778 u
Mo (202.032 nm)	-0.000539 u	ppm	0.000068	12.62	2.444760	-0.000539 u
Na (589.592 nm)	235.137000 o	ppm	0.651019	0.28	2514490.000000	235.137000 o
Na H (589.593 nm)	236.726467	ppm	1.080797	0.46	1821354.084945	236.726467
Ni (231.604 nm)	0.001039	ppm	0.000264	25.37	2.592420	0.001039
P (213.618 nm)	4.993460	ppm	0.016304	0.33	6148.930000	4.993460
Pb (220.353 nm)	-0.002296 u	ppm	0.001770	77.09	-4.073730	-0.002296 u
S (181.972 nm)	4.993023	ppm	0.018765	0.38	1956.407598	4.993023
Sb (206.834 nm)	0.001064	ppm	0.000718	67.47	10.347700	0.001064
Se (196.026 nm)	-0.000219 u	ppm	0.002634	> 100.00	-0.431897	-0.000219 u
Si (288.158 nm)	-0.001396 u	ppm	0.002903	> 100.00	700.504000	-0.001396 u
Sn (189.925 nm)	0.001220	ppm	0.001942	> 100.00	4.303950	0.001220
Sr (421.552 nm)	0.000169	ppm	0.000072	42.45	73.913761	0.000169
Th (288.505 nm)	4.779320	ppm	0.007017	0.15	10684.000000	4.779320
Ti (336.122 nm)	0.000724	ppm	0.000096	13.23	-22.213200	0.000724
Tl (190.794 nm)	-0.005890 u	ppm	0.000809	13.73	-7.761730	-0.005890 u
U (409.013 nm)	2.459490 Q	ppm	0.005903	0.24	9341.350000 Q	2.459490 Q
V (292.401 nm)	0.000880	ppm	0.000153	17.37	179.359000	0.000880
Zn (206.200 nm)	0.001739	ppm	0.000628	36.09	7.223730	0.001739
Zr (343.823 nm)	-0.000368 u	ppm	0.000051	13.90	36.417600	-0.000368 u

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/15/2024 1:13:36 AM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.450308	ppm	0.000661	0.15	986998.609465	0.450308
Ag (328.068 nm)	0.488057	ppm	0.000776	0.16	17557.400000	0.488057
Al (394.401 nm)	0.485324	ppm	0.001250	0.26	6781.890000	0.485324
Al H (396.152 nm)	0.468167 u	ppm	0.004278	0.91	2393.910000	0.468167 u
As (188.980 nm)	0.463764	ppm	0.004323	0.93	266.442000	0.463764
B (249.678 nm)	0.495438	ppm	0.001484	0.30	3812.180000	0.495438
Ba (493.408 nm)	0.493681	ppm	0.000744	0.15	67980.800000	0.493681
Be (234.861 nm)	0.491042	ppm	0.004085	0.83	49346.400000	0.491042
Bi (223.061 nm)	0.986353	ppm	0.002709	0.27	2412.660000	0.986353
Ca (315.887 nm)	4.850947	ppm	0.000864	0.02	4051.711930	4.850947
Cd (214.439 nm)	0.497089	ppm	0.001873	0.38	12694.400000	0.497089
Co (228.615 nm)	0.496765	ppm	0.001106	0.22	6496.410000	0.496765
Cr (205.560 nm)	0.482384	ppm	0.001839	0.38	3107.420000	0.482384
Cu (324.754 nm)	0.494257	ppm	0.000855	0.17	24080.300000	0.494257
Fe (238.204 nm)	2.495069	ppm	0.005770	0.23	8054.557609	2.495069
Fe H (259.940 nm)	2.466530 u	ppm	0.006559	0.27	3397.140000	2.466530 u
K (766.491 nm)	48.254700	ppm	0.046526	0.10	62032.200000	48.254700
Li (670.783 nm)	0.490726	ppm	0.001308	0.27	15440.300000	0.490726
Mg (279.078 nm)	19.195300	ppm	0.048138	0.25	57241.300000	19.195300
Mn (257.610 nm)	0.490026	ppm	0.000770	0.16	143205.000000	0.490026
Mo (202.032 nm)	0.496991	ppm	0.001666	0.34	2679.570000	0.496991
Na (589.592 nm)	24.253700	ppm	0.045337	0.19	265308.000000	24.253700
Na H (589.593 nm)	23.674772 u	ppm	0.181055	0.76	189661.283547	23.674772 u
Ni (231.604 nm)	0.492256	ppm	0.000481	0.10	2323.210000	0.492256
P (213.618 nm)	-0.014414 u	ppm	0.003004	20.84	-66.812300	-0.014414 u
Pb (220.353 nm)	0.462294	ppm	0.001978	0.43	986.094000	0.462294
S (181.972 nm)	-0.035731 u	ppm	0.004919	13.77	12.544831	-0.035731 u
Sb (206.834 nm)	0.488961	ppm	0.000515	0.11	704.642000	0.488961
Se (196.026 nm)	0.480711	ppm	0.007247	1.51	272.808000	0.480711
Si (288.158 nm)	4.890290	ppm	0.044356	0.91	37278.500000	4.890290
Sn (189.925 nm)	0.500616	ppm	0.004316	0.86	356.514000	0.500616
Sr (421.552 nm)	0.494506	ppm	0.000677	0.14	106553.133835	0.494506
Th (288.505 nm)	0.007124	ppm	0.001813	25.45	29.384300	0.007124
Ti (336.122 nm)	0.484967	ppm	0.000813	0.17	65899.200000	0.484967
Tl (190.794 nm)	0.498359	ppm	0.001690	0.34	464.374000	0.498359
U (409.013 nm)	-0.000362 u	ppm	0.002661	> 100.00	-6.765210	-0.000362 u
V (292.401 nm)	0.476281	ppm	0.000549	0.12	14776.200000	0.476281
Zn (206.200 nm)	0.489685	ppm	0.001800	0.37	1144.300000	0.489685
Zr (343.823 nm)	0.486439	ppm	0.001107	0.23	37020.900000	0.486439

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/15/2024 1:17:57 AM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000602	ppm	0.000038	6.32	-917.116522	0.000602
Ag (328.068 nm)	0.000260	ppm	0.000181	69.49	-23.115000	0.000260
Al (394.401 nm)	-0.004998 u	ppm	0.001006	20.12	315.924000	-0.004998 u
Al H (396.152 nm)	-0.054441 u	ppm	0.003821	7.02	14.597900	-0.054441 u
As (188.980 nm)	-0.000975 u	ppm	0.002161	> 100.00	-1.433680	-0.000975 u
B (249.678 nm)	0.000797	ppm	0.000323	40.59	27.619800	0.000797
Ba (493.408 nm)	0.000091 u	ppm	0.000147	> 100.00	-31.785500	0.000091 u
Be (234.861 nm)	0.000023	ppm	0.000018	79.22	2.472570	0.000023
Bi (223.061 nm)	-0.001008 u	ppm	0.000381	37.80	1.782700	-0.001008 u
Ca (315.887 nm)	0.010856	ppm	0.005393	49.68	-5.747415	0.010856
Cd (214.439 nm)	0.000054 u	ppm	0.000131	> 100.00	-2.083180	0.000054 u
Co (228.615 nm)	-0.000161 u	ppm	0.000269	> 100.00	-8.848030	-0.000161 u
Cr (205.560 nm)	0.000120 u	ppm	0.000320	> 100.00	9.761210	0.000120 u
Cu (324.754 nm)	0.000273	ppm	0.000188	68.98	632.453000	0.000273
Fe (238.204 nm)	0.004275	ppm	0.000691	16.17	34.885261	0.004275
Fe H (259.940 nm)	-0.016728 u	ppm	0.000722	4.31	18.339900	-0.016728 u
K (766.491 nm)	-0.010509 u	ppm	0.043980	> 100.00	16.722600	-0.010509 u
Li (670.783 nm)	0.021032 S	ppm	0.000996	4.74	1040.270000 S	0.021032 S
Mg (279.078 nm)	0.003018	ppm	0.001507	49.95	13.049400	0.003018
Mn (257.610 nm)	0.000066	ppm	0.000038	57.45	59.732300	0.000066
Mo (202.032 nm)	0.000447 u	ppm	0.000514	> 100.00	7.749860	0.000447 u
Na (589.592 nm)	0.142395	ppm	0.004685	3.29	4184.330000	0.142395
Na H (589.593 nm)	-0.423182 u	ppm	0.011583	2.74	2849.635983	-0.423182 u
Ni (231.604 nm)	0.000275	ppm	0.000184	66.76	-1.014340	0.000275
P (213.618 nm)	-0.001717 u	ppm	0.003187	> 100.00	-9.518250	-0.001717 u
Pb (220.353 nm)	0.000094 u	ppm	0.001361	> 100.00	2.470130	0.000094 u
S (181.972 nm)	-0.010098 u	ppm	0.001070	10.60	12.955728	-0.010098 u
Sb (206.834 nm)	-0.000942 u	ppm	0.000616	65.35	3.347760	-0.000942 u
Se (196.026 nm)	0.000815 u	ppm	0.001456	> 100.00	4.970830	0.000815 u
Si (288.158 nm)	-0.011270 u	ppm	0.001287	11.42	626.151000	-0.011270 u
Sn (189.925 nm)	-0.000498 u	ppm	0.000430	86.41	3.092310	-0.000498 u
Sr (421.552 nm)	-0.000028 u	ppm	0.000074	> 100.00	31.522804	-0.000028 u
Th (288.505 nm)	0.003352	ppm	0.000831	24.80	34.036200	0.003352
Ti (336.122 nm)	0.000150	ppm	0.000045	30.29	-100.400000	0.000150
Tl (190.794 nm)	0.000681 u	ppm	0.001047	> 100.00	-0.820625	0.000681 u
U (409.013 nm)	-0.002274 u	ppm	0.002513	> 100.00	-3.126410	-0.002274 u
V (292.401 nm)	0.000078 u	ppm	0.000170	> 100.00	-57.368400	0.000078 u
Zn (206.200 nm)	0.000173 u	ppm	0.000389	> 100.00	3.574270	0.000173 u
Zr (343.823 nm)	0.000109	ppm	0.000068	62.12	8.750490	0.000109

Solution Name: 280-191320-A-1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191320-A-1-A	5/15/2024 1:21:59 AM	2:11	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.004176	ppm	0.000015	0.35	6932.788230	0.004176
Ag (328.068 nm)	0.000588	ppm	0.000196	33.39	-11.685700	0.000588
Al (394.401 nm)	0.289600	ppm	0.000484	0.17	4204.300000	0.289600
Al H (396.152 nm)	0.253914 u	ppm	0.002222	0.88	1418.460000	0.253914 u
As (188.980 nm)	0.001947	ppm	0.001429	73.40	0.262728	0.001947
B (249.678 nm)	0.018319	ppm	0.000607	3.31	161.684000	0.018319
Ba (493.408 nm)	0.041374	ppm	0.000386	0.93	5644.900000	0.041374
Be (234.861 nm)	0.000020 u	ppm	0.000036	> 100.00	9.147280	0.000020 u
Bi (223.061 nm)	0.000365 u	ppm	0.000806	> 100.00	5.133500	0.000365 u
Ca (315.887 nm)	7.785168	ppm	0.007899	0.10	6511.476020	7.785168
Cd (214.439 nm)	0.000021	ppm	0.000008	37.76	-2.568910	0.000021
Co (228.615 nm)	0.000583	ppm	0.000090	15.48	0.951897	0.000583
Cr (205.560 nm)	0.000128	ppm	0.000062	48.64	9.813350	0.000128
Cu (324.754 nm)	0.009456	ppm	0.000191	2.02	1067.040000	0.009456
Fe (238.204 nm)	0.978635	ppm	0.000700	0.07	3170.077831	0.978635
Fe H (259.940 nm)	0.955152 u	ppm	0.005923	0.62	1340.710000	0.955152 u
K (766.491 nm)	0.922663	ppm	0.062910	6.82	1215.750000	0.922663
Li (670.783 nm)	0.025052	ppm	0.001812	7.23	1174.090000	0.025052
Mg (279.078 nm)	4.019420	ppm	0.006785	0.17	11979.200000	4.019420
Mn (257.610 nm)	0.028877	ppm	0.000009	0.03	8477.200000	0.028877
Mo (202.032 nm)	-0.000263 u	ppm	0.000367	> 100.00	3.925470	-0.000263 u
Na (589.592 nm)	24.491400	ppm	0.058551	0.24	264588.000000	24.491400
Na H (589.593 nm)	23.711056 u	ppm	0.125407	0.53	188084.273717	23.711056 u
Ni (231.604 nm)	0.000310 u	ppm	0.000700	> 100.00	-0.848208	0.000310 u
P (213.618 nm)	0.007813	ppm	0.000669	8.56	1.740730	0.007813
Pb (220.353 nm)	-0.001817 u	ppm	0.000674	37.09	-1.637810	-0.001817 u
S (181.972 nm)	13.320558 o	ppm	0.030538	0.23	5183.644194	13.320558 o
Sb (206.834 nm)	-0.002648 u	ppm	0.001336	50.45	0.975606	-0.002648 u
Se (196.026 nm)	-0.000502 u	ppm	0.001815	> 100.00	4.385950	-0.000502 u
Si (288.158 nm)	7.225150	ppm	0.012642	0.17	54084.900000	7.225150
Sn (189.925 nm)	-0.001078 u	ppm	0.002326	> 100.00	2.683240	-0.001078 u
Sr (421.552 nm)	0.046982	ppm	0.000240	0.51	10157.291982	0.046982
Th (288.505 nm)	0.002852	ppm	0.000959	33.64	33.642600	0.002852
Ti (336.122 nm)	0.003744	ppm	0.000033	0.88	409.846000	0.003744
Tl (190.794 nm)	-0.001467 u	ppm	0.001020	69.50	-2.850460	-0.001467 u
U (409.013 nm)	0.000512 u	ppm	0.003158	> 100.00	8.149580	0.000512 u
V (292.401 nm)	0.000560	ppm	0.000086	15.40	-41.693800	0.000560
Zn (206.200 nm)	0.003052	ppm	0.000677	22.19	10.283200	0.003052
Zr (343.823 nm)	0.000120	ppm	0.000065	54.26	10.804800	0.000120

Solution Name: 280-191320-A-2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191320-A-2-A	5/15/2024 1:26:19 AM	2:12	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.029514	ppm	0.000122	0.41	62588.380981	0.029514
Ag (328.068 nm)	0.001565	ppm	0.000214	13.66	23.310100	0.001565
Al (394.401 nm)	0.054216	ppm	0.000821	1.51	1144.050000	0.054216
Al H (396.152 nm)	-0.025495 u	ppm	0.004702	18.44	146.379000	-0.025495 u
As (188.980 nm)	0.006631	ppm	0.003186	48.04	3.147220	0.006631
B (249.678 nm)	0.128108	ppm	0.000977	0.76	1001.690000	0.128108
Ba (493.408 nm)	0.040189	ppm	0.000213	0.53	5484.570000	0.040189
Be (234.861 nm)	-0.000019 u	ppm	0.000007	37.28	16.248400	-0.000019 u
Bi (223.061 nm)	-0.000036 u	ppm	0.000477	> 100.00	4.156070	-0.000036 u
Ca (315.887 nm)	90.557141 o	ppm	0.130094	0.14	75899.404797	90.557141 o
Cd (214.439 nm)	0.000181	ppm	0.000088	48.55	1.833720	0.000181
Co (228.615 nm)	-0.000633 u	ppm	0.000086	13.65	-15.010700	-0.000633 u
Cr (205.560 nm)	0.000240 u	ppm	0.000363	> 100.00	10.533900	0.000240 u
Cu (324.754 nm)	-0.000236 u	ppm	0.000048	20.55	579.642000	-0.000236 u
Fe (238.204 nm)	1.984665	ppm	0.001732	0.09	6407.178631	1.984665
Fe H (259.940 nm)	1.963740 u	ppm	0.001823	0.09	2713.020000	1.963740 u
K (766.491 nm)	1.719300	ppm	0.035736	2.08	2239.330000	1.719300
Li (670.783 nm)	0.049389	ppm	0.001279	2.59	1942.530000	0.049389
Mg (279.078 nm)	26.584400	ppm	0.044099	0.17	79205.500000	26.584400
Mn (257.610 nm)	0.129452	ppm	0.000200	0.15	37860.700000	0.129452
Mo (202.032 nm)	0.000283 u	ppm	0.000498	> 100.00	6.863150	0.000283 u
Na (589.592 nm)	38.437300	ppm	0.050345	0.13	413555.000000	38.437300
Na H (589.593 nm)	37.925687 u	ppm	0.189310	0.50	297079.568786	37.925687 u
Ni (231.604 nm)	-0.000451 u	ppm	0.000750	> 100.00	-4.444730	-0.000451 u
P (213.618 nm)	0.067485	ppm	0.002273	3.37	75.820100	0.067485
Pb (220.353 nm)	-0.001564 u	ppm	0.000698	44.63	-1.036260	-0.001564 u
S (181.972 nm)	23.490232 o	ppm	0.111120	0.47	9129.206798	23.490232 o
Sb (206.834 nm)	-0.001532 u	ppm	0.001687	> 100.00	2.667360	-0.001532 u
Se (196.026 nm)	-0.000404 u	ppm	0.001008	> 100.00	4.390930	-0.000404 u
Si (288.158 nm)	6.777190	ppm	0.008501	0.13	50774.700000	6.777190
Sn (189.925 nm)	-0.001742 u	ppm	0.002175	> 100.00	2.215020	-0.001742 u
Sr (421.552 nm)	0.303401	ppm	0.001188	0.39	65389.379374	0.303401
Th (288.505 nm)	-0.001267 u	ppm	0.002293	> 100.00	27.503600	-0.001267 u
Ti (336.122 nm)	0.000418	ppm	0.000084	20.17	182.936000	0.000418
Tl (190.794 nm)	-0.000372 u	ppm	0.001435	> 100.00	-1.838080	-0.000372 u
U (409.013 nm)	0.021262	ppm	0.001119	5.26	86.875500	0.021262
V (292.401 nm)	0.001546	ppm	0.000116	7.51	-6.441480	0.001546
Zn (206.200 nm)	0.003331	ppm	0.000817	24.51	10.933800	0.003331
Zr (343.823 nm)	0.000102	ppm	0.000033	32.78	10.726300	0.000102

Solution Name: 280-191320-A-3-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191320-A-3-A	5/15/2024 1:30:41 AM	2:13	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.579940	ppm	0.001864	0.32	1271636.104296	0.579940
Ag (328.068 nm)	0.001314	ppm	0.000285	21.66	14.689100	0.001314
Al (394.401 nm)	3.022260 o	ppm	0.023995	0.79	40249.000000	3.022260 o
Al H (396.152 nm)	3.090240	ppm	0.006646	0.22	14331.600000	3.090240
As (188.980 nm)	0.001093 u	ppm	0.002273	> 100.00	-0.169474	0.001093 u
B (249.678 nm)	0.092186	ppm	0.000960	1.04	726.853000	0.092186
Ba (493.408 nm)	0.016602	ppm	0.000229	1.38	2244.180000	0.016602
Be (234.861 nm)	0.005214	ppm	0.000098	1.87	541.745000	0.005214
Bi (223.061 nm)	0.000180 u	ppm	0.000473	> 100.00	4.682220	0.000180 u
Ca (315.887 nm)	36.648374 o	ppm	0.087588	0.24	30707.565489	36.648374 o
Cd (214.439 nm)	0.000669	ppm	0.000038	5.62	17.646100	0.000669
Co (228.615 nm)	0.148522	ppm	0.000394	0.27	1934.040000	0.148522
Cr (205.560 nm)	0.002106	ppm	0.000366	17.39	22.060200	0.002106
Cu (324.754 nm)	0.009003	ppm	0.000153	1.70	1039.210000	0.009003
Fe (238.204 nm)	2.023765	ppm	0.008250	0.41	6532.996690	2.023765
Fe H (259.940 nm)	2.003490 u	ppm	0.007508	0.37	2767.110000	2.003490 u
K (766.491 nm)	2.544240	ppm	0.067315	2.65	3299.300000	2.544240
Li (670.783 nm)	0.639307	ppm	0.000467	0.07	20001.200000	0.639307
Mg (279.078 nm)	27.719300	ppm	0.112915	0.41	82591.300000	27.719300
Mn (257.610 nm)	2.715760 o	ppm	0.009164	0.34	793470.000000	2.715760 o
Mo (202.032 nm)	0.000585	ppm	0.000494	84.42	8.489140	0.000585
Na (589.592 nm)	30.506600	ppm	0.046260	0.15	328665.000000	30.506600
Na H (589.593 nm)	29.431916 u	ppm	0.221928	0.75	231850.888244	29.431916 u
Ni (231.604 nm)	0.291183	ppm	0.001608	0.55	1373.000000	0.291183
P (213.618 nm)	0.013038	ppm	0.000496	3.80	8.185830	0.013038
Pb (220.353 nm)	0.001055 u	ppm	0.001567	> 100.00	3.977650	0.001055 u
S (181.972 nm)	87.056668 o	ppm	0.421605	0.48	33790.182905	87.056668 o
Sb (206.834 nm)	-0.002060 u	ppm	0.002290	> 100.00	1.887230	-0.002060 u
Se (196.026 nm)	-0.000841 u	ppm	0.004085	> 100.00	6.263820	-0.000841 u
Si (288.158 nm)	24.276200 o	ppm	0.285714	1.18	180050.000000	24.276200 o
Sn (189.925 nm)	-0.001005 u	ppm	0.001511	> 100.00	2.734730	-0.001005 u
Sr (421.552 nm)	0.140630	ppm	0.001371	0.97	30328.878876	0.140630
Th (288.505 nm)	-0.021340 u	ppm	0.001161	5.44	45.522000	-0.021340 u
Ti (336.122 nm)	0.011628	ppm	0.000361	3.11	1566.140000	0.011628
Tl (190.794 nm)	0.001158 u	ppm	0.003671	> 100.00	-0.175666	0.001158 u
U (409.013 nm)	0.007239	ppm	0.003946	54.51	34.388000	0.007239
V (292.401 nm)	0.001612	ppm	0.000174	10.76	-6.621470	0.001612
Zn (206.200 nm)	0.509062	ppm	0.001899	0.37	1189.460000	0.509062
Zr (343.823 nm)	0.000931	ppm	0.000051	5.47	73.889700	0.000931

Solution Name: 280-191320-A-4-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191320-A-4-A	5/15/2024 1:35:03 AM	2:14	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.479013	ppm	0.000741	0.15	1049943.639543	0.479013
Ag (328.068 nm)	0.001511	ppm	0.000232	15.37	21.842000	0.001511
Al (394.401 nm)	0.034830	ppm	0.000545	1.56	869.344000	0.034830
Al H (396.152 nm)	-0.032230 u	ppm	0.001392	4.32	115.719000	-0.032230 u
As (188.980 nm)	-0.000129 u	ppm	0.003099	> 100.00	-0.822393	-0.000129 u
B (249.678 nm)	0.036611	ppm	0.000188	0.51	301.642000	0.036611
Ba (493.408 nm)	0.010449	ppm	0.000231	2.21	1391.970000	0.010449
Be (234.861 nm)	-0.000059 u	ppm	0.000023	39.15	3.389920	-0.000059 u
Bi (223.061 nm)	0.000642 u	ppm	0.000816	> 100.00	5.809670	0.000642 u
Ca (315.887 nm)	53.455639 o	ppm	0.037495	0.07	44797.132981	53.455639 o
Cd (214.439 nm)	0.000330	ppm	0.000093	28.26	4.952540	0.000330
Co (228.615 nm)	-0.000504 u	ppm	0.000133	26.36	-13.321700	-0.000504 u
Cr (205.560 nm)	0.000245	ppm	0.000318	> 100.00	10.558600	0.000245
Cu (324.754 nm)	-0.000152 u	ppm	0.000157	> 100.00	593.758000	-0.000152 u
Fe (238.204 nm)	0.037148	ppm	0.001499	4.04	140.659746	0.037148
Fe H (259.940 nm)	0.009401 u	ppm	0.003088	32.85	53.891600	0.009401 u
K (766.491 nm)	3.049770	ppm	0.066529	2.18	3948.840000	3.049770
Li (670.783 nm)	0.514522	ppm	0.001300	0.25	16186.000000	0.514522
Mg (279.078 nm)	44.393100 o	ppm	0.114574	0.26	132265.000000	44.393100 o
Mn (257.610 nm)	0.004994	ppm	0.000253	5.06	1499.440000	0.004994
Mo (202.032 nm)	0.000253 u	ppm	0.000526	> 100.00	6.704860	0.000253 u
Na (589.592 nm)	41.438700	ppm	0.118238	0.29	445402.000000	41.438700
Na H (589.593 nm)	40.655864 u	ppm	0.207275	0.51	317892.710843	40.655864 u
Ni (231.604 nm)	0.003320	ppm	0.000130	3.92	13.368100	0.003320
P (213.618 nm)	-0.000102 u	ppm	0.002324	> 100.00	-7.509040	-0.000102 u
Pb (220.353 nm)	-0.002479 u	ppm	0.000996	40.20	-2.996940	-0.002479 u
S (181.972 nm)	113.341182 bo	ppm	0.429166	0.38	43978.474566	113.341182 bo
Sb (206.834 nm)	-0.003336 u	ppm	0.001886	56.54	-0.080331	-0.003336 u
Se (196.026 nm)	-0.003146 u	ppm	0.001961	62.34	3.048580	-0.003146 u
Si (288.158 nm)	9.170450	ppm	0.037134	0.40	68455.100000	9.170450
Sn (189.925 nm)	-0.001683 u	ppm	0.001762	> 100.00	2.256830	-0.001683 u
Sr (421.552 nm)	0.139337	ppm	0.000938	0.67	30050.389527	0.139337
Th (288.505 nm)	-0.000139 u	ppm	0.001140	> 100.00	27.425600	-0.000139 u
Ti (336.122 nm)	0.000253	ppm	0.000071	27.92	59.406500	0.000253
Tl (190.794 nm)	0.000214 u	ppm	0.001471	> 100.00	-1.258690	0.000214 u
U (409.013 nm)	0.015313	ppm	0.006540	42.71	62.895900	0.015313
V (292.401 nm)	0.001009	ppm	0.000139	13.75	-25.388800	0.001009
Zn (206.200 nm)	0.011709	ppm	0.000828	7.07	30.457700	0.011709
Zr (343.823 nm)	0.000024 u	ppm	0.000031	> 100.00	2.266560	0.000024 u

Solution Name: 280-191320-A-4-A SD @5

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191320-A-4-A SD @5	5/15/2024 1:39:20 AM	2:15	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.082990	ppm	0.000252	0.30	180051.686893	0.082990
Ag (328.068 nm)	0.000585	ppm	0.000330	56.37	-11.468800	0.000585
Al (394.401 nm)	0.007620	ppm	0.001535	20.14	489.545000	0.007620
Al H (396.152 nm)	-0.050201 u	ppm	0.000532	1.06	33.901700	-0.050201 u
As (188.980 nm)	-0.001130 u	ppm	0.004648	> 100.00	-1.498690	-0.001130 u
B (249.678 nm)	0.007375	ppm	0.000760	10.30	77.953700	0.007375
Ba (493.408 nm)	0.002856	ppm	0.000044	1.53	348.794000	0.002856
Be (234.861 nm)	-0.000003 u	ppm	0.000035	> 100.00	3.065040	-0.000003 u
Bi (223.061 nm)	0.000055 u	ppm	0.000771	> 100.00	4.376670	0.000055 u
Ca (315.887 nm)	11.044446 o	ppm	0.020843	0.19	9243.736078	11.044446 o
Cd (214.439 nm)	0.000199	ppm	0.000130	65.38	1.677090	0.000199
Co (228.615 nm)	-0.000370 u	ppm	0.000339	91.46	-11.586100	-0.000370 u
Cr (205.560 nm)	-0.000099 u	ppm	0.000160	> 100.00	8.354660	-0.000099 u
Cu (324.754 nm)	0.000694	ppm	0.000120	17.25	648.399000	0.000694
Fe (238.204 nm)	0.224352	ppm	0.002214	0.99	743.024098	0.224352
Fe H (259.940 nm)	0.198486 u	ppm	0.002393	1.21	311.166000	0.198486 u
K (766.491 nm)	0.589693	ppm	0.038373	6.51	787.916000	0.589693
Li (670.783 nm)	0.122149	ppm	0.001646	1.35	4143.630000	0.122149
Mg (279.078 nm)	9.107460	ppm	0.090150	0.99	27137.800000	9.107460
Mn (257.610 nm)	0.002290	ppm	0.000165	7.22	709.684000	0.002290
Mo (202.032 nm)	-0.000153 u	ppm	0.000283	> 100.00	4.520660	-0.000153 u
Na (589.592 nm)	8.607690	ppm	0.029566	0.34	94633.100000	8.607690
Na H (589.593 nm)	7.924797 u	ppm	0.031392	0.40	66874.167531	7.924797 u
Ni (231.604 nm)	0.000421 u	ppm	0.000473	> 100.00	-0.326259	0.000421 u
P (213.618 nm)	-0.001127 u	ppm	0.000897	79.61	-8.798990	-0.001127 u
Pb (220.353 nm)	-0.000228 u	ppm	0.000914	> 100.00	1.796420	-0.000228 u
S (181.972 nm)	22.799413 o	ppm	0.111488	0.49	8860.076172	22.799413 o
Sb (206.834 nm)	-0.000386 u	ppm	0.001387	> 100.00	4.167500	-0.000386 u
Se (196.026 nm)	-0.002032 u	ppm	0.002594	> 100.00	3.421300	-0.002032 u
Si (288.158 nm)	1.848390	ppm	0.005186	0.28	14362.400000	1.848390
Sn (189.925 nm)	-0.002996 u	ppm	0.001362	45.46	1.330460	-0.002996 u
Sr (421.552 nm)	0.028180	ppm	0.000065	0.23	6107.460993	0.028180
Th (288.505 nm)	0.002420	ppm	0.001924	79.51	32.245900	0.002420
Ti (336.122 nm)	0.000075	ppm	0.000058	76.66	-80.527000	0.000075
Tl (190.794 nm)	-0.000827 u	ppm	0.001481	> 100.00	-2.236020	-0.000827 u
U (409.013 nm)	0.006622	ppm	0.004187	63.23	30.435900	0.006622
V (292.401 nm)	0.000182	ppm	0.000066	36.60	-53.777900	0.000182
Zn (206.200 nm)	0.002162	ppm	0.000303	13.99	8.209630	0.002162
Zr (343.823 nm)	-0.000099 u	ppm	0.000069	69.72	-6.790270	-0.000099 u

Solution Name: 280-191320-A-4-B MS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191320-A-4-B MS	5/15/2024 1:43:37 AM	2:16	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.480062 o	ppm	0.004109	0.28	3249025.053279	1.480062 o
Ag (328.068 nm)	0.048997	ppm	0.000141	0.29	1450.170000	0.048997
Al (394.401 nm)	9.818520 o	ppm	0.040259	0.41	129899.000000	9.818520 o
Al H (396.152 nm)	9.770020	ppm	0.009410	0.10	44743.100000	9.770020
As (188.980 nm)	0.951708	ppm	0.005745	0.60	547.869000	0.951708
B (249.678 nm)	2.033960	ppm	0.006622	0.33	15583.600000	2.033960
Ba (493.408 nm)	0.976326	ppm	0.002298	0.24	134495.000000	0.976326
Be (234.861 nm)	0.967252	ppm	0.009571	0.99	97244.900000	0.967252
Bi (223.061 nm)	-0.001574 u	ppm	0.000596	37.87	0.399235	-0.001574 u
Ca (315.887 nm)	99.359378 o	ppm	0.257858	0.26	83278.339590	99.359378 o
Cd (214.439 nm)	0.958913	ppm	0.002562	0.27	24492.700000	0.958913
Co (228.615 nm)	0.934623	ppm	0.003273	0.35	12229.300000	0.934623
Cr (205.560 nm)	0.931455	ppm	0.001251	0.13	5991.850000	0.931455
Cu (324.754 nm)	0.959830	ppm	0.004900	0.51	46154.100000	0.959830
Fe (238.204 nm)	9.854550 o	ppm	0.029072	0.30	31739.828322	9.854550 o
Fe H (259.940 nm)	9.814210	ppm	0.004363	0.04	13394.600000	9.814210
K (766.491 nm)	51.380600	ppm	0.179104	0.35	66048.600000	51.380600
Li (670.783 nm)	1.417830 o	ppm	0.008399	0.59	43887.500000	1.417830 o
Mg (279.078 nm)	92.170300 o	ppm	0.216688	0.24	274653.000000	92.170300 o
Mn (257.610 nm)	0.953589	ppm	0.002261	0.24	278638.000000	0.953589
Mo (202.032 nm)	0.974345	ppm	0.002898	0.30	5248.130000	0.974345
Na (589.592 nm)	87.489500 o	ppm	0.473033	0.54	944297.000000	87.489500 o
Na H (589.593 nm)	86.868605	ppm	0.690765	0.80	676222.018269	86.868605
Ni (231.604 nm)	0.918126	ppm	0.002724	0.30	4335.150000	0.918126
P (213.618 nm)	20.405200 o	ppm	0.045772	0.22	25072.300000	20.405200 o
Pb (220.353 nm)	0.895555	ppm	0.001820	0.20	1907.190000	0.895555
S (181.972 nm)	129.705834 bo	ppm	0.579891	0.45	50342.792135	129.705834 bo
Sb (206.834 nm)	0.966140	ppm	0.003304	0.34	1388.090000	0.966140
Se (196.026 nm)	0.945620	ppm	0.008305	0.88	532.060000	0.945620
Si (288.158 nm)	18.091200 o	ppm	0.077069	0.43	135214.000000	18.091200 o
Sn (189.925 nm)	0.969826	ppm	0.007112	0.73	687.434000	0.969826
Sr (421.552 nm)	1.100067 o	ppm	0.002679	0.24	236989.635897	1.100067 o
Th (288.505 nm)	-0.002942 u	ppm	0.002771	94.19	-5.239790	-0.002942 u
Ti (336.122 nm)	0.944284	ppm	0.002634	0.28	128672.000000	0.944284
Tl (190.794 nm)	0.954666	ppm	0.000850	0.09	890.723000	0.954666
U (409.013 nm)	0.017141	ppm	0.003718	21.69	52.918300	0.017141
V (292.401 nm)	0.948989	ppm	0.002067	0.22	29512.200000	0.948989
Zn (206.200 nm)	0.955502	ppm	0.001782	0.19	2229.820000	0.955502
Zr (343.823 nm)	0.944463	ppm	0.002852	0.30	71885.200000	0.944463

Solution Name: 280-191320-A-4-C MSD

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191320-A-4-C MSD	5/15/2024 1:48:01 AM	2:17	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.529135 o	ppm	0.004292	0.28	3356823.567510	1.529135 o
Ag (328.068 nm)	0.050077	ppm	0.000442	0.88	1485.590000	0.050077
Al (394.401 nm)	10.074800 o	ppm	0.058034	0.58	133279.000000	10.074800 o
Al H (396.152 nm)	10.009800	ppm	0.020843	0.21	45834.600000	10.009800
As (188.980 nm)	0.973227	ppm	0.002239	0.23	560.278000	0.973227
B (249.678 nm)	2.083360	ppm	0.011238	0.54	15961.600000	2.083360
Ba (493.408 nm)	0.994388	ppm	0.001941	0.20	136994.000000	0.994388
Be (234.861 nm)	1.018360	ppm	0.015629	1.53	102382.000000	1.018360
Bi (223.061 nm)	-0.000626 u	ppm	0.000127	20.26	2.714680	-0.000626 u
Ca (315.887 nm)	102.460667 o	ppm	0.214305	0.21	85878.157513	102.460667 o
Cd (214.439 nm)	0.981823	ppm	0.003155	0.32	25078.000000	0.981823
Co (228.615 nm)	0.955412	ppm	0.002035	0.21	12501.800000	0.955412
Cr (205.560 nm)	0.950215	ppm	0.002268	0.24	6112.260000	0.950215
Cu (324.754 nm)	0.982167	ppm	0.004140	0.42	47213.700000	0.982167
Fe (238.204 nm)	10.207240 o	ppm	0.020422	0.20	32874.911632	10.207240 o
Fe H (259.940 nm)	10.165300	ppm	0.024857	0.24	13872.300000	10.165300
K (766.491 nm)	52.664900	ppm	0.220656	0.42	67698.900000	52.664900
Li (670.783 nm)	1.454660 o	ppm	0.004511	0.31	45018.100000	1.454660 o
Mg (279.078 nm)	95.355800 o	ppm	0.177283	0.19	284145.000000	95.355800 o
Mn (257.610 nm)	0.976268	ppm	0.001272	0.13	285264.000000	0.976268
Mo (202.032 nm)	1.010770	ppm	0.003415	0.34	5444.100000	1.010770
Na (589.592 nm)	92.074700 o	ppm	0.079462	0.09	993408.000000	92.074700 o
Na H (589.593 nm)	91.661717	ppm	0.824627	0.90	713050.821345	91.661717
Ni (231.604 nm)	0.941774	ppm	0.001618	0.17	4446.870000	0.941774
P (213.618 nm)	20.872000 o	ppm	0.069650	0.33	25645.600000	20.872000 o
Pb (220.353 nm)	0.919804	ppm	0.000614	0.07	1958.750000	0.919804
S (181.972 nm)	135.978128 bo	ppm	0.826334	0.61	52776.125383	135.978128 bo
Sb (206.834 nm)	1.003330	ppm	0.003757	0.37	1441.260000	1.003330
Se (196.026 nm)	0.969200	ppm	0.010587	1.09	545.213000	0.969200
Si (288.158 nm)	18.840400 o	ppm	0.060340	0.32	140781.000000	18.840400 o
Sn (189.925 nm)	1.005590	ppm	0.002103	0.21	712.659000	1.005590
Sr (421.552 nm)	1.124055 o	ppm	0.002496	0.22	242156.671491	1.124055 o
Th (288.505 nm)	-0.004736 u	ppm	0.001302	27.49	-9.936090	-0.004736 u
Ti (336.122 nm)	0.980311	ppm	0.001588	0.16	133584.000000	0.980311
Tl (190.794 nm)	0.982008	ppm	0.005859	0.60	916.232000	0.982008
U (409.013 nm)	0.014818	ppm	0.001760	11.88	43.565900	0.014818
V (292.401 nm)	0.970639	ppm	0.000861	0.09	30187.500000	0.970639
Zn (206.200 nm)	0.978082	ppm	0.004637	0.47	2282.440000	0.978082
Zr (343.823 nm)	0.979723	ppm	0.001635	0.17	74568.800000	0.979723

Solution Name: 280-191320-A-4-A PDS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191320-A-4-A PDS	5/15/2024 1:52:26 AM	2:18	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.571614	ppm	0.001031	0.18	1253359.300235	0.571614
Ag (328.068 nm)	0.046863	ppm	0.000131	0.28	1651.480000	0.046863
Al (394.401 nm)	0.990142	ppm	0.000806	0.08	13524.600000	0.990142
Al H (396.152 nm)	0.933409	ppm	0.001585	0.17	4512.040000	0.933409
As (188.980 nm)	0.188707	ppm	0.000479	0.25	108.058000	0.188707
B (249.678 nm)	0.140147	ppm	0.001925	1.37	1093.800000	0.140147
Ba (493.408 nm)	0.105003	ppm	0.000211	0.20	14406.700000	0.105003
Be (234.861 nm)	0.048390	ppm	0.000099	0.20	4881.150000	0.048390
Bi (223.061 nm)	-0.000150 u	ppm	0.000886	> 100.00	3.876040	-0.000150 u
Ca (315.887 nm)	70.583569 o	ppm	0.100323	0.14	59155.515153	70.583569 o
Cd (214.439 nm)	0.048908	ppm	0.000361	0.74	1246.050000	0.048908
Co (228.615 nm)	0.046545	ppm	0.000260	0.56	602.598000	0.046545
Cr (205.560 nm)	0.047144	ppm	0.000485	1.03	311.797000	0.047144
Cu (324.754 nm)	0.048108	ppm	0.000390	0.81	2891.390000	0.048108
Fe (238.204 nm)	1.014491	ppm	0.002812	0.28	3285.945814	1.014491
Fe H (259.940 nm)	0.992123 u	ppm	0.005079	0.51	1391.010000	0.992123 u
K (766.491 nm)	22.061300	ppm	0.059198	0.27	28376.500000	22.061300
Li (670.783 nm)	0.579186	ppm	0.000709	0.12	18177.100000	0.579186
Mg (279.078 nm)	62.395000 o	ppm	0.250869	0.40	185905.000000	62.395000 o
Mn (257.610 nm)	0.052286	ppm	0.000039	0.07	15316.200000	0.052286
Mo (202.032 nm)	0.049756	ppm	0.000270	0.54	273.073000	0.049756
Na (589.592 nm)	58.607000 o	ppm	0.219366	0.37	629481.000000	58.607000 o
Na H (589.593 nm)	57.719109	ppm	0.306330	0.53	449123.535591	57.719109
Ni (231.604 nm)	0.049206	ppm	0.000930	1.89	230.289000	0.049206
P (213.618 nm)	2.005850	ppm	0.008462	0.42	2461.780000	2.005850
Pb (220.353 nm)	0.088537	ppm	0.000762	0.86	191.543000	0.088537
S (181.972 nm)	111.051081 bo	ppm	0.527219	0.47	43091.994715	111.051081 bo
Sb (206.834 nm)	0.096462	ppm	0.002630	2.73	142.984000	0.096462
Se (196.026 nm)	0.185954	ppm	0.002006	1.08	108.574000	0.185954
Si (288.158 nm)	13.488700 o	ppm	0.064663	0.48	100439.000000	13.488700 o
Sn (189.925 nm)	0.097627	ppm	0.003345	3.43	72.297300	0.097627
Sr (421.552 nm)	0.181523	ppm	0.000305	0.17	39137.283200	0.181523
Th (288.505 nm)	0.183392	ppm	0.002490	1.36	438.850000	0.183392
Ti (336.122 nm)	0.047834	ppm	0.000211	0.44	6582.080000	0.047834
Tl (190.794 nm)	0.188607	ppm	0.003555	1.88	175.100000	0.188607
U (409.013 nm)	0.503994	ppm	0.006062	1.20	1898.800000	0.503994
V (292.401 nm)	0.048354	ppm	0.000434	0.90	1442.830000	0.048354
Zn (206.200 nm)	0.200411	ppm	0.000717	0.36	470.199000	0.200411
Zr (343.823 nm)	0.048409	ppm	0.000196	0.40	3685.560000	0.048409

Solution Name: 280-191320-A-5-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191320-A-5-A	5/15/2024 1:56:45 AM	2:19	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.468312	ppm	0.001615	0.34	1026438.865039	0.468312
Ag (328.068 nm)	0.001491	ppm	0.000206	13.78	21.120600	0.001491
Al (394.401 nm)	0.046612	ppm	0.000630	1.35	1024.590000	0.046612
Al H (396.152 nm)	-0.022508 u	ppm	0.003398	15.10	159.981000	-0.022508 u
As (188.980 nm)	-0.000431 u	ppm	0.002397	> 100.00	-0.998648	-0.000431 u
B (249.678 nm)	0.037611	ppm	0.000286	0.76	309.286000	0.037611
Ba (493.408 nm)	0.010249	ppm	0.000282	2.76	1364.590000	0.010249
Be (234.861 nm)	-0.000022 u	ppm	0.000015	69.67	7.228180	-0.000022 u
Bi (223.061 nm)	0.001375	ppm	0.000572	41.58	7.599780	0.001375
Ca (315.887 nm)	52.668601 o	ppm	0.090489	0.17	44137.357593	52.668601 o
Cd (214.439 nm)	0.000360	ppm	0.000088	24.35	5.743700	0.000360
Co (228.615 nm)	-0.000687 u	ppm	0.000328	47.75	-15.706400	-0.000687 u
Cr (205.560 nm)	0.000287	ppm	0.000022	7.71	10.830100	0.000287
Cu (324.754 nm)	0.000062 u	ppm	0.000184	> 100.00	604.524000	0.000062 u
Fe (238.204 nm)	0.078781	ppm	0.000549	0.70	274.623182	0.078781
Fe H (259.940 nm)	0.051903 u	ppm	0.002669	5.14	111.721000	0.051903 u
K (766.491 nm)	2.980560	ppm	0.021594	0.72	3859.920000	2.980560
Li (670.783 nm)	0.504707	ppm	0.003467	0.69	15884.900000	0.504707
Mg (279.078 nm)	43.846000 o	ppm	0.346422	0.79	130634.000000	43.846000 o
Mn (257.610 nm)	0.004921	ppm	0.000055	1.12	1478.270000	0.004921
Mo (202.032 nm)	0.000403	ppm	0.000164	40.65	7.511310	0.000403
Na (589.592 nm)	40.888600	ppm	0.176146	0.43	439524.000000	40.888600
Na H (589.593 nm)	40.014072 u	ppm	0.190313	0.48	312970.374606	40.014072 u
Ni (231.604 nm)	0.002985	ppm	0.000875	29.31	11.784600	0.002985
P (213.618 nm)	0.003460	ppm	0.000191	5.51	-3.153300	0.003460
Pb (220.353 nm)	-0.001646 u	ppm	0.001082	65.73	-1.215320	-0.001646 u
S (181.972 nm)	111.266434 bo	ppm	0.515361	0.46	43173.755337	111.266434 bo
Sb (206.834 nm)	-0.000008 u	ppm	0.002842	> 100.00	4.696230	-0.000008 u
Se (196.026 nm)	0.004430	ppm	0.002764	62.39	7.261230	0.004430
Si (288.158 nm)	8.909880	ppm	0.031754	0.36	66528.700000	8.909880
Sn (189.925 nm)	-0.003287 u	ppm	0.000721	21.93	1.125550	-0.003287 u
Sr (421.552 nm)	0.136381	ppm	0.001431	1.05	29413.677245	0.136381
Th (288.505 nm)	0.002260	ppm	0.001891	83.69	32.775000	0.002260
Ti (336.122 nm)	0.000420	ppm	0.000043	10.21	79.904300	0.000420
Tl (190.794 nm)	0.000095 u	ppm	0.002258	> 100.00	-1.371590	0.000095 u
U (409.013 nm)	0.019581	ppm	0.002099	10.72	78.985100	0.019581
V (292.401 nm)	0.001176	ppm	0.000085	7.24	-20.219700	0.001176
Zn (206.200 nm)	0.013308	ppm	0.001286	9.66	34.182900	0.013308
Zr (343.823 nm)	0.000081	ppm	0.000032	39.40	6.678530	0.000081

Solution Name: 280-191320-A-6-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191320-A-6-A	5/15/2024 2:01:01 AM	2:20	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.089791	ppm	0.000270	0.30	194992.752781	0.089791
Ag (328.068 nm)	0.001978	ppm	0.000268	13.54	39.211800	0.001978
Al (394.401 nm)	0.306014	ppm	0.002359	0.77	4434.330000	0.306014
Al H (396.152 nm)	0.253431 u	ppm	0.004617	1.82	1416.270000	0.253431 u
As (188.980 nm)	0.002832	ppm	0.000593	20.95	0.792823	0.002832
B (249.678 nm)	0.030137	ppm	0.000511	1.69	252.104000	0.030137
Ba (493.408 nm)	0.042164	ppm	0.000640	1.52	5779.220000	0.042164
Be (234.861 nm)	-0.000063 u	ppm	0.000062	98.08	68.124200	-0.000063 u
Bi (223.061 nm)	-0.000667 u	ppm	0.001031	> 100.00	2.613340	-0.000667 u
Ca (315.887 nm)	43.276314 o	ppm	0.119017	0.28	36263.782609	43.276314 o
Cd (214.439 nm)	0.005049	ppm	0.000110	2.17	130.098000	0.005049
Co (228.615 nm)	0.039500	ppm	0.000113	0.29	509.644000	0.039500
Cr (205.560 nm)	0.000951	ppm	0.000176	18.53	14.886100	0.000951
Cu (324.754 nm)	0.002830	ppm	0.000076	2.68	756.550000	0.002830
Fe (238.204 nm)	10.853559 o	ppm	0.024635	0.23	34944.644497	10.853559 o
Fe H (259.940 nm)	10.801000	ppm	0.012198	0.11	14737.200000	10.801000
K (766.491 nm)	2.494500	ppm	0.043075	1.73	3235.390000	2.494500
Li (670.783 nm)	0.113426	ppm	0.001972	1.74	3890.930000	0.113426
Mg (279.078 nm)	27.866300	ppm	0.054502	0.20	83020.600000	27.866300
Mn (257.610 nm)	7.474950 o	ppm	0.004698	0.06	2183900.000000	7.474950 o
Mo (202.032 nm)	-0.000092 u	ppm	0.000165	> 100.00	4.846170	-0.000092 u
Na (589.592 nm)	29.328500	ppm	0.056195	0.19	316266.000000	29.328500
Na H (589.593 nm)	28.686584 u	ppm	0.266619	0.93	226241.066683	28.686584 u
Ni (231.604 nm)	0.139873	ppm	0.000700	0.50	658.345000	0.139873
P (213.618 nm)	0.005834	ppm	0.003412	58.48	-0.319304	0.005834
Pb (220.353 nm)	0.000813 u	ppm	0.002022	> 100.00	3.929930	0.000813 u
S (181.972 nm)	32.962612 o	ppm	0.130029	0.39	12818.242889	32.962612 o
Sb (206.834 nm)	-0.001875 u	ppm	0.000864	46.08	2.885010	-0.001875 u
Se (196.026 nm)	-0.003815 u	ppm	0.002423	63.52	6.217430	-0.003815 u
Si (288.158 nm)	10.411800	ppm	0.043329	0.42	77624.800000	10.411800
Sn (189.925 nm)	-0.003589 u	ppm	0.001359	37.87	0.912315	-0.003589 u
Sr (421.552 nm)	0.110736	ppm	0.001340	1.21	23889.833476	0.110736
Th (288.505 nm)	-0.060053 u	ppm	0.001105	1.84	74.784800	-0.060053 u
Ti (336.122 nm)	0.009098	ppm	0.000614	6.75	1237.480000	0.009098
Tl (190.794 nm)	0.004430	ppm	0.000858	19.38	2.575050	0.004430
U (409.013 nm)	0.014154	ppm	0.002558	18.07	67.889800	0.014154
V (292.401 nm)	0.000856	ppm	0.000328	38.37	-29.483900	0.000856
Zn (206.200 nm)	0.047951	ppm	0.000763	1.59	114.913000	0.047951
Zr (343.823 nm)	0.000598	ppm	0.000073	12.24	59.848800	0.000598

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/15/2024 2:05:26 AM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000947	ppm	0.000023	2.46	-159.188361	0.000947
Ag (328.068 nm)	0.000239	ppm	0.000197	82.60	73.373400	0.000239
Al (394.401 nm)	49.383200 o	ppm	0.149711	0.30	650675.000000	49.383200 o
Al H (396.152 nm)	49.039100	ppm	0.077743	0.16	223526.000000	49.039100
As (188.980 nm)	0.001449 u	ppm	0.002716	> 100.00	-0.351034	0.001449 u
B (249.678 nm)	-0.002407 u	ppm	0.000173	7.18	3.108490	-0.002407 u
Ba (493.408 nm)	0.000175	ppm	0.000049	28.20	109.579000	0.000175
Be (234.861 nm)	0.000161	ppm	0.000047	29.18	335.642000	0.000161
Bi (223.061 nm)	0.000670 u	ppm	0.001594	> 100.00	5.879540	0.000670 u
Ca (315.887 nm)	-0.012428 u	ppm	0.002083	16.76	-25.266566	-0.012428 u
Cd (214.439 nm)	-0.000316 u	ppm	0.000172	54.64	6.228840	-0.000316 u
Co (228.615 nm)	-0.000023 u	ppm	0.000166	> 100.00	-7.047540	-0.000023 u
Cr (205.560 nm)	0.000517	ppm	0.000241	46.65	12.316700	0.000517
Cu (324.754 nm)	-0.003991 u	ppm	0.000388	9.73	1390.970000	-0.003991 u
Fe (238.204 nm)	50.266120 o	ppm	0.065934	0.13	161762.278139	50.266120 o
Fe H (259.940 nm)	49.930000	ppm	0.099158	0.20	67977.500000	49.930000
K (766.491 nm)	0.014103 u	ppm	0.012730	90.27	48.346800	0.014103 u
Li (670.783 nm)	0.017782	ppm	0.001450	8.16	1027.620000	0.017782
Mg (279.078 nm)	0.014712	ppm	0.001083	7.36	-120.260000	0.014712
Mn (257.610 nm)	-0.000501 u	ppm	0.000184	36.79	-105.833000	-0.000501 u
Mo (202.032 nm)	-0.000522 u	ppm	0.000122	23.28	2.533090	-0.000522 u
Na (589.592 nm)	235.903000 o	ppm	0.102876	0.04	2522680.000000	235.903000 o
Na H (589.593 nm)	237.344256	ppm	1.288012	0.54	1826091.619501	237.344256
Ni (231.604 nm)	0.000161 u	ppm	0.000915	> 100.00	-1.552920	0.000161 u
P (213.618 nm)	4.977030	ppm	0.009925	0.20	6128.710000	4.977030
Pb (220.353 nm)	-0.002542 u	ppm	0.000443	17.42	-4.627730	-0.002542 u
S (181.972 nm)	4.972253	ppm	0.022146	0.45	1948.373107	4.972253
Sb (206.834 nm)	0.000172 u	ppm	0.002300	> 100.00	9.085770	0.000172 u
Se (196.026 nm)	0.005297	ppm	0.002131	40.23	2.623760	0.005297
Si (288.158 nm)	0.010103	ppm	0.003803	37.64	783.923000	0.010103
Sn (189.925 nm)	-0.000632 u	ppm	0.002282	> 100.00	2.997650	-0.000632 u
Sr (421.552 nm)	0.000157	ppm	0.000035	22.53	71.401734	0.000157
Th (288.505 nm)	4.779260	ppm	0.007465	0.16	10683.900000	4.779260
Ti (336.122 nm)	0.000725	ppm	0.000023	3.23	-22.126000	0.000725
Tl (190.794 nm)	-0.006793 u	ppm	0.002196	32.33	-8.611070	-0.006793 u
U (409.013 nm)	2.457450 Q	ppm	0.005004	0.20	9333.820000 Q	2.457450 Q
V (292.401 nm)	0.000892	ppm	0.000393	44.04	179.703000	0.000892
Zn (206.200 nm)	0.001577	ppm	0.000589	37.33	6.845550	0.001577
Zr (343.823 nm)	-0.000273 u	ppm	0.000015	5.44	43.923400	-0.000273 u

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/15/2024 2:09:53 AM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.449582 Q	ppm	0.000759	0.17	985403.562826 Q	0.449582 Q
Ag (328.068 nm)	0.487945	ppm	0.000522	0.11	17552.200000	0.487945
Al (394.401 nm)	0.486291	ppm	0.001620	0.33	6794.850000	0.486291
Al H (396.152 nm)	0.475835 u	ppm	0.012330	2.59	2428.820000	0.475835 u
As (188.980 nm)	0.463324	ppm	0.004055	0.88	266.188000	0.463324
B (249.678 nm)	0.491806	ppm	0.000746	0.15	3784.390000	0.491806
Ba (493.408 nm)	0.493397	ppm	0.000829	0.17	67942.600000	0.493397
Be (234.861 nm)	0.493225	ppm	0.007708	1.56	49565.800000	0.493225
Bi (223.061 nm)	0.987023	ppm	0.004689	0.48	2414.300000	0.987023
Ca (315.887 nm)	4.875131	ppm	0.015861	0.33	4071.985085	4.875131
Cd (214.439 nm)	0.501656	ppm	0.001462	0.29	12811.000000	0.501656
Co (228.615 nm)	0.496911	ppm	0.000762	0.15	6498.340000	0.496911
Cr (205.560 nm)	0.484999	ppm	0.000324	0.07	3124.220000	0.484999
Cu (324.754 nm)	0.492907	ppm	0.001066	0.22	24016.100000	0.492907
Fe (238.204 nm)	2.509541	ppm	0.017998	0.72	8101.169770	2.509541
Fe H (259.940 nm)	2.481810 u	ppm	0.016118	0.65	3417.930000	2.481810 u
K (766.491 nm)	48.318900	ppm	0.086985	0.18	62114.800000	48.318900
Li (670.783 nm)	0.488777	ppm	0.003140	0.64	15380.600000	0.488777
Mg (279.078 nm)	19.362400	ppm	0.043009	0.22	57739.100000	19.362400
Mn (257.610 nm)	0.492729	ppm	0.000827	0.17	143995.000000	0.492729
Mo (202.032 nm)	0.498870	ppm	0.000893	0.18	2689.680000	0.498870
Na (589.592 nm)	24.244500	ppm	0.064202	0.26	265206.000000	24.244500
Na H (589.593 nm)	23.758960 u	ppm	0.225160	0.95	190304.620574	23.758960 u
Ni (231.604 nm)	0.492999	ppm	0.000533	0.11	2326.720000	0.492999
P (213.618 nm)	-0.011826 u	ppm	0.001304	11.03	-63.608200	-0.011826 u
Pb (220.353 nm)	0.461781	ppm	0.001319	0.29	984.996000	0.461781
S (181.972 nm)	-0.033001 u	ppm	0.001836	5.56	13.605889	-0.033001 u
Sb (206.834 nm)	0.490713	ppm	0.002482	0.51	707.162000	0.490713
Se (196.026 nm)	0.480498	ppm	0.000414	0.09	272.691000	0.480498
Si (288.158 nm)	4.944290	ppm	0.073103	1.48	37674.700000	4.944290
Sn (189.925 nm)	0.497218	ppm	0.004299	0.86	354.117000	0.497218
Sr (421.552 nm)	0.493544	ppm	0.001089	0.22	106345.942904	0.493544
Th (288.505 nm)	0.006452	ppm	0.001977	30.64	27.791500	0.006452
Ti (336.122 nm)	0.485466	ppm	0.000327	0.07	65967.300000	0.485466
Tl (190.794 nm)	0.497000	ppm	0.002843	0.57	463.097000	0.497000
U (409.013 nm)	0.000750 u	ppm	0.003270	> 100.00	-2.569880	0.000750 u
V (292.401 nm)	0.478205	ppm	0.000577	0.12	14835.900000	0.478205
Zn (206.200 nm)	0.496404	ppm	0.000534	0.11	1159.960000	0.496404
Zr (343.823 nm)	0.486016	ppm	0.000718	0.15	36988.700000	0.486016

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/15/2024 2:14:15 AM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000527	ppm	0.000011	2.04	-1082.446810	0.000527
Ag (328.068 nm)	0.000472	ppm	0.000204	43.15	-15.700500	0.000472
Al (394.401 nm)	-0.003361 u	ppm	0.000250	7.45	338.283000	-0.003361 u
Al H (396.152 nm)	-0.050817 u	ppm	0.001955	3.85	31.097200	-0.050817 u
As (188.980 nm)	0.000911 u	ppm	0.001931	> 100.00	-0.346346	0.000911 u
B (249.678 nm)	0.000755	ppm	0.000302	39.94	27.300700	0.000755
Ba (493.408 nm)	-0.000005 u	ppm	0.000088	> 100.00	-45.053000	-0.000005 u
Be (234.861 nm)	0.000016 u	ppm	0.000017	> 100.00	1.770970	0.000016 u
Bi (223.061 nm)	-0.000247 u	ppm	0.000304	> 100.00	3.640670	-0.000247 u
Ca (315.887 nm)	0.003938 u	ppm	0.005924	> 100.00	-11.546635	0.003938 u
Cd (214.439 nm)	0.000105 u	ppm	0.000127	> 100.00	-0.776294	0.000105 u
Co (228.615 nm)	0.000048 u	ppm	0.000317	> 100.00	-6.121890	0.000048 u
Cr (205.560 nm)	-0.000146 u	ppm	0.000069	47.64	8.055600	-0.000146 u
Cu (324.754 nm)	0.000428	ppm	0.000142	33.27	639.355000	0.000428
Fe (238.204 nm)	0.004904	ppm	0.000663	13.52	36.906648	0.004904
Fe H (259.940 nm)	-0.015516 u	ppm	0.002419	15.59	19.989000	-0.015516 u
K (766.491 nm)	0.012975 u	ppm	0.026553	> 100.00	46.897700	0.012975 u
Li (670.783 nm)	0.020274 S	ppm	0.000501	2.47	1017.040000 S	0.020274 S
Mg (279.078 nm)	0.001466 u	ppm	0.001771	> 100.00	8.478350	0.001466 u
Mn (257.610 nm)	0.000046	ppm	0.000019	41.35	53.901700	0.000046
Mo (202.032 nm)	0.000290	ppm	0.000287	99.00	6.902070	0.000290
Na (589.592 nm)	0.102586	ppm	0.008656	8.44	3758.400000	0.102586
Na H (589.593 nm)	-0.457272 u	ppm	0.016947	3.71	2587.842197	-0.457272 u
Ni (231.604 nm)	-0.000020 u	ppm	0.000321	> 100.00	-2.407360	-0.000020 u
P (213.618 nm)	-0.002083 u	ppm	0.001666	80.01	-9.973580	-0.002083 u
Pb (220.353 nm)	-0.000042 u	ppm	0.000887	> 100.00	2.181730	-0.000042 u
S (181.972 nm)	-0.008844 u	ppm	0.001592	18.00	13.451921	-0.008844 u
Sb (206.834 nm)	0.001568 u	ppm	0.002696	> 100.00	6.949810	0.001568 u
Se (196.026 nm)	0.001861	ppm	0.002272	> 100.00	5.554510	0.001861
Si (288.158 nm)	-0.005939 u	ppm	0.001546	26.03	664.795000	-0.005939 u
Sn (189.925 nm)	-0.001166 u	ppm	0.001360	> 100.00	2.621550	-0.001166 u
Sr (421.552 nm)	-0.000030 u	ppm	0.000049	> 100.00	31.119597	-0.000030 u
Th (288.505 nm)	0.003994	ppm	0.001312	32.84	35.478400	0.003994
Ti (336.122 nm)	0.000048	ppm	0.000018	37.54	-114.270000	0.000048
Tl (190.794 nm)	-0.000490 u	ppm	0.000903	> 100.00	-1.916650	-0.000490 u
U (409.013 nm)	-0.001276 u	ppm	0.006114	> 100.00	0.592445	-0.001276 u
V (292.401 nm)	-0.000014 u	ppm	0.000228	> 100.00	-60.403000	-0.000014 u
Zn (206.200 nm)	0.000796	ppm	0.000064	8.06	5.026240	0.000796
Zr (343.823 nm)	0.000122	ppm	0.000061	50.05	9.707810	0.000122

Solution Name: 280-191320-A-7-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191320-A-7-A	5/15/2024 2:18:16 AM	2:21	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.006211	ppm	0.000020	0.33	11402.024620	0.006211
Ag (328.068 nm)	0.001406	ppm	0.000222	15.77	20.098100	0.001406
Al (394.401 nm)	0.693460	ppm	0.001252	0.18	9515.190000	0.693460
Al H (396.152 nm)	0.673324 u	ppm	0.004123	0.61	3327.940000	0.673324 u
As (188.980 nm)	0.001139 u	ppm	0.004069	> 100.00	-0.203572	0.001139 u
B (249.678 nm)	0.011195	ppm	0.000414	3.69	107.179000	0.011195
Ba (493.408 nm)	0.090477	ppm	0.000587	0.65	12395.000000	0.090477
Be (234.861 nm)	0.001226	ppm	0.000037	3.02	134.081000	0.001226
Bi (223.061 nm)	0.000260 u	ppm	0.000708	> 100.00	4.877520	0.000260 u
Ca (315.887 nm)	8.299397	ppm	0.021343	0.26	6942.554816	8.299397
Cd (214.439 nm)	0.001014	ppm	0.000024	2.39	28.391900	0.001014
Co (228.615 nm)	0.246743	ppm	0.000879	0.36	3216.520000	0.246743
Cr (205.560 nm)	0.001483	ppm	0.000157	10.62	18.392300	0.001483
Cu (324.754 nm)	0.013658	ppm	0.000309	2.27	1277.580000	0.013658
Fe (238.204 nm)	1.245461	ppm	0.006454	0.52	4028.654254	1.245461
Fe H (259.940 nm)	1.223920 u	ppm	0.006674	0.55	1706.400000	1.223920 u
K (766.491 nm)	1.218440	ppm	0.029742	2.44	1595.790000	1.218440
Li (670.783 nm)	0.025977	ppm	0.001683	6.48	1199.730000	0.025977
Mg (279.078 nm)	14.886000	ppm	0.039561	0.27	44353.300000	14.886000
Mn (257.610 nm)	8.801480 o	ppm	0.025243	0.29	2571450.000000	8.801480 o
Mo (202.032 nm)	0.000373	ppm	0.000075	20.01	7.347710	0.000373
Na (589.592 nm)	17.092400	ppm	0.031365	0.18	185901.000000	17.092400
Na H (589.593 nm)	16.332979 u	ppm	0.101315	0.62	131708.739699	16.332979 u
Ni (231.604 nm)	0.083530	ppm	0.000775	0.93	392.230000	0.083530
P (213.618 nm)	0.031845	ppm	0.002705	8.49	31.121100	0.031845
Pb (220.353 nm)	0.012618	ppm	0.000973	7.71	28.772900	0.012618
S (181.972 nm)	22.975445 o	ppm	0.050155	0.22	8947.937388	22.975445 o
Sb (206.834 nm)	-0.000926 u	ppm	0.002504	> 100.00	3.482320	-0.000926 u
Se (196.026 nm)	-0.005004 u	ppm	0.002777	55.50	7.365740	-0.005004 u
Si (288.158 nm)	12.817400 o	ppm	0.072110	0.56	95394.300000	12.817400 o
Sn (189.925 nm)	-0.004303 u	ppm	0.000723	16.79	0.409204	-0.004303 u
Sr (421.552 nm)	0.073700	ppm	0.000218	0.30	15912.314611	0.073700
Th (288.505 nm)	-0.069257 u	ppm	0.001399	2.02	86.704700	-0.069257 u
Ti (336.122 nm)	0.000213	ppm	0.000056	26.41	-68.022700	0.000213
Tl (190.794 nm)	0.005683	ppm	0.001231	21.66	4.253780	0.005683
U (409.013 nm)	0.005291	ppm	0.001924	36.36	26.977600	0.005291
V (292.401 nm)	-0.000329 u	ppm	0.000294	89.51	-66.626100	-0.000329 u
Zn (206.200 nm)	0.133408	ppm	0.001363	1.02	314.058000	0.133408
Zr (343.823 nm)	0.000052	ppm	0.000035	68.41	5.949280	0.000052

Solution Name: 280-191320-A-8-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191320-A-8-A	5/15/2024 2:22:38 AM	2:22	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001500	ppm	0.000013	0.87	1055.286352	0.001500
Ag (328.068 nm)	0.001185	ppm	0.000166	14.02	9.809730	0.001185
Al (394.401 nm)	0.014467	ppm	0.000445	3.08	603.924000	0.014467
Al H (396.152 nm)	-0.056988 u	ppm	0.001720	3.02	3.001350	-0.056988 u
As (188.980 nm)	0.001886	ppm	0.000549	29.12	0.341483	0.001886
B (249.678 nm)	0.017760	ppm	0.000591	3.33	157.403000	0.017760
Ba (493.408 nm)	0.019932	ppm	0.000150	0.75	2696.020000	0.019932
Be (234.861 nm)	-0.000021 u	ppm	0.000017	82.16	2.493530	-0.000021 u
Bi (223.061 nm)	0.000140 u	ppm	0.000556	> 100.00	4.584510	0.000140 u
Ca (315.887 nm)	55.357781 o	ppm	0.129787	0.23	46391.703166	55.357781 o
Cd (214.439 nm)	0.000205	ppm	0.000045	22.03	1.871850	0.000205
Co (228.615 nm)	-0.000215 u	ppm	0.000349	> 100.00	-9.559710	-0.000215 u
Cr (205.560 nm)	0.000056 u	ppm	0.000234	> 100.00	9.349590	0.000056 u
Cu (324.754 nm)	0.000346	ppm	0.000164	47.21	616.307000	0.000346
Fe (238.204 nm)	0.314732	ppm	0.004958	1.58	1033.840413	0.314732
Fe H (259.940 nm)	0.290617 u	ppm	0.002168	0.75	436.523000	0.290617 u
K (766.491 nm)	0.346471	ppm	0.012195	3.52	475.403000	0.346471
Li (670.783 nm)	0.020469	ppm	0.002224	10.87	1040.340000	0.020469
Mg (279.078 nm)	12.489800	ppm	0.040230	0.32	37214.000000	12.489800
Mn (257.610 nm)	0.100721	ppm	0.001296	1.29	29466.800000	0.100721
Mo (202.032 nm)	0.000279 u	ppm	0.000503	> 100.00	6.842230	0.000279 u
Na (589.592 nm)	14.752600	ppm	0.032116	0.22	160399.000000	14.752600
Na H (589.593 nm)	14.110148 u	ppm	0.135866	0.96	114375.005373	14.110148 u
Ni (231.604 nm)	-0.000943 u	ppm	0.000053	5.58	-6.765080	-0.000943 u
P (213.618 nm)	-0.001984 u	ppm	0.001282	64.62	-9.865660	-0.001984 u
Pb (220.353 nm)	-0.002171 u	ppm	0.001247	57.45	-2.326650	-0.002171 u
S (181.972 nm)	4.533205	ppm	0.016394	0.36	1775.917874	4.533205
Sb (206.834 nm)	-0.001486 u	ppm	0.002091	> 100.00	2.596540	-0.001486 u
Se (196.026 nm)	-0.004079 u	ppm	0.002627	64.40	2.447410	-0.004079 u
Si (288.158 nm)	5.576770	ppm	0.020820	0.37	41905.100000	5.576770
Sn (189.925 nm)	-0.003525 u	ppm	0.002204	62.54	0.957914	-0.003525 u
Sr (421.552 nm)	0.154121	ppm	0.001644	1.07	33234.832881	0.154121
Th (288.505 nm)	-0.000554 u	ppm	0.000368	66.44	28.138300	-0.000554 u
Ti (336.122 nm)	-0.000315 u	ppm	0.000065	20.61	-12.749800	-0.000315 u
Tl (190.794 nm)	-0.000762 u	ppm	0.002584	> 100.00	-2.176890	-0.000762 u
U (409.013 nm)	0.017629	ppm	0.002062	11.70	71.798400	0.017629
V (292.401 nm)	0.000831	ppm	0.000196	23.60	-31.245200	0.000831
Zn (206.200 nm)	0.003509	ppm	0.000619	17.64	11.347500	0.003509
Zr (343.823 nm)	0.000072	ppm	0.000029	39.99	6.297860	0.000072

Solution Name: 280-191320-A-9-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191320-A-9-A	5/15/2024 2:26:55 AM	2:23	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.005389	ppm	0.000004	0.07	9596.322521	0.005389
Ag (328.068 nm)	0.000970	ppm	0.000291	30.01	2.231380	0.000970
Al (394.401 nm)	0.012420	ppm	0.000462	3.72	560.577000	0.012420
Al H (396.152 nm)	-0.051416 u	ppm	0.002947	5.73	28.367100	-0.051416 u
As (188.980 nm)	0.002836	ppm	0.002618	92.30	0.832669	0.002836
B (249.678 nm)	0.015350	ppm	0.000715	4.66	138.968000	0.015350
Ba (493.408 nm)	0.057816	ppm	0.000388	0.67	7902.430000	0.057816
Be (234.861 nm)	-0.000039 u	ppm	0.000019	49.36	-1.093470	-0.000039 u
Bi (223.061 nm)	0.000819	ppm	0.000216	26.43	6.243460	0.000819
Ca (315.887 nm)	30.121128 o	ppm	0.045227	0.15	25235.760938	30.121128 o
Cd (214.439 nm)	0.000230	ppm	0.000065	28.33	2.436550	0.000230
Co (228.615 nm)	0.000684	ppm	0.000200	29.22	2.187670	0.000684
Cr (205.560 nm)	0.000147 u	ppm	0.000312	> 100.00	9.919870	0.000147 u
Cu (324.754 nm)	0.002184	ppm	0.000257	11.76	714.111000	0.002184
Fe (238.204 nm)	0.053489	ppm	0.001436	2.68	193.239500	0.053489
Fe H (259.940 nm)	0.028527 u	ppm	0.004511	15.81	79.914600	0.028527 u
K (766.491 nm)	0.365593	ppm	0.010126	2.77	499.973000	0.365593
Li (670.783 nm)	0.023997	ppm	0.001292	5.39	1140.290000	0.023997
Mg (279.078 nm)	11.935000	ppm	0.074815	0.63	35561.300000	11.935000
Mn (257.610 nm)	1.252740 o	ppm	0.006051	0.48	366038.000000	1.252740 o
Mo (202.032 nm)	0.000743	ppm	0.000277	37.31	9.341150	0.000743
Na (589.592 nm)	7.539960	ppm	0.018209	0.24	83623.400000	7.539960
Na H (589.593 nm)	6.934551 u	ppm	0.076244	1.10	59506.324229	6.934551 u
Ni (231.604 nm)	0.007515	ppm	0.000594	7.91	33.182000	0.007515
P (213.618 nm)	-0.001388 u	ppm	0.002121	> 100.00	-9.243040	-0.001388 u
Pb (220.353 nm)	-0.001365 u	ppm	0.000698	51.13	-0.620137	-0.001365 u
S (181.972 nm)	4.507101	ppm	0.014416	0.32	1767.838910	4.507101
Sb (206.834 nm)	-0.001238 u	ppm	0.001399	> 100.00	2.928380	-0.001238 u
Se (196.026 nm)	-0.002478 u	ppm	0.003387	> 100.00	4.176520	-0.002478 u
Si (288.158 nm)	9.082020	ppm	0.077320	0.85	67801.300000	9.082020
Sn (189.925 nm)	-0.002245 u	ppm	0.000223	9.91	1.860260	-0.002245 u
Sr (421.552 nm)	0.116070	ppm	0.000429	0.37	25038.869097	0.116070
Th (288.505 nm)	-0.006998 u	ppm	0.002927	41.83	41.764600	-0.006998 u
Ti (336.122 nm)	-0.000039 u	ppm	0.000025	63.81	-43.934500	-0.000039 u
Tl (190.794 nm)	0.000320 u	ppm	0.003405	> 100.00	-1.159050	0.000320 u
U (409.013 nm)	0.012239	ppm	0.003844	31.41	51.481600	0.012239
V (292.401 nm)	0.000499	ppm	0.000195	39.04	-42.358900	0.000499
Zn (206.200 nm)	0.007164	ppm	0.000339	4.73	19.865700	0.007164
Zr (343.823 nm)	0.000009 u	ppm	0.000061	> 100.00	1.161260	0.000009 u

Solution Name: 280-191320-A-10-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191320-A-10-A	5/15/2024 2:31:12 AM	2:24	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.324973	ppm	0.000924	0.28	711584.863202	0.324973
Ag (328.068 nm)	0.001652	ppm	0.000098	5.91	26.557400	0.001652
Al (394.401 nm)	0.648565	ppm	0.001819	0.28	8963.380000	0.648565
Al H (396.152 nm)	0.579209 u	ppm	0.002701	0.47	2899.450000	0.579209 u
As (188.980 nm)	0.004135	ppm	0.000653	15.78	1.496460	0.004135
B (249.678 nm)	0.077604	ppm	0.000535	0.69	615.281000	0.077604
Ba (493.408 nm)	0.008144	ppm	0.000074	0.91	1143.370000	0.008144
Be (234.861 nm)	0.001631	ppm	0.000083	5.06	343.980000	0.001631
Bi (223.061 nm)	-0.001002 u	ppm	0.000436	43.49	1.795950	-0.001002 u
Ca (315.887 nm)	64.901258 o	ppm	0.062850	0.10	54392.020774	64.901258 o
Cd (214.439 nm)	0.000224	ppm	0.000039	17.55	13.418700	0.000224
Co (228.615 nm)	0.082920	ppm	0.000576	0.69	1076.750000	0.082920
Cr (205.560 nm)	0.000437	ppm	0.000142	32.38	11.436200	0.000437
Cu (324.754 nm)	-0.000397 u	ppm	0.000085	21.51	615.476000	-0.000397 u
Fe (238.204 nm)	26.409570 o	ppm	0.010322	0.04	84999.127007	26.409570 o
Fe H (259.940 nm)	26.305100	ppm	0.015238	0.06	35832.700000	26.305100
K (766.491 nm)	4.314680	ppm	0.023508	0.54	5574.110000	4.314680
Li (670.783 nm)	0.353006	ppm	0.000987	0.28	11239.700000	0.353006
Mg (279.078 nm)	62.669800 o	ppm	0.329930	0.53	186702.000000	62.669800 o
Mn (257.610 nm)	4.932370 o	ppm	0.019989	0.41	1441060.000000	4.932370 o
Mo (202.032 nm)	0.000055 u	ppm	0.000145	> 100.00	5.639420	0.000055 u
Na (589.592 nm)	40.374000	ppm	0.149520	0.37	434015.000000	40.374000
Na H (589.593 nm)	39.540887 u	ppm	0.248641	0.63	309335.234858	39.540887 u
Ni (231.604 nm)	0.228637	ppm	0.001937	0.85	1077.590000	0.228637
P (213.618 nm)	0.131157	ppm	0.002637	2.01	154.372000	0.131157
Pb (220.353 nm)	-0.000349 u	ppm	0.000267	76.48	1.378000	-0.000349 u
S (181.972 nm)	165.762338 bo	ppm	0.691832	0.42	64322.941459	165.762338 bo
Sb (206.834 nm)	-0.002977 u	ppm	0.000442	14.83	2.599540	-0.002977 u
Se (196.026 nm)	-0.004066 u	ppm	0.002647	65.09	3.050400	-0.004066 u
Si (288.158 nm)	11.080200 o	ppm	0.060647	0.55	82564.000000	11.080200 o
Sn (189.925 nm)	-0.000623 u	ppm	0.001342	> 100.00	3.004610	-0.000623 u
Sr (421.552 nm)	0.160677	ppm	0.001952	1.21	34647.011014	0.160677
Th (288.505 nm)	-0.038889 u	ppm	0.000306	0.79	60.348600	-0.038889 u
Ti (336.122 nm)	0.001531	ppm	0.000089	5.80	267.980000	0.001531
Tl (190.794 nm)	0.002697	ppm	0.001643	60.90	0.788061	0.002697
U (409.013 nm)	0.017747	ppm	0.002102	11.84	94.477500	0.017747
V (292.401 nm)	0.002000	ppm	0.000371	18.53	7.473040	0.002000
Zn (206.200 nm)	0.217042	ppm	0.000854	0.39	508.954000	0.217042
Zr (343.823 nm)	0.000210	ppm	0.000187	88.94	50.156800	0.000210

Solution Name: 280-191255-A-4-B

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191255-A-4-B	5/15/2024 2:35:37 AM	2:25	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.032303	ppm	0.000109	0.34	68714.714065	0.032303
Ag (328.068 nm)	0.001561	ppm	0.000227	14.53	22.088700	0.001561
Al (394.401 nm)	0.141956	ppm	0.000202	0.14	2289.840000	0.141956
Al H (396.152 nm)	0.067759 u	ppm	0.000562	0.83	570.944000	0.067759 u
As (188.980 nm)	0.002416 u	ppm	0.003328	> 100.00	0.677017	0.002416 u
B (249.678 nm)	0.038193	ppm	0.000635	1.66	313.746000	0.038193
Ba (493.408 nm)	0.212495	ppm	0.000650	0.31	29162.700000	0.212495
Be (234.861 nm)	-0.000070 u	ppm	0.000037	52.65	1.336090	-0.000070 u
Bi (223.061 nm)	0.000504 u	ppm	0.000896	> 100.00	5.472900	0.000504 u
Ca (315.887 nm)	67.791912 o	ppm	0.137271	0.20	56815.262653	67.791912 o
Cd (214.439 nm)	0.000230	ppm	0.000053	23.14	2.465150	0.000230
Co (228.615 nm)	0.000630	ppm	0.000032	5.14	1.514760	0.000630
Cr (205.560 nm)	0.000072 u	ppm	0.000324	> 100.00	9.395310	0.000072 u
Cu (324.754 nm)	0.000994	ppm	0.000144	14.50	643.649000	0.000994
Fe (238.204 nm)	0.163931	ppm	0.001666	1.02	548.609021	0.163931
Fe H (259.940 nm)	0.138254 u	ppm	0.002520	1.82	229.213000	0.138254 u
K (766.491 nm)	1.057030	ppm	0.030153	2.85	1388.390000	1.057030
Li (670.783 nm)	0.049641	ppm	0.002168	4.37	1963.980000	0.049641
Mg (279.078 nm)	35.947500	ppm	0.033016	0.09	107101.000000	35.947500
Mn (257.610 nm)	0.511650	ppm	0.000657	0.13	149523.000000	0.511650
Mo (202.032 nm)	0.012447	ppm	0.000224	1.80	72.319800	0.012447
Na (589.592 nm)	89.418100 o	ppm	0.104567	0.12	959389.000000	89.418100 o
Na H (589.593 nm)	88.912717	ppm	0.671385	0.76	688760.206373	88.912717
Ni (231.604 nm)	-0.001764 u	ppm	0.000656	37.21	-10.644300	-0.001764 u
P (213.618 nm)	0.090379	ppm	0.001221	1.35	103.633000	0.090379
Pb (220.353 nm)	-0.001242 u	ppm	0.000632	50.91	-0.381108	-0.001242 u
S (181.972 nm)	5.482337	ppm	0.028422	0.52	2144.979087	5.482337
Sb (206.834 nm)	-0.001360 u	ppm	0.001664	> 100.00	2.691500	-0.001360 u
Se (196.026 nm)	0.000128 u	ppm	0.005375	> 100.00	5.483880	0.000128 u
Si (288.158 nm)	19.214200 o	ppm	0.063636	0.33	142655.000000	19.214200 o
Sn (189.925 nm)	0.000398 u	ppm	0.002290	> 100.00	3.724080	0.000398 u
Sr (421.552 nm)	0.527958	ppm	0.001341	0.25	113758.564653	0.527958
Th (288.505 nm)	-0.005943 u	ppm	0.001370	23.06	26.523900	-0.005943 u
Ti (336.122 nm)	0.001604	ppm	0.000049	3.08	282.231000	0.001604
Tl (190.794 nm)	-0.000747 u	ppm	0.003561	> 100.00	-2.187750	-0.000747 u
U (409.013 nm)	0.025185	ppm	0.004235	16.82	100.091000	0.025185
V (292.401 nm)	0.003462	ppm	0.000037	1.08	52.150700	0.003462
Zn (206.200 nm)	0.005033	ppm	0.000073	1.45	14.898700	0.005033
Zr (343.823 nm)	0.000150 u	ppm	0.000152	> 100.00	12.059100	0.000150 u

Solution Name: 280-190897-D-1-D

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190897-D-1-D	5/15/2024 2:39:54 AM	2:26	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	3.936646 o	ppm	0.005282	0.13	8644866.496891	3.936646 o
Ag (328.068 nm)	0.003540	ppm	0.000061	1.73	94.601600	0.003540
Al (394.401 nm)	0.024177	ppm	0.000981	4.06	917.275000	0.024177
Al H (396.152 nm)	-0.134059 u	ppm	0.001998	1.49	-347.884000	-0.134059 u
As (188.980 nm)	0.007573	ppm	0.003760	49.65	4.540240	0.007573
B (249.678 nm)	19.539900	ppm	0.015973	0.08	149524.000000	19.539900
Ba (493.408 nm)	0.022575	ppm	0.000074	0.33	3059.190000	0.022575
Be (234.861 nm)	-0.000168 u	ppm	0.000012	7.28	6.681210	-0.000168 u
Bi (223.061 nm)	0.000329 u	ppm	0.002033	> 100.00	5.045550	0.000329 u
Ca (315.887 nm)	454.551740 o	ppm	1.592256	0.35	381036.886910	454.551740 o
Cd (214.439 nm)	0.000442	ppm	0.000131	29.59	7.885940	0.000442
Co (228.615 nm)	-0.000954 u	ppm	0.000077	8.10	-19.224100	-0.000954 u
Cr (205.560 nm)	0.000210 u	ppm	0.000619	> 100.00	10.337900	0.000210 u
Cu (324.754 nm)	0.000403	ppm	0.000220	54.51	488.100000	0.000403
Fe (238.204 nm)	0.269375	ppm	0.001382	0.51	887.896855	0.269375
Fe H (259.940 nm)	0.232837 u	ppm	0.004102	1.76	357.906000	0.232837 u
K (766.491 nm)	357.116000 o	ppm	0.417864	0.12	458885.000000	357.116000 o
Li (670.783 nm)	3.654580 o	ppm	0.016889	0.46	112458.000000	3.654580 o
Mg (279.078 nm)	107.797000 o	ppm	0.324859	0.30	321515.000000	107.797000 o
Mn (257.610 nm)	0.014649	ppm	0.000042	0.29	4320.330000	0.014649
Mo (202.032 nm)	0.001115	ppm	0.000866	77.68	11.340700	0.001115
Na (589.592 nm)	####	ppm	N/A	N/A	####	####
Na H (589.593 nm)	####	ppm	N/A	N/A	####	####
Ni (231.604 nm)	-0.002951 u	ppm	0.000713	24.15	-16.248300	-0.002951 u
P (213.618 nm)	0.001782 u	ppm	0.002527	> 100.00	-5.480410	0.001782 u
Pb (220.353 nm)	0.000445 u	ppm	0.002228	> 100.00	3.225880	0.000445 u
S (181.972 nm)	32.783846 o	ppm	0.032447	0.10	12737.227252	32.783846 o
Sb (206.834 nm)	-0.002342 u	ppm	0.001303	55.63	1.364630	-0.002342 u
Se (196.026 nm)	0.001714 u	ppm	0.004789	> 100.00	5.471580	0.001714 u
Si (288.158 nm)	0.504472	ppm	0.004319	0.86	4432.990000	0.504472
Sn (189.925 nm)	-0.004375 u	ppm	0.001072	24.51	0.358186	-0.004375 u
Sr (421.552 nm)	16.269342 bo	ppm	0.069085	0.42	3504420.509310	16.269342 bo
Th (288.505 nm)	0.000033 u	ppm	0.002974	> 100.00	29.347800	0.000033 u
Ti (336.122 nm)	-0.000651 u	ppm	0.000034	5.28	1028.060000	-0.000651 u
Tl (190.794 nm)	-0.002294 u	ppm	0.002338	> 100.00	-3.612530	-0.002294 u
U (409.013 nm)	-0.095750 u	ppm	0.002280	2.38	-353.656000	-0.095750 u
V (292.401 nm)	0.003153	ppm	0.000215	6.82	67.421700	0.003153
Zn (206.200 nm)	0.047211	ppm	0.000971	2.06	113.188000	0.047211
Zr (343.823 nm)	-0.000338 u	ppm	0.000013	3.88	-24.929600	-0.000338 u

Solution Name: 280-190897-D-1-E

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190897-D-1-E	5/15/2024 2:44:17 AM	2:27	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	7.276501 o	ppm	0.005327	0.07	15981081.567485	7.276501 o
Ag (328.068 nm)	0.004249	ppm	0.000254	5.97	119.851000	0.004249
Al (394.401 nm)	0.025240	ppm	0.001780	7.05	1116.360000	0.025240
Al H (396.152 nm)	-0.163329 u	ppm	0.004464	2.73	-481.147000	-0.163329 u
As (188.980 nm)	-0.002258 u	ppm	0.006669	> 100.00	-0.230280	-0.002258 u
B (249.678 nm)	39.391800	ppm	0.198833	0.50	301413.000000	39.391800
Ba (493.408 nm)	0.044319	ppm	0.000074	0.17	6048.490000	0.044319
Be (234.861 nm)	-0.000330 u	ppm	0.000021	6.50	11.324600	-0.000330 u
Bi (223.061 nm)	0.001195 u	ppm	0.003307	> 100.00	7.159950	0.001195 u
Ca (315.887 nm)	844.034146 o	ppm	0.020566	0.00	707540.853560	844.034146 o
Cd (214.439 nm)	0.000426	ppm	0.000048	11.31	7.570430	0.000426
Co (228.615 nm)	-0.000864 u	ppm	0.000236	27.34	-18.059900	-0.000864 u
Cr (205.560 nm)	0.000044 u	ppm	0.000900	> 100.00	9.271180	0.000044 u
Cu (324.754 nm)	0.000173 u	ppm	0.000192	> 100.00	348.291000	0.000173 u
Fe (238.204 nm)	0.522135	ppm	0.001872	0.36	1701.203442	0.522135
Fe H (259.940 nm)	0.490692 u	ppm	0.001141	0.23	708.752000	0.490692 u
K (766.491 nm)	686.871000 bo	ppm	1.148710	0.17	882585.000000	686.871000 bo
Li (670.783 nm)	7.398600 o	ppm	0.027569	0.37	227247.000000	7.398600 o
Mg (279.078 nm)	204.031000 bo	ppm	1.615310	0.79	608549.000000	204.031000 bo
Mn (257.610 nm)	0.014430	ppm	0.000089	0.62	4256.460000	0.014430
Mo (202.032 nm)	0.001091	ppm	0.000447	40.98	11.214000	0.001091
Na (589.592 nm)	####	ppm	N/A	N/A	####	####
Na H (589.593 nm)	####	ppm	N/A	N/A	####	####
Ni (231.604 nm)	-0.003942 u	ppm	0.000806	20.44	-20.928800	-0.003942 u
P (213.618 nm)	0.006350	ppm	0.004536	71.43	-0.011928	0.006350
Pb (220.353 nm)	0.000948 u	ppm	0.001776	> 100.00	4.302160	0.000948 u
S (181.972 nm)	64.572812 o	ppm	0.132639	0.21	25070.970230	64.572812 o
Sb (206.834 nm)	-0.001951 u	ppm	0.001324	67.89	1.944910	-0.001951 u
Se (196.026 nm)	-0.000060 u	ppm	0.003210	> 100.00	4.472760	-0.000060 u
Si (288.158 nm)	0.972375	ppm	0.000963	0.10	7893.400000	0.972375
Sn (189.925 nm)	0.001188 u	ppm	0.001925	> 100.00	4.281700	0.001188 u
Sr (421.552 nm)	31.752032 bo	ppm	0.116449	0.37	6839360.094659	31.752032 bo
Th (288.505 nm)	0.000164 u	ppm	0.003046	> 100.00	31.698700	0.000164 u
Ti (336.122 nm)	0.000454	ppm	0.000091	20.09	2237.780000	0.000454
Tl (190.794 nm)	0.000792 u	ppm	0.003191	> 100.00	-0.725915	0.000792 u
U (409.013 nm)	-0.119960 u	ppm	0.004702	3.92	-444.278000	-0.119960 u
V (292.401 nm)	0.004387	ppm	0.000186	4.25	130.514000	0.004387
Zn (206.200 nm)	0.081859	ppm	0.001709	2.09	193.930000	0.081859
Zr (343.823 nm)	-0.000345 u	ppm	0.000132	38.24	-25.123100	-0.000345 u

Solution Name: MB 280-653114/1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
MB 280-653114/1-A	5/15/2024 2:48:40 AM	2:28	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001004	ppm	0.000387	38.49	-34.214172	0.001004
Ag (328.068 nm)	0.000140	ppm	0.000050	35.98	-27.620500	0.000140
Al (394.401 nm)	-0.002992 u	ppm	0.000570	19.06	343.244000	-0.002992 u
Al H (396.152 nm)	-0.049496 u	ppm	0.003970	8.02	37.110900	-0.049496 u
As (188.980 nm)	0.001315 u	ppm	0.001957	> 100.00	-0.113995	0.001315 u
B (249.678 nm)	0.043711	ppm	0.006184	14.15	355.959000	0.043711
Ba (493.408 nm)	0.000281	ppm	0.000142	50.45	-5.440340	0.000281
Be (234.861 nm)	-0.000025 u	ppm	0.000027	> 100.00	-1.803880	-0.000025 u
Bi (223.061 nm)	-0.001425 u	ppm	0.000976	68.51	0.763047	-0.001425 u
Ca (315.887 nm)	0.061621	ppm	0.007074	11.48	36.809538	0.061621
Cd (214.439 nm)	0.000043 u	ppm	0.000100	> 100.00	-2.326620	0.000043 u
Co (228.615 nm)	0.000065 u	ppm	0.000137	> 100.00	-5.910360	0.000065 u
Cr (205.560 nm)	-0.000047 u	ppm	0.000185	> 100.00	8.689910	-0.000047 u
Cu (324.754 nm)	0.000509	ppm	0.000067	13.08	642.918000	0.000509
Fe (238.204 nm)	0.092523	ppm	0.001129	1.22	318.838695	0.092523
Fe H (259.940 nm)	0.069854 u	ppm	0.002055	2.94	136.146000	0.069854 u
K (766.491 nm)	0.180429	ppm	0.051855	28.74	262.057000	0.180429
Li (670.783 nm)	0.020506	ppm	0.001297	6.33	1025.830000	0.020506
Mg (279.078 nm)	0.023451	ppm	0.016986	72.43	74.170900	0.023451
Mn (257.610 nm)	0.000458	ppm	0.000013	2.93	174.298000	0.000458
Mo (202.032 nm)	-0.000202 u	ppm	0.000361	> 100.00	4.254290	-0.000202 u
Na (589.592 nm)	1.380540	ppm	0.114810	8.32	17411.100000	1.380540
Na H (589.593 nm)	1.358309 u	ppm	0.020401	1.50	16510.604737	1.358309 u
Ni (231.604 nm)	-0.000234 u	ppm	0.000376	> 100.00	-3.421270	-0.000234 u
P (213.618 nm)	-0.000194 u	ppm	0.000645	> 100.00	-7.635140	-0.000194 u
Pb (220.353 nm)	-0.000512 u	ppm	0.000950	> 100.00	1.174740	-0.000512 u
S (181.972 nm)	-0.005994 u	ppm	0.003791	63.24	14.547213	-0.005994 u
Sb (206.834 nm)	-0.001425 u	ppm	0.001305	91.57	2.665910	-0.001425 u
Se (196.026 nm)	-0.002524 u	ppm	0.003217	> 100.00	3.100750	-0.002524 u
Si (288.158 nm)	-0.003709 u	ppm	0.002921	78.75	681.809000	-0.003709 u
Sn (189.925 nm)	-0.000449 u	ppm	0.003424	> 100.00	3.127040	-0.000449 u
Sr (421.552 nm)	0.001438	ppm	0.000117	8.13	347.377371	0.001438
Th (288.505 nm)	0.005961	ppm	0.000879	14.74	39.857400	0.005961
Ti (336.122 nm)	0.000131	ppm	0.000015	11.56	-102.867000	0.000131
Tl (190.794 nm)	-0.001776 u	ppm	0.002331	> 100.00	-3.121480	-0.001776 u
U (409.013 nm)	-0.000888 u	ppm	0.003034	> 100.00	2.097030	-0.000888 u
V (292.401 nm)	0.000039 u	ppm	0.000070	> 100.00	-58.744400	0.000039 u
Zn (206.200 nm)	0.000692	ppm	0.000387	55.89	4.784580	0.000692
Zr (343.823 nm)	-0.000138 u	ppm	0.000026	19.07	-9.954740	-0.000138 u

Solution Name: LCS 280-653114/2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LCS 280-653114/2-A	5/15/2024 2:52:56 AM	2:29	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.983577	ppm	0.002480	0.25	2158474.470947	0.983577
Ag (328.068 nm)	0.050288	ppm	0.000383	0.76	1489.170000	0.050288
Al (394.401 nm)	10.163500 o	ppm	0.036681	0.36	134424.000000	10.163500 o
Al H (396.152 nm)	10.115000	ppm	0.024243	0.24	46313.600000	10.115000
As (188.980 nm)	0.982360	ppm	0.007617	0.78	565.420000	0.982360
B (249.678 nm)	2.109000	ppm	0.007387	0.35	16157.700000	2.109000
Ba (493.408 nm)	1.018090	ppm	0.001473	0.14	140256.000000	1.018090
Be (234.861 nm)	1.025050	ppm	0.009404	0.92	103047.000000	1.025050
Bi (223.061 nm)	-0.002207 u	ppm	0.001036	46.96	-1.145300	-0.002207 u
Ca (315.887 nm)	50.217456 o	ppm	0.170889	0.34	42082.557076	50.217456 o
Cd (214.439 nm)	1.007050	ppm	0.003532	0.35	25722.600000	1.007050
Co (228.615 nm)	0.989485	ppm	0.003496	0.35	12947.500000	0.989485
Cr (205.560 nm)	0.980230	ppm	0.003595	0.37	6305.110000	0.980230
Cu (324.754 nm)	1.007110	ppm	0.006852	0.68	48414.900000	1.007110
Fe (238.204 nm)	10.442074 o	ppm	0.033088	0.32	33630.792522	10.442074 o
Fe H (259.940 nm)	10.437600	ppm	0.031739	0.30	14242.800000	10.437600
K (766.491 nm)	50.077500	ppm	0.148838	0.30	64374.300000	50.077500
Li (670.783 nm)	0.978642	ppm	0.005135	0.52	30408.400000	0.978642
Mg (279.078 nm)	50.265300 o	ppm	0.178494	0.36	149807.000000	50.265300 o
Mn (257.610 nm)	0.998574	ppm	0.002474	0.25	291781.000000	0.998574
Mo (202.032 nm)	1.029840	ppm	0.003364	0.33	5546.760000	1.029840
Na (589.592 nm)	49.724100	ppm	0.171232	0.34	541174.000000	49.724100
Na H (589.593 nm)	50.082481 u	ppm	0.471152	0.94	394311.711588	50.082481 u
Ni (231.604 nm)	0.967572	ppm	0.004562	0.47	4568.760000	0.967572
P (213.618 nm)	21.119300 o	ppm	0.123923	0.59	25948.700000	21.119300 o
Pb (220.353 nm)	0.938762	ppm	0.006398	0.68	1999.070000	0.938762
S (181.972 nm)	20.330413 o	ppm	0.101194	0.50	7920.317181	20.330413 o
Sb (206.834 nm)	1.014220	ppm	0.006791	0.67	1456.900000	1.014220
Se (196.026 nm)	0.994285	ppm	0.003690	0.37	558.915000	0.994285
Si (288.158 nm)	9.937600	ppm	0.030983	0.31	75019.900000	9.937600
Sn (189.925 nm)	1.013940	ppm	0.001675	0.17	718.545000	1.013940
Sr (421.552 nm)	1.014115	ppm	0.002318	0.23	218475.843554	1.014115
Th (288.505 nm)	-0.003675 u	ppm	0.001423	38.72	-8.879580	-0.003675 u
Ti (336.122 nm)	0.997642	ppm	0.002706	0.27	135800.000000	0.997642
Tl (190.794 nm)	1.013500	ppm	0.005227	0.52	945.718000	1.013500
U (409.013 nm)	0.011113	ppm	0.001018	9.16	29.312600	0.011113
V (292.401 nm)	0.986222	ppm	0.001778	0.18	30666.400000	0.986222
Zn (206.200 nm)	0.993916	ppm	0.003106	0.31	2319.340000	0.993916
Zr (343.823 nm)	0.998722	ppm	0.002825	0.28	76014.900000	0.998722

Solution Name: 280-190894-F-1-D

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190894-F-1-D	5/15/2024 2:57:23 AM	2:30	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.002227	ppm	0.000019	0.84	2651.334679	0.002227
Ag (328.068 nm)	0.001508	ppm	0.000103	6.86	19.833400	0.001508
Al (394.401 nm)	0.014510	ppm	0.000948	6.53	628.134000	0.014510
Al H (396.152 nm)	-0.071201 u	ppm	0.004109	5.77	-61.710100	-0.071201 u
As (188.980 nm)	0.001471	ppm	0.001192	81.02	0.221923	0.001471
B (249.678 nm)	0.028941	ppm	0.001662	5.74	242.956000	0.028941
Ba (493.408 nm)	0.059071	ppm	0.000244	0.41	8074.850000	0.059071
Be (234.861 nm)	-0.000063 u	ppm	0.000012	18.68	6.774220	-0.000063 u
Bi (223.061 nm)	0.001074 u	ppm	0.001096	> 100.00	6.865480	0.001074 u
Ca (315.887 nm)	106.429615 o	ppm	0.074407	0.07	89205.334846	106.429615 o
Cd (214.439 nm)	0.000316	ppm	0.000057	18.14	4.600170	0.000316
Co (228.615 nm)	-0.000487 u	ppm	0.000070	14.33	-13.116100	-0.000487 u
Cr (205.560 nm)	0.018274	ppm	0.000310	1.69	126.479000	0.018274
Cu (324.754 nm)	0.001250	ppm	0.000078	6.23	642.583000	0.001250
Fe (238.204 nm)	0.045657	ppm	0.001687	3.69	168.038661	0.045657
Fe H (259.940 nm)	0.018186 u	ppm	0.002682	14.75	65.844500	0.018186 u
K (766.491 nm)	3.112660	ppm	0.060131	1.93	4029.650000	3.112660
Li (670.783 nm)	0.022895	ppm	0.000280	1.22	1134.860000	0.022895
Mg (279.078 nm)	62.966900 o	ppm	0.164627	0.26	187600.000000	62.966900 o
Mn (257.610 nm)	0.000823	ppm	0.000018	2.21	280.950000	0.000823
Mo (202.032 nm)	0.001856	ppm	0.000228	12.28	15.328000	0.001856
Na (589.592 nm)	38.440000	ppm	0.119421	0.31	413719.000000	38.440000
Na H (589.593 nm)	38.351968 u	ppm	0.223405	0.58	300425.254432	38.351968 u
Ni (231.604 nm)	-0.002585 u	ppm	0.000524	20.27	-14.524100	-0.002585 u
P (213.618 nm)	0.165164	ppm	0.004828	2.92	196.115000	0.165164
Pb (220.353 nm)	-0.000419 u	ppm	0.001041	> 100.00	1.409050	-0.000419 u
S (181.972 nm)	47.130651 o	ppm	0.197950	0.42	18298.274090	47.130651 o
Sb (206.834 nm)	-0.001265 u	ppm	0.001173	92.69	2.982370	-0.001265 u
Se (196.026 nm)	-0.001417 u	ppm	0.002425	> 100.00	3.978430	-0.001417 u
Si (288.158 nm)	8.180350	ppm	0.034805	0.43	61141.800000	8.180350
Sn (189.925 nm)	-0.000071 u	ppm	0.001340	> 100.00	3.393820	-0.000071 u
Sr (421.552 nm)	0.201361	ppm	0.000978	0.49	43410.347882	0.201361
Th (288.505 nm)	0.000370 u	ppm	0.001659	> 100.00	28.739800	0.000370 u
Ti (336.122 nm)	-0.000401 u	ppm	0.000032	7.92	114.649000	-0.000401 u
Tl (190.794 nm)	-0.000530 u	ppm	0.002786	> 100.00	-1.958770	-0.000530 u
U (409.013 nm)	0.023006	ppm	0.004950	21.51	91.796800	0.023006
V (292.401 nm)	0.004418	ppm	0.000109	2.47	80.606200	0.004418
Zn (206.200 nm)	0.015841	ppm	0.000341	2.15	40.085600	0.015841
Zr (343.823 nm)	0.000408	ppm	0.000118	28.91	31.551700	0.000408

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/15/2024 3:01:43 AM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001058	ppm	0.000015	1.41	82.984272	0.001058
Ag (328.068 nm)	0.000075 u	ppm	0.000191	> 100.00	67.142100	0.000075 u
Al (394.401 nm)	50.203100 o	ppm	0.194589	0.39	661490.000000	50.203100 o
Al H (396.152 nm)	48.678100	ppm	0.057161	0.12	221882.000000	48.678100
As (188.980 nm)	-0.000698 u	ppm	0.002367	> 100.00	-1.587220	-0.000698 u
B (249.678 nm)	0.006842	ppm	0.000491	7.18	73.871000	0.006842
Ba (493.408 nm)	0.000160	ppm	0.000086	53.67	106.749000	0.000160
Be (234.861 nm)	0.000120	ppm	0.000072	59.51	329.888000	0.000120
Bi (223.061 nm)	0.000233	ppm	0.000336	> 100.00	4.812430	0.000233
Ca (315.887 nm)	-0.008770 u	ppm	0.003922	44.72	-22.199728	-0.008770 u
Cd (214.439 nm)	-0.000275 u	ppm	0.000082	29.65	7.161050	-0.000275 u
Co (228.615 nm)	-0.000067 u	ppm	0.000185	> 100.00	-7.627190	-0.000067 u
Cr (205.560 nm)	0.000547	ppm	0.000420	76.75	12.512400	0.000547
Cu (324.754 nm)	-0.003743 u	ppm	0.000340	9.09	1400.380000	-0.003743 u
Fe (238.204 nm)	49.991141 o	ppm	0.079986	0.16	160877.479029	49.991141 o
Fe H (259.940 nm)	49.747700	ppm	0.080486	0.16	67729.400000	49.747700
K (766.491 nm)	0.077373	ppm	0.045035	58.20	129.641000	0.077373
Li (670.783 nm)	0.018369	ppm	0.001140	6.21	1045.730000	0.018369
Mg (279.078 nm)	0.015543	ppm	0.001631	10.49	-117.619000	0.015543
Mn (257.610 nm)	-0.000718 u	ppm	0.000016	2.23	-169.364000	-0.000718 u
Mo (202.032 nm)	-0.000286 u	ppm	0.000363	> 100.00	3.803210	-0.000286 u
Na (589.592 nm)	234.152000 o	ppm	0.341608	0.15	2503970.000000	234.152000 o
Na H (589.593 nm)	234.954177	ppm	1.548710	0.66	1807764.808410	234.954177
Ni (231.604 nm)	0.000243 u	ppm	0.000707	> 100.00	-1.163360	0.000243 u
P (213.618 nm)	5.000180	ppm	0.015942	0.32	6157.260000	5.000180
Pb (220.353 nm)	-0.002580 u	ppm	0.001110	43.02	-4.646300	-0.002580 u
S (181.972 nm)	5.006567	ppm	0.006769	0.14	1961.664520	5.006567
Sb (206.834 nm)	-0.000599 u	ppm	0.001814	> 100.00	7.958290	-0.000599 u
Se (196.026 nm)	0.001819 u	ppm	0.003238	> 100.00	0.709137	0.001819 u
Si (288.158 nm)	0.006181	ppm	0.003631	58.75	754.151000	0.006181
Sn (189.925 nm)	-0.001692 u	ppm	0.002334	> 100.00	2.250200	-0.001692 u
Sr (421.552 nm)	0.000129	ppm	0.000013	9.90	65.286794	0.000129
Th (288.505 nm)	4.774150	ppm	0.010983	0.23	10672.500000	4.774150
Ti (336.122 nm)	0.000771	ppm	0.000081	10.49	-15.901100	0.000771
Tl (190.794 nm)	-0.006135 u	ppm	0.002410	39.29	-7.990250	-0.006135 u
U (409.013 nm)	2.469670 Q	ppm	0.005868	0.24	9379.370000 Q	2.469670 Q
V (292.401 nm)	0.000918	ppm	0.000194	21.09	179.573000	0.000918
Zn (206.200 nm)	0.001537	ppm	0.000382	24.86	6.752360	0.001537
Zr (343.823 nm)	0.000232	ppm	0.000159	68.44	82.034500	0.000232

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/15/2024 3:06:12 AM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.452852	ppm	0.000823	0.18	992586.968907	0.452852
Ag (328.068 nm)	0.488923	ppm	0.001305	0.27	17588.900000	0.488923
Al (394.401 nm)	0.489297	ppm	0.001070	0.22	6833.830000	0.489297
Al H (396.152 nm)	0.461646 u	ppm	0.002290	0.50	2364.220000	0.461646 u
As (188.980 nm)	0.465380	ppm	0.005094	1.09	267.373000	0.465380
B (249.678 nm)	0.503597	ppm	0.001389	0.28	3874.610000	0.503597
Ba (493.408 nm)	0.494076	ppm	0.001238	0.25	68034.400000	0.494076
Be (234.861 nm)	0.488636	ppm	0.007843	1.61	49104.700000	0.488636
Bi (223.061 nm)	0.991269	ppm	0.001994	0.20	2424.670000	0.991269
Ca (315.887 nm)	4.848989	ppm	0.008176	0.17	4050.070052	4.848989
Cd (214.439 nm)	0.495637	ppm	0.002778	0.56	12657.400000	0.495637
Co (228.615 nm)	0.497327	ppm	0.001153	0.23	6503.750000	0.497327
Cr (205.560 nm)	0.481607	ppm	0.002339	0.49	3102.420000	0.481607
Cu (324.754 nm)	0.496555	ppm	0.001037	0.21	24189.400000	0.496555
Fe (238.204 nm)	2.492382	ppm	0.004800	0.19	8045.894607	2.492382
Fe H (259.940 nm)	2.468750 u	ppm	0.004544	0.18	3400.160000	2.468750 u
K (766.491 nm)	48.173800	ppm	0.054331	0.11	61928.200000	48.173800
Li (670.783 nm)	0.487054	ppm	0.001423	0.29	15328.000000	0.487054
Mg (279.078 nm)	19.183600	ppm	0.083561	0.44	57206.200000	19.183600
Mn (257.610 nm)	0.489433	ppm	0.001386	0.28	143032.000000	0.489433
Mo (202.032 nm)	0.496938	ppm	0.001568	0.32	2679.280000	0.496938
Na (589.592 nm)	24.295100	ppm	0.025000	0.10	265751.000000	24.295100
Na H (589.593 nm)	23.944204 u	ppm	0.172813	0.72	191727.700250	23.944204 u
Ni (231.604 nm)	0.491479	ppm	0.003056	0.62	2319.540000	0.491479
P (213.618 nm)	-0.011119 u	ppm	0.001966	17.68	-62.872100	-0.011119 u
Pb (220.353 nm)	0.461519	ppm	0.001709	0.37	984.436000	0.461519
S (181.972 nm)	-0.034498 u	ppm	0.002834	8.21	13.020197	-0.034498 u
Sb (206.834 nm)	0.491702	ppm	0.003153	0.64	708.570000	0.491702
Se (196.026 nm)	0.479869	ppm	0.003667	0.76	272.339000	0.479869
Si (288.158 nm)	4.928350	ppm	0.050871	1.03	37556.200000	4.928350
Sn (189.925 nm)	0.496221	ppm	0.005961	1.20	353.414000	0.496221
Sr (421.552 nm)	0.493387	ppm	0.000997	0.20	106312.017032	0.493387
Th (288.505 nm)	0.006825	ppm	0.002042	29.91	28.709500	0.006825
Ti (336.122 nm)	0.485108	ppm	0.000701	0.14	65918.400000	0.485108
Tl (190.794 nm)	0.497766	ppm	0.001192	0.24	463.820000	0.497766
U (409.013 nm)	0.000981 u	ppm	0.001073	> 100.00	-1.730020	0.000981 u
V (292.401 nm)	0.476342	ppm	0.000982	0.21	14778.400000	0.476342
Zn (206.200 nm)	0.488475	ppm	0.002950	0.60	1141.490000	0.488475
Zr (343.823 nm)	0.486591	ppm	0.000918	0.19	37032.400000	0.486591

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/15/2024 3:10:36 AM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000619	ppm	0.000008	1.27	-880.045018	0.000619
Ag (328.068 nm)	0.000251	ppm	0.000070	27.94	-23.359000	0.000251
Al (394.401 nm)	-0.005274 u	ppm	0.001298	24.62	313.837000	-0.005274 u
Al H (396.152 nm)	-0.048935 u	ppm	0.001399	2.86	39.662600	-0.048935 u
As (188.980 nm)	0.000933 u	ppm	0.001929	> 100.00	-0.333681	0.000933 u
B (249.678 nm)	0.005301	ppm	0.000369	6.97	62.084700	0.005301
Ba (493.408 nm)	0.000018 u	ppm	0.000088	> 100.00	-41.831000	0.000018 u
Be (234.861 nm)	-0.000009 u	ppm	0.000028	> 100.00	-0.749866	-0.000009 u
Bi (223.061 nm)	-0.001215 u	ppm	0.000931	76.60	1.275390	-0.001215 u
Ca (315.887 nm)	0.010990	ppm	0.001791	16.29	-5.635292	0.010990
Cd (214.439 nm)	0.000033 u	ppm	0.000043	> 100.00	-2.641440	0.000033 u
Co (228.615 nm)	-0.000132 u	ppm	0.000053	40.16	-8.478580	-0.000132 u
Cr (205.560 nm)	0.000216	ppm	0.000142	65.66	10.382000	0.000216
Cu (324.754 nm)	0.000491	ppm	0.000037	7.45	641.958000	0.000491
Fe (238.204 nm)	0.003896	ppm	0.001505	38.62	33.662915	0.003896
Fe H (259.940 nm)	-0.016937 u	ppm	0.000598	3.53	18.054900	-0.016937 u
K (766.491 nm)	0.057632	ppm	0.034468	59.81	104.277000	0.057632
Li (670.783 nm)	0.020472 S	ppm	0.001115	5.45	1023.310000 S	0.020472 S
Mg (279.078 nm)	0.002976	ppm	0.002563	86.12	12.942600	0.002976
Mn (257.610 nm)	0.000045	ppm	0.000010	23.43	53.578100	0.000045
Mo (202.032 nm)	0.000174 u	ppm	0.000406	> 100.00	6.281850	0.000174 u
Na (589.592 nm)	0.258599	ppm	0.019341	7.48	5424.920000	0.258599
Na H (589.593 nm)	-0.167722 u	ppm	0.016667	9.94	4808.120552	-0.167722 u
Ni (231.604 nm)	0.000056 u	ppm	0.000582	> 100.00	-2.050390	0.000056 u
P (213.618 nm)	-0.002016 u	ppm	0.000254	12.60	-9.881260	-0.002016 u
Pb (220.353 nm)	-0.000461 u	ppm	0.001039	> 100.00	1.291860	-0.000461 u
S (181.972 nm)	-0.012878 u	ppm	0.000069	0.53	11.884881	-0.012878 u
Sb (206.834 nm)	-0.001497 u	ppm	0.000954	63.74	2.555060	-0.001497 u
Se (196.026 nm)	0.002736	ppm	0.000596	21.79	6.042260	0.002736
Si (288.158 nm)	-0.008871 u	ppm	0.002579	29.07	643.425000	-0.008871 u
Sn (189.925 nm)	-0.001203 u	ppm	0.001099	91.32	2.594960	-0.001203 u
Sr (421.552 nm)	-0.000026 u	ppm	0.000091	> 100.00	32.022127	-0.000026 u
Th (288.505 nm)	0.003183	ppm	0.000931	29.25	33.716400	0.003183
Ti (336.122 nm)	0.000082	ppm	0.000024	28.76	-109.643000	0.000082
Tl (190.794 nm)	-0.000483 u	ppm	0.001517	> 100.00	-1.910690	-0.000483 u
U (409.013 nm)	-0.000733 u	ppm	0.002963	> 100.00	2.616910	-0.000733 u
V (292.401 nm)	0.000030 u	ppm	0.000146	> 100.00	-59.206400	0.000030 u
Zn (206.200 nm)	-0.000146 u	ppm	0.000320	> 100.00	2.831020	-0.000146 u
Zr (343.823 nm)	0.000045	ppm	0.000032	71.93	3.868180	0.000045

Solution Name: 280-190894-F-3-D

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190894-F-3-D	5/15/2024 3:14:37 AM	2:31	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000829	ppm	0.000008	1.00	-418.374595	0.000829
Ag (328.068 nm)	0.001141	ppm	0.000156	13.69	6.802440	0.001141
Al (394.401 nm)	0.008463	ppm	0.000497	5.87	518.405000	0.008463
Al H (396.152 nm)	-0.058523 u	ppm	0.003720	6.36	-3.985900	-0.058523 u
As (188.980 nm)	-0.000266 u	ppm	0.003197	> 100.00	-0.926190	-0.000266 u
B (249.678 nm)	0.013207	ppm	0.000389	2.95	122.569000	0.013207
Ba (493.408 nm)	0.015832	ppm	0.000037	0.23	2131.810000	0.015832
Be (234.861 nm)	-0.000061 u	ppm	0.000050	82.67	-1.251320	-0.000061 u
Bi (223.061 nm)	0.000183 u	ppm	0.001076	> 100.00	4.689030	0.000183 u
Ca (315.887 nm)	42.719911 o	ppm	0.061918	0.14	35797.348311	42.719911 o
Cd (214.439 nm)	0.000217	ppm	0.000115	53.06	2.071170	0.000217
Co (228.615 nm)	-0.000598 u	ppm	0.000155	25.88	-14.568900	-0.000598 u
Cr (205.560 nm)	0.002141	ppm	0.000400	18.69	22.750800	0.002141
Cu (324.754 nm)	0.001698	ppm	0.000234	13.78	684.461000	0.001698
Fe (238.204 nm)	0.049414	ppm	0.000926	1.87	180.128626	0.049414
Fe H (259.940 nm)	0.024260 u	ppm	0.002447	10.09	74.109000	0.024260 u
K (766.491 nm)	0.574505	ppm	0.046613	8.11	768.401000	0.574505
Li (670.783 nm)	0.022109	ppm	0.001111	5.02	1084.420000	0.022109
Mg (279.078 nm)	21.927200	ppm	0.070442	0.32	65331.100000	21.927200
Mn (257.610 nm)	0.000456	ppm	0.000008	1.81	173.616000	0.000456
Mo (202.032 nm)	0.000971	ppm	0.000555	57.13	10.566000	0.000971
Na (589.592 nm)	5.172910	ppm	0.018247	0.35	58035.100000	5.172910
Na H (589.593 nm)	4.710700 u	ppm	0.053730	1.14	42281.292530	4.710700 u
Ni (231.604 nm)	-0.001440 u	ppm	0.000745	51.77	-9.113410	-0.001440 u
P (213.618 nm)	0.134578	ppm	0.004145	3.08	158.442000	0.134578
Pb (220.353 nm)	-0.001641 u	ppm	0.000542	33.02	-1.198930	-0.001641 u
S (181.972 nm)	5.707698	ppm	0.037335	0.65	2231.117413	5.707698
Sb (206.834 nm)	-0.000931 u	ppm	0.000653	70.16	3.378560	-0.000931 u
Se (196.026 nm)	-0.002034 u	ppm	0.001666	81.92	3.524880	-0.002034 u
Si (288.158 nm)	4.686430	ppm	0.032560	0.69	35328.300000	4.686430
Sn (189.925 nm)	-0.002399 u	ppm	0.001106	46.11	1.751760	-0.002399 u
Sr (421.552 nm)	0.058589	ppm	0.000246	0.42	12657.400003	0.058589
Th (288.505 nm)	0.001092 u	ppm	0.001494	> 100.00	29.433100	0.001092 u
Ti (336.122 nm)	-0.000250 u	ppm	0.000046	18.37	-38.462800	-0.000250 u
Tl (190.794 nm)	-0.001033 u	ppm	0.000851	82.41	-2.428050	-0.001033 u
U (409.013 nm)	0.011963	ppm	0.001261	10.54	50.320000	0.011963
V (292.401 nm)	0.003490	ppm	0.000123	3.53	51.007900	0.003490
Zn (206.200 nm)	0.037396	ppm	0.000560	1.50	90.317500	0.037396
Zr (343.823 nm)	-0.000010 u	ppm	0.000061	> 100.00	-0.231047	-0.000010 u

Solution Name: 280-190835-I-1-B

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190835-I-1-B	5/15/2024 3:18:58 AM	2:32	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.003408	ppm	0.000012	0.35	5246.440841	0.003408
Ag (328.068 nm)	0.000981	ppm	0.000150	15.34	1.458360	0.000981
Al (394.401 nm)	0.023461	ppm	0.000698	2.97	707.984000	0.023461
Al H (396.152 nm)	-0.037020 u	ppm	0.004871	13.16	93.909400	-0.037020 u
As (188.980 nm)	0.002253 u	ppm	0.003656	> 100.00	0.494574	0.002253 u
B (249.678 nm)	0.081243	ppm	0.000038	0.05	643.121000	0.081243
Ba (493.408 nm)	0.193987	ppm	0.000203	0.10	26618.700000	0.193987
Be (234.861 nm)	-0.000018 u	ppm	0.000016	92.05	0.687553	-0.000018 u
Bi (223.061 nm)	-0.000636 u	ppm	0.001343	> 100.00	2.689360	-0.000636 u
Ca (315.887 nm)	29.384360 o	ppm	0.025503	0.09	24618.126608	29.384360 o
Cd (214.439 nm)	0.000184	ppm	0.000119	64.71	1.242080	0.000184
Co (228.615 nm)	-0.000279 u	ppm	0.000031	10.95	-10.390800	-0.000279 u
Cr (205.560 nm)	0.000572	ppm	0.000030	5.23	12.662400	0.000572
Cu (324.754 nm)	0.001509	ppm	0.000173	11.47	680.328000	0.001509
Fe (238.204 nm)	0.077796	ppm	0.000383	0.49	271.452987	0.077796
Fe H (259.940 nm)	0.052737 u	ppm	0.001915	3.63	112.857000	0.052737 u
K (766.491 nm)	2.722680	ppm	0.012809	0.47	3528.570000	2.722680
Li (670.783 nm)	0.023292	ppm	0.001394	5.98	1124.860000	0.023292
Mg (279.078 nm)	9.234670	ppm	0.043295	0.47	27519.000000	9.234670
Mn (257.610 nm)	0.028012	ppm	0.000093	0.33	8224.420000	0.028012
Mo (202.032 nm)	0.002084	ppm	0.000067	3.23	16.559000	0.002084
Na (589.592 nm)	24.261200	ppm	0.040223	0.17	263225.000000	24.261200
Na H (589.593 nm)	23.798863 u	ppm	0.241906	1.02	189381.230567	23.798863 u
Ni (231.604 nm)	-0.000235 u	ppm	0.000218	92.75	-3.422520	-0.000235 u
P (213.618 nm)	0.014784	ppm	0.001005	6.80	10.720600	0.014784
Pb (220.353 nm)	-0.001467 u	ppm	0.001376	93.79	-0.848275	-0.001467 u
S (181.972 nm)	6.558135	ppm	0.026716	0.41	2560.901596	6.558135
Sb (206.834 nm)	-0.000503 u	ppm	0.000861	> 100.00	3.978450	-0.000503 u
Se (196.026 nm)	-0.001959 u	ppm	0.002767	> 100.00	3.509720	-0.001959 u
Si (288.158 nm)	2.418320	ppm	0.007085	0.29	18572.800000	2.418320
Sn (189.925 nm)	-0.002901 u	ppm	0.000930	32.07	1.397740	-0.002901 u
Sr (421.552 nm)	0.236573	ppm	0.000510	0.22	50994.827220	0.236573
Th (288.505 nm)	0.000429 u	ppm	0.001121	> 100.00	28.336600	0.000429 u
Ti (336.122 nm)	0.000381	ppm	0.000079	20.66	11.085100	0.000381
Tl (190.794 nm)	-0.001163 u	ppm	0.000464	39.89	-2.553690	-0.001163 u
U (409.013 nm)	0.009674	ppm	0.000719	7.43	41.732900	0.009674
V (292.401 nm)	0.003510	ppm	0.000129	3.67	51.465100	0.003510
Zn (206.200 nm)	0.014683	ppm	0.000430	2.93	37.386700	0.014683
Zr (343.823 nm)	0.000086 u	ppm	0.000160	> 100.00	7.072010	0.000086 u

Solution Name: 280-190837-H-1-B

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190837-H-1-B	5/15/2024 3:23:15 AM	2:33	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.003370	ppm	0.000012	0.35	5161.262779	0.003370
Ag (328.068 nm)	0.000824	ppm	0.000043	5.20	-4.686440	0.000824
Al (394.401 nm)	0.031476	ppm	0.001099	3.49	814.628000	0.031476
Al H (396.152 nm)	-0.028628 u	ppm	0.003048	10.65	132.117000	-0.028628 u
As (188.980 nm)	0.000150 u	ppm	0.002705	> 100.00	-0.717686	0.000150 u
B (249.678 nm)	0.080073	ppm	0.000310	0.39	634.170000	0.080073
Ba (493.408 nm)	0.193830	ppm	0.000496	0.26	26597.000000	0.193830
Be (234.861 nm)	-0.000026 u	ppm	0.000034	> 100.00	-0.200582	-0.000026 u
Bi (223.061 nm)	0.000717	ppm	0.000521	72.70	5.992960	0.000717
Ca (315.887 nm)	29.344300 o	ppm	0.103121	0.35	24584.544523	29.344300 o
Cd (214.439 nm)	0.000181	ppm	0.000058	32.29	1.160730	0.000181
Co (228.615 nm)	-0.000167 u	ppm	0.000069	41.57	-8.924040	-0.000167 u
Cr (205.560 nm)	0.000617	ppm	0.000239	38.75	12.952500	0.000617
Cu (324.754 nm)	0.001277	ppm	0.000066	5.20	669.091000	0.001277
Fe (238.204 nm)	0.067375	ppm	0.000294	0.44	237.921722	0.067375
Fe H (259.940 nm)	0.042861 u	ppm	0.002821	6.58	99.418400	0.042861 u
K (766.491 nm)	2.692850	ppm	0.045412	1.69	3490.250000	2.692850
Li (670.783 nm)	0.024049	ppm	0.001075	4.47	1148.020000	0.024049
Mg (279.078 nm)	9.257890	ppm	0.031014	0.34	27588.000000	9.257890
Mn (257.610 nm)	0.029307	ppm	0.000068	0.23	8602.860000	0.029307
Mo (202.032 nm)	0.001828	ppm	0.000167	9.12	15.178400	0.001828
Na (589.592 nm)	24.271900	ppm	0.046670	0.19	263337.000000	24.271900
Na H (589.593 nm)	23.797263 u	ppm	0.152888	0.64	189367.880995	23.797263 u
Ni (231.604 nm)	0.000087 u	ppm	0.000594	> 100.00	-1.901820	0.000087 u
P (213.618 nm)	0.013446	ppm	0.002812	20.91	9.069860	0.013446
Pb (220.353 nm)	-0.002282 u	ppm	0.000228	9.99	-2.578260	-0.002282 u
S (181.972 nm)	6.546327	ppm	0.024343	0.37	2556.323052	6.546327
Sb (206.834 nm)	-0.000320 u	ppm	0.001848	> 100.00	4.239710	-0.000320 u
Se (196.026 nm)	0.000705	ppm	0.000491	69.65	4.997700	0.000705
Si (288.158 nm)	2.434480	ppm	0.006144	0.25	18693.500000	2.434480
Sn (189.925 nm)	-0.001329 u	ppm	0.000644	48.44	2.506460	-0.001329 u
Sr (421.552 nm)	0.235933	ppm	0.000409	0.17	50857.032713	0.235933
Th (288.505 nm)	0.000933 u	ppm	0.001962	> 100.00	29.482500	0.000933 u
Ti (336.122 nm)	0.000560	ppm	0.000059	10.47	35.346100	0.000560
Tl (190.794 nm)	-0.002331 u	ppm	0.003997	> 100.00	-3.646830	-0.002331 u
U (409.013 nm)	0.015103	ppm	0.003460	22.91	62.103200	0.015103
V (292.401 nm)	0.003595	ppm	0.000063	1.75	54.009200	0.003595
Zn (206.200 nm)	0.004290	ppm	0.000513	11.95	13.167800	0.004290
Zr (343.823 nm)	0.000050 u	ppm	0.000060	> 100.00	4.337120	0.000050 u

Solution Name: 280-190730-A-7-C

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190730-A-7-C	5/15/2024 3:27:31 AM	2:34	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.004907	ppm	0.000005	0.10	8538.258745	0.004907
Ag (328.068 nm)	0.001056	ppm	0.000215	20.34	-6.224740	0.001056
Al (394.401 nm)	0.006121	ppm	0.000453	7.40	481.838000	0.006121
Al H (396.152 nm)	-0.054244 u	ppm	0.002738	5.05	15.493000	-0.054244 u
As (188.980 nm)	0.008941	ppm	0.000436	4.87	4.349610	0.008941
B (249.678 nm)	0.024739	ppm	0.000256	1.04	210.808000	0.024739
Ba (493.408 nm)	0.018005	ppm	0.000063	0.35	2430.870000	0.018005
Be (234.861 nm)	-0.000052 u	ppm	0.000025	47.28	-2.185790	-0.000052 u
Bi (223.061 nm)	0.000211 u	ppm	0.000830	> 100.00	4.758330	0.000211 u
Ca (315.887 nm)	29.667496 o	ppm	0.036269	0.12	24855.480385	29.667496 o
Cd (214.439 nm)	0.000159	ppm	0.000019	11.80	0.646774	0.000159
Co (228.615 nm)	0.000104	ppm	0.000159	> 100.00	-5.401720	0.000104
Cr (205.560 nm)	0.002157	ppm	0.000304	14.12	22.838700	0.002157
Cu (324.754 nm)	0.000307	ppm	0.000152	49.62	621.622000	0.000307
Fe (238.204 nm)	0.163842	ppm	0.001012	0.62	548.323423	0.163842
Fe H (259.940 nm)	0.137247 u	ppm	0.003980	2.90	227.843000	0.137247 u
K (766.491 nm)	6.091630	ppm	0.044215	0.73	7857.300000	6.091630
Li (670.783 nm)	0.026223	ppm	0.000782	2.98	1216.230000	0.026223
Mg (279.078 nm)	9.425830	ppm	0.025890	0.27	28091.800000	9.425830
Mn (257.610 nm)	0.001404	ppm	0.000008	0.58	450.721000	0.001404
Mo (202.032 nm)	0.004463	ppm	0.000413	9.25	29.359500	0.004463
Na (589.592 nm)	28.645200	ppm	0.037056	0.13	308792.000000	28.645200
Na H (589.593 nm)	28.079448 u	ppm	0.243823	0.87	221485.560467	28.079448 u
Ni (231.604 nm)	-0.000965 u	ppm	0.000203	21.07	-6.870370	-0.000965 u
P (213.618 nm)	0.032742	ppm	0.001842	5.63	32.850800	0.032742
Pb (220.353 nm)	-0.002417 u	ppm	0.001347	55.71	-2.874800	-0.002417 u
S (181.972 nm)	12.507256 o	ppm	0.039250	0.31	4868.321195	12.507256 o
Sb (206.834 nm)	-0.000302 u	ppm	0.000555	> 100.00	4.270010	-0.000302 u
Se (196.026 nm)	0.000733 u	ppm	0.001507	> 100.00	5.488420	0.000733 u
Si (288.158 nm)	18.514900 o	ppm	0.102304	0.55	137488.000000	18.514900 o
Sn (189.925 nm)	-0.000703 u	ppm	0.001330	> 100.00	2.947730	-0.000703 u
Sr (421.552 nm)	0.155962	ppm	0.001014	0.65	33631.333607	0.155962
Th (288.505 nm)	0.000535 u	ppm	0.002299	> 100.00	26.877100	0.000535 u
Ti (336.122 nm)	-0.000142 u	ppm	0.000047	33.09	-59.354600	-0.000142 u
Tl (190.794 nm)	-0.001279 u	ppm	0.001334	> 100.00	-2.667580	-0.001279 u
U (409.013 nm)	0.012873	ppm	0.001621	12.59	53.716600	0.012873
V (292.401 nm)	0.022411	ppm	0.000071	0.32	643.701000	0.022411
Zn (206.200 nm)	0.003354	ppm	0.000013	0.38	10.986400	0.003354
Zr (343.823 nm)	-0.000010 u	ppm	0.000021	> 100.00	-0.098618	-0.000010 u

Solution Name: 280-190730-A-7-C SD @5

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190730-A-7-C SD @5	5/15/2024 3:31:49 AM	2:35	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001328	ppm	0.000015	1.15	675.741839	0.001328
Ag (328.068 nm)	0.000390	ppm	0.000123	31.63	-21.040400	0.000390
Al (394.401 nm)	-0.000635 u	ppm	0.000935	> 100.00	377.197000	-0.000635 u
Al H (396.152 nm)	-0.051870 u	ppm	0.005207	10.04	26.300200	-0.051870 u
As (188.980 nm)	0.000725 u	ppm	0.001599	> 100.00	-0.439979	0.000725 u
B (249.678 nm)	0.005586	ppm	0.000214	3.84	64.260800	0.005586
Ba (493.408 nm)	0.003600	ppm	0.000063	1.74	450.692000	0.003600
Be (234.861 nm)	-0.000015 u	ppm	0.000010	64.26	-0.596603	-0.000015 u
Bi (223.061 nm)	-0.001745 u	ppm	0.000947	54.27	-0.018741	-0.001745 u
Ca (315.887 nm)	6.023411	ppm	0.002955	0.05	5034.590835	6.023411
Cd (214.439 nm)	0.000072	ppm	0.000036	49.72	-1.611950	0.000072
Co (228.615 nm)	-0.000089 u	ppm	0.000121	> 100.00	-7.921570	-0.000089 u
Cr (205.560 nm)	-0.000106 u	ppm	0.000323	> 100.00	8.307300	-0.000106 u
Cu (324.754 nm)	0.000358	ppm	0.000178	49.88	634.213000	0.000358
Fe (238.204 nm)	0.071719	ppm	0.001786	2.49	251.897687	0.071719
Fe H (259.940 nm)	0.049400 u	ppm	0.002108	4.27	108.316000	0.049400 u
K (766.491 nm)	1.266570	ppm	0.038344	3.03	1657.640000	1.266570
Li (670.783 nm)	0.021883	ppm	0.000590	2.69	1069.850000	0.021883
Mg (279.078 nm)	1.898890	ppm	0.003935	0.21	5662.510000	1.898890
Mn (257.610 nm)	0.000433	ppm	0.000016	3.75	167.169000	0.000433
Mo (202.032 nm)	0.001048	ppm	0.000201	19.14	10.980900	0.001048
Na (589.592 nm)	5.998100	ppm	0.005700	0.10	66761.700000	5.998100
Na H (589.593 nm)	5.394725 u	ppm	0.032243	0.60	47476.172452	5.394725 u
Ni (231.604 nm)	0.000119 u	ppm	0.000147	> 100.00	-1.749330	0.000119 u
P (213.618 nm)	0.005899	ppm	0.001235	20.94	-0.154092	0.005899
Pb (220.353 nm)	-0.000428 u	ppm	0.000981	> 100.00	1.360310	-0.000428 u
S (181.972 nm)	2.475106	ppm	0.011958	0.48	976.933896	2.475106
Sb (206.834 nm)	-0.002117 u	ppm	0.001556	73.49	1.664900	-0.002117 u
Se (196.026 nm)	-0.002552 u	ppm	0.002676	> 100.00	3.201290	-0.002552 u
Si (288.158 nm)	3.653650	ppm	0.007037	0.19	27699.000000	3.653650
Sn (189.925 nm)	-0.002610 u	ppm	0.001302	49.90	1.602950	-0.002610 u
Sr (421.552 nm)	0.031481	ppm	0.000199	0.63	6818.412809	0.031481
Th (288.505 nm)	0.004617	ppm	0.001810	39.20	36.661900	0.004617
Ti (336.122 nm)	0.000036	ppm	0.000017	47.89	-99.631300	0.000036
Tl (190.794 nm)	-0.000401 u	ppm	0.001823	> 100.00	-1.837020	-0.000401 u
U (409.013 nm)	0.002523	ppm	0.002050	81.23	14.929200	0.002523
V (292.401 nm)	0.004582	ppm	0.000083	1.81	84.199600	0.004582
Zn (206.200 nm)	0.000924	ppm	0.000370	40.03	5.323940	0.000924
Zr (343.823 nm)	-0.000133 u	ppm	0.000053	40.05	-9.598010	-0.000133 u

Solution Name: 280-190730-A-7-D MS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190730-A-7-D MS	5/15/2024 3:36:04 AM	2:36	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.002637	ppm	0.001113	0.11	2200337.733742	1.002637
Ag (328.068 nm)	0.049586	ppm	0.000105	0.21	1459.200000	0.049586
Al (394.401 nm)	9.992660 o	ppm	0.027991	0.28	132185.000000	9.992660 o
Al H (396.152 nm)	9.871050	ppm	0.011038	0.11	45203.000000	9.871050
As (188.980 nm)	0.978706	ppm	0.002252	0.23	563.380000	0.978706
B (249.678 nm)	2.090000	ppm	0.002656	0.13	16012.400000	2.090000
Ba (493.408 nm)	1.011580	ppm	0.001586	0.16	139351.000000	1.011580
Be (234.861 nm)	0.997914	ppm	0.005381	0.54	100320.000000	0.997914
Bi (223.061 nm)	-0.001509 u	ppm	0.000396	26.28	0.559305	-0.001509 u
Ca (315.887 nm)	78.038571 o	ppm	0.125094	0.16	65405.059798	78.038571 o
Cd (214.439 nm)	0.980377	ppm	0.005684	0.58	25041.300000	0.980377
Co (228.615 nm)	0.965399	ppm	0.003851	0.40	12632.300000	0.965399
Cr (205.560 nm)	0.960811	ppm	0.006178	0.64	6180.380000	0.960811
Cu (324.754 nm)	0.990438	ppm	0.001322	0.13	47613.600000	0.990438
Fe (238.204 nm)	10.107080 o	ppm	0.008308	0.08	32552.613335	10.107080 o
Fe H (259.940 nm)	10.078100	ppm	0.019352	0.19	13753.700000	10.078100
K (766.491 nm)	55.294700	ppm	0.046329	0.08	71077.800000	55.294700
Li (670.783 nm)	0.966662	ppm	0.004630	0.48	30056.400000	0.966662
Mg (279.078 nm)	58.572300 o	ppm	0.296368	0.51	174561.000000	58.572300 o
Mn (257.610 nm)	0.971611	ppm	0.003474	0.36	283903.000000	0.971611
Mo (202.032 nm)	1.012900	ppm	0.004466	0.44	5455.600000	1.012900
Na (589.592 nm)	76.396500 o	ppm	0.072757	0.10	826049.000000	76.396500 o
Na H (589.593 nm)	75.982150	ppm	0.424049	0.56	592886.219185	75.982150
Ni (231.604 nm)	0.939299	ppm	0.005188	0.55	4435.190000	0.939299
P (213.618 nm)	20.867900 o	ppm	0.075167	0.36	25640.200000	20.867900 o
Pb (220.353 nm)	0.912101	ppm	0.005142	0.56	1942.330000	0.912101
S (181.972 nm)	32.650399 o	ppm	0.141365	0.43	12698.681090	32.650399 o
Sb (206.834 nm)	0.998321	ppm	0.003862	0.39	1434.120000	0.998321
Se (196.026 nm)	0.972427	ppm	0.004912	0.51	547.312000	0.972427
Si (288.158 nm)	28.190300 o	ppm	0.065768	0.23	209851.000000	28.190300 o
Sn (189.925 nm)	1.004330	ppm	0.009456	0.94	711.771000	1.004330
Sr (421.552 nm)	1.147183 o	ppm	0.001665	0.15	247138.495147	1.147183 o
Th (288.505 nm)	-0.004054 u	ppm	0.002368	58.41	-10.038400	-0.004054 u
Ti (336.122 nm)	0.980320	ppm	0.002975	0.30	133518.000000	0.980320
Tl (190.794 nm)	0.985754	ppm	0.008260	0.84	919.756000	0.985754
U (409.013 nm)	0.013129	ppm	0.001860	14.17	37.061900	0.013129
V (292.401 nm)	0.985945	ppm	0.003519	0.36	30663.500000	0.985945
Zn (206.200 nm)	0.965475	ppm	0.006241	0.65	2253.060000	0.965475
Zr (343.823 nm)	0.980615	ppm	0.002692	0.27	74636.600000	0.980615

Solution Name: 280-190730-A-7-E MSD

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190730-A-7-E MSD	5/15/2024 3:40:29 AM	2:37	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.018131	ppm	0.006679	0.66	2234371.738551	1.018131
Ag (328.068 nm)	0.050253	ppm	0.000516	1.03	1480.300000	0.050253
Al (394.401 nm)	10.149900 o	ppm	0.067929	0.67	134259.000000	10.149900 o
Al H (396.152 nm)	9.970530	ppm	0.024468	0.25	45655.900000	9.970530
As (188.980 nm)	0.987296	ppm	0.006279	0.64	568.333000	0.987296
B (249.678 nm)	2.118580	ppm	0.010805	0.51	16231.000000	2.118580
Ba (493.408 nm)	1.022330	ppm	0.000786	0.08	140834.000000	1.022330
Be (234.861 nm)	1.017100	ppm	0.012121	1.19	102249.000000	1.017100
Bi (223.061 nm)	0.000170 u	ppm	0.000278	> 100.00	4.657060	0.000170 u
Ca (315.887 nm)	79.065988 o	ppm	0.148204	0.19	66266.346127	79.065988 o
Cd (214.439 nm)	0.990211	ppm	0.001415	0.14	25292.500000	0.990211
Co (228.615 nm)	0.975880	ppm	0.002877	0.29	12769.400000	0.975880
Cr (205.560 nm)	0.970539	ppm	0.002579	0.27	6242.870000	0.970539
Cu (324.754 nm)	0.999342	ppm	0.006218	0.62	48036.500000	0.999342
Fe (238.204 nm)	10.275231 o	ppm	0.034455	0.34	33093.771615	10.275231 o
Fe H (259.940 nm)	10.254400	ppm	0.012888	0.13	13993.600000	10.254400
K (766.491 nm)	55.847800	ppm	0.064784	0.12	71788.500000	55.847800
Li (670.783 nm)	0.972264	ppm	0.002881	0.30	30228.600000	0.972264
Mg (279.078 nm)	59.282800 o	ppm	0.048672	0.08	176678.000000	59.282800 o
Mn (257.610 nm)	0.982718	ppm	0.000997	0.10	287148.000000	0.982718
Mo (202.032 nm)	1.022300	ppm	0.002928	0.29	5506.180000	1.022300
Na (589.592 nm)	77.254300 o	ppm	0.051573	0.07	835300.000000	77.254300 o
Na H (589.593 nm)	76.934126	ppm	0.471989	0.61	600236.127898	76.934126
Ni (231.604 nm)	0.949311	ppm	0.001856	0.20	4482.490000	0.949311
P (213.618 nm)	21.127200 o	ppm	0.100424	0.48	25959.100000	21.127200 o
Pb (220.353 nm)	0.920793	ppm	0.002542	0.28	1960.820000	0.920793
S (181.972 nm)	33.114346 o	ppm	0.201681	0.61	12878.884019	33.114346 o
Sb (206.834 nm)	1.007180	ppm	0.004981	0.49	1446.820000	1.007180
Se (196.026 nm)	0.985684	ppm	0.007576	0.77	554.709000	0.985684
Si (288.158 nm)	28.628500 o	ppm	0.125198	0.44	213098.000000	28.628500 o
Sn (189.925 nm)	1.014460	ppm	0.004100	0.40	718.912000	1.014460
Sr (421.552 nm)	1.160894 o	ppm	0.001240	0.11	250091.648317	1.160894 o
Th (288.505 nm)	-0.001246 u	ppm	0.001890	> 100.00	-4.055340	-0.001246 u
Ti (336.122 nm)	0.988279	ppm	0.002750	0.28	134604.000000	0.988279
Tl (190.794 nm)	0.999154	ppm	0.006098	0.61	932.292000	0.999154
U (409.013 nm)	0.015452	ppm	0.001053	6.81	45.732100	0.015452
V (292.401 nm)	0.995366	ppm	0.001224	0.12	30957.000000	0.995366
Zn (206.200 nm)	0.976370	ppm	0.000917	0.09	2278.450000	0.976370
Zr (343.823 nm)	0.988762	ppm	0.002158	0.22	75256.800000	0.988762

Solution Name: 280-190730-A-7-C PDS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190730-A-7-C PDS	5/15/2024 3:44:53 AM	2:38	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.095948	ppm	0.000353	0.37	208527.727642	0.095948
Ag (328.068 nm)	0.047225	ppm	0.000643	1.36	1654.040000	0.047225
Al (394.401 nm)	0.969602	ppm	0.005341	0.55	13243.200000	0.969602
Al H (396.152 nm)	0.907761	ppm	0.004057	0.45	4395.270000	0.907761
As (188.980 nm)	0.193745	ppm	0.001367	0.71	110.908000	0.193745
B (249.678 nm)	0.130653	ppm	0.000942	0.72	1021.170000	0.130653
Ba (493.408 nm)	0.113283	ppm	0.000329	0.29	15545.200000	0.113283
Be (234.861 nm)	0.049221	ppm	0.000086	0.17	4958.430000	0.049221
Bi (223.061 nm)	-0.000275 u	ppm	0.001599	> 100.00	3.571300	-0.000275 u
Ca (315.887 nm)	47.613847 o	ppm	0.080570	0.17	39899.945938	47.613847 o
Cd (214.439 nm)	0.049094	ppm	0.000375	0.76	1250.880000	0.049094
Co (228.615 nm)	0.047736	ppm	0.000420	0.88	618.152000	0.047736
Cr (205.560 nm)	0.049364	ppm	0.000566	1.15	326.051000	0.049364
Cu (324.754 nm)	0.048980	ppm	0.000250	0.51	2940.690000	0.048980
Fe (238.204 nm)	1.131405	ppm	0.004340	0.38	3662.141679	1.131405
Fe H (259.940 nm)	1.107060 u	ppm	0.003059	0.28	1547.400000	1.107060 u
K (766.491 nm)	24.935700	ppm	0.135369	0.54	32069.800000	24.935700
Li (670.783 nm)	0.113755	ppm	0.001188	1.04	3908.360000	0.113755
Mg (279.078 nm)	28.010700	ppm	0.151466	0.54	83468.700000	28.010700
Mn (257.610 nm)	0.049117	ppm	0.000225	0.46	14390.300000	0.049117
Mo (202.032 nm)	0.054764	ppm	0.000326	0.60	300.017000	0.054764
Na (589.592 nm)	46.155100	ppm	0.196178	0.43	496526.000000	46.155100
Na H (589.593 nm)	46.088494 u	ppm	0.475101	1.03	359972.735580	46.088494 u
Ni (231.604 nm)	0.045648	ppm	0.000251	0.55	213.486000	0.045648
P (213.618 nm)	2.039230	ppm	0.008515	0.42	2502.780000	2.039230
Pb (220.353 nm)	0.088092	ppm	0.001763	2.00	190.594000	0.088092
S (181.972 nm)	13.356087 o	ppm	0.100199	0.75	5199.344364	13.356087 o
Sb (206.834 nm)	0.098309	ppm	0.001786	1.82	145.624000	0.098309
Se (196.026 nm)	0.189655	ppm	0.003030	1.60	110.915000	0.189655
Si (288.158 nm)	22.803500 o	ppm	0.088823	0.39	169253.000000	22.803500 o
Sn (189.925 nm)	0.099018	ppm	0.001242	1.25	73.278400	0.099018
Sr (421.552 nm)	0.199213	ppm	0.000341	0.17	42947.662015	0.199213
Th (288.505 nm)	0.185554	ppm	0.000989	0.53	441.723000	0.185554
Ti (336.122 nm)	0.048037	ppm	0.000090	0.19	6547.100000	0.048037
Tl (190.794 nm)	0.192770	ppm	0.001080	0.56	178.989000	0.192770
U (409.013 nm)	0.508114	ppm	0.001159	0.23	1914.360000	0.508114
V (292.401 nm)	0.069079	ppm	0.000500	0.72	2091.220000	0.069079
Zn (206.200 nm)	0.194112	ppm	0.002263	1.17	455.518000	0.194112
Zr (343.823 nm)	0.049104	ppm	0.000248	0.50	3738.620000	0.049104

Solution Name: 280-190730-A-5-N

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190730-A-5-N	5/15/2024 3:49:14 AM	2:39	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.002230	ppm	0.000028	1.23	2657.653617	0.002230
Ag (328.068 nm)	0.001093	ppm	0.000273	25.01	5.291970	0.001093
Al (394.401 nm)	0.011224	ppm	0.000890	7.93	554.518000	0.011224
Al H (396.152 nm)	-0.056094 u	ppm	0.003295	5.87	7.071290	-0.056094 u
As (188.980 nm)	-0.001194 u	ppm	0.003625	> 100.00	-1.463220	-0.001194 u
B (249.678 nm)	0.009318	ppm	0.000471	5.05	92.812800	0.009318
Ba (493.408 nm)	0.027499	ppm	0.000386	1.40	3735.350000	0.027499
Be (234.861 nm)	0.000016 u	ppm	0.000046	> 100.00	6.197960	0.000016 u
Bi (223.061 nm)	0.000151 u	ppm	0.000488	> 100.00	4.611060	0.000151 u
Ca (315.887 nm)	41.757452 o	ppm	0.097608	0.23	34990.517446	41.757452 o
Cd (214.439 nm)	0.000269	ppm	0.000107	39.72	3.394220	0.000269
Co (228.615 nm)	-0.000362 u	ppm	0.000177	48.97	-11.482300	-0.000362 u
Cr (205.560 nm)	0.001674	ppm	0.000377	22.54	19.755800	0.001674
Cu (324.754 nm)	0.000213 u	ppm	0.000249	> 100.00	614.395000	0.000213 u
Fe (238.204 nm)	0.025048	ppm	0.000744	2.97	101.724766	0.025048
Fe H (259.940 nm)	0.002310 u	ppm	0.002942	> 100.00	44.243100	0.002310 u
K (766.491 nm)	0.854619	ppm	0.031325	3.67	1128.320000	0.854619
Li (670.783 nm)	0.023248	ppm	0.000948	4.08	1117.720000	0.023248
Mg (279.078 nm)	21.437700	ppm	0.109049	0.51	63872.600000	21.437700
Mn (257.610 nm)	0.000267	ppm	0.000020	7.34	118.497000	0.000267
Mo (202.032 nm)	0.000653	ppm	0.000209	32.05	8.853990	0.000653
Na (589.592 nm)	1.549350	ppm	0.012290	0.79	19409.800000	1.549350
Na H (589.593 nm)	1.043516 u	ppm	0.012675	1.21	14207.978651	1.043516 u
Ni (231.604 nm)	-0.001452 u	ppm	0.000446	30.69	-9.169640	-0.001452 u
P (213.618 nm)	0.006553	ppm	0.003560	54.33	0.667166	0.006553
Pb (220.353 nm)	-0.001526 u	ppm	0.000757	49.61	-0.950988	-0.001526 u
S (181.972 nm)	0.269702	ppm	0.005459	2.02	121.913171	0.269702
Sb (206.834 nm)	-0.001523 u	ppm	0.001171	76.89	2.525460	-0.001523 u
Se (196.026 nm)	0.000374 u	ppm	0.002007	> 100.00	4.868930	0.000374 u
Si (288.158 nm)	4.662110	ppm	0.015213	0.33	35149.500000	4.662110
Sn (189.925 nm)	-0.001804 u	ppm	0.000712	39.50	2.171690	-0.001804 u
Sr (421.552 nm)	0.043928	ppm	0.000233	0.53	9499.492854	0.043928
Th (288.505 nm)	0.000730 u	ppm	0.001392	> 100.00	28.670400	0.000730 u
Ti (336.122 nm)	-0.000123 u	ppm	0.000041	33.62	-23.802200	-0.000123 u
Tl (190.794 nm)	-0.000246 u	ppm	0.001707	> 100.00	-1.690190	-0.000246 u
U (409.013 nm)	0.018026	ppm	0.004793	26.59	73.069100	0.018026
V (292.401 nm)	0.002862	ppm	0.000318	11.10	31.362000	0.002862
Zn (206.200 nm)	0.006101	ppm	0.001043	17.09	17.389600	0.006101
Zr (343.823 nm)	0.000072	ppm	0.000046	64.14	5.952840	0.000072

Solution Name: 280-190806-A-2-B

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190806-A-2-B	5/15/2024 3:53:31 AM	2:40	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.004742	ppm	0.000007	0.15	8176.618044	0.004742
Ag (328.068 nm)	0.001153	ppm	0.000153	13.23	-4.812660	0.001153
Al (394.401 nm)	0.018377	ppm	0.000817	4.45	646.291000	0.018377
Al H (396.152 nm)	-0.046238 u	ppm	0.000461	1.00	51.941600	-0.046238 u
As (188.980 nm)	0.004130	ppm	0.001763	42.70	1.596290	0.004130
B (249.678 nm)	0.018944	ppm	0.000517	2.73	166.465000	0.018944
Ba (493.408 nm)	0.037314	ppm	0.000543	1.45	5084.550000	0.037314
Be (234.861 nm)	-0.000050 u	ppm	0.000049	98.16	-2.019000	-0.000050 u
Bi (223.061 nm)	-0.000070 u	ppm	0.000312	> 100.00	4.073000	-0.000070 u
Ca (315.887 nm)	38.009382 o	ppm	0.089056	0.23	31848.501388	38.009382 o
Cd (214.439 nm)	0.000359	ppm	0.000008	2.29	5.710130	0.000359
Co (228.615 nm)	-0.000234 u	ppm	0.000388	> 100.00	-9.792250	-0.000234 u
Cr (205.560 nm)	0.044575	ppm	0.000448	1.01	295.531000	0.044575
Cu (324.754 nm)	0.000365	ppm	0.000104	28.46	622.931000	0.000365
Fe (238.204 nm)	0.070016	ppm	0.002310	3.30	246.422591	0.070016
Fe H (259.940 nm)	0.044947 u	ppm	0.002527	5.62	102.257000	0.044947 u
K (766.491 nm)	4.377560	ppm	0.030660	0.70	5654.910000	4.377560
Li (670.783 nm)	0.025839	ppm	0.000991	3.84	1202.800000	0.025839
Mg (279.078 nm)	12.544800	ppm	0.048851	0.39	37381.900000	12.544800
Mn (257.610 nm)	0.003169	ppm	0.000032	1.00	966.298000	0.003169
Mo (202.032 nm)	0.009713	ppm	0.000250	2.57	57.608700	0.009713
Na (589.592 nm)	19.184200	ppm	0.077631	0.40	207864.000000	19.184200
Na H (589.593 nm)	18.572431 u	ppm	0.152862	0.82	148663.506343	18.572431 u
Ni (231.604 nm)	0.010478	ppm	0.000524	5.00	47.175900	0.010478
P (213.618 nm)	0.025409	ppm	0.000439	1.73	23.656700	0.025409
Pb (220.353 nm)	-0.002035 u	ppm	0.000979	48.12	-2.060020	-0.002035 u
S (181.972 nm)	7.912926	ppm	0.049456	0.63	3086.402986	7.912926
Sb (206.834 nm)	-0.000725 u	ppm	0.001115	> 100.00	3.864930	-0.000725 u
Se (196.026 nm)	-0.001071 u	ppm	0.003576	> 100.00	4.545860	-0.001071 u
Si (288.158 nm)	20.218700 o	ppm	0.060542	0.30	150072.000000	20.218700 o
Sn (189.925 nm)	-0.002766 u	ppm	0.001398	50.53	1.492990	-0.002766 u
Sr (421.552 nm)	0.177582	ppm	0.001852	1.04	38288.419066	0.177582
Th (288.505 nm)	0.000966 u	ppm	0.001625	> 100.00	27.706500	0.000966 u
Ti (336.122 nm)	0.000047 u	ppm	0.000090	> 100.00	-10.697900	0.000047 u
Tl (190.794 nm)	0.001009 u	ppm	0.001537	> 100.00	-0.533781	0.001009 u
U (409.013 nm)	0.016333	ppm	0.003471	21.25	66.737200	0.016333
V (292.401 nm)	0.026649	ppm	0.000175	0.66	767.818000	0.026649
Zn (206.200 nm)	0.001897	ppm	0.000759	40.00	7.591750	0.001897
Zr (343.823 nm)	-0.000069 u	ppm	0.000137	> 100.00	-4.709790	-0.000069 u

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/15/2024 3:57:49 AM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001086	ppm	0.000013	1.22	144.969984	0.001086
Ag (328.068 nm)	0.000319	ppm	0.000218	68.28	76.031400	0.000319
Al (394.401 nm)	50.031100 o	ppm	0.265417	0.53	659221.000000	50.031100 o
Al H (396.152 nm)	48.744700	ppm	0.066896	0.14	222186.000000	48.744700
As (188.980 nm)	0.000561 u	ppm	0.001875	> 100.00	-0.861238	0.000561 u
B (249.678 nm)	-0.001690 u	ppm	0.000419	24.79	8.591420	-0.001690 u
Ba (493.408 nm)	0.000288	ppm	0.000132	45.92	124.325000	0.000288
Be (234.861 nm)	0.000109	ppm	0.000049	45.31	328.499000	0.000109
Bi (223.061 nm)	0.000728 u	ppm	0.000916	> 100.00	6.021710	0.000728 u
Ca (315.887 nm)	-0.010560 u	ppm	0.002147	20.33	-23.700240	-0.010560 u
Cd (214.439 nm)	-0.000205 u	ppm	0.000050	24.57	8.926960	-0.000205 u
Co (228.615 nm)	-0.000067 u	ppm	0.000199	> 100.00	-7.626960	-0.000067 u
Cr (205.560 nm)	0.000349	ppm	0.000204	58.57	11.238200	0.000349
Cu (324.754 nm)	-0.003956 u	ppm	0.000202	5.12	1390.810000	-0.003956 u
Fe (238.204 nm)	49.984244 o	ppm	0.087568	0.18	160855.286409	49.984244 o
Fe H (259.940 nm)	49.770700	ppm	0.096352	0.19	67760.700000	49.770700
K (766.491 nm)	-0.008725 u	ppm	0.018192	> 100.00	19.015000	-0.008725 u
Li (670.783 nm)	0.020043	ppm	0.002447	12.21	1096.750000	0.020043
Mg (279.078 nm)	0.014459	ppm	0.000093	0.64	-120.929000	0.014459
Mn (257.610 nm)	-0.000756 u	ppm	0.000024	3.14	-180.303000	-0.000756 u
Mo (202.032 nm)	-0.000548 u	ppm	0.000199	36.31	2.391890	-0.000548 u
Na (589.592 nm)	235.209000 o	ppm	1.008810	0.43	2515270.000000	235.209000 o
Na H (589.593 nm)	235.200214	ppm	1.515685	0.64	1809650.855707	235.200214
Ni (231.604 nm)	0.000157 u	ppm	0.000424	> 100.00	-1.572700	0.000157 u
P (213.618 nm)	5.007850	ppm	0.013440	0.27	6166.730000	5.007850
Pb (220.353 nm)	-0.002641 u	ppm	0.002208	83.61	-4.789900	-0.002641 u
S (181.972 nm)	5.011770	ppm	0.026659	0.53	1963.678662	5.011770
Sb (206.834 nm)	-0.000096 u	ppm	0.003752	> 100.00	8.676380	-0.000096 u
Se (196.026 nm)	0.001062 u	ppm	0.003201	> 100.00	0.290529	0.001062 u
Si (288.158 nm)	0.009429	ppm	0.005349	56.73	780.171000	0.009429
Sn (189.925 nm)	0.000988 u	ppm	0.002385	> 100.00	4.140600	0.000988 u
Sr (421.552 nm)	0.000131	ppm	0.000029	22.32	65.641524	0.000131
Th (288.505 nm)	4.771480	ppm	0.016375	0.34	10666.600000	4.771480
Ti (336.122 nm)	0.000809	ppm	0.000064	7.96	-10.644500	0.000809
Tl (190.794 nm)	-0.007666 u	ppm	0.001704	22.23	-9.423720	-0.007666 u
U (409.013 nm)	2.469130 Q	ppm	0.013179	0.53	9377.370000 Q	2.469130 Q
V (292.401 nm)	0.000963	ppm	0.000097	10.09	181.346000	0.000963
Zn (206.200 nm)	0.002023	ppm	0.000439	21.67	7.886200	0.002023
Zr (343.823 nm)	-0.000404 u	ppm	0.000020	4.84	33.602400	-0.000404 u

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/15/2024 4:02:19 AM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.451033	ppm	0.000699	0.15	988592.129057	0.451033
Ag (328.068 nm)	0.488847	ppm	0.000850	0.17	17586.100000	0.488847
Al (394.401 nm)	0.489410	ppm	0.002967	0.61	6835.910000	0.489410
Al H (396.152 nm)	0.469542 u	ppm	0.002798	0.60	2400.170000	0.469542 u
As (188.980 nm)	0.463046	ppm	0.004576	0.99	266.028000	0.463046
B (249.678 nm)	0.495695	ppm	0.001269	0.26	3814.150000	0.495695
Ba (493.408 nm)	0.493541	ppm	0.000846	0.17	67963.800000	0.493541
Be (234.861 nm)	0.498966	ppm	0.006951	1.39	50142.400000	0.498966
Bi (223.061 nm)	0.989400	ppm	0.001322	0.13	2420.100000	0.989400
Ca (315.887 nm)	4.849423	ppm	0.008806	0.18	4050.433928	4.849423
Cd (214.439 nm)	0.497281	ppm	0.001950	0.39	12699.300000	0.497281
Co (228.615 nm)	0.496620	ppm	0.000745	0.15	6494.500000	0.496620
Cr (205.560 nm)	0.482360	ppm	0.001474	0.31	3107.270000	0.482360
Cu (324.754 nm)	0.494777	ppm	0.002025	0.41	24105.100000	0.494777
Fe (238.204 nm)	2.502231	ppm	0.005791	0.23	8077.602624	2.502231
Fe H (259.940 nm)	2.477220 u	ppm	0.006994	0.28	3411.680000	2.477220 u
K (766.491 nm)	48.075500	ppm	0.052208	0.11	61802.000000	48.075500
Li (670.783 nm)	0.487095	ppm	0.001643	0.34	15329.000000	0.487095
Mg (279.078 nm)	19.225400	ppm	0.078190	0.41	57330.600000	19.225400
Mn (257.610 nm)	0.489831	ppm	0.001046	0.21	143148.000000	0.489831
Mo (202.032 nm)	0.496647	ppm	0.001001	0.20	2677.720000	0.496647
Na (589.592 nm)	24.166700	ppm	0.034396	0.14	264379.000000	24.166700
Na H (589.593 nm)	23.713599 u	ppm	0.148774	0.63	189959.412133	23.713599 u
Ni (231.604 nm)	0.491950	ppm	0.001808	0.37	2321.770000	0.491950
P (213.618 nm)	-0.013500 u	ppm	0.003507	25.98	-65.716000	-0.013500 u
Pb (220.353 nm)	0.460152	ppm	0.002100	0.46	981.530000	0.460152
S (181.972 nm)	-0.039522 u	ppm	0.001468	3.71	11.122208	-0.039522 u
Sb (206.834 nm)	0.491631	ppm	0.000799	0.16	708.476000	0.491631
Se (196.026 nm)	0.482044	ppm	0.004498	0.93	273.554000	0.482044
Si (288.158 nm)	4.968790	ppm	0.063382	1.28	37857.400000	4.968790
Sn (189.925 nm)	0.499329	ppm	0.002473	0.50	355.606000	0.499329
Sr (421.552 nm)	0.493485	ppm	0.001142	0.23	106333.154319	0.493485
Th (288.505 nm)	0.007452	ppm	0.000831	11.15	30.096200	0.007452
Ti (336.122 nm)	0.484570	ppm	0.000138	0.03	65845.200000	0.484570
Tl (190.794 nm)	0.501648	ppm	0.002489	0.50	467.457000	0.501648
U (409.013 nm)	0.004828	ppm	0.000232	4.81	12.744900	0.004828
V (292.401 nm)	0.476095	ppm	0.000606	0.13	14770.400000	0.476095
Zn (206.200 nm)	0.490017	ppm	0.004196	0.86	1145.080000	0.490017
Zr (343.823 nm)	0.485803	ppm	0.000160	0.03	36972.500000	0.485803

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/15/2024 4:06:43 AM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000588	ppm	0.000009	1.46	-947.812152	0.000588
Ag (328.068 nm)	0.000238	ppm	0.000178	74.96	-24.275900	0.000238
Al (394.401 nm)	-0.004034 u	ppm	0.001148	28.47	330.180000	-0.004034 u
Al H (396.152 nm)	-0.053278 u	ppm	0.005225	9.81	19.891500	-0.053278 u
As (188.980 nm)	-0.000003 u	ppm	0.002205	> 100.00	-0.873278	-0.000003 u
B (249.678 nm)	0.000563	ppm	0.000517	91.92	25.827500	0.000563
Ba (493.408 nm)	-0.000014 u	ppm	0.000096	> 100.00	-46.234200	-0.000014 u
Be (234.861 nm)	0.000009 u	ppm	0.000048	> 100.00	1.089080	0.000009 u
Bi (223.061 nm)	0.000102 u	ppm	0.001306	> 100.00	4.491780	0.000102 u
Ca (315.887 nm)	0.015967	ppm	0.006938	43.45	-1.462958	0.015967
Cd (214.439 nm)	0.000040 u	ppm	0.000078	> 100.00	-2.439520	0.000040 u
Co (228.615 nm)	-0.000002 u	ppm	0.000069	> 100.00	-6.770680	-0.000002 u
Cr (205.560 nm)	-0.000067 u	ppm	0.000440	> 100.00	8.564330	-0.000067 u
Cu (324.754 nm)	0.000508	ppm	0.000128	25.26	642.761000	0.000508
Fe (238.204 nm)	0.003683	ppm	0.001070	29.06	32.979586	0.003683
Fe H (259.940 nm)	-0.016148 u	ppm	0.001609	9.96	19.128700	-0.016148 u
K (766.491 nm)	0.014955 u	ppm	0.074807	> 100.00	49.442100	0.014955 u
Li (670.783 nm)	0.021115 S	ppm	0.002580	12.22	1042.850000 S	0.021115 S
Mg (279.078 nm)	0.002203	ppm	0.001360	61.75	10.690900	0.002203
Mn (257.610 nm)	0.000034	ppm	0.000015	44.36	50.384100	0.000034
Mo (202.032 nm)	-0.000063 u	ppm	0.000334	> 100.00	5.005980	-0.000063 u
Na (589.592 nm)	0.161004	ppm	0.011981	7.44	4382.390000	0.161004
Na H (589.593 nm)	-0.382846 u	ppm	0.012772	3.34	3158.528285	-0.382846 u
Ni (231.604 nm)	0.000616	ppm	0.000178	28.96	0.596599	0.000616
P (213.618 nm)	0.000343 u	ppm	0.003323	> 100.00	-6.966700	0.000343 u
Pb (220.353 nm)	-0.000984 u	ppm	0.001527	> 100.00	0.176891	-0.000984 u
S (181.972 nm)	-0.012951 u	ppm	0.002256	17.42	11.847220	-0.012951 u
Sb (206.834 nm)	0.000247 u	ppm	0.001989	> 100.00	5.056330	0.000247 u
Se (196.026 nm)	-0.000388 u	ppm	0.002218	> 100.00	4.300510	-0.000388 u
Si (288.158 nm)	-0.007317 u	ppm	0.001923	26.28	654.368000	-0.007317 u
Sn (189.925 nm)	-0.001742 u	ppm	0.000592	34.01	2.215240	-0.001742 u
Sr (421.552 nm)	0.000015 u	ppm	0.000026	> 100.00	40.813141	0.000015 u
Th (288.505 nm)	0.005183	ppm	0.001090	21.04	38.132700	0.005183
Ti (336.122 nm)	0.000087	ppm	0.000025	29.11	-109.013000	0.000087
Tl (190.794 nm)	0.001280 u	ppm	0.001164	90.98	-0.258630	0.001280 u
U (409.013 nm)	0.000077 u	ppm	0.002426	> 100.00	5.653080	0.000077 u
V (292.401 nm)	-0.000024 u	ppm	0.000037	> 100.00	-60.835300	-0.000024 u
Zn (206.200 nm)	0.000368	ppm	0.000288	78.17	4.028460	0.000368
Zr (343.823 nm)	-0.000082 u	ppm	0.000066	80.30	-5.841690	-0.000082 u

Solution Name: 280-190871-A-2-B

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190871-A-2-B	5/15/2024 4:10:44 AM	2:41	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.007961	ppm	0.000009	0.11	15246.872561	0.007961
Ag (328.068 nm)	0.001320	ppm	0.000224	16.99	6.142060	0.001320
Al (394.401 nm)	0.017670	ppm	0.001384	7.83	658.754000	0.017670
Al H (396.152 nm)	-0.062781 u	ppm	0.000512	0.81	-23.375400	-0.062781 u
As (188.980 nm)	0.007996	ppm	0.001722	21.54	3.924490	0.007996
B (249.678 nm)	0.024521	ppm	0.000351	1.43	209.136000	0.024521
Ba (493.408 nm)	0.039233	ppm	0.000378	0.96	5348.220000	0.039233
Be (234.861 nm)	-0.000048 u	ppm	0.000036	74.21	0.188890	-0.000048 u
Bi (223.061 nm)	0.000742	ppm	0.000696	93.76	6.055620	0.000742
Ca (315.887 nm)	81.175307 o	ppm	0.186937	0.23	68034.592681	81.175307 o
Cd (214.439 nm)	0.000277	ppm	0.000182	65.85	3.606700	0.000277
Co (228.615 nm)	-0.000158 u	ppm	0.000151	95.22	-8.827780	-0.000158 u
Cr (205.560 nm)	0.002468	ppm	0.000414	16.77	24.795200	0.002468
Cu (324.754 nm)	-0.000401 u	ppm	0.000101	25.12	571.782000	-0.000401 u
Fe (238.204 nm)	0.045637	ppm	0.001260	2.76	167.976311	0.045637
Fe H (259.940 nm)	0.018798 u	ppm	0.003448	18.34	66.677600	0.018798 u
K (766.491 nm)	9.278740	ppm	0.067661	0.73	11952.400000	9.278740
Li (670.783 nm)	0.028574	ppm	0.000868	3.04	1301.570000	0.028574
Mg (279.078 nm)	23.019200	ppm	0.083135	0.36	68592.700000	23.019200
Mn (257.610 nm)	0.001218	ppm	0.000028	2.32	396.398000	0.001218
Mo (202.032 nm)	0.013750	ppm	0.000410	2.98	79.328900	0.013750
Na (589.592 nm)	34.775000	ppm	0.127612	0.37	374425.000000	34.775000
Na H (589.593 nm)	34.247230 u	ppm	0.232641	0.68	268868.150529	34.247230 u
Ni (231.604 nm)	-0.001492 u	ppm	0.000184	12.35	-9.362210	-0.001492 u
P (213.618 nm)	0.015737	ppm	0.003579	22.74	11.609700	0.015737
Pb (220.353 nm)	-0.001557 u	ppm	0.000871	55.94	-1.039500	-0.001557 u
S (181.972 nm)	52.660277 o	ppm	0.121714	0.23	20442.778535	52.660277 o
Sb (206.834 nm)	-0.001814 u	ppm	0.000950	52.40	2.041260	-0.001814 u
Se (196.026 nm)	0.010050	ppm	0.003033	30.18	10.719300	0.010050
Si (288.158 nm)	19.275800 o	ppm	0.081789	0.42	143110.000000	19.275800 o
Sn (189.925 nm)	0.000564 u	ppm	0.004301	> 100.00	3.841180	0.000564 u
Sr (421.552 nm)	0.417699	ppm	0.002189	0.52	90009.073345	0.417699
Th (288.505 nm)	-0.000733 u	ppm	0.000954	> 100.00	24.692200	-0.000733 u
Ti (336.122 nm)	-0.000385 u	ppm	0.000021	5.44	48.063200	-0.000385 u
Tl (190.794 nm)	-0.000479 u	ppm	0.001194	> 100.00	-1.936180	-0.000479 u
U (409.013 nm)	0.022361	ppm	0.001899	8.49	89.325200	0.022361
V (292.401 nm)	0.017332	ppm	0.000183	1.06	487.360000	0.017332
Zn (206.200 nm)	0.005200	ppm	0.000469	9.02	15.288100	0.005200
Zr (343.823 nm)	0.000123	ppm	0.000053	43.27	9.837930	0.000123

Solution Name: 280-190871-A-4-B

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190871-A-4-B	5/15/2024 4:15:02 AM	2:42	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.006273	ppm	0.000007	0.12	11539.103471	0.006273
Ag (328.068 nm)	0.001118	ppm	0.000095	8.51	-2.546980	0.001118
Al (394.401 nm)	0.007925	ppm	0.001899	23.96	503.329000	0.007925
Al H (396.152 nm)	-0.056148 u	ppm	0.001542	2.75	6.822800	-0.056148 u
As (188.980 nm)	0.006703	ppm	0.003157	47.09	3.057160	0.006703
B (249.678 nm)	0.011470	ppm	0.000227	1.98	109.285000	0.011470
Ba (493.408 nm)	0.033250	ppm	0.000402	1.21	4526.030000	0.033250
Be (234.861 nm)	-0.000054 u	ppm	0.000013	24.52	-2.435460	-0.000054 u
Bi (223.061 nm)	-0.000349 u	ppm	0.000359	> 100.00	3.390050	-0.000349 u
Ca (315.887 nm)	28.289347 o	ppm	0.076079	0.27	23700.174814	28.289347 o
Cd (214.439 nm)	0.000170	ppm	0.000091	53.44	0.888710	0.000170
Co (228.615 nm)	-0.000273 u	ppm	0.000236	86.44	-10.317400	-0.000273 u
Cr (205.560 nm)	0.010676	ppm	0.000420	3.93	77.608500	0.010676
Cu (324.754 nm)	0.000468	ppm	0.000053	11.28	631.164000	0.000468
Fe (238.204 nm)	0.096103	ppm	0.001586	1.65	330.357909	0.096103
Fe H (259.940 nm)	0.072025 u	ppm	0.002266	3.15	139.100000	0.072025 u
K (766.491 nm)	4.252930	ppm	0.076066	1.79	5494.780000	4.252930
Li (670.783 nm)	0.025797	ppm	0.001604	6.22	1199.900000	0.025797
Mg (279.078 nm)	11.343300	ppm	0.031948	0.28	33802.500000	11.343300
Mn (257.610 nm)	0.000976	ppm	0.000024	2.47	325.588000	0.000976
Mo (202.032 nm)	0.005841	ppm	0.000090	1.54	36.771500	0.005841
Na (589.592 nm)	20.677800	ppm	0.008237	0.04	223790.000000	20.677800
Na H (589.593 nm)	20.087859 u	ppm	0.248163	1.24	160267.310874	20.087859 u
Ni (231.604 nm)	0.000076 u	ppm	0.000449	> 100.00	-1.952530	0.000076 u
P (213.618 nm)	0.084033	ppm	0.000964	1.15	96.043400	0.084033
Pb (220.353 nm)	-0.002110 u	ppm	0.000485	22.96	-2.216740	-0.002110 u
S (181.972 nm)	11.195674 o	ppm	0.062479	0.56	4359.583693	11.195674 o
Sb (206.834 nm)	-0.000964 u	ppm	0.002020	> 100.00	3.353750	-0.000964 u
Se (196.026 nm)	0.004279	ppm	0.002574	60.14	7.405820	0.004279
Si (288.158 nm)	16.379400 o	ppm	0.026350	0.16	121711.000000	16.379400 o
Sn (189.925 nm)	-0.001448 u	ppm	0.000767	53.00	2.422780	-0.001448 u
Sr (421.552 nm)	0.227161	ppm	0.001228	0.54	48967.590242	0.227161
Th (288.505 nm)	0.000169 u	ppm	0.002266	> 100.00	26.249300	0.000169 u
Ti (336.122 nm)	-0.000143 u	ppm	0.000023	16.48	-63.186400	-0.000143 u
Tl (190.794 nm)	-0.001822 u	ppm	0.002487	> 100.00	-3.178220	-0.001822 u
U (409.013 nm)	0.014899	ppm	0.001036	6.96	61.369700	0.014899
V (292.401 nm)	0.019828	ppm	0.000160	0.81	561.015000	0.019828
Zn (206.200 nm)	0.001402	ppm	0.001002	71.43	6.438600	0.001402
Zr (343.823 nm)	0.000024 u	ppm	0.000119	> 100.00	2.343030	0.000024 u

Solution Name: 280-190703-C-1-B

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190703-C-1-B	5/15/2024 4:19:19 AM	2:43	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.009451	ppm	0.000048	0.51	18520.049653	0.009451
Ag (328.068 nm)	0.001421	ppm	0.000083	5.82	17.707700	0.001421
Al (394.401 nm)	0.014936	ppm	0.001130	7.57	643.028000	0.014936
Al H (396.152 nm)	-0.076312 u	ppm	0.001923	2.52	-84.975900	-0.076312 u
As (188.980 nm)	0.004294	ppm	0.001776	41.37	1.877590	0.004294
B (249.678 nm)	0.397854	ppm	0.001987	0.50	3065.550000	0.397854
Ba (493.408 nm)	0.301790	ppm	0.000642	0.21	41446.500000	0.301790
Be (234.861 nm)	-0.000018 u	ppm	0.000016	87.33	33.768200	-0.000018 u
Bi (223.061 nm)	-0.000235 u	ppm	0.000268	> 100.00	3.670160	-0.000235 u
Ca (315.887 nm)	130.157490 o	ppm	0.163311	0.13	109096.465372	130.157490 o
Cd (214.439 nm)	0.000183	ppm	0.000063	34.22	2.738980	0.000183
Co (228.615 nm)	0.002248	ppm	0.000056	2.48	22.623000	0.002248
Cr (205.560 nm)	0.000728	ppm	0.000372	51.02	13.657100	0.000728
Cu (324.754 nm)	-0.000356 u	ppm	0.000119	33.27	564.435000	-0.000356 u
Fe (238.204 nm)	4.237839	ppm	0.003224	0.08	13657.210346	4.237839
Fe H (259.940 nm)	4.195470 u	ppm	0.006925	0.17	5749.590000	4.195470 u
K (766.491 nm)	14.422300	ppm	0.084510	0.59	18561.300000	14.422300
Li (670.783 nm)	0.029341	ppm	0.001855	6.32	1360.350000	0.029341
Mg (279.078 nm)	42.501900	ppm	0.041097	0.10	126639.000000	42.501900
Mn (257.610 nm)	0.551755	ppm	0.000299	0.05	161239.000000	0.551755
Mo (202.032 nm)	0.000511 u	ppm	0.000798	> 100.00	8.094650	0.000511 u
Na (589.592 nm)	102.322000 o	ppm	0.302938	0.30	1097880.000000	102.322000 o
Na H (589.593 nm)	102.159358	ppm	0.759091	0.74	790703.120141	102.159358
Ni (231.604 nm)	0.009425	ppm	0.000479	5.08	42.203000	0.009425
P (213.618 nm)	0.872226	ppm	0.008560	0.98	1068.110000	0.872226
Pb (220.353 nm)	-0.000405 u	ppm	0.000788	> 100.00	1.426920	-0.000405 u
S (181.972 nm)	29.557525 o	ppm	0.143584	0.49	11483.882750	29.557525 o
Sb (206.834 nm)	-0.002822 u	ppm	0.001204	42.67	1.003460	-0.002822 u
Se (196.026 nm)	0.000981 u	ppm	0.001228	> 100.00	5.232140	0.000981 u
Si (288.158 nm)	7.707890	ppm	0.045647	0.59	57649.900000	7.707890
Sn (189.925 nm)	-0.002135 u	ppm	0.001921	89.99	1.938020	-0.002135 u
Sr (421.552 nm)	0.290001	ppm	0.000461	0.16	62503.250981	0.290001
Th (288.505 nm)	-0.004126 u	ppm	0.000164	3.98	31.584200	-0.004126 u
Ti (336.122 nm)	-0.000234 u	ppm	0.000080	34.02	202.285000	-0.000234 u
Tl (190.794 nm)	0.000897 u	ppm	0.001517	> 100.00	-0.681334	0.000897 u
U (409.013 nm)	0.017587	ppm	0.002824	16.06	74.996400	0.017587
V (292.401 nm)	0.002716	ppm	0.000225	8.27	33.011300	0.002716
Zn (206.200 nm)	0.004211	ppm	0.001190	28.26	12.985000	0.004211
Zr (343.823 nm)	0.000510	ppm	0.000092	18.05	44.645200	0.000510

Solution Name: MB 280-652735/1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
MB 280-652735/1-A	5/15/2024 4:23:45 AM	2:44	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000556	ppm	0.000018	3.28	-1018.314636	0.000556
Ag (328.068 nm)	0.000298	ppm	0.000100	33.39	-21.898700	0.000298
Al (394.401 nm)	-0.003574 u	ppm	0.001257	35.15	335.053000	-0.003574 u
Al H (396.152 nm)	-0.051282 u	ppm	0.001820	3.55	28.979500	-0.051282 u
As (188.980 nm)	0.001311 u	ppm	0.003059	> 100.00	-0.115468	0.001311 u
B (249.678 nm)	0.000405 u	ppm	0.000558	> 100.00	24.620200	0.000405 u
Ba (493.408 nm)	0.000160	ppm	0.000157	98.51	-22.350900	0.000160
Be (234.861 nm)	-0.000027 u	ppm	0.000013	49.21	-2.578480	-0.000027 u
Bi (223.061 nm)	-0.000767 u	ppm	0.000145	18.85	2.370450	-0.000767 u
Ca (315.887 nm)	0.020833	ppm	0.007628	36.61	2.616248	0.020833
Cd (214.439 nm)	-0.000023 u	ppm	0.000130	> 100.00	-4.067790	-0.000023 u
Co (228.615 nm)	0.000005 u	ppm	0.000176	> 100.00	-6.694550	0.000005 u
Cr (205.560 nm)	0.000094 u	ppm	0.000152	> 100.00	9.596230	0.000094 u
Cu (324.754 nm)	0.000579	ppm	0.000131	22.69	646.558000	0.000579
Fe (238.204 nm)	0.003740	ppm	0.001373	36.71	33.160795	0.003740
Fe H (259.940 nm)	-0.016504 u	ppm	0.002185	13.24	18.644600	-0.016504 u
K (766.491 nm)	-0.048321 u	ppm	0.009659	19.99	-31.860600	-0.048321 u
Li (670.783 nm)	0.021571	ppm	0.001303	6.04	1056.800000	0.021571
Mg (279.078 nm)	0.004905	ppm	0.005569	> 100.00	18.714800	0.004905
Mn (257.610 nm)	0.000066	ppm	0.000080	> 100.00	59.684100	0.000066
Mo (202.032 nm)	-0.000333 u	ppm	0.000212	63.86	3.553140	-0.000333 u
Na (589.592 nm)	0.110517	ppm	0.008443	7.64	3843.470000	0.110517
Na H (589.593 nm)	-0.442244 u	ppm	0.007400	1.67	2703.280554	-0.442244 u
Ni (231.604 nm)	0.000214 u	ppm	0.000469	> 100.00	-1.304510	0.000214 u
P (213.618 nm)	-0.000351 u	ppm	0.001327	> 100.00	-7.819020	-0.000351 u
Pb (220.353 nm)	0.000496 u	ppm	0.000685	> 100.00	3.324460	0.000496 u
S (181.972 nm)	-0.010171 u	ppm	0.008394	82.53	12.928218	-0.010171 u
Sb (206.834 nm)	-0.000915 u	ppm	0.001664	> 100.00	3.392660	-0.000915 u
Se (196.026 nm)	-0.002028 u	ppm	0.003652	> 100.00	3.385470	-0.002028 u
Si (288.158 nm)	-0.008979 u	ppm	0.001358	15.12	642.024000	-0.008979 u
Sn (189.925 nm)	-0.001828 u	ppm	0.001691	92.51	2.154400	-0.001828 u
Sr (421.552 nm)	0.000028	ppm	0.000021	76.94	43.529771	0.000028
Th (288.505 nm)	0.003061	ppm	0.001893	61.83	33.394200	0.003061
Ti (336.122 nm)	-0.000027 u	ppm	0.000064	> 100.00	-124.439000	-0.000027 u
Tl (190.794 nm)	-0.000680 u	ppm	0.002100	> 100.00	-2.094210	-0.000680 u
U (409.013 nm)	-0.001484 u	ppm	0.002607	> 100.00	-0.191919	-0.001484 u
V (292.401 nm)	-0.000014 u	ppm	0.000188	> 100.00	-60.325300	-0.000014 u
Zn (206.200 nm)	-0.000163 u	ppm	0.000314	> 100.00	2.791040	-0.000163 u
Zr (343.823 nm)	-0.000179 u	ppm	0.000070	39.23	-13.224600	-0.000179 u

Solution Name: LCS 280-652735/2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LCS 280-652735/2-A	5/15/2024 4:27:48 AM	2:45	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.956960	ppm	0.000638	0.07	2100003.412179	0.956960
Ag (328.068 nm)	0.048709	ppm	0.000085	0.17	1437.050000	0.048709
Al (394.401 nm)	9.907120 o	ppm	0.018691	0.19	131043.000000	9.907120 o
Al H (396.152 nm)	9.882020	ppm	0.020754	0.21	45253.000000	9.882020
As (188.980 nm)	0.956568	ppm	0.000728	0.08	550.553000	0.956568
B (249.678 nm)	2.041560	ppm	0.003380	0.17	15641.700000	2.041560
Ba (493.408 nm)	0.992283	ppm	0.001744	0.18	136701.000000	0.992283
Be (234.861 nm)	1.004040	ppm	0.006141	0.61	100933.000000	1.004040
Bi (223.061 nm)	-0.002167 u	ppm	0.001554	71.72	-1.048120	-0.002167 u
Ca (315.887 nm)	49.041956 o	ppm	0.101802	0.21	41097.133112	49.041956 o
Cd (214.439 nm)	0.989891	ppm	0.001907	0.19	25284.100000	0.989891
Co (228.615 nm)	0.969661	ppm	0.002224	0.23	12687.800000	0.969661
Cr (205.560 nm)	0.956323	ppm	0.002170	0.23	6151.530000	0.956323
Cu (324.754 nm)	0.979835	ppm	0.003468	0.35	47120.200000	0.979835
Fe (238.204 nm)	10.083597 o	ppm	0.036184	0.36	32477.148625	10.083597 o
Fe H (259.940 nm)	10.034100	ppm	0.013905	0.14	13693.800000	10.034100
K (766.491 nm)	48.860300	ppm	0.084284	0.17	62810.400000	48.860300
Li (670.783 nm)	0.955090	ppm	0.001724	0.18	29685.400000	0.955090
Mg (279.078 nm)	49.213900 o	ppm	0.086823	0.18	146674.000000	49.213900 o
Mn (257.610 nm)	0.977107	ppm	0.001661	0.17	285509.000000	0.977107
Mo (202.032 nm)	1.009020	ppm	0.001701	0.17	5434.710000	1.009020
Na (589.592 nm)	48.264300	ppm	0.035146	0.07	525400.000000	48.264300
Na H (589.593 nm)	47.953295 u	ppm	0.390713	0.81	377882.537932	47.953295 u
Ni (231.604 nm)	0.947227	ppm	0.004425	0.47	4472.650000	0.947227
P (213.618 nm)	20.770300 o	ppm	0.054132	0.26	25520.400000	20.770300 o
Pb (220.353 nm)	0.914425	ppm	0.002397	0.26	1947.290000	0.914425
S (181.972 nm)	19.884726 o	ppm	0.093928	0.47	7747.071487	19.884726 o
Sb (206.834 nm)	0.988628	ppm	0.007334	0.74	1420.230000	0.988628
Se (196.026 nm)	0.966400	ppm	0.003767	0.39	543.379000	0.966400
Si (288.158 nm)	9.666110	ppm	0.028314	0.29	72995.700000	9.666110
Sn (189.925 nm)	0.993922	ppm	0.003081	0.31	704.428000	0.993922
Sr (421.552 nm)	0.991123	ppm	0.002042	0.21	213523.320057	0.991123
Th (288.505 nm)	0.000212 u	ppm	0.000934	> 100.00	0.339113	0.000212 u
Ti (336.122 nm)	0.974092	ppm	0.002373	0.24	132592.000000	0.974092
Tl (190.794 nm)	1.000940	ppm	0.001007	0.10	934.003000	1.000940
U (409.013 nm)	0.011499	ppm	0.002229	19.38	31.040800	0.011499
V (292.401 nm)	0.966029	ppm	0.001074	0.11	30037.700000	0.966029
Zn (206.200 nm)	0.974357	ppm	0.005188	0.53	2273.760000	0.974357
Zr (343.823 nm)	0.976332	ppm	0.002454	0.25	74310.600000	0.976332

Solution Name: 280-191214-B-1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191214-B-1-A	5/15/2024 4:32:12 AM	2:46	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.005943	ppm	0.000022	0.38	10814.897776	0.005943
Ag (328.068 nm)	0.001087	ppm	0.000214	19.71	-0.167995	0.001087
Al (394.401 nm)	0.013942	ppm	0.001319	9.46	584.333000	0.013942
Al H (396.152 nm)	-0.053438 u	ppm	0.000724	1.36	19.160700	-0.053438 u
As (188.980 nm)	0.002897 u	ppm	0.004177	> 100.00	0.873672	0.002897 u
B (249.678 nm)	0.147747	ppm	0.000586	0.40	1151.950000	0.147747
Ba (493.408 nm)	0.009830	ppm	0.000080	0.81	1306.880000	0.009830
Be (234.861 nm)	0.000017 u	ppm	0.000032	> 100.00	3.470920	0.000017 u
Bi (223.061 nm)	0.000210 u	ppm	0.000897	> 100.00	4.755690	0.000210 u
Ca (315.887 nm)	32.724462 o	ppm	0.113997	0.35	27418.141775	32.724462 o
Cd (214.439 nm)	0.000305	ppm	0.000136	44.48	4.328020	0.000305
Co (228.615 nm)	-0.000352 u	ppm	0.000343	97.44	-11.354600	-0.000352 u
Cr (205.560 nm)	0.000901	ppm	0.000876	97.23	14.777000	0.000901
Cu (324.754 nm)	0.005235	ppm	0.000086	1.64	855.854000	0.005235
Fe (238.204 nm)	0.013349	ppm	0.000987	7.39	64.081401	0.013349
Fe H (259.940 nm)	-0.009359 u	ppm	0.001714	18.32	28.366900	-0.009359 u
K (766.491 nm)	14.145300	ppm	0.033928	0.24	18205.300000	14.145300
Li (670.783 nm)	0.026989	ppm	0.001088	4.03	1248.200000	0.026989
Mg (279.078 nm)	7.636160	ppm	0.031635	0.41	22768.100000	7.636160
Mn (257.610 nm)	0.000739	ppm	0.000023	3.09	256.362000	0.000739
Mo (202.032 nm)	0.001926	ppm	0.000510	26.49	15.704800	0.001926
Na (589.592 nm)	49.924300	ppm	0.293514	0.59	536045.000000	49.924300
Na H (589.593 nm)	49.477332 u	ppm	0.384332	0.78	385535.116320	49.477332 u
Ni (231.604 nm)	0.000634	ppm	0.000475	75.00	0.683159	0.000634
P (213.618 nm)	3.636190	ppm	0.015512	0.43	4475.930000	3.636190
Pb (220.353 nm)	-0.001338 u	ppm	0.001617	> 100.00	-0.570227	-0.001338 u
S (181.972 nm)	21.858687 o	ppm	0.119095	0.54	8495.421185	21.858687 o
Sb (206.834 nm)	-0.002270 u	ppm	0.002267	99.85	1.438530	-0.002270 u
Se (196.026 nm)	-0.001832 u	ppm	0.002653	> 100.00	4.039210	-0.001832 u
Si (288.158 nm)	17.459800 o	ppm	0.053592	0.31	129693.000000	17.459800 o
Sn (189.925 nm)	-0.000386 u	ppm	0.002190	> 100.00	3.171410	-0.000386 u
Sr (421.552 nm)	0.112845	ppm	0.000774	0.69	24344.148487	0.112845
Th (288.505 nm)	-0.000575 u	ppm	0.001777	> 100.00	24.807200	-0.000575 u
Ti (336.122 nm)	0.000037	ppm	0.000017	46.79	-26.663500	0.000037
Tl (190.794 nm)	0.003458	ppm	0.000840	24.31	1.776880	0.003458
U (409.013 nm)	0.012016	ppm	0.004261	35.46	50.446000	0.012016
V (292.401 nm)	0.013384	ppm	0.000176	1.32	361.449000	0.013384
Zn (206.200 nm)	0.041264	ppm	0.000483	1.17	99.329800	0.041264
Zr (343.823 nm)	0.000584	ppm	0.000181	30.89	44.916600	0.000584

Solution Name: 280-191214-B-2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191214-B-2-A	5/15/2024 4:36:23 AM	2:47	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.008881	ppm	0.000057	0.64	17268.329609	0.008881
Ag (328.068 nm)	0.001635	ppm	0.000196	12.01	22.566300	0.001635
Al (394.401 nm)	2.326850	ppm	0.010085	0.43	31135.200000	2.326850
Al H (396.152 nm)	2.255250	ppm	0.001320	0.06	10530.100000	2.255250
As (188.980 nm)	0.006253	ppm	0.002761	44.15	3.039540	0.006253
B (249.678 nm)	0.035518	ppm	0.000308	0.87	293.276000	0.035518
Ba (493.408 nm)	0.075300	ppm	0.000977	1.30	10310.900000	0.075300
Be (234.861 nm)	0.000349	ppm	0.000009	2.50	53.674300	0.000349
Bi (223.061 nm)	0.001176 u	ppm	0.002452	> 100.00	7.113270	0.001176 u
Ca (315.887 nm)	138.434769 o	ppm	0.206883	0.15	116035.326836	138.434769 o
Cd (214.439 nm)	0.000478	ppm	0.000068	14.33	9.476150	0.000478
Co (228.615 nm)	0.000122 u	ppm	0.000153	> 100.00	-3.789000	0.000122 u
Cr (205.560 nm)	0.047104	ppm	0.000601	1.28	311.840000	0.047104
Cu (324.754 nm)	0.022242	ppm	0.000222	1.00	1629.560000	0.022242
Fe (238.204 nm)	2.111897	ppm	0.006703	0.32	6816.576807	2.111897
Fe H (259.940 nm)	2.092940 u	ppm	0.003170	0.15	2888.820000	2.092940 u
K (766.491 nm)	14.577400	ppm	0.030486	0.21	18760.500000	14.577400
Li (670.783 nm)	0.028471	ppm	0.001288	4.52	1312.270000	0.028471
Mg (279.078 nm)	25.369800	ppm	0.089861	0.35	75599.700000	25.369800
Mn (257.610 nm)	0.374489	ppm	0.001027	0.27	109450.000000	0.374489
Mo (202.032 nm)	0.002480	ppm	0.000030	1.20	18.687500	0.002480
Na (589.592 nm)	38.990800	ppm	0.018799	0.05	419720.000000	38.990800
Na H (589.593 nm)	38.816598 u	ppm	0.245167	0.63	304054.571922	38.816598 u
Ni (231.604 nm)	0.002610	ppm	0.000276	10.58	10.013300	0.002610
P (213.618 nm)	0.084374	ppm	0.001584	1.88	95.315500	0.084374
Pb (220.353 nm)	0.001258	ppm	0.001282	> 100.00	4.698760	0.001258
S (181.972 nm)	102.044817 o	ppm	0.447217	0.44	39598.751922	102.044817 o
Sb (206.834 nm)	-0.001841 u	ppm	0.002602	> 100.00	2.327810	-0.001841 u
Se (196.026 nm)	0.001520 u	ppm	0.002420	> 100.00	5.951460	0.001520 u
Si (288.158 nm)	18.024700 o	ppm	0.054848	0.30	133868.000000	18.024700 o
Sn (189.925 nm)	-0.003504 u	ppm	0.000227	6.48	0.972442	-0.003504 u
Sr (421.552 nm)	0.708761	ppm	0.008111	1.14	152703.232141	0.708761
Th (288.505 nm)	-0.002880 u	ppm	0.003446	> 100.00	29.471500	-0.002880 u
Ti (336.122 nm)	0.051192	ppm	0.000009	0.02	7223.380000	0.051192
Tl (190.794 nm)	0.000742 u	ppm	0.002017	> 100.00	-0.871111	0.000742 u
U (409.013 nm)	0.018852	ppm	0.001793	9.51	77.839500	0.018852
V (292.401 nm)	0.008564	ppm	0.000037	0.43	206.755000	0.008564
Zn (206.200 nm)	0.030081	ppm	0.000978	3.25	73.270400	0.030081
Zr (343.823 nm)	0.001616	ppm	0.000105	6.51	126.129000	0.001616

Solution Name: 280-191214-B-3-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191214-B-3-A	5/15/2024 4:40:47 AM	2:48	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.005766	ppm	0.000032	0.55	10424.246964	0.005766
Ag (328.068 nm)	0.001366	ppm	0.000211	15.42	15.280200	0.001366
Al (394.401 nm)	0.015037	ppm	0.000854	5.68	612.455000	0.015037
Al H (396.152 nm)	-0.056805 u	ppm	0.003884	6.84	3.833630	-0.056805 u
As (188.980 nm)	0.006802	ppm	0.000871	12.80	3.180910	0.006802
B (249.678 nm)	0.131388	ppm	0.000726	0.55	1026.790000	0.131388
Ba (493.408 nm)	0.061196	ppm	0.000475	0.78	8367.670000	0.061196
Be (234.861 nm)	-0.000038 u	ppm	0.000015	38.41	0.744218	-0.000038 u
Bi (223.061 nm)	-0.000080 u	ppm	0.000058	72.73	4.048150	-0.000080 u
Ca (315.887 nm)	57.709805 o	ppm	0.082484	0.14	48363.409804	57.709805 o
Cd (214.439 nm)	0.000224	ppm	0.000112	50.08	2.348930	0.000224
Co (228.615 nm)	-0.000382 u	ppm	0.000047	12.18	-11.718900	-0.000382 u
Cr (205.560 nm)	0.035233	ppm	0.000237	0.67	235.432000	0.035233
Cu (324.754 nm)	0.007081	ppm	0.000175	2.47	935.153000	0.007081
Fe (238.204 nm)	0.302709	ppm	0.000479	0.16	995.153671	0.302709
Fe H (259.940 nm)	0.281523 u	ppm	0.001875	0.67	424.150000	0.281523 u
K (766.491 nm)	7.702330	ppm	0.031854	0.41	9926.880000	7.702330
Li (670.783 nm)	0.025749	ppm	0.001637	6.36	1212.890000	0.025749
Mg (279.078 nm)	12.953900	ppm	0.046874	0.36	38604.300000	12.953900
Mn (257.610 nm)	0.005779	ppm	0.000027	0.47	1728.900000	0.005779
Mo (202.032 nm)	0.015816	ppm	0.000302	1.91	90.446100	0.015816
Na (589.592 nm)	42.438600	ppm	0.120391	0.28	456449.000000	42.438600
Na H (589.593 nm)	42.256108 u	ppm	0.298181	0.71	330371.552906	42.256108 u
Ni (231.604 nm)	0.016395	ppm	0.000799	4.88	75.123200	0.016395
P (213.618 nm)	0.032447	ppm	0.000944	2.91	31.758300	0.032447
Pb (220.353 nm)	-0.001167 u	ppm	0.000868	74.38	-0.216943	-0.001167 u
S (181.972 nm)	29.895282 o	ppm	0.196241	0.66	11612.788419	29.895282 o
Sb (206.834 nm)	-0.001158 u	ppm	0.001400	> 100.00	3.177330	-0.001158 u
Se (196.026 nm)	-0.001742 u	ppm	0.000686	39.40	3.950450	-0.001742 u
Si (288.158 nm)	13.794400 o	ppm	0.108565	0.79	102615.000000	13.794400 o
Sn (189.925 nm)	-0.001657 u	ppm	0.002859	> 100.00	2.275260	-0.001657 u
Sr (421.552 nm)	0.264785	ppm	0.001847	0.70	57071.681604	0.264785
Th (288.505 nm)	-0.001290 u	ppm	0.001631	> 100.00	24.128100	-0.001290 u
Ti (336.122 nm)	-0.000055 u	ppm	0.000039	70.69	29.312100	-0.000055 u
Tl (190.794 nm)	0.000879	ppm	0.000516	58.72	-0.673940	0.000879
U (409.013 nm)	0.020614	ppm	0.000606	2.94	82.981500	0.020614
V (292.401 nm)	0.002799	ppm	0.000133	4.77	22.446600	0.002799
Zn (206.200 nm)	0.029204	ppm	0.000386	1.32	71.225300	0.029204
Zr (343.823 nm)	0.000194	ppm	0.000068	34.98	15.544900	0.000194

Solution Name: 280-191214-B-4-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191214-B-4-A	5/15/2024 4:45:05 AM	2:49	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.006650	ppm	0.000048	0.72	12367.077156	0.006650
Ag (328.068 nm)	0.001416	ppm	0.000119	8.41	14.725900	0.001416
Al (394.401 nm)	0.012528	ppm	0.001064	8.49	583.825000	0.012528
Al H (396.152 nm)	-0.064091 u	ppm	0.005291	8.25	-29.335900	-0.064091 u
As (188.980 nm)	0.005829	ppm	0.001544	26.49	2.645710	0.005829
B (249.678 nm)	0.148508	ppm	0.001690	1.14	1157.780000	0.148508
Ba (493.408 nm)	0.070666	ppm	0.000177	0.25	9668.780000	0.070666
Be (234.861 nm)	-0.000056 u	ppm	0.000033	58.38	-1.520540	-0.000056 u
Bi (223.061 nm)	0.000984	ppm	0.000949	96.51	6.644770	0.000984
Ca (315.887 nm)	68.487446 o	ppm	0.201511	0.29	57398.330117	68.487446 o
Cd (214.439 nm)	0.000229	ppm	0.000026	11.21	2.418880	0.000229
Co (228.615 nm)	-0.000140 u	ppm	0.000256	> 100.00	-8.553200	-0.000140 u
Cr (205.560 nm)	0.019508	ppm	0.000292	1.50	134.314000	0.019508
Cu (324.754 nm)	0.006410	ppm	0.000191	2.97	899.726000	0.006410
Fe (238.204 nm)	0.134395	ppm	0.001942	1.44	453.569577	0.134395
Fe H (259.940 nm)	0.107952 u	ppm	0.003574	3.31	187.983000	0.107952 u
K (766.491 nm)	8.583390	ppm	0.042824	0.50	11058.900000	8.583390
Li (670.783 nm)	0.025620	ppm	0.000667	2.60	1213.230000	0.025620
Mg (279.078 nm)	15.823200	ppm	0.024024	0.15	47153.300000	15.823200
Mn (257.610 nm)	0.005877	ppm	0.000007	0.11	1757.640000	0.005877
Mo (202.032 nm)	0.015771	ppm	0.000287	1.82	90.204100	0.015771
Na (589.592 nm)	48.310200	ppm	0.063683	0.13	519240.000000	48.310200
Na H (589.593 nm)	48.024491 u	ppm	0.363567	0.76	374643.209814	48.024491 u
Ni (231.604 nm)	0.021150	ppm	0.000560	2.65	97.582900	0.021150
P (213.618 nm)	0.044783	ppm	0.000586	1.31	47.009100	0.044783
Pb (220.353 nm)	-0.001250 u	ppm	0.002525	> 100.00	-0.395647	-0.001250 u
S (181.972 nm)	32.710849 o	ppm	0.190758	0.58	12704.958996	32.710849 o
Sb (206.834 nm)	-0.000763 u	ppm	0.001059	> 100.00	3.641780	-0.000763 u
Se (196.026 nm)	-0.000034 u	ppm	0.002121	> 100.00	4.981240	-0.000034 u
Si (288.158 nm)	15.775500 o	ppm	0.146490	0.93	117250.000000	15.775500 o
Sn (189.925 nm)	-0.000947 u	ppm	0.001693	> 100.00	2.775920	-0.000947 u
Sr (421.552 nm)	0.307831	ppm	0.000598	0.19	66343.672360	0.307831
Th (288.505 nm)	-0.001609 u	ppm	0.002285	> 100.00	23.228500	-0.001609 u
Ti (336.122 nm)	-0.000316 u	ppm	0.000037	11.77	23.215600	-0.000316 u
Tl (190.794 nm)	0.002080	ppm	0.002354	> 100.00	0.455281	0.002080
U (409.013 nm)	0.019354	ppm	0.001582	8.17	78.119000	0.019354
V (292.401 nm)	0.007565	ppm	0.000294	3.88	176.395000	0.007565
Zn (206.200 nm)	0.027034	ppm	0.000683	2.53	66.170400	0.027034
Zr (343.823 nm)	0.000065	ppm	0.000049	74.70	5.568810	0.000065

Solution Name: 280-191214-B-5-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191214-B-5-A	5/15/2024 4:49:25 AM	2:50	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.005243	ppm	0.000018	0.34	9276.136820	0.005243
Ag (328.068 nm)	0.001244	ppm	0.000137	11.05	6.989110	0.001244
Al (394.401 nm)	0.011411	ppm	0.000222	1.95	563.597000	0.011411
Al H (396.152 nm)	-0.060672 u	ppm	0.001525	2.51	-13.769600	-0.060672 u
As (188.980 nm)	0.004083	ppm	0.002621	64.20	1.615640	0.004083
B (249.678 nm)	0.077136	ppm	0.000583	0.76	611.698000	0.077136
Ba (493.408 nm)	0.057703	ppm	0.000248	0.43	7886.780000	0.057703
Be (234.861 nm)	-0.000047 u	ppm	0.000006	13.22	-2.424710	-0.000047 u
Bi (223.061 nm)	0.000263 u	ppm	0.000702	> 100.00	4.886280	0.000263 u
Ca (315.887 nm)	57.921117 o	ppm	0.116622	0.20	48540.553066	57.921117 o
Cd (214.439 nm)	0.000248	ppm	0.000134	53.90	2.858770	0.000248
Co (228.615 nm)	-0.000534 u	ppm	0.000211	39.51	-13.733100	-0.000534 u
Cr (205.560 nm)	0.001669	ppm	0.000157	9.42	19.707000	0.001669
Cu (324.754 nm)	0.008863	ppm	0.000185	2.09	1019.610000	0.008863
Fe (238.204 nm)	0.009193	ppm	0.001000	10.88	50.708290	0.009193
Fe H (259.940 nm)	-0.015007 u	ppm	0.003526	23.50	20.680800	-0.015007 u
K (766.491 nm)	14.430800	ppm	0.065680	0.46	18572.200000	14.430800
Li (670.783 nm)	0.027602	ppm	0.000719	2.60	1268.270000	0.027602
Mg (279.078 nm)	10.293800	ppm	0.015963	0.16	30686.000000	10.293800
Mn (257.610 nm)	0.000145	ppm	0.000007	4.64	82.764000	0.000145
Mo (202.032 nm)	0.002841	ppm	0.000384	13.52	20.630900	0.002841
Na (589.592 nm)	38.953000	ppm	0.055581	0.14	419189.000000	38.953000
Na H (589.593 nm)	38.589563 u	ppm	0.355182	0.92	302241.349805	38.589563 u
Ni (231.604 nm)	0.001597	ppm	0.000180	11.27	5.229190	0.001597
P (213.618 nm)	0.018454	ppm	0.002285	12.38	14.791000	0.018454
Pb (220.353 nm)	-0.002748 u	ppm	0.001696	61.74	-3.571190	-0.002748 u
S (181.972 nm)	31.369975 o	ppm	0.101014	0.32	12184.768901	31.369975 o
Sb (206.834 nm)	-0.001544 u	ppm	0.001330	86.17	2.480350	-0.001544 u
Se (196.026 nm)	0.000131 u	ppm	0.002712	> 100.00	5.137380	0.000131 u
Si (288.158 nm)	17.572000 o	ppm	0.029144	0.17	130522.000000	17.572000 o
Sn (189.925 nm)	-0.000873 u	ppm	0.000839	96.08	2.827820	-0.000873 u
Sr (421.552 nm)	0.329831	ppm	0.001416	0.43	71082.537830	0.329831
Th (288.505 nm)	-0.001489 u	ppm	0.001076	72.25	23.024700	-0.001489 u
Ti (336.122 nm)	-0.000296 u	ppm	0.000077	26.17	-3.171500	-0.000296 u
Tl (190.794 nm)	-0.000443 u	ppm	0.002151	> 100.00	-1.879490	-0.000443 u
U (409.013 nm)	0.015634	ppm	0.000444	2.84	64.046900	0.015634
V (292.401 nm)	0.010519	ppm	0.000134	1.27	272.827000	0.010519
Zn (206.200 nm)	0.014641	ppm	0.000555	3.79	37.290100	0.014641
Zr (343.823 nm)	-0.000026 u	ppm	0.000131	> 100.00	-1.526100	-0.000026 u

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/15/2024 4:53:43 AM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001022	ppm	0.000016	1.57	5.003942	0.001022
Ag (328.068 nm)	0.000158 u	ppm	0.000210	> 100.00	70.550900	0.000158 u
Al (394.401 nm)	50.082200 o	ppm	0.260333	0.52	659891.000000	50.082200 o
Al H (396.152 nm)	48.855000	ppm	0.045683	0.09	222688.000000	48.855000
As (188.980 nm)	-0.002419 u	ppm	0.003661	> 100.00	-2.580090	-0.002419 u
B (249.678 nm)	-0.002797 u	ppm	0.000452	16.15	0.122552	-0.002797 u
Ba (493.408 nm)	0.000228	ppm	0.000151	66.31	116.445000	0.000228
Be (234.861 nm)	0.000082	ppm	0.000107	> 100.00	326.922000	0.000082
Bi (223.061 nm)	0.000626 u	ppm	0.001583	> 100.00	5.770360	0.000626 u
Ca (315.887 nm)	-0.001430 u	ppm	0.014142	> 100.00	-16.046292	-0.001430 u
Cd (214.439 nm)	-0.000249 u	ppm	0.000152	61.06	7.879640	-0.000249 u
Co (228.615 nm)	-0.000520 u	ppm	0.000360	69.29	-13.542700	-0.000520 u
Cr (205.560 nm)	0.000568 u	ppm	0.000578	> 100.00	12.644800	0.000568 u
Cu (324.754 nm)	-0.003938 u	ppm	0.000216	5.48	1394.530000	-0.003938 u
Fe (238.204 nm)	50.137010 o	ppm	0.051404	0.10	161346.839190	50.137010 o
Fe H (259.940 nm)	49.848400	ppm	0.086412	0.17	67866.500000	49.848400
K (766.491 nm)	-0.027041 u	ppm	0.074365	> 100.00	-4.518580	-0.027041 u
Li (670.783 nm)	0.017772	ppm	0.001785	10.04	1026.720000	0.017772
Mg (279.078 nm)	0.014065	ppm	0.000455	3.23	-122.448000	0.014065
Mn (257.610 nm)	-0.000778 u	ppm	0.000022	2.88	-186.735000	-0.000778 u
Mo (202.032 nm)	-0.000543 u	ppm	0.000147	27.12	2.421670	-0.000543 u
Na (589.592 nm)	234.773000 o	ppm	0.309262	0.13	2510600.000000	234.773000 o
Na H (589.593 nm)	235.479036	ppm	1.553284	0.66	1811788.769487	235.479036
Ni (231.604 nm)	0.000300 u	ppm	0.000541	> 100.00	-0.896680	0.000300 u
P (213.618 nm)	5.016000	ppm	0.020312	0.40	6176.760000	5.016000
Pb (220.353 nm)	-0.003280 u	ppm	0.001135	34.59	-6.164260	-0.003280 u
S (181.972 nm)	5.006551	ppm	0.021723	0.43	1961.667574	5.006551
Sb (206.834 nm)	-0.000449 u	ppm	0.000913	> 100.00	8.185670	-0.000449 u
Se (196.026 nm)	0.001046 u	ppm	0.006580	> 100.00	0.265932	0.001046 u
Si (288.158 nm)	0.006801	ppm	0.003850	56.61	759.671000	0.006801
Sn (189.925 nm)	0.000351 u	ppm	0.000351	> 100.00	3.691310	0.000351 u
Sr (421.552 nm)	0.000232	ppm	0.000089	38.28	87.502090	0.000232
Th (288.505 nm)	4.784820	ppm	0.008652	0.18	10696.300000	4.784820
Ti (336.122 nm)	0.000728	ppm	0.000051	6.93	-21.643500	0.000728
Tl (190.794 nm)	-0.006123 u	ppm	0.000696	11.37	-7.980730	-0.006123 u
U (409.013 nm)	2.470300 Q	ppm	0.013468	0.55	9382.040000 Q	2.470300 Q
V (292.401 nm)	0.000987	ppm	0.000117	11.87	182.774000	0.000987
Zn (206.200 nm)	0.002315	ppm	0.000267	11.52	8.565460	0.002315
Zr (343.823 nm)	-0.000112 u	ppm	0.000171	> 100.00	55.968100	-0.000112 u

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/15/2024 4:58:13 AM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.452577	ppm	0.000921	0.20	991984.015548	0.452577
Ag (328.068 nm)	0.489072	ppm	0.001347	0.28	17593.800000	0.489072
Al (394.401 nm)	0.491960	ppm	0.004787	0.97	6868.940000	0.491960
Al H (396.152 nm)	0.466805 u	ppm	0.002849	0.61	2387.700000	0.466805 u
As (188.980 nm)	0.461127	ppm	0.004041	0.88	264.922000	0.461127
B (249.678 nm)	0.494608	ppm	0.001465	0.30	3805.830000	0.494608
Ba (493.408 nm)	0.494142	ppm	0.000566	0.11	68042.100000	0.494142
Be (234.861 nm)	0.483187	ppm	0.007319	1.51	48557.300000	0.483187
Bi (223.061 nm)	0.988495	ppm	0.003290	0.33	2417.890000	0.988495
Ca (315.887 nm)	4.847829	ppm	0.015335	0.32	4049.098072	4.847829
Cd (214.439 nm)	0.500401	ppm	0.001176	0.24	12778.900000	0.500401
Co (228.615 nm)	0.497869	ppm	0.000346	0.07	6510.860000	0.497869
Cr (205.560 nm)	0.485003	ppm	0.000950	0.20	3124.250000	0.485003
Cu (324.754 nm)	0.495338	ppm	0.001643	0.33	24131.900000	0.495338
Fe (238.204 nm)	2.493119	ppm	0.005479	0.22	8048.314410	2.493119
Fe H (259.940 nm)	2.466940 u	ppm	0.005716	0.23	3397.700000	2.466940 u
K (766.491 nm)	48.081600	ppm	0.088214	0.18	61809.800000	48.081600
Li (670.783 nm)	0.488077	ppm	0.000857	0.18	15359.100000	0.488077
Mg (279.078 nm)	19.328500	ppm	0.042123	0.22	57637.800000	19.328500
Mn (257.610 nm)	0.491259	ppm	0.000757	0.15	143565.000000	0.491259
Mo (202.032 nm)	0.498306	ppm	0.001324	0.27	2686.650000	0.498306
Na (589.592 nm)	24.171700	ppm	0.063555	0.26	264433.000000	24.171700
Na H (589.593 nm)	23.647055 u	ppm	0.132787	0.56	189449.388275	23.647055 u
Ni (231.604 nm)	0.493786	ppm	0.000518	0.10	2330.440000	0.493786
P (213.618 nm)	-0.014250 u	ppm	0.000329	2.31	-66.716600	-0.014250 u
Pb (220.353 nm)	0.461154	ppm	0.001150	0.25	983.659000	0.461154
S (181.972 nm)	-0.033836 u	ppm	0.000749	2.21	13.244762	-0.033836 u
Sb (206.834 nm)	0.493108	ppm	0.002486	0.50	710.599000	0.493108
Se (196.026 nm)	0.479812	ppm	0.006327	1.32	272.310000	0.479812
Si (288.158 nm)	4.950140	ppm	0.038461	0.78	37718.000000	4.950140
Sn (189.925 nm)	0.497428	ppm	0.001190	0.24	354.265000	0.497428
Sr (421.552 nm)	0.493450	ppm	0.000230	0.05	106325.640878	0.493450
Th (288.505 nm)	0.008336	ppm	0.000160	1.92	32.074000	0.008336
Ti (336.122 nm)	0.485795	ppm	0.000765	0.16	66011.900000	0.485795
Tl (190.794 nm)	0.500658	ppm	0.003661	0.73	466.525000	0.500658
U (409.013 nm)	0.000208 u	ppm	0.002367	> 100.00	-4.641200	0.000208 u
V (292.401 nm)	0.477650	ppm	0.000676	0.14	14818.600000	0.477650
Zn (206.200 nm)	0.493304	ppm	0.001598	0.32	1152.740000	0.493304
Zr (343.823 nm)	0.487352	ppm	0.001099	0.23	37090.400000	0.487352

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/15/2024 5:02:36 AM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000610	ppm	0.000021	3.38	-901.147204	0.000610
Ag (328.068 nm)	0.000349	ppm	0.000202	57.80	-19.961500	0.000349
Al (394.401 nm)	-0.004331 u	ppm	0.000652	15.06	324.467000	-0.004331 u
Al H (396.152 nm)	-0.052240 u	ppm	0.002969	5.68	24.617700	-0.052240 u
As (188.980 nm)	-0.000443 u	ppm	0.003705	> 100.00	-1.126640	-0.000443 u
B (249.678 nm)	0.000182 u	ppm	0.000712	> 100.00	22.917600	0.000182 u
Ba (493.408 nm)	-0.000093 u	ppm	0.000113	> 100.00	-57.060000	-0.000093 u
Be (234.861 nm)	0.000004 u	ppm	0.000019	> 100.00	0.513985	0.000004 u
Bi (223.061 nm)	-0.001799 u	ppm	0.000693	38.54	-0.148561	-0.001799 u
Ca (315.887 nm)	0.010925	ppm	0.008639	79.07	-5.689096	0.010925
Cd (214.439 nm)	0.000122	ppm	0.000086	70.48	-0.357557	0.000122
Co (228.615 nm)	-0.000182 u	ppm	0.000141	77.35	-9.133930	-0.000182 u
Cr (205.560 nm)	0.000100 u	ppm	0.000164	> 100.00	9.633440	0.000100 u
Cu (324.754 nm)	0.000396	ppm	0.000207	52.27	638.343000	0.000396
Fe (238.204 nm)	0.004137	ppm	0.000429	10.36	34.439132	0.004137
Fe H (259.940 nm)	-0.017749 u	ppm	0.001012	5.70	16.951000	-0.017749 u
K (766.491 nm)	0.007106 u	ppm	0.034366	> 100.00	39.356300	0.007106 u
Li (670.783 nm)	0.020648 S	ppm	0.002377	11.51	1028.510000 S	0.020648 S
Mg (279.078 nm)	0.002041	ppm	0.000725	35.52	10.174300	0.002041
Mn (257.610 nm)	0.000057	ppm	0.000027	47.44	57.166500	0.000057
Mo (202.032 nm)	0.000183 u	ppm	0.000458	> 100.00	6.329100	0.000183 u
Na (589.592 nm)	0.106750	ppm	0.003787	3.55	3802.970000	0.106750
Na H (589.593 nm)	-0.442702 u	ppm	0.008040	1.82	2699.619789	-0.442702 u
Ni (231.604 nm)	-0.000119 u	ppm	0.000244	> 100.00	-2.875400	-0.000119 u
P (213.618 nm)	-0.001980 u	ppm	0.002202	> 100.00	-9.841870	-0.001980 u
Pb (220.353 nm)	-0.000387 u	ppm	0.000314	81.28	1.443500	-0.000387 u
S (181.972 nm)	-0.012888 u	ppm	0.003292	25.55	11.873172	-0.012888 u
Sb (206.834 nm)	-0.000258 u	ppm	0.000775	> 100.00	4.331850	-0.000258 u
Se (196.026 nm)	-0.000770 u	ppm	0.002673	> 100.00	4.087190	-0.000770 u
Si (288.158 nm)	-0.008872 u	ppm	0.002454	27.66	642.709000	-0.008872 u
Sn (189.925 nm)	-0.001841 u	ppm	0.002354	> 100.00	2.145520	-0.001841 u
Sr (421.552 nm)	-0.000010 u	ppm	0.000042	> 100.00	35.322599	-0.000010 u
Th (288.505 nm)	0.005085	ppm	0.002490	48.97	37.882900	0.005085
Ti (336.122 nm)	0.000097	ppm	0.000012	12.58	-107.704000	0.000097
Tl (190.794 nm)	-0.000307 u	ppm	0.000505	> 100.00	-1.745710	-0.000307 u
U (409.013 nm)	-0.003640 u	ppm	0.004391	> 100.00	-8.257530	-0.003640 u
V (292.401 nm)	0.000180	ppm	0.000151	83.96	-54.087100	0.000180
Zn (206.200 nm)	0.000232	ppm	0.000096	41.26	3.712840	0.000232
Zr (343.823 nm)	0.000041 u	ppm	0.000096	> 100.00	3.531010	0.000041 u

Solution Name: 280-191214-B-5-A SD @5

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191214-B-5-A SD @5	5/15/2024 5:06:38 AM	2:51	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001324	ppm	0.000014	1.05	668.553329	0.001324
Ag (328.068 nm)	0.000806	ppm	0.000050	6.23	-4.865120	0.000806
Al (394.401 nm)	0.000090 u	ppm	0.000948	> 100.00	390.972000	0.000090 u
Al H (396.152 nm)	-0.051295 u	ppm	0.001080	2.11	28.919000	-0.051295 u
As (188.980 nm)	0.002467	ppm	0.002056	83.35	0.576851	0.002467
B (249.678 nm)	0.015055	ppm	0.000377	2.51	136.711000	0.015055
Ba (493.408 nm)	0.011198	ppm	0.000153	1.36	1494.920000	0.011198
Be (234.861 nm)	0.000004 u	ppm	0.000015	> 100.00	1.254120	0.000004 u
Bi (223.061 nm)	-0.001025 u	ppm	0.000434	42.34	1.739590	-0.001025 u
Ca (315.887 nm)	11.570581 o	ppm	0.027038	0.23	9684.796307	11.570581 o
Cd (214.439 nm)	0.000071	ppm	0.000034	47.11	-1.630510	0.000071
Co (228.615 nm)	-0.000194 u	ppm	0.000194	> 100.00	-9.284040	-0.000194 u
Cr (205.560 nm)	-0.000100 u	ppm	0.000335	> 100.00	8.344270	-0.000100 u
Cu (324.754 nm)	0.001959	ppm	0.000208	10.59	707.507000	0.001959
Fe (238.204 nm)	0.047769	ppm	0.001099	2.30	174.833164	0.047769
Fe H (259.940 nm)	0.026300 u	ppm	0.001893	7.20	76.885500	0.026300 u
K (766.491 nm)	2.831400	ppm	0.062952	2.22	3668.260000	2.831400
Li (670.783 nm)	0.019790	ppm	0.000690	3.49	1007.550000	0.019790
Mg (279.078 nm)	2.047120	ppm	0.010534	0.51	6105.680000	2.047120
Mn (257.610 nm)	0.000214	ppm	0.000022	10.36	103.020000	0.000214
Mo (202.032 nm)	0.000507	ppm	0.000390	76.87	8.071440	0.000507
Na (589.592 nm)	7.860240	ppm	0.036608	0.47	86710.100000	7.860240
Na H (589.593 nm)	7.232948 u	ppm	0.061021	0.84	61603.964838	7.232948 u
Ni (231.604 nm)	0.000045 u	ppm	0.000937	> 100.00	-2.103610	0.000045 u
P (213.618 nm)	0.001399 u	ppm	0.001363	97.43	-5.775670	0.001399 u
Pb (220.353 nm)	-0.001282 u	ppm	0.001497	> 100.00	-0.453575	-0.001282 u
S (181.972 nm)	6.083939	ppm	0.043121	0.71	2376.742066	6.083939
Sb (206.834 nm)	-0.000839 u	ppm	0.002086	> 100.00	3.499240	-0.000839 u
Se (196.026 nm)	-0.000899 u	ppm	0.002152	> 100.00	4.116800	-0.000899 u
Si (288.158 nm)	3.384050	ppm	0.013351	0.39	25708.500000	3.384050
Sn (189.925 nm)	-0.001035 u	ppm	0.000480	46.41	2.713580	-0.001035 u
Sr (421.552 nm)	0.065588	ppm	0.000293	0.45	14165.081164	0.065588
Th (288.505 nm)	0.000632 u	ppm	0.001876	> 100.00	27.932900	0.000632 u
Ti (336.122 nm)	-0.000033 u	ppm	0.000076	> 100.00	-93.824200	-0.000033 u
Tl (190.794 nm)	-0.000194 u	ppm	0.001857	> 100.00	-1.640760	-0.000194 u
U (409.013 nm)	0.003888	ppm	0.001132	29.13	19.981000	0.003888
V (292.401 nm)	0.002238	ppm	0.000181	8.10	10.673200	0.002238
Zn (206.200 nm)	0.003467	ppm	0.000409	11.80	11.249600	0.003467
Zr (343.823 nm)	-0.000085 u	ppm	0.000064	76.12	-5.955160	-0.000085 u

Solution Name: 280-191214-B-5-B MS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191214-B-5-B MS	5/15/2024 5:10:39 AM	2:52	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.045553	ppm	0.004041	0.39	2294603.505397	1.045553
Ag (328.068 nm)	0.050526	ppm	0.000064	0.13	1490.150000	0.050526
Al (394.401 nm)	10.275200 o	ppm	0.034995	0.34	135923.000000	10.275200 o
Al H (396.152 nm)	10.077600	ppm	0.025532	0.25	46143.300000	10.077600
As (188.980 nm)	0.992337	ppm	0.004395	0.44	571.301000	0.992337
B (249.678 nm)	2.192160	ppm	0.008276	0.38	16794.000000	2.192160
Ba (493.408 nm)	1.066960	ppm	0.001225	0.11	146970.000000	1.066960
Be (234.861 nm)	1.019460	ppm	0.009611	0.94	102485.000000	1.019460
Bi (223.061 nm)	-0.001373 u	ppm	0.000555	40.41	0.890390	-0.001373 u
Ca (315.887 nm)	105.736774 o	ppm	0.168957	0.16	88624.525268	105.736774 o
Cd (214.439 nm)	0.995862	ppm	0.002768	0.28	25436.900000	0.995862
Co (228.615 nm)	0.982500	ppm	0.004115	0.42	12855.700000	0.982500
Cr (205.560 nm)	0.976833	ppm	0.003705	0.38	6283.370000	0.976833
Cu (324.754 nm)	1.016420	ppm	0.006495	0.64	48838.300000	1.016420
Fe (238.204 nm)	10.213941 o	ppm	0.042832	0.42	32896.615586	10.213941 o
Fe H (259.940 nm)	10.183700	ppm	0.007556	0.07	13897.400000	10.183700
K (766.491 nm)	64.324100	ppm	0.179438	0.28	82679.600000	64.324100
Li (670.783 nm)	0.986736	ppm	0.001394	0.14	30681.200000	0.986736
Mg (279.078 nm)	59.963200 o	ppm	0.164286	0.27	178714.000000	59.963200 o
Mn (257.610 nm)	0.988081	ppm	0.003327	0.34	288715.000000	0.988081
Mo (202.032 nm)	1.012750	ppm	0.003419	0.34	5454.770000	1.012750
Na (589.592 nm)	87.179900 o	ppm	0.042466	0.05	941640.000000	87.179900 o
Na H (589.593 nm)	86.919498	ppm	0.937527	1.08	676982.671781	86.919498
Ni (231.604 nm)	0.957576	ppm	0.003080	0.32	4521.520000	0.957576
P (213.618 nm)	21.313700 o	ppm	0.122966	0.58	26188.400000	21.313700 o
Pb (220.353 nm)	0.926102	ppm	0.004221	0.46	1972.130000	0.926102
S (181.972 nm)	51.295603 o	ppm	0.277513	0.54	19931.121796	51.295603 o
Sb (206.834 nm)	1.003170	ppm	0.003871	0.39	1441.170000	1.003170
Se (196.026 nm)	0.985515	ppm	0.003763	0.38	554.562000	0.985515
Si (288.158 nm)	26.646800 o	ppm	0.157742	0.59	198446.000000	26.646800 o
Sn (189.925 nm)	1.001490	ppm	0.001671	0.17	709.765000	1.001490
Sr (421.552 nm)	1.332470 o	ppm	0.001964	0.15	287048.905825	1.332470 o
Th (288.505 nm)	-0.002664 u	ppm	0.001470	55.17	-6.888500	-0.002664 u
Ti (336.122 nm)	0.980329	ppm	0.003957	0.40	133595.000000	0.980329
Tl (190.794 nm)	0.998279	ppm	0.001371	0.14	931.516000	0.998279
U (409.013 nm)	0.012921	ppm	0.004104	31.76	36.389700	0.012921
V (292.401 nm)	0.991852	ppm	0.001608	0.16	30847.100000	0.991852
Zn (206.200 nm)	0.990715	ppm	0.002497	0.25	2311.880000	0.990715
Zr (343.823 nm)	0.980517	ppm	0.003801	0.39	74629.300000	0.980517

Solution Name: 280-191214-B-5-C MSD

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191214-B-5-C MSD	5/15/2024 5:15:05 AM	2:53	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.049374	ppm	0.002538	0.24	2302998.786302	1.049374
Ag (328.068 nm)	0.050476	ppm	0.000281	0.56	1488.480000	0.050476
Al (394.401 nm)	10.348100 o	ppm	0.024710	0.24	136886.000000	10.348100 o
Al H (396.152 nm)	10.081700	ppm	0.035290	0.35	46161.900000	10.081700
As (188.980 nm)	0.995717	ppm	0.012949	1.30	573.249000	0.995717
B (249.678 nm)	2.190640	ppm	0.004818	0.22	16782.400000	2.190640
Ba (493.408 nm)	1.069310	ppm	0.001580	0.15	147290.000000	1.069310
Be (234.861 nm)	1.007660	ppm	0.003332	0.33	101300.000000	1.007660
Bi (223.061 nm)	-0.000508 u	ppm	0.000791	> 100.00	3.003660	-0.000508 u
Ca (315.887 nm)	105.808498 o	ppm	0.242465	0.23	88684.651359	105.808498 o
Cd (214.439 nm)	0.995907	ppm	0.005163	0.52	25438.000000	0.995907
Co (228.615 nm)	0.984958	ppm	0.003425	0.35	12887.900000	0.984958
Cr (205.560 nm)	0.976317	ppm	0.004510	0.46	6280.020000	0.976317
Cu (324.754 nm)	1.027390	ppm	0.002607	0.25	49358.900000	1.027390
Fe (238.204 nm)	10.167069 o	ppm	0.019734	0.19	32745.796144	10.167069 o
Fe H (259.940 nm)	10.173600	ppm	0.033140	0.33	13883.600000	10.173600
K (766.491 nm)	64.286500	ppm	0.075290	0.12	82631.300000	64.286500
Li (670.783 nm)	0.987638	ppm	0.001552	0.16	30708.900000	0.987638
Mg (279.078 nm)	60.047400 o	ppm	0.264741	0.44	178964.000000	60.047400 o
Mn (257.610 nm)	0.988863	ppm	0.003404	0.34	288944.000000	0.988863
Mo (202.032 nm)	1.019860	ppm	0.003820	0.37	5493.040000	1.019860
Na (589.592 nm)	87.033800 o	ppm	0.322622	0.37	940105.000000	87.033800 o
Na H (589.593 nm)	87.057820	ppm	0.650842	0.75	678057.925509	87.057820
Ni (231.604 nm)	0.956584	ppm	0.004424	0.46	4516.840000	0.956584
P (213.618 nm)	21.400300 o	ppm	0.092615	0.43	26294.300000	21.400300 o
Pb (220.353 nm)	0.929414	ppm	0.005086	0.55	1979.190000	0.929414
S (181.972 nm)	51.718071 o	ppm	0.237457	0.46	20094.976328	51.718071 o
Sb (206.834 nm)	1.011980	ppm	0.006173	0.61	1453.750000	1.011980
Se (196.026 nm)	0.998187	ppm	0.003171	0.32	561.641000	0.998187
Si (288.158 nm)	26.879700 o	ppm	0.030036	0.11	200172.000000	26.879700 o
Sn (189.925 nm)	1.007210	ppm	0.003738	0.37	713.798000	1.007210
Sr (421.552 nm)	1.335837 o	ppm	0.002275	0.17	287774.159396	1.335837 o
Th (288.505 nm)	-0.002991 u	ppm	0.003535	> 100.00	-7.429110	-0.002991 u
Ti (336.122 nm)	0.983138	ppm	0.003221	0.33	133978.000000	0.983138
Tl (190.794 nm)	0.995869	ppm	0.003451	0.35	929.244000	0.995869
U (409.013 nm)	0.017181	ppm	0.001959	11.40	52.307200	0.017181
V (292.401 nm)	0.992265	ppm	0.004011	0.40	30860.000000	0.992265
Zn (206.200 nm)	0.993167	ppm	0.003602	0.36	2317.590000	0.993167
Zr (343.823 nm)	0.981600	ppm	0.002813	0.29	74711.600000	0.981600

Solution Name: 280-191214-B-5-A PDS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191214-B-5-A PDS	5/15/2024 5:19:30 AM	2:54	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.099990	ppm	0.000307	0.31	217404.540092	0.099990
Ag (328.068 nm)	0.047569	ppm	0.000196	0.41	1671.650000	0.047569
Al (394.401 nm)	0.988946	ppm	0.002915	0.29	13513.400000	0.988946
Al H (396.152 nm)	0.903894	ppm	0.003563	0.39	4377.670000	0.903894
As (188.980 nm)	0.194692	ppm	0.003700	1.90	111.515000	0.194692
B (249.678 nm)	0.177568	ppm	0.000796	0.45	1380.120000	0.177568
Ba (493.408 nm)	0.150898	ppm	0.000315	0.21	20714.900000	0.150898
Be (234.861 nm)	0.048846	ppm	0.000491	1.01	4920.180000	0.048846
Bi (223.061 nm)	-0.000470 u	ppm	0.000637	> 100.00	3.096500	-0.000470 u
Ca (315.887 nm)	73.780632 o	ppm	0.149380	0.20	61835.620223	73.780632 o
Cd (214.439 nm)	0.049435	ppm	0.000255	0.52	1259.530000	0.049435
Co (228.615 nm)	0.048291	ppm	0.000286	0.59	625.347000	0.048291
Cr (205.560 nm)	0.049422	ppm	0.000105	0.21	326.439000	0.049422
Cu (324.754 nm)	0.057353	ppm	0.000380	0.66	3328.390000	0.057353
Fe (238.204 nm)	0.994421	ppm	0.002692	0.27	3221.374607	0.994421
Fe H (259.940 nm)	0.969661 u	ppm	0.001947	0.20	1360.450000	0.969661 u
K (766.491 nm)	32.990900	ppm	0.109115	0.33	42419.900000	32.990900
Li (670.783 nm)	0.116651	ppm	0.001382	1.19	4006.150000	0.116651
Mg (279.078 nm)	28.896700	ppm	0.065152	0.23	86116.400000	28.896700
Mn (257.610 nm)	0.048408	ppm	0.000121	0.25	14183.100000	0.048408
Mo (202.032 nm)	0.051107	ppm	0.000291	0.57	280.340000	0.051107
Na (589.592 nm)	55.899400 o	ppm	0.118515	0.21	600887.000000	55.899400 o
Na H (589.593 nm)	55.418039	ppm	0.432571	0.78	431665.832448	55.418039
Ni (231.604 nm)	0.047813	ppm	0.000266	0.56	223.720000	0.047813
P (213.618 nm)	2.063820	ppm	0.011026	0.53	2532.730000	2.063820
Pb (220.353 nm)	0.088536	ppm	0.000857	0.97	191.564000	0.088536
S (181.972 nm)	31.240193 o	ppm	0.137197	0.44	12136.237400	31.240193 o
Sb (206.834 nm)	0.094504	ppm	0.001838	1.95	140.182000	0.094504
Se (196.026 nm)	0.191344	ppm	0.001263	0.66	111.821000	0.191344
Si (288.158 nm)	21.236800 o	ppm	0.056834	0.27	157675.000000	21.236800 o
Sn (189.925 nm)	0.094610	ppm	0.000326	0.34	70.169000	0.094610
Sr (421.552 nm)	0.362064	ppm	0.000431	0.12	78025.351954	0.362064
Th (288.505 nm)	0.184719	ppm	0.003205	1.74	440.554000	0.184719
Ti (336.122 nm)	0.046148	ppm	0.000071	0.15	6361.340000	0.046148
Tl (190.794 nm)	0.196017	ppm	0.001325	0.68	182.044000	0.196017
U (409.013 nm)	0.519188	ppm	0.000573	0.11	1955.830000	0.519188
V (292.401 nm)	0.057859	ppm	0.000219	0.38	1740.260000	0.057859
Zn (206.200 nm)	0.204274	ppm	0.000369	0.18	479.199000	0.204274
Zr (343.823 nm)	0.047333	ppm	0.000155	0.33	3603.650000	0.047333

Solution Name: 280-191215-B-11-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191215-B-11-A	5/15/2024 5:23:52 AM	2:55	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.010935	ppm	0.000029	0.27	21779.859814	0.010935
Ag (328.068 nm)	0.001558	ppm	0.000051	3.29	19.352100	0.001558
Al (394.401 nm)	0.088823	ppm	0.000312	0.35	1638.050000	0.088823
Al H (396.152 nm)	-0.011242 u	ppm	0.003350	29.80	211.271000	-0.011242 u
As (188.980 nm)	-0.000256 u	ppm	0.003325	> 100.00	-0.633867	-0.000256 u
B (249.678 nm)	0.103005	ppm	0.000273	0.27	809.626000	0.103005
Ba (493.408 nm)	0.074483	ppm	0.000680	0.91	10193.300000	0.074483
Be (234.861 nm)	-0.000094 u	ppm	0.000008	8.89	0.360525	-0.000094 u
Bi (223.061 nm)	-0.000537 u	ppm	0.000802	> 100.00	2.932000	-0.000537 u
Ca (315.887 nm)	166.981353 o	ppm	0.404714	0.24	139965.991625	166.981353 o
Cd (214.439 nm)	0.000268	ppm	0.000048	17.83	3.409390	0.000268
Co (228.615 nm)	-0.000671 u	ppm	0.000105	15.66	-15.465200	-0.000671 u
Cr (205.560 nm)	0.004280	ppm	0.000098	2.29	36.504700	0.004280
Cu (324.754 nm)	0.001050	ppm	0.000224	21.35	612.369000	0.001050
Fe (238.204 nm)	0.082969	ppm	0.001169	1.41	288.097978	0.082969
Fe H (259.940 nm)	0.053787 u	ppm	0.002881	5.36	114.285000	0.053787 u
K (766.491 nm)	11.540900	ppm	0.035010	0.30	14859.100000	11.540900
Li (670.783 nm)	0.031710	ppm	0.001785	5.63	1421.250000	0.031710
Mg (279.078 nm)	45.490300 o	ppm	0.337489	0.74	135541.000000	45.490300 o
Mn (257.610 nm)	0.002751	ppm	0.000038	1.37	844.238000	0.002751
Mo (202.032 nm)	0.001493	ppm	0.000480	32.13	13.374400	0.001493
Na (589.592 nm)	48.678200	ppm	0.099799	0.21	523197.000000	48.678200
Na H (589.593 nm)	48.407807 u	ppm	0.313064	0.65	377597.522585	48.407807 u
Ni (231.604 nm)	-0.001606 u	ppm	0.000783	48.74	-9.896520	-0.001606 u
P (213.618 nm)	0.044542	ppm	0.001874	4.21	47.368900	0.044542
Pb (220.353 nm)	-0.001108 u	ppm	0.001064	96.02	-0.065573	-0.001108 u
S (181.972 nm)	135.799136 bo	ppm	0.791287	0.58	52690.277139	135.799136 bo
Sb (206.834 nm)	-0.002049 u	ppm	0.001606	78.38	1.778300	-0.002049 u
Se (196.026 nm)	0.004061	ppm	0.002260	55.65	7.220530	0.004061
Si (288.158 nm)	14.262500 o	ppm	0.065378	0.46	106071.000000	14.262500 o
Sn (189.925 nm)	-0.003404 u	ppm	0.000945	27.77	1.042850	-0.003404 u
Sr (421.552 nm)	0.825705	ppm	0.006849	0.83	177892.697584	0.825705
Th (288.505 nm)	-0.000101 u	ppm	0.001836	> 100.00	27.112000	-0.000101 u
Ti (336.122 nm)	0.002357	ppm	0.000153	6.48	655.160000	0.002357
Tl (190.794 nm)	0.001857	ppm	0.000778	41.92	0.274107	0.001857
U (409.013 nm)	0.023693	ppm	0.000158	0.67	94.383900	0.023693
V (292.401 nm)	0.008769	ppm	0.000177	2.02	223.915000	0.008769
Zn (206.200 nm)	0.005876	ppm	0.000941	16.01	16.864600	0.005876
Zr (343.823 nm)	0.000159	ppm	0.000012	7.61	12.644000	0.000159

Solution Name: 280-191217-A-1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191217-A-1-A	5/15/2024 5:28:11 AM	2:56	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.018505	ppm	0.000058	0.32	38408.166409	0.018505
Ag (328.068 nm)	0.001128	ppm	0.000103	9.09	8.380260	0.001128
Al (394.401 nm)	0.121644	ppm	0.000855	0.70	1999.880000	0.121644
Al H (396.152 nm)	0.052577 u	ppm	0.004230	8.05	501.825000	0.052577 u
As (188.980 nm)	0.000512 u	ppm	0.004318	> 100.00	-0.515530	0.000512 u
B (249.678 nm)	0.144823	ppm	0.000413	0.29	1129.580000	0.144823
Ba (493.408 nm)	1.830770	ppm	0.001416	0.08	251590.000000	1.830770
Be (234.861 nm)	-0.000031 u	ppm	0.000028	89.35	3.358520	-0.000031 u
Bi (223.061 nm)	-0.002002 u	ppm	0.000250	12.47	-0.646458	-0.002002 u
Ca (315.887 nm)	28.248338 o	ppm	0.030879	0.11	23665.796899	28.248338 o
Cd (214.439 nm)	0.000208	ppm	0.000080	38.36	2.101640	0.000208
Co (228.615 nm)	0.001306	ppm	0.000364	27.90	10.508500	0.001306
Cr (205.560 nm)	0.002596	ppm	0.000191	7.34	25.442300	0.002596
Cu (324.754 nm)	0.594657	ppm	0.003031	0.51	28840.500000	0.594657
Fe (238.204 nm)	0.724901	ppm	0.002158	0.30	2353.639952	0.724901
Fe H (259.940 nm)	0.699206 u	ppm	0.003678	0.53	992.463000	0.699206 u
K (766.491 nm)	25.699100	ppm	0.065479	0.25	33050.700000	25.699100
Li (670.783 nm)	0.033403	ppm	0.002056	6.16	1523.940000	0.033403
Mg (279.078 nm)	10.182300	ppm	0.013663	0.13	30364.500000	10.182300
Mn (257.610 nm)	0.173704	ppm	0.000189	0.11	50789.300000	0.173704
Mo (202.032 nm)	0.003923	ppm	0.000294	7.49	26.449400	0.003923
Na (589.592 nm)	265.664000 o	ppm	0.755387	0.28	2853760.000000	265.664000 o
Na H (589.593 nm)	266.484921	ppm	1.669731	0.63	2057037.616307	266.484921
Ni (231.604 nm)	0.138741	ppm	0.000567	0.41	652.984000	0.138741
P (213.618 nm)	1.920850	ppm	0.004954	0.26	2328.370000	1.920850
Pb (220.353 nm)	0.000509 u	ppm	0.001173	> 100.00	3.336850	0.000509 u
S (181.972 nm)	178.858064 bo	ppm	0.516845	0.29	69390.286257	178.858064 bo
Sb (206.834 nm)	-0.000030 u	ppm	0.000734	> 100.00	4.660750	-0.000030 u
Se (196.026 nm)	-0.000397 u	ppm	0.002815	> 100.00	4.375910	-0.000397 u
Si (288.158 nm)	1.412550	ppm	0.000341	0.02	11238.600000	1.412550
Sn (189.925 nm)	0.117879	ppm	0.000875	0.74	86.580200	0.117879
Sr (421.552 nm)	0.300741	ppm	0.000425	0.14	64816.491847	0.300741
Th (288.505 nm)	-0.001589 u	ppm	0.001655	> 100.00	27.494600	-0.001589 u
Ti (336.122 nm)	0.000502	ppm	0.000077	15.26	26.577300	0.000502
Tl (190.794 nm)	-0.000534 u	ppm	0.000592	> 100.00	-1.976850	-0.000534 u
U (409.013 nm)	0.002421 u	ppm	0.003887	> 100.00	15.082900	0.002421 u
V (292.401 nm)	0.000711	ppm	0.000078	10.98	-36.453400	0.000711
Zn (206.200 nm)	0.012244	ppm	0.001031	8.42	31.703000	0.012244
Zr (343.823 nm)	0.000071 u	ppm	0.000086	> 100.00	6.764860	0.000071 u

Solution Name: 280-191220-B-1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191220-B-1-A	5/15/2024 5:32:31 AM	2:57	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.003775	ppm	0.000022	0.57	6051.395868	0.003775
Ag (328.068 nm)	0.000963	ppm	0.000138	14.30	1.247410	0.000963
Al (394.401 nm)	0.009621	ppm	0.000148	1.54	530.465000	0.009621
Al H (396.152 nm)	-0.056054 u	ppm	0.001651	2.95	7.251420	-0.056054 u
As (188.980 nm)	0.000528 u	ppm	0.001742	> 100.00	-0.487191	0.000528 u
B (249.678 nm)	0.011639	ppm	0.000568	4.88	110.573000	0.011639
Ba (493.408 nm)	0.413439	ppm	0.000862	0.21	56781.900000	0.413439
Be (234.861 nm)	-0.000002 u	ppm	0.000035	> 100.00	4.091680	-0.000002 u
Bi (223.061 nm)	-0.000598 u	ppm	0.000981	> 100.00	2.782900	-0.000598 u
Ca (315.887 nm)	35.222479 o	ppm	0.093978	0.27	29512.234522	35.222479 o
Cd (214.439 nm)	0.000235	ppm	0.000048	20.35	2.592830	0.000235
Co (228.615 nm)	-0.000408 u	ppm	0.000200	49.08	-12.084000	-0.000408 u
Cr (205.560 nm)	0.000476	ppm	0.000228	47.90	12.048700	0.000476
Cu (324.754 nm)	0.001687	ppm	0.000077	4.54	686.569000	0.001687
Fe (238.204 nm)	0.231153	ppm	0.002270	0.98	764.908955	0.231153
Fe H (259.940 nm)	0.206791 u	ppm	0.003803	1.84	322.467000	0.206791 u
K (766.491 nm)	0.778515	ppm	0.014521	1.87	1030.530000	0.778515
Li (670.783 nm)	0.025629	ppm	0.000851	3.32	1192.730000	0.025629
Mg (279.078 nm)	13.267100	ppm	0.032977	0.25	39530.300000	13.267100
Mn (257.610 nm)	0.001410	ppm	0.000024	1.67	452.534000	0.001410
Mo (202.032 nm)	0.000365	ppm	0.000338	92.72	7.305060	0.000365
Na (589.592 nm)	10.792200	ppm	0.030726	0.28	120921.000000	10.792200
Na H (589.593 nm)	10.224165 u	ppm	0.100957	0.99	86186.524385	10.224165 u
Ni (231.604 nm)	-0.000487 u	ppm	0.000633	> 100.00	-4.613030	-0.000487 u
P (213.618 nm)	0.096312	ppm	0.000929	0.96	111.270000	0.096312
Pb (220.353 nm)	-0.000176 u	ppm	0.001317	> 100.00	1.929000	-0.000176 u
S (181.972 nm)	6.758458	ppm	0.044148	0.65	2638.604336	6.758458
Sb (206.834 nm)	-0.003025 u	ppm	0.001938	64.08	0.381683	-0.003025 u
Se (196.026 nm)	-0.001117 u	ppm	0.002005	> 100.00	4.279230	-0.001117 u
Si (288.158 nm)	13.021400 o	ppm	0.014781	0.11	96905.200000	13.021400 o
Sn (189.925 nm)	0.000329 u	ppm	0.002887	> 100.00	3.675470	0.000329 u
Sr (421.552 nm)	0.058448	ppm	0.000124	0.21	12627.074153	0.058448
Th (288.505 nm)	-0.000604 u	ppm	0.001532	> 100.00	25.581500	-0.000604 u
Ti (336.122 nm)	-0.000169 u	ppm	0.000046	27.31	-47.869500	-0.000169 u
Tl (190.794 nm)	0.000420 u	ppm	0.001571	> 100.00	-1.068950	0.000420 u
U (409.013 nm)	0.018284	ppm	0.006158	33.68	74.195500	0.018284
V (292.401 nm)	0.001586	ppm	0.000105	6.64	-8.884760	0.001586
Zn (206.200 nm)	0.014795	ppm	0.000557	3.76	37.647300	0.014795
Zr (343.823 nm)	0.000007 u	ppm	0.000122	> 100.00	1.244080	0.000007 u

Solution Name: MB 280-652990/1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
MB 280-652990/1-A	5/15/2024 5:36:49 AM	2:58	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000606	ppm	0.000019	3.13	-909.050887	0.000606
Ag (328.068 nm)	0.000211	ppm	0.000165	78.30	-25.196600	0.000211
Al (394.401 nm)	-0.003706 u	ppm	0.000864	23.32	334.373000	-0.003706 u
Al H (396.152 nm)	-0.050127 u	ppm	0.003412	6.81	34.235700	-0.050127 u
As (188.980 nm)	0.001246	ppm	0.000377	30.25	-0.153064	0.001246
B (249.678 nm)	-0.000117 u	ppm	0.000412	> 100.00	20.628600	-0.000117 u
Ba (493.408 nm)	0.000222 u	ppm	0.000263	> 100.00	-13.738100	0.000222 u
Be (234.861 nm)	-0.000013 u	ppm	0.000039	> 100.00	-1.215390	-0.000013 u
Bi (223.061 nm)	-0.000540 u	ppm	0.000820	> 100.00	2.924410	-0.000540 u
Ca (315.887 nm)	0.027408	ppm	0.011286	41.18	8.128060	0.027408
Cd (214.439 nm)	0.000093	ppm	0.000021	22.23	-1.093720	0.000093
Co (228.615 nm)	0.000192 u	ppm	0.000256	> 100.00	-4.238940	0.000192 u
Cr (205.560 nm)	0.000098 u	ppm	0.000128	> 100.00	9.622180	0.000098 u
Cu (324.754 nm)	0.000460	ppm	0.000159	34.54	640.042000	0.000460
Fe (238.204 nm)	0.001805	ppm	0.000696	38.58	26.935367	0.001805
Fe H (259.940 nm)	-0.019945 u	ppm	0.000268	1.35	13.962600	-0.019945 u
K (766.491 nm)	-0.001618 u	ppm	0.026418	> 100.00	28.147300	-0.001618 u
Li (670.783 nm)	0.020622	ppm	0.000855	4.15	1027.700000	0.020622
Mg (279.078 nm)	0.000862	ppm	0.000766	88.82	6.789010	0.000862
Mn (257.610 nm)	-0.000015 u	ppm	0.000004	29.35	36.084400	-0.000015 u
Mo (202.032 nm)	-0.000100 u	ppm	0.000228	> 100.00	4.805980	-0.000100 u
Na (589.592 nm)	0.087684	ppm	0.011244	12.82	3600.010000	0.087684
Na H (589.593 nm)	-0.478766 u	ppm	0.005826	1.22	2423.477113	-0.478766 u
Ni (231.604 nm)	0.000555 u	ppm	0.000644	> 100.00	0.311274	0.000555 u
P (213.618 nm)	0.000088 u	ppm	0.001642	> 100.00	-7.273990	0.000088 u
Pb (220.353 nm)	0.000081 u	ppm	0.001884	> 100.00	2.439050	0.000081 u
S (181.972 nm)	-0.008735 u	ppm	0.003384	38.75	13.474413	-0.008735 u
Sb (206.834 nm)	-0.001367 u	ppm	0.000215	15.76	2.741470	-0.001367 u
Se (196.026 nm)	-0.002211 u	ppm	0.000883	39.94	3.283960	-0.002211 u
Si (288.158 nm)	-0.010509 u	ppm	0.002880	27.40	629.991000	-0.010509 u
Sn (189.925 nm)	-0.002334 u	ppm	0.001347	57.73	1.797890	-0.002334 u
Sr (421.552 nm)	-0.000015 u	ppm	0.000039	> 100.00	34.281182	-0.000015 u
Th (288.505 nm)	0.004182	ppm	0.000974	23.30	35.872500	0.004182
Ti (336.122 nm)	0.000118	ppm	0.000048	40.65	-104.798000	0.000118
Tl (190.794 nm)	0.000519 u	ppm	0.002662	> 100.00	-0.971431	0.000519 u
U (409.013 nm)	-0.006325 u	ppm	0.001294	20.45	-18.417900	-0.006325 u
V (292.401 nm)	0.000049 u	ppm	0.000070	> 100.00	-58.561500	0.000049 u
Zn (206.200 nm)	-0.000325 u	ppm	0.000408	> 100.00	2.414070	-0.000325 u
Zr (343.823 nm)	-0.000134 u	ppm	0.000082	61.13	-9.768970	-0.000134 u

Solution Name: LCS 280-652990/2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LCS 280-652990/2-A	5/15/2024 5:40:51 AM	2:59	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.953618	ppm	0.001842	0.19	2092662.704819	0.953618
Ag (328.068 nm)	0.048801	ppm	0.000275	0.56	1442.460000	0.048801
Al (394.401 nm)	9.895400 o	ppm	0.026838	0.27	130888.000000	9.895400 o
Al H (396.152 nm)	9.787620	ppm	0.025184	0.26	44823.200000	9.787620
As (188.980 nm)	0.952094	ppm	0.007878	0.83	547.974000	0.952094
B (249.678 nm)	2.032170	ppm	0.003408	0.17	15569.900000	2.032170
Ba (493.408 nm)	0.990248	ppm	0.001597	0.16	136417.000000	0.990248
Be (234.861 nm)	0.991759	ppm	0.007214	0.73	99698.700000	0.991759
Bi (223.061 nm)	-0.002275 u	ppm	0.000577	25.35	-1.313160	-0.002275 u
Ca (315.887 nm)	48.620348 o	ppm	0.112097	0.23	40743.698338	48.620348 o
Cd (214.439 nm)	0.983261	ppm	0.001167	0.12	25114.800000	0.983261
Co (228.615 nm)	0.965526	ppm	0.003030	0.31	12633.800000	0.965526
Cr (205.560 nm)	0.951528	ppm	0.001960	0.21	6120.720000	0.951528
Cu (324.754 nm)	0.979200	ppm	0.002545	0.26	47090.100000	0.979200
Fe (238.204 nm)	9.997887 o	ppm	0.031639	0.32	32201.294833	9.997887 o
Fe H (259.940 nm)	9.983410	ppm	0.012630	0.13	13624.800000	9.983410
K (766.491 nm)	48.338500	ppm	0.019163	0.04	62139.900000	48.338500
Li (670.783 nm)	0.946519	ppm	0.001572	0.17	29422.500000	0.946519
Mg (279.078 nm)	48.905000 o	ppm	0.083414	0.17	145753.000000	48.905000 o
Mn (257.610 nm)	0.972148	ppm	0.001523	0.16	284060.000000	0.972148
Mo (202.032 nm)	1.005820	ppm	0.001525	0.15	5417.470000	1.005820
Na (589.592 nm)	47.693200	ppm	0.052666	0.11	519275.000000	47.693200
Na H (589.593 nm)	47.539545 u	ppm	0.410870	0.86	374696.125758	47.539545 u
Ni (231.604 nm)	0.941722	ppm	0.002884	0.31	4446.630000	0.941722
P (213.618 nm)	20.715200 o	ppm	0.061163	0.30	25452.500000	20.715200 o
Pb (220.353 nm)	0.911773	ppm	0.003400	0.37	1941.650000	0.911773
S (181.972 nm)	19.851196 o	ppm	0.084961	0.43	7733.939246	19.851196 o
Sb (206.834 nm)	0.989159	ppm	0.003322	0.34	1420.970000	0.989159
Se (196.026 nm)	0.963633	ppm	0.003150	0.33	541.843000	0.963633
Si (288.158 nm)	9.707970	ppm	0.038643	0.40	73302.800000	9.707970
Sn (189.925 nm)	0.991032	ppm	0.003032	0.31	702.390000	0.991032
Sr (421.552 nm)	0.987104	ppm	0.001732	0.18	212657.741589	0.987104
Th (288.505 nm)	-0.002689 u	ppm	0.001313	48.83	-5.941060	-0.002689 u
Ti (336.122 nm)	0.974554	ppm	0.002118	0.22	132654.000000	0.974554
Tl (190.794 nm)	0.989802	ppm	0.002250	0.23	923.574000	0.989802
U (409.013 nm)	0.013754	ppm	0.000894	6.50	39.480400	0.013754
V (292.401 nm)	0.960990	ppm	0.001991	0.21	29880.800000	0.960990
Zn (206.200 nm)	0.966316	ppm	0.003185	0.33	2255.020000	0.966316
Zr (343.823 nm)	0.974908	ppm	0.002237	0.23	74202.100000	0.974908

Solution Name: 280-191153-H-1-E

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191153-H-1-E	5/15/2024 5:45:17 AM	2:60	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.077818	ppm	0.000249	0.32	168692.490449	0.077818
Ag (328.068 nm)	0.000557	ppm	0.000081	14.59	-12.162100	0.000557
Al (394.401 nm)	0.006985	ppm	0.000804	11.51	475.949000	0.006985
Al H (396.152 nm)	-0.042928 u	ppm	0.004738	11.04	67.010700	-0.042928 u
As (188.980 nm)	0.001270 u	ppm	0.001195	94.04	-0.137805	0.001270 u
B (249.678 nm)	0.068912	ppm	0.000982	1.42	548.779000	0.068912
Ba (493.408 nm)	0.789535	ppm	0.001713	0.22	108476.000000	0.789535
Be (234.861 nm)	0.000040	ppm	0.000039	97.34	8.457120	0.000040
Bi (223.061 nm)	-0.000595 u	ppm	0.000724	> 100.00	2.789040	-0.000595 u
Ca (315.887 nm)	2.467771	ppm	0.007664	0.31	2053.890359	2.467771
Cd (214.439 nm)	0.000080	ppm	0.000028	35.68	-1.194880	0.000080
Co (228.615 nm)	0.000194	ppm	0.000167	86.21	-4.209560	0.000194
Cr (205.560 nm)	0.002853	ppm	0.000061	2.12	27.316800	0.002853
Cu (324.754 nm)	0.003406	ppm	0.000321	9.42	780.450000	0.003406
Fe (238.204 nm)	0.671298	ppm	0.003902	0.58	2181.160096	0.671298
Fe H (259.940 nm)	0.652033 u	ppm	0.002342	0.36	928.278000	0.652033 u
K (766.491 nm)	3.444740	ppm	0.023854	0.69	4456.330000	3.444740
Li (670.783 nm)	0.079788	ppm	0.002080	2.61	3052.470000	0.079788
Mg (279.078 nm)	0.598156	ppm	0.004339	0.73	1789.250000	0.598156
Mn (257.610 nm)	0.011245	ppm	0.000057	0.50	3325.810000	0.011245
Mo (202.032 nm)	0.000790	ppm	0.000159	20.14	9.592250	0.000790
Na (589.592 nm)	558.956000 o	ppm	1.384310	0.25	5979330.000000	558.956000 o
Na H (589.593 nm)	580.945669	ppm	3.805030	0.65	4464113.357994	580.945669
Ni (231.604 nm)	0.008702	ppm	0.000298	3.43	38.787900	0.008702
P (213.618 nm)	0.028676	ppm	0.001886	6.58	27.775600	0.028676
Pb (220.353 nm)	0.000460 u	ppm	0.001035	> 100.00	3.246260	0.000460 u
S (181.972 nm)	0.056394	ppm	0.003563	6.32	38.824636	0.056394
Sb (206.834 nm)	0.001567	ppm	0.000834	53.23	7.017570	0.001567
Se (196.026 nm)	-0.001386 u	ppm	0.001499	> 100.00	3.920470	-0.001386 u
Si (288.158 nm)	7.513750	ppm	0.019124	0.25	56215.100000	7.513750
Sn (189.925 nm)	-0.003030 u	ppm	0.002196	72.47	1.306480	-0.003030 u
Sr (421.552 nm)	0.454317	ppm	0.000996	0.22	97896.400858	0.454317
Th (288.505 nm)	0.004862	ppm	0.001148	23.61	37.677900	0.004862
Ti (336.122 nm)	0.000240	ppm	0.000018	7.53	-81.308600	0.000240
Tl (190.794 nm)	-0.000639 u	ppm	0.002663	> 100.00	-2.067930	-0.000639 u
U (409.013 nm)	-0.022071 u	ppm	0.002846	12.89	-76.938700	-0.022071 u
V (292.401 nm)	0.000018 u	ppm	0.000143	> 100.00	-59.948400	0.000018 u
Zn (206.200 nm)	0.002853	ppm	0.000354	12.41	9.820660	0.002853
Zr (343.823 nm)	0.001027	ppm	0.000075	7.26	79.476300	0.001027

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/15/2024 5:49:38 AM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001092	ppm	0.000062	5.71	159.399158	0.001092
Ag (328.068 nm)	0.000421	ppm	0.000227	54.00	79.932800	0.000421
Al (394.401 nm)	50.305200 o	ppm	0.432434	0.86	662831.000000	50.305200 o
Al H (396.152 nm)	48.844300	ppm	0.056513	0.12	222639.000000	48.844300
As (188.980 nm)	0.002167 u	ppm	0.005155	> 100.00	0.063634	0.002167 u
B (249.678 nm)	-0.001980 u	ppm	0.000846	42.72	6.372650	-0.001980 u
Ba (493.408 nm)	0.000364	ppm	0.000140	38.35	135.251000	0.000364
Be (234.861 nm)	0.000193	ppm	0.000038	19.97	338.026000	0.000193
Bi (223.061 nm)	0.000072 u	ppm	0.000112	> 100.00	4.418130	0.000072 u
Ca (315.887 nm)	-0.006618 u	ppm	0.005354	80.91	-20.395415	-0.006618 u
Cd (214.439 nm)	-0.000257 u	ppm	0.000283	> 100.00	7.660640	-0.000257 u
Co (228.615 nm)	-0.000072 u	ppm	0.000155	> 100.00	-7.685010	-0.000072 u
Cr (205.560 nm)	0.000601	ppm	0.000110	18.22	12.859100	0.000601
Cu (324.754 nm)	-0.003733 u	ppm	0.000249	6.67	1404.520000	-0.003733 u
Fe (238.204 nm)	50.197784 o	ppm	0.035861	0.07	161542.394570	50.197784 o
Fe H (259.940 nm)	49.875000	ppm	0.039764	0.08	67902.600000	49.875000
K (766.491 nm)	0.003405 u	ppm	0.042648	> 100.00	34.600900	0.003405 u
Li (670.783 nm)	0.018944	ppm	0.000228	1.20	1063.720000	0.018944
Mg (279.078 nm)	0.016911	ppm	0.002159	12.77	-113.930000	0.016911
Mn (257.610 nm)	-0.000706 u	ppm	0.000047	6.72	-165.844000	-0.000706 u
Mo (202.032 nm)	-0.000278 u	ppm	0.000496	> 100.00	3.846670	-0.000278 u
Na (589.592 nm)	234.385000 o	ppm	0.579391	0.25	2506460.000000	234.385000 o
Na H (589.593 nm)	234.998103	ppm	2.158122	0.92	1808101.551670	234.998103
Ni (231.604 nm)	0.000054 u	ppm	0.000244	> 100.00	-2.058590	0.000054 u
P (213.618 nm)	5.022010	ppm	0.031348	0.62	6184.150000	5.022010
Pb (220.353 nm)	-0.003285 u	ppm	0.000577	17.57	-6.177540	-0.003285 u
S (181.972 nm)	5.019285	ppm	0.038616	0.77	1966.600968	5.019285
Sb (206.834 nm)	-0.001429 u	ppm	0.001506	> 100.00	6.777690	-0.001429 u
Se (196.026 nm)	0.001299 u	ppm	0.007118	> 100.00	0.405756	0.001299 u
Si (288.158 nm)	0.004514 u	ppm	0.005213	> 100.00	744.562000	0.004514 u
Sn (189.925 nm)	0.001690	ppm	0.000911	53.90	4.635820	0.001690
Sr (421.552 nm)	0.000129	ppm	0.000077	59.45	65.334223	0.000129
Th (288.505 nm)	4.775720	ppm	0.013331	0.28	10676.000000	4.775720
Ti (336.122 nm)	0.000829	ppm	0.000101	12.13	-7.910360	0.000829
Tl (190.794 nm)	-0.007166 u	ppm	0.002785	38.86	-8.959360	-0.007166 u
U (409.013 nm)	2.466930 Q	ppm	0.012590	0.51	9369.420000 Q	2.466930 Q
V (292.401 nm)	0.001241	ppm	0.000069	5.52	190.851000	0.001241
Zn (206.200 nm)	0.002158	ppm	0.000872	40.42	8.199940	0.002158
Zr (343.823 nm)	-0.000295 u	ppm	0.000051	17.37	42.057800	-0.000295 u

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/15/2024 5:54:08 AM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.453028	ppm	0.001259	0.28	992973.324741	0.453028
Ag (328.068 nm)	0.489899	ppm	0.001494	0.30	17623.500000	0.489899
Al (394.401 nm)	0.492701	ppm	0.002947	0.60	6878.980000	0.492701
Al H (396.152 nm)	0.468711 u	ppm	0.004217	0.90	2396.380000	0.468711 u
As (188.980 nm)	0.467022	ppm	0.002221	0.48	268.320000	0.467022
B (249.678 nm)	0.497096	ppm	0.001154	0.23	3824.860000	0.497096
Ba (493.408 nm)	0.495286	ppm	0.000298	0.06	68202.600000	0.495286
Be (234.861 nm)	0.495318	ppm	0.002138	0.43	49776.000000	0.495318
Bi (223.061 nm)	0.993434	ppm	0.003839	0.39	2429.950000	0.993434
Ca (315.887 nm)	4.863211	ppm	0.012351	0.25	4061.993001	4.863211
Cd (214.439 nm)	0.501425	ppm	0.001483	0.30	12805.100000	0.501425
Co (228.615 nm)	0.499920	ppm	0.001818	0.36	6537.680000	0.499920
Cr (205.560 nm)	0.485972	ppm	0.001995	0.41	3130.470000	0.485972
Cu (324.754 nm)	0.497345	ppm	0.001839	0.37	24227.100000	0.497345
Fe (238.204 nm)	2.506959	ppm	0.005799	0.23	8092.856906	2.506959
Fe H (259.940 nm)	2.479780 u	ppm	0.005291	0.21	3415.160000	2.479780 u
K (766.491 nm)	48.251800	ppm	0.212091	0.44	62028.500000	48.251800
Li (670.783 nm)	0.487806	ppm	0.002210	0.45	15350.800000	0.487806
Mg (279.078 nm)	19.361200	ppm	0.061400	0.32	57735.500000	19.361200
Mn (257.610 nm)	0.492465	ppm	0.001159	0.24	143918.000000	0.492465
Mo (202.032 nm)	0.499824	ppm	0.001008	0.20	2694.810000	0.499824
Na (589.592 nm)	24.209000	ppm	0.049608	0.20	264845.000000	24.209000
Na H (589.593 nm)	23.671488 u	ppm	0.194567	0.82	189644.540572	23.671488 u
Ni (231.604 nm)	0.494776	ppm	0.001794	0.36	2335.120000	0.494776
P (213.618 nm)	-0.013932 u	ppm	0.001159	8.32	-66.475200	-0.013932 u
Pb (220.353 nm)	0.461247	ppm	0.001293	0.28	983.852000	0.461247
S (181.972 nm)	-0.033993 u	ppm	0.004141	12.18	13.286252	-0.033993 u
Sb (206.834 nm)	0.493969	ppm	0.002141	0.43	711.829000	0.493969
Se (196.026 nm)	0.487014	ppm	0.002989	0.61	276.326000	0.487014
Si (288.158 nm)	4.946700	ppm	0.048116	0.97	37696.300000	4.946700
Sn (189.925 nm)	0.502216	ppm	0.002636	0.52	357.642000	0.502216
Sr (421.552 nm)	0.494936	ppm	0.000379	0.08	106645.691888	0.494936
Th (288.505 nm)	0.006289	ppm	0.001932	30.71	27.468400	0.006289
Ti (336.122 nm)	0.486979	ppm	0.001148	0.24	66173.100000	0.486979
Tl (190.794 nm)	0.500618	ppm	0.003047	0.61	466.487000	0.500618
U (409.013 nm)	-0.000558 u	ppm	0.003779	> 100.00	-7.531670	-0.000558 u
V (292.401 nm)	0.478000	ppm	0.000841	0.18	14829.300000	0.478000
Zn (206.200 nm)	0.493469	ppm	0.002127	0.43	1153.120000	0.493469
Zr (343.823 nm)	0.488347	ppm	0.001621	0.33	37166.100000	0.488347

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/15/2024 5:58:33 AM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000597	ppm	0.000021	3.51	-928.038857	0.000597
Ag (328.068 nm)	0.000353	ppm	0.000228	64.60	-19.929400	0.000353
Al (394.401 nm)	-0.005247 u	ppm	0.000830	15.82	312.961000	-0.005247 u
Al H (396.152 nm)	-0.051308 u	ppm	0.003727	7.26	28.862200	-0.051308 u
As (188.980 nm)	0.000426 u	ppm	0.002951	> 100.00	-0.625888	0.000426 u
B (249.678 nm)	0.000091 u	ppm	0.000746	> 100.00	22.221500	0.000091 u
Ba (493.408 nm)	0.000059 u	ppm	0.000264	> 100.00	-36.191600	0.000059 u
Be (234.861 nm)	0.000005 u	ppm	0.000033	> 100.00	0.617819	0.000005 u
Bi (223.061 nm)	-0.000357 u	ppm	0.000911	> 100.00	3.370340	-0.000357 u
Ca (315.887 nm)	0.006241	ppm	0.001506	24.13	-9.615746	0.006241
Cd (214.439 nm)	0.000118	ppm	0.000078	65.77	-0.459491	0.000118
Co (228.615 nm)	-0.000179 u	ppm	0.000084	46.83	-9.089460	-0.000179 u
Cr (205.560 nm)	0.000080 u	ppm	0.000595	> 100.00	9.508120	0.000080 u
Cu (324.754 nm)	0.000692	ppm	0.000379	54.74	652.151000	0.000692
Fe (238.204 nm)	0.004804	ppm	0.000900	18.73	36.586205	0.004804
Fe H (259.940 nm)	-0.017829 u	ppm	0.002043	11.46	16.841500	-0.017829 u
K (766.491 nm)	-0.027410 u	ppm	0.033612	> 100.00	-4.992250	-0.027410 u
Li (670.783 nm)	0.021027 S	ppm	0.001335	6.35	1040.150000 S	0.021027 S
Mg (279.078 nm)	0.002722	ppm	0.000484	17.77	12.139600	0.002722
Mn (257.610 nm)	0.000055	ppm	0.000033	60.42	56.589700	0.000055
Mo (202.032 nm)	0.000284	ppm	0.000206	72.46	6.869080	0.000284
Na (589.592 nm)	0.104201	ppm	0.011821	11.34	3776.070000	0.104201
Na H (589.593 nm)	-0.429008 u	ppm	0.013944	3.25	2804.811065	-0.429008 u
Ni (231.604 nm)	0.000192 u	ppm	0.000633	> 100.00	-1.403510	0.000192 u
P (213.618 nm)	-0.001375 u	ppm	0.002877	> 100.00	-9.102470	-0.001375 u
Pb (220.353 nm)	-0.000278 u	ppm	0.000665	> 100.00	1.677350	-0.000278 u
S (181.972 nm)	-0.011084 u	ppm	0.005727	51.67	12.573894	-0.011084 u
Sb (206.834 nm)	0.000718	ppm	0.000661	92.08	5.732710	0.000718
Se (196.026 nm)	-0.000203 u	ppm	0.002145	> 100.00	4.403320	-0.000203 u
Si (288.158 nm)	-0.008803 u	ppm	0.001336	15.17	642.090000	-0.008803 u
Sn (189.925 nm)	-0.002327 u	ppm	0.000813	34.94	1.802610	-0.002327 u
Sr (421.552 nm)	-0.000064 u	ppm	0.000051	79.23	23.722118	-0.000064 u
Th (288.505 nm)	0.003721	ppm	0.001881	50.56	34.861600	0.003721
Ti (336.122 nm)	0.000073	ppm	0.000031	42.93	-110.913000	0.000073
Tl (190.794 nm)	0.000239 u	ppm	0.002190	> 100.00	-1.233970	0.000239 u
U (409.013 nm)	-0.000713 u	ppm	0.000820	> 100.00	2.717350	-0.000713 u
V (292.401 nm)	-0.000129 u	ppm	0.000103	79.86	-63.946400	-0.000129 u
Zn (206.200 nm)	0.000507 u	ppm	0.000765	> 100.00	4.353430	0.000507 u
Zr (343.823 nm)	0.000027 u	ppm	0.000126	> 100.00	2.477670	0.000027 u

Solution Name: 280-191229-B-2-C

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191229-B-2-C	5/15/2024 6:02:35 AM	2:61	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.010693	ppm	0.000052	0.49	21246.879826	0.010693
Ag (328.068 nm)	0.001692	ppm	0.000181	10.71	28.098800	0.001692
Al (394.401 nm)	16.433800 o	ppm	0.087424	0.53	217129.000000	16.433800 o
Al H (396.152 nm)	16.489400	ppm	0.027556	0.17	75334.700000	16.489400
As (188.980 nm)	0.002772 u	ppm	0.002904	> 100.00	0.853583	0.002772 u
B (249.678 nm)	0.006355	ppm	0.000147	2.31	70.149000	0.006355
Ba (493.408 nm)	0.015461	ppm	0.000176	1.14	2129.270000	0.015461
Be (234.861 nm)	0.003113	ppm	0.000067	2.16	434.086000	0.003113
Bi (223.061 nm)	-0.001617 u	ppm	0.000279	17.25	0.294644	-0.001617 u
Ca (315.887 nm)	105.174860 o	ppm	0.196368	0.19	88153.470986	105.174860 o
Cd (214.439 nm)	0.007361	ppm	0.000119	1.62	192.204000	0.007361
Co (228.615 nm)	0.058258	ppm	0.000433	0.74	754.381000	0.058258
Cr (205.560 nm)	0.003448	ppm	0.000315	9.13	31.032300	0.003448
Cu (324.754 nm)	1.898910 o	ppm	0.012147	0.64	90756.700000	1.898910 o
Fe (238.204 nm)	18.483797 o	ppm	0.029583	0.16	59496.462328	18.483797 o
Fe H (259.940 nm)	18.508000	ppm	0.025521	0.14	25223.700000	18.508000
K (766.491 nm)	1.750400	ppm	0.039186	2.24	2279.290000	1.750400
Li (670.783 nm)	0.032382	ppm	0.002765	8.54	1412.420000	0.032382
Mg (279.078 nm)	19.951600	ppm	0.052179	0.26	59446.700000	19.951600
Mn (257.610 nm)	3.372490 o	ppm	0.007348	0.22	985336.000000	3.372490 o
Mo (202.032 nm)	0.000054 u	ppm	0.000197	> 100.00	5.635430	0.000054 u
Na (589.592 nm)	5.051990	ppm	0.016452	0.33	56742.500000	5.051990
Na H (589.593 nm)	4.404155 u	ppm	0.047267	1.07	39930.151208	4.404155 u
Ni (231.604 nm)	0.082364	ppm	0.000478	0.58	386.713000	0.082364
P (213.618 nm)	0.213920	ppm	0.002686	1.26	152.234000	0.213920
Pb (220.353 nm)	-0.000110 u	ppm	0.001520	> 100.00	0.157680	-0.000110 u
S (181.972 nm)	161.755224 bo	ppm	0.743547	0.46	62765.370552	161.755224 bo
Sb (206.834 nm)	-0.002062 u	ppm	0.003086	> 100.00	3.278280	-0.002062 u
Se (196.026 nm)	-0.002942 u	ppm	0.004218	> 100.00	3.475300	-0.002942 u
Si (288.158 nm)	10.422400	ppm	0.052980	0.51	77704.300000	10.422400
Sn (189.925 nm)	-0.000546 u	ppm	0.001462	> 100.00	3.058730	-0.000546 u
Sr (421.552 nm)	0.271047	ppm	0.001868	0.69	58420.529485	0.271047
Th (288.505 nm)	-0.026350 u	ppm	0.001151	4.37	49.772500	-0.026350 u
Ti (336.122 nm)	0.000839	ppm	0.000120	14.35	281.467000	0.000839
Tl (190.794 nm)	0.002591	ppm	0.000382	14.76	0.773603	0.002591
U (409.013 nm)	0.014484	ppm	0.003503	24.18	75.552100	0.014484
V (292.401 nm)	0.002560	ppm	0.000123	4.82	26.911100	0.002560
Zn (206.200 nm)	1.578680 o	ppm	0.005091	0.32	3682.030000	1.578680 o
Zr (343.823 nm)	0.000044 u	ppm	0.000130	> 100.00	27.394700	0.000044 u

Solution Name: 280-191229-B-3-C

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191229-B-3-C	5/15/2024 6:07:02 AM	2:62	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.009946	ppm	0.000055	0.55	19607.484522	0.009946
Ag (328.068 nm)	0.001500	ppm	0.000158	10.56	21.461800	0.001500
Al (394.401 nm)	9.845880 o	ppm	0.043311	0.44	130267.000000	9.845880 o
Al H (396.152 nm)	9.870390	ppm	0.010755	0.11	45200.000000	9.870390
As (188.980 nm)	0.000071 u	ppm	0.002874	> 100.00	-0.584375	0.000071 u
B (249.678 nm)	0.007588	ppm	0.000356	4.70	79.580000	0.007588
Ba (493.408 nm)	0.015491	ppm	0.000208	1.34	2089.740000	0.015491
Be (234.861 nm)	0.002431	ppm	0.000039	1.61	258.036000	0.002431
Bi (223.061 nm)	-0.001004 u	ppm	0.000594	59.16	1.790530	-0.001004 u
Ca (315.887 nm)	110.813916 o	ppm	0.192463	0.17	92880.704681	110.813916 o
Cd (214.439 nm)	0.006280	ppm	0.000131	2.09	158.215000	0.006280
Co (228.615 nm)	0.040292	ppm	0.000232	0.58	519.670000	0.040292
Cr (205.560 nm)	0.000088 u	ppm	0.000278	> 100.00	9.455150	0.000088 u
Cu (324.754 nm)	0.896440	ppm	0.001284	0.14	43140.000000	0.896440
Fe (238.204 nm)	1.521650	ppm	0.003289	0.22	4917.400034	1.521650
Fe H (259.940 nm)	1.491390 u	ppm	0.002700	0.18	2070.330000	1.491390 u
K (766.491 nm)	1.870850	ppm	0.056518	3.02	2434.070000	1.870850
Li (670.783 nm)	0.029952	ppm	0.001048	3.50	1339.540000	0.029952
Mg (279.078 nm)	20.980800	ppm	0.033467	0.16	62521.800000	20.980800
Mn (257.610 nm)	3.053760 o	ppm	0.002605	0.09	892218.000000	3.053760 o
Mo (202.032 nm)	0.000312 u	ppm	0.000564	> 100.00	7.019550	0.000312 u
Na (589.592 nm)	6.047140	ppm	0.019563	0.32	67371.500000	6.047140
Na H (589.593 nm)	5.351861 u	ppm	0.060253	1.13	47196.393998	5.351861 u
Ni (231.604 nm)	0.064541	ppm	0.000398	0.62	302.532000	0.064541
P (213.618 nm)	-0.014352 u	ppm	0.001410	9.83	-74.286700	-0.014352 u
Pb (220.353 nm)	-0.001756 u	ppm	0.001458	83.02	-2.603960	-0.001756 u
S (181.972 nm)	142.198660 bo	ppm	0.596603	0.42	55178.356629	142.198660 bo
Sb (206.834 nm)	-0.001365 u	ppm	0.002692	> 100.00	2.867990	-0.001365 u
Se (196.026 nm)	-0.003323 u	ppm	0.002796	84.13	4.676590	-0.003323 u
Si (288.158 nm)	9.559230	ppm	0.027490	0.29	71328.000000	9.559230
Sn (189.925 nm)	-0.000609 u	ppm	0.000745	> 100.00	3.014390	-0.000609 u
Sr (421.552 nm)	0.305776	ppm	0.002964	0.97	65901.160296	0.305776
Th (288.505 nm)	-0.025283 u	ppm	0.001920	7.59	45.044000	-0.025283 u
Ti (336.122 nm)	0.000470	ppm	0.000082	17.54	246.169000	0.000470
Tl (190.794 nm)	0.000620 u	ppm	0.001381	> 100.00	-0.835535	0.000620 u
U (409.013 nm)	0.015947	ppm	0.004783	29.99	66.533900	0.015947
V (292.401 nm)	0.001325	ppm	0.000178	13.43	-11.848700	0.001325
Zn (206.200 nm)	1.390050 o	ppm	0.000520	0.04	3242.460000	1.390050 o
Zr (343.823 nm)	0.000023 u	ppm	0.000047	> 100.00	4.112670	0.000023 u

Solution Name: 280-191229-B-4-C

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191229-B-4-C	5/15/2024 6:11:28 AM	2:63	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.036337	ppm	0.000143	0.39	77577.908068	0.036337
Ag (328.068 nm)	0.002376	ppm	0.000129	5.44	34.632200	0.002376
Al (394.401 nm)	129.641000 o	ppm	0.608323	0.47	1709900.000000	129.641000 o
Al H (396.152 nm)	126.312000	ppm	0.153044	0.12	575331.000000	126.312000
As (188.980 nm)	0.538713	ppm	0.006909	1.28	308.115000	0.538713
B (249.678 nm)	-0.000075 u	ppm	0.000235	> 100.00	20.953000	-0.000075 u
Ba (493.408 nm)	0.008278	ppm	0.000120	1.45	1835.060000	0.008278
Be (234.861 nm)	0.021225	ppm	0.000131	0.62	3941.300000	0.021225
Bi (223.061 nm)	0.004838	ppm	0.000782	16.16	16.056100	0.004838
Ca (315.887 nm)	104.363044 o	ppm	0.224108	0.21	87472.923707	104.363044 o
Cd (214.439 nm)	0.171850	ppm	0.000905	0.53	4490.430000	0.171850
Co (228.615 nm)	0.371283	ppm	0.001465	0.39	4843.860000	0.371283
Cr (205.560 nm)	0.022513	ppm	0.000187	0.83	153.005000	0.022513
Cu (324.754 nm)	22.584000 o	ppm	0.193476	0.86	1073070.000000	22.584000 o
Fe (238.204 nm)	283.216316 o	ppm	0.272965	0.10	911327.236562	283.216316 o
Fe H (259.940 nm)	285.658000	ppm	0.554567	0.19	388717.000000	285.658000
K (766.491 nm)	3.145640	ppm	0.039558	1.26	4072.030000	3.145640
Li (670.783 nm)	0.055262	ppm	0.000257	0.47	2113.530000	0.055262
Mg (279.078 nm)	39.250800	ppm	0.179311	0.46	116884.000000	39.250800
Mn (257.610 nm)	15.268500 o	ppm	0.046604	0.31	4460840.000000	15.268500 o
Mo (202.032 nm)	0.000348 u	ppm	0.000541	> 100.00	7.214260	0.000348 u
Na (589.592 nm)	6.018250	ppm	0.014481	0.24	67047.700000	6.018250
Na H (589.593 nm)	5.323896 u	ppm	0.068534	1.29	46973.294622	5.323896 u
Ni (231.604 nm)	0.458922	ppm	0.001026	0.22	2165.280000	0.458922
P (213.618 nm)	1.261800	ppm	0.012146	0.96	309.826000	1.261800
Pb (220.353 nm)	0.415352	ppm	0.003331	0.80	873.460000	0.415352
S (181.972 nm)	548.412736 bo	ppm	3.131408	0.57	212779.052833	548.412736 bo
Sb (206.834 nm)	0.002346 u	ppm	0.004206	> 100.00	31.457900	0.002346 u
Se (196.026 nm)	-0.011818 u	ppm	0.004064	34.39	-18.966800	-0.011818 u
Si (288.158 nm)	35.054100 o	ppm	0.658121	1.88	259671.000000	35.054100 o
Sn (189.925 nm)	0.000510 u	ppm	0.003835	> 100.00	3.803460	0.000510 u
Sr (421.552 nm)	0.310220	ppm	0.001492	0.48	66858.378784	0.310220
Th (288.505 nm)	-0.119379 u	ppm	0.001229	1.03	125.597000	-0.119379 u
Ti (336.122 nm)	0.000086	ppm	0.000048	55.98	182.603000	0.000086
Tl (190.794 nm)	0.011225	ppm	0.002704	24.09	5.219800	0.011225
U (409.013 nm)	0.009571	ppm	0.003339	34.89	280.313000	0.009571
V (292.401 nm)	0.038164	ppm	0.000050	0.13	1141.220000	0.038164
Zn (206.200 nm)	14.102300 o	ppm	0.101876	0.72	32866.300000	14.102300 o
Zr (343.823 nm)	0.001179	ppm	0.000066	5.57	451.907000	0.001179

Solution Name: 280-191229-A-5-G

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191229-A-5-G	5/15/2024 6:16:11 AM	2:64	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.010151	ppm	0.000021	0.21	20057.426004	0.010151
Ag (328.068 nm)	0.001816	ppm	0.000058	3.21	33.466100	0.001816
Al (394.401 nm)	22.111900 o	ppm	0.028531	0.13	292010.000000	22.111900 o
Al H (396.152 nm)	22.001600	ppm	0.007235	0.03	100430.000000	22.001600
As (188.980 nm)	0.004937	ppm	0.001771	35.87	2.143390	0.004937
B (249.678 nm)	0.003848	ppm	0.000263	6.83	50.964400	0.003848
Ba (493.408 nm)	0.012292	ppm	0.000167	1.36	1700.710000	0.012292
Be (234.861 nm)	0.003814	ppm	0.000023	0.62	520.431000	0.003814
Bi (223.061 nm)	-0.000875 u	ppm	0.000542	61.92	2.107420	-0.000875 u
Ca (315.887 nm)	129.737566 o	ppm	0.144220	0.11	108744.442012	129.737566 o
Cd (214.439 nm)	0.019081	ppm	0.000065	0.34	492.993000	0.019081
Co (228.615 nm)	0.096010	ppm	0.000439	0.46	1247.550000	0.096010
Cr (205.560 nm)	0.002760	ppm	0.000496	17.99	26.565100	0.002760
Cu (324.754 nm)	3.704200 o	ppm	0.017809	0.48	176455.000000	3.704200 o
Fe (238.204 nm)	20.879987 o	ppm	0.021930	0.11	67206.797084	20.879987 o
Fe H (259.940 nm)	20.889500	ppm	0.033054	0.16	28464.000000	20.889500
K (766.491 nm)	2.204890	ppm	0.026284	1.19	2863.270000	2.204890
Li (670.783 nm)	0.030748	ppm	0.003217	10.46	1368.160000	0.030748
Mg (279.078 nm)	24.120300	ppm	0.100140	0.42	71871.700000	24.120300
Mn (257.610 nm)	5.838800 o	ppm	0.021653	0.37	1705890.000000	5.838800 o
Mo (202.032 nm)	-0.000313 u	ppm	0.000367	> 100.00	3.658200	-0.000313 u
Na (589.592 nm)	6.592610	ppm	0.006198	0.09	73177.400000	6.592610
Na H (589.593 nm)	5.897194 u	ppm	0.054000	0.92	51366.163384	5.897194 u
Ni (231.604 nm)	0.109039	ppm	0.000911	0.84	512.708000	0.109039
P (213.618 nm)	-0.039123 u	ppm	0.005758	14.72	-258.862000	-0.039123 u
Pb (220.353 nm)	0.020721	ppm	0.001531	7.39	43.915300	0.020721
S (181.972 nm)	206.848279 bo	ppm	1.161578	0.56	80261.014245	206.848279 bo
Sb (206.834 nm)	-0.001279 u	ppm	0.002672	> 100.00	4.597840	-0.001279 u
Se (196.026 nm)	-0.004766 u	ppm	0.005788	> 100.00	3.734590	-0.004766 u
Si (288.158 nm)	10.462000	ppm	0.004871	0.05	77995.700000	10.462000
Sn (189.925 nm)	-0.001837 u	ppm	0.000266	14.48	2.147880	-0.001837 u
Sr (421.552 nm)	0.519088	ppm	0.001807	0.35	111847.935045	0.519088
Th (288.505 nm)	-0.044780 u	ppm	0.001313	2.93	68.936400	-0.044780 u
Ti (336.122 nm)	-0.000037 u	ppm	0.000118	> 100.00	229.622000	-0.000037 u
Tl (190.794 nm)	0.003908	ppm	0.003123	79.90	2.033820	0.003908
U (409.013 nm)	0.014435	ppm	0.003176	22.00	77.537500	0.014435
V (292.401 nm)	0.001275	ppm	0.000223	17.51	-11.027200	0.001275
Zn (206.200 nm)	2.474660 o	ppm	0.014089	0.57	5769.990000	2.474660 o
Zr (343.823 nm)	-0.000015 u	ppm	0.000063	> 100.00	25.947100	-0.000015 u

Solution Name: 280-191251-A-2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191251-A-2-A	5/15/2024 6:20:41 AM	2:65	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.011588	ppm	0.000062	0.54	23213.334661	0.011588
Ag (328.068 nm)	0.001330	ppm	0.000185	13.88	15.032500	0.001330
Al (394.401 nm)	0.652279	ppm	0.006394	0.98	9000.470000	0.652279
Al H (396.152 nm)	0.580055 u	ppm	0.000662	0.11	2903.310000	0.580055 u
As (188.980 nm)	0.002039	ppm	0.001035	50.77	0.371254	0.002039
B (249.678 nm)	0.238561	ppm	0.001763	0.74	1846.780000	0.238561
Ba (493.408 nm)	0.079606	ppm	0.001132	1.42	10900.400000	0.079606
Be (234.861 nm)	-0.000018 u	ppm	0.000020	> 100.00	8.563600	-0.000018 u
Bi (223.061 nm)	0.010372	ppm	0.001348	12.99	29.568500	0.010372
Ca (315.887 nm)	32.648472 o	ppm	0.109560	0.34	27354.438687	32.648472 o
Cd (214.439 nm)	0.000418	ppm	0.000032	7.59	7.628250	0.000418
Co (228.615 nm)	0.000226	ppm	0.000185	81.92	-3.430660	0.000226
Cr (205.560 nm)	0.004941	ppm	0.000336	6.80	40.742200	0.004941
Cu (324.754 nm)	0.077207	ppm	0.000410	0.53	4274.610000	0.077207
Fe (238.204 nm)	1.235945	ppm	0.006210	0.50	3998.026923	1.235945
Fe H (259.940 nm)	1.206660 u	ppm	0.007189	0.60	1682.920000	1.206660 u
K (766.491 nm)	21.291500	ppm	0.028420	0.13	27387.500000	21.291500
Li (670.783 nm)	0.032206	ppm	0.001517	4.71	1414.770000	0.032206
Mg (279.078 nm)	12.198700	ppm	0.092088	0.75	36368.300000	12.198700
Mn (257.610 nm)	0.042461	ppm	0.000294	0.69	12445.900000	0.042461
Mo (202.032 nm)	0.002817	ppm	0.000460	16.35	20.499700	0.002817
Na (589.592 nm)	68.745500 o	ppm	0.129043	0.19	737603.000000	68.745500 o
Na H (589.593 nm)	67.674856	ppm	0.622890	0.92	525362.386177	67.674856
Ni (231.604 nm)	0.004047	ppm	0.000303	7.48	16.803700	0.004047
P (213.618 nm)	17.252100 o	ppm	0.145989	0.85	21261.200000	17.252100 o
Pb (220.353 nm)	0.002651	ppm	0.001589	59.96	7.854110	0.002651
S (181.972 nm)	24.903954 o	ppm	0.194976	0.78	9676.710587	24.903954 o
Sb (206.834 nm)	0.000054 u	ppm	0.003147	> 100.00	4.845930	0.000054 u
Se (196.026 nm)	-0.002666 u	ppm	0.002469	92.62	3.110550	-0.002666 u
Si (288.158 nm)	5.562580	ppm	0.070229	1.26	41810.700000	5.562580
Sn (189.925 nm)	0.008032	ppm	0.002368	29.48	9.108520	0.008032
Sr (421.552 nm)	0.270583	ppm	0.003198	1.18	58320.497320	0.270583
Th (288.505 nm)	0.002260	ppm	0.001037	45.89	32.800200	0.002260
Ti (336.122 nm)	0.014280	ppm	0.000055	0.39	1911.520000	0.014280
Tl (190.794 nm)	-0.000190 u	ppm	0.001160	> 100.00	-1.680100	-0.000190 u
U (409.013 nm)	0.012401	ppm	0.001348	10.87	52.899000	0.012401
V (292.401 nm)	0.002352	ppm	0.000304	12.92	14.720200	0.002352
Zn (206.200 nm)	0.179836	ppm	0.002251	1.25	422.251000	0.179836
Zr (343.823 nm)	0.002741	ppm	0.000006	0.24	210.588000	0.002741

Solution Name: 280-191207-A-2-E

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191207-A-2-E	5/15/2024 6:25:04 AM	2:66	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.013334	ppm	0.000050	0.38	27048.626064	0.013334
Ag (328.068 nm)	0.001227	ppm	0.000066	5.38	11.323100	0.001227
Al (394.401 nm)	0.058711	ppm	0.000883	1.50	1187.330000	0.058711
Al H (396.152 nm)	-0.011589 u	ppm	0.002379	20.53	209.691000	-0.011589 u
As (188.980 nm)	0.002089	ppm	0.001150	55.05	0.469855	0.002089
B (249.678 nm)	0.069168	ppm	0.000805	1.16	550.737000	0.069168
Ba (493.408 nm)	0.285347	ppm	0.000692	0.24	39175.900000	0.285347
Be (234.861 nm)	-0.000048 u	ppm	0.000053	> 100.00	-0.425042	-0.000048 u
Bi (223.061 nm)	-0.000195 u	ppm	0.000691	> 100.00	3.767220	-0.000195 u
Ca (315.887 nm)	59.736473 o	ppm	0.223649	0.37	50062.370630	59.736473 o
Cd (214.439 nm)	0.000261	ppm	0.000059	22.52	3.237700	0.000261
Co (228.615 nm)	-0.000467 u	ppm	0.000375	80.28	-12.849700	-0.000467 u
Cr (205.560 nm)	0.000322	ppm	0.000174	54.11	11.060100	0.000322
Cu (324.754 nm)	0.000014 u	ppm	0.000202	> 100.00	599.591000	0.000014 u
Fe (238.204 nm)	0.158047	ppm	0.000572	0.36	529.677728	0.158047
Fe H (259.940 nm)	0.133828 u	ppm	0.003536	2.64	223.191000	0.133828 u
K (766.491 nm)	1.583160	ppm	0.030346	1.92	2064.410000	1.583160
Li (670.783 nm)	0.034564	ppm	0.001879	5.44	1488.580000	0.034564
Mg (279.078 nm)	16.266200	ppm	0.104108	0.64	48466.200000	16.266200
Mn (257.610 nm)	0.091644	ppm	0.000535	0.58	26815.000000	0.091644
Mo (202.032 nm)	0.000828	ppm	0.000399	48.25	9.798140	0.000828
Na (589.592 nm)	56.751900 o	ppm	0.098371	0.17	610960.000000	56.751900 o
Na H (589.593 nm)	56.150349	ppm	0.282368	0.50	437831.509796	56.150349
Ni (231.604 nm)	-0.001626 u	ppm	0.000460	28.29	-9.988960	-0.001626 u
P (213.618 nm)	0.019405	ppm	0.002260	11.65	16.509800	0.019405
Pb (220.353 nm)	-0.001626 u	ppm	0.000855	52.58	-1.182320	-0.001626 u
S (181.972 nm)	2.038743	ppm	0.019100	0.94	808.425461	2.038743
Sb (206.834 nm)	-0.000738 u	ppm	0.002264	> 100.00	3.652560	-0.000738 u
Se (196.026 nm)	-0.001232 u	ppm	0.002876	> 100.00	4.122130	-0.001232 u
Si (288.158 nm)	8.060700	ppm	0.033793	0.42	60257.500000	8.060700
Sn (189.925 nm)	-0.000581 u	ppm	0.000736	> 100.00	3.033620	-0.000581 u
Sr (421.552 nm)	0.478803	ppm	0.001175	0.25	103170.613458	0.478803
Th (288.505 nm)	-0.001248 u	ppm	0.001910	> 100.00	26.416700	-0.001248 u
Ti (336.122 nm)	0.000275	ppm	0.000153	55.66	79.450000	0.000275
Tl (190.794 nm)	0.000792 u	ppm	0.001911	> 100.00	-0.720782	0.000792 u
U (409.013 nm)	0.012668	ppm	0.003004	23.71	53.066400	0.012668
V (292.401 nm)	0.001254	ppm	0.000054	4.27	-17.314200	0.001254
Zn (206.200 nm)	0.000853	ppm	0.000581	68.10	5.158530	0.000853
Zr (343.823 nm)	0.000066 u	ppm	0.000128	> 100.00	5.621110	0.000066 u

Solution Name: 280-191258-A-1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191258-A-1-A	5/15/2024 6:29:23 AM	2:67	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.067387	ppm	0.000109	0.16	145779.548834	0.067387
Ag (328.068 nm)	-0.003724 u	ppm	0.000280	7.52	-154.489000	-0.003724 u
Al (394.401 nm)	2.832430	ppm	0.003634	0.13	37967.600000	2.832430
Al H (396.152 nm)	5.197100	ppm	0.004320	0.08	23923.600000	5.197100
As (188.980 nm)	0.118077	ppm	0.006732	5.70	68.317700	0.118077
B (249.678 nm)	0.057921	ppm	0.000120	0.21	464.684000	0.057921
Ba (493.408 nm)	0.038705	ppm	0.000279	0.72	5281.200000	0.038705
Be (234.861 nm)	0.001092 b	ppm	0.000011	1.01	-243.586000	0.001092 b
Bi (223.061 nm)	0.000234 u	ppm	0.001373	> 100.00	4.813930	0.000234 u
Ca (315.887 nm)	494.257165 o	ppm	0.815425	0.16	414322.032571	494.257165 o
Cd (214.439 nm)	0.000898	ppm	0.000056	6.24	38.232700	0.000898
Co (228.615 nm)	0.801917	ppm	0.003220	0.40	10469.100000	0.801917
Cr (205.560 nm)	0.019957 b	ppm	0.000692	3.47	-204.052000	0.019957 b
Cu (324.754 nm)	0.060059	ppm	0.000148	0.25	3309.320000	0.060059
Fe (238.204 nm)	2.032806	ppm	0.003528	0.17	6562.101023	2.032806
Fe H (259.940 nm)	2.008330 u	ppm	0.004566	0.23	2773.690000	2.008330 u
K (766.491 nm)	10.237900	ppm	0.018624	0.18	13184.700000	10.237900
Li (670.783 nm)	0.075310	ppm	0.003025	4.02	2907.050000	0.075310
Mg (279.078 nm)	52.461100 o	ppm	0.356237	0.68	156317.000000	52.461100 o
Mn (257.610 nm)	0.754867	ppm	0.004086	0.54	220580.000000	0.754867
Mo (202.032 nm)	71.300000 bo	ppm	0.440658	0.62	383659.000000	71.300000 bo
Na (589.592 nm)	266.480000 o	ppm	1.202070	0.45	2849590.000000	266.480000 o
Na H (589.593 nm)	267.263009	ppm	1.975714	0.74	2055670.067663	267.263009
Ni (231.604 nm)	0.406099	ppm	0.001608	0.40	1915.770000	0.406099
P (213.618 nm)	-0.529737 bu	ppm	0.005229	0.99	-2753.870000	-0.529737 bu
Pb (220.353 nm)	0.035104 b	ppm	0.001090	3.10	-48.311200	0.035104 b
S (181.972 nm)	587.227681 bo	ppm	2.777068	0.47	227650.842907	587.227681 bo
Sb (206.834 nm)	-0.064073 bu	ppm	0.002461	3.84	-480.794000	-0.064073 bu
Se (196.026 nm)	0.020596	ppm	0.005986	29.07	16.770500	0.020596
Si (288.158 nm)	16.136600 o	ppm	0.095744	0.59	119918.000000	16.136600 o
Sn (189.925 nm)	-0.001280 u	ppm	0.000847	66.18	2.540970	-0.001280 u
Sr (421.552 nm)	10.505610 o	ppm	0.027765	0.26	2262924.421644	10.505610 o
Th (288.505 nm)	-0.004370 u	ppm	0.001785	40.85	38.020700	-0.004370 u
Ti (336.122 nm)	0.000594	ppm	0.000053	8.98	1313.700000	0.000594
Tl (190.794 nm)	-0.034979 bu	ppm	0.002547	7.28	-187.591000	-0.034979 bu
U (409.013 nm)	-0.031915 u	ppm	0.002140	6.70	-112.564000	-0.031915 u
V (292.401 nm)	0.001111 b	ppm	0.000260	23.44	-1302.700000	0.001111 b
Zn (206.200 nm)	1.457760 o	ppm	0.013405	0.92	3400.260000	1.457760 o
Zr (343.823 nm)	0.000483	ppm	0.000058	12.02	39.820600	0.000483

Solution Name: 280-191258-A-2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191258-A-2-A	5/15/2024 6:33:48 AM	2:68	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.018130	ppm	0.000039	0.21	37582.575885	0.018130
Ag (328.068 nm)	0.001423	ppm	0.000078	5.50	18.730000	0.001423
Al (394.401 nm)	0.034405	ppm	0.000893	2.60	937.702000	0.034405
Al H (396.152 nm)	-0.051590 u	ppm	0.002154	4.18	27.577600	-0.051590 u
As (188.980 nm)	0.001423 u	ppm	0.003810	> 100.00	0.392337	0.001423 u
B (249.678 nm)	0.050776	ppm	0.000673	1.32	410.018000	0.050776
Ba (493.408 nm)	0.013124	ppm	0.000056	0.42	1768.510000	0.013124
Be (234.861 nm)	0.000012 u	ppm	0.000062	> 100.00	23.747100	0.000012 u
Bi (223.061 nm)	0.001720	ppm	0.000101	5.90	8.443050	0.001720
Ca (315.887 nm)	201.651679 o	ppm	0.652403	0.32	169030.203395	201.651679 o
Cd (214.439 nm)	0.000338	ppm	0.000090	26.52	6.383740	0.000338
Co (228.615 nm)	0.000765	ppm	0.000437	57.15	3.241880	0.000765
Cr (205.560 nm)	0.003871	ppm	0.000128	3.31	30.951500	0.003871
Cu (324.754 nm)	0.006379	ppm	0.000129	2.02	857.532000	0.006379
Fe (238.204 nm)	3.477548	ppm	0.011965	0.34	11210.826697	3.477548
Fe H (259.940 nm)	3.449280 u	ppm	0.009169	0.27	4734.300000	3.449280 u
K (766.491 nm)	5.266290	ppm	0.021745	0.41	6796.830000	5.266290
Li (670.783 nm)	0.037794	ppm	0.001839	4.87	1646.540000	0.037794
Mg (279.078 nm)	17.866000	ppm	0.145796	0.82	53234.300000	17.866000
Mn (257.610 nm)	0.174531	ppm	0.001005	0.58	51031.000000	0.174531
Mo (202.032 nm)	0.611096	ppm	0.001274	0.21	3293.550000	0.611096
Na (589.592 nm)	135.523000 o	ppm	0.524348	0.39	1450470.000000	135.523000 o
Na H (589.593 nm)	134.848406	ppm	1.504252	1.12	1040188.651861	134.848406
Ni (231.604 nm)	0.006878	ppm	0.000510	7.42	30.175200	0.006878
P (213.618 nm)	0.000303 u	ppm	0.001071	> 100.00	-25.328200	0.000303 u
Pb (220.353 nm)	-0.001115 u	ppm	0.000756	67.84	-1.133460	-0.001115 u
S (181.972 nm)	177.687810 bo	ppm	1.118169	0.63	68937.068685	177.687810 bo
Sb (206.834 nm)	0.000881 u	ppm	0.001868	> 100.00	2.898780	0.000881 u
Se (196.026 nm)	0.001197	ppm	0.000827	69.14	5.139300	0.001197
Si (288.158 nm)	5.887960	ppm	0.024713	0.42	44207.600000	5.887960
Sn (189.925 nm)	-0.000408 u	ppm	0.002688	> 100.00	3.155910	-0.000408 u
Sr (421.552 nm)	4.203651 o	ppm	0.003081	0.07	905495.436127	4.203651 o
Th (288.505 nm)	-0.003977 u	ppm	0.002557	64.28	22.388900	-0.003977 u
Ti (336.122 nm)	-0.000361 u	ppm	0.000091	25.09	379.776000	-0.000361 u
Tl (190.794 nm)	0.002449	ppm	0.000473	19.31	-0.541499	0.002449
U (409.013 nm)	0.026879	ppm	0.005051	18.79	109.163000	0.026879
V (292.401 nm)	0.002045	ppm	0.000233	11.40	3.818870	0.002045
Zn (206.200 nm)	0.032448	ppm	0.000759	2.34	78.786500	0.032448
Zr (343.823 nm)	-0.000061 u	ppm	0.000047	76.88	0.205811	-0.000061 u

Solution Name: 280-191201-C-2-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191201-C-2-A	5/15/2024 6:38:12 AM	2:69	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.021899	ppm	0.000121	0.55	45862.358277	0.021899
Ag (328.068 nm)	0.001468	ppm	0.000218	14.87	16.440600	0.001468
Al (394.401 nm)	0.010295	ppm	0.001348	13.10	569.945000	0.010295
Al H (396.152 nm)	-0.069532 u	ppm	0.001539	2.21	-54.108000	-0.069532 u
As (188.980 nm)	0.001489	ppm	0.001653	> 100.00	0.218479	0.001489
B (249.678 nm)	0.600398	ppm	0.002629	0.44	4615.240000	0.600398
Ba (493.408 nm)	0.294394	ppm	0.000611	0.21	40419.100000	0.294394
Be (234.861 nm)	-0.000076 u	ppm	0.000027	34.92	-1.962010	-0.000076 u
Bi (223.061 nm)	-0.000549 u	ppm	0.000498	90.75	2.903660	-0.000549 u
Ca (315.887 nm)	100.413857 o	ppm	0.236416	0.24	84162.311656	100.413857 o
Cd (214.439 nm)	0.000232	ppm	0.000095	40.96	2.440140	0.000232
Co (228.615 nm)	-0.000764 u	ppm	0.000009	1.13	-16.727100	-0.000764 u
Cr (205.560 nm)	0.000854	ppm	0.000276	32.26	14.463500	0.000854
Cu (324.754 nm)	0.000708	ppm	0.000244	34.40	618.385000	0.000708
Fe (238.204 nm)	0.005431	ppm	0.000852	15.68	38.603669	0.005431
Fe H (259.940 nm)	-0.018922 u	ppm	0.002244	11.86	15.354700	-0.018922 u
K (766.491 nm)	6.266650	ppm	0.042653	0.68	8082.180000	6.266650
Li (670.783 nm)	0.043333	ppm	0.001287	2.97	1763.120000	0.043333
Mg (279.078 nm)	27.537500	ppm	0.165159	0.60	82050.700000	27.537500
Mn (257.610 nm)	0.000252	ppm	0.000004	1.49	114.275000	0.000252
Mo (202.032 nm)	0.004438	ppm	0.000832	18.75	29.222000	0.004438
Na (589.592 nm)	48.692300	ppm	0.075778	0.16	524927.000000	48.692300
Na H (589.593 nm)	48.403563 u	ppm	0.504124	1.04	378464.232606	48.403563 u
Ni (231.604 nm)	-0.000257 u	ppm	0.000588	> 100.00	-3.527600	-0.000257 u
P (213.618 nm)	0.012781	ppm	0.002238	17.51	8.181840	0.012781
Pb (220.353 nm)	-0.002316 u	ppm	0.000743	32.10	-2.642650	-0.002316 u
S (181.972 nm)	9.393853	ppm	0.061268	0.65	3661.433523	9.393853
Sb (206.834 nm)	-0.002184 u	ppm	0.001444	66.10	1.549490	-0.002184 u
Se (196.026 nm)	-0.000853 u	ppm	0.003564	> 100.00	4.373210	-0.000853 u
Si (288.158 nm)	10.657300	ppm	0.052034	0.49	79439.100000	10.657300
Sn (189.925 nm)	-0.001340 u	ppm	0.001567	> 100.00	2.498270	-0.001340 u
Sr (421.552 nm)	0.956162	ppm	0.001832	0.19	205992.821675	0.956162
Th (288.505 nm)	0.002631	ppm	0.001594	60.59	32.772300	0.002631
Ti (336.122 nm)	-0.000041 u	ppm	0.000032	78.64	147.358000	-0.000041 u
Tl (190.794 nm)	-0.000075 u	ppm	0.001755	> 100.00	-1.537760	-0.000075 u
U (409.013 nm)	0.022838	ppm	0.004414	19.33	91.110000	0.022838
V (292.401 nm)	0.008295	ppm	0.000036	0.44	205.697000	0.008295
Zn (206.200 nm)	0.021154	ppm	0.000245	1.16	52.467500	0.021154
Zr (343.823 nm)	-0.000119 u	ppm	0.000036	30.15	-8.621170	-0.000119 u

Solution Name: 280-191201-C-7-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191201-C-7-A	5/15/2024 6:42:31 AM	2:70	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.021867	ppm	0.000059	0.27	45791.868894	0.021867
Ag (328.068 nm)	0.001369	ppm	0.000021	1.52	13.563500	0.001369
Al (394.401 nm)	0.010121	ppm	0.000327	3.23	566.964000	0.010121
Al H (396.152 nm)	-0.069027 u	ppm	0.004167	6.04	-51.811800	-0.069027 u
As (188.980 nm)	0.000908 u	ppm	0.003102	> 100.00	-0.117582	0.000908 u
B (249.678 nm)	0.495638	ppm	0.002123	0.43	3813.710000	0.495638
Ba (493.408 nm)	0.283667	ppm	0.000290	0.10	38944.700000	0.283667
Be (234.861 nm)	-0.000063 u	ppm	0.000019	30.09	-0.586157	-0.000063 u
Bi (223.061 nm)	0.001074 u	ppm	0.001028	95.73	6.864410	0.001074 u
Ca (315.887 nm)	99.805015 o	ppm	0.267397	0.27	83651.918503	99.805015 o
Cd (214.439 nm)	0.000276	ppm	0.000084	30.58	3.561890	0.000276
Co (228.615 nm)	-0.000496 u	ppm	0.000094	18.92	-13.245000	-0.000496 u
Cr (205.560 nm)	0.000216 u	ppm	0.000635	> 100.00	10.355700	0.000216 u
Cu (324.754 nm)	0.000642	ppm	0.000113	17.58	615.326000	0.000642
Fe (238.204 nm)	0.010943	ppm	0.000734	6.70	56.340720	0.010943
Fe H (259.940 nm)	-0.016223 u	ppm	0.001688	10.40	19.027500	-0.016223 u
K (766.491 nm)	6.285930	ppm	0.041680	0.66	8106.960000	6.285930
Li (670.783 nm)	0.043813	ppm	0.000996	2.27	1777.430000	0.043813
Mg (279.078 nm)	27.744600	ppm	0.088823	0.32	82667.700000	27.744600
Mn (257.610 nm)	0.002701	ppm	0.000021	0.76	829.786000	0.002701
Mo (202.032 nm)	0.004263	ppm	0.000187	4.40	28.282300	0.004263
Na (589.592 nm)	48.158900	ppm	0.106590	0.22	519153.000000	48.158900
Na H (589.593 nm)	47.643757 u	ppm	0.252112	0.53	372593.923325	47.643757 u
Ni (231.604 nm)	0.001953	ppm	0.000589	30.17	6.910950	0.001953
P (213.618 nm)	0.007483	ppm	0.002464	32.93	1.655110	0.007483
Pb (220.353 nm)	-0.001486 u	ppm	0.001427	96.09	-0.878419	-0.001486 u
S (181.972 nm)	8.997762	ppm	0.051978	0.58	3507.798773	8.997762
Sb (206.834 nm)	-0.001556 u	ppm	0.001013	65.10	2.451280	-0.001556 u
Se (196.026 nm)	-0.003305 u	ppm	0.003375	> 100.00	3.226290	-0.003305 u
Si (288.158 nm)	17.692300 o	ppm	0.079643	0.45	131409.000000	17.692300 o
Sn (189.925 nm)	-0.003399 u	ppm	0.001093	32.15	1.046200	-0.003399 u
Sr (421.552 nm)	0.954603	ppm	0.000839	0.09	205657.102221	0.954603
Th (288.505 nm)	-0.001123 u	ppm	0.001005	89.50	24.516000	-0.001123 u
Ti (336.122 nm)	-0.000431 u	ppm	0.000063	14.67	92.679400	-0.000431 u
Tl (190.794 nm)	-0.002537 u	ppm	0.000869	34.25	-3.842550	-0.002537 u
U (409.013 nm)	0.019008	ppm	0.000295	1.55	76.719100	0.019008
V (292.401 nm)	0.006650	ppm	0.000250	3.76	154.177000	0.006650
Zn (206.200 nm)	0.004373	ppm	0.000518	11.85	13.361400	0.004373
Zr (343.823 nm)	-0.000070 u	ppm	0.000065	93.40	-4.872180	-0.000070 u

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/15/2024 6:46:50 AM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001181	ppm	0.000010	0.86	354.775175	0.001181
Ag (328.068 nm)	0.000277	ppm	0.000072	25.84	74.618200	0.000277
Al (394.401 nm)	50.316600 o	ppm	0.330695	0.66	662985.000000	50.316600 o
Al H (396.152 nm)	48.545900	ppm	0.056824	0.12	221280.000000	48.545900
As (188.980 nm)	-0.001126 u	ppm	0.003104	> 100.00	-1.833490	-0.001126 u
B (249.678 nm)	-0.002467 u	ppm	0.000424	17.17	2.648170	-0.002467 u
Ba (493.408 nm)	0.000345	ppm	0.000189	54.75	132.242000	0.000345
Be (234.861 nm)	0.000073	ppm	0.000035	48.17	325.023000	0.000073
Bi (223.061 nm)	-0.000491 u	ppm	0.000884	> 100.00	3.042980	-0.000491 u
Ca (315.887 nm)	-0.005965 u	ppm	0.001247	20.91	-19.848136	-0.005965 u
Cd (214.439 nm)	-0.000206 u	ppm	0.000121	59.03	8.930380	-0.000206 u
Co (228.615 nm)	-0.000088 u	ppm	0.000088	99.71	-7.895420	-0.000088 u
Cr (205.560 nm)	0.000614	ppm	0.000075	12.19	12.940900	0.000614
Cu (324.754 nm)	-0.004324 u	ppm	0.000114	2.63	1375.940000	-0.004324 u
Fe (238.204 nm)	50.054003 o	ppm	0.100521	0.20	161079.749064	50.054003 o
Fe H (259.940 nm)	49.871600	ppm	0.095188	0.19	67898.100000	49.871600
K (766.491 nm)	0.008484 u	ppm	0.026403	> 100.00	41.126400	0.008484 u
Li (670.783 nm)	0.021285	ppm	0.001208	5.67	1134.440000	0.021285
Mg (279.078 nm)	0.015722	ppm	0.001236	7.86	-117.818000	0.015722
Mn (257.610 nm)	-0.000757 u	ppm	0.000026	3.38	-180.765000	-0.000757 u
Mo (202.032 nm)	0.000262	ppm	0.000224	85.56	6.752300	0.000262
Na (589.592 nm)	233.873000 o	ppm	0.316791	0.14	2500990.000000	233.873000 o
Na H (589.593 nm)	234.120456	ppm	2.217365	0.95	1801371.526942	234.120456
Ni (231.604 nm)	0.000512	ppm	0.000633	> 100.00	0.103464	0.000512
P (213.618 nm)	5.040300	ppm	0.018853	0.37	6206.730000	5.040300
Pb (220.353 nm)	-0.003529 u	ppm	0.002316	65.64	-6.625520	-0.003529 u
S (181.972 nm)	5.048450	ppm	0.034841	0.69	1977.907644	5.048450
Sb (206.834 nm)	0.000559 u	ppm	0.001335	> 100.00	9.615050	0.000559 u
Se (196.026 nm)	0.003851 u	ppm	0.005154	> 100.00	1.844470	0.003851 u
Si (288.158 nm)	0.014124	ppm	0.007075	50.09	813.688000	0.014124
Sn (189.925 nm)	-0.000745 u	ppm	0.003255	> 100.00	2.917970	-0.000745 u
Sr (421.552 nm)	0.000194	ppm	0.000059	30.32	79.262774	0.000194
Th (288.505 nm)	4.777840	ppm	0.015944	0.33	10680.800000	4.777840
Ti (336.122 nm)	0.000844	ppm	0.000146	17.31	-5.921750	0.000844
Tl (190.794 nm)	-0.006747 u	ppm	0.001188	17.61	-8.564820	-0.006747 u
U (409.013 nm)	2.488820 Q	ppm	0.008115	0.33	9451.500000 Q	2.488820 Q
V (292.401 nm)	0.001080	ppm	0.000344	31.83	185.202000	0.001080
Zn (206.200 nm)	0.001780	ppm	0.000586	32.94	7.319910	0.001780
Zr (343.823 nm)	-0.000309 u	ppm	0.000021	6.73	40.798100	-0.000309 u

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/15/2024 6:51:19 AM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.450945	ppm	0.001151	0.26	988399.010332	0.450945
Ag (328.068 nm)	0.490623	ppm	0.001878	0.38	17650.700000	0.490623
Al (394.401 nm)	0.488847	ppm	0.003312	0.68	6828.490000	0.488847
Al H (396.152 nm)	0.468183 u	ppm	0.001682	0.36	2393.980000	0.468183 u
As (188.980 nm)	0.463975	ppm	0.004491	0.97	266.563000	0.463975
B (249.678 nm)	0.500100	ppm	0.001709	0.34	3847.850000	0.500100
Ba (493.408 nm)	0.497229	ppm	0.000486	0.10	68467.100000	0.497229
Be (234.861 nm)	0.487561	ppm	0.001266	0.26	48996.800000	0.487561
Bi (223.061 nm)	0.995915	ppm	0.002598	0.26	2436.010000	0.995915
Ca (315.887 nm)	4.851223	ppm	0.012459	0.26	4051.942821	4.851223
Cd (214.439 nm)	0.495909	ppm	0.002052	0.41	12664.400000	0.495909
Co (228.615 nm)	0.499615	ppm	0.001976	0.40	6533.670000	0.499615
Cr (205.560 nm)	0.480931	ppm	0.001783	0.37	3098.070000	0.480931
Cu (324.754 nm)	0.498454	ppm	0.002194	0.44	24279.200000	0.498454
Fe (238.204 nm)	2.500100	ppm	0.001033	0.04	8070.734395	2.500100
Fe H (259.940 nm)	2.478260 u	ppm	0.003059	0.12	3413.100000	2.478260 u
K (766.491 nm)	48.264000	ppm	0.126161	0.26	62044.100000	48.264000
Li (670.783 nm)	0.489958	ppm	0.001294	0.26	15416.700000	0.489958
Mg (279.078 nm)	19.127500	ppm	0.060253	0.32	57039.300000	19.127500
Mn (257.610 nm)	0.490319	ppm	0.001372	0.28	143290.000000	0.490319
Mo (202.032 nm)	0.498106	ppm	0.002230	0.45	2685.570000	0.498106
Na (589.592 nm)	24.159000	ppm	0.039717	0.16	264320.000000	24.159000
Na H (589.593 nm)	23.499379 u	ppm	0.155090	0.66	188329.477138	23.499379 u
Ni (231.604 nm)	0.489828	ppm	0.001708	0.35	2311.750000	0.489828
P (213.618 nm)	-0.012571 u	ppm	0.000942	7.50	-64.794600	-0.012571 u
Pb (220.353 nm)	0.459896	ppm	0.003152	0.69	980.972000	0.459896
S (181.972 nm)	-0.034955 u	ppm	0.004576	13.09	12.871350	-0.034955 u
Sb (206.834 nm)	0.491348	ppm	0.002485	0.51	708.060000	0.491348
Se (196.026 nm)	0.481743	ppm	0.006983	1.45	273.387000	0.481743
Si (288.158 nm)	4.989790	ppm	0.032460	0.65	38008.100000	4.989790
Sn (189.925 nm)	0.493967	ppm	0.001221	0.25	351.824000	0.493967
Sr (421.552 nm)	0.497851	ppm	0.000267	0.05	107273.564273	0.497851
Th (288.505 nm)	0.006622	ppm	0.000845	12.76	28.332500	0.006622
Ti (336.122 nm)	0.486315	ppm	0.001426	0.29	66082.700000	0.486315
Tl (190.794 nm)	0.497931	ppm	0.002562	0.51	463.975000	0.497931
U (409.013 nm)	-0.001729 u	ppm	0.000184	10.64	-11.950000	-0.001729 u
V (292.401 nm)	0.475712	ppm	0.001505	0.32	14758.400000	0.475712
Zn (206.200 nm)	0.485699	ppm	0.001820	0.37	1135.020000	0.485699
Zr (343.823 nm)	0.487793	ppm	0.001808	0.37	37123.900000	0.487793

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/15/2024 6:55:44 AM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000731	ppm	0.000004	0.50	-634.721572	0.000731
Ag (328.068 nm)	0.000372	ppm	0.000070	18.88	-18.883000	0.000372
Al (394.401 nm)	-0.006327 u	ppm	0.001233	19.49	298.446000	-0.006327 u
Al H (396.152 nm)	-0.054455 u	ppm	0.004117	7.56	14.533600	-0.054455 u
As (188.980 nm)	-0.000248 u	ppm	0.003177	> 100.00	-1.014190	-0.000248 u
B (249.678 nm)	-0.000185 u	ppm	0.000375	> 100.00	20.104600	-0.000185 u
Ba (493.408 nm)	0.000078 u	ppm	0.000239	> 100.00	-33.639100	0.000078 u
Be (234.861 nm)	0.000006	ppm	0.000004	56.48	0.767406	0.000006
Bi (223.061 nm)	-0.000156 u	ppm	0.001153	> 100.00	3.861680	-0.000156 u
Ca (315.887 nm)	0.012027	ppm	0.001699	14.12	-4.765630	0.012027
Cd (214.439 nm)	0.000072	ppm	0.000039	54.11	-1.636720	0.000072
Co (228.615 nm)	0.000238	ppm	0.000179	74.97	-3.637150	0.000238
Cr (205.560 nm)	-0.000064 u	ppm	0.000157	> 100.00	8.578600	-0.000064 u
Cu (324.754 nm)	-0.000312 u	ppm	0.000093	29.72	604.561000	-0.000312 u
Fe (238.204 nm)	0.004156	ppm	0.000513	12.36	34.500665	0.004156
Fe H (259.940 nm)	-0.016494 u	ppm	0.000097	0.59	18.657800	-0.016494 u
K (766.491 nm)	0.011128 u	ppm	0.029321	> 100.00	44.524600	0.011128 u
Li (670.783 nm)	0.023642 S	ppm	0.001058	4.47	1120.200000 S	0.023642 S
Mg (279.078 nm)	0.001679	ppm	0.000929	55.33	9.105750	0.001679
Mn (257.610 nm)	0.000061	ppm	0.000008	13.62	58.224100	0.000061
Mo (202.032 nm)	0.000700	ppm	0.000195	27.80	9.107880	0.000700
Na (589.592 nm)	0.032740	ppm	0.005774	17.63	3012.680000	0.032740
Na H (589.593 nm)	-0.485775 u	ppm	0.010172	2.09	2369.511870	-0.485775 u
Ni (231.604 nm)	0.000166 u	ppm	0.000310	> 100.00	-1.531070	0.000166 u
P (213.618 nm)	-0.001186 u	ppm	0.002752	> 100.00	-8.837340	-0.001186 u
Pb (220.353 nm)	-0.000867 u	ppm	0.001771	> 100.00	0.418278	-0.000867 u
S (181.972 nm)	-0.009836 u	ppm	0.000501	5.09	13.051852	-0.009836 u
Sb (206.834 nm)	0.000804 u	ppm	0.002077	> 100.00	5.851470	0.000804 u
Se (196.026 nm)	0.000444 u	ppm	0.002742	> 100.00	4.764140	0.000444 u
Si (288.158 nm)	-0.005729 u	ppm	0.003120	54.46	667.123000	-0.005729 u
Sn (189.925 nm)	-0.000391 u	ppm	0.001474	> 100.00	3.167680	-0.000391 u
Sr (421.552 nm)	0.000104	ppm	0.000027	26.04	59.874695	0.000104
Th (288.505 nm)	0.005021	ppm	0.001429	28.45	37.780200	0.005021
Ti (336.122 nm)	0.000166	ppm	0.000062	37.47	-98.206000	0.000166
Tl (190.794 nm)	-0.001824 u	ppm	0.003067	> 100.00	-3.166960	-0.001824 u
U (409.013 nm)	-0.001114 u	ppm	0.004894	> 100.00	1.211710	-0.001114 u
V (292.401 nm)	0.000192	ppm	0.000068	35.43	-53.791000	0.000192
Zn (206.200 nm)	0.000045 u	ppm	0.000178	> 100.00	3.276200	0.000045 u
Zr (343.823 nm)	0.000073	ppm	0.000066	91.29	5.954860	0.000073

Solution Name: 280-191201-C-7-A SD @5

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191201-C-7-A SD @5	5/15/2024 6:59:45 AM	2:71	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.004185	ppm	0.000020	0.47	6951.181061	0.004185
Ag (328.068 nm)	0.001052	ppm	0.000132	12.52	4.832900	0.001052
Al (394.401 nm)	0.001712	ppm	0.000559	32.63	416.993000	0.001712
Al H (396.152 nm)	-0.054533 u	ppm	0.001494	2.74	14.179700	-0.054533 u
As (188.980 nm)	0.002801 u	ppm	0.002732	97.54	0.789732	0.002801 u
B (249.678 nm)	0.097152	ppm	0.000575	0.59	764.845000	0.097152
Ba (493.408 nm)	0.057746	ppm	0.000603	1.04	7892.800000	0.057746
Be (234.861 nm)	-0.000040 u	ppm	0.000019	47.79	-2.554580	-0.000040 u
Bi (223.061 nm)	-0.000826 u	ppm	0.000889	> 100.00	2.226480	-0.000826 u
Ca (315.887 nm)	20.377977 o	ppm	0.060274	0.30	17068.055701	20.377977 o
Cd (214.439 nm)	0.000135	ppm	0.000041	30.08	-0.006679	0.000135
Co (228.615 nm)	-0.000150 u	ppm	0.000348	> 100.00	-8.714420	-0.000150 u
Cr (205.560 nm)	-0.000063 u	ppm	0.000193	> 100.00	8.581170	-0.000063 u
Cu (324.754 nm)	-0.000219 u	ppm	0.000107	49.01	601.377000	-0.000219 u
Fe (238.204 nm)	0.037730	ppm	0.001099	2.91	142.532870	0.037730
Fe H (259.940 nm)	0.014225 u	ppm	0.003842	27.01	60.455000	0.014225 u
K (766.491 nm)	1.248340	ppm	0.030511	2.44	1634.200000	1.248340
Li (670.783 nm)	0.027839	ppm	0.001605	5.77	1256.730000	0.027839
Mg (279.078 nm)	5.633940	ppm	0.011413	0.20	16790.000000	5.633940
Mn (257.610 nm)	0.000687	ppm	0.000034	4.99	241.159000	0.000687
Mo (202.032 nm)	0.000756	ppm	0.000048	6.35	9.409670	0.000756
Na (589.592 nm)	9.807970	ppm	0.024226	0.25	107849.000000	9.807970
Na H (589.593 nm)	9.179879 u	ppm	0.109918	1.20	76722.784299	9.179879 u
Ni (231.604 nm)	0.000320 u	ppm	0.000361	> 100.00	-0.801972	0.000320 u
P (213.618 nm)	0.001384	ppm	0.000983	71.05	-5.679020	0.001384
Pb (220.353 nm)	-0.001553 u	ppm	0.001824	> 100.00	-1.024390	-0.001553 u
S (181.972 nm)	1.758160	ppm	0.014461	0.82	698.999841	1.758160
Sb (206.834 nm)	-0.002962 u	ppm	0.001882	63.53	0.452961	-0.002962 u
Se (196.026 nm)	-0.003079 u	ppm	0.005009	> 100.00	2.905640	-0.003079 u
Si (288.158 nm)	3.486830	ppm	0.016701	0.48	26466.000000	3.486830
Sn (189.925 nm)	-0.003361 u	ppm	0.001032	30.70	1.072970	-0.003361 u
Sr (421.552 nm)	0.192807	ppm	0.001615	0.84	41567.677082	0.192807
Th (288.505 nm)	0.000017 u	ppm	0.000666	> 100.00	26.743400	0.000017 u
Ti (336.122 nm)	-0.000093 u	ppm	0.000033	35.67	-78.032200	-0.000093 u
Tl (190.794 nm)	-0.001071 u	ppm	0.002769	> 100.00	-2.462450	-0.001071 u
U (409.013 nm)	0.011796	ppm	0.002837	24.05	49.684400	0.011796
V (292.401 nm)	0.001579	ppm	0.000121	7.67	-9.524430	0.001579
Zn (206.200 nm)	0.000885	ppm	0.000099	11.23	5.233260	0.000885
Zr (343.823 nm)	-0.000055 u	ppm	0.000067	> 100.00	-3.687510	-0.000055 u

Solution Name: 280-191201-C-7-B MS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191201-C-7-B MS	5/15/2024 7:04:00 AM	2:72	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.075547	ppm	0.001747	0.16	2360488.922308	1.075547
Ag (328.068 nm)	0.050919	ppm	0.000199	0.39	1516.720000	0.050919
Al (394.401 nm)	10.277700 o	ppm	0.044578	0.43	135977.000000	10.277700 o
Al H (396.152 nm)	9.917340	ppm	0.009050	0.09	45413.800000	9.917340
As (188.980 nm)	0.979547	ppm	0.004318	0.44	564.031000	0.979547
B (249.678 nm)	2.626970	ppm	0.009262	0.35	20120.800000	2.626970
Ba (493.408 nm)	1.295980	ppm	0.002239	0.17	178438.000000	1.295980
Be (234.861 nm)	0.993897	ppm	0.005631	0.57	99919.600000	0.993897
Bi (223.061 nm)	-0.001052 u	ppm	0.000495	47.01	1.674220	-0.001052 u
Ca (315.887 nm)	149.499692 o	ppm	0.113055	0.08	125311.076304	149.499692 o
Cd (214.439 nm)	0.966266	ppm	0.003046	0.32	24681.200000	0.966266
Co (228.615 nm)	0.967735	ppm	0.003176	0.33	12663.000000	0.967735
Cr (205.560 nm)	0.954093	ppm	0.002972	0.31	6137.190000	0.954093
Cu (324.754 nm)	1.010080	ppm	0.003818	0.38	48522.800000	1.010080
Fe (238.204 nm)	10.026222 o	ppm	0.014011	0.14	32292.294034	10.026222 o
Fe H (259.940 nm)	10.066100	ppm	0.005293	0.05	13737.300000	10.066100
K (766.491 nm)	56.466800	ppm	0.054361	0.10	72583.900000	56.466800
Li (670.783 nm)	0.999115	ppm	0.005863	0.59	31073.900000	0.999115
Mg (279.078 nm)	77.489600 o	ppm	0.193463	0.25	230921.000000	77.489600 o
Mn (257.610 nm)	0.969460	ppm	0.001821	0.19	283275.000000	0.969460
Mo (202.032 nm)	1.013940	ppm	0.002651	0.26	5461.170000	1.013940
Na (589.592 nm)	97.971700 o	ppm	0.236866	0.24	1058580.000000	97.971700 o
Na H (589.593 nm)	97.544597	ppm	0.915414	0.94	759399.325042	97.544597
Ni (231.604 nm)	0.932596	ppm	0.003363	0.36	4403.510000	0.932596
P (213.618 nm)	21.189700 o	ppm	0.024559	0.12	26035.700000	21.189700 o
Pb (220.353 nm)	0.912737	ppm	0.002588	0.28	1943.670000	0.912737
S (181.972 nm)	29.893318 o	ppm	0.108025	0.36	11630.083656	29.893318 o
Sb (206.834 nm)	1.010380	ppm	0.005420	0.54	1451.350000	1.010380
Se (196.026 nm)	0.987793	ppm	0.007794	0.79	555.869000	0.987793
Si (288.158 nm)	27.565200 o	ppm	0.063544	0.23	205227.000000	27.565200 o
Sn (189.925 nm)	0.995329	ppm	0.007689	0.77	705.420000	0.995329
Sr (421.552 nm)	1.974360 o	ppm	0.001673	0.08	425310.654025	1.974360 o
Th (288.505 nm)	-0.000508 u	ppm	0.001935	> 100.00	-0.759505	-0.000508 u
Ti (336.122 nm)	0.988073	ppm	0.002435	0.25	134768.000000	0.988073
Tl (190.794 nm)	0.978432	ppm	0.003481	0.36	912.893000	0.978432
U (409.013 nm)	0.017105	ppm	0.004956	28.97	51.772000	0.017105
V (292.401 nm)	0.969418	ppm	0.002520	0.26	30151.100000	0.969418
Zn (206.200 nm)	0.943121	ppm	0.004367	0.46	2200.970000	0.943121
Zr (343.823 nm)	0.987552	ppm	0.002385	0.24	75164.400000	0.987552

Solution Name: 280-191201-C-7-C MSD

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191201-C-7-C MSD	5/15/2024 7:08:26 AM	2:73	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.058091	ppm	0.006218	0.59	2322142.911743	1.058091
Ag (328.068 nm)	0.050233	ppm	0.000084	0.17	1494.480000	0.050233
Al (394.401 nm)	10.112100 o	ppm	0.071369	0.71	133792.000000	10.112100 o
Al H (396.152 nm)	9.786970	ppm	0.016190	0.17	44820.200000	9.786970
As (188.980 nm)	0.972899	ppm	0.006009	0.62	560.190000	0.972899
B (249.678 nm)	2.597840	ppm	0.013344	0.51	19897.900000	2.597840
Ba (493.408 nm)	1.278070	ppm	0.003780	0.30	175969.000000	1.278070
Be (234.861 nm)	0.971629	ppm	0.003118	0.32	97681.300000	0.971629
Bi (223.061 nm)	-0.000435 u	ppm	0.001036	> 100.00	3.181210	-0.000435 u
Ca (315.887 nm)	145.365530 o	ppm	0.219677	0.15	121845.399241	145.365530 o
Cd (214.439 nm)	0.957078	ppm	0.003181	0.33	24446.400000	0.957078
Co (228.615 nm)	0.956826	ppm	0.003996	0.42	12520.100000	0.956826
Cr (205.560 nm)	0.944606	ppm	0.003372	0.36	6076.270000	0.944606
Cu (324.754 nm)	1.000220	ppm	0.008105	0.81	48055.700000	1.000220
Fe (238.204 nm)	9.851087 o	ppm	0.022563	0.23	31728.671154	9.851087 o
Fe H (259.940 nm)	9.879720	ppm	0.023533	0.24	13483.800000	9.879720
K (766.491 nm)	55.778200	ppm	0.143516	0.26	71699.100000	55.778200
Li (670.783 nm)	0.987554	ppm	0.002451	0.25	30718.000000	0.987554
Mg (279.078 nm)	75.965100 o	ppm	0.290765	0.38	226378.000000	75.965100 o
Mn (257.610 nm)	0.959788	ppm	0.003024	0.32	280449.000000	0.959788
Mo (202.032 nm)	1.001500	ppm	0.004186	0.42	5394.250000	1.001500
Na (589.592 nm)	95.683700 o	ppm	0.351889	0.37	1034000.000000	95.683700 o
Na H (589.593 nm)	95.057389	ppm	0.760937	0.80	740248.061349	95.057389
Ni (231.604 nm)	0.922301	ppm	0.007194	0.78	4354.880000	0.922301
P (213.618 nm)	21.075500 o	ppm	0.188012	0.89	25895.800000	21.075500 o
Pb (220.353 nm)	0.903636	ppm	0.006296	0.70	1924.330000	0.903636
S (181.972 nm)	29.376655 o	ppm	0.164383	0.56	11429.410216	29.376655 o
Sb (206.834 nm)	0.995581	ppm	0.004764	0.48	1430.160000	0.995581
Se (196.026 nm)	0.974822	ppm	0.009913	1.02	548.626000	0.974822
Si (288.158 nm)	26.898800 o	ppm	0.199983	0.74	200298.000000	26.898800 o
Sn (189.925 nm)	0.989185	ppm	0.003889	0.39	701.087000	0.989185
Sr (421.552 nm)	1.938078 o	ppm	0.005036	0.26	417495.524708	1.938078 o
Th (288.505 nm)	-0.002336 u	ppm	0.003801	> 100.00	-4.452410	-0.002336 u
Ti (336.122 nm)	0.975569	ppm	0.003275	0.34	133055.000000	0.975569
Tl (190.794 nm)	0.971415	ppm	0.004252	0.44	906.349000	0.971415
U (409.013 nm)	0.014694	ppm	0.005419	36.88	42.894800	0.014694
V (292.401 nm)	0.959525	ppm	0.003546	0.37	29842.600000	0.959525
Zn (206.200 nm)	0.935041	ppm	0.004467	0.48	2182.140000	0.935041
Zr (343.823 nm)	0.975377	ppm	0.003463	0.36	74237.700000	0.975377

Solution Name: 280-191201-C-7-A PDS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191201-C-7-A PDS	5/15/2024 7:12:52 AM	2:74	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.122664	ppm	0.000428	0.35	267209.521769	0.122664
Ag (328.068 nm)	0.049843	ppm	0.000224	0.45	1756.060000	0.049843
Al (394.401 nm)	1.027260	ppm	0.003874	0.38	14039.400000	1.027260
Al H (396.152 nm)	0.924742	ppm	0.001174	0.13	4472.590000	0.924742
As (188.980 nm)	0.193888	ppm	0.002671	1.38	111.148000	0.193888
B (249.678 nm)	0.593678	ppm	0.001943	0.33	4563.830000	0.593678
Ba (493.408 nm)	0.373183	ppm	0.000691	0.19	51267.400000	0.373183
Be (234.861 nm)	0.049783	ppm	0.000664	1.33	5017.830000	0.049783
Bi (223.061 nm)	-0.000901 u	ppm	0.000790	87.66	2.042870	-0.000901 u
Ca (315.887 nm)	115.549585 o	ppm	0.164530	0.14	96850.626226	115.549585 o
Cd (214.439 nm)	0.049965	ppm	0.000087	0.17	1273.070000	0.049965
Co (228.615 nm)	0.048553	ppm	0.000242	0.50	628.829000	0.048553
Cr (205.560 nm)	0.048825	ppm	0.000184	0.38	322.587000	0.048825
Cu (324.754 nm)	0.051085	ppm	0.000235	0.46	3017.930000	0.051085
Fe (238.204 nm)	1.009267	ppm	0.001988	0.20	3269.148650	1.009267
Fe H (259.940 nm)	0.981179 u	ppm	0.004971	0.51	1376.120000	0.981179 u
K (766.491 nm)	26.116400	ppm	0.117150	0.45	33586.900000	26.116400
Li (670.783 nm)	0.137082	ppm	0.001265	0.92	4644.810000	0.137082
Mg (279.078 nm)	46.443500 o	ppm	0.134719	0.29	138385.000000	46.443500 o
Mn (257.610 nm)	0.051434	ppm	0.000165	0.32	15067.200000	0.051434
Mo (202.032 nm)	0.053168	ppm	0.000465	0.88	291.432000	0.053168
Na (589.592 nm)	66.143000 o	ppm	0.139575	0.21	711909.000000	66.143000 o
Na H (589.593 nm)	65.393049	ppm	0.702638	1.07	509064.545651	65.393049
Ni (231.604 nm)	0.049890	ppm	0.000562	1.13	233.529000	0.049890
P (213.618 nm)	2.130450	ppm	0.016963	0.80	2615.150000	2.130450
Pb (220.353 nm)	0.088202	ppm	0.001278	1.45	190.869000	0.088202
S (181.972 nm)	9.852343	ppm	0.069069	0.70	3841.098733	9.852343
Sb (206.834 nm)	0.098744	ppm	0.001492	1.51	146.247000	0.098744
Se (196.026 nm)	0.199034	ppm	0.005551	2.79	116.131000	0.199034
Si (288.158 nm)	21.930700 o	ppm	0.093427	0.43	162805.000000	21.930700 o
Sn (189.925 nm)	0.098872	ppm	0.001618	1.64	73.175100	0.098872
Sr (421.552 nm)	0.974963	ppm	0.001853	0.19	210042.530411	0.974963
Th (288.505 nm)	0.191434	ppm	0.000463	0.24	456.230000	0.191434
Ti (336.122 nm)	0.048259	ppm	0.000169	0.35	6762.560000	0.048259
Tl (190.794 nm)	0.200416	ppm	0.002309	1.15	186.158000	0.200416
U (409.013 nm)	0.537297	ppm	0.005928	1.10	2023.860000	0.537297
V (292.401 nm)	0.055396	ppm	0.000257	0.46	1665.590000	0.055396
Zn (206.200 nm)	0.196295	ppm	0.000636	0.32	460.607000	0.196295
Zr (343.823 nm)	0.049659	ppm	0.000231	0.46	3780.670000	0.049659

Solution Name: 280-191201-C-8-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191201-C-8-A	5/15/2024 7:17:16 AM	2:75	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.022006	ppm	0.000161	0.73	46097.049517	0.022006
Ag (328.068 nm)	0.001420	ppm	0.000099	7.00	15.585100	0.001420
Al (394.401 nm)	0.009442	ppm	0.000976	10.34	558.138000	0.009442
Al H (396.152 nm)	-0.073511 u	ppm	0.001370	1.86	-72.226500	-0.073511 u
As (188.980 nm)	0.003203 u	ppm	0.004022	> 100.00	1.204990	0.003203 u
B (249.678 nm)	0.499788	ppm	0.004808	0.96	3845.460000	0.499788
Ba (493.408 nm)	0.284123	ppm	0.000325	0.11	39007.600000	0.284123
Be (234.861 nm)	-0.000004 u	ppm	0.000108	> 100.00	5.923070	-0.000004 u
Bi (223.061 nm)	0.000587 u	ppm	0.001016	> 100.00	5.676380	0.000587 u
Ca (315.887 nm)	99.830294 o	ppm	0.089771	0.09	83673.109870	99.830294 o
Cd (214.439 nm)	0.000289	ppm	0.000038	13.17	3.943580	0.000289
Co (228.615 nm)	-0.000232 u	ppm	0.000183	79.05	-9.777980	-0.000232 u
Cr (205.560 nm)	0.000414	ppm	0.000178	42.98	11.632900	0.000414
Cu (324.754 nm)	0.000434	ppm	0.000173	39.83	605.570000	0.000434
Fe (238.204 nm)	0.100539	ppm	0.001999	1.99	344.632222	0.100539
Fe H (259.940 nm)	0.074688 u	ppm	0.000928	1.24	142.724000	0.074688 u
K (766.491 nm)	6.282160	ppm	0.024637	0.39	8102.110000	6.282160
Li (670.783 nm)	0.044099	ppm	0.000713	1.62	1786.250000	0.044099
Mg (279.078 nm)	27.786500	ppm	0.072360	0.26	82792.600000	27.786500
Mn (257.610 nm)	0.003219	ppm	0.000094	2.92	980.929000	0.003219
Mo (202.032 nm)	0.002996	ppm	0.000455	15.20	21.463100	0.002996
Na (589.592 nm)	48.321700	ppm	0.049190	0.10	520896.000000	48.321700
Na H (589.593 nm)	47.939027 u	ppm	0.419021	0.87	374860.786798	47.939027 u
Ni (231.604 nm)	0.002881	ppm	0.000386	13.40	11.297600	0.002881
P (213.618 nm)	0.008841	ppm	0.001335	15.11	3.390150	0.008841
Pb (220.353 nm)	-0.001618 u	ppm	0.000521	32.19	-1.156580	-0.001618 u
S (181.972 nm)	8.993107	ppm	0.058688	0.65	3506.012629	8.993107
Sb (206.834 nm)	-0.000109 u	ppm	0.000575	> 100.00	4.541310	-0.000109 u
Se (196.026 nm)	0.000688 u	ppm	0.001547	> 100.00	5.446230	0.000688 u
Si (288.158 nm)	17.740000 o	ppm	0.080005	0.45	131761.000000	17.740000 o
Sn (189.925 nm)	-0.002575 u	ppm	0.000979	38.01	1.627690	-0.002575 u
Sr (421.552 nm)	0.958102	ppm	0.001036	0.11	206410.765304	0.958102
Th (288.505 nm)	-0.000903 u	ppm	0.001235	> 100.00	25.041100	-0.000903 u
Ti (336.122 nm)	-0.000291 u	ppm	0.000093	31.85	111.909000	-0.000291 u
Tl (190.794 nm)	0.001014 u	ppm	0.001080	> 100.00	-0.515544	0.001014 u
U (409.013 nm)	0.017978	ppm	0.003279	18.24	72.929200	0.017978
V (292.401 nm)	0.006617	ppm	0.000265	4.01	153.158000	0.006617
Zn (206.200 nm)	0.003628	ppm	0.000862	23.75	11.626100	0.003628
Zr (343.823 nm)	0.000042 u	ppm	0.000131	> 100.00	3.759440	0.000042 u

Solution Name: 500-250147-D-1-A

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
500-250147-D-1-A	5/15/2024 7:21:34 AM	2:76	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.045840	ppm	0.000181	0.39	98451.159662	0.045840
Ag (328.068 nm)	0.001554	ppm	0.000070	4.48	23.348100	0.001554
Al (394.401 nm)	0.011109	ppm	0.001034	9.30	585.883000	0.011109
Al H (396.152 nm)	-0.074160 u	ppm	0.004849	6.54	-75.181100	-0.074160 u
As (188.980 nm)	0.002297	ppm	0.001711	74.49	0.724441	0.002297
B (249.678 nm)	0.268927	ppm	0.002129	0.79	2079.120000	0.268927
Ba (493.408 nm)	0.012824	ppm	0.000083	0.64	1720.040000	0.012824
Be (234.861 nm)	-0.000083 u	ppm	0.000008	10.20	5.758740	-0.000083 u
Bi (223.061 nm)	0.000063 u	ppm	0.000596	> 100.00	4.395620	0.000063 u
Ca (315.887 nm)	119.557880 o	ppm	0.300849	0.25	100210.788993	119.557880 o
Cd (214.439 nm)	0.000194	ppm	0.000051	26.17	1.713990	0.000194
Co (228.615 nm)	-0.000788 u	ppm	0.000152	19.28	-17.055900	-0.000788 u
Cr (205.560 nm)	0.000005 u	ppm	0.000368	> 100.00	9.013980	0.000005 u
Cu (324.754 nm)	-0.000611 u	ppm	0.000168	27.41	551.481000	-0.000611 u
Fe (238.204 nm)	0.663333	ppm	0.001501	0.23	2155.534068	0.663333
Fe H (259.940 nm)	0.634036 u	ppm	0.000919	0.15	903.790000	0.634036 u
K (766.491 nm)	5.675940	ppm	0.039098	0.69	7323.180000	5.675940
Li (670.783 nm)	0.066380	ppm	0.000527	0.79	2471.350000	0.066380
Mg (279.078 nm)	48.579900 o	ppm	0.108729	0.22	144740.000000	48.579900 o
Mn (257.610 nm)	0.011620	ppm	0.000011	0.09	3435.320000	0.011620
Mo (202.032 nm)	0.002316	ppm	0.000456	19.66	17.807300	0.002316
Na (589.592 nm)	43.973500	ppm	0.024464	0.06	472497.000000	43.973500
Na H (589.593 nm)	43.108779 u	ppm	0.336272	0.78	336712.074229	43.108779 u
Ni (231.604 nm)	-0.001914 u	ppm	0.000264	13.78	-11.352600	-0.001914 u
P (213.618 nm)	0.003468	ppm	0.001363	39.30	-3.188900	0.003468
Pb (220.353 nm)	-0.000821 u	ppm	0.000979	> 100.00	0.523405	-0.000821 u
S (181.972 nm)	139.601019 bo	ppm	0.546579	0.39	54164.444179	139.601019 bo
Sb (206.834 nm)	-0.002579 u	ppm	0.002916	> 100.00	1.046120	-0.002579 u
Se (196.026 nm)	-0.001147 u	ppm	0.003320	> 100.00	3.957720	-0.001147 u
Si (288.158 nm)	4.383930	ppm	0.015042	0.34	33093.600000	4.383930
Sn (189.925 nm)	-0.003081 u	ppm	0.001093	35.47	1.270900	-0.003081 u
Sr (421.552 nm)	8.436932 o	ppm	0.021051	0.25	1817335.444167	8.436932 o
Th (288.505 nm)	-0.000347 u	ppm	0.002734	> 100.00	27.114600	-0.000347 u
Ti (336.122 nm)	-0.000512 u	ppm	0.000074	14.42	135.398000	-0.000512 u
Tl (190.794 nm)	0.000267 u	ppm	0.002052	> 100.00	-1.223120	0.000267 u
U (409.013 nm)	0.006356	ppm	0.003468	54.56	29.823100	0.006356
V (292.401 nm)	0.001865	ppm	0.000231	12.40	6.080900	0.001865
Zn (206.200 nm)	0.002630	ppm	0.000050	1.91	9.300420	0.002630
Zr (343.823 nm)	0.000091	ppm	0.000083	91.16	8.220890	0.000091

Solution Name: LB3 280-653011/1-B

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LB3 280-653011/1-B	5/15/2024 7:25:55 AM	2:77	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000725	ppm	0.000007	0.94	-648.278691	0.000725
Ag (328.068 nm)	0.000344	ppm	0.000075	21.72	-19.936700	0.000344
Al (394.401 nm)	-0.004567 u	ppm	0.000218	4.77	321.795000	-0.004567 u
Al H (396.152 nm)	-0.049956 u	ppm	0.001240	2.48	35.016400	-0.049956 u
As (188.980 nm)	0.001976	ppm	0.001393	70.47	0.267904	0.001976
B (249.678 nm)	0.005068	ppm	0.000170	3.36	60.298800	0.005068
Ba (493.408 nm)	0.000182	ppm	0.000063	34.70	-19.330700	0.000182
Be (234.861 nm)	-0.000006 u	ppm	0.000016	> 100.00	-0.413172	-0.000006 u
Bi (223.061 nm)	-0.001279 u	ppm	0.000362	28.27	1.120010	-0.001279 u
Ca (315.887 nm)	0.123730	ppm	0.003600	2.91	88.875139	0.123730
Cd (214.439 nm)	0.000027	ppm	0.000012	43.72	-2.785040	0.000027
Co (228.615 nm)	0.000109 u	ppm	0.000260	> 100.00	-5.334310	0.000109 u
Cr (205.560 nm)	0.000137 u	ppm	0.000331	> 100.00	9.872960	0.000137 u
Cu (324.754 nm)	-0.000390 u	ppm	0.000050	12.87	600.671000	-0.000390 u
Fe (238.204 nm)	0.008569	ppm	0.000404	4.72	48.700495	0.008569
Fe H (259.940 nm)	-0.014202 u	ppm	0.001165	8.21	21.776300	-0.014202 u
K (766.491 nm)	-0.001355 u	ppm	0.019566	> 100.00	28.484700	-0.001355 u
Li (670.783 nm)	0.022598	ppm	0.001924	8.51	1088.520000	0.022598
Mg (279.078 nm)	0.012114	ppm	0.000372	3.07	40.184500	0.012114
Mn (257.610 nm)	0.000078	ppm	0.000005	6.25	63.304800	0.000078
Mo (202.032 nm)	-0.000026 u	ppm	0.000119	> 100.00	5.203600	-0.000026 u
Na (589.592 nm)	0.841162	ppm	0.008087	0.96	11648.500000	0.841162
Na H (589.593 nm)	0.301084 u	ppm	0.020629	6.85	8403.220398	0.301084 u
Ni (231.604 nm)	-0.000013 u	ppm	0.000405	> 100.00	-2.374990	-0.000013 u
P (213.618 nm)	-0.001806 u	ppm	0.001924	> 100.00	-9.567450	-0.001806 u
Pb (220.353 nm)	-0.000364 u	ppm	0.000284	78.04	1.492320	-0.000364 u
S (181.972 nm)	0.000788 u	ppm	0.002141	> 100.00	17.177973	0.000788 u
Sb (206.834 nm)	0.000107 u	ppm	0.001509	> 100.00	4.857260	0.000107 u
Se (196.026 nm)	-0.002708 u	ppm	0.001075	39.69	3.006370	-0.002708 u
Si (288.158 nm)	0.011436	ppm	0.002654	23.21	793.865000	0.011436
Sn (189.925 nm)	-0.000458 u	ppm	0.001181	> 100.00	3.120510	-0.000458 u
Sr (421.552 nm)	0.000854	ppm	0.000050	5.88	221.470789	0.000854
Th (288.505 nm)	0.004361	ppm	0.001232	28.25	36.322000	0.004361
Ti (336.122 nm)	0.000165	ppm	0.000004	2.53	-98.050500	0.000165
Tl (190.794 nm)	0.000276	ppm	0.000202	73.05	-1.198700	0.000276
U (409.013 nm)	-0.002539 u	ppm	0.003026	> 100.00	-4.133970	-0.002539 u
V (292.401 nm)	0.000041 u	ppm	0.000067	> 100.00	-58.540400	0.000041 u
Zn (206.200 nm)	0.000895	ppm	0.000153	17.04	5.257560	0.000895
Zr (343.823 nm)	-0.000152 u	ppm	0.000061	40.53	-11.100800	-0.000152 u

Solution Name: LCS 280-653011/2-B

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
LCS 280-653011/2-B	5/15/2024 7:29:56 AM	2:78	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.947702	ppm	0.003497	0.37	2079664.745929	0.947702
Ag (328.068 nm)	0.249857	ppm	0.000618	0.25	8756.280000	0.249857
Al (394.401 nm)	9.840080 o	ppm	0.037218	0.38	130159.000000	9.840080 o
Al H (396.152 nm)	9.664550	ppm	0.032078	0.33	44262.900000	9.664550
As (188.980 nm)	1.520070 o	ppm	0.012464	0.82	875.357000	1.520070 o
B (249.678 nm)	2.049450	ppm	0.002405	0.12	15702.100000	2.049450
Ba (493.408 nm)	3.014530	ppm	0.008572	0.28	414647.000000	3.014530
Be (234.861 nm)	0.964212	ppm	0.004787	0.50	96935.100000	0.964212
Bi (223.061 nm)	-0.001381 u	ppm	0.000361	26.11	0.870077	-0.001381 u
Ca (315.887 nm)	48.102039 o	ppm	0.112229	0.23	40309.198091	48.102039 o
Cd (214.439 nm)	1.159640 o	ppm	0.003601	0.31	29616.000000	1.159640 o
Co (228.615 nm)	0.963600	ppm	0.002499	0.26	12608.400000	0.963600
Cr (205.560 nm)	1.900730 o	ppm	0.004298	0.23	12223.900000	1.900730 o
Cu (324.754 nm)	1.381980 o	ppm	0.002337	0.17	66210.700000	1.381980 o
Fe (238.204 nm)	9.854350 o	ppm	0.031855	0.32	31741.224736	9.854350 o
Fe H (259.940 nm)	9.870530	ppm	0.016528	0.17	13471.300000	9.870530
K (766.491 nm)	48.258300	ppm	0.041099	0.09	62036.800000	48.258300
Li (670.783 nm)	0.945670	ppm	0.001427	0.15	29397.200000	0.945670
Mg (279.078 nm)	47.951500 o	ppm	0.148049	0.31	142912.000000	47.951500 o
Mn (257.610 nm)	0.959926	ppm	0.002560	0.27	280490.000000	0.959926
Mo (202.032 nm)	0.991284	ppm	0.002829	0.29	5339.280000	0.991284
Na (589.592 nm)	48.402400	ppm	0.110574	0.23	541397.000000	48.402400
Na H (589.593 nm)	48.398622 u	ppm	0.458715	0.95	389562.697274	48.398622 u
Ni (231.604 nm)	0.926554	ppm	0.003327	0.36	4374.970000	0.926554
P (213.618 nm)	20.521500 o	ppm	0.084878	0.41	25192.100000	20.521500 o
Pb (220.353 nm)	1.825170	ppm	0.006895	0.38	3889.050000	1.825170
S (181.972 nm)	19.668608 o	ppm	0.090108	0.46	7665.176867	19.668608 o
Sb (206.834 nm)	0.976000	ppm	0.000699	0.07	1407.570000	0.976000
Se (196.026 nm)	1.156190 o	ppm	0.001025	0.09	649.236000	1.156190 o
Si (288.158 nm)	9.733050	ppm	0.058071	0.60	73472.600000	9.733050
Sn (189.925 nm)	0.972824	ppm	0.012182	1.25	689.548000	0.972824
Sr (421.552 nm)	0.986736	ppm	0.001166	0.12	212578.451285	0.986736
Th (288.505 nm)	-0.004767 u	ppm	0.000839	17.60	-5.093260	-0.004767 u
Ti (336.122 nm)	0.965838	ppm	0.002737	0.28	131466.000000	0.965838
Tl (190.794 nm)	0.978569	ppm	0.001688	0.17	913.097000	0.978569
U (409.013 nm)	0.011762	ppm	0.001765	15.01	32.047100	0.011762
V (292.401 nm)	0.944938	ppm	0.002502	0.26	29161.600000	0.944938
Zn (206.200 nm)	0.936404	ppm	0.005738	0.61	2185.310000	0.936404
Zr (343.823 nm)	0.967427	ppm	0.002480	0.26	73632.700000	0.967427

Solution Name: 280-190998-A-1-B

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190998-A-1-B	5/15/2024 7:34:21 AM	2:79	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.013027	ppm	0.000057	0.44	26374.945096	0.013027
Ag (328.068 nm)	0.001180	ppm	0.000180	15.28	9.562820	0.001180
Al (394.401 nm)	0.008612	ppm	0.000610	7.08	538.919000	0.008612
Al H (396.152 nm)	-0.069564 u	ppm	0.001535	2.21	-54.254100	-0.069564 u
As (188.980 nm)	-0.000086 u	ppm	0.003508	> 100.00	-0.730364	-0.000086 u
B (249.678 nm)	0.014821	ppm	0.000467	3.15	134.918000	0.014821
Ba (493.408 nm)	0.009758	ppm	0.000085	0.87	1296.970000	0.009758
Be (234.861 nm)	-0.000009 u	ppm	0.000025	> 100.00	1.767010	-0.000009 u
Bi (223.061 nm)	0.000356 u	ppm	0.001478	> 100.00	5.112480	0.000356 u
Ca (315.887 nm)	82.489052 o	ppm	0.228072	0.28	69135.907818	82.489052 o
Cd (214.439 nm)	0.000204	ppm	0.000079	38.65	1.744420	0.000204
Co (228.615 nm)	-0.000249 u	ppm	0.000107	42.95	-10.013300	-0.000249 u
Cr (205.560 nm)	0.000611	ppm	0.000117	19.09	12.903500	0.000611
Cu (324.754 nm)	-0.000847 u	ppm	0.000028	3.27	550.058000	-0.000847 u
Fe (238.204 nm)	0.022502	ppm	0.001024	4.55	93.533265	0.022502
Fe H (259.940 nm)	-0.004333 u	ppm	0.001408	32.50	35.205300	-0.004333 u
K (766.491 nm)	3.329690	ppm	0.034226	1.03	4308.510000	3.329690
Li (670.783 nm)	0.036119	ppm	0.001572	4.35	1531.130000	0.036119
Mg (279.078 nm)	12.338900	ppm	0.073216	0.59	36767.600000	12.338900
Mn (257.610 nm)	0.000149	ppm	0.000027	18.36	83.986900	0.000149
Mo (202.032 nm)	0.003786	ppm	0.000467	12.33	25.715900	0.003786
Na (589.592 nm)	30.110300	ppm	0.054505	0.18	324382.000000	30.110300
Na H (589.593 nm)	29.128913 u	ppm	0.126482	0.43	229498.926240	29.128913 u
Ni (231.604 nm)	-0.001584 u	ppm	0.000162	10.21	-9.794140	-0.001584 u
P (213.618 nm)	0.001992 u	ppm	0.002941	> 100.00	-5.004240	0.001992 u
Pb (220.353 nm)	-0.002461 u	ppm	0.001174	47.70	-2.963280	-0.002461 u
S (181.972 nm)	83.811895 o	ppm	0.568063	0.68	32525.372942	83.811895 o
Sb (206.834 nm)	-0.001715 u	ppm	0.001271	74.11	2.227560	-0.001715 u
Se (196.026 nm)	0.000505 u	ppm	0.002462	> 100.00	4.809730	0.000505 u
Si (288.158 nm)	0.413641	ppm	0.001504	0.36	3763.430000	0.413641
Sn (189.925 nm)	-0.002620 u	ppm	0.000864	32.98	1.595690	-0.002620 u
Sr (421.552 nm)	1.059540	ppm	0.009412	0.89	228260.366976	1.059540
Th (288.505 nm)	-0.002121 u	ppm	0.001134	53.49	22.145000	-0.002121 u
Ti (336.122 nm)	-0.000200 u	ppm	0.000048	23.96	76.808800	-0.000200 u
Tl (190.794 nm)	-0.000553 u	ppm	0.002192	> 100.00	-1.984300	-0.000553 u
U (409.013 nm)	0.013818	ppm	0.003310	23.96	57.207000	0.013818
V (292.401 nm)	0.001762	ppm	0.000149	8.47	-0.397310	0.001762
Zn (206.200 nm)	0.000178 u	ppm	0.000253	> 100.00	3.584980	0.000178 u
Zr (343.823 nm)	0.000304	ppm	0.000143	47.01	23.623400	0.000304

Solution Name: 280-190998-A-1-B SD @5

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190998-A-1-B SD @5	5/15/2024 7:38:38 AM	2:80	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.002798	ppm	0.000026	0.94	3906.730579	0.002798
Ag (328.068 nm)	0.000713	ppm	0.000144	20.12	-7.035430	0.000713
Al (394.401 nm)	-0.000779 u	ppm	0.000215	27.53	384.614000	-0.000779 u
Al H (396.152 nm)	-0.056597 u	ppm	0.001644	2.90	4.779420	-0.056597 u
As (188.980 nm)	-0.000033 u	ppm	0.006098	> 100.00	-0.851662	-0.000033 u
B (249.678 nm)	0.003041	ppm	0.000722	23.74	44.787800	0.003041
Ba (493.408 nm)	0.001999	ppm	0.000107	5.37	230.559000	0.001999
Be (234.861 nm)	-0.000001 u	ppm	0.000051	> 100.00	0.808788	-0.000001 u
Bi (223.061 nm)	-0.000135 u	ppm	0.000432	> 100.00	3.913010	-0.000135 u
Ca (315.887 nm)	16.976006 o	ppm	0.017276	0.10	14216.175587	16.976006 o
Cd (214.439 nm)	0.000162	ppm	0.000026	16.29	0.670167	0.000162
Co (228.615 nm)	-0.000163 u	ppm	0.000186	> 100.00	-8.880370	-0.000163 u
Cr (205.560 nm)	0.000103 u	ppm	0.000154	> 100.00	9.653900	0.000103 u
Cu (324.754 nm)	-0.000327 u	ppm	0.000078	23.86	595.692000	-0.000327 u
Fe (238.204 nm)	0.038120	ppm	0.000777	2.04	143.786569	0.038120
Fe H (259.940 nm)	0.014965 u	ppm	0.000293	1.96	61.462600	0.014965 u
K (766.491 nm)	0.674610	ppm	0.029487	4.37	897.026000	0.674610
Li (670.783 nm)	0.026840	ppm	0.001889	7.04	1224.020000	0.026840
Mg (279.078 nm)	2.528210	ppm	0.008022	0.32	7536.900000	2.528210
Mn (257.610 nm)	0.000169	ppm	0.000054	32.14	89.942100	0.000169
Mo (202.032 nm)	0.000868	ppm	0.000092	10.59	10.013400	0.000868
Na (589.592 nm)	6.100470	ppm	0.004953	0.08	67843.700000	6.100470
Na H (589.593 nm)	5.492848 u	ppm	0.054455	0.99	48221.986389	5.492848 u
Ni (231.604 nm)	-0.000434 u	ppm	0.000581	> 100.00	-4.364080	-0.000434 u
P (213.618 nm)	-0.000124 u	ppm	0.002115	> 100.00	-7.531480	-0.000124 u
Pb (220.353 nm)	-0.001229 u	ppm	0.000880	71.61	-0.334808	-0.001229 u
S (181.972 nm)	16.842027 o	ppm	0.113170	0.67	6549.478262	16.842027 o
Sb (206.834 nm)	0.000346 u	ppm	0.001068	> 100.00	5.197980	0.000346 u
Se (196.026 nm)	0.002104 u	ppm	0.001910	90.78	5.689380	0.002104 u
Si (288.158 nm)	0.069587	ppm	0.002723	3.91	1222.530000	0.069587
Sn (189.925 nm)	-0.001633 u	ppm	0.000399	24.42	2.292100	-0.001633 u
Sr (421.552 nm)	0.216478	ppm	0.001383	0.64	46666.453220	0.216478
Th (288.505 nm)	0.000849 u	ppm	0.001240	> 100.00	28.613500	0.000849 u
Ti (336.122 nm)	-0.000006 u	ppm	0.000046	> 100.00	-75.431000	-0.000006 u
Tl (190.794 nm)	0.000186 u	ppm	0.001944	> 100.00	-1.285560	0.000186 u
U (409.013 nm)	0.007718	ppm	0.000819	10.61	34.267800	0.007718
V (292.401 nm)	0.000860	ppm	0.000170	19.76	-32.828000	0.000860
Zn (206.200 nm)	0.000439	ppm	0.000322	73.44	4.193490	0.000439
Zr (343.823 nm)	0.000072	ppm	0.000041	56.51	5.968410	0.000072

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/15/2024 7:42:40 AM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.001210	ppm	0.000014	1.19	418.309342	0.001210
Ag (328.068 nm)	0.000387	ppm	0.000073	18.80	78.757900	0.000387
Al (394.401 nm)	50.134700 o	ppm	0.136418	0.27	660587.000000	50.134700 o
Al H (396.152 nm)	48.418800	ppm	0.016097	0.03	220702.000000	48.418800
As (188.980 nm)	-0.001483 u	ppm	0.001689	> 100.00	-2.037530	-0.001483 u
B (249.678 nm)	-0.002945 u	ppm	0.000083	2.81	-1.006310	-0.002945 u
Ba (493.408 nm)	0.000301	ppm	0.000083	27.59	125.389000	0.000301
Be (234.861 nm)	0.000100	ppm	0.000019	18.81	326.036000	0.000100
Bi (223.061 nm)	-0.000268 u	ppm	0.000794	> 100.00	3.587850	-0.000268 u
Ca (315.887 nm)	-0.003160 u	ppm	0.003851	> 100.00	-17.496503	-0.003160 u
Cd (214.439 nm)	-0.000270 u	ppm	0.000052	19.32	7.188570	-0.000270 u
Co (228.615 nm)	-0.000309 u	ppm	0.000127	41.07	-10.781300	-0.000309 u
Cr (205.560 nm)	0.000535	ppm	0.000242	45.19	12.436900	0.000535
Cu (324.754 nm)	-0.004408 u	ppm	0.000015	0.33	1371.170000	-0.004408 u
Fe (238.204 nm)	49.818965 o	ppm	0.050071	0.10	160323.467583	49.818965 o
Fe H (259.940 nm)	49.593500	ppm	0.047243	0.10	67519.600000	49.593500
K (766.491 nm)	0.013086 u	ppm	0.027650	> 100.00	47.039500	0.013086 u
Li (670.783 nm)	0.024138	ppm	0.001449	6.00	1221.990000	0.024138
Mg (279.078 nm)	0.013823	ppm	0.000800	5.79	-123.236000	0.013823
Mn (257.610 nm)	-0.000761 u	ppm	0.000002	0.32	-181.750000	-0.000761 u
Mo (202.032 nm)	-0.000234 u	ppm	0.000181	77.23	4.084190	-0.000234 u
Na (589.592 nm)	234.434000 o	ppm	0.614923	0.26	2506990.000000	234.434000 o
Na H (589.593 nm)	233.570016	ppm	1.853323	0.79	1797149.891133	233.570016
Ni (231.604 nm)	0.000324 u	ppm	0.000456	> 100.00	-0.782030	0.000324 u
P (213.618 nm)	5.033150	ppm	0.008118	0.16	6197.910000	5.033150
Pb (220.353 nm)	-0.002364 u	ppm	0.000796	33.69	-4.130400	-0.002364 u
S (181.972 nm)	5.038427	ppm	0.007621	0.15	1973.996741	5.038427
Sb (206.834 nm)	-0.001447 u	ppm	0.003274	> 100.00	6.716740	-0.001447 u
Se (196.026 nm)	0.001132 u	ppm	0.002589	> 100.00	0.353750	0.001132 u
Si (288.158 nm)	-0.001089 u	ppm	0.002996	> 100.00	702.275000	-0.001089 u
Sn (189.925 nm)	-0.000161 u	ppm	0.001860	> 100.00	3.330100	-0.000161 u
Sr (421.552 nm)	0.000133	ppm	0.000026	19.15	66.239800	0.000133
Th (288.505 nm)	4.770540	ppm	0.011070	0.23	10664.600000	4.770540
Ti (336.122 nm)	0.000821	ppm	0.000058	7.06	-9.073510	0.000821
Tl (190.794 nm)	-0.006153 u	ppm	0.000582	9.45	-8.003200	-0.006153 u
U (409.013 nm)	2.487610 Q	ppm	0.005106	0.21	9446.700000 Q	2.487610 Q
V (292.401 nm)	0.001235	ppm	0.000125	10.09	189.955000	0.001235
Zn (206.200 nm)	0.001897	ppm	0.000656	34.59	7.592220	0.001897
Zr (343.823 nm)	0.000284	ppm	0.000079	27.79	85.602900	0.000284

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/15/2024 7:47:09 AM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.450534	ppm	0.001709	0.38	987495.586586	0.450534
Ag (328.068 nm)	0.489488	ppm	0.002163	0.44	17610.400000	0.489488
Al (394.401 nm)	0.489730	ppm	0.003230	0.66	6839.860000	0.489730
Al H (396.152 nm)	0.467276 u	ppm	0.003168	0.68	2389.850000	0.467276 u
As (188.980 nm)	0.461256	ppm	0.004218	0.91	264.996000	0.461256
B (249.678 nm)	0.500549	ppm	0.001583	0.32	3851.290000	0.500549
Ba (493.408 nm)	0.496656	ppm	0.000634	0.13	68388.300000	0.496656
Be (234.861 nm)	0.488865	ppm	0.003622	0.74	49127.600000	0.488865
Bi (223.061 nm)	0.992095	ppm	0.003746	0.38	2426.680000	0.992095
Ca (315.887 nm)	4.825916	ppm	0.018473	0.38	4030.728121	4.825916
Cd (214.439 nm)	0.492050	ppm	0.001605	0.33	12565.800000	0.492050
Co (228.615 nm)	0.498313	ppm	0.001637	0.33	6516.620000	0.498313
Cr (205.560 nm)	0.477538	ppm	0.000967	0.20	3076.280000	0.477538
Cu (324.754 nm)	0.496650	ppm	0.001956	0.39	24193.700000	0.496650
Fe (238.204 nm)	2.486648	ppm	0.008356	0.34	8027.408405	2.486648
Fe H (259.940 nm)	2.467690 u	ppm	0.003985	0.16	3398.720000	2.467690 u
K (766.491 nm)	48.086000	ppm	0.036036	0.07	61815.500000	48.086000
Li (670.783 nm)	0.487655	ppm	0.003471	0.71	15346.100000	0.487655
Mg (279.078 nm)	18.998400	ppm	0.066404	0.35	56654.400000	18.998400
Mn (257.610 nm)	0.487879	ppm	0.001408	0.29	142578.000000	0.487879
Mo (202.032 nm)	0.495592	ppm	0.001549	0.31	2672.040000	0.495592
Na (589.592 nm)	24.024500	ppm	0.053368	0.22	262882.000000	24.024500
Na H (589.593 nm)	23.464057 u	ppm	0.233050	0.99	188058.271671	23.464057 u
Ni (231.604 nm)	0.486205	ppm	0.001175	0.24	2294.630000	0.486205
P (213.618 nm)	-0.011493 u	ppm	0.001207	10.50	-63.289800	-0.011493 u
Pb (220.353 nm)	0.456824	ppm	0.001253	0.27	974.430000	0.456824
S (181.972 nm)	-0.038019 u	ppm	0.002782	7.32	11.658653	-0.038019 u
Sb (206.834 nm)	0.490701	ppm	0.002570	0.52	707.132000	0.490701
Se (196.026 nm)	0.480247	ppm	0.005207	1.08	272.552000	0.480247
Si (288.158 nm)	4.957260	ppm	0.048520	0.98	37766.200000	4.957260
Sn (189.925 nm)	0.492184	ppm	0.004468	0.91	350.567000	0.492184
Sr (421.552 nm)	0.498428	ppm	0.000379	0.08	107398.005019	0.498428
Th (288.505 nm)	0.007352	ppm	0.001592	21.66	29.985100	0.007352
Ti (336.122 nm)	0.484803	ppm	0.001510	0.31	65876.800000	0.484803
Tl (190.794 nm)	0.498064	ppm	0.001621	0.33	464.106000	0.498064
U (409.013 nm)	-0.001635 u	ppm	0.001408	86.12	-11.576000	-0.001635 u
V (292.401 nm)	0.473421	ppm	0.000797	0.17	14687.400000	0.473421
Zn (206.200 nm)	0.481020	ppm	0.001979	0.41	1124.110000	0.481020
Zr (343.823 nm)	0.486682	ppm	0.001409	0.29	37039.300000	0.486682

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/15/2024 7:51:33 AM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	0.000753	ppm	0.000008	1.11	-586.607770	0.000753
Ag (328.068 nm)	0.000230	ppm	0.000011	4.82	-24.130900	0.000230
Al (394.401 nm)	-0.007153 u	ppm	0.001073	15.01	288.369000	-0.007153 u
Al H (396.152 nm)	-0.052270 u	ppm	0.000549	1.05	24.482500	-0.052270 u
As (188.980 nm)	0.000036 u	ppm	0.000491	> 100.00	-0.850496	0.000036 u
B (249.678 nm)	0.000412	ppm	0.000258	62.59	24.679000	0.000412
Ba (493.408 nm)	-0.000032 u	ppm	0.000081	> 100.00	-48.757900	-0.000032 u
Be (234.861 nm)	-0.000020 u	ppm	0.000036	> 100.00	-1.872900	-0.000020 u
Bi (223.061 nm)	-0.002121 u	ppm	0.000189	8.92	-0.936224	-0.002121 u
Ca (315.887 nm)	0.017398	ppm	0.004014	23.07	-0.263335	0.017398
Cd (214.439 nm)	0.000131	ppm	0.000058	44.04	-0.132320	0.000131
Co (228.615 nm)	-0.000002 u	ppm	0.000064	> 100.00	-6.777570	-0.000002 u
Cr (205.560 nm)	0.000326	ppm	0.000212	65.03	11.087600	0.000326
Cu (324.754 nm)	-0.000277 u	ppm	0.000187	67.50	605.999000	-0.000277 u
Fe (238.204 nm)	0.003090	ppm	0.000799	25.85	31.070437	0.003090
Fe H (259.940 nm)	-0.016151 u	ppm	0.000744	4.61	19.125500	-0.016151 u
K (766.491 nm)	-0.038839 u	ppm	0.019497	50.20	-19.677500	-0.038839 u
Li (670.783 nm)	0.025151 S	ppm	0.001663	6.61	1166.410000 S	0.025151 S
Mg (279.078 nm)	0.002771	ppm	0.000316	11.39	12.245000	0.002771
Mn (257.610 nm)	0.000062	ppm	0.000013	21.11	58.563000	0.000062
Mo (202.032 nm)	0.000187	ppm	0.000145	77.48	6.349670	0.000187
Na (589.592 nm)	0.032176	ppm	0.008190	25.45	3006.630000	0.032176
Na H (589.593 nm)	-0.520181 u	ppm	0.007694	1.48	2105.660826	-0.520181 u
Ni (231.604 nm)	-0.000564 u	ppm	0.000229	40.57	-4.974650	-0.000564 u
P (213.618 nm)	-0.002195 u	ppm	0.002738	> 100.00	-10.062300	-0.002195 u
Pb (220.353 nm)	-0.000120 u	ppm	0.001071	> 100.00	2.019260	-0.000120 u
S (181.972 nm)	-0.015096 u	ppm	0.000994	6.59	11.011796	-0.015096 u
Sb (206.834 nm)	0.000140 u	ppm	0.001316	> 100.00	4.903320	0.000140 u
Se (196.026 nm)	-0.002105 u	ppm	0.003902	> 100.00	3.342530	-0.002105 u
Si (288.158 nm)	-0.009245 u	ppm	0.002300	24.87	640.302000	-0.009245 u
Sn (189.925 nm)	-0.001452 u	ppm	0.001046	72.00	2.419340	-0.001452 u
Sr (421.552 nm)	0.000087 u	ppm	0.000084	96.91	56.279700	0.000087 u
Th (288.505 nm)	0.005213	ppm	0.000736	14.11	38.229500	0.005213
Ti (336.122 nm)	0.000174	ppm	0.000081	46.34	-97.164100	0.000174
Tl (190.794 nm)	0.000713 u	ppm	0.003175	> 100.00	-0.790299	0.000713 u
U (409.013 nm)	-0.000258 u	ppm	0.003547	> 100.00	4.425220	-0.000258 u
V (292.401 nm)	0.000154	ppm	0.000150	97.30	-55.177300	0.000154
Zn (206.200 nm)	0.000369	ppm	0.000426	> 100.00	4.030750	0.000369
Zr (343.823 nm)	0.000021 u	ppm	0.000076	> 100.00	1.994350	0.000021 u

Solution Name: 280-190998-A-1-C MS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190998-A-1-C MS	5/15/2024 7:55:34 AM	2:81	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	1.019665	ppm	0.002668	0.26	2237737.132019	1.019665
Ag (328.068 nm)	0.254324	ppm	0.000470	0.18	8916.150000	0.254324
Al (394.401 nm)	10.047100 o	ppm	0.028053	0.28	132926.000000	10.047100 o
Al H (396.152 nm)	9.742600	ppm	0.005648	0.06	44618.200000	9.742600
As (188.980 nm)	1.554900 o	ppm	0.011782	0.76	895.616000	1.554900 o
B (249.678 nm)	2.092340	ppm	0.003256	0.16	16030.300000	2.092340
Ba (493.408 nm)	3.043610	ppm	0.015493	0.51	418645.000000	3.043610
Be (234.861 nm)	0.969500	ppm	0.005337	0.55	97468.800000	0.969500
Bi (223.061 nm)	-0.000953 u	ppm	0.000205	21.53	1.914820	-0.000953 u
Ca (315.887 nm)	124.875677 o	ppm	0.175480	0.14	104668.709601	124.875677 o
Cd (214.439 nm)	1.148100 o	ppm	0.002265	0.20	29321.200000	1.148100 o
Co (228.615 nm)	0.956461	ppm	0.000407	0.04	12515.100000	0.956461
Cr (205.560 nm)	1.901300 o	ppm	0.005180	0.27	12227.600000	1.901300 o
Cu (324.754 nm)	1.402410 o	ppm	0.006096	0.43	67155.000000	1.402410 o
Fe (238.204 nm)	9.854063 o	ppm	0.018595	0.19	31740.182530	9.854063 o
Fe H (259.940 nm)	9.873680	ppm	0.007843	0.08	13475.500000	9.873680
K (766.491 nm)	52.375900	ppm	0.068474	0.13	67327.500000	52.375900
Li (670.783 nm)	0.972014	ppm	0.002352	0.24	30230.800000	0.972014
Mg (279.078 nm)	59.430900 o	ppm	0.142409	0.24	177116.000000	59.430900 o
Mn (257.610 nm)	0.955077	ppm	0.001738	0.18	279073.000000	0.955077
Mo (202.032 nm)	0.994398	ppm	0.000545	0.05	5356.030000	0.994398
Na (589.592 nm)	76.338300 o	ppm	0.070828	0.09	840027.000000	76.338300 o
Na H (589.593 nm)	75.560939	ppm	0.712801	0.94	597966.195360	75.560939
Ni (231.604 nm)	0.914205	ppm	0.003294	0.36	4316.630000	0.914205
P (213.618 nm)	20.882300 o	ppm	0.022473	0.11	25635.700000	20.882300 o
Pb (220.353 nm)	1.821280	ppm	0.003700	0.20	3880.740000	1.821280
S (181.972 nm)	99.205030 o	ppm	0.293400	0.30	38515.415057	99.205030 o
Sb (206.834 nm)	0.986123	ppm	0.003162	0.32	1422.080000	0.986123
Se (196.026 nm)	1.170080 o	ppm	0.003186	0.27	656.992000	1.170080 o
Si (288.158 nm)	10.080800	ppm	0.032241	0.32	76044.900000	10.080800
Sn (189.925 nm)	0.976798	ppm	0.003156	0.32	692.351000	0.976798
Sr (421.552 nm)	1.986376 o	ppm	0.004177	0.21	427898.869953	1.986376 o
Th (288.505 nm)	-0.004821 u	ppm	0.001131	23.46	-5.063150	-0.004821 u
Ti (336.122 nm)	0.966599	ppm	0.002470	0.26	131779.000000	0.966599
Tl (190.794 nm)	0.963572	ppm	0.004769	0.49	899.032000	0.963572
U (409.013 nm)	0.012340	ppm	0.004088	33.12	34.181500	0.012340
V (292.401 nm)	0.949718	ppm	0.003199	0.34	29316.200000	0.949718
Zn (206.200 nm)	0.924239	ppm	0.002311	0.25	2156.970000	0.924239
Zr (343.823 nm)	0.968068	ppm	0.002463	0.25	73681.500000	0.968068

Solution Name: 280-190998-A-1-D MSD

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190998-A-1-D MSD	5/15/2024 8:00:30 AM	2:82	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	-12.934983 bu	ppm	4.271620	33.02	-28414296.982086	-12.934983 bu
Ag (328.068 nm)	3.352870 bo	ppm	1.670170	49.81	112567.000000	3.352870 bo
Al (394.401 nm)	193.503000 bo	ppm	70.087100	36.22	2567950.000000	193.503000 bo
Al H (396.152 nm)	18.621100	ppm	15.505200	83.27	85039.700000	18.621100
As (188.980 nm)	28.300500 bo	ppm	38.354900	> 100.00	16311.800000	28.300500 bo
B (249.678 nm)	17.815200 b	ppm	23.682000	> 100.00	136327.000000	17.815200 b
Ba (493.408 nm)	-0.117057 u	ppm	0.022287	19.04	-16056.300000	-0.117057 u
Be (234.861 nm)	0.050954 b	ppm	0.015040	29.52	5613.900000	0.050954 b
Bi (223.061 nm)	10.775100 o	ppm	12.444900	> 100.00	26314.400000	10.775100 o
Ca (315.887 nm)	-25.246535 u	ppm	18.914381	74.92	-21179.073923	-25.246535 u
Cd (214.439 nm)	0.244034 u	ppm	0.388650	> 100.00	6251.120000	0.244034 u
Co (228.615 nm)	-4.375790 u	ppm	6.406750	> 100.00	-57150.600000	-4.375790 u
Cr (205.560 nm)	0.217265 uo	ppm	2.044900	> 100.00	1357.700000	0.217265 uo
Cu (324.754 nm)	-3.214700 bu	ppm	2.934020	91.27	-151988.000000	-3.214700 bu
Fe (238.204 nm)	5.130297 o	ppm	1.185402	23.11	16540.004675	5.130297 o
Fe H (259.940 nm)	17.034200	ppm	4.548540	26.70	23218.300000	17.034200
K (766.491 nm)	12.294000 u	ppm	32.485600	> 100.00	15826.700000	12.294000 u
Li (670.783 nm)	12.845300 bo	ppm	3.412520	26.57	393996.000000	12.845300 bo
Mg (279.078 nm)	14.914700 b	ppm	7.975780	53.48	42228.000000	14.914700 b
Mn (257.610 nm)	0.366487	ppm	0.140374	38.30	107112.000000	0.366487
Mo (202.032 nm)	7.350080 o	ppm	3.218170	43.78	39554.900000	7.350080 o
Na (589.592 nm)	110.289000 o	ppm	35.147400	31.87	1180960.000000	110.289000 o
Na H (589.593 nm)	Error	ppm	N/A	N/A	Error	Error
Ni (231.604 nm)	-0.091082 uo	ppm	1.511480	> 100.00	-403.329000	-0.091082 uo
P (213.618 nm)	-6.913050 u	ppm	4.352640	62.96	-9469.940000	-6.913050 u
Pb (220.353 nm)	2.433180 b	ppm	0.874140	35.93	5357.150000	2.433180 b
S (181.972 nm)	129.759132 bo	ppm	88.248027	68.01	50572.005660	129.759132 bo
Sb (206.834 nm)	12.651500 bo	ppm	6.897640	54.52	18119.700000	12.651500 bo
Se (196.026 nm)	-4.403430 buo	ppm	17.925700	> 100.00	-2444.780000	-4.403430 buo
Si (288.158 nm)	206.273000 bo	ppm	98.336900	47.67	1536940.000000	206.273000 bo
Sn (189.925 nm)	15.621300 o	ppm	6.459560	41.35	11020.700000	15.621300 o
Sr (421.552 nm)	0.059062	ppm	0.032248	54.60	12759.380607	0.059062
Th (288.505 nm)	8.228910 buo	ppm	8.679020	> 100.00	18616.400000	8.228910 buo
Ti (336.122 nm)	-5.439600 u	ppm	1.527570	28.08	-740144.000000	-5.439600 u
Tl (190.794 nm)	1.729470 uo	ppm	2.896470	> 100.00	1603.720000	1.729470 uo

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
U (409.013 nm)	12.936300 bo	ppm	7.828620	60.52	48919.000000	12.936300 bo
V (292.401 nm)	-10.400600 bu	ppm	3.284020	31.58	-329761.000000	-10.400600 bu
Zn (206.200 nm)	1.256680 uo	ppm	2.430600	> 100.00	2931.680000	1.256680 uo
Zr (343.823 nm)	0.255959	ppm	0.259447	> 100.00	19485.300000	0.255959

Solution Name: 280-190998-A-1-B PDS

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-190998-A-1-B PDS	5/15/2024 8:04:31 AM	2:83	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	-12.787339 bu	ppm	1.672211	13.08	-28089975.641871	-12.787339 bu
Ag (328.068 nm)	3.252010 bo	ppm	0.943679	29.02	109257.000000	3.252010 bo
Al (394.401 nm)	202.997000 bo	ppm	22.191200	10.93	2686960.000000	202.997000 bo
Al H (396.152 nm)	302.270000 b	ppm	476.060000	> 100.00	1376420.000000	302.270000 b
As (188.980 nm)	Error	ppm	N/A	N/A	Error	Error
B (249.678 nm)	Error	ppm	N/A	N/A	Error	Error
Ba (493.408 nm)	-0.087713 u	ppm	0.045091	51.41	-11875.900000	-0.087713 u
Be (234.861 nm)	0.020089	ppm	0.013946	69.42	2411.380000	0.020089
Bi (223.061 nm)	13.084500 o	ppm	10.700400	81.78	31953.100000	13.084500 o
Ca (315.887 nm)	-124.441077 uo	ppm	270.510821	> 100.00	-104334.078970	-124.441077 uo
Cd (214.439 nm)	-0.108866 u	ppm	0.186025	> 100.00	-2757.320000	-0.108866 u
Co (228.615 nm)	Error	ppm	N/A	N/A	Error	Error
Cr (205.560 nm)	-0.471425 uo	ppm	2.251130	> 100.00	-3070.530000	-0.471425 uo
Cu (324.754 nm)	-3.712930 bu	ppm	0.888567	23.93	-171805.000000	-3.712930 bu
Fe (238.204 nm)	67.962864 o	ppm	64.984574	95.62	218713.754627	67.962864 o
Fe H (259.940 nm)	90.369800	ppm	99.409200	> 100.00	123001.000000	90.369800
K (766.491 nm)	-12.231200 u	ppm	35.120600	> 100.00	-15685.500000	-12.231200 u
Li (670.783 nm)	18.806000 bo	ppm	12.068800	64.18	576768.000000	18.806000 bo
Mg (279.078 nm)	16.113600 b	ppm	9.214380	57.18	45506.100000	16.113600 b
Mn (257.610 nm)	0.141082	ppm	0.027686	19.62	41258.700000	0.141082
Mo (202.032 nm)	6.467500 o	ppm	0.517058	7.99	34805.900000	6.467500 o
Na (589.592 nm)	152.320000 o	ppm	94.909300	62.31	1629910.000000	152.320000 o
Na H (589.593 nm)	Error	ppm	N/A	N/A	Error	Error
Ni (231.604 nm)	1.718950 uo	ppm	2.266970	> 100.00	8141.060000	1.718950 uo
P (213.618 nm)	Error	ppm	N/A	N/A	Error	Error
Pb (220.353 nm)	Error	ppm	N/A	N/A	Error	Error
S (181.972 nm)	145.774675 bo	ppm	42.059838	28.85	56559.801487	145.774675 bo
Sb (206.834 nm)	10.229100 bo	ppm	9.493900	92.81	14653.600000	10.229100 bo
Se (196.026 nm)	Error	ppm	N/A	N/A	Error	Error
Si (288.158 nm)	135.838000 o	ppm	16.396600	12.07	1020730.000000	135.838000 o
Sn (189.925 nm)	20.153400 o	ppm	2.451970	12.17	14217.100000	20.153400 o
Sr (421.552 nm)	0.020151	ppm	0.012942	64.22	4378.038133	0.020151
Th (288.505 nm)	17.294900 bo	ppm	9.226290	53.35	38204.900000	17.294900 bo
Ti (336.122 nm)	-6.248670 u	ppm	0.918319	14.70	-848081.000000	-6.248670 u
Tl (190.794 nm)	-7.858070 u	ppm	5.277660	67.16	-7378.880000	-7.858070 u

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
U (409.013 nm)	8.525110 buo	ppm	30.376700	> 100.00	32634.100000	8.525110 buo
V (292.401 nm)	-12.265100 bu	ppm	2.573810	20.98	-386981.000000	-12.265100 bu
Zn (206.200 nm)	4.744150 o	ppm	3.680140	77.57	11058.700000	4.744150 o
Zr (343.823 nm)	0.663461 u	ppm	0.587716	88.58	50577.200000	0.663461 u

Solution Name: 280-191112-A-1-B

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
280-191112-A-1-B	5/15/2024 8:08:32 AM	2:84	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	-12.036444 bu	ppm	1.533369	12.74	-26440707.792073	-12.036444 bu
Ag (328.068 nm)	2.891770 bo	ppm	0.326237	11.28	95453.500000	2.891770 bo
Al (394.401 nm)	194.310000 bo	ppm	18.248900	9.39	2577550.000000	194.310000 bo
Al H (396.152 nm)	Error	ppm	N/A	N/A	Error	Error
As (188.980 nm)	9.466060 bo	ppm	10.617300	> 100.00	5455.450000	9.466060 bo
B (249.678 nm)	111.813000 bo	ppm	128.422000	> 100.00	855519.000000	111.813000 bo
Ba (493.408 nm)	-0.148182 u	ppm	0.050346	33.98	-20363.800000	-0.148182 u
Be (234.861 nm)	0.076837 b	ppm	0.040616	52.86	8122.850000	0.076837 b
Bi (223.061 nm)	11.789200 o	ppm	3.865380	32.79	28790.500000	11.789200 o
Ca (315.887 nm)	Error	ppm	N/A	N/A	Error	Error
Cd (214.439 nm)	0.097879 u	ppm	0.305688	> 100.00	2521.660000	0.097879 u
Co (228.615 nm)	-3.321980 u	ppm	3.753060	> 100.00	-43386.300000	-3.321980 u
Cr (205.560 nm)	-0.156798 u	ppm	1.100460	> 100.00	-1043.990000	-0.156798 u
Cu (324.754 nm)	-4.280570 bu	ppm	0.533006	12.45	-200263.000000	-4.280570 bu
Fe (238.204 nm)	Error	ppm	N/A	N/A	Error	Error
Fe H (259.940 nm)	Error	ppm	N/A	N/A	Error	Error
K (766.491 nm)	26.253900	ppm	15.826200	60.28	33763.700000	26.253900
Li (670.783 nm)	21.489100 bo	ppm	12.061500	56.13	658857.000000	21.489100 bo
Mg (279.078 nm)	5.748850 b	ppm	0.803582	13.98	14416.500000	5.748850 b
Mn (257.610 nm)	0.257434	ppm	0.053084	20.62	75251.500000	0.257434
Mo (202.032 nm)	5.086420 o	ppm	0.444665	8.74	27374.500000	5.086420 o
Na (589.592 nm)	143.911000 o	ppm	73.665000	51.19	1540450.000000	143.911000 o
Na H (589.593 nm)	Error	ppm	N/A	N/A	Error	Error
Ni (231.604 nm)	0.816503 uo	ppm	0.781772	95.75	3882.190000	0.816503 uo
P (213.618 nm)	-31.236100 u	ppm	22.075600	70.67	-39328.900000	-31.236100 u
Pb (220.353 nm)	18.655700 b	ppm	23.375500	> 100.00	39975.400000	18.655700 b
S (181.972 nm)	142.347050 bo	ppm	6.321491	4.44	55527.852206	142.347050 bo
Sb (206.834 nm)	28.768900 bo	ppm	7.919990	27.53	41249.800000	28.768900 bo
Se (196.026 nm)	26.314200 buo	ppm	37.454500	> 100.00	14682.700000	26.314200 buo
Si (288.158 nm)	95.960400 o	ppm	10.607500	11.05	723555.000000	95.960400 o
Sn (189.925 nm)	17.285500 o	ppm	8.331340	48.20	12194.400000	17.285500 o
Sr (421.552 nm)	0.069476	ppm	0.009873	14.21	15002.544310	0.069476
Th (288.505 nm)	17.216000 bo	ppm	10.541100	61.23	38649.200000	17.216000 bo
Ti (336.122 nm)	-5.750290 u	ppm	0.883629	15.37	-782530.000000	-5.750290 u
Tl (190.794 nm)	4.828310 uo	ppm	8.358640	> 100.00	4509.750000	4.828310 uo

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
U (409.013 nm)	29.620700 bo	ppm	12.960100	43.75	111739.000000	29.620700 bo
V (292.401 nm)	-12.088300 bu	ppm	2.477060	20.49	-382364.000000	-12.088300 bu
Zn (206.200 nm)	7.093760 o	ppm	2.746560	38.72	16534.100000	7.093760 o
Zr (343.823 nm)	0.118947 u	ppm	0.225354	> 100.00	9052.070000	0.118947 u

Solution Name: CCVH-8315027

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCVH-8315027	5/15/2024 8:12:35 AM	S1:1	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	-11.690363 bu	ppm	2.303091	19.70	-25680542.365195	-11.690363 bu
Ag (328.068 nm)	4.030420 bo	ppm	1.360990	33.77	136726.000000	4.030420 bo
Al (394.401 nm)	206.110000 bo	ppm	43.211600	20.97	2734600.000000	206.110000 bo
Al H (396.152 nm)	50.000300	ppm	25.527200	51.05	227902.000000	50.000300
As (188.980 nm)	1.868290 buo	ppm	5.501040	> 100.00	1076.190000	1.868290 buo
B (249.678 nm)	27.766000	ppm	4.292210	15.46	212463.000000	27.766000
Ba (493.408 nm)	-0.281720 u	ppm	0.245857	87.27	-38669.100000	-0.281720 u
Be (234.861 nm)	0.073468 b	ppm	0.087319	> 100.00	7541.310000	0.073468 b
Bi (223.061 nm)	8.814760 o	ppm	1.775390	20.14	21527.600000	8.814760 o
Ca (315.887 nm)	-46.353529 u	ppm	15.071278	32.51	-38873.114054	-46.353529 u
Cd (214.439 nm)	0.087852 u	ppm	0.666875	> 100.00	2258.190000	0.087852 u
Co (228.615 nm)	-0.629438 u	ppm	0.575054	91.36	-8214.010000	-0.629438 u
Cr (205.560 nm)	-0.975944 u	ppm	1.018220	> 100.00	-6320.260000	-0.975944 u
Cu (324.754 nm)	-5.218150 bu	ppm	1.748160	33.50	-246032.000000	-5.218150 bu
Fe (238.204 nm)	8.914434 o	ppm	7.151092	80.22	28717.551673	8.914434 o
Fe H (259.940 nm)	33.105700 Q	ppm	24.418400	73.76	45085.700000 Q	33.105700 Q
K (766.491 nm)	33.121000 u	ppm	45.024600	> 100.00	42587.100000	33.121000 u
Li (670.783 nm)	32.755200 bo	ppm	14.139800	43.17	1004050.000000	32.755200 bo
Mg (279.078 nm)	12.547900 bu	ppm	19.248500	> 100.00	34900.700000	12.547900 bu
Mn (257.610 nm)	0.195906	ppm	0.172296	87.95	57275.700000	0.195906
Mo (202.032 nm)	8.001790 o	ppm	0.804614	10.06	43061.600000	8.001790 o
Na (589.592 nm)	220.779000 o	ppm	104.323000	47.25	2361140.000000	220.779000 o
Na H (589.593 nm)	Error	ppm	N/A	N/A	Error	Error
Ni (231.604 nm)	-2.205500 u	ppm	0.792528	35.93	-10394.000000	-2.205500 u
P (213.618 nm)	-4.213060 Qu	ppm	2.614030	62.05	-6111.390000 Q	-4.213060 Qu
Pb (220.353 nm)	3.951790 b	ppm	1.224730	30.99	8609.760000	3.951790 b
S (181.972 nm)	165.210196 Qbo	ppm	39.979159	24.20	64170.815242 Q	165.210196 Qbo
Sb (206.834 nm)	19.795800 bo	ppm	10.003800	50.53	28364.500000	19.795800 bo
Se (196.026 nm)	7.700520 buo	ppm	9.048150	> 100.00	4301.240000	7.700520 buo
Si (288.158 nm)	88.761500 o	ppm	21.455300	24.17	673154.000000	88.761500 o
Sn (189.925 nm)	21.570700 o	ppm	8.666550	40.18	15216.600000	21.570700 o
Sr (421.552 nm)	0.102524	ppm	0.122643	> 100.00	22121.094592	0.102524
Th (288.505 nm)	20.139100 Qbo	ppm	11.045100	54.84	44844.300000 Q	20.139100 Qbo
Ti (336.122 nm)	-5.736480 u	ppm	1.298200	22.63	-780394.000000	-5.736480 u
Tl (190.794 nm)	8.843460 o	ppm	7.945030	89.84	8265.550000	8.843460 o

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
U (409.013 nm)	29.247400 Qbo	ppm	16.999200	58.12	110265.000000 Q	29.247400 Qbo
V (292.401 nm)	-13.738000 bu	ppm	2.940870	21.41	-434498.000000	-13.738000 bu
Zn (206.200 nm)	8.092470 o	ppm	1.616760	19.98	18861.400000	8.092470 o
Zr (343.823 nm)	-0.093506 u	ppm	1.032970	> 100.00	-7103.750000	-0.093506 u

Solution Name: CCV-8315001

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCV-8315001	5/15/2024 8:16:37 AM	S1:2	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	-11.283634 Qbu	ppm	2.349830	20.83	-24787045.728786 Q	-11.283634 Qbu
Ag (328.068 nm)	4.776660 Qbo	ppm	0.865624	18.12	163729.000000 Q	4.776660 Qbo
Al (394.401 nm)	205.645000 Qbo	ppm	45.343300	22.05	2726390.000000 Q	205.645000 Qbo
Al H (396.152 nm)	19.073000	ppm	6.083140	31.89	87097.300000	19.073000
As (188.980 nm)	4.948480 Qbo	ppm	4.030480	81.45	2851.820000 Q	4.948480 Qbo
B (249.678 nm)	45.635000 Qbo	ppm	38.964800	85.38	349181.000000 Q	45.635000 Qbo
Ba (493.408 nm)	-0.230978 Qu	ppm	0.067229	29.11	-31710.300000 Q	-0.230978 Qu
Be (234.861 nm)	0.025678 Qb	ppm	0.012792	49.82	2797.660000 Q	0.025678 Qb
Bi (223.061 nm)	4.473460 Quo	ppm	7.188310	> 100.00	10927.300000 Q	4.473460 Quo
Ca (315.887 nm)	10.972405 Qo	ppm	6.623254	60.36	9183.343378 Q	10.972405 Qo
Cd (214.439 nm)	0.199247 Qu	ppm	0.711894	> 100.00	5108.650000 Q	0.199247 Qu
Co (228.615 nm)	-1.340370 Qu	ppm	1.147340	85.60	-17499.000000 Q	-1.340370 Qu
Cr (205.560 nm)	0.891963 Quo	ppm	1.772180	> 100.00	5691.460000 Q	0.891963 Quo
Cu (324.754 nm)	-6.054870 Qbu	ppm	0.472905	7.81	-285051.000000 Q	-6.054870 Qbu
Fe (238.204 nm)	10.883862 Qo	ppm	10.383009	95.40	35051.943023 Q	10.883862 Qo
Fe H (259.940 nm)	23.292700	ppm	14.749000	63.32	31733.900000	23.292700
K (766.491 nm)	38.912200 Qu	ppm	61.443500	> 100.00	50028.200000 Q	38.912200 Qu
Li (670.783 nm)	38.063700 Qbo	ppm	17.899600	47.03	1166700.000000 Q	38.063700 Qbo
Mg (279.078 nm)	19.753800 b	ppm	11.448900	57.96	56474.200000	19.753800 b
Mn (257.610 nm)	0.183095 Q	ppm	0.081270	44.39	53533.000000 Q	0.183095 Q
Mo (202.032 nm)	8.156360 Qo	ppm	2.064620	25.31	43893.400000 Q	8.156360 Qo
Na (589.592 nm)	220.869000 Qo	ppm	108.686000	49.21	2362400.000000 Q	220.869000 Qo
Na H (589.593 nm)	Error	ppm	N/A	N/A	Error	Error
Ni (231.604 nm)	-0.886736 Quo	ppm	2.598580	> 100.00	-4164.790000 Q	-0.886736 Quo
P (213.618 nm)	-6.589330 u	ppm	10.851700	> 100.00	-9051.420000	-6.589330 u
Pb (220.353 nm)	11.693300 Qb	ppm	8.754880	74.87	25104.500000 Q	11.693300 Qb
S (181.972 nm)	150.336106 bo	ppm	35.063859	23.32	58468.850568	150.336106 bo
Sb (206.834 nm)	19.321800 Qbo	ppm	0.868768	4.50	27692.300000 Q	19.321800 Qbo
Se (196.026 nm)	23.477800 Qbo	ppm	23.052800	98.19	13099.300000 Q	23.477800 Qbo
Si (288.158 nm)	82.207800 Qo	ppm	17.597700	21.41	620905.000000 Q	82.207800 Qo
Sn (189.925 nm)	15.671900 Qo	ppm	0.977206	6.24	11056.400000 Q	15.671900 Qo
Sr (421.552 nm)	0.091445 Q	ppm	0.030178	33.00	19734.604023 Q	0.091445 Q
Th (288.505 nm)	15.680300 bo	ppm	4.644470	29.62	34876.100000	15.680300 bo

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
Ti (336.122 nm)	-5.588210 Qu	ppm	1.480960	26.50	-759997.000000 Q	-5.588210 Qu
Tl (190.794 nm)	-10.900500 Quo	ppm	23.662100	> 100.00	-10228.800000 Q	-10.900500 Quo
U (409.013 nm)	17.991500 bo	ppm	6.135300	34.10	68030.400000	17.991500 bo
V (292.401 nm)	-12.941000 Qbu	ppm	4.125040	31.88	-409325.000000 Q	-12.941000 Qbu
Zn (206.200 nm)	8.796750 Qo	ppm	6.452250	73.35	20502.600000 Q	8.796750 Qo
Zr (343.823 nm)	0.649777 Quo	ppm	0.680950	> 100.00	49461.600000 Q	0.649777 Quo

Solution Name: CCB

Solution Name	Date	Rack:Tube	Weight (g)	Volume (mL)	Dilution
CCB	5/15/2024 8:20:38 AM	S1:4	1	1	1

Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
(Li-A) (670.783 nm)	-10.389255 Zbu	ppm	3.567323	34.34	-22822498.723461 Z	-10.389255 Zbu
Ag (328.068 nm)	2.965580 Zbo	ppm	1.883900	63.53	98449.400000 Z	2.965580 Zbo
Al (394.401 nm)	191.182000 Zbo	ppm	57.047700	29.84	2529390.000000 Z	191.182000 Zbo
Al H (396.152 nm)	Error	ppm	N/A	N/A	Error	Error
As (188.980 nm)	-8.975220 Zbuo	ppm	25.538500	> 100.00	-5174.270000 Z	-8.975220 Zbuo
B (249.678 nm)	54.480200 Zbo	ppm	37.537600	68.90	416857.000000 Z	54.480200 Zbo
Ba (493.408 nm)	-0.090423 Zu	ppm	0.060436	66.84	-12433.800000 Z	-0.090423 Zu
Be (234.861 nm)	0.027129 Zb	ppm	0.021051	77.60	2968.480000 Z	0.027129 Zb
Bi (223.061 nm)	9.517880 Zo	ppm	2.831920	29.75	23244.500000 Z	9.517880 Zo
Ca (315.887 nm)	Error	ppm	N/A	N/A	Error	Error
Cd (214.439 nm)	-0.310465 Zu	ppm	0.598734	> 100.00	-7906.220000 Z	-0.310465 Zu
Co (228.615 nm)	-1.608870 Zu	ppm	0.801471	49.82	-21006.000000 Z	-1.608870 Zu
Cr (205.560 nm)	0.850816 Zuo	ppm	0.983928	> 100.00	5442.330000 Z	0.850816 Zuo
Cu (324.754 nm)	-5.718890 Zbu	ppm	2.605960	45.57	-266886.000000 Z	-5.718890 Zbu
Fe (238.204 nm)	Error	ppm	N/A	N/A	Error	Error
Fe H (259.940 nm)	Error	ppm	N/A	N/A	Error	Error
K (766.491 nm)	3.512280 Zu	ppm	38.523900	> 100.00	4543.120000 Z	3.512280 Zu
Li (670.783 nm)	37.213800 Sbo	ppm	8.575360	23.04	1140570.000000 S	37.213800 Sbo
Mg (279.078 nm)	18.053800 Zb	ppm	10.041000	55.62	51591.800000 Z	18.053800 Zb
Mn (257.610 nm)	0.209698 Z	ppm	0.098287	46.87	61305.400000 Z	0.209698 Z
Mo (202.032 nm)	5.067540 Zo	ppm	1.945020	38.38	27272.900000 Z	5.067540 Zo
Na (589.592 nm)	198.081000 Zo	ppm	45.786300	23.11	2118810.000000 Z	198.081000 Zo
Na H (589.593 nm)	Error	ppm	N/A	N/A	Error	Error
Ni (231.604 nm)	-1.615040 Zuo	ppm	3.543510	> 100.00	-7598.980000 Z	-1.615040 Zuo
P (213.618 nm)	-4.595180 Zu	ppm	3.209430	69.84	-6457.300000 Z	-4.595180 Zu
Pb (220.353 nm)	4.532240 Zb	ppm	3.527740	77.84	9811.740000 Z	4.532240 Zb
S (181.972 nm)	177.283115 Zbo	ppm	63.612932	35.88	68965.788503 Z	177.283115 Zbo
Sb (206.834 nm)	19.909200 Zbo	ppm	9.867360	49.56	28549.500000 Z	19.909200 Zbo
Se (196.026 nm)	23.559700 Zbuo	ppm	26.400300	> 100.00	13145.800000 Z	23.559700 Zbuo
Si (288.158 nm)	69.515900 Zo	ppm	28.616800	41.17	532041.000000 Z	69.515900 Zo
Sn (189.925 nm)	22.887200 Zo	ppm	4.499450	19.66	16145.100000 Z	22.887200 Zo
Sr (421.552 nm)	0.033969 Z	ppm	0.024934	73.40	7354.308883 Z	0.033969 Z
Th (288.505 nm)	19.737400 Zbo	ppm	2.189770	11.09	43863.500000 Z	19.737400 Zbo
Ti (336.122 nm)	-5.249630 Zu	ppm	1.823770	34.74	-714429.000000 Z	-5.249630 Zu

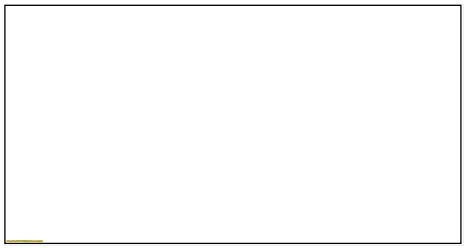
Label	Solution Concentration	Unit	Conc SD	Conc %RSD	Intensity (c/s)	Adjusted Concentration
Tl (190.794 nm)	3.914320 Zuo	ppm	8.301890	> 100.00	3654.710000 Z	3.914320 Zuo
U (409.013 nm)	21.542800 Zbuo	ppm	36.515600	> 100.00	81397.300000 Z	21.542800 Zbuo
V (292.401 nm)	-12.767400 Zbu	ppm	5.454500	42.72	-402709.000000 Z	-12.767400 Zbu
Zn (206.200 nm)	6.992380 Zo	ppm	3.995130	57.14	16297.800000 Z	6.992380 Zo
Zr (343.823 nm)	0.280238 Zu	ppm	0.973988	> 100.00	21326.100000 Z	0.280238 Zu

Current Signal

Operator Name	Denver Metals
Acq. Date-Time	5/9/2024 12:56:53 PM
Instrument Name	G3281A JP09320047
Batch Folder	D:\Agilent\ICPMH\1\DATA\all050924.b

[HMI He]

Sensitivity



Ch	Mass	Range	Count	Avg Count	RSD%
1	7	50	20	18	30.556
2	51	10000	40	31	29.898
3	53	10000	43	43	20.255
4	59	500	1558	1546	2.133
5	66	500	69	71	15.845
6	70	50	41	45	18.590
7	78	20	0	1	135.185
8	115	10000	1120	1170	3.867
9	118	200	16	18	23.216
10	137	2000	136	157	8.600
11	140	20000	3184	3189	3.501
12	205	20000	4233	4397	2.822
13	51/59	100	2.568 %	1.978 %	30.010
14	70/140	2	1.288 %	1.416 %	18.152
15	156/140	1	0.126 %	0.204 %	45.476

Integration Time [sec] 0.1

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.66 L/min	Dilution Gas	0.23 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.20 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Q1 Entrance	---	Cell Exit	-62 V
Extract 2	-135.0 V	Q1 Exit	---	Deflect	-0.6 V
Omega Bias	-80 V	Cell Focus	---	Plate Bias	-60 V
Omega Lens	9.4 V	Cell Entrance	-36 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Axial Acceleration	---
He Flow	5.0 mL/min	4th Gas Flow	---	OctP RF	170 V
H2 Flow	0.0 mL/min	OctP Bias	-18.0 V	Energy Discrimination	3.0 V

QP Parameters

Mass Gain	147	Axis Gain	1.0029	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.04		

Current Signal

Torch

Torch H	-1.0 mm	Torch V	1.0 mm		

EM

Discriminator	4.5 mV	Analog HV	1691 V	Pulse HV	1560 V

Meter

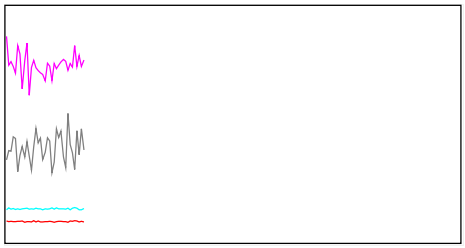
Name	Value	Unit
IF/BK Press	2.87E+2	Pa
Analyzer Press	3.06E-4	Pa
Water RF/WC/IF	1.32	L/min
Water Temp	18.1	°C
Reflected Power	0	W

Current Signal

Operator Name	Denver Metals
Acq. Date-Time	5/9/2024 12:58:20 PM
Instrument Name	G3281A JP09320047
Batch Folder	D:\Agilent\ICPMH\1\DATA\all050924.b

[No Gas]

Sensitivity



Ch	Mass	Range	Count	Avg Count	RSD%
1	7	100000	14172	14092	1.750
2	6	100000	10513	10917	1.907
3	59	100000	6404	6414	2.506
4	63	5000	161	175	9.246
5	70	5000	405	384	6.620
6	75	10000	5369	5172	3.189
7	89	100000	8499	8690	2.084
8	105	1000	26	28	19.923
9	118	2000	108	101	10.427
10	137	20000	1234	1177	3.272
11	140	200000	10473	10192	1.769
12	205	100000	9291	9228	2.213
13	238	10000	16426	16263	1.439
14	70/140	5	3.867 %	3.766 %	6.622
15	156/140	2	0.783 %	0.798 %	15.198

Integration Time [sec] 0.1

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.66 L/min	Dilution Gas	0.23 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.20 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Q1 Entrance	---	Cell Exit	-52 V
Extract 2	-155.0 V	Q1 Exit	---	Deflect	15.0 V
Omega Bias	-90 V	Cell Focus	---	Plate Bias	-50 V
Omega Lens	10.7 V	Cell Entrance	-20 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Axial Acceleration	---
He Flow	0.0 mL/min	4th Gas Flow	---	OctP RF	170 V
H2 Flow	0.0 mL/min	OctP Bias	-8.0 V	Energy Discrimination	3.0 V

QP Parameters

Mass Gain	147	Axis Gain	1.0029	QP Bias	-5.0 V
Mass Offset	125	Axis Offset	0.04		

Current Signal

Torch

Torch H	-1.0 mm	Torch V	1.0 mm		

EM

Discriminator	4.5 mV	Analog HV	1691 V	Pulse HV	1560 V

Meter

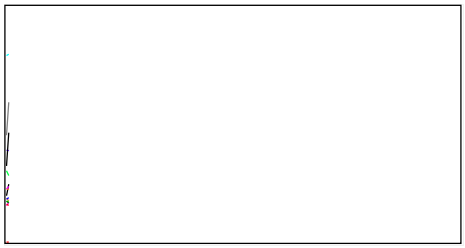
Name	Value	Unit
IF/BK Press	2.84E+2	Pa
Analyzer Press	1.79E-4	Pa
Water RF/WC/IF	1.33	L/min
Water Temp	18.2	°C
Reflected Power	0	W

Current Signal

Operator Name	Denver Metals
Acq. Date-Time	5/9/2024 12:58:32 PM
Instrument Name	G3281A JP09320047
Batch Folder	D:\Agilent\ICPMH\1\DATA\all050924.b

[HMI H2]

Sensitivity



Ch	Mass	Range	Count	Avg Count	RSD%
1	7	500	399	398	0.534
2	9	5000	1415	1464	4.739
3	59	10000	1755	1807	4.074
4	63	200	34	33	6.527
5	70	1000	246	222	15.644
6	78	20	0	0	0.000
7	89	50000	7768	7865	1.743
8	115	50000	8607	8631	0.395
9	118	500	94	93	2.293
10	137	5000	1126	1123	0.378
11	140	50000	8291	8487	3.258
12	205	20000	7777	7786	0.173
13	238	50000	11832	11531	3.696
14	70/140	5	2.967 %	2.618 %	18.854
15	156/140	2	0.929 %	0.787 %	25.496

Integration Time [sec] 0.1

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.66 L/min	Dilution Gas	0.23 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.20 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Q1 Entrance	---	Cell Exit	-70 V
Extract 2	-140.0 V	Q1 Exit	---	Deflect	1.4 V
Omega Bias	-85 V	Cell Focus	---	Plate Bias	-60 V
Omega Lens	10.0 V	Cell Entrance	-24 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Axial Acceleration	---
He Flow	0.0 mL/min	4th Gas Flow	---	OctP RF	170 V
H2 Flow	4.0 mL/min	OctP Bias	-18.0 V	Energy Discrimination	3.0 V

QP Parameters

Mass Gain	145	Axis Gain	1.0025	QP Bias	-15.0 V
Mass Offset	127	Axis Offset	0.08		

Current Signal

Torch

Torch H	-1.0 mm	Torch V	1.0 mm		

EM

Discriminator	4.5 mV	Analog HV	1691 V	Pulse HV	1560 V

Meter

Name	Value	Unit
IF/BK Press	2.94E+2	Pa
Analyzer Press	4.37E-4	Pa
Water RF/WC/IF	1.33	L/min
Water Temp	18.2	°C
Reflected Power	0	W

US EPA Tune Check Report

Operator Name	Denver Metals
Acq/Data Batch	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq. Date-Time	5/9/2024 1:05:49 PM
Report Comment	---
Instrument Name	G3281A JP09320047

[HMI H2]

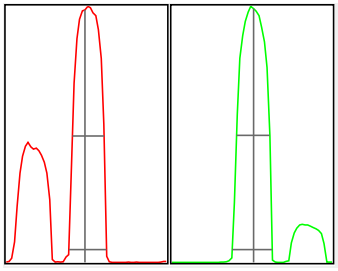
Sensitivity

Mass	Conc. [ug/l]	Count	CPS	RSD%	RSD% (Required)	RSD% (Flag)
7		196	1960.86	0.947	5.000	
9		713	7128.12	1.128	5.000	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
7	194	194	196	198	198
9	703	709	722	710	720

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
7	340.20	7.00	6.90 - 7.10	
9	1219.28	9.05	8.90 - 9.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
7	0.59	0.695	0.900	
9	0.61	0.738	0.900	

Integration Time [sec] 0.1
Acquisition Time [sec] 60.9
Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas		Dilution Gas	0.23 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching		Nebulizer Pump		Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp			

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	1.4 V

US EPA Tune Check Report

Extract 2	-140.0 V	Cell Entrance	-24 V	Plate Bias	-60 V
Omega Bias	-85 V	Cell Exit	-70 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	0.0 mL/min	OctP Bias	-18.0 V		
H2 Flow	4.0 mL/min	OctP RF	170 V		

QP Parameters

Mass Gain	145	Axis Gain	1.0025	QP Bias	-15.0 V
Mass Offset	127	Axis Offset	0.08		

Hardware Settings

EM

Discriminator	4.5 mV	Analog HV	1691 V	Pulse HV	1560 V

Torch

Torch H	-1.0 mm	Torch V	1.0 mm		

[HMI He]

Sensitivity

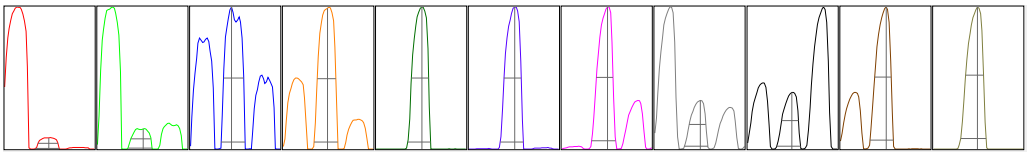
Mass	Conc. [ug/l]	Count	CPS	RSD%	RSD% (Required)	RSD% (Flag)
24		288	2876.67	2.285	5.000	
25		41	410.22	2.610	5.000	
26		51	513.53	6.304	5.000	Fail
59		931	9313.21	1.202	5.000	
103		2114	21137.68	0.792	5.000	
115		664	6637.30	1.883	5.000	
205		2353	23525.75	0.419	5.000	
206		804	8044.48	0.530	5.000	
207		696	6964.80	1.086	5.000	
208		1707	17070.08	0.399	5.000	
238		4110	41102.91	0.581	5.000	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
24	282	285	282	294	296
25	41	40	40	43	41
26	47	50	55	53	51
59	932	917	930	929	949
103	2102	2100	2107	2119	2141
115	645	660	665	670	679
205	2365	2337	2352	2353	2355
206	801	810	802	808	801
207	687	703	699	704	690
208	1696	1706	1709	1711	1713
238	4133	4090	4136	4083	4109

US EPA Tune Check Report

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
24	452.08	24.00	23.90 - 24.10	
25	64.30	25.05	24.90 - 25.10	
26	83.21	25.90	25.90 - 26.10	
59	1552.23	59.00	58.90 - 59.10	
103	3887.33	103.05	102.90 - 103.10	
115	1231.52	115.05	114.90 - 115.10	
205	4404.17	205.05	204.90 - 205.10	
206	1507.82	206.05	205.90 - 206.10	
207	1289.31	207.00	206.90 - 207.10	
208	3231.84	208.05	207.90 - 208.10	
238	7251.85	238.00	237.90 - 238.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
24	0.66	0.786	0.900	
25	0.66	0.791	0.900	
26	0.66	0.786	0.900	
59	0.61	0.783	0.900	
103	0.57	0.754	0.900	
115	0.57	0.762	0.900	
205	0.55	0.793	0.900	
206	0.55	0.775	0.900	
207	0.56	0.783	0.900	
208	0.55	0.774	0.900	
238	0.59	0.832	0.900	

Integration Time [sec] 0.1

Acquisition Time [sec] 283.400000000001

Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode --- Nebulizer Gas Dilution Gas 0.23 L/min

US EPA Tune Check Report

RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching		Nebulizer Pump		Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp			

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.4 V	Deflect	-0.6 V
Extract 2	-135.0 V	Cell Entrance	-36 V	Plate Bias	-60 V
Omega Bias	-80 V	Cell Exit	-62 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	5.0 mL/min	OctP Bias	-18.0 V		
H2 Flow	0.0 mL/min	OctP RF	170 V		

QP Parameters

Mass Gain	147	Axis Gain	1.0029	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.04		

Hardware Settings

EM

Discriminator	4.5 mV	Analog HV	1691 V	Pulse HV	1560 V

Torch

Torch H	-1.0 mm	Torch V	1.0 mm		

[No Gas]

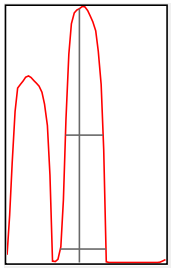
Sensitivity

Mass	Conc. [ug/l]	Count	CPS	RSD%	RSD% (Required)	RSD% (Flag)
7	10.00	9231	92306.55	0.337	5.000	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
7	9221	9243	9184	9237	9269

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
7	13602.43	6.90	6.90 - 7.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
7	0.70	0.854	0.900	

Integration Time [sec] 0.1

US EPA Tune Check Report

Acquisition Time [sec]	36.9
Y Axis	Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas		Dilution Gas	0.23 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching		Nebulizer Pump		Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp			

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.7 V	Deflect	15.0 V
Extract 2	-155.0 V	Cell Entrance	-20 V	Plate Bias	-50 V
Omega Bias	-90 V	Cell Exit	-52 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	0.0 mL/min	OctP RF	170 V		

QP Parameters

Mass Gain	147	Axis Gain	1.0029	QP Bias	-5.0 V
Mass Offset	125	Axis Offset	0.04		

Hardware Settings

EM

Discriminator	4.5 mV	Analog HV	1691 V	Pulse HV	1560 V

Torch

Torch H	-1.0 mm	Torch V	1.0 mm

US EPA Tune Check Report

Operator Name	Denver Metals
Acq/Data Batch	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq. Date-Time	5/9/2024 1:21:23 PM
Report Comment	---
Instrument Name	G3281A JP09320047

[HMI H2]

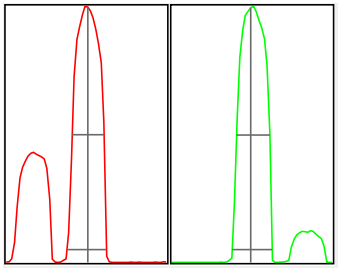
Sensitivity

Mass	Conc. [ug/l]	Count	CPS	RSD%	RSD% (Required)	RSD% (Flag)
7		195	1954.86	4.202	5.000	
9		720	7196.66	4.330	5.000	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
7	208	185	197	196	191
9	774	705	699	703	716

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
7	346.40	7.05	6.90 - 7.10	
9	1230.23	9.00	8.90 - 9.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
7	0.59	0.730	0.900	
9	0.61	0.738	0.900	

Integration Time [sec] 0.1
Acquisition Time [sec] 60.9
Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas		Dilution Gas	0.23 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching		Nebulizer Pump		Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp			

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	1.4 V

US EPA Tune Check Report

Extract 2	-140.0 V	Cell Entrance	-24 V	Plate Bias	-60 V
Omega Bias	-85 V	Cell Exit	-70 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	0.0 mL/min	OctP Bias	-18.0 V		
H2 Flow	4.0 mL/min	OctP RF	170 V		

QP Parameters

Mass Gain	145	Axis Gain	1.0025	QP Bias	-15.0 V
Mass Offset	127	Axis Offset	0.08		

Hardware Settings

EM

Discriminator	4.5 mV	Analog HV	1691 V	Pulse HV	1560 V

Torch

Torch H	-1.0 mm	Torch V	1.0 mm		

[HMI He]

Sensitivity

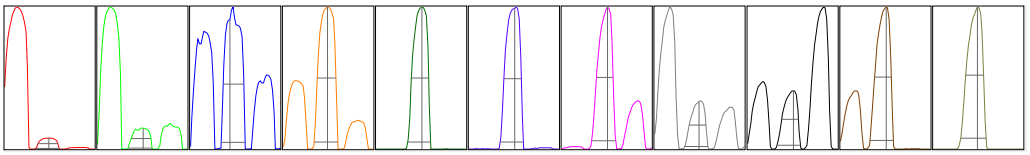
Mass	Conc. [ug/l]	Count	CPS	RSD%	RSD% (Required)	RSD% (Flag)
24		288	2879.26	3.097	5.000	
25		42	423.63	3.363	5.000	
26		50	501.13	5.442	5.000	Fail
59		940	9400.17	1.065	5.000	
103		2081	20808.42	1.436	5.000	
115		651	6508.79	2.878	5.000	
205		2252	22522.92	0.983	5.000	
206		765	7650.34	0.892	5.000	
207		673	6729.82	0.624	5.000	
208		1626	16260.47	1.482	5.000	
238		3966	39663.98	1.489	5.000	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
24	275	287	290	300	288
25	45	42	41	41	43
26	50	51	46	52	52
59	928	945	935	937	954
103	2056	2051	2080	2093	2125
115	623	647	648	666	670
205	2221	2253	2242	2274	2272
206	754	766	764	768	773
207	668	673	675	679	670
208	1601	1606	1621	1650	1653
238	3906	3936	3942	3991	4057

US EPA Tune Check Report

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
24	458.18	24.00	23.90 - 24.10	
25	67.35	25.05	24.90 - 25.10	
26	74.66	25.85	25.90 - 26.10	Fail
59	1567.34	59.00	58.90 - 59.10	
103	3797.28	103.05	102.90 - 103.10	
115	1166.92	115.05	114.90 - 115.10	
205	4235.58	205.05	204.90 - 205.10	
206	1416.17	206.00	205.90 - 206.10	
207	1244.12	207.05	206.90 - 207.10	
208	3037.27	208.05	207.90 - 208.10	
238	7013.96	238.00	237.90 - 238.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
24	0.66	0.787	0.900	
25	0.65	0.790	0.900	
26	0.68	0.788	0.900	
59	0.61	0.784	0.900	
103	0.57	0.755	0.900	
115	0.58	0.764	0.900	
205	0.55	0.796	0.900	
206	0.55	0.769	0.900	
207	0.56	0.774	0.900	
208	0.55	0.775	0.900	
238	0.59	0.833	0.900	

Integration Time [sec] 0.1

Acquisition Time [sec] 283.400000000001

Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode --- Nebulizer Gas Dilution Gas 0.23 L/min

US EPA Tune Check Report

RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching		Nebulizer Pump		Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp			

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.4 V	Deflect	-0.6 V
Extract 2	-135.0 V	Cell Entrance	-36 V	Plate Bias	-60 V
Omega Bias	-80 V	Cell Exit	-62 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	5.0 mL/min	OctP Bias	-18.0 V		
H2 Flow	0.0 mL/min	OctP RF	170 V		

QP Parameters

Mass Gain	147	Axis Gain	1.0029	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.04		

Hardware Settings

EM

Discriminator	4.5 mV	Analog HV	1691 V	Pulse HV	1560 V

Torch

Torch H	-1.0 mm	Torch V	1.0 mm		

[No Gas]

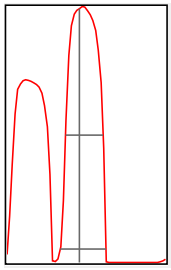
Sensitivity

Mass	Conc. [ug/l]	Count	CPS	RSD%	RSD% (Required)	RSD% (Flag)
7	10.00	9054	90543.29	0.791	5.000	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
7	9114	9146	9022	9009	8981

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
7	13343.43	6.90	6.90 - 7.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
7	0.70	0.853	0.900	

Integration Time [sec] 0.1

US EPA Tune Check Report

Acquisition Time [sec]	36.9
Y Axis	Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas		Dilution Gas	0.23 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching		Nebulizer Pump		Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp			

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.7 V	Deflect	15.0 V
Extract 2	-155.0 V	Cell Entrance	-20 V	Plate Bias	-50 V
Omega Bias	-90 V	Cell Exit	-52 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	0.0 mL/min	OctP RF	170 V		

QP Parameters

Mass Gain	147	Axis Gain	1.0029	QP Bias	-5.0 V
Mass Offset	125	Axis Offset	0.04		

Hardware Settings

EM

Discriminator	4.5 mV	Analog HV	1691 V	Pulse HV	1560 V

Torch

Torch H	-1.0 mm	Torch V	1.0 mm

US EPA Tune Check Report

Operator Name	Denver Metals
Acq/Data Batch	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq. Date-Time	5/9/2024 1:38:45 PM
Report Comment	---
Instrument Name	G3281A JP09320047

[HMI H2]

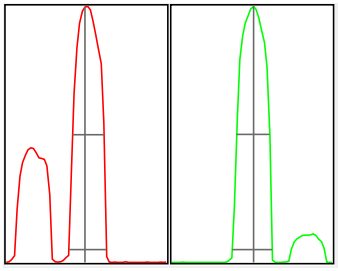
Sensitivity

Mass	Conc. [ug/l]	Count	CPS	RSD%	RSD% (Required)	RSD% (Flag)
7		192	1915.75	3.739	5.000	
9		708	7077.10	3.828	5.000	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
7	201	189	196	182	191
9	756	692	700	696	695

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
7	344.85	7.00	6.90 - 7.10	
9	1230.59	9.05	8.90 - 9.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
7	0.58	0.694	0.900	
9	0.61	0.737	0.900	

Integration Time [sec] 0.1
Acquisition Time [sec] 60.9
Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas		Dilution Gas	0.23 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching		Nebulizer Pump		Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp			

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	1.4 V

US EPA Tune Check Report

Extract 2	-140.0 V	Cell Entrance	-24 V	Plate Bias	-60 V
Omega Bias	-85 V	Cell Exit	-70 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	0.0 mL/min	OctP Bias	-18.0 V		
H2 Flow	4.0 mL/min	OctP RF	170 V		

QP Parameters

Mass Gain	145	Axis Gain	1.0025	QP Bias	-15.0 V
Mass Offset	127	Axis Offset	0.08		

Hardware Settings

EM

Discriminator	4.5 mV	Analog HV	1691 V	Pulse HV	1560 V

Torch

Torch H	-1.0 mm	Torch V	1.0 mm

[HMI He]

Sensitivity

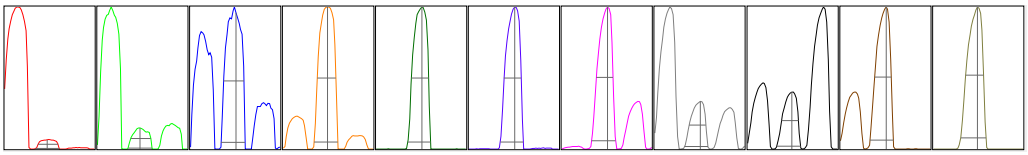
Mass	Conc. [ug/l]	Count	CPS	RSD%	RSD% (Required)	RSD% (Flag)
24		244	2438.45	1.934	5.000	
25		35	346.72	3.652	5.000	
26		43	428.23	4.933	5.000	
59		925	9251.76	1.788	5.000	
103		2067	20665.34	1.611	5.000	
115		650	6495.99	2.606	5.000	
205		2242	22422.28	0.911	5.000	
206		755	7549.36	0.697	5.000	
207		661	6610.61	0.869	5.000	
208		1610	16099.70	1.338	5.000	
238		3927	39268.30	0.919	5.000	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
24	237	242	245	247	249
25	36	34	36	34	34
26	41	40	43	45	45
59	900	918	928	936	943
103	2029	2040	2074	2113	2077
115	629	639	648	664	669
205	2228	2218	2240	2264	2262
206	754	751	754	752	764
207	661	663	652	661	668
208	1589	1591	1615	1612	1642
238	3873	3909	3941	3945	3966

US EPA Tune Check Report

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
24	380.36	23.95	23.90 - 24.10	
25	57.45	24.95	24.90 - 25.10	
26	67.30	26.05	25.90 - 26.10	
59	1548.68	59.00	58.90 - 59.10	
103	3795.52	103.05	102.90 - 103.10	
115	1214.11	115.05	114.90 - 115.10	
205	4213.61	205.05	204.90 - 205.10	
206	1416.98	206.05	205.90 - 206.10	
207	1219.40	207.00	206.90 - 207.10	
208	3040.77	208.05	207.90 - 208.10	
238	6955.30	238.00	237.90 - 238.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
24	0.66	0.786	0.900	
25	0.66	0.789	0.900	
26	0.66	0.788	0.900	
59	0.61	0.783	0.900	
103	0.56	0.755	0.900	
115	0.57	0.762	0.900	
205	0.55	0.794	0.900	
206	0.55	0.769	0.900	
207	0.56	0.785	0.900	
208	0.55	0.775	0.900	
238	0.59	0.835	0.900	

Integration Time [sec] 0.1

Acquisition Time [sec] 283.400000000001

Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode --- Nebulizer Gas Dilution Gas 0.23 L/min

US EPA Tune Check Report

RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching		Nebulizer Pump		Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp			

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.4 V	Deflect	-0.6 V
Extract 2	-135.0 V	Cell Entrance	-36 V	Plate Bias	-60 V
Omega Bias	-80 V	Cell Exit	-62 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	5.0 mL/min	OctP Bias	-18.0 V		
H2 Flow	0.0 mL/min	OctP RF	170 V		

QP Parameters

Mass Gain	147	Axis Gain	1.0029	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.04		

Hardware Settings

EM

Discriminator	4.5 mV	Analog HV	1691 V	Pulse HV	1560 V

Torch

Torch H	-1.0 mm	Torch V	1.0 mm		

[No Gas]

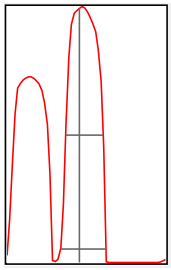
Sensitivity

Mass	Conc. [ug/l]	Count	CPS	RSD%	RSD% (Required)	RSD% (Flag)
7	10.00	8997	89973.27	0.680	5.000	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
7	9088	8989	9018	8923	8969

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
7	13330.02	6.90	6.90 - 7.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
7	0.70	0.848	0.900	

Integration Time [sec] 0.1

US EPA Tune Check Report

Acquisition Time [sec]	36.9
Y Axis	Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas		Dilution Gas	0.23 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching		Nebulizer Pump		Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp			

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.7 V	Deflect	15.0 V
Extract 2	-155.0 V	Cell Entrance	-20 V	Plate Bias	-50 V
Omega Bias	-90 V	Cell Exit	-52 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	0.0 mL/min	OctP RF	170 V		

QP Parameters

Mass Gain	147	Axis Gain	1.0029	QP Bias	-5.0 V
Mass Offset	125	Axis Offset	0.04		

Hardware Settings

EM

Discriminator	4.5 mV	Analog HV	1691 V	Pulse HV	1560 V

Torch

Torch H	-1.0 mm	Torch V	1.0 mm

	Mass (Custom Setting)	Element Name	Current Value	Retain Mass for Startup
	6	Li-6 Internal standard	0.090192	☐
	9	Be	0.103382	☐
	23	Na	0.111393	☐
	24	Mg	0.114823	☐
	27	Al	0.119253	☐
	39	K	0.123801	☐
	44	Ca	Signal too low	☐
	45	Sc	0.122024	☐
	48	Ti	0.126955	☑
	51	V	0.128853	☐
	52	Cr	0.127671	☐
	55	Mn	0.129347	☐
	56	Fe	0.121662	☐
	59	Co	0.132607	☐
	60	Ni	0.135055	☐
	63	Cu	0.135961	☐
	66	Zn	0.135778	☐
	72	Ge Internal standard	0.135319	☐
	75	As	0.133736	☐
	77	Se	Signal too low	☑
	78	Se	Signal too low	☐
	82	Se	Signal too low	☐
	88	Sr	0.135587	☐
	95	Mo	0.134839	☐
	98	Ru	0.135543	☑

	Mass (Custom Setting)	Element Name	Current Value	Retain Mass for Startup
	101	Ru	0.136996	☑
	102	Ru	0.137551	☑
	105	Pd	0.140598	☑
	106	Pd	0.139686	☑
	107	Ag	Signal too low	☐
	111	Cd	0.141071	☐
	114	(Cd)	0.140991	☐
	115	In Internal standard	0.140847	☐
	118	(In)	0.141196	☐
	121	Sb	0.140953	☐
	137	Ba	Signal too low	☐
	138	Ba	0.142305	☑
	193	Ir Internal standard	0.146194	☐
	205	Tl	0.157399	☐
	208	Pb	0.148054	☐
	209	Bi	0.148165	☐
	232	Th	0.148825	☐
	238	U	0.158280	☐

Sample Report

Sample Table

Sample Name	rinse-8291567
Data File Name	001SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T14:05:56-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Sample Report

Sample Table

Sample Name	rinse-8291567
Data File Name	002SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T14:09:30-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Sample Report

Sample Table

Sample Name	rinse-8291567
Data File Name	003SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T14:13:04-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Sample Report

Sample Table

Sample Name	rinse-8291567
Data File Name	004SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T14:16:38-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Sample Report

Sample Table

Sample Name	rinse-8291567
Data File Name	005SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T14:20:12-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Sample Report

Sample Table

Sample Name	rinse-8291567
Data File Name	006SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T14:23:44-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Sample Report

Sample Table

Sample Name	rinse-8291567
Data File Name	007SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T14:27:18-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Sample Report

Sample Table

Sample Name	rinse-8291567
Data File Name	008SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T14:30:53-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Sample Report

Sample Table

Sample Name	rinse-8291567
Data File Name	009SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T14:34:26-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Sample Report

Sample Table

Sample Name	rinse-8291567
Data File Name	010SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T14:38:00-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Sample Report

Sample Table

Sample Name	rinse-8291567
Data File Name	011SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T14:41:33-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Calibration Blank Report

Sample Table

Sample Name	ICIS-8327938
Data File Name	012CALB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T14:45:05-06:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	3	No Gas	1312821	0.00
Be	9	1	HMI H2	30	111.11
B	11	1	HMI H2	1190	0.79
Na	23	2	HMI He	26745	0.01
Mg	24	2	HMI He	210	6.00
Al	27	2	HMI He	60	73.49
K	39	2	HMI He	26919	0.01
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	1583	0.57
Cr	52	2	HMI He	1507	0.43
Mn	55	2	HMI He	133	17.19
(Fe)	57	2	HMI He	233	9.24
Co	59	2	HMI He	57	71.92
Ni	60	2	HMI He	157	15.42
Cu	63	2	HMI He	340	3.77
Zn	66	2	HMI He	237	5.15
As	75	2	HMI He	61	19.14
Se	78	1	HMI H2	8	0.00
Sr	88	2	HMI He	3	5196.15
Zr	90	2	HMI He	297	8.68
Mo	95	2	HMI He	93	17.53
Ag	107	2	HMI He	30	222.22
Cd	111	2	HMI He	0	#VALUE!
Sn	120	2	HMI He	210	17.71
Sb	121	2	HMI He	37	261.21
Ba	137	2	HMI He	13	859.23
W	182	2	HMI He	253	1.80
Tl	205	2	HMI He	573	4.62
Pb	208	2	HMI He	977	2.00
Th	232	2	HMI He	4454	0.02
U	238	2	HMI He	1754	0.02

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li-6 Internal standard	6	1	HMI H2	252517	1.94
Sc(IS)	45	1	HMI H2	9196623	1.54
Sc (IS)	45	2	HMI He	531422	2.20
Sc (IS)	45	3	No Gas	18746179	0.79
Ge Internal standard	72	1	HMI H2	3833850	0.57
Ge Internal standard	72	2	HMI He	524481	0.45
In Internal standard	115	2	HMI He	1492548	2.50
Ho-165	165	2	HMI He	6759932	1.77
Ir (IS)	193	2	HMI He	5766680	1.98

Calibration Standard Report

Sample Table

Sample Name	IC-8327940
Data File Name	013CALS.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T14:48:40-06:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	cal 4 (Na, K, Mg, Ca only)
ISTD Ref File Name	012CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Concentration	ConcentrationUnits
Li	7	3	No Gas	1317251	0.00		ppb
Be	9	1	HMI H2	33	187.35		ppb
B	11	1	HMI H2	1280	0.64		ppb
Na	23	2	HMI He	18179454	0.00	100000	ppb
Mg	24	2	HMI He	1660864	0.00	20000	ppb
Al	27	2	HMI He	207	9.75		ppb
K	39	2	HMI He	860067	0.00	20000	ppb
Ti	47	2	HMI He	7	2598.08		ppb
V	51	2	HMI He	2364	0.50		ppb
Cr	52	2	HMI He	1447	1.05		ppb
Mn	55	2	HMI He	170	24.95		ppb
(Fe)	57	2	HMI He	217	11.73		ppb
Co	59	2	HMI He	120	55.12		ppb
Ni	60	2	HMI He	283	2.59		ppb
Cu	63	2	HMI He	490	0.72		ppb
Zn	66	2	HMI He	727	2.13		ppb
As	75	2	HMI He	76	21.93		ppb
Se	78	1	HMI H2	16	156.25		ppb
Sr	88	2	HMI He	107	33.28		ppb
Zr	90	2	HMI He	413	7.27		ppb
Mo	95	2	HMI He	117	18.49		ppb
Ag	107	2	HMI He	73	65.31		ppb
Cd	111	2	HMI He	0	#VALUE!		ppb
Sn	120	2	HMI He	307	8.85		ppb
Sb	121	2	HMI He	57	64.83		ppb
Ba	137	2	HMI He	67	46.84		ppb
W	182	2	HMI He	293	3.55		ppb
Tl	205	2	HMI He	633	1.75		ppb
Pb	208	2	HMI He	1380	0.19		ppb
Th	232	2	HMI He	5375	0.07		ppb
U	238	2	HMI He	1960	0.30		ppb

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	248523	0.82	252517	98.42	60	120	
Sc(IS)	45	1	HMI H2	9393809	1.82	9196623	102.14	60	120	
Sc (IS)	45	2	HMI He	542719	0.48	531422	102.13	60	120	
Sc (IS)	45	3	No Gas	18926217	0.62	18746179	100.96	60	120	
Ge Internal standard	72	1	HMI H2	3839250	1.38	3833850	100.14	60	120	
Ge Internal standard	72	2	HMI He	531532	0.74	524481	101.34	60	120	
In Internal standard	115	2	HMI He	1548222	0.61	1492548	103.73	60	120	
Ho-165	165	2	HMI He	6881701	1.72	6759932	101.80	60	120	
Ir (IS)	193	2	HMI He	5753635	1.09	5766680	99.77	60	120	

Calibration Standard Report

Sample Table

Sample Name	IC-8327939
Data File Name	014CALS.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T14:52:13-06:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	cal1 (No Na, K, Mg, Ca)
ISTD Ref File Name	012CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Concentration	ConcentrationUnits
Li	7	3	No Gas	3636987	0.00	200	ppb
Be	9	1	HMI H2	30962	0.01	100	ppb
B	11	1	HMI H2	217825	0.00	1000	ppb
Na	23	2	HMI He	408413	0.00	2037.57150307725	ppb
Mg	24	2	HMI He	166875	0.00	1951.93369015844	ppb
Al	27	2	HMI He	41117	0.01	2000	ppb
K	39	2	HMI He	110971	0.00	1931.82150502032	ppb
Ti	47	2	HMI He	1730	0.47	100	ppb
V	51	2	HMI He	72942	0.00	100	ppb
Cr	52	2	HMI He	97107	0.00	100	ppb
Mn	55	2	HMI He	37035	0.00	100	ppb
(Fe)	57	2	HMI He	33962	0.00	2000	ppb
Co	59	2	HMI He	151241	0.00	100	ppb
Ni	60	2	HMI He	43655	0.01	100	ppb
Cu	63	2	HMI He	115103	0.00	100	ppb
Zn	66	2	HMI He	17687	0.01	100	ppb
As	75	2	HMI He	12499	0.02	100	ppb
Se	78	1	HMI H2	10996	0.02	100	ppb
Sr	88	2	HMI He	62162	0.00	200	ppb
Zr	90	2	HMI He	973	1.89	100	ppb
Mo	95	2	HMI He	47868	0.01	100	ppb
Ag	107	2	HMI He	155238	0.00	100	ppb
Cd	111	2	HMI He	21468	0.01	100	ppb
Sn	120	2	HMI He	53534	0.00	100	ppb
Sb	121	2	HMI He	53551	0.00	100	ppb
Ba	137	2	HMI He	15882	0.01	100	ppb
W	182	2	HMI He	201852	0.00	100	ppb
Tl	205	2	HMI He	407439	0.00	100	ppb
Pb	208	2	HMI He	541749	0.00	100	ppb
Th	232	2	HMI He	619179	0.00	100	ppb
U	238	2	HMI He	684437	0.00	100	ppb

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	258081	0.41	252517	102.20	60	120	
Sc(IS)	45	1	HMI H2	9605008	1.13	9196623	104.44	60	120	
Sc (IS)	45	2	HMI He	558066	0.71	531422	105.01	60	120	
Sc (IS)	45	3	No Gas	19103631	1.04	18746179	101.91	60	120	
Ge Internal standard	72	1	HMI H2	4072485	1.00	3833850	106.22	60	120	
Ge Internal standard	72	2	HMI He	556924	0.85	524481	106.19	60	120	
In Internal standard	115	2	HMI He	1564142	0.87	1492548	104.80	60	120	
Ho-165	165	2	HMI He	6977884	1.52	6759932	103.22	60	120	
Ir (IS)	193	2	HMI He	5767217	0.77	5766680	100.01	60	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV-8327973
Data File Name	015_ICV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T14:55:46-06:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	118.142	ppb	3.470	2636724	80	147.7	90	110	>+\-10%
Be	9	1	6	38.570	ppb	6.071	11601	40	96.4	90	110	
B	11	1	6	838.330	ppb	3.109	177225	400	209.6	90	110	>+\-10%
Na	23	2	45	13479.712	ppb	0.791	2477296	12800	105.3	90	110	
Mg	24	2	45	4733.735	ppb	0.831	393773	4800	98.6	90	110	
Al	27	2	45	845.924	ppb	1.972	16969	800	105.7	90	110	
Si	28	1	45	435.139	ppb	0.703	264406	400	108.8	90	110	
K	39	2	45	4682.053	ppb	1.212	222684	4800	97.5	90	110	
Ca	40	1	45	5020.274	ppb	1.529	9536720	4800	104.6	90	110	
(Ca)	44	1	45	4735.279	ppb	1.766	274727	4800	98.7	10	110	
V	51	2	72	41.742	ppb	2.479	30739	40	104.4	90	110	
Cr	52	2	72	40.612	ppb	2.416	39501	40	101.5	90	110	
Mn	55	2	72	40.750	ppb	3.344	14844	40	101.9	90	110	
Fe	56	1	72	862.715	ppb	1.918	2558670	800	107.8	90	110	
(Fe)	57	2	72	836.256	ppb	2.479	14030	800	104.5	90	110	
Co	59	2	72	39.543	ppb	0.996	58527	40	98.9	90	110	
Ni	60	2	72	39.542	ppb	0.767	16979	40	98.9	90	110	
Cu	63	2	72	39.319	ppb	1.873	44473	40	98.3	90	110	
Zn	66	2	72	80.331	ppb	3.505	13943	80	100.4	90	110	
As	75	2	72	41.004	ppb	1.407	5049	40	102.5	90	110	
Se	78	1	72	40.548	ppb	5.183	4334	40	101.4	90	110	
Sr	88	2	72	122.929	ppb	0.302	37371	80	153.7	90	110	>+\-10%
Zr	90	2	72	8.563	ppb	139.309	363	40	21.4	90	110	>+\-10%
Mo	95	2	115	41.420	ppb	4.491	19759	40	103.6	90	110	
Ag	107	2	115	79.153	ppb	0.823	122077	80	98.9	90	110	
Cd	111	2	115	40.375	ppb	3.834	8613	40	100.9	90	110	
Sn	120	2	115	39.201	ppb	3.837	20978	40	98.0	90	110	
Sb	121	2	115	43.191	ppb	1.797	22997	40	108.0	90	110	
Ba	137	2	115	40.025	ppb	2.951	6322	40	100.1	90	110	
Tl	205	2	165	40.473	ppb	0.266	162341	40	101.2	90	110	
Pb	208	2	165	40.820	ppb	1.191	217820	40	102.0	90	110	
Th	232	2	193	78.993	ppb	1.203	490632	80	98.7	90	110	
U	238	2	193	39.855	ppb	1.356	274164	40	99.6	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	250228	1.10	252517	99.09	60	120	
Sc(IS)	45	1	HMI H2	9415525	0.80	9196623	102.38	60	120	
Sc (IS)	45	2	HMI He	543430	0.51	531422	102.26	60	120	
Sc (IS)	45	3	No Gas	18686058	1.99	18746179	99.68	60	120	
Ge Internal standard	72	1	HMI H2	3954830	0.49	3833850	103.16	60	120	
Ge Internal standard	72	2	HMI He	544656	0.32	524481	103.85	60	120	
In Internal standard	115	2	HMI He	1553909	1.44	1492548	104.11	60	120	
Ho-165	165	2	HMI He	6854265	0.31	6759932	101.40	60	120	
Ir (IS)	193	2	HMI He	5774137	0.36	5766680	100.13	60	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB-8327938
Data File Name	016_ICB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T15:00:32-06:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	-0.707	ppb	-257.8	1317698	10	
Be	9	1	-0.009	ppb	-1431.4	27	0.5	
B	11	1	26.946	ppb	11.3	6885	0.5	>RL
Na	23	2	9.443	ppb	65.7	29159	25	
Mg	24	2	-1.260	ppb	-9.4	110	25	
Al	27	2	19.877	ppb	27.7	460	15	>RL
Si	28	1	26.256	ppb	4.7	38665	1	>RL
K	39	2	9.934	ppb	65.4	28024	50	
Ca	40	1	-1.206	ppb	-41.7	42448	200	
Ti	47	2	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	1.124	ppb	19.6	2477	1	>RL
Cr	52	2	-0.616	ppb	-20.7	1010	1	
Mn	55	2	-0.022	ppb	-304.6	133	0.5	
Fe	56	1	50.311	ppb	2.0	179394	50	>RL
(Fe)	57	2	39.579	ppb	21.8	913	25	>RL
Co	59	2	0.047	ppb	66.5	130	0.5	
Ni	60	2	-0.084	ppb	-107.9	130	1	
Cu	63	2	-0.064	ppb	-36.5	287	1	
Zn	66	2	-0.140	ppb	-416.8	227	5	
As	75	2	0.071	ppb	157.6	73	1	
Se	78	1	-0.015	ppb	-143.6	7	1	
Sr	88	2	0.032	ppb	59.9	13	0.5	
Zr	90	2	1.828	ppb	329.3	327	1	>RL
Mo	95	2	0.260	ppb	28.0	220	0.5	
Ag	107	2	0.008	ppb	127.2	43	1	
Cd	111	2	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	0.381	ppb	35.6	420	1	
Sb	121	2	0.198	ppb	87.9	143	0.6	
Ba	137	2	-0.045	ppb	-80.9	7	0.5	
W	182	2	0.302	ppb	12.5	857	1	
Tl	205	2	-0.008	ppb	-345.6	550	0.1	
Pb	208	2	0.010	ppb	202.4	1047	0.5	
Th	232	2	2.419	ppb	6.9	19590	1	>RL
U	238	2	0.025	ppb	36.0	1950	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	252207	2.12	252517	99.88	60	120	
Sc(IS)	45	1	HMI H2	9293648	1.68	9196623	101.06	60	120	
Sc (IS)	45	2	HMI He	545007	1.13	531422	102.56	60	120	
Sc (IS)	45	3	No Gas	18931098	0.46	18746179	100.99	60	120	
Ge Internal standard	72	1	HMI H2	3981280	0.82	3833850	103.85	60	120	
Ge Internal standard	72	2	HMI He	555866	0.76	524481	105.98	60	120	
In Internal standard	115	2	HMI He	1551411	0.72	1492548	103.94	60	120	
Ho-165	165	2	HMI He	6868815	0.98	6759932	101.61	60	120	
Ir (IS)	193	2	HMI He	5847077	0.57	5766680	101.39	60	120	

Low Level Initial Calibration Verification (LLICV) Report

Sample Table

Sample Name	CRI-8327974
Data File Name	017LICV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T15:04:09-06:00
Sample Type	LLICV
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	7.114	ppb	10.532	1412657	10	71.1	80	120	>+/-30%
Be	9	1	6	0.953	ppb	14.125	320	1	95.3	80	120	
B	11	1	6	109.681	ppb	3.141	24588	10	1096.8	80	120	>+/-30%
Na	23	2	45	304.703	ppb	2.058	82565	300	101.6	80	120	
Mg	24	2	45	46.872	ppb	4.852	4104	50	93.7	80	120	
Al	27	2	45	55.948	ppb	10.010	1177	50	111.9	80	120	
K	39	2	45	113.329	ppb	11.784	32192	120	94.4	80	120	
Ca	40	1	45	201.773	ppb	0.352	422115	200	100.9	80	120	
V	51	2	72	5.168	ppb	10.439	5244	5	103.4	80	120	
Cr	52	2	72	1.884	ppb	4.945	3324	2	94.2	80	120	
Mn	55	2	72	0.891	ppb	13.976	460	1	89.1	80	120	
Fe	56	1	72	53.426	ppb	1.173	188029	50	106.9	80	120	
(Fe)	57	2	72	51.822	ppb	15.138	1097	50	103.6	80	120	
Co	59	2	72	1.007	ppb	6.516	1547	1	100.7	80	120	
Ni	60	2	72	1.876	ppb	4.779	960	2	93.8	80	120	
Cu	63	2	72	2.043	ppb	13.277	2644	2	102.1	80	120	
Zn	66	2	72	9.119	ppb	16.682	1800	10	91.2	80	120	
As	75	2	72	5.111	ppb	10.845	684	5	102.2	80	120	
Se	78	1	72	4.719	ppb	4.058	513	5	94.4	80	120	
Sr	88	2	72	5.012	ppb	10.404	1527	5	100.2	80	120	
Zr	90	2	72	6.516	ppb	131.140	350	0.5	1303.1	80	120	>+/-30%
Mo	95	2	115	2.032	ppb	15.576	1050	2	101.6	80	120	
Ag	107	2	115	0.914	ppb	11.639	1423	1	91.4	80	120	
Cd	111	2	115	1.029	ppb	41.854	217	1	102.9	80	120	
Sn	120	2	115	9.393	ppb	5.944	5134	10	93.9	80	120	
Sb	121	2	115	1.934	ppb	11.081	1053	2	96.7	80	120	
Ba	137	2	115	0.878	ppb	39.920	150	1	87.8	80	120	
Tl	205	2	165	0.957	ppb	10.257	4441	1	95.7	80	120	
Pb	208	2	165	0.971	ppb	2.234	6197	1	97.1	80	120	
Th	232	2	193	1.775	ppb	0.792	15642	1	177.5	80	120	>+/-30%
U	238	2	193	0.933	ppb	1.269	8273	1	93.3	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	254148	1.85	252517	100.65	60	120	
Sc(IS)	45	1	HMI H2	9313123	3.02	9196623	101.27	60	120	
Sc (IS)	45	2	HMI He	542320	0.79	531422	102.05	60	120	
Sc (IS)	45	3	No Gas	19009506	0.24	18746179	101.40	60	120	
Ge Internal standard	72	1	HMI H2	3969652	2.03	3833850	103.54	60	120	
Ge Internal standard	72	2	HMI He	544492	0.41	524481	103.82	60	120	
In Internal standard	115	2	HMI He	1536702	1.37	1492548	102.96	60	120	
Ho-165	165	2	HMI He	6910069	0.35	6759932	102.22	60	120	
Ir (IS)	193	2	HMI He	5871390	0.83	5766680	101.82	60	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	icsa-8322344
Data File Name	018ICSA.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T15:07:42-06:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-6.594	ppb	-15.6	1206168	1	
Be	9	1	6	0.005	ppb	1788.8	30	1	
B	11	1	6	12.687	ppb	13.9	3704	1	>RL or LOD
Ti	47	2	45	2125.823	ppb	2.0	34753	1	>RL or LOD
V	51	2	72	0.204	ppb	86.4	1740	1	
Cr	52	2	72	0.032	ppb	314.9	1553	1	
Mn	55	2	72	0.279	ppb	84.4	233	0.95	
Co	59	2	72	0.206	ppb	17.2	353	0.5	
Ni	60	2	72	0.197	ppb	113.1	240	1	
Cu	63	2	72	-0.019	ppb	-482.6	323	1	
Zn	66	2	72	0.746	ppb	40.2	363	5	
As	75	2	72	0.022	ppb	493.2	64	1	
Se	78	1	72	0.149	ppb	26.1	24	1	
Sr	88	2	72	0.721	ppb	23.4	217	1	
Zr	90	2	72	15.925	ppb	95.4	400	1	>RL or LOD
Mo	95	2	115	2073.827	ppb	0.5	874121	2000	>RL or LOD
Ag	107	2	115	0.016	ppb	78.5	50	1	
Cd	111	2	115	0.457	ppb	34.8	87	0.5	
Sn	120	2	115	0.394	ppb	23.9	380	1	
Sb	121	2	115	0.140	ppb	15.8	100	1	
Ba	137	2	115	0.722	ppb	14.6	113	0.95	
W	182	2	165	0.328	ppb	18.2	903	1	
Tl	205	2	165	-0.032	ppb	-59.1	450	1	
Pb	208	2	165	0.123	ppb	5.0	1637	1	
Th	232	2	193	0.279	ppb	6.4	5991	1	
U	238	2	193	0.046	ppb	70.3	2010	1	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	241092	1.71	252517	95.48	60	120	
Sc(IS)	45	1	HMI H2	9369571	0.24	9196623	101.88	60	120	
Sc (IS)	45	2	HMI He	527371	0.26	531422	99.24	60	120	
Sc (IS)	45	3	No Gas	18258368	0.81	18746179	97.40	60	120	
Ge Internal standard	72	1	HMI H2	3937396	0.53	3833850	102.70	60	120	
Ge Internal standard	72	2	HMI He	530650	0.46	524481	101.18	60	120	
In Internal standard	115	2	HMI He	1380162	0.49	1492548	92.47	60	120	
Ho-165	165	2	HMI He	6832609	1.22	6759932	101.08	60	120	
Ir (IS)	193	2	HMI He	5600872	0.09	5766680	97.12	60	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	icsab-8322345
Data File Name	019ICSB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T15:11:13-06:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	180.538	ppb	2.517	3250794	100	180.5	80	120	>+\-20%
Be	9	1	6	99.001	ppb	0.728	27940	100	99.0	80	120	
B	11	1	6	1065.674	ppb	0.662	211518	100	1065.7	80	120	>+\-20%
Ca	40	1	45	104586.545	ppb	0.329	192978157	100	104586.5	80	120	>+\-20%
V	51	2	72	93.860	ppb	3.755	67055	100	93.9	80	120	
Cr	52	2	72	92.513	ppb	0.786	87991	100	92.5	80	120	
Mn	55	2	72	92.208	ppb	2.026	33411	100	92.2	80	120	
Fe	56	1	72	93097.098	ppb	1.157	274649383	100	93097.1	80	120	>+\-20%
Co	59	2	72	89.650	ppb	1.706	132617	100	89.6	80	120	
Ni	60	2	72	88.259	ppb	1.995	37697	100	88.3	80	120	
Cu	63	2	72	90.279	ppb	1.588	101670	100	90.3	80	120	
Zn	66	2	72	89.483	ppb	1.707	15504	100	89.5	80	120	
As	75	2	72	94.952	ppb	0.620	11611	100	95.0	80	120	
Se	78	1	72	91.594	ppb	2.045	9846	100	91.6	80	120	
Sr	88	2	72	185.610	ppb	0.485	56432	100	185.6	80	120	>+\-20%
Zr	90	2	72	35.023	ppb	18.837	533	100	35.0	80	120	>+\-20%
Mo	95	2	115	2138.666	ppb	2.380	905808	100	2138.7	80	120	>+\-20%
Ag	107	2	115	104.544	ppb	3.711	143871	100	104.5	80	120	
Cd	111	2	115	99.829	ppb	3.976	19002	100	99.8	80	120	
Sn	120	2	115	105.550	ppb	1.620	50100	100	105.6	80	120	
Sb	121	2	115	107.782	ppb	4.672	51163	100	107.8	80	120	
Ba	137	2	115	107.100	ppb	3.026	15084	100	107.1	80	120	
W	182	2	165	95.629	ppb	0.642	187431	100	95.6	80	120	
Tl	205	2	165	94.470	ppb	0.385	373695	100	94.5	80	120	
Pb	208	2	165	95.697	ppb	0.262	503328	100	95.7	80	120	
Th	232	2	193	102.474	ppb	0.959	606089	100	102.5	80	120	
U	238	2	193	100.469	ppb	1.517	656957	100	100.5	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	235237	0.93	252517	93.16	60	120	
Sc(IS)	45	1	HMI H2	9186828	0.55	9196623	99.89	60	120	
Sc (IS)	45	2	HMI He	528702	0.23	531422	99.49	60	120	
Sc (IS)	45	3	No Gas	18195318	0.51	18746179	97.06	60	120	
Ge Internal standard	72	1	HMI H2	3981203	0.37	3833850	103.84	60	120	
Ge Internal standard	72	2	HMI He	544724	1.17	524481	103.86	60	120	
In Internal standard	115	2	HMI He	1387268	2.03	1492548	92.95	60	120	
Ho-165	165	2	HMI He	6773501	0.93	6759932	100.20	60	120	
Ir (IS)	193	2	HMI He	5509832	0.07	5766680	95.55	60	120	

Sample Report

Sample Table

Sample Name	rinse
Data File Name	020SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T15:14:45-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	-2.228	ppb	-2.228	-123.76	1276546	50000	
Be	9	1	6	-0.053	ppb	-0.053	-152.51	13	2000	
B	11	1	6	35.008	ppb	35.008	3.49	8199	2000	
Na	23	2	45	85.268	ppb	85.268	12.38	41595	400000	
Mg	24	2	45	7.252	ppb	7.252	37.69	793	400000	
Al	27	2	45	11.376	ppb	11.376	33.70	280	400000	
Si	28	1	45	40.620	ppb	40.620	6.83	45184	10000	
P	31	2	45	5.109	ppb	5.109	74.78	73	10000	
K	39	2	45	166.246	ppb	166.246	14.75	33447	400000	
Ca	40	1	45	17.856	ppb	17.856	16.45	75925	400000	
Ti	47	2	45	0.816	ppb	0.816	86.61	13	4000	
V	51	2	72	1.112	ppb	1.112	28.80	2514	2000	
Cr	52	2	72	0.164	ppb	0.164	159.30	1787	5000	
Mn	55	2	72	-0.010	ppb	-0.010	-822.38	140	10000	
Fe	56	1	72	29.740	ppb	29.740	16.67	122450	10000	
(Fe)	57	2	72	14.113	ppb	14.113	27.78	493	400000	
Co	59	2	72	0.014	ppb	0.014	104.41	83	2000	
Ni	60	2	72	0.357	ppb	0.357	20.19	327	5000	
Cu	63	2	72	-0.011	ppb	-0.011	-734.11	353	5000	
Zn	66	2	72	0.495	ppb	0.495	96.58	343	5000	
As	75	2	72	0.122	ppb	0.122	127.28	81	2000	
Se	78	1	72	0.079	ppb	0.079	94.52	17	2000	
Sr	88	2	72	0.063	ppb	0.063	30.10	23	4000	
Zr	90	2	72	-8.583	ppb	-8.583	-199.78	263	1000	
Mo	95	2	115	5.162	ppb	5.162	7.26	2437	2000	
Ag	107	2	115	0.022	ppb	0.022	91.12	63	100	
Cd	111	2	115	0.050	ppb	0.050	173.21	10	2000	
Sn	120	2	115	0.394	ppb	0.394	54.45	410	2000	
Sb	121	2	115	0.420	ppb	0.420	20.18	250	1000	
Ba	137	2	115	-0.044	ppb	-0.044	-171.66	7	5000	
W	182	2	165	0.544	ppb	0.544	21.87	1313	100	
Tl	205	2	165	0.163	ppb	0.163	10.01	1210	2000	
Pb	208	2	165	0.031	ppb	0.031	49.78	1133	5000	
Th	232	2	193	1.260	ppb	1.260	3.13	12029	2000	
U	238	2	193	0.040	ppb	0.040	96.50	2000	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	240445	0.57	252517	95.22	60	120	
Sc(IS)	45	1	HMI H2	9037402	1.80	9196623	98.27	60	120	
Sc (IS)	45	2	HMI He	527404	0.86	531422	99.24	60	120	
Sc (IS)	45	3	No Gas	18583753	0.70	18746179	99.13	60	120	
Ge Internal standard	72	1	HMI H2	4105580	0.53	3833850	107.09	60	120	
Ge Internal standard	72	2	HMI He	565948	0.86	524481	107.91	60	120	
In Internal standard	115	2	HMI He	1486684	1.38	1492548	99.61	60	120	
Ho-165	165	2	HMI He	6742073	0.74	6759932	99.74	60	120	
Ir (IS)	193	2	HMI He	5686386	1.18	5766680	98.61	60	120	

Linear Range Sample (LRS) Report

Sample Table

Sample Name	lra-8281839
Data File Name	021_LR.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T15:18:18-06:00
Sample Type	LR
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Be	9	1	6	2052.159	ppb	0.286	554558	2000	102.6	90	110	
Na	23	2	45	196378.956	ppb	0.522	33450737	200000	98.2	90	110	
Mg	24	2	45	188062.132	ppb	1.031	14642001	200000	94.0	90	110	
Al	27	2	45	301807.470	ppb	2.097	5648983	300000	100.6	90	110	
K	39	2	45	190938.250	ppb	1.403	7478737	200000	95.5	90	110	
Ca	40	1	45	207371.829	ppb	0.638	379110301	200000	103.7	90	110	
V	51	2	72	2133.993	ppb	1.735	1367951	2000	106.7	90	110	
Cr	52	2	72	4983.127	ppb	1.129	4277747	5000	99.7	90	110	
(Cr)	53	2	72	4991.222	ppb	1.150	514268	5000	99.8	90	110	
Mn	55	2	72	9999.267	ppb	1.495	3314937	10000	100.0	90	110	
Fe	56	1	72	292758.393	ppb	0.718	809356388	200000	146.4	90	110	LRS Main CR1 Failed
Co	59	2	72	1960.193	ppb	1.157	2662698	2000	98.0	90	110	
Ni	60	2	72	4779.517	ppb	0.462	1867586	5000	95.6	90	110	
Cu	63	2	72	4730.973	ppb	1.076	4877650	5000	94.6	90	110	
Zn	66	2	72	4749.237	ppb	0.139	744163	5000	95.0	90	110	
As	75	2	72	1958.898	ppb	0.423	218894	2000	97.9	90	110	
Se	78	1	72	1966.095	ppb	0.996	197904	2000	98.3	90	110	
(Se)	82	1	72	987.800	ppb	1.334	108178	2000	49.4	90	110	LRS Main CR1 Failed
Sr	88	2	72	5311.864	ppb	0.369	1483411	5000	106.2	90	110	
Mo	95	2	115	2149.879	ppb	1.218	855332	2000	107.5	90	110	
Cd	111	2	115	2070.764	ppb	0.943	370339	2000	103.5	90	110	
(Cd)	114	2	115	2141.806	ppb	0.670	959143	2000	107.1	90	110	
Sn	120	2	115	2118.000	ppb	0.495	940696	2000	105.9	90	110	
Sb	121	2	115	1118.704	ppb	0.185	498680	1000	111.9	90	110	LRS Main CR1 Failed
Ba	137	2	115	5586.632	ppb	0.715	738370	5000	111.7	90	110	LRS Main CR1 Failed
Tl	205	2	165	1049.994	ppb	0.530	4001442	1000	105.0	90	110	
(Pb)	206	2	165	4819.784	ppb	0.283	6026577	5000	96.4	90	110	
(Pb)	207	2	165	4787.446	ppb	0.893	5283820	5000	95.7	90	110	
Pb	208	2	165	4764.599	ppb	0.733	24130243	5000	95.3	90	110	
Th	232	2	193	1046.613	ppb	0.109	6004260	1000	104.7	90	110	
U	238	2	193	2160.270	ppb	0.510	13754870	2000	108.0	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	225451	0.62	252517	89.28	60	120	
Sc(IS)	45	1	HMI H2	9103559	0.45	9196623	98.99	60	120	
Sc (IS)	45	2	HMI He	508923	1.09	531422	95.77	60	120	
Sc (IS)	45	3	No Gas	17292951	2.02	18746179	92.25	60	120	
Ge Internal standard	72	1	HMI H2	3731148	1.03	3833850	97.32	60	120	
Ge Internal standard	72	2	HMI He	500385	0.26	524481	95.41	60	120	
In Internal standard	115	2	HMI He	1302790	0.74	1492548	87.29	60	120	
Ho-165	165	2	HMI He	6534727	0.32	6759932	96.67	60	120	
Ir (IS)	193	2	HMI He	5378326	0.71	5766680	93.27	60	120	

Sample Report

Sample Table

Sample Name	rinse
Data File Name	022SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T15:21:46-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	-2.587	ppb	-2.587	-18.87	1246266	50000	
Be	9	1	6	0.871	ppb	0.871	18.71	277	2000	
B	11	1	6	8.639	ppb	8.639	8.50	2847	2000	
Na	23	2	45	103.723	ppb	103.723	15.47	44743	400000	
Mg	24	2	45	11.599	ppb	11.599	20.88	1140	400000	
Al	27	2	45	24.546	ppb	24.546	30.39	533	400000	
Si	28	1	45	29.603	ppb	29.603	10.92	39256	10000	
P	31	2	45	2.485	ppb	2.485	163.48	68	10000	
K	39	2	45	315.321	ppb	315.321	5.29	39393	400000	
Ca	40	1	45	36.502	ppb	36.502	17.09	109387	400000	
Ti	47	2	45	0.207	ppb	0.207	173.21	3	4000	
V	51	2	72	-0.142	ppb	-0.142	-127.88	1607	2000	
Cr	52	2	72	1.852	ppb	1.852	19.51	3424	5000	
Mn	55	2	72	1.083	ppb	1.083	16.63	550	10000	
Fe	56	1	72	66.345	ppb	66.345	18.50	230693	10000	
(Fe)	57	2	72	22.264	ppb	22.264	19.92	633	400000	
Co	59	2	72	0.179	ppb	0.179	11.48	337	2000	
Ni	60	2	72	0.755	ppb	0.755	8.07	503	5000	
Cu	63	2	72	1.840	ppb	1.840	5.27	2514	5000	
Zn	66	2	72	1.305	ppb	1.305	12.04	487	5000	
As	75	2	72	0.246	ppb	0.246	32.67	97	2000	
Se	78	1	72	0.436	ppb	0.436	17.43	56	2000	
Sr	88	2	72	0.379	ppb	0.379	27.54	123	4000	
Zr	90	2	72	-11.518	ppb	-11.518	-67.66	243	1000	
Mo	95	2	115	3.998	ppb	3.998	18.54	1900	2000	
Ag	107	2	115	0.011	ppb	0.011	290.15	47	100	
Cd	111	2	115	0.148	ppb	0.148	66.10	30	2000	
Sn	120	2	115	2.598	ppb	2.598	10.13	1520	2000	
Sb	121	2	115	6.669	ppb	6.669	12.61	3417	1000	
Ba	137	2	115	0.314	ppb	0.314	58.45	60	5000	
W	182	2	165	0.064	ppb	0.064	80.24	377	100	
Tl	205	2	165	0.393	ppb	0.393	10.39	2100	2000	
Pb	208	2	165	0.673	ppb	0.673	10.84	4454	5000	
Th	232	2	193	5.443	ppb	5.443	4.12	37105	2000	
U	238	2	193	0.489	ppb	0.489	2.60	4981	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	237754	1.77	252517	94.15	60	120	
Sc(IS)	45	1	HMI H2	9009267	1.77	9196623	97.96	60	120	
Sc (IS)	45	2	HMI He	526396	1.38	531422	99.05	60	120	
Sc (IS)	45	3	No Gas	18200907	1.79	18746179	97.09	60	120	
Ge Internal standard	72	1	HMI H2	4048543	1.59	3833850	105.60	60	120	
Ge Internal standard	72	2	HMI He	566346	1.01	524481	107.98	60	120	
In Internal standard	115	2	HMI He	1481503	3.50	1492548	99.26	60	120	
Ho-165	165	2	HMI He	6692029	2.19	6759932	99.00	60	120	
Ir (IS)	193	2	HMI He	5645276	1.82	5766680	97.89	60	120	

Linear Range Sample (LRS) Report

Sample Table

Sample Name	lra-
Data File Name	023_LR.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T15:25:21-06:00
Sample Type	LR
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Be	9	1	6	2295.740	ppb	1.687	592138	2000	114.8	90	110	LRS Main CR1 Failed
Na	23	2	45	-11.605	ppb	-42.056	24508	200000	0.0	90	110	LRS Main CR1 Failed
Mg	24	2	45	7.541	ppb	4.850	817	200000	0.0	90	110	LRS Main CR1 Failed
Al	27	2	45	6.057	ppb	14.034	177	300000	0.0	90	110	LRS Main CR1 Failed
K	39	2	45	71.696	ppb	36.948	29624	200000	0.0	90	110	LRS Main CR1 Failed
Ca	40	1	45	10.339	ppb	10.371	63316	200000	0.0	90	110	LRS Main CR1 Failed
V	51	2	72	2159.379	ppb	0.150	1502736	2000	108.0	90	110	
Cr	52	2	72	2100.611	ppb	1.598	1958590	5000	42.0	90	110	LRS Main CR1 Failed
(Cr)	53	2	72	2041.024	ppb	0.192	228731	5000	40.8	90	110	LRS Main CR1 Failed
Mn	55	2	72	2002.620	ppb	0.459	720883	10000	20.0	90	110	LRS Main CR1 Failed
Fe	56	1	72	8.604	ppb	4.400	56038	200000	0.0	90	110	LRS Main CR1 Failed
Co	59	2	72	2057.438	ppb	0.842	3034143	2000	102.9	90	110	
Ni	60	2	72	2000.413	ppb	1.236	848672	5000	40.0	90	110	LRS Main CR1 Failed
Cu	63	2	72	2149.274	ppb	1.258	2405848	5000	43.0	90	110	LRS Main CR1 Failed
Zn	66	2	72	0.891	ppb	38.017	397	5000	0.0	90	110	LRS Main CR1 Failed
As	75	2	72	2005.963	ppb	0.709	243341	2000	100.3	90	110	
Se	78	1	72	2015.446	ppb	1.115	215248	2000	100.8	90	110	
(Se)	82	1	72	1058.670	ppb	1.433	121302	2000	52.9	90	110	LRS Main CR1 Failed
Sr	88	2	72	2054.203	ppb	0.986	622794	5000	41.1	90	110	LRS Main CR1 Failed
Mo	95	2	115	2072.157	ppb	1.383	948498	2000	103.6	90	110	
Cd	111	2	115	2065.022	ppb	0.992	424902	2000	103.3	90	110	
(Cd)	114	2	115	2121.307	ppb	1.233	1092935	2000	106.1	90	110	
Sn	120	2	115	2078.662	ppb	1.504	1062128	2000	103.9	90	110	
Sb	121	2	115	2068.625	ppb	1.651	1060833	1000	206.9	90	110	LRS Main CR1 Failed
Ba	137	2	115	2117.392	ppb	1.445	321969	5000	42.3	90	110	LRS Main CR1 Failed
Tl	205	2	165	2229.765	ppb	1.186	8706153	1000	223.0	90	110	LRS Main CR1 Failed
(Pb)	206	2	165	2179.144	ppb	1.203	2791962	5000	43.6	90	110	LRS Main CR1 Failed
(Pb)	207	2	165	2203.180	ppb	0.649	2491846	5000	44.1	90	110	LRS Main CR1 Failed
Pb	208	2	165	2146.759	ppb	1.166	11140580	5000	42.9	90	110	LRS Main CR1 Failed
Th	232	2	193	0.731	ppb	11.423	8836	1000	0.1	90	110	LRS Main CR1 Failed
U	238	2	193	0.068	ppb	23.831	2190	2000	0.0	90	110	LRS Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	215226	1.66	252517	85.23	60	120	
Sc(IS)	45	1	HMI H2	9195760	0.93	9196623	99.99	60	120	
Sc (IS)	45	2	HMI He	527580	0.81	531422	99.28	60	120	
Sc (IS)	45	3	No Gas	18494623	0.42	18746179	98.66	60	120	
Ge Internal standard	72	1	HMI H2	3958903	1.26	3833850	103.26	60	120	
Ge Internal standard	72	2	HMI He	543236	0.35	524481	103.58	60	120	
In Internal standard	115	2	HMI He	1499017	1.68	1492548	100.43	60	120	
Ho-165	165	2	HMI He	6695977	0.66	6759932	99.05	60	120	
Ir (IS)	193	2	HMI He	5694548	0.64	5766680	98.75	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-8327972
Data File Name	024_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T15:28:53-06:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	6	51.148	ppb	3.708	14850	50	102.3	90	110	
Na	23	2	45	48564.074	ppb	1.438	8728015	51000	95.2	90	110	
Mg	24	2	45	10132.333	ppb	1.098	830653	11000	92.1	90	110	
Al	27	2	45	1010.360	ppb	3.651	19966	1000	101.0	90	110	
Si	28	1	45	2838.770	ppb	0.514	1567483	2500	113.6	90	110	>+\-10%
K	39	2	45	10379.933	ppb	1.565	453651	11000	94.4	90	110	
Ca	40	1	45	10560.399	ppb	0.820	19747073	11000	96.0	90	110	
Ti	47	2	45	64.268	ppb	18.823	1067	50	128.5	90	110	>+\-10%
V	51	2	72	49.658	ppb	1.479	35448	50	99.3	90	110	
Cr	52	2	72	52.024	ppb	0.981	49046	50	104.0	90	110	
Mn	55	2	72	50.021	ppb	3.844	17787	50	100.0	90	110	
Fe	56	1	72	1022.959	ppb	1.287	2993923	1000	102.3	90	110	
Co	59	2	72	50.028	ppb	3.679	72384	50	100.1	90	110	
Ni	60	2	72	49.999	ppb	1.208	20950	50	100.0	90	110	
Cu	63	2	72	50.885	ppb	0.934	56179	50	101.8	90	110	
Zn	66	2	72	51.793	ppb	3.500	8876	50	103.6	90	110	
As	75	2	72	50.969	ppb	2.855	6121	50	101.9	90	110	
Se	78	1	72	52.366	ppb	1.395	5532	50	104.7	90	110	
Sr	88	2	72	102.897	ppb	1.877	30586	100	102.9	90	110	
Zr	90	2	72	19.376	ppb	39.747	423	50	38.8	90	110	>+\-10%
Mo	95	2	115	57.556	ppb	2.559	26199	50	115.1	90	110	>+\-10%
Ag	107	2	115	51.340	ppb	1.907	75682	50	102.7	90	110	
Cd	111	2	115	52.218	ppb	3.146	10647	50	104.4	90	110	
Sn	120	2	115	52.944	ppb	0.447	27010	50	105.9	90	110	
Sb	121	2	115	54.589	ppb	2.068	27772	50	109.2	90	110	
Ba	137	2	115	52.278	ppb	3.903	7889	50	104.6	90	110	
W	182	2	165	51.529	ppb	3.393	101759	50	103.1	90	110	
Tl	205	2	165	50.818	ppb	0.453	202564	50	101.6	90	110	
Pb	208	2	165	50.826	ppb	0.930	269484	50	101.7	90	110	
Th	232	2	193	50.769	ppb	0.587	308998	50	101.5	90	110	
U	238	2	193	51.309	ppb	0.675	343639	50	102.6	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	241747	0.99	252517	95.74	60	120	
Sc(IS)	45	1	HMI H2	9291374	0.20	9196623	101.03	60	120	
Sc (IS)	45	2	HMI He	535762	1.41	531422	100.82	60	120	
Sc (IS)	45	3	No Gas	18813699	0.65	18746179	100.36	60	120	
Ge Internal standard	72	1	HMI H2	3909891	0.28	3833850	101.98	60	120	
Ge Internal standard	72	2	HMI He	532578	0.70	524481	101.54	60	120	
In Internal standard	115	2	HMI He	1485157	1.10	1492548	99.50	60	120	
Ho-165	165	2	HMI He	6816497	0.14	6759932	100.84	60	120	
Ir (IS)	193	2	HMI He	5629599	0.41	5766680	97.62	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-8327938
Data File Name	025_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T15:34:06-06:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-2.225	ppb	-39.0	1294694	10	
Be	9	1	6	0.396	ppb	4.3	143	0.5	
B	11	1	6	11.921	ppb	9.3	3567	0.5	>RL
Na	23	2	45	-5.962	ppb	-15.8	26341	25	
Mg	24	2	45	1.904	ppb	76.9	373	25	
Al	27	2	45	0.113	ppb	1782.9	63	15	
Si	28	1	45	70.846	ppb	2.1	62308	1	>RL
K	39	2	45	22.953	ppb	71.5	28558	50	
Ca	40	1	45	-4.547	ppb	-11.3	35869	200	
(Ca)	44	1	45	-3.582	ppb	-37.5	893	200	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	-0.764	ppb	-48.4	1093	1	
Cr	52	2	72	0.342	ppb	90.7	1850	1	
Mn	55	2	72	0.104	ppb	83.2	173	0.5	
Fe	56	1	72	2.664	ppb	22.3	37189	50	
(Fe)	57	2	72	0.739	ppb	458.6	250	25	
Co	59	2	72	0.091	ppb	53.7	190	0.5	
Ni	60	2	72	0.016	ppb	214.6	167	1	
Cu	63	2	72	0.308	ppb	17.7	687	1	
Zn	66	2	72	-0.387	ppb	-23.1	177	5	
As	75	2	72	-0.125	ppb	-50.1	47	1	
Se	78	1	72	0.118	ppb	115.3	20	1	
Sr	88	2	72	0.067	ppb	104.5	23	0.5	
Zr	90	2	72	-6.270	ppb	-77.1	263	1	
Mo	95	2	115	0.261	ppb	42.0	217	0.5	
Ag	107	2	115	-0.007	ppb	-312.6	20	1	
Cd	111	2	115	0.032	ppb	86.6	7	0.5	
Sn	120	2	115	0.440	ppb	60.4	443	1	
Sb	121	2	115	0.529	ppb	17.2	313	0.6	
Ba	137	2	115	-0.002	ppb	-2417.2	13	0.5	
W	182	2	165	0.255	ppb	10.4	757	1	
Tl	205	2	165	0.125	ppb	24.8	1073	0.1	>RL
Pb	208	2	165	0.051	ppb	92.0	1250	0.5	
Th	232	2	193	0.601	ppb	1.8	8159	1	
U	238	2	193	0.007	ppb	102.9	1804	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	241940	3.76	252517	95.81	60	120	
Sc(IS)	45	1	HMI H2	9204888	2.75	9196623	100.09	60	120	
Sc (IS)	45	2	HMI He	544801	0.39	531422	102.52	60	120	
Sc (IS)	45	3	No Gas	18848053	1.12	18746179	100.54	60	120	
Ge Internal standard	72	1	HMI H2	3816092	2.61	3833850	99.54	60	120	
Ge Internal standard	72	2	HMI He	535274	0.83	524481	102.06	60	120	
In Internal standard	115	2	HMI He	1523691	1.32	1492548	102.09	60	120	
Ho-165	165	2	HMI He	6810625	0.57	6759932	100.75	60	120	
Ir (IS)	193	2	HMI He	5774068	1.06	5766680	100.13	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-8327974
Data File Name	026LCCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T15:37:39-06:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	6.537	ppb	7.045	1380302	50	13.1	70	130	>+/-30%
Be	9	1	6	1.392	ppb	18.764	440	1	139.2	70	130	>+/-30%
Na	23	2	45	284.778	ppb	3.317	78584	300	94.9	70	130	
Mg	24	2	45	48.648	ppb	3.955	4231	50	97.3	70	130	
Al	27	2	45	54.996	ppb	7.128	1153	50	110.0	70	130	
K	39	2	45	134.844	ppb	18.866	32926	120	112.4	70	130	
Ca	40	1	45	201.805	ppb	2.059	416530	200	100.9	70	130	
V	51	2	72	4.757	ppb	10.843	4881	5	95.1	70	130	
Cr	52	2	72	1.994	ppb	7.245	3374	2	99.7	70	130	
Mn	55	2	72	1.164	ppb	12.731	550	1	116.4	70	130	
Fe	56	1	72	55.554	ppb	0.624	190335	50	111.1	70	130	
(Fe)	57	2	72	48.786	ppb	9.459	1030	50	97.6	70	130	
Co	59	2	72	1.121	ppb	3.745	1690	1	112.1	70	130	
Ni	60	2	72	2.332	ppb	7.458	1137	2	116.6	70	130	
Cu	63	2	72	2.193	ppb	3.324	2770	2	109.7	70	130	
Zn	66	2	72	9.406	ppb	10.902	1820	10	94.1	70	130	
As	75	2	72	4.902	ppb	5.834	649	5	98.0	70	130	
Se	78	1	72	4.699	ppb	5.007	501	5	94.0	70	130	
Sr	88	2	72	4.979	ppb	4.598	1493	5	99.6	70	130	
Zr	90	2	72	-0.004	ppb	-31974.232	303	0.5	-0.9	70	130	>+/-30%
Mo	95	2	115	2.057	ppb	10.861	1057	2	102.9	70	130	
Ag	107	2	115	0.957	ppb	6.934	1483	1	95.7	70	130	
Cd	111	2	115	0.873	ppb	4.966	183	1	87.3	70	130	
Sn	120	2	115	9.688	ppb	6.751	5268	10	96.9	70	130	
Sb	121	2	115	2.065	ppb	8.545	1117	2	103.2	70	130	
Ba	137	2	115	1.156	ppb	20.858	193	1	115.6	70	130	
W	182	2	165	0.116	ppb	26.091	487	1	11.6	70	130	>+/-30%
Tl	205	2	165	0.952	ppb	7.331	4398	1	95.2	70	130	
Pb	208	2	165	1.027	ppb	1.360	6458	1	102.7	70	130	
Th	232	2	193	1.499	ppb	1.254	13687	1	149.9	70	130	>+/-30%
U	238	2	193	0.989	ppb	3.893	8516	1	98.9	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	245630	2.46	252517	97.27	60	120	
Sc(IS)	45	1	HMI H2	9186934	1.40	9196623	99.89	60	120	
Sc (IS)	45	2	HMI He	539864	1.82	531422	101.59	60	120	
Sc (IS)	45	3	No Gas	18661291	1.78	18746179	99.55	60	120	
Ge Internal standard	72	1	HMI H2	3889191	1.57	3833850	101.44	60	120	
Ge Internal standard	72	2	HMI He	536104	0.86	524481	102.22	60	120	
In Internal standard	115	2	HMI He	1529267	2.30	1492548	102.46	60	120	
Ho-165	165	2	HMI He	6869133	1.27	6759932	101.62	60	120	
Ir (IS)	193	2	HMI He	5773108	1.08	5766680	100.11	60	120	

Blank Report

Sample Table

Sample Name	mb 280-652548/1-a
Data File Name	027_BLK.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T15:41:14-06:00
Sample Type	Blank
Dilution	1
Comment	652548 6020B
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	3	45	-4.863	ppb	-29.67304566	1279161	10
Be	9	1	6	0.162	ppb	68.15443917	77	0.5
B	11	1	6	9.282	ppb	5.364823825	3080	0.5
Na	23	2	45	-19.000	ppb	-32.49610219	23764	25
Mg	24	2	45	1.900	ppb	40.1854665	370	25
Al	27	2	45	4.147	ppb	97.46294434	143	15
K	39	2	45	27.339	ppb	43.4261688	28505	50
Ti	47	2	45	0.197	ppb	173.2050808	3	0.5
V	51	2	72	0.652	ppb	41.71242651	2107	1
Cr	52	2	72	0.038	ppb	277.4939076	1607	1
Mn	55	2	72	0.076	ppb	113.731716	167	0.5
(Fe)	57	2	72	5.865	ppb	102.0645225	340	25
Co	59	2	72	0.032	ppb	128.604036	107	0.5
Ni	60	2	72	-0.008	ppb	-1328.712256	160	1
Cu	63	2	72	0.197	ppb	30.74442537	577	1
Zn	66	2	72	-0.039	ppb	-794.1439131	240	5
As	75	2	72	0.070	ppb	142.2090793	72	1
Se	78	1	72	0.060	ppb	97.46475792	15	1
Sr	88	2	72	0.022	ppb	152.2853745	10	0.5
Zr	90	2	72	-3.089	ppb	-415.8866155	290	1
Mo	95	2	115	0.120	ppb	116.6215059	153	0.5
Ag	107	2	115	-0.007	ppb	-86.15886704	20	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	0.566	ppb	31.13438874	517	1
Sb	121	2	115	0.174	ppb	10.15902826	130	0.6
Ba	137	2	115	0.040	ppb	317.8391849	20	0.5
W	182	2	165	0.084	ppb	49.02645516	423	1
Tl	205	2	165	-0.022	ppb	-91.50494958	493	0.1
Pb	208	2	165	0.044	ppb	51.2911207	1223	0.5
Th	232	2	193	0.162	ppb	8.281282286	5475	1
U	238	2	193	-0.024	ppb	-98.07198852	1593	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	246396	2.49	252517	97.58	60	120	
Sc(IS)	45	1	HMI H2	9254494	3.84	9196623	100.63	60	120	
Sc (IS)	45	2	HMI He	540356	0.97	531422	101.68	60	120	
Sc (IS)	45	3	No Gas	19062323	0.29	18746179	101.69	60	120	
Ge Internal standard	72	1	HMI H2	3961095	1.65	3833850	103.32	60	120	
Ge Internal standard	72	2	HMI He	547009	0.91	524481	104.30	60	120	
In Internal standard	115	2	HMI He	1547855	0.51	1492548	103.71	60	120	
Ho-165	165	2	HMI He	6853494	0.54	6759932	101.38	60	120	
Ir (IS)	193	2	HMI He	5788624	1.38	5766680	100.38	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	lcs 280-652548/17-a
Data File Name	028_LCS.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T15:44:49-06:00
Sample Type	LCS
Dilution	1
Analyst	Denver Metals
Comment	652548 6020B
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	31.764	31.764	ppb	2.035	1667403	400	7.9	80	120	>+/-20%
Be	9	1	6	36.894	36.894	ppb	2.204	10991	40	92.2	80	120	
Na	23	2	45	936.028	936.028	ppb	1.216	197173	1000	93.6	80	120	
Mg	24	2	45	931.313	931.313	ppb	0.997	77519	1000	93.1	80	120	
Al	27	2	45	787.603	787.603	ppb	3.355	15778	40	1969.0	80	120	>+/-20%
K	39	2	45	920.980	920.980	ppb	7.583	65815	1000	92.1	80	120	
Ca	40	1	45	1013.804	1013.804	ppb	1.706	1948641	1000	101.4	80	120	
V	51	2	72	37.963	37.963	ppb	2.685	28231	40	94.9	80	120	
Cr	52	2	72	38.433	38.433	ppb	0.919	37636	40	96.1	80	120	
Mn	55	2	72	38.015	38.015	ppb	6.237	13920	40	95.0	80	120	
(Fe)	57	2	72	785.747	785.747	ppb	3.400	13256	40	1964.4	80	120	>+/-20%
Co	59	2	72	38.006	38.006	ppb	2.256	56510	40	95.0	80	120	
Ni	60	2	72	36.241	36.241	ppb	4.995	15648	40	90.6	80	120	
Cu	63	2	72	38.140	38.140	ppb	1.422	43351	40	95.3	80	120	
Zn	66	2	72	36.536	36.536	ppb	3.642	6505	40	91.3	80	120	
As	75	2	72	38.744	38.744	ppb	0.333	4796	40	96.9	80	120	
Se	78	1	72	38.195	38.195	ppb	2.340	4117	40	95.5	80	120	
Mo	95	2	115	37.558	37.558	ppb	1.496	17680	40	93.9	80	120	
Ag	107	2	115	39.845	39.845	ppb	3.400	60648	40	99.6	80	120	
Cd	111	2	115	37.560	37.560	ppb	5.725	7906	40	93.9	80	120	
Sn	120	2	115	37.650	37.650	ppb	2.833	19893	40	94.1	80	120	
Sb	121	2	115	37.427	37.427	ppb	6.845	19673	40	93.6	80	120	
Ba	137	2	115	37.470	37.470	ppb	3.232	5841	40	93.7	80	120	
W	182	2	165	0.077	0.077	ppb	27.904	413	40	0.2	80	120	>+/-20%
Tl	205	2	165	38.130	38.130	ppb	0.847	154509	40	95.3	80	120	
Pb	208	2	165	38.555	38.555	ppb	1.019	207842	40	96.4	80	120	
Th	232	2	193	34.323	34.323	ppb	0.978	220301	40	85.8	80	120	
U	238	2	193	36.209	36.209	ppb	0.868	254550	40	90.5	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	247862	1.06	252517	98.16	60	120	
Sc(IS)	45	1	HMI H2	9350096	1.67	9196623	101.67	60	120	
Sc (IS)	45	2	HMI He	542588	0.97	531422	102.10	60	120	
Sc (IS)	45	3	No Gas	18704118	0.40	18746179	99.78	60	120	
Ge Internal standard	72	1	HMI H2	3987600	1.14	3833850	104.01	60	120	
Ge Internal standard	72	2	HMI He	547144	0.40	524481	104.32	60	120	
In Internal standard	115	2	HMI He	1533207	0.29	1492548	102.72	60	120	
Ho-165	165	2	HMI He	6923252	1.44	6759932	102.42	60	120	
Ir (IS)	193	2	HMI He	5896998	0.12	5766680	102.26	60	120	

Sample Report

Sample Table

Sample Name	lcsd 280-652548/18-a
Data File Name	029SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T15:48:23-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652548 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	32.533	ppb	32.533	2.07	1715723	50000	
Be	9	1	6	36.308	ppb	36.308	2.29	10824	2000	
B	11	1	6	3.524	ppb	3.524	22.03	1904	2000	
Na	23	2	45	929.285	ppb	929.285	0.49	194777	400000	
Mg	24	2	45	918.456	ppb	918.456	2.51	75995	400000	
Al	27	2	45	730.157	ppb	730.157	5.59	14550	400000	
Si	28	1	45	382.820	ppb	382.820	1.16	231791	10000	
P	31	2	45	2.790	ppb	2.790	498.58	70	10000	
K	39	2	45	880.628	ppb	880.628	1.95	63754	400000	
Ca	40	1	45	1001.399	ppb	1001.399	1.17	1907303	400000	
Ti	47	2	45	43.453	ppb	43.453	11.11	727	4000	
V	51	2	72	37.617	ppb	37.617	4.57	27821	2000	
Cr	52	2	72	37.851	ppb	37.851	2.61	36858	5000	
Mn	55	2	72	37.091	ppb	37.091	1.60	13503	10000	
Fe	56	1	72	769.689	ppb	769.689	0.87	2275514	10000	
(Fe)	57	2	72	754.653	ppb	754.653	1.67	12665	400000	
Co	59	2	72	36.377	ppb	36.377	2.87	53761	2000	
Ni	60	2	72	37.015	ppb	37.015	4.90	15885	5000	
Cu	63	2	72	38.907	ppb	38.907	0.73	43942	5000	
Zn	66	2	72	35.556	ppb	35.556	2.43	6298	5000	
As	75	2	72	37.996	ppb	37.996	3.16	4676	2000	
Se	78	1	72	36.830	ppb	36.830	2.80	3919	2000	
Sr	88	2	72	72.982	ppb	72.982	3.55	22149	4000	
Zr	90	2	72	-5.410	ppb	-5.410	-196.57	273	1000	
Mo	95	2	115	37.953	ppb	37.953	2.27	17550	2000	
Ag	107	2	115	39.690	ppb	39.690	0.24	59357	100	
Cd	111	2	115	37.720	ppb	37.720	2.98	7799	2000	
Sn	120	2	115	36.870	ppb	36.870	0.86	19142	2000	
Sb	121	2	115	38.886	ppb	38.886	2.48	20077	1000	
Ba	137	2	115	36.448	ppb	36.448	4.08	5585	5000	
W	182	2	165	0.040	ppb	0.040	45.14	337	100	
Tl	205	2	165	38.322	ppb	38.322	0.42	153805	2000	
Pb	208	2	165	37.974	ppb	37.974	0.86	202779	5000	
Th	232	2	193	34.719	ppb	34.719	1.05	222479	2000	
U	238	2	193	35.941	ppb	35.941	0.97	252326	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	248022	0.95	252517	98.22	60	120	
Sc(IS)	45	1	HMI H2	9264887	2.06	9196623	100.74	60	120	
Sc (IS)	45	2	HMI He	539336	0.92	531422	101.49	60	120	
Sc (IS)	45	3	No Gas	19146967	0.21	18746179	102.14	60	120	
Ge Internal standard	72	1	HMI H2	3936129	1.28	3833850	102.67	60	120	
Ge Internal standard	72	2	HMI He	543806	0.96	524481	103.68	60	120	
In Internal standard	115	2	HMI He	1506342	0.95	1492548	100.92	60	120	
Ho-165	165	2	HMI He	6857101	0.97	6759932	101.44	60	120	
Ir (IS)	193	2	HMI He	5889045	0.99	5766680	102.12	60	120	

Sample Report

Sample Table

Sample Name	280-191106-e-1-a
Data File Name	030SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T15:51:57-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652548 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	27.421	ppb	27.421	6.14	1591034	50000	
Be	9	1	6	0.112	ppb	0.112	54.87	60	2000	
B	11	1	6	1285.682	ppb	1285.682	1.10	257352	2000	
Na	23	2	45	178496.085	ppb	178496.085	0.65	31089744	400000	
Mg	24	2	45	15691.140	ppb	15691.140	1.44	1249407	400000	
Al	27	2	45	19.089	ppb	19.089	11.86	423	400000	
Si	28	1	45	10165.486	ppb	10165.486	1.57	5366690	10000	
P	31	2	45	387.347	ppb	387.347	7.72	731	10000	
K	39	2	45	16771.587	ppb	16771.587	0.46	695739	400000	
Ca	40	1	45	67019.521	ppb	67019.521	0.50	120953118	400000	
Ti	47	2	45	1.455	ppb	1.455	66.43	23	4000	
V	51	2	72	4.473	ppb	4.473	12.94	4581	2000	
Cr	52	2	72	2.380	ppb	2.380	12.43	3641	5000	
Mn	55	2	72	30.695	ppb	30.695	8.21	10777	10000	
Fe	56	1	72	769.717	ppb	769.717	0.37	2215381	10000	
(Fe)	57	2	72	798.708	ppb	798.708	3.26	12895	400000	
Co	59	2	72	2.768	ppb	2.768	4.23	3991	2000	
Ni	60	2	72	12.484	ppb	12.484	2.45	5261	5000	
Cu	63	2	72	0.742	ppb	0.742	16.45	1140	5000	
Zn	66	2	72	2.571	ppb	2.571	35.68	657	5000	
As	75	2	72	9.244	ppb	9.244	5.03	1141	2000	
Se	78	1	72	0.259	ppb	0.259	49.21	35	2000	
Sr	88	2	72	3304.081	ppb	3304.081	0.24	965645	4000	
Zr	90	2	72	17.331	ppb	17.331	119.05	403	1000	
Mo	95	2	115	0.461	ppb	0.461	41.70	290	2000	
Ag	107	2	115	0.024	ppb	0.024	98.54	63	100	
Cd	111	2	115	0.033	ppb	0.033	86.64	7	2000	
Sn	120	2	115	0.888	ppb	0.888	25.89	637	2000	
Sb	121	2	115	5.126	ppb	5.126	5.25	2544	1000	
Ba	137	2	115	194.610	ppb	194.610	3.25	28263	5000	
W	182	2	165	0.199	ppb	0.199	29.00	630	100	
Tl	205	2	165	0.020	ppb	0.020	26.63	637	2000	
Pb	208	2	165	0.401	ppb	0.401	10.58	3017	5000	
Th	232	2	193	1.570	ppb	1.570	2.76	13730	2000	
U	238	2	193	0.103	ppb	0.103	76.89	2390	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	237437	0.25	252517	94.03	60	120	
Sc(IS)	45	1	HMI H2	8984703	0.53	9196623	97.70	60	120	
Sc (IS)	45	2	HMI He	520352	1.37	531422	97.92	60	120	
Sc (IS)	45	3	No Gas	18386466	0.66	18746179	98.08	60	120	
Ge Internal standard	72	1	HMI H2	3832294	1.12	3833850	99.96	60	120	
Ge Internal standard	72	2	HMI He	523665	0.99	524481	99.84	60	120	
In Internal standard	115	2	HMI He	1431601	3.03	1492548	95.92	60	120	
Ho-165	165	2	HMI He	6631989	0.91	6759932	98.11	60	120	
Ir (IS)	193	2	HMI He	5613532	0.63	5766680	97.34	60	120	

Sample Report

Sample Table

Sample Name	280-191098-c-1-d
Data File Name	031SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T15:55:30-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652548 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	17.347	ppb	17.347	0.40	1441077	50000	
Be	9	1	6	0.039	ppb	0.039	172.43	40	2000	
B	11	1	6	82.713	ppb	82.713	3.56	17833	2000	
Na	23	2	45	12109.497	ppb	12109.497	0.87	2115855	400000	
Mg	24	2	45	32967.176	ppb	32967.176	1.55	2602587	400000	
Al	27	2	45	3.630	ppb	3.630	45.66	127	400000	
Si	28	1	45	7440.149	ppb	7440.149	1.81	3961802	10000	
P	31	2	45	12.263	ppb	12.263	40.80	83	10000	
K	39	2	45	1798.678	ppb	1798.678	0.76	97333	400000	
Ca	40	1	45	90800.932	ppb	90800.932	0.99	165009944	400000	
Ti	47	2	45	1.045	ppb	1.045	91.92	17	4000	
V	51	2	72	1.087	ppb	1.087	18.25	2340	2000	
Cr	52	2	72	-0.126	ppb	-0.126	-142.40	1410	5000	
Mn	55	2	72	240.107	ppb	240.107	0.99	84544	10000	
Fe	56	1	72	1893.071	ppb	1893.071	1.17	5464591	10000	
(Fe)	57	2	72	1926.059	ppb	1926.059	3.27	31170	400000	
Co	59	2	72	0.356	ppb	0.356	15.37	570	2000	
Ni	60	2	72	0.164	ppb	0.164	36.10	227	5000	
Cu	63	2	72	0.762	ppb	0.762	16.68	1177	5000	
Zn	66	2	72	0.706	ppb	0.706	91.27	357	5000	
As	75	2	72	10.196	ppb	10.196	6.42	1269	2000	
Se	78	1	72	0.075	ppb	0.075	202.74	16	2000	
Sr	88	2	72	140.515	ppb	140.515	2.20	41621	4000	
Zr	90	2	72	-7.518	ppb	-7.518	-113.71	253	1000	
Mo	95	2	115	0.608	ppb	0.608	11.14	343	2000	
Ag	107	2	115	-0.006	ppb	-0.006	-240.43	20	100	
Cd	111	2	115	0.053	ppb	0.053	0.99	10	2000	
Sn	120	2	115	0.645	ppb	0.645	39.71	500	2000	
Sb	121	2	115	0.125	ppb	0.125	51.63	93	1000	
Ba	137	2	115	46.506	ppb	46.506	1.79	6538	5000	
W	182	2	165	0.055	ppb	0.055	32.96	360	100	
Tl	205	2	165	-0.028	ppb	-0.028	-27.87	460	2000	
Pb	208	2	165	0.061	ppb	0.061	32.31	1290	5000	
Th	232	2	193	0.821	ppb	0.821	13.12	9277	2000	
U	238	2	193	1.043	ppb	1.043	8.74	8663	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	240550	1.67	252517	95.26	60	120	
Sc(IS)	45	1	HMI H2	9048408	1.06	9196623	98.39	60	120	
Sc (IS)	45	2	HMI He	516000	0.68	531422	97.10	60	120	
Sc (IS)	45	3	No Gas	17908319	2.29	18746179	95.53	60	120	
Ge Internal standard	72	1	HMI H2	3874582	0.59	3833850	101.06	60	120	
Ge Internal standard	72	2	HMI He	530641	0.59	524481	101.17	60	120	
In Internal standard	115	2	HMI He	1383304	0.99	1492548	92.68	60	120	
Ho-165	165	2	HMI He	6734390	0.88	6759932	99.62	60	120	
Ir (IS)	193	2	HMI He	5632542	1.22	5766680	97.67	60	120	

Sample Report

Sample Table

Sample Name	280-191098-c-1-dSD@5
Data File Name	032SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T15:59:03-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652548 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	2.749	ppb	2.749	63.45	1265855	50000	
Be	9	1	6	0.054	ppb	0.054	43.53	43	2000	
B	11	1	6	20.684	ppb	20.684	6.14	5214	2000	
Na	23	2	45	2284.131	ppb	2284.131	0.46	405758	400000	
Mg	24	2	45	6383.879	ppb	6383.879	0.47	486869	400000	
Al	27	2	45	2.408	ppb	2.408	24.23	100	400000	
Si	28	1	45	1493.240	ppb	1493.240	0.61	789049	10000	
P	31	2	45	4.341	ppb	4.341	402.03	67	10000	
K	39	2	45	387.123	ppb	387.123	8.56	40038	400000	
Ca	40	1	45	17647.029	ppb	17647.029	1.12	31115734	400000	
Ti	47	2	45	0.214	ppb	0.214	173.21	3	4000	
V	51	2	72	1.638	ppb	1.638	21.05	2690	2000	
Cr	52	2	72	0.012	ppb	0.012	3181.69	1523	5000	
Mn	55	2	72	46.301	ppb	46.301	3.66	16265	10000	
Fe	56	1	72	394.107	ppb	394.107	1.56	1144995	10000	
(Fe)	57	2	72	379.217	ppb	379.217	1.00	6271	400000	
Co	59	2	72	0.086	ppb	0.086	6.72	180	2000	
Ni	60	2	72	0.193	ppb	0.193	41.43	237	5000	
Cu	63	2	72	0.501	ppb	0.501	15.95	883	5000	
Zn	66	2	72	2.021	ppb	2.021	16.06	570	5000	
As	75	2	72	1.959	ppb	1.959	9.36	291	2000	
Se	78	1	72	0.232	ppb	0.232	71.00	32	2000	
Sr	88	2	72	26.848	ppb	26.848	2.99	7886	4000	
Zr	90	2	72	-7.644	ppb	-7.644	-106.28	250	1000	
Mo	95	2	115	0.325	ppb	0.325	16.45	223	2000	
Ag	107	2	115	-0.003	ppb	-0.003	-557.93	23	100	
Cd	111	2	115	0.034	ppb	0.034	173.21	7	2000	
Sn	120	2	115	0.546	ppb	0.546	4.44	453	2000	
Sb	121	2	115	0.147	ppb	0.147	32.28	103	1000	
Ba	137	2	115	8.598	ppb	8.598	3.70	1220	5000	
W	182	2	165	0.068	ppb	0.068	57.03	373	100	
Tl	205	2	165	-0.020	ppb	-0.020	-100.95	477	2000	
Pb	208	2	165	0.073	ppb	0.073	51.62	1317	5000	
Th	232	2	193	0.405	ppb	0.405	11.21	6719	2000	
U	238	2	193	0.194	ppb	0.194	4.03	2977	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	236186	2.15	252517	93.53	60	120	
Sc(IS)	45	1	HMI H2	8768827	0.75	9196623	95.35	60	120	
Sc (IS)	45	2	HMI He	498294	0.69	531422	93.77	60	120	
Sc (IS)	45	3	No Gas	17658368	0.18	18746179	94.20	60	120	
Ge Internal standard	72	1	HMI H2	3819642	1.27	3833850	99.63	60	120	
Ge Internal standard	72	2	HMI He	525963	1.00	524481	100.28	60	120	
In Internal standard	115	2	HMI He	1385204	3.19	1492548	92.81	60	120	
Ho-165	165	2	HMI He	6544040	0.58	6759932	96.81	60	120	
Ir (IS)	193	2	HMI He	5580064	0.96	5766680	96.76	60	120	

Sample Report

Sample Table

Sample Name	280-191098-c-1-e ms
Data File Name	033SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T16:02:38-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652548 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	56.348	ppb	56.348	0.84	1792769	50000	
Be	9	1	6	37.242	ppb	37.242	5.92	10494	2000	
B	11	1	6	34.069	ppb	34.069	3.34	7809	2000	
Na	23	2	45	12597.695	ppb	12597.695	1.03	2101511	400000	
Mg	24	2	45	32935.204	ppb	32935.204	1.03	2483707	400000	
Al	27	2	45	788.048	ppb	788.048	3.89	14343	400000	
Si	28	1	45	7342.225	ppb	7342.225	0.63	3764856	10000	
P	31	2	45	6.802	ppb	6.802	38.49	71	10000	
K	39	2	45	2672.260	ppb	2672.260	0.97	125988	400000	
Ca	40	1	45	87717.212	ppb	87717.212	0.35	153481191	400000	
Ti	47	2	45	39.280	ppb	39.280	6.28	600	4000	
V	51	2	72	38.112	ppb	38.112	1.68	26141	2000	
Cr	52	2	72	37.168	ppb	37.168	0.71	33625	5000	
Mn	55	2	72	266.407	ppb	266.407	0.95	89214	10000	
Fe	56	1	72	2520.945	ppb	2520.945	1.39	6971410	10000	
(Fe)	57	2	72	2563.181	ppb	2563.181	0.85	39384	400000	
Co	59	2	72	36.324	ppb	36.324	0.61	49825	2000	
Ni	60	2	72	35.858	ppb	35.858	4.59	14283	5000	
Cu	63	2	72	37.413	ppb	37.413	2.61	39230	5000	
Zn	66	2	72	36.607	ppb	36.607	3.78	6011	5000	
As	75	2	72	48.494	ppb	48.494	1.84	5523	2000	
Se	78	1	72	39.659	ppb	39.659	1.13	3985	2000	
Sr	88	2	72	208.126	ppb	208.126	2.54	58627	4000	
Zr	90	2	72	-7.109	ppb	-7.109	-176.88	243	1000	
Mo	95	2	115	42.796	ppb	42.796	4.02	17090	2000	
Ag	107	2	115	42.509	ppb	42.509	1.54	54925	100	
Cd	111	2	115	41.100	ppb	41.100	9.36	7342	2000	
Sn	120	2	115	40.395	ppb	40.395	2.08	18104	2000	
Sb	121	2	115	42.646	ppb	42.646	1.01	19022	1000	
Ba	137	2	115	87.147	ppb	87.147	0.82	11518	5000	
W	182	2	165	0.063	ppb	0.063	113.06	360	100	
Tl	205	2	165	38.806	ppb	38.806	0.90	147323	2000	
Pb	208	2	165	38.686	ppb	38.686	0.36	195405	5000	
Th	232	2	193	36.306	ppb	36.306	1.81	216779	2000	
U	238	2	193	39.277	ppb	39.277	0.92	257018	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	234419	0.54	252517	92.83	60	120	
Sc(IS)	45	1	HMI H2	8711419	0.17	9196623	94.72	60	120	
Sc (IS)	45	2	HMI He	492862	0.49	531422	92.74	60	120	
Sc (IS)	45	3	No Gas	17248153	1.17	18746179	92.01	60	120	
Ge Internal standard	72	1	HMI H2	3716903	0.32	3833850	96.95	60	120	
Ge Internal standard	72	2	HMI He	504737	0.43	524481	96.24	60	120	
In Internal standard	115	2	HMI He	1301487	0.28	1492548	87.20	60	120	
Ho-165	165	2	HMI He	6486421	0.58	6759932	95.95	60	120	
Ir (IS)	193	2	HMI He	5492313	0.63	5766680	95.24	60	120	

Sample Report

Sample Table

Sample Name	280-191098-c-1-f msd
Data File Name	034SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T16:06:12-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652548 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	54.480	ppb	54.480	2.90	1779944	50000	
Be	9	1	6	38.760	ppb	38.760	2.44	10807	2000	
B	11	1	6	33.002	ppb	33.002	3.28	7522	2000	
Na	23	2	45	12983.695	ppb	12983.695	1.17	2131141	400000	
Mg	24	2	45	34007.624	ppb	34007.624	0.70	2524328	400000	
Al	27	2	45	781.663	ppb	781.663	2.78	14003	400000	
Si	28	1	45	7468.485	ppb	7468.485	0.43	3787570	10000	
P	31	2	45	14.555	ppb	14.555	30.84	82	10000	
K	39	2	45	2724.498	ppb	2724.498	1.79	125961	400000	
Ca	40	1	45	89988.344	ppb	89988.344	0.92	155738614	400000	
Ti	47	2	45	46.550	ppb	46.550	22.99	700	4000	
V	51	2	72	40.417	ppb	40.417	5.29	27196	2000	
Cr	52	2	72	40.777	ppb	40.777	2.30	36183	5000	
Mn	55	2	72	270.140	ppb	270.140	3.18	89053	10000	
Fe	56	1	72	2601.569	ppb	2601.569	1.00	7130511	10000	
(Fe)	57	2	72	2690.554	ppb	2690.554	3.05	40687	400000	
Co	59	2	72	38.139	ppb	38.139	1.35	51507	2000	
Ni	60	2	72	36.984	ppb	36.984	3.77	14497	5000	
Cu	63	2	72	38.875	ppb	38.875	1.17	40126	5000	
Zn	66	2	72	42.288	ppb	42.288	4.91	6802	5000	
As	75	2	72	50.885	ppb	50.885	0.29	5703	2000	
Se	78	1	72	39.396	ppb	39.396	4.64	3925	2000	
Sr	88	2	72	215.605	ppb	215.605	3.08	59793	4000	
Zr	90	2	72	-3.036	ppb	-3.036	-309.72	263	1000	
Mo	95	2	115	43.212	ppb	43.212	3.07	17096	2000	
Ag	107	2	115	43.620	ppb	43.620	2.21	55835	100	
Cd	111	2	115	41.448	ppb	41.448	3.71	7335	2000	
Sn	120	2	115	43.166	ppb	43.166	1.98	19152	2000	
Sb	121	2	115	43.672	ppb	43.672	3.19	19296	1000	
Ba	137	2	115	93.637	ppb	93.637	2.94	12259	5000	
W	182	2	165	0.052	ppb	0.052	60.94	340	100	
Tl	205	2	165	40.339	ppb	40.339	1.59	152461	2000	
Pb	208	2	165	40.698	ppb	40.698	2.78	204601	5000	
Th	232	2	193	39.492	ppb	39.492	1.32	236084	2000	
U	238	2	193	41.540	ppb	41.540	2.09	272460	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	232062	0.83	252517	91.90	60	120	
Sc(IS)	45	1	HMI H2	8617099	1.42	9196623	93.70	60	120	
Sc (IS)	45	2	HMI He	485139	0.00	531422	91.29	60	120	
Sc (IS)	45	3	No Gas	17311788	0.83	18746179	92.35	60	120	
Ge Internal standard	72	1	HMI H2	3684215	1.24	3833850	96.10	60	120	
Ge Internal standard	72	2	HMI He	496940	0.65	524481	94.75	60	120	
In Internal standard	115	2	HMI He	1289347	0.58	1492548	86.39	60	120	
Ho-165	165	2	HMI He	6458638	1.06	6759932	95.54	60	120	
Ir (IS)	193	2	HMI He	5507780	1.27	5766680	95.51	60	120	

Sample Report

Sample Table

Sample Name	280-191098-c-1-dPDS
Data File Name	035SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T16:09:45-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652548 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	213.692	ppb	213.692	0.53	3350133	50000	
Be	9	1	6	200.209	ppb	200.209	0.66	53888	2000	
B	11	1	6	38.100	ppb	38.100	4.15	8236	2000	
Na	23	2	45	17287.003	ppb	17287.003	0.62	2807552	400000	
Mg	24	2	45	35244.419	ppb	35244.419	0.38	2595974	400000	
Al	27	2	45	2056.072	ppb	2056.072	1.55	36460	400000	
Si	28	1	45	8877.218	ppb	8877.218	0.39	4457858	10000	
P	31	2	45	2035.669	ppb	2035.669	1.27	3303	10000	
K	39	2	45	3750.983	ppb	3750.983	1.14	162894	400000	
Ca	40	1	45	91298.093	ppb	91298.093	0.70	156616124	400000	
Ti	47	2	45	210.741	ppb	210.741	6.36	3144	4000	
V	51	2	72	194.192	ppb	194.192	1.55	123683	2000	
Cr	52	2	72	196.353	ppb	196.353	0.87	167035	5000	
Mn	55	2	72	428.854	ppb	428.854	1.47	139859	10000	
Fe	56	1	72	3858.939	ppb	3858.939	0.93	10346337	10000	
(Fe)	57	2	72	4004.855	ppb	4004.855	0.20	59838	400000	
Co	59	2	72	189.276	ppb	189.276	0.96	252734	2000	
Ni	60	2	72	185.826	ppb	185.826	1.33	71513	5000	
Cu	63	2	72	191.747	ppb	191.747	0.65	194603	5000	
Zn	66	2	72	205.445	ppb	205.445	3.54	31855	5000	
As	75	2	72	204.760	ppb	204.760	0.87	22538	2000	
Se	78	1	72	194.236	ppb	194.236	1.18	18918	2000	
Sr	88	2	72	333.143	ppb	333.143	2.61	91432	4000	
Zr	90	2	72	27.903	ppb	27.903	21.21	440	1000	
Mo	95	2	115	215.651	ppb	215.651	1.50	84557	2000	
Ag	107	2	115	56.621	ppb	56.621	0.55	72109	100	
Cd	111	2	115	209.201	ppb	209.201	1.63	36840	2000	
Sn	120	2	115	215.972	ppb	215.972	0.54	94620	2000	
Sb	121	2	115	222.738	ppb	222.738	2.82	97792	1000	
Ba	137	2	115	260.078	ppb	260.078	2.48	33854	5000	
W	182	2	165	76.614	ppb	76.614	1.60	144468	100	
Tl	205	2	165	199.693	ppb	199.693	0.89	759095	2000	
Pb	208	2	165	200.279	ppb	200.279	0.33	1012079	5000	
Th	232	2	193	84.325	ppb	84.325	4.93	501806	2000	
U	238	2	193	209.277	ppb	209.277	0.13	1372738	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	224451	0.55	252517	88.89	60	120	
Sc(IS)	45	1	HMI H2	8540512	0.71	9196623	92.87	60	120	
Sc (IS)	45	2	HMI He	481398	0.77	531422	90.59	60	120	
Sc (IS)	45	3	No Gas	16867397	1.03	18746179	89.98	60	120	
Ge Internal standard	72	1	HMI H2	3608752	0.09	3833850	94.13	60	120	
Ge Internal standard	72	2	HMI He	491803	1.11	524481	93.77	60	120	
In Internal standard	115	2	HMI He	1282912	1.12	1492548	85.95	60	120	
Ho-165	165	2	HMI He	6514544	0.56	6759932	96.37	60	120	
Ir (IS)	193	2	HMI He	5534510	0.44	5766680	95.97	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-8327972
Data File Name	036_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T16:13:18-06:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	6	51.112	ppb	0.759	13776	50	102.2	90	110	
Na	23	2	45	49963.932	ppb	1.111	8114887	51000	98.0	90	110	
Mg	24	2	45	10395.456	ppb	1.185	770199	11000	94.5	90	110	
Al	27	2	45	1022.380	ppb	3.635	18264	1000	102.2	90	110	
Si	28	1	45	2602.487	ppb	1.419	1313703	2500	104.1	90	110	
K	39	2	45	10367.068	ppb	0.829	409528	11000	94.2	90	110	
Ca	40	1	45	10560.492	ppb	1.064	18028167	11000	96.0	90	110	
Ti	47	2	45	52.207	ppb	11.370	783	50	104.4	90	110	
V	51	2	72	50.912	ppb	2.964	33187	50	101.8	90	110	
Cr	52	2	72	50.769	ppb	1.762	43795	50	101.5	90	110	
Mn	55	2	72	50.597	ppb	0.486	16445	50	101.2	90	110	
Fe	56	1	72	1026.310	ppb	1.149	2736629	1000	102.6	90	110	
Co	59	2	72	48.813	ppb	2.080	64576	50	97.6	90	110	
Ni	60	2	72	50.364	ppb	1.935	19292	50	100.7	90	110	
Cu	63	2	72	50.774	ppb	0.441	51250	50	101.5	90	110	
Zn	66	2	72	50.776	ppb	2.512	7959	50	101.6	90	110	
As	75	2	72	51.413	ppb	1.972	5645	50	102.8	90	110	
Se	78	1	72	49.986	ppb	2.194	4811	50	100.0	90	110	
Sr	88	2	72	98.547	ppb	2.691	26779	100	98.5	90	110	
Zr	90	2	72	18.294	ppb	135.848	380	50	36.6	90	110	>+\-10%
Mo	95	2	115	52.723	ppb	1.149	21375	50	105.4	90	110	
Ag	107	2	115	53.194	ppb	1.671	69842	50	106.4	90	110	
Cd	111	2	115	51.934	ppb	3.080	9430	50	103.9	90	110	
Sn	120	2	115	54.563	ppb	1.373	24783	50	109.1	90	110	
Sb	121	2	115	52.764	ppb	3.381	23906	50	105.5	90	110	
Ba	137	2	115	53.402	ppb	7.529	7175	50	106.8	90	110	
W	182	2	165	54.149	ppb	2.035	100967	50	108.3	90	110	
Tl	205	2	165	51.664	ppb	0.025	194477	50	103.3	90	110	
Pb	208	2	165	51.547	ppb	0.541	258090	50	103.1	90	110	
Th	232	2	193	51.116	ppb	0.749	301407	50	102.2	90	110	
U	238	2	193	51.198	ppb	0.344	332240	50	102.4	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	224448	1.13	252517	88.88	60	120	
Sc(IS)	45	1	HMI H2	8482165	1.04	9196623	92.23	60	120	
Sc (IS)	45	2	HMI He	484170	0.82	531422	91.11	60	120	
Sc (IS)	45	3	No Gas	16973847	1.68	18746179	90.55	60	120	
Ge Internal standard	72	1	HMI H2	3562293	0.24	3833850	92.92	60	120	
Ge Internal standard	72	2	HMI He	486906	0.76	524481	92.84	60	120	
In Internal standard	115	2	HMI He	1322529	0.62	1492548	88.61	60	120	
Ho-165	165	2	HMI He	6437460	0.58	6759932	95.23	60	120	
Ir (IS)	193	2	HMI He	5454795	0.89	5766680	94.59	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-8327938
Data File Name	037_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T16:16:52-06:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-2.550	ppb	-69.7	1190657	10	
Be	9	1	6	0.083	ppb	84.6	50	0.5	
B	11	1	6	24.717	ppb	4.3	5825	0.5	>RL
Na	23	2	45	19.693	ppb	15.2	27667	25	
Mg	24	2	45	4.222	ppb	45.8	507	25	
Al	27	2	45	0.681	ppb	128.2	67	15	
Si	28	1	45	48.431	ppb	7.8	45665	1	>RL
K	39	2	45	9.309	ppb	174.3	24966	50	
Ca	40	1	45	-0.199	ppb	-438.9	39901	200	
(Ca)	44	1	45	-0.099	ppb	-1226.2	993	200	
Ti	47	2	45	0.437	ppb	173.2	7	0.5	
V	51	2	72	0.619	ppb	19.9	1834	1	
Cr	52	2	72	0.110	ppb	264.6	1473	1	
Mn	55	2	72	0.034	ppb	559.3	133	0.5	
Fe	56	1	72	1.027	ppb	45.9	30262	50	
(Fe)	57	2	72	0.853	ppb	154.7	227	25	
Co	59	2	72	0.037	ppb	62.6	100	0.5	
Ni	60	2	72	0.087	ppb	201.8	177	1	
Cu	63	2	72	0.045	ppb	242.5	357	1	
Zn	66	2	72	0.151	ppb	212.7	240	5	
As	75	2	72	0.053	ppb	195.2	61	1	
Se	78	1	72	0.034	ppb	138.9	11	1	
Sr	88	2	72	0.112	ppb	100.5	33	0.5	
Zr	90	2	72	17.260	ppb	64.0	370	1	>RL
Mo	95	2	115	0.149	ppb	51.1	143	0.5	
Ag	107	2	115	0.000	ppb	-13965.6	27	1	
Cd	111	2	115	0.037	ppb	173.2	7	0.5	
Sn	120	2	115	0.302	ppb	67.5	323	1	
Sb	121	2	115	0.295	ppb	50.5	167	0.6	
Ba	137	2	115	-0.013	ppb	-552.3	10	0.5	
W	182	2	165	0.370	ppb	11.9	943	1	
Tl	205	2	165	-0.001	ppb	-1980.1	550	0.1	
Pb	208	2	165	0.006	ppb	117.1	970	0.5	
Th	232	2	193	0.677	ppb	6.1	8520	1	
U	238	2	193	0.041	ppb	57.2	2014	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	228722	2.24	252517	90.58	60	120	
Sc(IS)	45	1	HMI H2	8368524	3.00	9196623	91.00	60	120	
Sc (IS)	45	2	HMI He	485946	1.24	531422	91.44	60	120	
Sc (IS)	45	3	No Gas	17382847	1.24	18746179	92.73	60	120	
Ge Internal standard	72	1	HMI H2	3542933	2.05	3833850	92.41	60	120	
Ge Internal standard	72	2	HMI He	481094	0.73	524481	91.73	60	120	
In Internal standard	115	2	HMI He	1327443	0.60	1492548	88.94	60	120	
Ho-165	165	2	HMI He	6529822	1.12	6759932	96.60	60	120	
Ir (IS)	193	2	HMI He	5699695	0.58	5766680	98.84	60	120	

Sample Report

Sample Table

Sample Name	280-191098-a-2-a
Data File Name	038SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T16:20:27-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652548 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	15.736	ppb	15.736	15.03	1346523	50000	
Be	9	1	6	0.070	ppb	0.070	242.53	47	2000	
B	11	1	6	34.047	ppb	34.047	2.31	7625	2000	
Na	23	2	45	11856.752	ppb	11856.752	0.58	1929768	400000	
Mg	24	2	45	32459.267	ppb	32459.267	0.46	2386460	400000	
Al	27	2	45	4.868	ppb	4.868	50.39	140	400000	
Si	28	1	45	6923.023	ppb	6923.023	0.87	3490794	10000	
P	31	2	45	8.381	ppb	8.381	125.60	71	10000	
K	39	2	45	1738.914	ppb	1738.914	2.11	88437	400000	
Ca	40	1	45	86845.283	ppb	86845.283	0.62	149373561	400000	
Ti	47	2	45	0.451	ppb	0.451	173.21	7	4000	
V	51	2	72	1.114	ppb	1.114	16.28	2177	2000	
Cr	52	2	72	-0.199	ppb	-0.199	-12.50	1240	5000	
Mn	55	2	72	236.131	ppb	236.131	2.36	76760	10000	
Fe	56	1	72	1760.672	ppb	1760.672	0.79	4779522	10000	
(Fe)	57	2	72	1762.503	ppb	1762.503	2.27	26352	400000	
Co	59	2	72	0.359	ppb	0.359	19.48	530	2000	
Ni	60	2	72	0.062	ppb	0.062	42.61	170	5000	
Cu	63	2	72	0.082	ppb	0.082	74.97	400	5000	
Zn	66	2	72	0.169	ppb	0.169	230.00	247	5000	
As	75	2	72	10.291	ppb	10.291	4.65	1182	2000	
Se	78	1	72	-0.009	ppb	-0.009	-255.49	7	2000	
Sr	88	2	72	138.269	ppb	138.269	0.43	37805	4000	
Zr	90	2	72	-10.442	ppb	-10.442	-68.08	217	1000	
Mo	95	2	115	0.840	ppb	0.840	22.43	410	2000	
Ag	107	2	115	-0.013	ppb	-0.013	-105.84	10	100	
Cd	111	2	115	0.038	ppb	0.038	173.21	7	2000	
Sn	120	2	115	0.490	ppb	0.490	26.85	397	2000	
Sb	121	2	115	0.087	ppb	0.087	93.13	70	1000	
Ba	137	2	115	47.210	ppb	47.210	4.88	6171	5000	
W	182	2	165	0.110	ppb	0.110	9.91	447	100	
Tl	205	2	165	-0.033	ppb	-0.033	-25.00	420	2000	
Pb	208	2	165	0.067	ppb	0.067	52.59	1267	5000	
Th	232	2	193	0.479	ppb	0.479	17.81	7125	2000	
U	238	2	193	1.052	ppb	1.052	6.06	8603	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	229019	0.62	252517	90.69	60	120	
Sc(IS)	45	1	HMI H2	8563579	0.71	9196623	93.12	60	120	
Sc (IS)	45	2	HMI He	480517	0.63	531422	90.42	60	120	
Sc (IS)	45	3	No Gas	16940132	1.72	18746179	90.37	60	120	
Ge Internal standard	72	1	HMI H2	3642176	0.91	3833850	95.00	60	120	
Ge Internal standard	72	2	HMI He	489859	0.43	524481	93.40	60	120	
In Internal standard	115	2	HMI He	1286460	0.77	1492548	86.19	60	120	
Ho-165	165	2	HMI He	6442175	1.15	6759932	95.30	60	120	
Ir (IS)	193	2	HMI He	5555547	1.69	5766680	96.34	60	120	

Sample Report

Sample Table

Sample Name	280-191098-c-5-a
Data File Name	039SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T16:24:00-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652548 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	-2.722	ppb	-2.722	-63.57	1145637	50000	
Be	9	1	6	0.050	ppb	0.050	392.97	40	2000	
B	11	1	6	54.806	ppb	54.806	6.18	11391	2000	
Na	23	2	45	1881.241	ppb	1881.241	0.71	320687	400000	
Mg	24	2	45	22802.264	ppb	22802.264	0.97	1646554	400000	
Al	27	2	45	4.241	ppb	4.241	74.27	127	400000	
Si	28	1	45	4756.484	ppb	4756.484	0.23	2367135	10000	
P	31	2	45	6.595	ppb	6.595	39.27	67	10000	
K	39	2	45	829.751	ppb	829.751	1.73	53943	400000	
Ca	40	1	45	113356.150	ppb	113356.150	0.57	191850230	400000	
Ti	47	2	45	0.682	ppb	0.682	173.21	10	4000	
V	51	2	72	0.736	ppb	0.736	11.57	1924	2000	
Cr	52	2	72	-0.158	ppb	-0.158	-46.11	1263	5000	
Mn	55	2	72	20.291	ppb	20.291	2.94	6652	10000	
Fe	56	1	72	35.299	ppb	35.299	0.33	121355	10000	
(Fe)	57	2	72	37.022	ppb	37.022	18.04	760	400000	
Co	59	2	72	0.066	ppb	0.066	39.29	140	2000	
Ni	60	2	72	0.488	ppb	0.488	36.00	330	5000	
Cu	63	2	72	1.142	ppb	1.142	7.47	1457	5000	
Zn	66	2	72	15.119	ppb	15.119	6.51	2517	5000	
As	75	2	72	0.301	ppb	0.301	12.23	89	2000	
Se	78	1	72	0.116	ppb	0.116	74.39	19	2000	
Sr	88	2	72	239.382	ppb	239.382	2.34	64876	4000	
Zr	90	2	72	-6.070	ppb	-6.070	-101.58	240	1000	
Mo	95	2	115	0.146	ppb	0.146	29.71	137	2000	
Ag	107	2	115	0.006	ppb	0.006	280.31	33	100	
Cd	111	2	115	0.171	ppb	0.171	58.51	30	2000	
Sn	120	2	115	0.480	ppb	0.480	32.02	390	2000	
Sb	121	2	115	0.287	ppb	0.287	42.17	157	1000	
Ba	137	2	115	57.703	ppb	57.703	4.39	7495	5000	
W	182	2	165	0.101	ppb	0.101	67.03	430	100	
Tl	205	2	165	-0.030	ppb	-0.030	-92.08	433	2000	
Pb	208	2	165	0.027	ppb	0.027	48.21	1067	5000	
Th	232	2	193	0.346	ppb	0.346	6.08	6382	2000	
U	238	2	193	1.779	ppb	1.779	2.34	13467	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	224615	0.67	252517	88.95	60	120	
Sc(IS)	45	1	HMI H2	8427205	1.37	9196623	91.63	60	120	
Sc (IS)	45	2	HMI He	471927	0.45	531422	88.80	60	120	
Sc (IS)	45	3	No Gas	16751788	0.72	18746179	89.36	60	120	
Ge Internal standard	72	1	HMI H2	3576375	0.99	3833850	93.28	60	120	
Ge Internal standard	72	2	HMI He	485577	0.39	524481	92.58	60	120	
In Internal standard	115	2	HMI He	1278986	1.35	1492548	85.69	60	120	
Ho-165	165	2	HMI He	6448999	1.21	6759932	95.40	60	120	
Ir (IS)	193	2	HMI He	5589552	0.74	5766680	96.93	60	120	

Sample Report

Sample Table

Sample Name	280-191107-b-1-a
Data File Name	040SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T16:27:34-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652548 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	34.738	ppb	34.738	1.59	1408173	50000	
Be	9	1	6	1.327	ppb	1.327	33.45	377	2000	
B	11	1	6	36.638	ppb	36.638	2.77	7802	2000	
Na	23	2	45	35026.716	ppb	35026.716	0.79	5219007	400000	
Mg	24	2	45	59927.541	ppb	59927.541	0.49	4067263	400000	
Al	27	2	45	9.827	ppb	9.827	35.17	210	400000	
Si	28	1	45	10681.783	ppb	10681.783	0.08	5204656	10000	
P	31	2	45	5.729	ppb	5.729	87.95	62	10000	
K	39	2	45	3259.389	ppb	3259.389	2.60	133373	400000	
Ca	40	1	45	268845.355	ppb	268845.355	0.60	447754033	400000	
Ti	47	2	45	0.484	ppb	0.484	173.21	7	4000	
V	51	2	72	0.308	ppb	0.308	56.03	1563	2000	
Cr	52	2	72	-0.317	ppb	-0.317	-60.15	1067	5000	
Mn	55	2	72	8.831	ppb	8.831	4.20	2797	10000	
Fe	56	1	72	15.364	ppb	15.364	1.27	67748	10000	
(Fe)	57	2	72	25.713	ppb	25.713	26.84	560	400000	
Co	59	2	72	0.515	ppb	0.515	14.07	690	2000	
Ni	60	2	72	3.095	ppb	3.095	12.68	1243	5000	
Cu	63	2	72	0.293	ppb	0.293	8.91	573	5000	
Zn	66	2	72	79.291	ppb	79.291	3.27	11578	5000	
As	75	2	72	0.547	ppb	0.547	45.22	109	2000	
Se	78	1	72	0.243	ppb	0.243	69.17	31	2000	
Sr	88	2	72	7548.178	ppb	7548.178	0.78	1929860	4000	
Zr	90	2	72	-8.472	ppb	-8.472	-34.36	213	1000	
Mo	95	2	115	2.014	ppb	2.014	10.33	837	2000	
Ag	107	2	115	0.009	ppb	0.009	130.51	37	100	
Cd	111	2	115	0.059	ppb	0.059	0.91	10	2000	
Sn	120	2	115	0.447	ppb	0.447	78.01	363	2000	
Sb	121	2	115	0.149	ppb	0.149	72.40	93	1000	
Ba	137	2	115	3.796	ppb	3.796	5.03	487	5000	
W	182	2	165	0.161	ppb	0.161	22.12	520	100	
Tl	205	2	165	-0.041	ppb	-0.041	-42.82	377	2000	
Pb	208	2	165	0.012	ppb	0.012	235.91	950	5000	
Th	232	2	193	0.299	ppb	0.299	17.66	5765	2000	
U	238	2	193	5.286	ppb	5.286	1.10	34665	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	219986	1.23	252517	87.12	60	120	
Sc(IS)	45	1	HMI H2	8293654	0.91	9196623	90.18	60	120	
Sc (IS)	45	2	HMI He	443600	0.42	531422	83.47	60	120	
Sc (IS)	45	3	No Gas	15485476	0.13	18746179	82.61	60	120	
Ge Internal standard	72	1	HMI H2	3535716	1.44	3833850	92.22	60	120	
Ge Internal standard	72	2	HMI He	458095	0.70	524481	87.34	60	120	
In Internal standard	115	2	HMI He	1235452	0.91	1492548	82.77	60	120	
Ho-165	165	2	HMI He	6191575	0.60	6759932	91.59	60	120	
Ir (IS)	193	2	HMI He	5283270	1.06	5766680	91.62	60	120	

Sample Report

Sample Table

Sample Name	280-191107-b-2-a
Data File Name	041SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T16:31:07-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652548 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	17.306	ppb	17.306	10.88	1289270	50000	
Be	9	1	6	2.115	ppb	2.115	13.87	570	2000	
B	11	1	6	95.320	ppb	95.320	1.82	18200	2000	
Na	23	2	45	98522.442	ppb	98522.442	1.15	14957030	400000	
Mg	24	2	45	20219.790	ppb	20219.790	0.68	1402348	400000	
Al	27	2	45	2012.319	ppb	2012.319	1.17	33597	400000	
Si	28	1	45	10497.615	ppb	10497.615	0.86	4986943	10000	
P	31	2	45	525.699	ppb	525.699	6.60	843	10000	
K	39	2	45	5361.578	ppb	5361.578	2.16	209334	400000	
Ca	40	1	45	86892.441	ppb	86892.441	1.35	141114261	400000	
Ti	47	2	45	8.308	ppb	8.308	13.50	117	4000	
V	51	2	72	0.743	ppb	0.743	55.83	1847	2000	
Cr	52	2	72	-0.018	ppb	-0.018	-512.08	1323	5000	
Mn	55	2	72	3876.039	ppb	3876.039	0.63	1195207	10000	
Fe	56	1	72	644.036	ppb	644.036	1.57	1678324	10000	
(Fe)	57	2	72	633.884	ppb	633.884	2.88	9136	400000	
Co	59	2	72	7.371	ppb	7.371	0.66	9363	2000	
Ni	60	2	72	21.368	ppb	21.368	7.73	7906	5000	
Cu	63	2	72	14.737	ppb	14.737	3.75	14430	5000	
Zn	66	2	72	340.627	ppb	340.627	0.24	49836	5000	
As	75	2	72	0.770	ppb	0.770	19.66	134	2000	
Se	78	1	72	0.579	ppb	0.579	22.08	61	2000	
Sr	88	2	72	928.005	ppb	928.005	0.98	241034	4000	
Zr	90	2	72	10.367	ppb	10.367	109.00	320	1000	
Mo	95	2	115	1.332	ppb	1.332	12.19	580	2000	
Ag	107	2	115	0.001	ppb	0.001	1419.34	27	100	
Cd	111	2	115	2.298	ppb	2.298	4.55	390	2000	
Sn	120	2	115	0.314	ppb	0.314	57.26	307	2000	
Sb	121	2	115	0.141	ppb	0.141	60.04	90	1000	
Ba	137	2	115	55.854	ppb	55.854	5.22	7015	5000	
W	182	2	165	0.160	ppb	0.160	14.92	517	100	
Tl	205	2	165	-0.069	ppb	-0.069	-44.38	273	2000	
Pb	208	2	165	1.031	ppb	1.031	4.62	5824	5000	
Th	232	2	193	0.231	ppb	0.231	16.93	5351	2000	
U	238	2	193	1.422	ppb	1.422	6.67	10444	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	214812	0.85	252517	85.07	60	120	
Sc(IS)	45	1	HMI H2	8085827	0.64	9196623	87.92	60	120	
Sc (IS)	45	2	HMI He	453253	1.08	531422	85.29	60	120	
Sc (IS)	45	3	No Gas	16028081	0.98	18746179	85.50	60	120	
Ge Internal standard	72	1	HMI H2	3460907	0.71	3833850	90.27	60	120	
Ge Internal standard	72	2	HMI He	465400	0.65	524481	88.74	60	120	
In Internal standard	115	2	HMI He	1236370	0.59	1492548	82.84	60	120	
Ho-165	165	2	HMI He	6176346	0.90	6759932	91.37	60	120	
Ir (IS)	193	2	HMI He	5256458	1.85	5766680	91.15	60	120	

Sample Report

Sample Table

Sample Name	280-191107-b-3-a
Data File Name	042SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T16:34:41-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652548 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	11.112	ppb	11.112	10.85	1211135	50000	
Be	9	1	6	0.120	ppb	0.120	63.67	57	2000	
B	11	1	6	29.036	ppb	29.036	4.37	6268	2000	
Na	23	2	45	17694.785	ppb	17694.785	1.43	2673163	400000	
Mg	24	2	45	6962.246	ppb	6962.246	0.24	477263	400000	
Al	27	2	45	142.450	ppb	142.450	1.72	2397	400000	
Si	28	1	45	7037.338	ppb	7037.338	1.22	3319806	10000	
P	31	2	45	44.451	ppb	44.451	15.13	120	10000	
K	39	2	45	1859.868	ppb	1859.868	2.37	86594	400000	
Ca	40	1	45	31445.762	ppb	31445.762	0.93	50631618	400000	
Ti	47	2	45	3.602	ppb	3.602	20.11	50	4000	
V	51	2	72	1.600	ppb	1.600	11.96	2350	2000	
Cr	52	2	72	-0.137	ppb	-0.137	-24.70	1223	5000	
Mn	55	2	72	68.636	ppb	68.636	2.36	21208	10000	
Fe	56	1	72	217.205	ppb	217.205	0.83	572327	10000	
(Fe)	57	2	72	222.749	ppb	222.749	4.70	3334	400000	
Co	59	2	72	0.220	ppb	0.220	33.13	327	2000	
Ni	60	2	72	0.528	ppb	0.528	42.62	330	5000	
Cu	63	2	72	0.920	ppb	0.920	14.22	1180	5000	
Zn	66	2	72	5.033	ppb	5.033	1.08	940	5000	
As	75	2	72	0.611	ppb	0.611	22.19	117	2000	
Se	78	1	72	0.330	ppb	0.330	40.31	37	2000	
Sr	88	2	72	208.460	ppb	208.460	0.80	53964	4000	
Zr	90	2	72	17.813	ppb	17.813	29.54	360	1000	
Mo	95	2	115	0.999	ppb	0.999	18.77	453	2000	
Ag	107	2	115	-0.012	ppb	-0.012	-66.21	10	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.356	ppb	0.356	33.82	323	2000	
Sb	121	2	115	0.181	ppb	0.181	64.64	107	1000	
Ba	137	2	115	31.740	ppb	31.740	7.75	3981	5000	
W	182	2	165	0.082	ppb	0.082	12.13	377	100	
Tl	205	2	165	-0.062	ppb	-0.062	-45.31	297	2000	
Pb	208	2	165	0.189	ppb	0.189	31.13	1790	5000	
Th	232	2	193	0.183	ppb	0.183	29.07	5114	2000	
U	238	2	193	1.242	ppb	1.242	5.37	9373	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	215386	1.87	252517	85.30	60	120	
Sc(IS)	45	1	HMI H2	8012844	0.77	9196623	87.13	60	120	
Sc (IS)	45	2	HMI He	447900	0.66	531422	84.28	60	120	
Sc (IS)	45	3	No Gas	15787071	0.53	18746179	84.21	60	120	
Ge Internal standard	72	1	HMI H2	3392418	0.77	3833850	88.49	60	120	
Ge Internal standard	72	2	HMI He	463810	0.34	524481	88.43	60	120	
In Internal standard	115	2	HMI He	1233110	0.43	1492548	82.62	60	120	
Ho-165	165	2	HMI He	6148120	0.66	6759932	90.95	60	120	
Ir (IS)	193	2	HMI He	5286028	1.26	5766680	91.67	60	120	

Sample Report

Sample Table

Sample Name	280-191107-b-4-a
Data File Name	043SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T16:38:14-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652548 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	13.889	ppb	13.889	21.76	1226755	50000	
Be	9	1	6	0.205	ppb	0.205	11.65	77	2000	
B	11	1	6	30.227	ppb	30.227	4.74	6325	2000	
Na	23	2	45	22688.370	ppb	22688.370	0.97	3372279	400000	
Mg	24	2	45	8879.252	ppb	8879.252	0.44	599906	400000	
Al	27	2	45	190.968	ppb	190.968	2.00	3150	400000	
Si	28	1	45	8328.840	ppb	8328.840	0.84	3887340	10000	
P	31	2	45	58.383	ppb	58.383	10.35	139	10000	
K	39	2	45	2119.495	ppb	2119.495	0.69	94141	400000	
Ca	40	1	45	59904.655	ppb	59904.655	0.89	95483455	400000	
Ti	47	2	45	8.514	ppb	8.514	58.07	117	4000	
V	51	2	72	1.742	ppb	1.742	15.06	2397	2000	
Cr	52	2	72	0.453	ppb	0.453	20.86	1667	5000	
Mn	55	2	72	97.011	ppb	97.011	0.86	29470	10000	
Fe	56	1	72	295.492	ppb	295.492	0.36	760182	10000	
(Fe)	57	2	72	296.145	ppb	296.145	3.80	4297	400000	
Co	59	2	72	0.234	ppb	0.234	3.27	340	2000	
Ni	60	2	72	0.860	ppb	0.860	27.00	443	5000	
Cu	63	2	72	0.872	ppb	0.872	16.27	1117	5000	
Zn	66	2	72	7.816	ppb	7.816	4.70	1323	5000	
As	75	2	72	0.558	ppb	0.558	33.57	110	2000	
Se	78	1	72	0.379	ppb	0.379	58.07	41	2000	
Sr	88	2	72	911.392	ppb	911.392	0.90	232314	4000	
Zr	90	2	72	16.969	ppb	16.969	114.42	350	1000	
Mo	95	2	115	2.506	ppb	2.506	3.61	1010	2000	
Ag	107	2	115	0.002	ppb	0.002	1131.29	27	100	
Cd	111	2	115	0.100	ppb	0.100	91.99	17	2000	
Sn	120	2	115	0.572	ppb	0.572	11.93	410	2000	
Sb	121	2	115	0.128	ppb	0.128	65.15	83	1000	
Ba	137	2	115	34.295	ppb	34.295	6.11	4257	5000	
W	182	2	165	0.116	ppb	0.116	18.26	430	100	
Tl	205	2	165	-0.071	ppb	-0.071	-12.13	260	2000	
Pb	208	2	165	0.204	ppb	0.204	2.75	1833	5000	
Th	232	2	193	0.212	ppb	0.212	8.79	5171	2000	
U	238	2	193	2.220	ppb	2.220	1.98	15185	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	210239	0.75	252517	83.26	60	120	
Sc(IS)	45	1	HMI H2	7935086	0.88	9196623	86.28	60	120	
Sc (IS)	45	2	HMI He	441485	0.60	531422	83.08	60	120	
Sc (IS)	45	3	No Gas	15653604	1.76	18746179	83.50	60	120	
Ge Internal standard	72	1	HMI H2	3352923	0.63	3833850	87.46	60	120	
Ge Internal standard	72	2	HMI He	456723	0.22	524481	87.08	60	120	
In Internal standard	115	2	HMI He	1220263	0.71	1492548	81.76	60	120	
Ho-165	165	2	HMI He	6058097	0.23	6759932	89.62	60	120	
Ir (IS)	193	2	HMI He	5179058	0.13	5766680	89.81	60	120	

Sample Report

Sample Table

Sample Name	280-191107-b-5-a
Data File Name	044SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T16:41:48-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652548 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	2.065	ppb	2.065	28.61	1126772	50000	
Be	9	1	6	0.442	ppb	0.442	69.20	140	2000	
B	11	1	6	10.760	ppb	10.760	12.53	2970	2000	
Na	23	2	45	4722.141	ppb	4722.141	0.48	730619	400000	
Mg	24	2	45	1292.276	ppb	1292.276	1.42	88813	400000	
Al	27	2	45	246.026	ppb	246.026	3.51	4107	400000	
Si	28	1	45	4976.764	ppb	4976.764	0.94	2314712	10000	
P	31	2	45	12.010	ppb	12.010	22.04	72	10000	
K	39	2	45	1183.861	ppb	1183.861	2.29	63419	400000	
Ca	40	1	45	7435.879	ppb	7435.879	0.32	11801871	400000	
Ti	47	2	45	5.517	ppb	5.517	7.67	77	4000	
V	51	2	72	0.945	ppb	0.945	13.43	1944	2000	
Cr	52	2	72	-0.313	ppb	-0.313	-54.58	1073	5000	
Mn	55	2	72	38.473	ppb	38.473	1.83	11831	10000	
Fe	56	1	72	456.521	ppb	456.521	2.40	1167195	10000	
(Fe)	57	2	72	433.668	ppb	433.668	4.50	6238	400000	
Co	59	2	72	0.102	ppb	0.102	36.97	177	2000	
Ni	60	2	72	0.454	ppb	0.454	25.07	300	5000	
Cu	63	2	72	2.604	ppb	2.604	4.21	2764	5000	
Zn	66	2	72	5.117	ppb	5.117	21.73	943	5000	
As	75	2	72	0.105	ppb	0.105	189.71	64	2000	
Se	78	1	72	0.142	ppb	0.142	53.20	20	2000	
Sr	88	2	72	42.959	ppb	42.959	1.67	11021	4000	
Zr	90	2	72	30.648	ppb	30.648	89.22	427	1000	
Mo	95	2	115	0.437	ppb	0.437	35.03	243	2000	
Ag	107	2	115	0.009	ppb	0.009	49.38	37	100	
Cd	111	2	115	0.020	ppb	0.020	173.21	3	2000	
Sn	120	2	115	0.357	ppb	0.357	55.40	327	2000	
Sb	121	2	115	0.101	ppb	0.101	94.92	73	1000	
Ba	137	2	115	43.064	ppb	43.064	5.82	5441	5000	
W	182	2	165	0.028	ppb	0.028	119.22	280	100	
Tl	205	2	165	-0.069	ppb	-0.069	-29.50	273	2000	
Pb	208	2	165	0.299	ppb	0.299	17.06	2314	5000	
Th	232	2	193	0.297	ppb	0.297	8.21	5731	2000	
U	238	2	193	0.108	ppb	0.108	17.72	2274	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	216035	0.87	252517	85.55	60	120	
Sc(IS)	45	1	HMI H2	7878695	0.74	9196623	85.67	60	120	
Sc (IS)	45	2	HMI He	448318	0.45	531422	84.36	60	120	
Sc (IS)	45	3	No Gas	15809324	1.10	18746179	84.33	60	120	
Ge Internal standard	72	1	HMI H2	3373469	1.16	3833850	87.99	60	120	
Ge Internal standard	72	2	HMI He	459566	0.48	524481	87.62	60	120	
In Internal standard	115	2	HMI He	1243191	0.58	1492548	83.29	60	120	
Ho-165	165	2	HMI He	6155193	0.95	6759932	91.05	60	120	
Ir (IS)	193	2	HMI He	5263436	0.39	5766680	91.27	60	120	

Sample Report

Sample Table

Sample Name	280-191107-b-6-a
Data File Name	045SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T16:45:22-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652548 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	74.259	ppb	74.259	0.49	1757768	50000	
Be	9	1	6	2.503	ppb	2.503	17.34	630	2000	
B	11	1	6	105.766	ppb	105.766	2.43	18914	2000	
Na	23	2	45	83735.709	ppb	83735.709	1.09	12076126	400000	
Mg	24	2	45	34341.202	ppb	34341.202	0.75	2261605	400000	
Al	27	2	45	186.066	ppb	186.066	2.31	2994	400000	
Si	28	1	45	22444.769	ppb	22444.769	1.33	10260288	10000	
P	31	2	45	8.915	ppb	8.915	98.61	65	10000	
K	39	2	45	4739.563	ppb	4739.563	1.73	178268	400000	
Ca	40	1	45	485373.785	ppb	485373.785	0.79	760055669	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.273	ppb	-0.273	-120.24	1177	2000	
Cr	52	2	72	-0.065	ppb	-0.065	-546.77	1217	5000	
Mn	55	2	72	898.619	ppb	898.619	0.18	262804	10000	
Fe	56	1	72	860.339	ppb	860.339	0.42	2109503	10000	
(Fe)	57	2	72	879.622	ppb	879.622	4.67	11941	400000	
Co	59	2	72	0.723	ppb	0.723	28.07	913	2000	
Ni	60	2	72	1.669	ppb	1.669	6.94	707	5000	
Cu	63	2	72	0.221	ppb	0.221	29.59	487	5000	
Zn	66	2	72	95.872	ppb	95.872	3.82	13439	5000	
As	75	2	72	2.824	ppb	2.824	4.45	329	2000	
Se	78	1	72	0.210	ppb	0.210	55.16	25	2000	
Sr	88	2	72	11884.509	ppb	11884.509	0.22	2926576	4000	
Zr	90	2	72	11.652	ppb	11.652	95.75	310	1000	
Mo	95	2	115	15.236	ppb	15.236	5.38	5608	2000	
Ag	107	2	115	0.005	ppb	0.005	344.18	30	100	
Cd	111	2	115	0.163	ppb	0.163	56.75	27	2000	
Sn	120	2	115	0.483	ppb	0.483	64.53	363	2000	
Sb	121	2	115	0.732	ppb	0.732	37.64	327	1000	
Ba	137	2	115	9.870	ppb	9.870	17.57	1200	5000	
W	182	2	165	0.199	ppb	0.199	13.70	567	100	
Tl	205	2	165	-0.072	ppb	-0.072	-26.23	253	2000	
Pb	208	2	165	0.534	ppb	0.534	12.49	3334	5000	
Th	232	2	193	0.120	ppb	0.120	46.93	4534	2000	
U	238	2	193	14.739	ppb	14.739	1.47	89429	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	202345	1.98	252517	80.13	60	120	
Sc(IS)	45	1	HMI H2	7797818	0.64	9196623	84.79	60	120	
Sc (IS)	45	2	HMI He	430448	1.41	531422	81.00	60	120	
Sc (IS)	45	3	No Gas	15322920	0.73	18746179	81.74	60	120	
Ge Internal standard	72	1	HMI H2	3269301	0.76	3833850	85.27	60	120	
Ge Internal standard	72	2	HMI He	441235	0.87	524481	84.13	60	120	
In Internal standard	115	2	HMI He	1189172	0.90	1492548	79.67	60	120	
Ho-165	165	2	HMI He	5970543	0.40	6759932	88.32	60	120	
Ir (IS)	193	2	HMI He	5038053	0.43	5766680	87.36	60	120	

Sample Report

Sample Table

Sample Name	280-191119-a-5-a
Data File Name	046SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T16:48:55-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652548 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	-0.527	ppb	-0.527	-258.57	1072741	50000	
Be	9	1	6	-0.059	ppb	-0.059	-116.85	10	2000	
B	11	1	6	11.026	ppb	11.026	16.65	2914	2000	
Na	23	2	45	490.592	ppb	490.592	1.16	94603	400000	
Mg	24	2	45	12368.898	ppb	12368.898	0.97	835055	400000	
Al	27	2	45	55.274	ppb	55.274	11.63	947	400000	
Si	28	1	45	4158.866	ppb	4158.866	0.67	1903274	10000	
P	31	2	45	19.633	ppb	19.633	24.48	82	10000	
K	39	2	45	755.190	ppb	755.190	3.22	47905	400000	
Ca	40	1	45	23525.211	ppb	23525.211	1.35	36594124	400000	
Ti	47	2	45	0.733	ppb	0.733	99.97	10	4000	
V	51	2	72	-0.314	ppb	-0.314	-35.49	1197	2000	
Cr	52	2	72	0.379	ppb	0.379	28.36	1610	5000	
Mn	55	2	72	1.375	ppb	1.375	31.81	533	10000	
Fe	56	1	72	70.019	ppb	70.019	1.16	197667	10000	
(Fe)	57	2	72	79.032	ppb	79.032	3.25	1297	400000	
Co	59	2	72	0.038	ppb	0.038	44.18	97	2000	
Ni	60	2	72	0.207	ppb	0.207	96.73	210	5000	
Cu	63	2	72	0.092	ppb	0.092	64.40	383	5000	
Zn	66	2	72	1.774	ppb	1.774	14.33	460	5000	
As	75	2	72	0.231	ppb	0.231	51.53	76	2000	
Se	78	1	72	0.162	ppb	0.162	58.87	21	2000	
Sr	88	2	72	16.991	ppb	16.991	8.37	4337	4000	
Zr	90	2	72	-4.028	ppb	-4.028	-192.60	237	1000	
Mo	95	2	115	0.190	ppb	0.190	57.55	147	2000	
Ag	107	2	115	-0.007	ppb	-0.007	-260.99	17	100	
Cd	111	2	115	0.020	ppb	0.020	173.21	3	2000	
Sn	120	2	115	0.310	ppb	0.310	29.17	300	2000	
Sb	121	2	115	0.056	ppb	0.056	66.26	53	1000	
Ba	137	2	115	74.831	ppb	74.831	2.64	9250	5000	
W	182	2	165	0.055	ppb	0.055	144.46	327	100	
Tl	205	2	165	-0.078	ppb	-0.078	-12.18	240	2000	
Pb	208	2	165	0.045	ppb	0.045	97.03	1093	5000	
Th	232	2	193	0.114	ppb	0.114	42.28	4731	2000	
U	238	2	193	1.071	ppb	1.071	3.99	8323	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	208714	1.18	252517	82.65	60	120	
Sc(IS)	45	1	HMI H2	7739079	0.49	9196623	84.15	60	120	
Sc (IS)	45	2	HMI He	441190	0.37	531422	83.02	60	120	
Sc (IS)	45	3	No Gas	15386775	0.99	18746179	82.08	60	120	
Ge Internal standard	72	1	HMI H2	3313076	1.13	3833850	86.42	60	120	
Ge Internal standard	72	2	HMI He	457066	0.70	524481	87.15	60	120	
In Internal standard	115	2	HMI He	1216878	0.91	1492548	81.53	60	120	
Ho-165	165	2	HMI He	6109556	1.06	6759932	90.38	60	120	
Ir (IS)	193	2	HMI He	5293411	0.24	5766680	91.79	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-8327972
Data File Name	047_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T16:52:29-06:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	6	50.312	ppb	3.295	12365	50	100.6	90	110	
Na	23	2	45	49920.909	ppb	0.644	7403391	51000	97.9	90	110	
Mg	24	2	45	10377.850	ppb	0.894	702048	11000	94.3	90	110	
Al	27	2	45	1005.896	ppb	1.660	16405	1000	100.6	90	110	
Si	28	1	45	2602.689	ppb	3.526	1206811	2500	104.1	90	110	
K	39	2	45	10467.055	ppb	1.632	377290	11000	95.2	90	110	
Ca	40	1	45	10646.027	ppb	0.701	16694841	11000	96.8	90	110	
Ti	47	2	45	53.726	ppb	16.770	737	50	107.5	90	110	
V	51	2	72	49.156	ppb	2.891	30021	50	98.3	90	110	
Cr	52	2	72	49.071	ppb	2.885	39641	50	98.1	90	110	
Mn	55	2	72	48.729	ppb	2.498	14820	50	97.5	90	110	
Fe	56	1	72	1033.919	ppb	0.817	2549509	1000	103.4	90	110	
Co	59	2	72	49.591	ppb	2.441	61367	50	99.2	90	110	
Ni	60	2	72	48.694	ppb	2.243	17453	50	97.4	90	110	
Cu	63	2	72	50.287	ppb	0.706	47482	50	100.6	90	110	
Zn	66	2	72	51.690	ppb	1.727	7575	50	103.4	90	110	
As	75	2	72	51.274	ppb	0.880	5266	50	102.5	90	110	
Se	78	1	72	49.617	ppb	8.375	4415	50	99.2	90	110	
Sr	88	2	72	102.440	ppb	0.623	26042	100	102.4	90	110	
Zr	90	2	72	27.757	ppb	65.362	407	50	55.5	90	110	>+\-10%
Mo	95	2	115	52.256	ppb	0.769	19900	50	104.5	90	110	
Ag	107	2	115	52.128	ppb	0.428	64276	50	104.3	90	110	
Cd	111	2	115	54.744	ppb	2.050	9336	50	109.5	90	110	
Sn	120	2	115	54.340	ppb	3.050	23178	50	108.7	90	110	
Sb	121	2	115	54.747	ppb	2.540	23301	50	109.5	90	110	
Ba	137	2	115	53.106	ppb	3.446	6702	50	106.2	90	110	
W	182	2	165	53.177	ppb	1.280	93882	50	106.4	90	110	
Tl	205	2	165	51.857	ppb	0.957	184788	50	103.7	90	110	
Pb	208	2	165	51.616	ppb	0.937	244653	50	103.2	90	110	
Th	232	2	193	50.624	ppb	0.579	284104	50	101.2	90	110	
U	238	2	193	51.071	ppb	0.484	315383	50	102.1	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	204634	0.54	252517	81.04	60	120	
Sc(IS)	45	1	HMI H2	7792237	0.67	9196623	84.73	60	120	
Sc (IS)	45	2	HMI He	442077	0.83	531422	83.19	60	120	
Sc (IS)	45	3	No Gas	15577251	0.60	18746179	83.10	60	120	
Ge Internal standard	72	1	HMI H2	3294691	0.71	3833850	85.94	60	120	
Ge Internal standard	72	2	HMI He	455444	0.44	524481	86.84	60	120	
In Internal standard	115	2	HMI He	1242143	1.13	1492548	83.22	60	120	
Ho-165	165	2	HMI He	6094254	0.50	6759932	90.15	60	120	
Ir (IS)	193	2	HMI He	5190783	0.66	5766680	90.01	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-8327938
Data File Name	048_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T16:56:26-06:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-1.055	ppb	-31.6	1086857	10	
Be	9	1	6	-0.046	ppb	-129.0	13	0.5	
B	11	1	6	19.566	ppb	10.0	4424	0.5	>RL
Na	23	2	45	15.128	ppb	30.0	24896	25	
Mg	24	2	45	2.318	ppb	40.4	337	25	
Al	27	2	45	1.993	ppb	63.7	83	15	
Si	28	1	45	61.795	ppb	2.9	48486	1	>RL
K	39	2	45	2.177	ppb	830.6	22840	50	
Ca	40	1	45	4.493	ppb	5.6	44382	200	
(Ca)	44	1	45	4.286	ppb	6.9	1130	200	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	-0.714	ppb	-12.8	950	1	
Cr	52	2	72	-0.197	ppb	-37.0	1143	1	
Mn	55	2	72	0.029	ppb	573.3	123	0.5	
Fe	56	1	72	1.113	ppb	55.5	28001	50	
(Fe)	57	2	72	-1.766	ppb	-205.0	177	25	
Co	59	2	72	0.026	ppb	31.8	80	0.5	
Ni	60	2	72	0.091	ppb	111.3	167	1	
Cu	63	2	72	-0.017	ppb	-166.4	277	1	
Zn	66	2	72	-0.167	ppb	-220.0	180	5	
As	75	2	72	-0.247	ppb	-20.7	27	1	
Se	78	1	72	0.014	ppb	12.2	8	1	
Sr	88	2	72	0.214	ppb	10.4	57	0.5	
Zr	90	2	72	4.673	ppb	149.0	280	1	>RL
Mo	95	2	115	0.015	ppb	675.5	83	0.5	
Ag	107	2	115	0.012	ppb	119.8	40	1	
Cd	111	2	115	0.078	ppb	44.0	13	0.5	
Sn	120	2	115	0.323	ppb	14.7	313	1	
Sb	121	2	115	0.224	ppb	65.4	127	0.6	
Ba	137	2	115	0.070	ppb	2.6	20	0.5	
W	182	2	165	0.355	ppb	15.8	863	1	
Tl	205	2	165	-0.044	ppb	-46.7	363	0.1	
Pb	208	2	165	0.000	ppb	4056.5	893	0.5	
Th	232	2	193	0.615	ppb	9.0	7602	1	
U	238	2	193	0.037	ppb	91.2	1850	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	209415	1.42	252517	82.93	60	120	
Sc(IS)	45	1	HMI H2	7769455	2.10	9196623	84.48	60	120	
Sc (IS)	45	2	HMI He	449332	0.22	531422	84.55	60	120	
Sc (IS)	45	3	No Gas	15661423	1.04	18746179	83.54	60	120	
Ge Internal standard	72	1	HMI H2	3256621	1.86	3833850	84.94	60	120	
Ge Internal standard	72	2	HMI He	451082	0.35	524481	86.01	60	120	
In Internal standard	115	2	HMI He	1248447	1.17	1492548	83.65	60	120	
Ho-165	165	2	HMI He	6176610	1.82	6759932	91.37	60	120	
Ir (IS)	193	2	HMI He	5322898	0.87	5766680	92.30	60	120	

Blank Report

Sample Table

Sample Name	mb 280-652543/1-a
Data File Name	049_BLK.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T17:00:01-06:00
Sample Type	Blank
Dilution	1
Comment	652543 SOIL 6020B
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	3	45	-0.859	ppb	-177.4766534	1076826	10
Be	9	1	6	0.034	ppb	240.7961006	33	0.5
B	11	1	6	6.592	ppb	22.59340021	2124	0.5
Na	23	2	45	68.520	ppb	9.859536708	32057	25
Mg	24	2	45	22.360	ppb	6.066670843	1670	25
Al	27	2	45	13.945	ppb	45.57365296	273	15
K	39	2	45	41.217	ppb	67.86524609	23551	50
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5
V	51	2	72	-0.288	ppb	-26.13337203	1190	1
Cr	52	2	72	1.307	ppb	28.40367678	2297	1
Mn	55	2	72	0.399	ppb	80.49570367	233	0.5
(Fe)	57	2	72	22.324	ppb	21.03946965	503	25
Co	59	2	72	0.059	ppb	37.14383472	120	0.5
Ni	60	2	72	0.425	ppb	53.35006455	283	1
Cu	63	2	72	1.418	ppb	15.63003293	1603	1
Zn	66	2	72	1.832	ppb	33.66594442	460	5
As	75	2	72	-0.147	ppb	-47.55250735	37	1
Se	78	1	72	0.029	ppb	93.63107497	9	1
Sr	88	2	72	0.946	ppb	20.84576619	240	0.5
Zr	90	2	72	9.936	ppb	144.4655814	307	1
Mo	95	2	115	0.251	ppb	21.99925719	170	0.5
Ag	107	2	115	0.004	ppb	333.2006405	30	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	18.530	ppb	3.158490347	7896	1
Sb	121	2	115	0.032	ppb	155.7267362	43	0.6
Ba	137	2	115	0.665	ppb	19.21363841	93	0.5
W	182	2	165	0.162	ppb	27.25001344	510	1
Tl	205	2	165	-0.057	ppb	-11.84391649	310	0.1
Pb	208	2	165	0.136	ppb	9.611609928	1507	0.5
Th	232	2	193	0.602	ppb	9.107981412	7446	1
U	238	2	193	0.037	ppb	59.07083971	1834	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	207318	2.19	252517	82.10	60	120	
Sc(IS)	45	1	HMI H2	7587953	1.95	9196623	82.51	60	120	
Sc (IS)	45	2	HMI He	437638	0.68	531422	82.35	60	120	
Sc (IS)	45	3	No Gas	15491691	1.01	18746179	82.64	60	120	
Ge Internal standard	72	1	HMI H2	3265647	1.34	3833850	85.18	60	120	
Ge Internal standard	72	2	HMI He	449041	0.62	524481	85.62	60	120	
In Internal standard	115	2	HMI He	1222600	0.81	1492548	81.91	60	120	
Ho-165	165	2	HMI He	6041111	1.69	6759932	89.37	60	120	
Ir (IS)	193	2	HMI He	5262262	1.46	5766680	91.25	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	lcs 280-652543/2-a
Data File Name	050LCS.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T17:03:36-06:00
Sample Type	LCS-s
Dilution	1
Analyst	Denver Metals
Comment	652543 SOIL 6020B
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Be	9	1	6	188.728	188.728	ppb	0.833	46704	200	94.4	80	120	
Na	23	2	45	4966.922	4966.922	ppb	0.551	748847	200	2483.5	80	120	NewName Main CR1 Failed
Mg	24	2	45	4887.976	4887.976	ppb	0.690	327359	200000	2.4	80	120	NewName Main CR1 Failed
Al	27	2	45	3998.454	3998.454	ppb	0.830	64395	200000	2.0	80	120	NewName Main CR1 Failed
K	39	2	45	4732.270	4732.270	ppb	1.419	180966	200000	2.4	80	120	NewName Main CR1 Failed
V	51	2	72	188.177	188.177	ppb	1.946	110760	200	94.1	80	120	
Cr	52	2	72	192.046	192.046	ppb	1.950	150933	200	96.0	80	120	
(Cr)	53	2	72	194.306	194.306	ppb	3.957	18751	200	97.2	80	120	
Mn	55	2	72	186.981	186.981	ppb	1.614	56389	200	93.5	80	120	
(Fe)	57	2	72	3933.051	3933.051	ppb	1.821	54282	200000	2.0	80	120	NewName Main CR1 Failed
Co	59	2	72	189.820	189.820	ppb	1.372	234133	200	94.9	80	120	
Ni	60	2	72	186.117	186.117	ppb	1.677	66152	200	93.1	80	120	
Cu	63	2	72	193.498	193.498	ppb	1.442	181396	200	96.7	80	120	
Zn	66	2	72	184.687	184.687	ppb	1.620	26469	200	92.3	80	120	
As	75	2	72	188.644	188.644	ppb	0.149	19185	200	94.3	80	120	
Se	78	1	72	185.627	185.627	ppb	2.298	16718	200	92.8	80	120	
(Se)	82	1	72	-88.816	-88.816	ppb	-3.897	13142	200	-44.4	80	120	NewName Main CR1 Failed
Mo	95	2	115	203.222	203.222	ppb	1.021	74897	200	101.6	80	120	
Ag	107	2	115	212.292	212.292	ppb	0.891	254000	200	106.1	80	120	
Cd	111	2	115	204.216	204.216	ppb	0.945	33800	200	102.1	80	120	
(Cd)	114	2	115	211.560	211.560	ppb	1.230	87680	200	105.8	80	120	
Sn	120	2	115	221.986	221.986	ppb	1.455	91394	200	111.0	80	120	
Sb	121	2	115	212.438	212.438	ppb	0.699	87661	200	106.2	80	110	
Ba	137	2	115	211.977	211.977	ppb	4.105	25939	200	106.0	80	120	
W	182	2	165	0.187	0.187	ppb	16.988	550	200	0.1	80	120	NewName Main CR1 Failed
Tl	205	2	165	200.897	200.897	ppb	0.519	704606	200	100.4	80	120	
(Pb)	206	2	165	207.056	207.056	ppb	0.803	238275	200	103.5	80	120	
(Pb)	207	2	165	199.053	199.053	ppb	0.789	202504	200	99.5	80	120	
Pb	208	2	165	202.190	202.190	ppb	0.274	942701	200	101.1	80	120	
Th	232	2	193	188.316	188.316	ppb	1.070	1054639	200	94.2	80	120	
U	238	2	193	189.876	189.876	ppb	1.243	1177951	200	94.9	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	206362	1.54	252517	81.72	60	120	
Sc(IS)	45	1	HMI H2	7702985	1.49	9196623	83.76	60	120	
Sc (IS)	45	2	HMI He	437538	1.16	531422	82.33	60	120	
Sc (IS)	45	3	No Gas	15293085	0.51	18746179	81.58	60	120	
Ge Internal standard	72	1	HMI H2	3336942	0.73	3833850	87.04	60	120	
Ge Internal standard	72	2	HMI He	454282	0.37	524481	86.62	60	120	
In Internal standard	115	2	HMI He	1205636	0.25	1492548	80.78	60	120	
Ho-165	165	2	HMI He	6010718	0.90	6759932	88.92	60	120	
Ir (IS)	193	2	HMI He	5234197	1.06	5766680	90.77	60	120	

Sample Report

Sample Table

Sample Name	280-191122-a-1-a
Data File Name	051SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T17:07:10-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652543 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	41.438	ppb	41.438	3.96	1483627	50000	
Be	9	1	6	2.966	ppb	2.966	3.28	770	2000	
B	11	1	6	23.783	ppb	23.783	8.37	5174	2000	
Na	23	2	45	1232.039	ppb	1232.039	0.84	203208	400000	
Mg	24	2	45	13516.570	ppb	13516.570	0.40	908894	400000	
Al	27	2	45	33260.147	ppb	33260.147	0.56	537678	400000	
Si	28	1	45	2540.894	ppb	2540.894	4.70	1180611	10000	
P	31	2	45	2331.012	ppb	2331.012	1.32	3445	10000	
K	39	2	45	5424.884	ppb	5424.884	1.17	205115	400000	
Ca	40	1	45	10669.606	ppb	10669.606	2.47	16757686	400000	
Ti	47	2	45	2489.116	ppb	2489.116	2.59	33902	4000	
V	51	2	72	151.588	ppb	151.588	2.87	86874	2000	
Cr	52	2	72	891.314	ppb	891.314	0.65	675428	5000	
Mn	55	2	72	1662.572	ppb	1662.572	0.95	485880	10000	
Fe	56	1	72	187286.513	ppb	187286.513	1.62	451400420	10000	>LDR
(Fe)	57	2	72	207367.530	ppb	207367.530	0.35	2768399	400000	
Co	59	2	72	29.940	ppb	29.940	2.70	35890	2000	
Ni	60	2	72	470.998	ppb	470.998	0.28	162327	5000	
Cu	63	2	72	494.616	ppb	494.616	0.78	449706	5000	
Zn	66	2	72	1231.173	ppb	1231.173	0.85	170177	5000	
As	75	2	72	318.832	ppb	318.832	0.67	31444	2000	
Se	78	1	72	1.063	ppb	1.063	27.03	100	2000	
Sr	88	2	72	196.544	ppb	196.544	0.95	48380	4000	
Zr	90	2	72	2509.563	ppb	2509.563	1.19	13316	1000	
Mo	95	2	115	73.304	ppb	73.304	1.41	27380	2000	
Ag	107	2	115	74.602	ppb	74.602	0.29	90323	100	
Cd	111	2	115	1.671	ppb	1.671	39.01	280	2000	
Sn	120	2	115	37.392	ppb	37.392	0.87	15718	2000	
Sb	121	2	115	7.477	ppb	7.477	3.97	3150	1000	
Ba	137	2	115	403.313	ppb	403.313	1.51	49917	5000	
W	182	2	165	12.836	ppb	12.836	1.02	23052	100	
Tl	205	2	165	0.424	ppb	0.424	12.24	2044	2000	
Pb	208	2	165	922.778	ppb	922.778	0.58	4400688	5000	
Th	232	2	193	34.469	ppb	34.469	1.56	201005	2000	
U	238	2	193	18.652	ppb	18.652	2.43	119922	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	209631	0.28	252517	83.02	60	120	
Sc(IS)	45	1	HMI H2	7804745	0.42	9196623	84.87	60	120	
Sc (IS)	45	2	HMI He	439442	0.90	531422	82.69	60	120	
Sc (IS)	45	3	No Gas	15622981	1.37	18746179	83.34	60	120	
Ge Internal standard	72	1	HMI H2	3252584	0.59	3833850	84.84	60	120	
Ge Internal standard	72	2	HMI He	441024	0.62	524481	84.09	60	120	
In Internal standard	115	2	HMI He	1219775	0.36	1492548	81.72	60	120	
Ho-165	165	2	HMI He	6152328	0.80	6759932	91.01	60	120	
Ir (IS)	193	2	HMI He	5359033	1.56	5766680	92.93	60	120	

Sample Report

Sample Table

Sample Name	280-191122-a-1-aSD@5
Data File Name	052SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T17:10:44-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652543 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	7.504	ppb	7.504	6.43	1195976	50000	
Be	9	1	6	0.595	ppb	0.595	23.11	180	2000	
B	11	1	6	7.831	ppb	7.831	8.96	2447	2000	
Na	23	2	45	244.702	ppb	244.702	2.79	59450	400000	
Mg	24	2	45	2673.356	ppb	2673.356	0.60	184152	400000	
Al	27	2	45	6556.121	ppb	6556.121	2.56	108502	400000	
Si	28	1	45	538.159	ppb	538.159	0.46	269322	10000	
P	31	2	45	488.383	ppb	488.383	6.17	782	10000	
K	39	2	45	1125.066	ppb	1125.066	2.73	61596	400000	
Ca	40	1	45	2195.481	ppb	2195.481	0.79	3518827	400000	
Ti	47	2	45	483.480	ppb	483.480	1.84	6742	4000	
V	51	2	72	27.266	ppb	27.266	0.41	17607	2000	
Cr	52	2	72	170.896	ppb	170.896	0.85	137451	5000	
Mn	55	2	72	323.807	ppb	323.807	1.12	99749	10000	
Fe	56	1	72	37729.608	ppb	37729.608	1.40	93599915	10000	
(Fe)	57	2	72	37765.021	ppb	37765.021	0.81	531087	400000	
Co	59	2	72	5.919	ppb	5.919	4.60	7512	2000	
Ni	60	2	72	91.757	ppb	91.757	1.57	33415	5000	
Cu	63	2	72	95.847	ppb	95.847	0.63	92011	5000	
Zn	66	2	72	241.561	ppb	241.561	0.94	35329	5000	
As	75	2	72	61.632	ppb	61.632	1.86	6444	2000	
Se	78	1	72	0.262	ppb	0.262	51.17	31	2000	
Sr	88	2	72	38.085	ppb	38.085	2.42	9873	4000	
Zr	90	2	72	512.005	ppb	512.005	8.89	3070	1000	
Mo	95	2	115	14.070	ppb	14.070	3.85	5381	2000	
Ag	107	2	115	14.969	ppb	14.969	0.15	18358	100	
Cd	111	2	115	0.395	ppb	0.395	75.83	67	2000	
Sn	120	2	115	7.507	ppb	7.507	11.86	3330	2000	
Sb	121	2	115	1.642	ppb	1.642	12.68	723	1000	
Ba	137	2	115	79.856	ppb	79.856	5.82	10014	5000	
W	182	2	165	2.648	ppb	2.648	6.09	4981	100	
Tl	205	2	165	0.023	ppb	0.023	119.63	610	2000	
Pb	208	2	165	177.352	ppb	177.352	0.37	854089	5000	
Th	232	2	193	6.990	ppb	6.990	0.64	44676	2000	
U	238	2	193	3.649	ppb	3.649	1.27	25119	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	216608	1.51	252517	85.78	60	120	
Sc(IS)	45	1	HMI H2	7896011	0.84	9196623	85.86	60	120	
Sc (IS)	45	2	HMI He	449803	1.16	531422	84.64	60	120	
Sc (IS)	45	3	No Gas	16043044	0.52	18746179	85.58	60	120	
Ge Internal standard	72	1	HMI H2	3347388	0.45	3833850	87.31	60	120	
Ge Internal standard	72	2	HMI He	464421	0.59	524481	88.55	60	120	
In Internal standard	115	2	HMI He	1234231	1.03	1492548	82.69	60	120	
Ho-165	165	2	HMI He	6207477	0.70	6759932	91.83	60	120	
Ir (IS)	193	2	HMI He	5432768	0.57	5766680	94.21	60	120	

Sample Report

Sample Table

Sample Name	280-191122-a-1-b ms
Data File Name	053SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T17:14:19-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652543 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	251.911	ppb	251.911	0.63	3641996	50000	
Be	9	1	6	194.609	ppb	194.609	1.36	50795	2000	
B	11	1	6	24.142	ppb	24.142	2.52	5438	2000	
Na	23	2	45	6592.157	ppb	6592.157	1.35	1043867	400000	
Mg	24	2	45	24565.386	ppb	24565.386	1.48	1739829	400000	
Al	27	2	45	49885.670	ppb	49885.670	0.84	849432	400000	
Si	28	1	45	3968.632	ppb	3968.632	4.80	1918288	10000	
P	31	2	45	2448.140	ppb	2448.140	3.36	3809	10000	
K	39	2	45	11932.333	ppb	11932.333	1.68	447099	400000	
Ca	40	1	45	17599.850	ppb	17599.850	0.47	28904890	400000	
Ti	47	2	45	3237.605	ppb	3237.605	1.19	46458	4000	
V	51	2	72	328.106	ppb	328.106	0.47	199253	2000	
Cr	52	2	72	293.514	ppb	293.514	1.45	238528	5000	
Mn	55	2	72	1665.981	ppb	1665.981	0.70	520188	10000	
Fe	56	1	72	116660.269	ppb	116660.269	1.40	298842182	10000	>LDR
(Fe)	57	2	72	127484.224	ppb	127484.224	0.80	1818380	400000	
Co	59	2	72	221.057	ppb	221.057	1.11	282795	2000	
Ni	60	2	72	259.315	ppb	259.315	1.11	95543	5000	
Cu	63	2	72	665.120	ppb	665.120	0.66	645993	5000	
Zn	66	2	72	1594.464	ppb	1594.464	1.18	235395	5000	
As	75	2	72	212.601	ppb	212.601	0.68	22419	2000	
Se	78	1	72	192.914	ppb	192.914	0.89	18001	2000	
Sr	88	2	72	479.798	ppb	479.798	1.92	126168	4000	
Zr	90	2	72	7201.269	ppb	7201.269	5.59	40318	1000	>LDR
Mo	95	2	115	225.088	ppb	225.088	1.19	85616	2000	
Ag	107	2	115	275.213	ppb	275.213	0.96	339884	100	
Cd	111	2	115	214.986	ppb	214.986	2.78	36726	2000	
Sn	120	2	115	251.766	ppb	251.766	0.54	106977	2000	
Sb	121	2	115	216.620	ppb	216.620	1.13	92267	1000	
Ba	137	2	115	590.900	ppb	590.900	2.54	74604	5000	
W	182	2	165	14.131	ppb	14.131	1.65	26140	100	
Tl	205	2	165	201.103	ppb	201.103	0.55	744388	2000	
Pb	208	2	165	2094.884	ppb	2094.884	0.55	10299221	5000	
Th	232	2	193	210.942	ppb	210.942	1.39	1246927	2000	
U	238	2	193	195.295	ppb	195.295	0.96	1279355	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	217665	0.81	252517	86.20	60	120	
Sc(IS)	45	1	HMI H2	8168047	0.68	9196623	88.82	60	120	
Sc (IS)	45	2	HMI He	462924	1.02	531422	87.11	60	120	
Sc (IS)	45	3	No Gas	16433927	0.26	18746179	87.67	60	120	
Ge Internal standard	72	1	HMI H2	3457326	1.15	3833850	90.18	60	120	
Ge Internal standard	72	2	HMI He	471181	0.51	524481	89.84	60	120	
In Internal standard	115	2	HMI He	1244516	0.83	1492548	83.38	60	120	
Ho-165	165	2	HMI He	6343357	0.79	6759932	93.84	60	120	
Ir (IS)	193	2	HMI He	5527083	0.87	5766680	95.85	60	120	

Sample Report

Sample Table

Sample Name	280-191122-a-1-c msd
Data File Name	054SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T17:17:52-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652543 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	237.627	ppb	237.627	1.58	3626179	50000	
Be	9	1	6	192.152	ppb	192.152	1.27	50187	2000	
B	11	1	6	21.598	ppb	21.598	4.60	4978	2000	
Na	23	2	45	6825.982	ppb	6825.982	4.73	1099685	400000	
Mg	24	2	45	19250.044	ppb	19250.044	1.05	1388007	400000	
Al	27	2	45	44796.306	ppb	44796.306	0.76	776535	400000	
Si	28	1	45	3833.755	ppb	3833.755	5.49	1871026	10000	
P	31	2	45	2857.961	ppb	2857.961	2.68	4517	10000	
K	39	2	45	11466.079	ppb	11466.079	1.08	438323	400000	
Ca	40	1	45	20533.259	ppb	20533.259	0.59	34027679	400000	
Ti	47	2	45	3335.545	ppb	3335.545	2.83	48728	4000	
V	51	2	72	342.100	ppb	342.100	0.92	212788	2000	
Cr	52	2	72	299.241	ppb	299.241	0.72	249127	5000	
Mn	55	2	72	1583.682	ppb	1583.682	0.22	506621	10000	
Fe	56	1	72	155306.128	ppb	155306.128	0.46	400962447	10000	>LDR
(Fe)	57	2	72	168145.120	ppb	168145.120	1.13	2457065	400000	
Co	59	2	72	213.119	ppb	213.119	1.29	279339	2000	
Ni	60	2	72	252.877	ppb	252.877	0.55	95462	5000	
Cu	63	2	72	674.847	ppb	674.847	0.42	671519	5000	
Zn	66	2	72	1418.557	ppb	1418.557	0.81	214586	5000	
As	75	2	72	218.895	ppb	218.895	1.07	23647	2000	
Se	78	1	72	188.966	ppb	188.966	1.16	17770	2000	
Sr	88	2	72	494.089	ppb	494.089	0.59	133121	4000	
Zr	90	2	72	9546.312	ppb	9546.312	2.43	54679	1000	>LDR
Mo	95	2	115	238.366	ppb	238.366	0.90	93495	2000	
Ag	107	2	115	233.208	ppb	233.208	1.95	296984	100	
Cd	111	2	115	208.128	ppb	208.128	0.89	36673	2000	
Sn	120	2	115	242.081	ppb	242.081	0.31	106083	2000	
Sb	121	2	115	215.144	ppb	215.144	0.85	94500	1000	
Ba	137	2	115	599.318	ppb	599.318	1.09	78041	5000	
W	182	2	165	26.080	ppb	26.080	1.05	48752	100	
Tl	205	2	165	195.829	ppb	195.829	1.22	735565	2000	
Pb	208	2	165	1382.101	ppb	1382.101	1.16	6895556	5000	
Th	232	2	193	207.736	ppb	207.736	1.43	1246065	2000	
U	238	2	193	192.122	ppb	192.122	1.01	1277079	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	217810	1.27	252517	86.26	60	120	
Sc(IS)	45	1	HMI H2	8243636	0.80	9196623	89.64	60	120	
Sc (IS)	45	2	HMI He	471242	0.44	531422	88.68	60	120	
Sc (IS)	45	3	No Gas	17023108	0.52	18746179	90.81	60	120	
Ge Internal standard	72	1	HMI H2	3484169	0.28	3833850	90.88	60	120	
Ge Internal standard	72	2	HMI He	482745	0.73	524481	92.04	60	120	
In Internal standard	115	2	HMI He	1283439	1.30	1492548	85.99	60	120	
Ho-165	165	2	HMI He	6436909	0.30	6759932	95.22	60	120	
Ir (IS)	193	2	HMI He	5608045	0.46	5766680	97.25	60	120	

Sample Report

Sample Table

Sample Name	280-191122-a-1-a PDS
Data File Name	055SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T17:21:25-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652543 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	229.323	ppb	229.323	1.80	3631714	50000	
Be	9	1	6	196.485	ppb	196.485	0.70	52072	2000	
B	11	1	6	25.980	ppb	25.980	5.16	5861	2000	
Na	23	2	45	6455.324	ppb	6455.324	3.00	1067012	400000	
Mg	24	2	45	15012.756	ppb	15012.756	0.43	1109460	400000	
Al	27	2	45	34378.073	ppb	34378.073	0.34	610764	400000	
Si	28	1	45	4452.612	ppb	4452.612	3.07	2227345	10000	
P	31	2	45	4254.358	ppb	4254.358	2.78	6862	10000	
K	39	2	45	7411.111	ppb	7411.111	0.64	299010	400000	
Ca	40	1	45	12899.016	ppb	12899.016	1.46	21968276	400000	
Ti	47	2	45	2649.292	ppb	2649.292	2.24	39665	4000	
V	51	2	72	346.260	ppb	346.260	0.93	217783	2000	
Cr	52	2	72	1073.730	ppb	1073.730	0.30	900420	5000	
Mn	55	2	72	1842.509	ppb	1842.509	0.78	596054	10000	
Fe	56	1	72	193299.549	ppb	193299.549	0.85	505930819	10000	>LDR
(Fe)	57	2	72	203972.334	ppb	203972.334	2.09	3014186	400000	
Co	59	2	72	231.591	ppb	231.591	0.46	306990	2000	
Ni	60	2	72	651.353	ppb	651.353	0.94	248434	5000	
Cu	63	2	72	684.719	ppb	684.719	1.35	689017	5000	
Zn	66	2	72	1408.411	ppb	1408.411	0.47	215468	5000	
As	75	2	72	509.432	ppb	509.432	0.70	55580	2000	
Se	78	1	72	202.784	ppb	202.784	1.07	19331	2000	
Sr	88	2	72	396.523	ppb	396.523	0.25	108045	4000	
Zr	90	2	72	3488.301	ppb	3488.301	1.55	20380	1000	
Mo	95	2	115	291.335	ppb	291.335	0.71	117503	2000	
Ag	107	2	115	131.008	ppb	131.008	0.56	171618	100	
Cd	111	2	115	210.292	ppb	210.292	1.70	38103	2000	
Sn	120	2	115	252.997	ppb	252.997	1.09	114002	2000	
Sb	121	2	115	230.457	ppb	230.457	1.17	104096	1000	
Ba	137	2	115	618.906	ppb	618.906	0.36	82881	5000	
W	182	2	165	90.785	ppb	90.785	1.48	171022	100	
Tl	205	2	165	203.557	ppb	203.557	0.81	773272	2000	
Pb	208	2	165	1105.837	ppb	1105.837	1.13	5579846	5000	
Th	232	2	193	135.581	ppb	135.581	26.63	824764	2000	
U	238	2	193	246.083	ppb	246.083	1.56	1657088	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	221008	1.14	252517	87.52	60	120	
Sc(IS)	45	1	HMI H2	8466334	0.72	9196623	92.06	60	120	
Sc (IS)	45	2	HMI He	482960	0.40	531422	90.88	60	120	
Sc (IS)	45	3	No Gas	17458814	0.60	18746179	93.13	60	120	
Ge Internal standard	72	1	HMI H2	3532274	0.10	3833850	92.13	60	120	
Ge Internal standard	72	2	HMI He	488210	0.96	524481	93.08	60	120	
In Internal standard	115	2	HMI He	1319880	1.04	1492548	88.43	60	120	
Ho-165	165	2	HMI He	6510127	1.05	6759932	96.30	60	120	
Ir (IS)	193	2	HMI He	5683213	1.12	5766680	98.55	60	120	

Sample Report

Sample Table

Sample Name	280-191122-a-2-a
Data File Name	056SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T17:24:58-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652543 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	55.112	ppb	55.112	6.56	1775774	50000	
Be	9	1	6	3.441	ppb	3.441	10.95	953	2000	
B	11	1	6	6.578	ppb	6.578	9.44	2300	2000	
Na	23	2	45	3078.123	ppb	3078.123	0.46	521476	400000	
Mg	24	2	45	2157.659	ppb	2157.659	0.14	159604	400000	
Al	27	2	45	7955.275	ppb	7955.275	0.46	141363	400000	
Si	28	1	45	2457.468	ppb	2457.468	3.21	1237687	10000	
P	31	2	45	545.591	ppb	545.591	2.18	931	10000	
K	39	2	45	5321.545	ppb	5321.545	1.15	221581	400000	
Ca	40	1	45	3269.659	ppb	3269.659	0.52	5592030	400000	
Ti	47	2	45	4595.814	ppb	4595.814	2.37	68801	4000	
V	51	2	72	20.907	ppb	20.907	4.05	14740	2000	
Cr	52	2	72	22.319	ppb	22.319	3.07	20380	5000	
Mn	55	2	72	1711.009	ppb	1711.009	1.26	561431	10000	
Fe	56	1	72	76601.289	ppb	76601.289	0.65	203706224	10000	>LDR
(Fe)	57	2	72	78365.002	ppb	78365.002	0.11	1174836	400000	
Co	59	2	72	5.332	ppb	5.332	1.32	7222	2000	
Ni	60	2	72	14.934	ppb	14.934	3.41	5921	5000	
Cu	63	2	72	31.962	ppb	31.962	1.95	32934	5000	
Zn	66	2	72	416.462	ppb	416.462	2.29	64791	5000	
As	75	2	72	7.405	ppb	7.405	4.20	876	2000	
Se	78	1	72	0.571	ppb	0.571	35.23	63	2000	
Sr	88	2	72	13.461	ppb	13.461	5.41	3724	4000	
Zr	90	2	72	14079.229	ppb	14079.229	1.91	82580	1000	>LDR
Mo	95	2	115	17.114	ppb	17.114	4.34	7085	2000	
Ag	107	2	115	0.619	ppb	0.619	12.97	850	100	
Cd	111	2	115	0.217	ppb	0.217	49.67	40	2000	
Sn	120	2	115	39.804	ppb	39.804	2.46	18361	2000	
Sb	121	2	115	1.711	ppb	1.711	7.95	817	1000	
Ba	137	2	115	94.084	ppb	94.084	3.56	12796	5000	
W	182	2	165	34.487	ppb	34.487	0.79	65348	100	
Tl	205	2	165	0.174	ppb	0.174	3.45	1217	2000	
Pb	208	2	165	53.875	ppb	53.875	0.49	273705	5000	
Th	232	2	193	49.361	ppb	49.361	1.63	302241	2000	
U	238	2	193	11.867	ppb	11.867	0.59	81249	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	224707	0.57	252517	88.99	60	120	
Sc(IS)	45	1	HMI H2	8455291	0.58	9196623	91.94	60	120	
Sc (IS)	45	2	HMI He	482915	0.30	531422	90.87	60	120	
Sc (IS)	45	3	No Gas	17205724	1.33	18746179	91.78	60	120	
Ge Internal standard	72	1	HMI H2	3588680	0.90	3833850	93.61	60	120	
Ge Internal standard	72	2	HMI He	495195	0.79	524481	94.42	60	120	
In Internal standard	115	2	HMI He	1339527	0.49	1492548	89.75	60	120	
Ho-165	165	2	HMI He	6532721	0.85	6759932	96.64	60	120	
Ir (IS)	193	2	HMI He	5661435	0.29	5766680	98.17	60	120	

Sample Report

Sample Table

Sample Name	280-191122-a-3-a
Data File Name	057SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T17:28:32-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652543 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	78.068	ppb	78.068	5.27	2052161	50000	
Be	9	1	6	3.444	ppb	3.444	2.69	950	2000	
B	11	1	6	5.635	ppb	5.635	17.54	2114	2000	
Na	23	2	45	2238.374	ppb	2238.374	0.54	385989	400000	
Mg	24	2	45	2307.629	ppb	2307.629	1.26	170750	400000	
Al	27	2	45	6379.958	ppb	6379.958	0.83	113424	400000	
Si	28	1	45	2670.118	ppb	2670.118	3.35	1361691	10000	
P	31	2	45	458.279	ppb	458.279	7.76	791	10000	
K	39	2	45	3785.353	ppb	3785.353	1.37	164738	400000	
Ca	40	1	45	2397.518	ppb	2397.518	0.69	4168443	400000	
Ti	47	2	45	3496.856	ppb	3496.856	1.84	52366	4000	
V	51	2	72	23.131	ppb	23.131	2.57	16242	2000	
Cr	52	2	72	43.594	ppb	43.594	0.19	38655	5000	
Mn	55	2	72	2225.955	ppb	2225.955	0.71	734358	10000	
Fe	56	1	72	59220.361	ppb	59220.361	0.12	159204908	10000	>LDR
(Fe)	57	2	72	60086.293	ppb	60086.293	0.94	905716	400000	
Co	59	2	72	6.934	ppb	6.934	3.15	9426	2000	
Ni	60	2	72	27.798	ppb	27.798	3.19	10954	5000	
Cu	63	2	72	21.933	ppb	21.933	1.89	22820	5000	
Zn	66	2	72	381.539	ppb	381.539	2.49	59688	5000	
As	75	2	72	5.790	ppb	5.790	5.62	701	2000	
Se	78	1	72	0.263	ppb	0.263	100.80	33	2000	
Sr	88	2	72	12.819	ppb	12.819	6.11	3564	4000	
Zr	90	2	72	14099.198	ppb	14099.198	1.68	83149	1000	>LDR
Mo	95	2	115	24.505	ppb	24.505	5.03	10130	2000	
Ag	107	2	115	0.904	ppb	0.904	10.90	1230	100	
Cd	111	2	115	0.472	ppb	0.472	34.81	87	2000	
Sn	120	2	115	27.164	ppb	27.164	5.28	12616	2000	
Sb	121	2	115	0.939	ppb	0.939	24.26	463	1000	
Ba	137	2	115	137.968	ppb	137.968	4.37	18788	5000	
W	182	2	165	26.517	ppb	26.517	2.15	50441	100	
Tl	205	2	165	0.127	ppb	0.127	23.46	1040	2000	
Pb	208	2	165	39.886	ppb	39.886	1.25	203436	5000	
Th	232	2	193	39.741	ppb	39.741	0.73	244735	2000	
U	238	2	193	8.853	ppb	8.853	1.58	61192	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	223708	0.58	252517	88.59	60	120	
Sc(IS)	45	1	HMI H2	8573072	0.34	9196623	93.22	60	120	
Sc (IS)	45	2	HMI He	483098	0.22	531422	90.91	60	120	
Sc (IS)	45	3	No Gas	17540111	0.57	18746179	93.57	60	120	
Ge Internal standard	72	1	HMI H2	3627643	0.25	3833850	94.62	60	120	
Ge Internal standard	72	2	HMI He	497889	0.83	524481	94.93	60	120	
In Internal standard	115	2	HMI He	1341927	1.50	1492548	89.91	60	120	
Ho-165	165	2	HMI He	6551219	1.05	6759932	96.91	60	120	
Ir (IS)	193	2	HMI He	5673964	0.99	5766680	98.39	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-8327972
Data File Name	058_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T17:32:06-06:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	6	50.179	ppb	2.509	13309	50	100.4	90	110	
Na	23	2	45	49434.300	ppb	0.396	8144302	51000	96.9	90	110	
Mg	24	2	45	10235.856	ppb	0.574	769249	11000	93.1	90	110	
Al	27	2	45	975.541	ppb	2.770	17676	1000	97.6	90	110	
Si	28	1	45	2530.976	ppb	1.867	1289884	2500	101.2	90	110	
K	39	2	45	10406.637	ppb	0.499	416882	11000	94.6	90	110	
Ca	40	1	45	10561.799	ppb	0.359	18196214	11000	96.0	90	110	
Ti	47	2	45	56.284	ppb	11.658	857	50	112.6	90	110	>+\-10%
V	51	2	72	49.194	ppb	2.010	32893	50	98.4	90	110	
Cr	52	2	72	51.414	ppb	2.418	45399	50	102.8	90	110	
Mn	55	2	72	48.357	ppb	0.356	16102	50	96.7	90	110	
Fe	56	1	72	1051.705	ppb	0.925	2863879	1000	105.2	90	110	
Co	59	2	72	50.153	ppb	1.040	67942	50	100.3	90	110	
Ni	60	2	72	50.837	ppb	1.658	19943	50	101.7	90	110	
Cu	63	2	72	50.754	ppb	1.397	52463	50	101.5	90	110	
Zn	66	2	72	50.152	ppb	4.835	8052	50	100.3	90	110	
As	75	2	72	51.814	ppb	0.666	5826	50	103.6	90	110	
Se	78	1	72	50.871	ppb	2.580	5001	50	101.7	90	110	
Sr	88	2	72	100.225	ppb	1.788	27895	100	100.2	90	110	
Zr	90	2	72	1851.524	ppb	1.581	11181	50	3703.0	90	110	>+\-10%
Mo	95	2	115	54.081	ppb	3.270	22600	50	108.2	90	110	
Ag	107	2	115	53.799	ppb	2.139	72819	50	107.6	90	110	
Cd	111	2	115	51.006	ppb	5.428	9547	50	102.0	90	110	
Sn	120	2	115	52.721	ppb	1.937	24693	50	105.4	90	110	
Sb	121	2	115	53.544	ppb	3.905	25014	50	107.1	90	110	
Ba	137	2	115	50.861	ppb	4.621	7045	50	101.7	90	110	
W	182	2	165	53.122	ppb	2.129	100685	50	106.2	90	110	
Tl	205	2	165	51.297	ppb	0.786	196288	50	102.6	90	110	
Pb	208	2	165	51.427	ppb	0.560	261739	50	102.9	90	110	
Th	232	2	193	50.159	ppb	1.527	299884	50	100.3	90	110	
U	238	2	193	50.234	ppb	0.270	330481	50	100.5	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	220887	1.26	252517	87.47	60	120	
Sc(IS)	45	1	HMI H2	8560337	1.19	9196623	93.08	60	120	
Sc (IS)	45	2	HMI He	491092	0.15	531422	92.41	60	120	
Sc (IS)	45	3	No Gas	17384884	1.14	18746179	92.74	60	120	
Ge Internal standard	72	1	HMI H2	3638942	1.28	3833850	94.92	60	120	
Ge Internal standard	72	2	HMI He	498631	0.45	524481	95.07	60	120	
In Internal standard	115	2	HMI He	1363652	1.41	1492548	91.36	60	120	
Ho-165	165	2	HMI He	6543747	1.14	6759932	96.80	60	120	
Ir (IS)	193	2	HMI He	5529407	0.70	5766680	95.89	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-8327938
Data File Name	059_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T17:35:40-06:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-6.009	ppb	-15.0	1155439	10	
Be	9	1	6	0.003	ppb	4414.9	27	0.5	
B	11	1	6	21.104	ppb	7.4	5008	0.5	>RL
Na	23	2	45	-2.784	ppb	-115.6	23998	25	
Mg	24	2	45	4.773	ppb	18.9	547	25	
Al	27	2	45	2.176	ppb	82.8	93	15	
Si	28	1	45	33.619	ppb	3.8	38421	1	>RL
K	39	2	45	12.070	ppb	95.4	25056	50	
Ca	40	1	45	0.916	ppb	36.5	41799	200	
(Ca)	44	1	45	-0.846	ppb	-161.6	953	200	
Ti	47	2	45	0.440	ppb	86.6	7	0.5	
V	51	2	72	-1.333	ppb	-9.0	643	1	
Cr	52	2	72	0.229	ppb	194.6	1600	1	
Mn	55	2	72	0.119	ppb	88.6	163	0.5	
Fe	56	1	72	7.595	ppb	5.9	47615	50	
(Fe)	57	2	72	1.701	ppb	87.1	243	25	
Co	59	2	72	0.003	ppb	310.1	57	0.5	
Ni	60	2	72	0.279	ppb	19.5	253	1	
Cu	63	2	72	0.098	ppb	40.9	417	1	
Zn	66	2	72	-0.332	ppb	-53.6	170	5	
As	75	2	72	-0.191	ppb	-55.6	36	1	
Se	78	1	72	-0.050	ppb	-48.2	3	1	
Sr	88	2	72	0.098	ppb	64.2	30	0.5	
Zr	90	2	72	7.415	ppb	266.4	320	1	>RL
Mo	95	2	115	0.153	ppb	110.1	150	0.5	
Ag	107	2	115	0.032	ppb	88.1	73	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.258	ppb	28.7	317	1	
Sb	121	2	115	0.153	ppb	15.2	107	0.6	
Ba	137	2	115	0.012	ppb	1457.0	13	0.5	
W	182	2	165	0.341	ppb	10.5	887	1	
Tl	205	2	165	-0.021	ppb	-140.2	470	0.1	
Pb	208	2	165	0.092	ppb	48.5	1407	0.5	
Th	232	2	193	0.498	ppb	8.1	7369	1	
U	238	2	193	0.022	ppb	100.9	1867	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	223195	3.08	252517	88.39	60	120	
Sc(IS)	45	1	HMI H2	8368674	1.85	9196623	91.00	60	120	
Sc (IS)	45	2	HMI He	485649	1.07	531422	91.39	60	120	
Sc (IS)	45	3	No Gas	17397404	0.58	18746179	92.81	60	120	
Ge Internal standard	72	1	HMI H2	3552090	1.17	3833850	92.65	60	120	
Ge Internal standard	72	2	HMI He	490092	0.57	524481	93.44	60	120	
In Internal standard	115	2	HMI He	1384396	4.19	1492548	92.75	60	120	
Ho-165	165	2	HMI He	6523428	0.46	6759932	96.50	60	120	
Ir (IS)	193	2	HMI He	5651304	0.42	5766680	98.00	60	120	

Sample Report

Sample Table

Sample Name	280-191122-a-4-a
Data File Name	060SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T17:39:16-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652543 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	70.722	ppb	70.722	1.19	1999512	50000	
Be	9	1	6	3.472	ppb	3.472	25.48	960	2000	
B	11	1	6	58.298	ppb	58.298	3.78	12021	2000	
Na	23	2	45	1407.022	ppb	1407.022	1.33	255343	400000	
Mg	24	2	45	7484.290	ppb	7484.290	0.30	561494	400000	
Al	27	2	45	24680.457	ppb	24680.457	0.62	445042	400000	
Si	28	1	45	3753.643	ppb	3753.643	11.62	1900054	10000	
P	31	2	45	1160.412	ppb	1160.412	5.69	1942	10000	
K	39	2	45	9382.483	ppb	9382.483	0.89	377586	400000	
Ca	40	1	45	29067.880	ppb	29067.880	1.79	49929768	400000	
Ti	47	2	45	2831.775	ppb	2831.775	2.23	43023	4000	
V	51	2	72	49.692	ppb	49.692	5.18	33618	2000	
Cr	52	2	72	23.893	ppb	23.893	0.70	22132	5000	
Mn	55	2	72	2132.544	ppb	2132.544	0.44	713239	10000	
Fe	56	1	72	66122.978	ppb	66122.978	1.15	181361011	10000	>LDR
(Fe)	57	2	72	67554.295	ppb	67554.295	0.78	1032313	400000	
Co	59	2	72	8.551	ppb	8.551	1.79	11771	2000	
Ni	60	2	72	25.305	ppb	25.305	0.71	10123	5000	
Cu	63	2	72	64.172	ppb	64.172	2.06	67062	5000	
Zn	66	2	72	388.050	ppb	388.050	0.84	61542	5000	
As	75	2	72	9.336	ppb	9.336	6.34	1111	2000	
Se	78	1	72	0.550	ppb	0.550	46.31	63	2000	
Sr	88	2	72	130.683	ppb	130.683	0.88	36816	4000	
Zr	90	2	72	8907.485	ppb	8907.485	3.05	53364	1000	>LDR
Mo	95	2	115	33.334	ppb	33.334	7.77	13746	2000	
Ag	107	2	115	6.124	ppb	6.124	4.51	8189	100	
Cd	111	2	115	2.078	ppb	2.078	11.77	383	2000	
Sn	120	2	115	28.934	ppb	28.934	5.15	13433	2000	
Sb	121	2	115	1.929	ppb	1.929	11.72	920	1000	
Ba	137	2	115	233.034	ppb	233.034	2.39	31776	5000	
W	182	2	165	15.703	ppb	15.703	1.70	29910	100	
Tl	205	2	165	0.308	ppb	0.308	10.63	1727	2000	
Pb	208	2	165	109.710	ppb	109.710	1.14	556758	5000	
Th	232	2	193	39.915	ppb	39.915	2.38	245031	2000	
U	238	2	193	10.801	ppb	10.801	1.33	74044	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	224057	0.76	252517	88.73	60	120	
Sc(IS)	45	1	HMI H2	8547155	0.73	9196623	92.94	60	120	
Sc (IS)	45	2	HMI He	490191	1.07	531422	92.24	60	120	
Sc (IS)	45	3	No Gas	17759754	0.67	18746179	94.74	60	120	
Ge Internal standard	72	1	HMI H2	3701261	0.50	3833850	96.54	60	120	
Ge Internal standard	72	2	HMI He	504729	0.32	524481	96.23	60	120	
In Internal standard	115	2	HMI He	1344146	2.89	1492548	90.06	60	120	
Ho-165	165	2	HMI He	6537329	0.36	6759932	96.71	60	120	
Ir (IS)	193	2	HMI He	5656791	0.59	5766680	98.09	60	120	

Sample Report

Sample Table

Sample Name	280-191122-a-5-a
Data File Name	061SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T17:42:49-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652543 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	91.075	ppb	91.075	0.20	2264331	50000	
Be	9	1	6	6.343	ppb	6.343	4.08	1743	2000	
B	11	1	6	100.432	ppb	100.432	1.16	20096	2000	
Na	23	2	45	4287.525	ppb	4287.525	1.04	760703	400000	
Mg	24	2	45	13406.591	ppb	13406.591	0.45	1051375	400000	
Al	27	2	45	80315.779	ppb	80315.779	1.05	1514052	400000	
Si	28	1	45	2481.325	ppb	2481.325	2.05	1313927	10000	
P	31	2	45	941.888	ppb	941.888	8.63	1660	10000	
K	39	2	45	13363.297	ppb	13363.297	0.74	551265	400000	
Ca	40	1	45	20151.816	ppb	20151.816	1.11	36010039	400000	
Ti	47	2	45	5352.017	ppb	5352.017	0.87	85025	4000	
V	51	2	72	153.581	ppb	153.581	0.44	101761	2000	
Cr	52	2	72	80.381	ppb	80.381	2.03	71763	5000	
Mn	55	2	72	3132.962	ppb	3132.962	0.30	1058608	10000	
Fe	56	1	72	121985.759	ppb	121985.759	0.03	331922495	10000	>LDR
(Fe)	57	2	72	131519.300	ppb	131519.300	1.13	2030300	400000	
Co	59	2	72	32.739	ppb	32.739	1.00	45379	2000	
Ni	60	2	72	64.147	ppb	64.147	3.02	25694	5000	
Cu	63	2	72	54.813	ppb	54.813	0.92	57922	5000	
Zn	66	2	72	377.683	ppb	377.683	1.07	60522	5000	
As	75	2	72	20.987	ppb	20.987	2.31	2449	2000	
Se	78	1	72	0.905	ppb	0.905	10.54	97	2000	
Sr	88	2	72	144.257	ppb	144.257	1.58	41059	4000	
Zr	90	2	72	20185.733	ppb	20185.733	1.10	121810	1000	>LDR
Mo	95	2	115	64.502	ppb	64.502	3.22	27621	2000	
Ag	107	2	115	2.199	ppb	2.199	5.02	3080	100	
Cd	111	2	115	0.798	ppb	0.798	17.81	153	2000	
Sn	120	2	115	34.876	ppb	34.876	0.52	16820	2000	
Sb	121	2	115	2.156	ppb	2.156	23.20	1063	1000	
Ba	137	2	115	778.192	ppb	778.192	1.87	110372	5000	
W	182	2	165	11.325	ppb	11.325	3.55	22331	100	
Tl	205	2	165	0.896	ppb	0.896	5.94	4094	2000	
Pb	208	2	165	67.702	ppb	67.702	0.98	354851	5000	
Th	232	2	193	61.160	ppb	61.160	1.73	379260	2000	
U	238	2	193	9.512	ppb	9.512	0.99	66492	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	225765	0.93	252517	89.41	60	120	
Sc(IS)	45	1	HMI H2	8889058	1.18	9196623	96.66	60	120	
Sc (IS)	45	2	HMI He	512490	0.16	531422	96.44	60	120	
Sc (IS)	45	3	No Gas	18138667	0.61	18746179	96.76	60	120	
Ge Internal standard	72	1	HMI H2	3672032	0.82	3833850	95.78	60	120	
Ge Internal standard	72	2	HMI He	509955	0.36	524481	97.23	60	120	
In Internal standard	115	2	HMI He	1398216	1.75	1492548	93.68	60	120	
Ho-165	165	2	HMI He	6744943	0.86	6759932	99.78	60	120	
Ir (IS)	193	2	HMI He	5749961	0.92	5766680	99.71	60	120	

Sample Report

Sample Table

Sample Name	280-191122-a-6-a
Data File Name	062SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T17:46:22-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652543 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	54.884	ppb	54.884	2.28	1831961	50000	
Be	9	1	6	3.280	ppb	3.280	8.83	927	2000	
B	11	1	6	24.889	ppb	24.889	11.55	5861	2000	
Na	23	2	45	3492.675	ppb	3492.675	0.83	608268	400000	
Mg	24	2	45	3504.179	ppb	3504.179	0.70	267816	400000	
Al	27	2	45	12382.409	ppb	12382.409	1.26	227399	400000	
Si	28	1	45	3406.986	ppb	3406.986	4.24	1781661	10000	
P	31	2	45	433.711	ppb	433.711	14.85	777	10000	
K	39	2	45	4933.014	ppb	4933.014	2.24	214151	400000	
Ca	40	1	45	7829.265	ppb	7829.265	0.50	13911512	400000	
Ti	47	2	45	3895.468	ppb	3895.468	1.30	60275	4000	
V	51	2	72	28.801	ppb	28.801	2.82	20390	2000	
Cr	52	2	72	29.975	ppb	29.975	2.61	27754	5000	
Mn	55	2	72	1710.144	ppb	1710.144	1.47	579445	10000	
Fe	56	1	72	65354.238	ppb	65354.238	1.85	181443057	10000	>LDR
(Fe)	57	2	72	66832.011	ppb	66832.011	1.58	1034581	400000	
Co	59	2	72	5.838	ppb	5.838	2.93	8159	2000	
Ni	60	2	72	21.717	ppb	21.717	3.72	8826	5000	
Cu	63	2	72	19.628	ppb	19.628	2.59	21011	5000	
Zn	66	2	72	280.972	ppb	280.972	0.19	45209	5000	
As	75	2	72	6.209	ppb	6.209	4.39	768	2000	
Se	78	1	72	0.517	ppb	0.517	14.85	60	2000	
Sr	88	2	72	34.402	ppb	34.402	3.11	9823	4000	
Zr	90	2	72	15915.230	ppb	15915.230	0.56	96368	1000	>LDR
Mo	95	2	115	15.501	ppb	15.501	3.76	6545	2000	
Ag	107	2	115	1.250	ppb	1.250	5.86	1720	100	
Cd	111	2	115	0.374	ppb	0.374	25.50	70	2000	
Sn	120	2	115	56.905	ppb	56.905	1.88	26656	2000	
Sb	121	2	115	0.735	ppb	0.735	13.80	377	1000	
Ba	137	2	115	131.866	ppb	131.866	1.05	18264	5000	
W	182	2	165	24.777	ppb	24.777	2.99	47535	100	
Tl	205	2	165	0.182	ppb	0.182	16.92	1260	2000	
Pb	208	2	165	35.442	ppb	35.442	1.20	182372	5000	
Th	232	2	193	46.227	ppb	46.227	0.45	286827	2000	
U	238	2	193	9.454	ppb	9.454	0.78	65876	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	228848	0.36	252517	90.63	60	120	
Sc(IS)	45	1	HMI H2	8821965	0.43	9196623	95.93	60	120	
Sc (IS)	45	2	HMI He	499183	0.73	531422	93.93	60	120	
Sc (IS)	45	3	No Gas	17775752	0.65	18746179	94.82	60	120	
Ge Internal standard	72	1	HMI H2	3747066	1.50	3833850	97.74	60	120	
Ge Internal standard	72	2	HMI He	511363	1.02	524481	97.50	60	120	
In Internal standard	115	2	HMI He	1364489	0.93	1492548	91.42	60	120	
Ho-165	165	2	HMI He	6605168	0.62	6759932	97.71	60	120	
Ir (IS)	193	2	HMI He	5731150	0.89	5766680	99.38	60	120	

Sample Report

Sample Table

Sample Name	280-191122-a-7-a
Data File Name	063SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T17:49:56-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652543 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	101.179	ppb	101.179	2.31	2369729	50000	
Be	9	1	6	6.167	ppb	6.167	3.79	1700	2000	
B	11	1	6	81.511	ppb	81.511	2.24	16559	2000	
Na	23	2	45	2203.291	ppb	2203.291	0.56	400724	400000	
Mg	24	2	45	17712.523	ppb	17712.523	0.26	1379580	400000	
Al	27	2	45	86797.609	ppb	86797.609	0.96	1625180	400000	
Si	28	1	45	2619.569	ppb	2619.569	3.19	1403865	10000	
P	31	2	45	1814.112	ppb	1814.112	1.97	3119	10000	
K	39	2	45	16608.328	ppb	16608.328	0.43	674229	400000	
Ca	40	1	45	30832.929	ppb	30832.929	0.73	55786923	400000	
Ti	47	2	45	6395.514	ppb	6395.514	1.20	100914	4000	
V	51	2	72	263.375	ppb	263.375	1.32	174613	2000	
Cr	52	2	72	210.990	ppb	210.990	1.14	187282	5000	
Mn	55	2	72	2627.689	ppb	2627.689	0.66	894041	10000	
Fe	56	1	72	145525.846	ppb	145525.846	0.12	400377287	10000	>LDR
(Fe)	57	2	72	155228.924	ppb	155228.924	0.79	2412890	400000	
Co	59	2	72	31.364	ppb	31.364	2.62	43772	2000	
Ni	60	2	72	144.605	ppb	144.605	1.84	58136	5000	
Cu	63	2	72	393.651	ppb	393.651	0.46	416808	5000	
Zn	66	2	72	1703.582	ppb	1703.582	1.67	274059	5000	
As	75	2	72	23.883	ppb	23.883	4.24	2797	2000	
Se	78	1	72	3.198	ppb	3.198	4.08	328	2000	
Sr	88	2	72	195.557	ppb	195.557	2.62	56040	4000	
Zr	90	2	72	20987.648	ppb	20987.648	0.28	127519	1000	>LDR
Mo	95	2	115	31.757	ppb	31.757	6.22	14063	2000	
Ag	107	2	115	450.335	ppb	450.335	1.01	644101	100	
Cd	111	2	115	9.398	ppb	9.398	7.91	1860	2000	
Sn	120	2	115	66.039	ppb	66.039	2.04	32644	2000	
Sb	121	2	115	7.237	ppb	7.237	3.88	3604	1000	
Ba	137	2	115	897.631	ppb	897.631	1.29	131260	5000	
W	182	2	165	17.915	ppb	17.915	2.60	35031	100	
Tl	205	2	165	0.897	ppb	0.897	8.55	4081	2000	
Pb	208	2	165	2050.261	ppb	2050.261	0.36	10674429	5000	
Th	232	2	193	63.243	ppb	63.243	0.20	392924	2000	
U	238	2	193	33.697	ppb	33.697	1.36	231610	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	226417	0.94	252517	89.66	60	120	
Sc(IS)	45	1	HMI H2	9004122	1.14	9196623	97.91	60	120	
Sc (IS)	45	2	HMI He	509016	0.19	531422	95.78	60	120	
Sc (IS)	45	3	No Gas	18100733	0.52	18746179	96.56	60	120	
Ge Internal standard	72	1	HMI H2	3712884	0.77	3833850	96.84	60	120	
Ge Internal standard	72	2	HMI He	513496	0.72	524481	97.91	60	120	
In Internal standard	115	2	HMI He	1441372	0.85	1492548	96.57	60	120	
Ho-165	165	2	HMI He	6717537	0.82	6759932	99.37	60	120	
Ir (IS)	193	2	HMI He	5762680	0.52	5766680	99.93	60	120	

Sample Report

Sample Table

Sample Name	280-191122-a-8-a
Data File Name	064SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T17:53:28-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652543 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	59.620	ppb	59.620	1.43	1883162	50000	
Be	9	1	6	4.104	ppb	4.104	8.19	1140	2000	
B	11	1	6	12.308	ppb	12.308	2.30	3407	2000	
Na	23	2	45	3409.348	ppb	3409.348	0.35	594918	400000	
Mg	24	2	45	2710.506	ppb	2710.506	1.14	207392	400000	
Al	27	2	45	10130.735	ppb	10130.735	1.07	186245	400000	
Si	28	1	45	2727.908	ppb	2727.908	2.53	1425731	10000	
P	31	2	45	463.539	ppb	463.539	2.56	827	10000	
K	39	2	45	4629.037	ppb	4629.037	1.81	202715	400000	
Ca	40	1	45	3335.015	ppb	3335.015	0.26	5927591	400000	
Ti	47	2	45	3845.493	ppb	3845.493	0.35	59563	4000	
V	51	2	72	26.092	ppb	26.092	1.76	18508	2000	
Cr	52	2	72	15.878	ppb	15.878	4.59	15301	5000	
Mn	55	2	72	1503.121	ppb	1503.121	0.52	506328	10000	
Fe	56	1	72	64341.636	ppb	64341.636	1.02	177540431	10000	>LDR
(Fe)	57	2	72	65181.620	ppb	65181.620	0.58	1003119	400000	
Co	59	2	72	4.900	ppb	4.900	6.22	6815	2000	
Ni	60	2	72	15.251	ppb	15.251	2.01	6205	5000	
Cu	63	2	72	18.429	ppb	18.429	7.03	19626	5000	
Zn	66	2	72	365.325	ppb	365.325	1.98	58367	5000	
As	75	2	72	7.229	ppb	7.229	8.04	879	2000	
Se	78	1	72	0.335	ppb	0.335	40.01	41	2000	
Sr	88	2	72	18.335	ppb	18.335	1.21	5204	4000	
Zr	90	2	72	15066.092	ppb	15066.092	1.56	90695	1000	>LDR
Mo	95	2	115	15.124	ppb	15.124	2.49	6618	2000	
Ag	107	2	115	9.317	ppb	9.317	3.66	13103	100	
Cd	111	2	115	0.206	ppb	0.206	26.26	40	2000	
Sn	120	2	115	30.317	ppb	30.317	4.02	14811	2000	
Sb	121	2	115	0.667	ppb	0.667	16.45	357	1000	
Ba	137	2	115	131.468	ppb	131.468	3.40	18865	5000	
W	182	2	165	29.013	ppb	29.013	2.64	56005	100	
Tl	205	2	165	0.100	ppb	0.100	23.52	950	2000	
Pb	208	2	165	60.102	ppb	60.102	1.38	310686	5000	
Th	232	2	193	44.191	ppb	44.191	0.41	274666	2000	
U	238	2	193	9.215	ppb	9.215	2.49	64330	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	226428	0.88	252517	89.67	60	120	
Sc(IS)	45	1	HMI H2	8788322	0.47	9196623	95.56	60	120	
Sc (IS)	45	2	HMI He	499666	0.70	531422	94.02	60	120	
Sc (IS)	45	3	No Gas	17781486	0.62	18746179	94.85	60	120	
Ge Internal standard	72	1	HMI H2	3723800	1.27	3833850	97.13	60	120	
Ge Internal standard	72	2	HMI He	508320	0.53	524481	96.92	60	120	
In Internal standard	115	2	HMI He	1414112	1.78	1492548	94.74	60	120	
Ho-165	165	2	HMI He	6649966	0.56	6759932	98.37	60	120	
Ir (IS)	193	2	HMI He	5736915	0.60	5766680	99.48	60	120	

Sample Report

Sample Table

Sample Name	280-191122-a-9-a
Data File Name	065SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T17:57:04-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652543 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	111.419	ppb	111.419	0.91	2433397	50000	
Be	9	1	6	4.822	ppb	4.822	2.36	1313	2000	
B	11	1	6	12.839	ppb	12.839	2.75	3450	2000	
Na	23	2	45	3944.792	ppb	3944.792	0.60	682994	400000	
Mg	24	2	45	4196.339	ppb	4196.339	1.15	320327	400000	
Al	27	2	45	11036.509	ppb	11036.509	1.65	202477	400000	
Si	28	1	45	2866.400	ppb	2866.400	9.66	1486599	10000	
P	31	2	45	675.769	ppb	675.769	5.73	1176	10000	
K	39	2	45	5780.780	ppb	5780.780	1.15	246357	400000	
Ca	40	1	45	4934.964	ppb	4934.964	0.82	8690236	400000	
Ti	47	2	45	4644.739	ppb	4644.739	0.95	71793	4000	
V	51	2	72	42.353	ppb	42.353	0.80	29246	2000	
Cr	52	2	72	25.731	ppb	25.731	3.21	24021	5000	
Mn	55	2	72	2902.007	ppb	2902.007	0.44	982834	10000	
Fe	56	1	72	80419.000	ppb	80419.000	1.26	220944723	10000	>LDR
(Fe)	57	2	72	80984.466	ppb	80984.466	0.25	1253190	400000	
Co	59	2	72	7.087	ppb	7.087	1.22	9890	2000	
Ni	60	2	72	28.225	ppb	28.225	0.98	11418	5000	
Cu	63	2	72	34.469	ppb	34.469	0.56	36631	5000	
Zn	66	2	72	497.432	ppb	497.432	0.52	79826	5000	
As	75	2	72	8.960	ppb	8.960	3.27	1082	2000	
Se	78	1	72	0.524	ppb	0.524	41.48	60	2000	
Sr	88	2	72	32.146	ppb	32.146	2.12	9173	4000	
Zr	90	2	72	19109.962	ppb	19109.962	4.48	115578	1000	>LDR
Mo	95	2	115	20.708	ppb	20.708	4.19	8799	2000	
Ag	107	2	115	28.967	ppb	28.967	1.27	39643	100	
Cd	111	2	115	0.671	ppb	0.671	39.44	127	2000	
Sn	120	2	115	34.094	ppb	34.094	3.92	16209	2000	
Sb	121	2	115	1.079	ppb	1.079	24.91	543	1000	
Ba	137	2	115	218.827	ppb	218.827	0.86	30604	5000	
W	182	2	165	40.181	ppb	40.181	1.68	78057	100	
Tl	205	2	165	0.257	ppb	0.257	19.32	1573	2000	
Pb	208	2	165	121.701	ppb	121.701	0.32	633051	5000	
Th	232	2	193	52.104	ppb	52.104	0.92	321334	2000	
U	238	2	193	11.154	ppb	11.154	1.20	77079	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	222703	0.89	252517	88.19	60	120	
Sc(IS)	45	1	HMI H2	8727494	0.46	9196623	94.90	60	120	
Sc (IS)	45	2	HMI He	498639	0.26	531422	93.83	60	120	
Sc (IS)	45	3	No Gas	17752539	1.24	18746179	94.70	60	120	
Ge Internal standard	72	1	HMI H2	3707797	0.91	3833850	96.71	60	120	
Ge Internal standard	72	2	HMI He	511137	0.75	524481	97.46	60	120	
In Internal standard	115	2	HMI He	1378096	1.06	1492548	92.33	60	120	
Ho-165	165	2	HMI He	6701605	1.21	6759932	99.14	60	120	
Ir (IS)	193	2	HMI He	5706332	0.61	5766680	98.95	60	120	

Sample Report

Sample Table

Sample Name	280-191122-a-10-a
Data File Name	066SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T18:00:37-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652543 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	60.135	ppb	60.135	4.75	1877908	50000	
Be	9	1	6	3.873	ppb	3.873	7.96	1087	2000	
B	11	1	6	13.164	ppb	13.164	0.95	3601	2000	
Na	23	2	45	3588.494	ppb	3588.494	1.95	621722	400000	
Mg	24	2	45	3501.813	ppb	3501.813	1.60	266535	400000	
Al	27	2	45	14717.897	ppb	14717.897	0.97	269218	400000	
Si	28	1	45	2955.607	ppb	2955.607	6.06	1546727	10000	
P	31	2	45	549.945	ppb	549.945	9.91	965	10000	
K	39	2	45	5042.434	ppb	5042.434	1.74	217467	400000	
Ca	40	1	45	3857.275	ppb	3857.275	1.68	6868682	400000	
Ti	47	2	45	4373.938	ppb	4373.938	1.92	67402	4000	
V	51	2	72	32.464	ppb	32.464	0.34	22676	2000	
Cr	52	2	72	18.747	ppb	18.747	0.90	17823	5000	
Mn	55	2	72	1631.840	ppb	1631.840	0.54	550275	10000	
Fe	56	1	72	74468.627	ppb	74468.627	0.42	204449997	10000	>LDR
(Fe)	57	2	72	75006.101	ppb	75006.101	0.52	1155523	400000	
Co	59	2	72	5.725	ppb	5.725	2.24	7962	2000	
Ni	60	2	72	20.460	ppb	20.460	4.27	8282	5000	
Cu	63	2	72	22.725	ppb	22.725	2.86	24155	5000	
Zn	66	2	72	418.589	ppb	418.589	1.30	66909	5000	
As	75	2	72	9.164	ppb	9.164	1.43	1100	2000	
Se	78	1	72	0.510	ppb	0.510	43.76	59	2000	
Sr	88	2	72	21.295	ppb	21.295	3.41	6051	4000	
Zr	90	2	72	20034.762	ppb	20034.762	4.13	120641	1000	>LDR
Mo	95	2	115	17.696	ppb	17.696	5.09	7589	2000	
Ag	107	2	115	8.877	ppb	8.877	5.94	12235	100	
Cd	111	2	115	0.347	ppb	0.347	42.01	67	2000	
Sn	120	2	115	33.083	ppb	33.083	7.47	15818	2000	
Sb	121	2	115	0.705	ppb	0.705	14.18	370	1000	
Ba	137	2	115	136.789	ppb	136.789	4.95	19249	5000	
W	182	2	165	39.914	ppb	39.914	0.26	76740	100	
Tl	205	2	165	0.142	ppb	0.142	13.44	1110	2000	
Pb	208	2	165	63.179	ppb	63.179	0.76	325656	5000	
Th	232	2	193	49.690	ppb	49.690	1.88	307601	2000	
U	238	2	193	10.355	ppb	10.355	1.59	71913	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	228342	1.56	252517	90.43	60	120	
Sc(IS)	45	1	HMI H2	8814086	0.84	9196623	95.84	60	120	
Sc (IS)	45	2	HMI He	497192	1.21	531422	93.56	60	120	
Sc (IS)	45	3	No Gas	17682591	1.40	18746179	94.33	60	120	
Ge Internal standard	72	1	HMI H2	3704910	0.75	3833850	96.64	60	120	
Ge Internal standard	72	2	HMI He	508857	0.50	524481	97.02	60	120	
In Internal standard	115	2	HMI He	1387860	3.89	1492548	92.99	60	120	
Ho-165	165	2	HMI He	6631593	0.35	6759932	98.10	60	120	
Ir (IS)	193	2	HMI He	5724767	1.37	5766680	99.27	60	120	

Sample Report

Sample Table

Sample Name	280-191114-a-1-a
Data File Name	067SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T18:04:12-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652543 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	72.333	ppb	72.333	2.11	2061774	50000	
Be	9	1	6	6.687	ppb	6.687	15.60	1844	2000	
B	11	1	6	86.716	ppb	86.716	4.07	17586	2000	
Na	23	2	45	3615.503	ppb	3615.503	0.83	653328	400000	
Mg	24	2	45	41835.449	ppb	41835.449	0.40	3320151	400000	
Al	27	2	45	190398.135	ppb	190398.135	0.41	3632620	400000	
Si	28	1	45	2588.924	ppb	2588.924	4.30	1409299	10000	
P	31	2	45	6051.072	ppb	6051.072	2.08	10455	10000	
K	39	2	45	27857.968	ppb	27857.968	0.38	1134616	400000	
Ca	40	1	45	94632.785	ppb	94632.785	0.28	173812964	400000	
Ti	47	2	45	6421.254	ppb	6421.254	1.68	103242	4000	
V	51	2	72	446.394	ppb	446.394	1.05	294605	2000	
Cr	52	2	72	136.219	ppb	136.219	0.16	121333	5000	
Mn	55	2	72	4816.569	ppb	4816.569	0.38	1637301	10000	
Fe	56	1	72	195845.101	ppb	195845.101	0.74	546967552	10000	>LDR
(Fe)	57	2	72	209037.894	ppb	209037.894	0.56	3246490	400000	
Co	59	2	72	68.203	ppb	68.203	1.07	95044	2000	
Ni	60	2	72	92.547	ppb	92.547	2.22	37226	5000	
Cu	63	2	72	201.899	ppb	201.899	0.37	213746	5000	
Zn	66	2	72	712.859	ppb	712.859	0.60	114721	5000	
As	75	2	72	22.906	ppb	22.906	2.95	2683	2000	
Se	78	1	72	1.903	ppb	1.903	13.40	201	2000	
Sr	88	2	72	1232.743	ppb	1232.743	1.18	352971	4000	
Zr	90	2	72	31851.458	ppb	31851.458	0.91	193210	1000	>LDR
Mo	95	2	115	8.335	ppb	8.335	6.77	3561	2000	
Ag	107	2	115	0.822	ppb	0.822	7.37	1143	100	
Cd	111	2	115	3.450	ppb	3.450	25.21	643	2000	
Sn	120	2	115	25.335	ppb	25.335	0.98	11985	2000	
Sb	121	2	115	3.899	ppb	3.899	5.08	1854	1000	
Ba	137	2	115	1660.709	ppb	1660.709	1.98	229986	5000	
W	182	2	165	1.277	ppb	1.277	6.12	2714	100	
Tl	205	2	165	2.092	ppb	2.092	3.88	8706	2000	
Pb	208	2	165	158.669	ppb	158.669	0.74	821728	5000	
Th	232	2	193	67.455	ppb	67.455	0.80	414300	2000	
U	238	2	193	10.654	ppb	10.654	2.54	73615	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	226865	1.12	252517	89.84	60	120	
Sc(IS)	45	1	HMI H2	9144612	0.67	9196623	99.43	60	120	
Sc (IS)	45	2	HMI He	518696	0.37	531422	97.61	60	120	
Sc (IS)	45	3	No Gas	18156673	0.47	18746179	96.86	60	120	
Ge Internal standard	72	1	HMI H2	3769159	0.13	3833850	98.31	60	120	
Ge Internal standard	72	2	HMI He	513047	0.52	524481	97.82	60	120	
In Internal standard	115	2	HMI He	1365541	3.18	1492548	91.49	60	120	
Ho-165	165	2	HMI He	6674965	0.86	6759932	98.74	60	120	
Ir (IS)	193	2	HMI He	5701273	1.53	5766680	98.87	60	120	

Sample Report

Sample Table

Sample Name	280-191114-a-2-a
Data File Name	068SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T18:07:46-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652543 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	32.154	ppb	32.154	3.64	1635973	50000	
Be	9	1	6	2.972	ppb	2.972	19.35	850	2000	
B	11	1	6	56.502	ppb	56.502	2.66	12038	2000	
Na	23	2	45	2593.395	ppb	2593.395	0.71	478588	400000	
Mg	24	2	45	20681.259	ppb	20681.259	1.22	1650186	400000	
Al	27	2	45	100800.534	ppb	100800.534	0.71	1933582	400000	
Si	28	1	45	1326.763	ppb	1326.763	2.38	729379	10000	
P	31	2	45	3438.772	ppb	3438.772	1.15	6001	10000	
K	39	2	45	14892.236	ppb	14892.236	0.93	622136	400000	
Ca	40	1	45	52789.511	ppb	52789.511	1.28	96391659	400000	
Ti	47	2	45	3857.498	ppb	3857.498	2.68	62358	4000	
V	51	2	72	242.853	ppb	242.853	0.27	162211	2000	
Cr	52	2	72	74.577	ppb	74.577	0.96	67603	5000	
Mn	55	2	72	1517.602	ppb	1517.602	0.54	519888	10000	
Fe	56	1	72	104792.780	ppb	104792.780	0.60	289435156	10000	>LDR
(Fe)	57	2	72	112629.114	ppb	112629.114	2.11	1762583	400000	
Co	59	2	72	29.182	ppb	29.182	0.89	41008	2000	
Ni	60	2	72	44.630	ppb	44.630	3.46	18171	5000	
Cu	63	2	72	112.192	ppb	112.192	0.41	119829	5000	
Zn	66	2	72	398.176	ppb	398.176	0.73	64670	5000	
As	75	2	72	11.056	ppb	11.056	5.61	1336	2000	
Se	78	1	72	1.408	ppb	1.408	14.30	149	2000	
Sr	88	2	72	829.394	ppb	829.394	0.40	239292	4000	
Zr	90	2	72	16574.833	ppb	16574.833	1.00	101448	1000	>LDR
Mo	95	2	115	3.375	ppb	3.375	14.12	1553	2000	
Ag	107	2	115	0.440	ppb	0.440	42.84	647	100	
Cd	111	2	115	1.827	ppb	1.827	10.34	357	2000	
Sn	120	2	115	17.351	ppb	17.351	1.51	8613	2000	
Sb	121	2	115	1.995	ppb	1.995	9.22	1007	1000	
Ba	137	2	115	927.144	ppb	927.144	1.39	133794	5000	
W	182	2	165	0.651	ppb	0.651	9.56	1523	100	
Tl	205	2	165	0.939	ppb	0.939	4.19	4267	2000	
Pb	208	2	165	90.758	ppb	90.758	0.88	475728	5000	
Th	232	2	193	46.615	ppb	46.615	1.08	293216	2000	
U	238	2	193	6.708	ppb	6.708	2.28	47903	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	230903	1.10	252517	91.44	60	120	
Sc(IS)	45	1	HMI H2	9089921	0.91	9196623	98.84	60	120	
Sc (IS)	45	2	HMI He	521496	0.62	531422	98.13	60	120	
Sc (IS)	45	3	No Gas	18303545	0.60	18746179	97.64	60	120	
Ge Internal standard	72	1	HMI H2	3727323	0.31	3833850	97.22	60	120	
Ge Internal standard	72	2	HMI He	516949	0.22	524481	98.56	60	120	
In Internal standard	115	2	HMI He	1422602	1.94	1492548	95.31	60	120	
Ho-165	165	2	HMI He	6750067	0.94	6759932	99.85	60	120	
Ir (IS)	193	2	HMI He	5810909	1.03	5766680	100.77	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-8327972
Data File Name	069_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T18:11:18-06:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	6	51.423	ppb	0.564	13713	50	102.8	90	110	
Na	23	2	45	49219.480	ppb	0.746	8436257	51000	96.5	90	110	
Mg	24	2	45	10181.925	ppb	0.806	796088	11000	92.6	90	110	
Al	27	2	45	1002.561	ppb	2.878	18898	1000	100.3	90	110	
Si	28	1	45	2554.867	ppb	0.678	1341946	2500	102.2	90	110	
K	39	2	45	10518.604	ppb	0.355	438107	11000	95.6	90	110	
Ca	40	1	45	10543.606	ppb	0.163	18721814	11000	95.9	90	110	
Ti	47	2	45	54.471	ppb	18.151	863	50	108.9	90	110	
V	51	2	72	50.357	ppb	2.312	34884	50	100.7	90	110	
Cr	52	2	72	50.200	ppb	0.332	46007	50	100.4	90	110	
Mn	55	2	72	48.775	ppb	6.229	16842	50	97.6	90	110	
Fe	56	1	72	1053.868	ppb	1.052	2970731	1000	105.4	90	110	
Co	59	2	72	49.938	ppb	3.428	70148	50	99.9	90	110	
Ni	60	2	72	48.477	ppb	3.363	19726	50	97.0	90	110	
Cu	63	2	72	50.007	ppb	0.619	53614	50	100.0	90	110	
Zn	66	2	72	48.741	ppb	4.301	8122	50	97.5	90	110	
As	75	2	72	52.235	ppb	1.412	6090	50	104.5	90	110	
Se	78	1	72	52.200	ppb	4.451	5313	50	104.4	90	110	
Sr	88	2	72	101.642	ppb	4.190	29344	100	101.6	90	110	
Zr	90	2	72	987.489	ppb	1.139	6322	50	1975.0	90	110	>+\-10%
Mo	95	2	115	52.371	ppb	2.498	23591	50	104.7	90	110	
Ag	107	2	115	50.531	ppb	0.892	73712	50	101.1	90	110	
Cd	111	2	115	50.804	ppb	3.836	10247	50	101.6	90	110	
Sn	120	2	115	49.810	ppb	3.096	25151	50	99.6	90	110	
Sb	121	2	115	50.679	ppb	2.870	25511	50	101.4	90	110	
Ba	137	2	115	51.223	ppb	3.311	7649	50	102.4	90	110	
W	182	2	165	51.967	ppb	0.718	99296	50	103.9	90	110	
Tl	205	2	165	50.558	ppb	1.468	195001	50	101.1	90	110	
Pb	208	2	165	50.979	ppb	0.802	261528	50	102.0	90	110	
Th	232	2	193	50.938	ppb	1.134	305522	50	101.9	90	110	
U	238	2	193	49.696	ppb	0.293	328094	50	99.4	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	222056	0.03	252517	87.94	60	120	
Sc(IS)	45	1	HMI H2	8822872	0.68	9196623	95.94	60	120	
Sc (IS)	45	2	HMI He	510922	0.67	531422	96.14	60	120	
Sc (IS)	45	3	No Gas	17760251	1.30	18746179	94.74	60	120	
Ge Internal standard	72	1	HMI H2	3767003	0.28	3833850	98.26	60	120	
Ge Internal standard	72	2	HMI He	517124	0.75	524481	98.60	60	120	
In Internal standard	115	2	HMI He	1469526	1.25	1492548	98.46	60	120	
Ho-165	165	2	HMI He	6595582	0.27	6759932	97.57	60	120	
Ir (IS)	193	2	HMI He	5548486	0.96	5766680	96.22	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-8327938
Data File Name	070_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T18:14:53-06:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-8.313	ppb	-12.8	1180528	10	
Be	9	1	6	0.072	ppb	78.3	47	0.5	
B	11	1	6	25.505	ppb	2.0	5948	0.5	>RL
Na	23	2	45	-14.424	ppb	-23.9	23243	25	
Mg	24	2	45	6.338	ppb	5.4	697	25	
Al	27	2	45	2.098	ppb	163.7	97	15	
Si	28	1	45	32.967	ppb	6.7	39440	1	>RL
K	39	2	45	25.659	ppb	84.2	26876	50	
Ca	40	1	45	2.572	ppb	13.8	46134	200	
(Ca)	44	1	45	1.235	ppb	304.2	1100	200	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	-0.519	ppb	-23.0	1217	1	
Cr	52	2	72	-0.065	ppb	-62.0	1427	1	
Mn	55	2	72	0.278	ppb	97.9	227	0.5	
Fe	56	1	72	10.877	ppb	5.5	58183	50	
(Fe)	57	2	72	4.690	ppb	91.4	303	25	
Co	59	2	72	0.046	ppb	30.9	120	0.5	
Ni	60	2	72	0.171	ppb	32.9	223	1	
Cu	63	2	72	-0.083	ppb	-84.8	247	1	
Zn	66	2	72	0.208	ppb	113.9	267	5	
As	75	2	72	-0.060	ppb	-165.0	53	1	
Se	78	1	72	0.017	ppb	559.7	9	1	
Sr	88	2	72	0.070	ppb	160.6	23	0.5	
Zr	90	2	72	19.892	ppb	48.1	413	1	>RL
Mo	95	2	115	-0.005	ppb	-705.8	90	0.5	
Ag	107	2	115	0.020	ppb	209.2	60	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.049	ppb	95.7	233	1	
Sb	121	2	115	0.165	ppb	24.2	120	0.6	
Ba	137	2	115	-0.021	ppb	-4.0	10	0.5	
W	182	2	165	0.377	ppb	30.3	980	1	
Tl	205	2	165	-0.069	ppb	-26.9	297	0.1	
Pb	208	2	165	0.013	ppb	269.9	1033	0.5	
Th	232	2	193	0.525	ppb	13.3	7536	1	
U	238	2	193	0.028	ppb	40.8	1910	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	227652	0.60	252517	90.15	60	120	
Sc(IS)	45	1	HMI H2	8661540	1.88	9196623	94.18	60	120	
Sc (IS)	45	2	HMI He	510634	0.52	531422	96.09	60	120	
Sc (IS)	45	3	No Gas	18153859	0.39	18746179	96.84	60	120	
Ge Internal standard	72	1	HMI H2	3675121	1.90	3833850	95.86	60	120	
Ge Internal standard	72	2	HMI He	516712	0.88	524481	98.52	60	120	
In Internal standard	115	2	HMI He	1479998	1.26	1492548	99.16	60	120	
Ho-165	165	2	HMI He	6685762	1.30	6759932	98.90	60	120	
Ir (IS)	193	2	HMI He	5655666	0.76	5766680	98.07	60	120	

Blank Report

Sample Table

Sample Name	mb 280-652623/1-a
Data File Name	071_BLK.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T18:18:29-06:00
Sample Type	Blank
Dilution	1
Comment	652623 6020
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	3	45	-8.705	ppb	-8.40771004	1166914	10
Be	9	1	6	0.085	ppb	128.4876989	50	0.5
B	11	1	6	6.637	ppb	7.3477396	2327	0.5
Na	23	2	45	-27.871	ppb	-3.597838865	20620	25
Mg	24	2	45	5.800	ppb	35.08690495	643	25
Al	27	2	45	3.981	ppb	1.995946187	130	15
K	39	2	45	16.576	ppb	91.27400746	26101	50
Ti	47	2	45	1.296	ppb	132.6156612	20	0.5
V	51	2	72	0.052	ppb	175.6095692	1597	1
Cr	52	2	72	0.293	ppb	72.03336473	1747	1
Mn	55	2	72	0.307	ppb	14.4681367	237	0.5
(Fe)	57	2	72	7.214	ppb	48.12745348	343	25
Co	59	2	72	0.017	ppb	83.71868274	80	0.5
Ni	60	2	72	0.352	ppb	10.68471212	297	1
Cu	63	2	72	0.001	ppb	3455.339226	337	1
Zn	66	2	72	0.473	ppb	47.43722786	310	5
As	75	2	72	0.098	ppb	95.95035137	71	1
Se	78	1	72	-0.011	ppb	-537.3348081	7	1
Sr	88	2	72	0.127	ppb	27.53844954	40	0.5
Zr	90	2	72	4.985	ppb	270.9958325	323	1
Mo	95	2	115	-0.128	ppb	-38.18515391	33	0.5
Ag	107	2	115	-0.006	ppb	-201.7705154	20	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	0.394	ppb	8.788851683	400	1
Sb	121	2	115	0.082	ppb	31.60911254	77	0.6
Ba	137	2	115	-0.020	ppb	-332.6732608	10	0.5
W	182	2	165	0.056	ppb	88.47435266	353	1
Tl	205	2	165	-0.110	ppb	-13.61215185	133	0.1
Pb	208	2	165	0.008	ppb	275.9197134	987	0.5
Th	232	2	193	0.263	ppb	19.64473705	5925	1
U	238	2	193	-0.002	ppb	-283.369672	1700	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	226193	0.75	252517	89.58	60	120	
Sc(IS)	45	1	HMI H2	8631261	1.82	9196623	93.85	60	120	
Sc (IS)	45	2	HMI He	502649	1.13	531422	94.59	60	120	
Sc (IS)	45	3	No Gas	18010106	0.94	18746179	96.07	60	120	
Ge Internal standard	72	1	HMI H2	3707928	1.89	3833850	96.72	60	120	
Ge Internal standard	72	2	HMI He	517331	0.37	524481	98.64	60	120	
In Internal standard	115	2	HMI He	1451315	3.36	1492548	97.24	60	120	
Ho-165	165	2	HMI He	6573330	0.88	6759932	97.24	60	120	
Ir (IS)	193	2	HMI He	5624628	0.60	5766680	97.54	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	lcs 280-652623/25-a
Data File Name	072_LCS.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T18:22:06-06:00
Sample Type	LCS
Dilution	1
Analyst	Denver Metals
Comment	652623 6020
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	31.553	31.553	ppb	9.488	1591380	400	7.9	80	120	>+/-20%
Be	9	1	6	38.833	38.833	ppb	3.894	10557	40	97.1	80	120	
Na	23	2	45	985.546	985.546	ppb	1.347	188652	1000	98.6	80	120	
Mg	24	2	45	1004.657	1004.657	ppb	0.702	76511	1000	100.5	80	120	
Al	27	2	45	832.940	832.940	ppb	1.385	15267	40	2082.3	80	120	>+/-20%
K	39	2	45	1031.255	1031.255	ppb	2.647	64426	1000	103.1	80	120	
Ca	40	1	45	1105.933	1105.933	ppb	0.871	1977664	1000	110.6	80	120	
V	51	2	72	39.662	39.662	ppb	1.551	27480	40	99.2	80	120	
Cr	52	2	72	41.375	41.375	ppb	1.852	37730	40	103.4	80	120	
Mn	55	2	72	39.390	39.390	ppb	5.069	13469	40	98.5	80	120	
(Fe)	57	2	72	843.970	843.970	ppb	2.044	13282	40	2109.9	80	120	>+/-20%
Co	59	2	72	41.194	41.194	ppb	1.584	57202	40	103.0	80	120	
Ni	60	2	72	41.030	41.030	ppb	0.836	16525	40	102.6	80	120	
Cu	63	2	72	41.647	41.647	ppb	1.647	44183	40	104.1	80	120	
Zn	66	2	72	41.451	41.451	ppb	5.542	6862	40	103.6	80	120	
As	75	2	72	41.408	41.408	ppb	2.690	4784	40	103.5	80	120	
Se	78	1	72	39.379	39.379	ppb	6.050	4011	40	98.4	80	120	
Mo	95	2	115	40.299	40.299	ppb	2.696	17840	40	100.7	80	120	
Ag	107	2	115	42.057	42.057	ppb	2.151	60190	40	105.1	80	120	
Cd	111	2	115	40.452	40.452	ppb	5.621	8006	40	101.1	80	120	
Sn	120	2	115	40.453	40.453	ppb	2.305	20080	40	101.1	80	120	
Sb	121	2	115	41.060	41.060	ppb	4.891	20287	40	102.6	80	120	
Ba	137	2	115	41.146	41.146	ppb	2.321	6031	40	102.9	80	120	
W	182	2	165	0.073	0.073	ppb	71.371	387	40	0.2	80	120	>+/-20%
Tl	205	2	165	40.333	40.333	ppb	1.324	156233	40	100.8	80	120	
Pb	208	2	165	41.167	41.167	ppb	0.761	212143	40	102.9	80	120	
Th	232	2	193	37.706	37.706	ppb	0.239	232899	40	94.3	80	120	
U	238	2	193	38.824	38.824	ppb	0.982	263009	40	97.1	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	226208	2.22	252517	89.58	60	120	
Sc(IS)	45	1	HMI H2	8716573	1.23	9196623	94.78	60	120	
Sc (IS)	45	2	HMI He	496518	0.61	531422	93.43	60	120	
Sc (IS)	45	3	No Gas	17878027	0.54	18746179	95.37	60	120	
Ge Internal standard	72	1	HMI H2	3768726	0.73	3833850	98.30	60	120	
Ge Internal standard	72	2	HMI He	511053	0.59	524481	97.44	60	120	
In Internal standard	115	2	HMI He	1441992	2.14	1492548	96.61	60	120	
Ho-165	165	2	HMI He	6619733	1.12	6759932	97.93	60	120	
Ir (IS)	193	2	HMI He	5685431	0.67	5766680	98.59	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-1-d
Data File Name	073SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T18:25:39-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	78.545	ppb	78.545	2.74	1986879	50000	
Be	9	1	6	0.030	ppb	0.030	452.08	33	2000	
B	11	1	6	912.851	ppb	912.851	1.02	166501	2000	
Na	23	2	45	73765.183	ppb	73765.183	0.73	11623199	400000	
Mg	24	2	45	246627.256	ppb	246627.256	0.46	17740188	400000	
Al	27	2	45	1.569	ppb	1.569	168.66	80	400000	
Si	28	1	45	7439.516	ppb	7439.516	0.31	3701048	10000	
P	31	2	45	18.680	ppb	18.680	74.37	86	10000	
K	39	2	45	8250.449	ppb	8250.449	0.45	321350	400000	
Ca	40	1	45	495846.605	ppb	495846.605	0.65	841638894	400000	
Ti	47	2	45	0.682	ppb	0.682	99.62	10	4000	
V	51	2	72	0.052	ppb	0.052	706.67	1463	2000	
Cr	52	2	72	0.582	ppb	0.582	15.40	1837	5000	
Mn	55	2	72	3075.224	ppb	3075.224	0.35	966638	10000	
Fe	56	1	72	19.969	ppb	19.969	0.77	81036	10000	
(Fe)	57	2	72	43.794	ppb	43.794	4.71	840	400000	
Co	59	2	72	3.758	ppb	3.758	3.05	4891	2000	
Ni	60	2	72	13.713	ppb	13.713	5.70	5221	5000	
Cu	63	2	72	0.524	ppb	0.524	20.45	820	5000	
Zn	66	2	72	1.881	ppb	1.881	34.84	493	5000	
As	75	2	72	0.264	ppb	0.264	76.16	83	2000	
Se	78	1	72	0.336	ppb	0.336	2.33	40	2000	
Sr	88	2	72	2266.614	ppb	2266.614	0.92	600100	4000	
Zr	90	2	72	41.362	ppb	41.362	21.80	500	1000	
Mo	95	2	115	1.436	ppb	1.436	24.37	627	2000	
Ag	107	2	115	0.092	ppb	0.092	67.79	140	100	
Cd	111	2	115	0.078	ppb	0.078	86.60	13	2000	
Sn	120	2	115	0.282	ppb	0.282	63.63	297	2000	
Sb	121	2	115	0.403	ppb	0.403	16.64	203	1000	
Ba	137	2	115	13.698	ppb	13.698	3.45	1750	5000	
W	182	2	165	0.127	ppb	0.127	26.53	470	100	
Tl	205	2	165	-0.050	ppb	-0.050	-70.82	350	2000	
Pb	208	2	165	0.115	ppb	0.115	12.26	1480	5000	
Th	232	2	193	0.791	ppb	0.791	2.64	8613	2000	
U	238	2	193	3.244	ppb	3.244	1.46	22081	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	215978	0.39	252517	85.53	60	120	
Sc(IS)	45	1	HMI H2	8452679	0.98	9196623	91.91	60	120	
Sc (IS)	45	2	HMI He	470167	0.83	531422	88.47	60	120	
Sc (IS)	45	3	No Gas	16939258	0.51	18746179	90.36	60	120	
Ge Internal standard	72	1	HMI H2	3589875	1.87	3833850	93.64	60	120	
Ge Internal standard	72	2	HMI He	474393	0.37	524481	90.45	60	120	
In Internal standard	115	2	HMI He	1251498	0.30	1492548	83.85	60	120	
Ho-165	165	2	HMI He	6340852	0.19	6759932	93.80	60	120	
Ir (IS)	193	2	HMI He	5328907	0.16	5766680	92.41	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-1-dSD@5
Data File Name	074SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T18:29:13-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	12.862	ppb	12.862	3.90	1275923	50000	
Be	9	1	6	-0.036	ppb	-0.036	-308.34	17	2000	
B	11	1	6	222.366	ppb	222.366	1.97	42453	2000	
Na	23	2	45	15284.419	ppb	15284.419	3.56	2443191	400000	
Mg	24	2	45	51563.463	ppb	51563.463	1.14	3734823	400000	
Al	27	2	45	4.445	ppb	4.445	70.21	130	400000	
Si	28	1	45	1551.554	ppb	1551.554	1.87	776795	10000	
P	31	2	45	3.903	ppb	3.903	209.28	63	10000	
K	39	2	45	1724.894	ppb	1724.894	2.45	86638	400000	
Ca	40	1	45	102314.317	ppb	102314.317	1.95	170911531	400000	
Ti	47	2	45	0.455	ppb	0.455	173.21	7	4000	
V	51	2	72	0.452	ppb	0.452	73.41	1777	2000	
Cr	52	2	72	0.053	ppb	0.053	202.79	1463	5000	
Mn	55	2	72	604.867	ppb	604.867	1.72	197961	10000	
Fe	56	1	72	17.009	ppb	17.009	2.06	74279	10000	
(Fe)	57	2	72	16.945	ppb	16.945	54.51	473	400000	
Co	59	2	72	0.734	ppb	0.734	7.68	1037	2000	
Ni	60	2	72	3.138	ppb	3.138	13.40	1357	5000	
Cu	63	2	72	0.318	ppb	0.318	8.84	643	5000	
Zn	66	2	72	2.010	ppb	2.010	5.39	533	5000	
As	75	2	72	0.139	ppb	0.139	96.61	73	2000	
Se	78	1	72	0.099	ppb	0.099	144.06	17	2000	
Sr	88	2	72	448.877	ppb	448.877	1.54	123682	4000	
Zr	90	2	72	5.826	ppb	5.826	87.01	313	1000	
Mo	95	2	115	0.282	ppb	0.282	18.75	193	2000	
Ag	107	2	115	0.010	ppb	0.010	147.33	40	100	
Cd	111	2	115	0.019	ppb	0.019	173.21	3	2000	
Sn	120	2	115	0.352	ppb	0.352	31.50	340	2000	
Sb	121	2	115	0.160	ppb	0.160	56.38	103	1000	
Ba	137	2	115	2.841	ppb	2.841	13.80	387	5000	
W	182	2	165	0.049	ppb	0.049	54.55	333	100	
Tl	205	2	165	-0.063	ppb	-0.063	-20.53	310	2000	
Pb	208	2	165	0.073	ppb	0.073	6.85	1297	5000	
Th	232	2	193	0.208	ppb	0.208	16.92	5445	2000	
U	238	2	193	0.648	ppb	0.648	5.67	5861	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	221858	0.92	252517	87.86	60	120	
Sc(IS)	45	1	HMI H2	8318957	1.78	9196623	90.46	60	120	
Sc (IS)	45	2	HMI He	473465	1.74	531422	89.09	60	120	
Sc (IS)	45	3	No Gas	16405716	0.83	18746179	87.51	60	120	
Ge Internal standard	72	1	HMI H2	3644761	0.47	3833850	95.07	60	120	
Ge Internal standard	72	2	HMI He	493704	0.55	524481	94.13	60	120	
In Internal standard	115	2	HMI He	1301886	0.23	1492548	87.23	60	120	
Ho-165	165	2	HMI He	6457555	0.50	6759932	95.53	60	120	
Ir (IS)	193	2	HMI He	5473040	0.36	5766680	94.91	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-1-e ms
Data File Name	075SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T18:32:47-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	123.367	ppb	123.367	2.78	2328855	50000	
Be	9	1	6	40.753	ppb	40.753	1.45	10167	2000	
B	11	1	6	968.552	ppb	968.552	1.91	169759	2000	
Na	23	2	45	75503.400	ppb	75503.400	1.51	11745075	400000	
Mg	24	2	45	250880.275	ppb	250880.275	1.19	17817271	400000	
Al	27	2	45	796.531	ppb	796.531	5.22	13653	400000	
Si	28	1	45	8048.657	ppb	8048.657	0.44	3859390	10000	
P	31	2	45	14.744	ppb	14.744	73.09	79	10000	
K	39	2	45	9370.648	ppb	9370.648	1.30	357153	400000	
Ca	40	1	45	514191.874	ppb	514191.874	1.03	841556147	400000	
Ti	47	2	45	53.326	ppb	53.326	13.20	767	4000	
V	51	2	72	40.041	ppb	40.041	2.23	25323	2000	
Cr	52	2	72	40.483	ppb	40.483	1.40	33745	5000	
Mn	55	2	72	3166.389	ppb	3166.389	0.33	979215	10000	
Fe	56	1	72	850.610	ppb	850.610	0.69	2189933	10000	
(Fe)	57	2	72	792.796	ppb	792.796	1.48	11408	400000	
Co	59	2	72	42.621	ppb	42.621	2.74	54048	2000	
Ni	60	2	72	50.280	ppb	50.280	4.23	18461	5000	
Cu	63	2	72	38.558	ppb	38.558	0.77	37380	5000	
Zn	66	2	72	39.498	ppb	39.498	2.85	5981	5000	
As	75	2	72	41.024	ppb	41.024	1.97	4329	2000	
Se	78	1	72	40.976	ppb	40.976	5.36	3802	2000	
Sr	88	2	72	2424.437	ppb	2424.437	0.84	631514	4000	
Zr	90	2	72	172.296	ppb	172.296	13.99	1213	1000	
Mo	95	2	115	44.939	ppb	44.939	0.77	17100	2000	
Ag	107	2	115	43.309	ppb	43.309	1.76	53326	100	
Cd	111	2	115	41.065	ppb	41.065	3.05	6992	2000	
Sn	120	2	115	44.362	ppb	44.362	4.87	18925	2000	
Sb	121	2	115	45.673	ppb	45.673	1.41	19413	1000	
Ba	137	2	115	56.891	ppb	56.891	7.14	7172	5000	
W	182	2	165	0.104	ppb	0.104	8.58	427	100	
Tl	205	2	165	39.379	ppb	39.379	1.34	145424	2000	
Pb	208	2	165	39.791	ppb	39.791	0.65	195493	5000	
Th	232	2	193	39.503	ppb	39.503	0.62	226917	2000	
U	238	2	193	43.707	ppb	43.707	1.03	275400	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	207637	1.07	252517	82.23	60	120	
Sc(IS)	45	1	HMI H2	8150939	1.12	9196623	88.63	60	120	
Sc (IS)	45	2	HMI He	464228	1.16	531422	87.36	60	120	
Sc (IS)	45	3	No Gas	16142774	1.57	18746179	86.11	60	120	
Ge Internal standard	72	1	HMI H2	3432432	0.93	3833850	89.53	60	120	
Ge Internal standard	72	2	HMI He	466733	0.50	524481	88.99	60	120	
In Internal standard	115	2	HMI He	1240351	0.80	1492548	83.10	60	120	
Ho-165	165	2	HMI He	6310039	0.26	6759932	93.34	60	120	
Ir (IS)	193	2	HMI He	5292046	0.41	5766680	91.77	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-1-f msd
Data File Name	076SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T18:36:21-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	120.878	ppb	120.878	1.69	2291120	50000	
Be	9	1	6	39.107	ppb	39.107	7.12	9676	2000	
B	11	1	6	973.722	ppb	973.722	0.67	169263	2000	
Na	23	2	45	75727.871	ppb	75727.871	0.55	11863345	400000	
Mg	24	2	45	253015.452	ppb	253015.452	0.79	18095273	400000	
Al	27	2	45	844.328	ppb	844.328	2.40	14570	400000	
Si	28	1	45	8043.881	ppb	8043.881	0.31	3841489	10000	
P	31	2	45	13.068	ppb	13.068	60.28	77	10000	
K	39	2	45	9399.407	ppb	9399.407	1.28	360696	400000	
Ca	40	1	45	515961.300	ppb	515961.300	0.39	841070867	400000	
Ti	47	2	45	43.243	ppb	43.243	10.06	627	4000	
V	51	2	72	40.934	ppb	40.934	1.59	26475	2000	
Cr	52	2	72	39.288	ppb	39.288	0.23	33574	5000	
Mn	55	2	72	3130.684	ppb	3130.684	0.23	991344	10000	
Fe	56	1	72	856.273	ppb	856.273	0.20	2186555	10000	
(Fe)	57	2	72	868.213	ppb	868.213	3.08	12772	400000	
Co	59	2	72	40.811	ppb	40.811	0.64	52998	2000	
Ni	60	2	72	49.566	ppb	49.566	1.32	18638	5000	
Cu	63	2	72	38.599	ppb	38.599	1.45	38315	5000	
Zn	66	2	72	40.469	ppb	40.469	5.81	6271	5000	
As	75	2	72	40.159	ppb	40.159	1.67	4340	2000	
Se	78	1	72	41.920	ppb	41.920	4.97	3858	2000	
Sr	88	2	72	2412.362	ppb	2412.362	0.99	643395	4000	
Zr	90	2	72	131.006	ppb	131.006	21.87	1010	1000	
Mo	95	2	115	45.295	ppb	45.295	1.98	17574	2000	
Ag	107	2	115	41.933	ppb	41.933	2.05	52654	100	
Cd	111	2	115	42.083	ppb	42.083	6.27	7305	2000	
Sn	120	2	115	45.154	ppb	45.154	1.78	19643	2000	
Sb	121	2	115	45.923	ppb	45.923	0.24	19903	1000	
Ba	137	2	115	55.886	ppb	55.886	2.21	7182	5000	
W	182	2	165	0.115	ppb	0.115	41.41	450	100	
Tl	205	2	165	39.352	ppb	39.352	1.83	146359	2000	
Pb	208	2	165	39.187	ppb	39.187	0.76	193908	5000	
Th	232	2	193	40.405	ppb	40.405	1.57	231963	2000	
U	238	2	193	44.157	ppb	44.157	1.31	278161	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	205909	0.33	252517	81.54	60	120	
Sc(IS)	45	1	HMI H2	8117728	0.17	9196623	88.27	60	120	
Sc (IS)	45	2	HMI He	467472	0.63	531422	87.97	60	120	
Sc (IS)	45	3	No Gas	16047893	0.87	18746179	85.61	60	120	
Ge Internal standard	72	1	HMI H2	3404646	0.82	3833850	88.80	60	120	
Ge Internal standard	72	2	HMI He	477903	0.71	524481	91.12	60	120	
In Internal standard	115	2	HMI He	1264733	0.43	1492548	84.74	60	120	
Ho-165	165	2	HMI He	6354631	0.46	6759932	94.00	60	120	
Ir (IS)	193	2	HMI He	5290882	0.43	5766680	91.75	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-1-dPDS
Data File Name	077SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T18:39:55-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	268.198	ppb	268.198	1.08	3836119	50000	
Be	9	1	6	195.518	ppb	195.518	2.41	48402	2000	
B	11	1	6	992.822	ppb	992.822	0.80	173044	2000	
Na	23	2	45	76187.293	ppb	76187.293	1.40	12340135	400000	
Mg	24	2	45	240273.440	ppb	240273.440	1.71	17766711	400000	
Al	27	2	45	1977.305	ppb	1977.305	1.51	35217	400000	
Si	28	1	45	9288.692	ppb	9288.692	0.46	4556631	10000	
P	31	2	45	2026.087	ppb	2026.087	2.90	3300	10000	
K	39	2	45	10106.040	ppb	10106.040	0.59	399184	400000	
Ca	40	1	45	501150.536	ppb	501150.536	1.16	839761294	400000	
Ti	47	2	45	189.325	ppb	189.325	5.09	2837	4000	
V	51	2	72	195.687	ppb	195.687	1.67	125097	2000	
Cr	52	2	72	191.590	ppb	191.590	1.01	163619	5000	
Mn	55	2	72	3160.510	ppb	3160.510	0.47	1033767	10000	
Fe	56	1	72	2028.619	ppb	2028.619	1.32	5307729	10000	
(Fe)	57	2	72	2021.120	ppb	2021.120	1.23	30419	400000	
Co	59	2	72	186.229	ppb	186.229	0.15	249629	2000	
Ni	60	2	72	183.963	ppb	183.963	1.77	71055	5000	
Cu	63	2	72	179.908	ppb	179.908	0.56	183306	5000	
Zn	66	2	72	192.410	ppb	192.410	4.39	29948	5000	
As	75	2	72	191.312	ppb	191.312	1.97	21144	2000	
Se	78	1	72	192.344	ppb	192.344	1.75	18236	2000	
Sr	88	2	72	2468.069	ppb	2468.069	0.73	680025	4000	
Zr	90	2	72	394.918	ppb	394.918	5.29	2580	1000	
Mo	95	2	115	211.355	ppb	211.355	0.65	84704	2000	
Ag	107	2	115	53.436	ppb	53.436	3.10	69561	100	
Cd	111	2	115	199.093	ppb	199.093	2.27	35831	2000	
Sn	120	2	115	219.870	ppb	219.870	1.14	98453	2000	
Sb	121	2	115	228.344	ppb	228.344	1.15	102461	1000	
Ba	137	2	115	232.162	ppb	232.162	1.24	30891	5000	
W	182	2	165	78.232	ppb	78.232	0.49	148043	100	
Tl	205	2	165	192.074	ppb	192.074	0.84	732760	2000	
Pb	208	2	165	193.000	ppb	193.000	0.72	978785	5000	
Th	232	2	193	83.447	ppb	83.447	2.25	484335	2000	
U	238	2	193	211.552	ppb	211.552	0.85	1353678	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	206482	1.58	252517	81.77	60	120	
Sc(IS)	45	1	HMI H2	8344648	0.80	9196623	90.74	60	120	
Sc (IS)	45	2	HMI He	483394	1.56	531422	90.96	60	120	
Sc (IS)	45	3	No Gas	16577334	1.07	18746179	88.43	60	120	
Ge Internal standard	72	1	HMI H2	3513127	0.89	3833850	91.63	60	120	
Ge Internal standard	72	2	HMI He	493665	1.20	524481	94.12	60	120	
In Internal standard	115	2	HMI He	1311178	1.14	1492548	87.85	60	120	
Ho-165	165	2	HMI He	6537450	0.51	6759932	96.71	60	120	
Ir (IS)	193	2	HMI He	5399168	1.11	5766680	93.63	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-2-a
Data File Name	078SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T18:43:29-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	89.223	ppb	89.223	3.45	2024435	50000	
Be	9	1	6	0.010	ppb	0.010	643.72	27	2000	
B	11	1	6	1569.378	ppb	1569.378	1.11	270722	2000	
Na	23	2	45	126996.201	ppb	126996.201	1.37	20273305	400000	
Mg	24	2	45	224112.057	ppb	224112.057	1.09	16346251	400000	
Al	27	2	45	7.793	ppb	7.793	20.35	190	400000	
Si	28	1	45	8029.606	ppb	8029.606	0.99	3902683	10000	
P	31	2	45	18.435	ppb	18.435	19.32	87	10000	
K	39	2	45	9536.447	ppb	9536.447	1.31	372861	400000	
Ca	40	1	45	495021.130	ppb	495021.130	0.45	821299108	400000	
Ti	47	2	45	0.448	ppb	0.448	86.61	7	4000	
V	51	2	72	1.163	ppb	1.163	9.32	2194	2000	
Cr	52	2	72	0.454	ppb	0.454	5.60	1777	5000	
Mn	55	2	72	2204.417	ppb	2204.417	0.93	710733	10000	
Fe	56	1	72	5561.527	ppb	5561.527	0.81	14132547	10000	
(Fe)	57	2	72	5427.281	ppb	5427.281	1.02	80162	400000	
Co	59	2	72	0.564	ppb	0.564	7.19	797	2000	
Ni	60	2	72	3.497	ppb	3.497	7.54	1473	5000	
Cu	63	2	72	0.072	ppb	0.072	119.92	387	5000	
Zn	66	2	72	4.218	ppb	4.218	23.15	863	5000	
As	75	2	72	2.230	ppb	2.230	7.34	299	2000	
Se	78	1	72	0.269	ppb	0.269	73.48	32	2000	
Sr	88	2	72	3076.517	ppb	3076.517	0.99	835435	4000	
Zr	90	2	72	42.619	ppb	42.619	9.48	520	1000	
Mo	95	2	115	3.309	ppb	3.309	10.86	1393	2000	
Ag	107	2	115	0.000	ppb	0.000	6713.65	27	100	
Cd	111	2	115	0.038	ppb	0.038	86.61	7	2000	
Sn	120	2	115	0.730	ppb	0.730	5.24	507	2000	
Sb	121	2	115	0.596	ppb	0.596	17.72	297	1000	
Ba	137	2	115	13.036	ppb	13.036	9.67	1730	5000	
W	182	2	165	0.451	ppb	0.451	15.36	1070	100	
Tl	205	2	165	0.112	ppb	0.112	32.47	953	2000	
Pb	208	2	165	0.114	ppb	0.114	13.47	1483	5000	
Th	232	2	193	0.639	ppb	0.639	7.25	7626	2000	
U	238	2	193	1.683	ppb	1.683	4.50	12045	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	204762	1.79	252517	81.09	60	120	
Sc(IS)	45	1	HMI H2	8261993	0.71	9196623	89.84	60	120	
Sc (IS)	45	2	HMI He	476762	1.19	531422	89.71	60	120	
Sc (IS)	45	3	No Gas	16362304	0.78	18746179	87.28	60	120	
Ge Internal standard	72	1	HMI H2	3423190	0.69	3833850	89.29	60	120	
Ge Internal standard	72	2	HMI He	486608	1.46	524481	92.78	60	120	
In Internal standard	115	2	HMI He	1299200	1.15	1492548	87.05	60	120	
Ho-165	165	2	HMI He	6374487	1.38	6759932	94.30	60	120	
Ir (IS)	193	2	HMI He	5247423	1.40	5766680	91.00	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-3-a
Data File Name	079SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T18:47:03-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	91.338	ppb	91.338	2.20	1996523	50000	
Be	9	1	6	-0.001	ppb	-0.001	-12980.12	23	2000	
B	11	1	6	1489.895	ppb	1489.895	1.02	250411	2000	
Na	23	2	45	135867.865	ppb	135867.865	0.04	21193019	400000	
Mg	24	2	45	188510.100	ppb	188510.100	0.46	13436189	400000	
Al	27	2	45	12.109	ppb	12.109	23.16	260	400000	
Si	28	1	45	7677.829	ppb	7677.829	0.59	3649036	10000	
P	31	2	45	16.677	ppb	16.677	10.35	82	10000	
K	39	2	45	9804.643	ppb	9804.643	0.57	373943	400000	
Ca	40	1	45	365481.553	ppb	365481.553	0.97	592754791	400000	
Ti	47	2	45	1.381	ppb	1.381	49.42	20	4000	
V	51	2	72	0.635	ppb	0.635	70.11	1840	2000	
Cr	52	2	72	0.247	ppb	0.247	119.47	1587	5000	
Mn	55	2	72	1204.825	ppb	1204.825	0.77	383816	10000	
Fe	56	1	72	120.329	ppb	120.329	1.17	330713	10000	
(Fe)	57	2	72	132.369	ppb	132.369	5.76	2140	400000	
Co	59	2	72	0.277	ppb	0.277	16.13	413	2000	
Ni	60	2	72	4.259	ppb	4.259	12.14	1743	5000	
Cu	63	2	72	0.143	ppb	0.143	6.70	453	5000	
Zn	66	2	72	3.105	ppb	3.105	21.43	683	5000	
As	75	2	72	0.205	ppb	0.205	23.92	78	2000	
Se	78	1	72	0.241	ppb	0.241	26.76	29	2000	
Sr	88	2	72	2496.513	ppb	2496.513	0.44	669772	4000	
Zr	90	2	72	14.823	ppb	14.823	83.89	357	1000	
Mo	95	2	115	3.481	ppb	3.481	8.61	1427	2000	
Ag	107	2	115	-0.002	ppb	-0.002	-877.87	23	100	
Cd	111	2	115	0.058	ppb	0.058	173.21	10	2000	
Sn	120	2	115	0.489	ppb	0.489	43.85	390	2000	
Sb	121	2	115	0.212	ppb	0.212	49.95	123	1000	
Ba	137	2	115	13.546	ppb	13.546	13.62	1753	5000	
W	182	2	165	0.232	ppb	0.232	21.98	653	100	
Tl	205	2	165	-0.046	ppb	-0.046	-69.19	360	2000	
Pb	208	2	165	0.021	ppb	0.021	132.94	1003	5000	
Th	232	2	193	0.223	ppb	0.223	19.16	5184	2000	
U	238	2	193	2.863	ppb	2.863	1.93	18943	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	199481	0.76	252517	79.00	60	120	
Sc(IS)	45	1	HMI H2	8076508	0.33	9196623	87.82	60	120	
Sc (IS)	45	2	HMI He	465858	0.84	531422	87.66	60	120	
Sc (IS)	45	3	No Gas	15972978	0.65	18746179	85.21	60	120	
Ge Internal standard	72	1	HMI H2	3411751	0.59	3833850	88.99	60	120	
Ge Internal standard	72	2	HMI He	480691	1.28	524481	91.65	60	120	
In Internal standard	115	2	HMI He	1267818	0.38	1492548	84.94	60	120	
Ho-165	165	2	HMI He	6255417	0.75	6759932	92.54	60	120	
Ir (IS)	193	2	HMI He	5130107	1.06	5766680	88.96	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-8327972
Data File Name	080_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T18:50:36-06:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	6	51.521	ppb	2.175	12675	50	103.0	90	110	
Na	23	2	45	48335.153	ppb	1.126	7830466	51000	94.8	90	110	
Mg	24	2	45	10192.942	ppb	0.734	753216	11000	92.7	90	110	
Al	27	2	45	1031.305	ppb	2.960	18370	1000	103.1	90	110	
Si	28	1	45	2635.423	ppb	0.669	1305766	2500	105.4	90	110	
K	39	2	45	10543.017	ppb	1.113	414952	11000	95.8	90	110	
Ca	40	1	45	10823.886	ppb	0.601	18138174	11000	98.4	90	110	
Ti	47	2	45	49.461	ppb	17.517	740	50	98.9	90	110	
V	51	2	72	49.136	ppb	2.210	32990	50	98.3	90	110	
Cr	52	2	72	48.155	ppb	2.461	42789	50	96.3	90	110	
Mn	55	2	72	49.774	ppb	4.723	16639	50	99.5	90	110	
Fe	56	1	72	1042.264	ppb	1.150	2751788	1000	104.2	90	110	
Co	59	2	72	47.686	ppb	1.709	64870	50	95.4	90	110	
Ni	60	2	72	47.068	ppb	1.589	18551	50	94.1	90	110	
Cu	63	2	72	47.709	ppb	1.598	49538	50	95.4	90	110	
Zn	66	2	72	48.545	ppb	4.391	7836	50	97.1	90	110	
As	75	2	72	49.533	ppb	1.091	5594	50	99.1	90	110	
Se	78	1	72	49.944	ppb	4.613	4761	50	99.9	90	110	
Sr	88	2	72	104.466	ppb	0.781	29194	100	104.5	90	110	
Zr	90	2	72	162.468	ppb	7.429	1243	50	324.9	90	110	>+\-10%
Mo	95	2	115	47.446	ppb	0.483	20360	50	94.9	90	110	
Ag	107	2	115	49.574	ppb	3.211	68807	50	99.1	90	110	
Cd	111	2	115	49.699	ppb	1.779	9543	50	99.4	90	110	
Sn	120	2	115	51.715	ppb	2.933	24847	50	103.4	90	110	
Sb	121	2	115	52.334	ppb	2.911	25071	50	104.7	90	110	
Ba	137	2	115	53.948	ppb	4.470	7662	50	107.9	90	110	
W	182	2	165	51.090	ppb	1.499	94959	50	102.2	90	110	
Tl	205	2	165	50.033	ppb	0.818	187703	50	100.1	90	110	
Pb	208	2	165	50.072	ppb	0.373	249875	50	100.1	90	110	
Th	232	2	193	51.530	ppb	1.873	293263	50	103.1	90	110	
U	238	2	193	50.372	ppb	1.453	315562	50	100.7	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	204903	1.32	252517	81.14	60	120	
Sc(IS)	45	1	HMI H2	8326885	0.98	9196623	90.54	60	120	
Sc (IS)	45	2	HMI He	482897	0.94	531422	90.87	60	120	
Sc (IS)	45	3	No Gas	16076084	0.47	18746179	85.76	60	120	
Ge Internal standard	72	1	HMI H2	3527764	0.54	3833850	92.02	60	120	
Ge Internal standard	72	2	HMI He	500668	0.46	524481	95.46	60	120	
In Internal standard	115	2	HMI He	1399054	3.15	1492548	93.74	60	120	
Ho-165	165	2	HMI He	6415374	0.45	6759932	94.90	60	120	
Ir (IS)	193	2	HMI He	5265235	0.44	5766680	91.30	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-8327938
Data File Name	081_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T18:54:11-06:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-5.946	ppb	-12.3	1049475	10	
Be	9	1	6	0.078	ppb	84.5	43	0.5	
B	11	1	6	51.127	ppb	2.7	9803	0.5	>RL
Na	23	2	45	26.015	ppb	28.0	27927	25	>RL
Mg	24	2	45	17.462	ppb	5.4	1450	25	
Al	27	2	45	0.605	ppb	563.3	63	15	
Si	28	1	45	52.521	ppb	3.8	45682	1	>RL
K	39	2	45	48.763	ppb	25.8	25730	50	
Ca	40	1	45	15.492	ppb	6.0	63483	200	
(Ca)	44	1	45	13.282	ppb	24.0	1610	200	
Ti	47	2	45	0.678	ppb	173.2	10	0.5	>RL
V	51	2	72	-0.473	ppb	-42.9	1163	1	
Cr	52	2	72	-0.297	ppb	-53.5	1140	1	
Mn	55	2	72	0.523	ppb	28.8	290	0.5	>RL
Fe	56	1	72	3.852	ppb	8.6	35980	50	
(Fe)	57	2	72	-3.711	ppb	-149.8	160	25	
Co	59	2	72	0.055	ppb	34.0	123	0.5	
Ni	60	2	72	-0.038	ppb	-417.7	130	1	
Cu	63	2	72	-0.063	ppb	-81.5	250	1	
Zn	66	2	72	-0.050	ppb	-609.7	210	5	
As	75	2	72	-0.015	ppb	-665.0	54	1	
Se	78	1	72	0.083	ppb	31.8	15	1	
Sr	88	2	72	0.162	ppb	57.6	47	0.5	
Zr	90	2	72	-6.344	ppb	-30.2	237	1	
Mo	95	2	115	0.091	ppb	91.5	120	0.5	
Ag	107	2	115	0.005	ppb	239.0	33	1	
Cd	111	2	115	0.037	ppb	86.6	7	0.5	
Sn	120	2	115	0.233	ppb	75.0	293	1	
Sb	121	2	115	0.206	ppb	106.2	127	0.6	
Ba	137	2	115	0.061	ppb	210.0	20	0.5	
W	182	2	165	0.285	ppb	18.9	753	1	
Tl	205	2	165	-0.036	ppb	-22.7	400	0.1	
Pb	208	2	165	0.002	ppb	889.9	917	0.5	
Th	232	2	193	0.620	ppb	22.7	7609	1	
U	238	2	193	0.063	ppb	85.0	2010	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	205804	2.02	252517	81.50	60	120	
Sc(IS)	45	1	HMI H2	8016277	1.94	9196623	87.17	60	120	
Sc (IS)	45	2	HMI He	472966	0.74	531422	89.00	60	120	
Sc (IS)	45	3	No Gas	15792756	1.13	18746179	84.25	60	120	
Ge Internal standard	72	1	HMI H2	3384033	0.94	3833850	88.27	60	120	
Ge Internal standard	72	2	HMI He	482099	0.86	524481	91.92	60	120	
In Internal standard	115	2	HMI He	1327570	0.93	1492548	88.95	60	120	
Ho-165	165	2	HMI He	6300268	1.62	6759932	93.20	60	120	
Ir (IS)	193	2	HMI He	5307899	1.52	5766680	92.04	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-4-a
Data File Name	082SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T18:57:46-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	82.041	ppb	82.041	1.18	1952660	50000	
Be	9	1	6	0.000	ppb	0.000	10546.99	23	2000	
B	11	1	6	1192.772	ppb	1192.772	1.53	198000	2000	
Na	23	2	45	91210.002	ppb	91210.002	0.15	14452362	400000	
Mg	24	2	45	141259.373	ppb	141259.373	0.18	10221974	400000	
Al	27	2	45	1.938	ppb	1.938	76.07	87	400000	
Si	28	1	45	8124.187	ppb	8124.187	1.28	3801265	10000	
P	31	2	45	30.637	ppb	30.637	62.31	105	10000	
K	39	2	45	7995.740	ppb	7995.740	0.15	314042	400000	
Ca	40	1	45	250570.213	ppb	250570.213	1.01	400227407	400000	
Ti	47	2	45	0.230	ppb	0.230	173.21	3	4000	
V	51	2	72	0.353	ppb	0.353	33.11	1707	2000	
Cr	52	2	72	0.227	ppb	0.227	57.89	1603	5000	
Mn	55	2	72	550.503	ppb	550.503	0.95	179441	10000	
Fe	56	1	72	646.486	ppb	646.486	0.86	1643843	10000	
(Fe)	57	2	72	618.049	ppb	618.049	6.27	9413	400000	
Co	59	2	72	2.505	ppb	2.505	9.43	3397	2000	
Ni	60	2	72	3.463	ppb	3.463	8.27	1477	5000	
Cu	63	2	72	0.338	ppb	0.338	35.13	660	5000	
Zn	66	2	72	1.546	ppb	1.546	31.78	460	5000	
As	75	2	72	0.196	ppb	0.196	26.79	78	2000	
Se	78	1	72	0.142	ppb	0.142	32.23	20	2000	
Sr	88	2	72	1610.205	ppb	1610.205	0.25	441823	4000	
Zr	90	2	72	23.879	ppb	23.879	10.29	417	1000	
Mo	95	2	115	2.602	ppb	2.602	7.21	1097	2000	
Ag	107	2	115	0.006	ppb	0.006	80.21	33	100	
Cd	111	2	115	0.019	ppb	0.019	173.21	3	2000	
Sn	120	2	115	0.328	ppb	0.328	57.73	323	2000	
Sb	121	2	115	0.134	ppb	0.134	58.84	90	1000	
Ba	137	2	115	23.492	ppb	23.492	6.89	3060	5000	
W	182	2	165	0.152	ppb	0.152	29.16	513	100	
Tl	205	2	165	-0.083	ppb	-0.083	-17.43	227	2000	
Pb	208	2	165	0.026	ppb	0.026	39.75	1033	5000	
Th	232	2	193	0.474	ppb	0.474	7.81	6568	2000	
U	238	2	193	4.023	ppb	4.023	4.31	26027	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	196846	1.77	252517	77.95	60	120	
Sc(IS)	45	1	HMI H2	7953817	0.63	9196623	86.49	60	120	
Sc (IS)	45	2	HMI He	472979	1.03	531422	89.00	60	120	
Sc (IS)	45	3	No Gas	16354262	0.39	18746179	87.24	60	120	
Ge Internal standard	72	1	HMI H2	3377159	1.45	3833850	88.09	60	120	
Ge Internal standard	72	2	HMI He	491638	0.94	524481	93.74	60	120	
In Internal standard	115	2	HMI He	1279574	0.72	1492548	85.73	60	120	
Ho-165	165	2	HMI He	6296949	1.13	6759932	93.15	60	120	
Ir (IS)	193	2	HMI He	5137256	1.26	5766680	89.09	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-5-a
Data File Name	083SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T19:01:19-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	21.279	ppb	21.279	12.62	1287916	50000	
Be	9	1	6	-0.072	ppb	-0.072	-31.85	7	2000	
B	11	1	6	235.279	ppb	235.279	2.60	41985	2000	
Na	23	2	45	15033.960	ppb	15033.960	0.63	2431866	400000	
Mg	24	2	45	107027.547	ppb	107027.547	0.81	7841252	400000	
Al	27	2	45	4.523	ppb	4.523	56.71	133	400000	
Si	28	1	45	5121.285	ppb	5121.285	1.31	2551419	10000	
P	31	2	45	28.273	ppb	28.273	14.69	103	10000	
K	39	2	45	3741.972	ppb	3741.972	0.10	161699	400000	
Ca	40	1	45	346866.794	ppb	346866.794	0.73	588001698	400000	
Ti	47	2	45	0.224	ppb	0.224	173.21	3	4000	
V	51	2	72	0.023	ppb	0.023	2095.76	1493	2000	
Cr	52	2	72	0.107	ppb	0.107	119.11	1497	5000	
Mn	55	2	72	1054.666	ppb	1054.666	0.52	342310	10000	
Fe	56	1	72	248.755	ppb	248.755	1.29	682378	10000	
(Fe)	57	2	72	244.154	ppb	244.154	4.50	3837	400000	
Co	59	2	72	4.660	ppb	4.660	3.54	6248	2000	
Ni	60	2	72	11.789	ppb	11.789	5.95	4654	5000	
Cu	63	2	72	0.376	ppb	0.376	6.15	697	5000	
Zn	66	2	72	4.191	ppb	4.191	1.36	863	5000	
As	75	2	72	0.450	ppb	0.450	46.40	106	2000	
Se	78	1	72	0.424	ppb	0.424	9.90	48	2000	
Sr	88	2	72	993.623	ppb	993.623	0.56	271574	4000	
Zr	90	2	72	10.328	ppb	10.328	81.16	337	1000	
Mo	95	2	115	1.280	ppb	1.280	20.45	587	2000	
Ag	107	2	115	-0.010	ppb	-0.010	-90.11	13	100	
Cd	111	2	115	0.113	ppb	0.113	86.62	20	2000	
Sn	120	2	115	0.259	ppb	0.259	92.75	297	2000	
Sb	121	2	115	0.026	ppb	0.026	216.05	43	1000	
Ba	137	2	115	13.367	ppb	13.367	17.17	1767	5000	
W	182	2	165	0.073	ppb	0.073	57.52	370	100	
Tl	205	2	165	-0.077	ppb	-0.077	-18.92	250	2000	
Pb	208	2	165	-0.007	ppb	-0.007	-312.26	880	5000	
Th	232	2	193	0.225	ppb	0.225	35.76	5244	2000	
U	238	2	193	10.791	ppb	10.791	1.32	67764	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	207684	1.32	252517	82.25	60	120	
Sc(IS)	45	1	HMI H2	8441892	0.87	9196623	91.79	60	120	
Sc (IS)	45	2	HMI He	478851	0.79	531422	90.11	60	120	
Sc (IS)	45	3	No Gas	15548489	0.59	18746179	82.94	60	120	
Ge Internal standard	72	1	HMI H2	3552437	0.25	3833850	92.66	60	120	
Ge Internal standard	72	2	HMI He	489724	0.34	524481	93.37	60	120	
In Internal standard	115	2	HMI He	1292986	1.13	1492548	86.63	60	120	
Ho-165	165	2	HMI He	6330085	1.68	6759932	93.64	60	120	
Ir (IS)	193	2	HMI He	5182016	0.69	5766680	89.86	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-6-a
Data File Name	084SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T19:04:54-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	13.072	ppb	13.072	5.65	1234797	50000	
Be	9	1	6	-0.085	ppb	-0.085	-28.41	3	2000	
B	11	1	6	334.852	ppb	334.852	1.78	57129	2000	
Na	23	2	45	35672.755	ppb	35672.755	0.70	5662780	400000	
Mg	24	2	45	88166.413	ppb	88166.413	0.61	6375697	400000	
Al	27	2	45	6.359	ppb	6.359	79.65	163	400000	
Si	28	1	45	5234.343	ppb	5234.343	0.88	2491411	10000	
P	31	2	45	20.130	ppb	20.130	46.36	89	10000	
K	39	2	45	3091.627	ppb	3091.627	1.32	136020	400000	
Ca	40	1	45	196747.747	ppb	196747.747	0.12	318742742	400000	
Ti	47	2	45	0.457	ppb	0.457	86.60	7	4000	
V	51	2	72	0.575	ppb	0.575	13.69	1840	2000	
Cr	52	2	72	0.011	ppb	0.011	1914.84	1417	5000	
Mn	55	2	72	1377.461	ppb	1377.461	0.17	447321	10000	
Fe	56	1	72	264.729	ppb	264.729	0.45	698268	10000	
(Fe)	57	2	72	242.442	ppb	242.442	3.54	3814	400000	
Co	59	2	72	1.778	ppb	1.778	10.51	2417	2000	
Ni	60	2	72	3.091	ppb	3.091	16.19	1330	5000	
Cu	63	2	72	0.167	ppb	0.167	12.72	487	5000	
Zn	66	2	72	3.862	ppb	3.862	8.80	813	5000	
As	75	2	72	0.593	ppb	0.593	32.78	122	2000	
Se	78	1	72	0.096	ppb	0.096	43.48	16	2000	
Sr	88	2	72	545.127	ppb	545.127	1.51	149094	4000	
Zr	90	2	72	4.541	ppb	4.541	151.31	303	1000	
Mo	95	2	115	1.786	ppb	1.786	5.04	777	2000	
Ag	107	2	115	-0.010	ppb	-0.010	-91.72	13	100	
Cd	111	2	115	0.019	ppb	0.019	173.21	3	2000	
Sn	120	2	115	0.359	ppb	0.359	45.16	337	2000	
Sb	121	2	115	0.019	ppb	0.019	626.25	40	1000	
Ba	137	2	115	19.866	ppb	19.866	2.14	2587	5000	
W	182	2	165	0.046	ppb	0.046	62.02	317	100	
Tl	205	2	165	-0.095	ppb	-0.095	-18.61	180	2000	
Pb	208	2	165	0.011	ppb	0.011	309.63	953	5000	
Th	232	2	193	0.158	ppb	0.158	48.29	4834	2000	
U	238	2	193	5.411	ppb	5.411	1.77	34478	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	199902	0.35	252517	79.16	60	120	
Sc(IS)	45	1	HMI H2	8067015	0.96	9196623	87.72	60	120	
Sc (IS)	45	2	HMI He	472643	0.56	531422	88.94	60	120	
Sc (IS)	45	3	No Gas	15851361	0.67	18746179	84.56	60	120	
Ge Internal standard	72	1	HMI H2	3424268	1.60	3833850	89.32	60	120	
Ge Internal standard	72	2	HMI He	490030	0.77	524481	93.43	60	120	
In Internal standard	115	2	HMI He	1278159	0.82	1492548	85.64	60	120	
Ho-165	165	2	HMI He	6233302	0.99	6759932	92.21	60	120	
Ir (IS)	193	2	HMI He	5139313	0.99	5766680	89.12	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-7-a
Data File Name	085SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T19:08:28-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	64.471	ppb	64.471	2.92	1702382	50000	
Be	9	1	6	-0.029	ppb	-0.029	-293.97	17	2000	
B	11	1	6	1472.963	ppb	1472.963	1.83	247658	2000	
Na	23	2	45	70994.784	ppb	70994.784	1.15	11299891	400000	
Mg	24	2	45	168394.174	ppb	168394.174	0.46	12234616	400000	
Al	27	2	45	0.767	ppb	0.767	88.20	67	400000	
Si	28	1	45	6541.329	ppb	6541.329	0.56	3135689	10000	
P	31	2	45	12.269	ppb	12.269	26.69	77	10000	
K	39	2	45	6078.452	ppb	6078.452	0.90	245463	400000	
Ca	40	1	45	236635.281	ppb	236635.281	1.58	386699034	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	0.424	ppb	0.424	57.31	1750	2000	
Cr	52	2	72	-0.173	ppb	-0.173	-21.75	1267	5000	
Mn	55	2	72	1328.336	ppb	1328.336	1.30	432675	10000	
Fe	56	1	72	99.252	ppb	99.252	1.58	277954	10000	
(Fe)	57	2	72	94.431	ppb	94.431	5.73	1623	400000	
Co	59	2	72	2.697	ppb	2.697	7.54	3651	2000	
Ni	60	2	72	4.847	ppb	4.847	11.28	2007	5000	
Cu	63	2	72	0.462	ppb	0.462	10.12	787	5000	
Zn	66	2	72	2.592	ppb	2.592	46.47	620	5000	
As	75	2	72	0.612	ppb	0.612	7.94	124	2000	
Se	78	1	72	0.125	ppb	0.125	72.42	19	2000	
Sr	88	2	72	1678.190	ppb	1678.190	0.47	460390	4000	
Zr	90	2	72	18.141	ppb	18.141	7.19	383	1000	
Mo	95	2	115	6.655	ppb	6.655	5.72	2664	2000	
Ag	107	2	115	0.001	ppb	0.001	2584.36	27	100	
Cd	111	2	115	0.038	ppb	0.038	86.60	7	2000	
Sn	120	2	115	0.278	ppb	0.278	14.80	300	2000	
Sb	121	2	115	0.020	ppb	0.020	301.90	40	1000	
Ba	137	2	115	18.412	ppb	18.412	11.97	2387	5000	
W	182	2	165	0.053	ppb	0.053	56.61	330	100	
Tl	205	2	165	-0.090	ppb	-0.090	-19.61	200	2000	
Pb	208	2	165	0.020	ppb	0.020	198.64	1000	5000	
Th	232	2	193	0.114	ppb	0.114	70.11	4564	2000	
U	238	2	193	0.675	ppb	0.675	4.37	5635	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	199556	0.38	252517	79.03	60	120	
Sc(IS)	45	1	HMI H2	8138187	0.92	9196623	88.49	60	120	
Sc (IS)	45	2	HMI He	474888	0.42	531422	89.36	60	120	
Sc (IS)	45	3	No Gas	15642878	0.91	18746179	83.45	60	120	
Ge Internal standard	72	1	HMI H2	3418084	0.15	3833850	89.16	60	120	
Ge Internal standard	72	2	HMI He	491542	0.80	524481	93.72	60	120	
In Internal standard	115	2	HMI He	1271717	0.18	1492548	85.20	60	120	
Ho-165	165	2	HMI He	6261499	0.43	6759932	92.63	60	120	
Ir (IS)	193	2	HMI He	5105805	0.22	5766680	88.54	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-8-a
Data File Name	086SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T19:12:02-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	24.321	ppb	24.321	9.47	1318668	50000	
Be	9	1	6	0.011	ppb	0.011	930.69	27	2000	
B	11	1	6	175.690	ppb	175.690	2.28	30968	2000	
Na	23	2	45	11376.598	ppb	11376.598	2.29	1790907	400000	
Mg	24	2	45	20753.733	ppb	20753.733	1.92	1475210	400000	
Al	27	2	45	4.394	ppb	4.394	92.37	127	400000	
Si	28	1	45	5420.799	ppb	5420.799	0.61	2614605	10000	
P	31	2	45	16.013	ppb	16.013	51.95	81	10000	
K	39	2	45	11454.310	ppb	11454.310	1.07	431700	400000	
Ca	40	1	45	60856.888	ppb	60856.888	0.41	99959689	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	0.457	ppb	0.457	131.55	1760	2000	
Cr	52	2	72	3.784	ppb	3.784	6.08	4574	5000	
Mn	55	2	72	0.966	ppb	0.966	49.25	437	10000	
Fe	56	1	72	17.413	ppb	17.413	1.15	71711	10000	
(Fe)	57	2	72	13.927	ppb	13.927	35.27	423	400000	
Co	59	2	72	0.063	ppb	0.063	48.29	137	2000	
Ni	60	2	72	2.082	ppb	2.082	12.75	940	5000	
Cu	63	2	72	3.608	ppb	3.608	5.56	3947	5000	
Zn	66	2	72	1.502	ppb	1.502	34.13	450	5000	
As	75	2	72	0.374	ppb	0.374	12.38	97	2000	
Se	78	1	72	0.208	ppb	0.208	97.09	27	2000	
Sr	88	2	72	270.986	ppb	270.986	1.50	73881	4000	
Zr	90	2	72	15.658	ppb	15.658	33.80	367	1000	
Mo	95	2	115	1.240	ppb	1.240	34.19	567	2000	
Ag	107	2	115	-0.005	ppb	-0.005	-163.62	20	100	
Cd	111	2	115	0.038	ppb	0.038	173.21	7	2000	
Sn	120	2	115	0.332	ppb	0.332	10.05	327	2000	
Sb	121	2	115	0.368	ppb	0.368	15.80	193	1000	
Ba	137	2	115	51.700	ppb	51.700	1.58	6748	5000	
W	182	2	165	0.096	ppb	0.096	3.08	407	100	
Tl	205	2	165	-0.096	ppb	-0.096	-5.64	180	2000	
Pb	208	2	165	0.039	ppb	0.039	90.27	1090	5000	
Th	232	2	193	0.083	ppb	0.083	48.36	4428	2000	
U	238	2	193	1.305	ppb	1.305	5.55	9507	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	203538	1.63	252517	80.60	60	120	
Sc(IS)	45	1	HMI H2	8176824	0.29	9196623	88.91	60	120	
Sc (IS)	45	2	HMI He	464611	1.30	531422	87.43	60	120	
Sc (IS)	45	3	No Gas	15575249	0.27	18746179	83.08	60	120	
Ge Internal standard	72	1	HMI H2	3467547	0.17	3833850	90.45	60	120	
Ge Internal standard	72	2	HMI He	488493	0.17	524481	93.14	60	120	
In Internal standard	115	2	HMI He	1284477	0.20	1492548	86.06	60	120	
Ho-165	165	2	HMI He	6234034	0.25	6759932	92.22	60	120	
Ir (IS)	193	2	HMI He	5141959	0.56	5766680	89.17	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-9-a
Data File Name	087SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T19:15:36-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	52.495	ppb	52.495	3.18	1620592	50000	
Be	9	1	6	-0.070	ppb	-0.070	-35.05	7	2000	
B	11	1	6	967.261	ppb	967.261	3.04	159489	2000	
Na	23	2	45	73616.120	ppb	73616.120	0.21	11613044	400000	
Mg	24	2	45	190992.859	ppb	190992.859	0.57	13754200	400000	
Al	27	2	45	5.035	ppb	5.035	19.75	140	400000	
Si	28	1	45	8192.803	ppb	8192.803	0.08	3849638	10000	
P	31	2	45	26.367	ppb	26.367	43.21	98	10000	
K	39	2	45	5455.087	ppb	5455.087	1.14	220795	400000	
Ca	40	1	45	294256.498	ppb	294256.498	0.62	472025913	400000	
Ti	47	2	45	0.229	ppb	0.229	173.21	3	4000	
V	51	2	72	0.370	ppb	0.370	137.67	1680	2000	
Cr	52	2	72	-0.075	ppb	-0.075	-16.74	1320	5000	
Mn	55	2	72	2584.579	ppb	2584.579	0.52	823852	10000	
Fe	56	1	72	261.947	ppb	261.947	0.75	679030	10000	
(Fe)	57	2	72	245.363	ppb	245.363	8.10	3787	400000	
Co	59	2	72	3.488	ppb	3.488	5.06	4607	2000	
Ni	60	2	72	4.125	ppb	4.125	6.21	1694	5000	
Cu	63	2	72	0.230	ppb	0.230	38.78	540	5000	
Zn	66	2	72	6.307	ppb	6.307	11.46	1167	5000	
As	75	2	72	0.394	ppb	0.394	28.02	98	2000	
Se	78	1	72	0.084	ppb	0.084	108.49	15	2000	
Sr	88	2	72	1593.422	ppb	1593.422	1.27	427803	4000	
Zr	90	2	72	13.698	ppb	13.698	45.50	350	1000	
Mo	95	2	115	1.999	ppb	1.999	12.72	847	2000	
Ag	107	2	115	-0.010	ppb	-0.010	-128.23	13	100	
Cd	111	2	115	0.038	ppb	0.038	173.21	7	2000	
Sn	120	2	115	0.248	ppb	0.248	49.89	283	2000	
Sb	121	2	115	0.014	ppb	0.014	515.84	37	1000	
Ba	137	2	115	16.020	ppb	16.020	9.42	2054	5000	
W	182	2	165	0.057	ppb	0.057	96.01	333	100	
Tl	205	2	165	-0.109	ppb	-0.109	-19.29	130	2000	
Pb	208	2	165	0.006	ppb	0.006	309.00	920	5000	
Th	232	2	193	0.077	ppb	0.077	15.76	4297	2000	
U	238	2	193	0.167	ppb	0.167	22.25	2524	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	195296	0.40	252517	77.34	60	120	
Sc(IS)	45	1	HMI H2	7987882	0.79	9196623	86.86	60	120	
Sc (IS)	45	2	HMI He	470700	0.27	531422	88.57	60	120	
Sc (IS)	45	3	No Gas	15948984	1.71	18746179	85.08	60	120	
Ge Internal standard	72	1	HMI H2	3363798	1.16	3833850	87.74	60	120	
Ge Internal standard	72	2	HMI He	481062	0.29	524481	91.72	60	120	
In Internal standard	115	2	HMI He	1257539	1.21	1492548	84.25	60	120	
Ho-165	165	2	HMI He	6162246	0.05	6759932	91.16	60	120	
Ir (IS)	193	2	HMI He	5026636	0.76	5766680	87.17	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-10-a
Data File Name	088SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T19:19:10-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	183.723	ppb	183.723	0.75	2854308	50000	
Be	9	1	6	-0.056	ppb	-0.056	-77.79	10	2000	
B	11	1	6	2089.970	ppb	2089.970	1.76	338145	2000	
Na	23	2	45	167323.217	ppb	167323.217	0.59	26629180	400000	
Mg	24	2	45	182614.905	ppb	182614.905	0.73	13282526	400000	
Al	27	2	45	-0.188	ppb	-0.188	-1392.66	50	400000	
Si	28	1	45	7606.825	ppb	7606.825	1.13	3675621	10000	
P	31	2	45	11.824	ppb	11.824	125.37	76	10000	
K	39	2	45	12344.082	ppb	12344.082	0.56	474226	400000	
Ca	40	1	45	305598.943	ppb	305598.943	0.48	503873566	400000	
Ti	47	2	45	0.225	ppb	0.225	173.21	3	4000	
V	51	2	72	0.484	ppb	0.484	84.95	1797	2000	
Cr	52	2	72	-0.112	ppb	-0.112	-90.41	1323	5000	
Mn	55	2	72	761.019	ppb	761.019	0.48	249024	10000	
Fe	56	1	72	1620.211	ppb	1620.211	0.37	4147943	10000	
(Fe)	57	2	72	1540.309	ppb	1540.309	1.19	23237	400000	
Co	59	2	72	5.344	ppb	5.344	4.20	7215	2000	
Ni	60	2	72	5.429	ppb	5.429	2.74	2240	5000	
Cu	63	2	72	0.259	ppb	0.259	38.42	583	5000	
Zn	66	2	72	2.875	ppb	2.875	24.12	667	5000	
As	75	2	72	5.085	ppb	5.085	3.49	618	2000	
Se	78	1	72	0.139	ppb	0.139	53.81	20	2000	
Sr	88	2	72	2866.183	ppb	2866.183	0.17	789682	4000	
Zr	90	2	72	48.772	ppb	48.772	37.16	563	1000	
Mo	95	2	115	8.496	ppb	8.496	7.38	3467	2000	
Ag	107	2	115	-0.008	ppb	-0.008	-156.11	17	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.499	ppb	0.499	46.55	407	2000	
Sb	121	2	115	0.010	ppb	0.010	330.63	37	1000	
Ba	137	2	115	15.799	ppb	15.799	5.94	2104	5000	
W	182	2	165	0.125	ppb	0.125	27.04	463	100	
Tl	205	2	165	-0.110	ppb	-0.110	-4.49	130	2000	
Pb	208	2	165	0.031	ppb	0.031	127.64	1060	5000	
Th	232	2	193	0.118	ppb	0.118	21.84	4564	2000	
U	238	2	193	0.637	ppb	0.637	15.00	5371	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	192239	0.30	252517	76.13	60	120	
Sc(IS)	45	1	HMI H2	8210645	0.42	9196623	89.28	60	120	
Sc (IS)	45	2	HMI He	475418	0.38	531422	89.46	60	120	
Sc (IS)	45	3	No Gas	15806099	0.25	18746179	84.32	60	120	
Ge Internal standard	72	1	HMI H2	3432978	0.22	3833850	89.54	60	120	
Ge Internal standard	72	2	HMI He	493668	0.37	524481	94.13	60	120	
In Internal standard	115	2	HMI He	1305319	0.59	1492548	87.46	60	120	
Ho-165	165	2	HMI He	6305261	0.64	6759932	93.27	60	120	
Ir (IS)	193	2	HMI He	5078525	0.22	5766680	88.07	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-11-a
Data File Name	089SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T19:22:43-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	235.073	ppb	235.073	0.94	3297838	50000	
Be	9	1	6	0.004	ppb	0.004	2768.68	23	2000	
B	11	1	6	1307.927	ppb	1307.927	1.20	209913	2000	
Na	23	2	45	107399.121	ppb	107399.121	0.29	17621173	400000	
Mg	24	2	45	235511.884	ppb	235511.884	0.03	17650970	400000	
Al	27	2	45	1.952	ppb	1.952	87.57	90	400000	
Si	28	1	45	8122.255	ppb	8122.255	0.21	3920896	10000	
P	31	2	45	22.617	ppb	22.617	45.35	96	10000	
K	39	2	45	15387.950	ppb	15387.950	0.39	603021	400000	
Ca	40	1	45	558583.131	ppb	558583.131	0.23	920449853	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	1.137	ppb	1.137	20.97	2257	2000	
Cr	52	2	72	-0.043	ppb	-0.043	-371.85	1413	5000	
Mn	55	2	72	1311.536	ppb	1311.536	0.49	438540	10000	
Fe	56	1	72	3434.503	ppb	3434.503	1.79	8722570	10000	
(Fe)	57	2	72	3289.729	ppb	3289.729	1.20	50460	400000	
Co	59	2	72	8.936	ppb	8.936	2.27	12292	2000	
Ni	60	2	72	13.454	ppb	13.454	5.31	5451	5000	
Cu	63	2	72	0.181	ppb	0.181	65.90	517	5000	
Zn	66	2	72	6.541	ppb	6.541	17.72	1260	5000	
As	75	2	72	0.841	ppb	0.841	36.22	154	2000	
Se	78	1	72	0.227	ppb	0.227	77.04	28	2000	
Sr	88	2	72	2511.335	ppb	2511.335	0.23	707116	4000	
Zr	90	2	72	11.937	ppb	11.937	45.53	357	1000	
Mo	95	2	115	1.353	ppb	1.353	8.72	673	2000	
Ag	107	2	115	-0.018	ppb	-0.018	-22.20	3	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.236	ppb	0.236	111.68	313	2000	
Sb	121	2	115	-0.016	ppb	-0.016	-512.10	27	1000	
Ba	137	2	115	10.943	ppb	10.943	12.31	1580	5000	
W	182	2	165	0.056	ppb	0.056	37.24	350	100	
Tl	205	2	165	-0.114	ppb	-0.114	-6.72	117	2000	
Pb	208	2	165	0.005	ppb	0.005	389.08	963	5000	
Th	232	2	193	0.090	ppb	0.090	45.90	4551	2000	
U	238	2	193	0.317	ppb	0.317	4.33	3561	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	190408	1.23	252517	75.40	60	120	
Sc(IS)	45	1	HMI H2	8206000	0.71	9196623	89.23	60	120	
Sc (IS)	45	2	HMI He	489870	1.20	531422	92.18	60	120	
Sc (IS)	45	3	No Gas	15593964	0.28	18746179	83.18	60	120	
Ge Internal standard	72	1	HMI H2	3417353	0.36	3833850	89.14	60	120	
Ge Internal standard	72	2	HMI He	504525	1.67	524481	96.19	60	120	
In Internal standard	115	2	HMI He	1414549	2.10	1492548	94.77	60	120	
Ho-165	165	2	HMI He	6523701	1.45	6759932	96.51	60	120	
Ir (IS)	193	2	HMI He	5244621	1.48	5766680	90.95	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-12-a
Data File Name	090SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T19:26:17-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	198.174	ppb	198.174	0.47	2799094	50000	
Be	9	1	6	-0.053	ppb	-0.053	-1.11	10	2000	
B	11	1	6	3600.449	ppb	3600.449	1.66	547474	2000	
Na	23	2	45	394610.416	ppb	394610.416	0.49	59367706	400000	
Mg	24	2	45	81085.295	ppb	81085.295	2.06	5577699	400000	
Al	27	2	45	5.811	ppb	5.811	20.30	147	400000	
Si	28	1	45	7308.529	ppb	7308.529	1.25	3295655	10000	
P	31	2	45	21.754	ppb	21.754	45.06	87	10000	
K	39	2	45	12327.870	ppb	12327.870	0.94	447951	400000	
Ca	40	1	45	187916.263	ppb	187916.263	1.15	289097369	400000	
Ti	47	2	45	0.236	ppb	0.236	173.21	3	4000	
V	51	2	72	0.602	ppb	0.602	66.68	1757	2000	
Cr	52	2	72	-0.062	ppb	-0.062	-168.98	1283	5000	
Mn	55	2	72	231.605	ppb	231.605	1.58	71279	10000	
Fe	56	1	72	1987.437	ppb	1987.437	0.80	4809041	10000	
(Fe)	57	2	72	1913.027	ppb	1913.027	1.49	27059	400000	
Co	59	2	72	0.927	ppb	0.927	16.95	1217	2000	
Ni	60	2	72	0.953	ppb	0.953	24.15	483	5000	
Cu	63	2	72	0.100	ppb	0.100	83.63	397	5000	
Zn	66	2	72	0.857	ppb	0.857	65.72	333	5000	
As	75	2	72	3.154	ppb	3.154	13.98	380	2000	
Se	78	1	72	0.150	ppb	0.150	108.69	20	2000	
Sr	88	2	72	2561.163	ppb	2561.163	0.83	662874	4000	
Zr	90	2	72	62.909	ppb	62.909	9.74	607	1000	
Mo	95	2	115	1.988	ppb	1.988	8.31	833	2000	
Ag	107	2	115	-0.018	ppb	-0.018	-26.36	3	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.419	ppb	0.419	29.28	353	2000	
Sb	121	2	115	0.077	ppb	0.077	70.17	63	1000	
Ba	137	2	115	12.901	ppb	12.901	5.81	1640	5000	
W	182	2	165	0.074	ppb	0.074	112.65	347	100	
Tl	205	2	165	-0.123	ppb	-0.123	-1.24	77	2000	
Pb	208	2	165	-0.010	ppb	-0.010	-169.38	800	5000	
Th	232	2	193	0.163	ppb	0.163	7.39	4474	2000	
U	238	2	193	0.342	ppb	0.342	5.64	3351	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	180890	1.27	252517	71.63	60	120	
Sc(IS)	45	1	HMI H2	7660728	0.44	9196623	83.30	60	120	
Sc (IS)	45	2	HMI He	449664	1.16	531422	84.62	60	120	
Sc (IS)	45	3	No Gas	14787988	1.00	18746179	78.89	60	120	
Ge Internal standard	72	1	HMI H2	3248502	0.75	3833850	84.73	60	120	
Ge Internal standard	72	2	HMI He	463758	0.51	524481	88.42	60	120	
In Internal standard	115	2	HMI He	1244735	0.20	1492548	83.40	60	120	
Ho-165	165	2	HMI He	5879085	0.76	6759932	86.97	60	120	
Ir (IS)	193	2	HMI He	4728210	0.01	5766680	81.99	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-8327972
Data File Name	091_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T19:29:51-06:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	6	49.478	ppb	6.049	11167	50	99.0	90	110	
Na	23	2	45	48014.193	ppb	1.481	7211048	51000	94.1	90	110	
Mg	24	2	45	10191.521	ppb	0.937	698170	11000	92.7	90	110	
Al	27	2	45	1025.885	ppb	1.840	16942	1000	102.6	90	110	
Si	28	1	45	2548.642	ppb	1.908	1169973	2500	101.9	90	110	
K	39	2	45	10702.261	ppb	0.144	390175	11000	97.3	90	110	
Ca	40	1	45	10849.493	ppb	0.403	16836192	11000	98.6	90	110	
Ti	47	2	45	49.276	ppb	11.105	683	50	98.6	90	110	
V	51	2	72	48.450	ppb	1.136	30348	50	96.9	90	110	
Cr	52	2	72	47.385	ppb	0.814	39274	50	94.8	90	110	
Mn	55	2	72	47.639	ppb	1.311	14850	50	95.3	90	110	
Fe	56	1	72	1041.024	ppb	0.459	2521141	1000	104.1	90	110	
Co	59	2	72	46.121	ppb	2.263	58487	50	92.2	90	110	
Ni	60	2	72	46.421	ppb	4.299	17056	50	92.8	90	110	
Cu	63	2	72	45.545	ppb	0.933	44102	50	91.1	90	110	
Zn	66	2	72	46.319	ppb	3.486	6978	50	92.6	90	110	
As	75	2	72	49.066	ppb	2.839	5168	50	98.1	90	110	
Se	78	1	72	49.967	ppb	3.322	4369	50	99.9	90	110	
Sr	88	2	72	104.903	ppb	3.626	27327	100	104.9	90	110	
Zr	90	2	72	172.277	ppb	11.220	1213	50	344.6	90	110	>+\-10%
Mo	95	2	115	50.447	ppb	1.188	19713	50	100.9	90	110	
Ag	107	2	115	49.975	ppb	1.896	63225	50	100.0	90	110	
Cd	111	2	115	51.030	ppb	1.794	8930	50	102.1	90	110	
Sn	120	2	115	52.985	ppb	0.537	23198	50	106.0	90	110	
Sb	121	2	115	54.848	ppb	2.660	23946	50	109.7	90	110	
Ba	137	2	115	53.779	ppb	2.809	6965	50	107.6	90	110	
W	182	2	165	50.822	ppb	2.102	87176	50	101.6	90	110	
Tl	205	2	165	50.056	ppb	0.718	173320	50	100.1	90	110	
Pb	208	2	165	50.623	ppb	0.375	233150	50	101.2	90	110	
Th	232	2	193	51.479	ppb	1.172	269292	50	103.0	90	110	
U	238	2	193	50.612	ppb	0.731	291430	50	101.2	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	188035	1.61	252517	74.46	60	120	
Sc(IS)	45	1	HMI H2	7711116	0.33	9196623	83.85	60	120	
Sc (IS)	45	2	HMI He	447679	0.93	531422	84.24	60	120	
Sc (IS)	45	3	No Gas	14581465	0.65	18746179	77.78	60	120	
Ge Internal standard	72	1	HMI H2	3235868	0.42	3833850	84.40	60	120	
Ge Internal standard	72	2	HMI He	466759	0.47	524481	88.99	60	120	
In Internal standard	115	2	HMI He	1274545	0.89	1492548	85.39	60	120	
Ho-165	165	2	HMI He	5921104	0.72	6759932	87.59	60	120	
Ir (IS)	193	2	HMI He	4839726	0.76	5766680	83.93	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-8327938
Data File Name	092_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T19:33:24-06:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-7.901	ppb	-34.8	1012545	10	
Be	9	1	6	-0.069	ppb	-74.0	7	0.5	
B	11	1	6	78.930	ppb	3.4	13145	0.5	>RL
Na	23	2	45	86.303	ppb	5.8	34803	25	>RL
Mg	24	2	45	22.062	ppb	10.1	1657	25	
Al	27	2	45	-0.372	ppb	-382.3	43	15	
Si	28	1	45	47.852	ppb	1.1	40038	1	>RL
K	39	2	45	49.608	ppb	22.4	23931	50	
Ca	40	1	45	23.253	ppb	2.6	69968	200	
(Ca)	44	1	45	20.606	ppb	7.9	1814	200	
Ti	47	2	45	0.488	ppb	86.6	7	0.5	
V	51	2	72	-0.286	ppb	-105.3	1193	1	
Cr	52	2	72	-0.025	ppb	-560.0	1273	1	
Mn	55	2	72	0.142	ppb	16.1	157	0.5	
Fe	56	1	72	3.264	ppb	12.1	31691	50	
(Fe)	57	2	72	1.176	ppb	303.3	217	25	
Co	59	2	72	0.018	ppb	170.8	70	0.5	
Ni	60	2	72	-0.175	ppb	-72.6	73	1	
Cu	63	2	72	-0.027	ppb	-203.7	267	1	
Zn	66	2	72	-0.072	ppb	-1006.4	193	5	
As	75	2	72	-0.122	ppb	-89.4	40	1	
Se	78	1	72	0.130	ppb	139.1	17	1	
Sr	88	2	72	0.453	ppb	20.8	117	0.5	
Zr	90	2	72	-5.823	ppb	-320.4	223	1	
Mo	95	2	115	0.033	ppb	151.7	90	0.5	
Ag	107	2	115	-0.010	ppb	-98.5	13	1	
Cd	111	2	115	0.040	ppb	173.2	7	0.5	
Sn	120	2	115	0.147	ppb	53.9	237	1	
Sb	121	2	115	0.179	ppb	79.5	107	0.6	
Ba	137	2	115	0.178	ppb	25.0	33	0.5	
W	182	2	165	0.252	ppb	11.4	643	1	
Tl	205	2	165	-0.026	ppb	-82.2	403	0.1	
Pb	208	2	165	0.011	ppb	131.5	890	0.5	
Th	232	2	193	0.660	ppb	10.6	7195	1	
U	238	2	193	0.033	ppb	29.2	1670	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	185311	2.82	252517	73.39	60	120	
Sc(IS)	45	1	HMI H2	7381122	1.51	9196623	80.26	60	120	
Sc (IS)	45	2	HMI He	439404	0.67	531422	82.68	60	120	
Sc (IS)	45	3	No Gas	15508933	1.05	18746179	82.73	60	120	
Ge Internal standard	72	1	HMI H2	3107545	0.98	3833850	81.06	60	120	
Ge Internal standard	72	2	HMI He	450124	1.08	524481	85.82	60	120	
In Internal standard	115	2	HMI He	1238677	1.27	1492548	82.99	60	120	
Ho-165	165	2	HMI He	5835615	0.77	6759932	86.33	60	120	
Ir (IS)	193	2	HMI He	4872274	1.58	5766680	84.49	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-13-a
Data File Name	093SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T19:37:00-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	90.239	ppb	90.239	0.96	1799012	50000	
Be	9	1	6	0.008	ppb	0.008	1156.11	23	2000	
B	11	1	6	933.049	ppb	933.049	1.82	143990	2000	
Na	23	2	45	54679.295	ppb	54679.295	0.57	8072138	400000	
Mg	24	2	45	55170.559	ppb	55170.559	1.34	3715495	400000	
Al	27	2	45	4.359	ppb	4.359	50.74	120	400000	
Si	28	1	45	5122.813	ppb	5122.813	0.77	2259061	10000	
P	31	2	45	20.665	ppb	20.665	28.75	83	10000	
K	39	2	45	9808.950	ppb	9808.950	1.05	353476	400000	
Ca	40	1	45	141164.060	ppb	141164.060	0.65	211841810	400000	
Ti	47	2	45	0.487	ppb	0.487	173.21	7	4000	
V	51	2	72	0.238	ppb	0.238	75.55	1513	2000	
Cr	52	2	72	-0.074	ppb	-0.074	-332.64	1250	5000	
Mn	55	2	72	317.767	ppb	317.767	2.02	96025	10000	
Fe	56	1	72	512.152	ppb	512.152	1.11	1220670	10000	
(Fe)	57	2	72	470.203	ppb	470.203	4.95	6688	400000	
Co	59	2	72	1.149	ppb	1.149	5.22	1470	2000	
Ni	60	2	72	1.153	ppb	1.153	31.53	547	5000	
Cu	63	2	72	-0.077	ppb	-0.077	-87.32	223	5000	
Zn	66	2	72	0.851	ppb	0.851	33.13	327	5000	
As	75	2	72	2.090	ppb	2.090	10.16	265	2000	
Se	78	1	72	0.111	ppb	0.111	147.00	16	2000	
Sr	88	2	72	1212.061	ppb	1212.061	1.03	308217	4000	
Zr	90	2	72	-8.224	ppb	-8.224	-69.81	213	1000	
Mo	95	2	115	4.251	ppb	4.251	19.63	1640	2000	
Ag	107	2	115	-0.012	ppb	-0.012	-68.97	10	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.179	ppb	0.179	94.09	243	2000	
Sb	121	2	115	0.009	ppb	0.009	550.77	33	1000	
Ba	137	2	115	36.280	ppb	36.280	3.48	4447	5000	
W	182	2	165	0.096	ppb	0.096	23.43	380	100	
Tl	205	2	165	-0.118	ppb	-0.118	-3.78	93	2000	
Pb	208	2	165	-0.009	ppb	-0.009	-216.01	800	5000	
Th	232	2	193	0.509	ppb	0.509	8.38	6195	2000	
U	238	2	193	1.367	ppb	1.367	4.75	9053	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	182748	1.11	252517	72.37	60	120	
Sc(IS)	45	1	HMI H2	7472449	0.81	9196623	81.25	60	120	
Sc (IS)	45	2	HMI He	440187	0.50	531422	82.83	60	120	
Sc (IS)	45	3	No Gas	14469249	0.83	18746179	77.19	60	120	
Ge Internal standard	72	1	HMI H2	3152137	0.08	3833850	82.22	60	120	
Ge Internal standard	72	2	HMI He	455631	1.03	524481	86.87	60	120	
In Internal standard	115	2	HMI He	1205625	0.54	1492548	80.78	60	120	
Ho-165	165	2	HMI He	5815213	0.56	6759932	86.02	60	120	
Ir (IS)	193	2	HMI He	4710720	0.76	5766680	81.69	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-14-a
Data File Name	094SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T19:40:34-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	38.736	ppb	38.736	2.35	1356118	50000	
Be	9	1	6	-0.068	ppb	-0.068	-77.70	7	2000	
B	11	1	6	998.258	ppb	998.258	0.21	152389	2000	
Na	23	2	45	179031.041	ppb	179031.041	0.85	26177623	400000	
Mg	24	2	45	198610.823	ppb	198610.823	1.49	13272566	400000	
Al	27	2	45	2.947	ppb	2.947	114.20	97	400000	
Si	28	1	45	7991.091	ppb	7991.091	0.68	3488072	10000	
P	31	2	45	14.219	ppb	14.219	17.07	73	10000	
K	39	2	45	5595.495	ppb	5595.495	1.09	209609	400000	
Ca	40	1	45	450019.980	ppb	450019.980	0.69	670470710	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.002	ppb	-0.002	-6502.76	1343	2000	
Cr	52	2	72	-0.078	ppb	-0.078	-285.90	1220	5000	
Mn	55	2	72	866.679	ppb	866.679	0.65	255832	10000	
Fe	56	1	72	1675.494	ppb	1675.494	0.69	3856847	10000	
(Fe)	57	2	72	1587.764	ppb	1587.764	2.48	21601	400000	
Co	59	2	72	2.260	ppb	2.260	3.28	2780	2000	
Ni	60	2	72	1.668	ppb	1.668	23.68	713	5000	
Cu	63	2	72	0.231	ppb	0.231	31.73	500	5000	
Zn	66	2	72	0.471	ppb	0.471	88.19	267	5000	
As	75	2	72	0.644	ppb	0.644	15.83	116	2000	
Se	78	1	72	0.211	ppb	0.211	0.92	24	2000	
Sr	88	2	72	1335.675	ppb	1335.675	0.57	331989	4000	
Zr	90	2	72	28.750	ppb	28.750	58.99	403	1000	
Mo	95	2	115	0.423	ppb	0.423	22.35	227	2000	
Ag	107	2	115	-0.003	ppb	-0.003	-2.53	20	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.199	ppb	0.199	72.13	247	2000	
Sb	121	2	115	0.027	ppb	0.027	182.62	40	1000	
Ba	137	2	115	10.283	ppb	10.283	9.38	1243	5000	
W	182	2	165	0.074	ppb	0.074	154.59	340	100	
Tl	205	2	165	-0.111	ppb	-0.111	-4.26	113	2000	
Pb	208	2	165	0.001	ppb	0.001	3410.17	837	5000	
Th	232	2	193	0.279	ppb	0.279	34.11	4971	2000	
U	238	2	193	7.933	ppb	7.933	0.85	45064	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	180852	0.37	252517	71.62	60	120	
Sc(IS)	45	1	HMI H2	7419242	0.28	9196623	80.67	60	120	
Sc (IS)	45	2	HMI He	436832	0.89	531422	82.20	60	120	
Sc (IS)	45	3	No Gas	14529553	1.42	18746179	77.51	60	120	
Ge Internal standard	72	1	HMI H2	3087495	0.67	3833850	80.53	60	120	
Ge Internal standard	72	2	HMI He	445361	0.38	524481	84.91	60	120	
In Internal standard	115	2	HMI He	1182167	0.51	1492548	79.20	60	120	
Ho-165	165	2	HMI He	5763065	0.58	6759932	85.25	60	120	
Ir (IS)	193	2	HMI He	4647900	0.79	5766680	80.60	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-15-a
Data File Name	095SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T19:44:08-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	13.930	ppb	13.930	7.97	1130538	50000	
Be	9	1	6	-0.069	ppb	-0.069	-75.27	7	2000	
B	11	1	6	582.007	ppb	582.007	1.58	91353	2000	
Na	23	2	45	77355.459	ppb	77355.459	0.87	11496055	400000	
Mg	24	2	45	270043.855	ppb	270043.855	1.03	18322202	400000	
Al	27	2	45	3.901	ppb	3.901	33.57	113	400000	
Si	28	1	45	9482.930	ppb	9482.930	0.56	4250050	10000	
P	31	2	45	57.010	ppb	57.010	20.95	137	10000	
K	39	2	45	3040.056	ppb	3040.056	3.52	125865	400000	
Ca	40	1	45	451764.254	ppb	451764.254	0.37	691717536	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	1.379	ppb	1.379	6.00	2180	2000	
Cr	52	2	72	-0.145	ppb	-0.145	-88.49	1197	5000	
Mn	55	2	72	3862.108	ppb	3862.108	0.20	1166100	10000	
Fe	56	1	72	5862.908	ppb	5862.908	0.51	13927300	10000	
(Fe)	57	2	72	5642.846	ppb	5642.846	1.65	78035	400000	
Co	59	2	72	8.739	ppb	8.739	1.42	10861	2000	
Ni	60	2	72	8.961	ppb	8.961	7.66	3324	5000	
Cu	63	2	72	0.193	ppb	0.193	44.77	477	5000	
Zn	66	2	72	4.025	ppb	4.025	11.38	780	5000	
As	75	2	72	3.322	ppb	3.322	8.92	391	2000	
Se	78	1	72	0.247	ppb	0.247	64.79	28	2000	
Sr	88	2	72	940.073	ppb	940.073	0.06	239086	4000	
Zr	90	2	72	46.928	ppb	46.928	25.25	510	1000	
Mo	95	2	115	2.321	ppb	2.321	6.37	927	2000	
Ag	107	2	115	-0.004	ppb	-0.004	-227.50	20	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.514	ppb	0.514	29.35	380	2000	
Sb	121	2	115	0.034	ppb	0.034	42.30	43	1000	
Ba	137	2	115	15.692	ppb	15.692	6.03	1924	5000	
W	182	2	165	0.107	ppb	0.107	49.56	400	100	
Tl	205	2	165	-0.097	ppb	-0.097	-7.33	163	2000	
Pb	208	2	165	0.007	ppb	0.007	461.20	877	5000	
Th	232	2	193	0.160	ppb	0.160	10.26	4464	2000	
U	238	2	193	4.448	ppb	4.448	0.52	26355	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	185226	1.33	252517	73.35	60	120	
Sc(IS)	45	1	HMI H2	7624894	0.97	9196623	82.91	60	120	
Sc (IS)	45	2	HMI He	443499	0.87	531422	83.46	60	120	
Sc (IS)	45	3	No Gas	14416826	1.11	18746179	76.91	60	120	
Ge Internal standard	72	1	HMI H2	3200288	0.38	3833850	83.47	60	120	
Ge Internal standard	72	2	HMI He	455696	0.63	524481	86.89	60	120	
In Internal standard	115	2	HMI He	1201581	0.20	1492548	80.51	60	120	
Ho-165	165	2	HMI He	5845441	0.72	6759932	86.47	60	120	
Ir (IS)	193	2	HMI He	4732074	0.63	5766680	82.06	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-16-a
Data File Name	096SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T19:47:42-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	49.380	ppb	49.380	6.12	1482558	50000	
Be	9	1	6	-0.024	ppb	-0.024	-288.81	17	2000	
B	11	1	6	1446.645	ppb	1446.645	3.23	225599	2000	
Na	23	2	45	71265.442	ppb	71265.442	0.79	10728250	400000	
Mg	24	2	45	169193.145	ppb	169193.145	0.56	11626716	400000	
Al	27	2	45	4.020	ppb	4.020	63.41	117	400000	
Si	28	1	45	6863.068	ppb	6863.068	1.10	3123542	10000	
P	31	2	45	19.126	ppb	19.126	54.80	83	10000	
K	39	2	45	4869.628	ppb	4869.628	0.47	190524	400000	
Ca	40	1	45	378207.559	ppb	378207.559	1.35	586984085	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	0.678	ppb	0.678	58.42	1797	2000	
Cr	52	2	72	-0.094	ppb	-0.094	-262.32	1253	5000	
Mn	55	2	72	2635.689	ppb	2635.689	0.29	806418	10000	
Fe	56	1	72	781.091	ppb	781.091	1.01	1877952	10000	
(Fe)	57	2	72	707.207	ppb	707.207	4.71	10090	400000	
Co	59	2	72	5.293	ppb	5.293	2.67	6685	2000	
Ni	60	2	72	5.174	ppb	5.174	6.86	2004	5000	
Cu	63	2	72	-0.021	ppb	-0.021	-499.85	280	5000	
Zn	66	2	72	2.541	ppb	2.541	39.57	577	5000	
As	75	2	72	1.009	ppb	1.009	9.11	158	2000	
Se	78	1	72	0.170	ppb	0.170	41.26	21	2000	
Sr	88	2	72	1437.847	ppb	1437.847	0.64	370543	4000	
Zr	90	2	72	6.589	ppb	6.589	172.12	297	1000	
Mo	95	2	115	3.407	ppb	3.407	8.97	1357	2000	
Ag	107	2	115	-0.012	ppb	-0.012	-67.59	10	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.262	ppb	0.262	44.22	283	2000	
Sb	121	2	115	0.047	ppb	0.047	84.64	50	1000	
Ba	137	2	115	15.404	ppb	15.404	8.04	1934	5000	
W	182	2	165	0.067	ppb	0.067	99.16	340	100	
Tl	205	2	165	-0.116	ppb	-0.116	-2.54	100	2000	
Pb	208	2	165	-0.012	ppb	-0.012	-73.38	807	5000	
Th	232	2	193	0.155	ppb	0.155	33.76	4524	2000	
U	238	2	193	4.230	ppb	4.230	3.85	25630	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	185085	0.54	252517	73.30	60	120	
Sc(IS)	45	1	HMI H2	7729533	1.21	9196623	84.05	60	120	
Sc (IS)	45	2	HMI He	449153	0.67	531422	84.52	60	120	
Sc (IS)	45	3	No Gas	14863361	1.39	18746179	79.29	60	120	
Ge Internal standard	72	1	HMI H2	3202033	0.96	3833850	83.52	60	120	
Ge Internal standard	72	2	HMI He	461759	1.21	524481	88.04	60	120	
In Internal standard	115	2	HMI He	1231071	1.28	1492548	82.48	60	120	
Ho-165	165	2	HMI He	5978709	1.10	6759932	88.44	60	120	
Ir (IS)	193	2	HMI He	4824849	0.78	5766680	83.67	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-17-a
Data File Name	097SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T19:51:17-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	97.281	ppb	97.281	1.17	1978115	50000	
Be	9	1	6	-0.040	ppb	-0.040	-172.27	13	2000	
B	11	1	6	1762.509	ppb	1762.509	1.78	279482	2000	
Na	23	2	45	138580.561	ppb	138580.561	0.56	21557734	400000	
Mg	24	2	45	138368.707	ppb	138368.707	0.81	9835537	400000	
Al	27	2	45	4.146	ppb	4.146	70.54	123	400000	
Si	28	1	45	6407.903	ppb	6407.903	0.49	3012060	10000	
P	31	2	45	6.860	ppb	6.860	124.39	67	10000	
K	39	2	45	8765.442	ppb	8765.442	1.01	335909	400000	
Ca	40	1	45	360532.447	ppb	360532.447	0.61	577648618	400000	
Ti	47	2	45	0.231	ppb	0.231	173.21	3	4000	
V	51	2	72	0.449	ppb	0.449	37.03	1713	2000	
Cr	52	2	72	0.037	ppb	0.037	625.62	1400	5000	
Mn	55	2	72	1685.223	ppb	1685.223	0.50	532501	10000	
Fe	56	1	72	972.757	ppb	972.757	0.74	2425033	10000	
(Fe)	57	2	72	887.806	ppb	887.806	3.71	13026	400000	
Co	59	2	72	8.780	ppb	8.780	2.84	11418	2000	
Ni	60	2	72	13.443	ppb	13.443	1.41	5148	5000	
Cu	63	2	72	8.402	ppb	8.402	4.25	8563	5000	
Zn	66	2	72	6.645	ppb	6.645	8.81	1207	5000	
As	75	2	72	1.267	ppb	1.267	12.44	190	2000	
Se	78	1	72	0.190	ppb	0.190	40.41	24	2000	
Sr	88	2	72	2256.070	ppb	2256.070	0.51	600385	4000	
Zr	90	2	72	25.519	ppb	25.519	66.28	413	1000	
Mo	95	2	115	14.327	ppb	14.327	11.45	5648	2000	
Ag	107	2	115	-0.010	ppb	-0.010	-122.56	13	100	
Cd	111	2	115	0.019	ppb	0.019	173.21	3	2000	
Sn	120	2	115	0.286	ppb	0.286	68.36	303	2000	
Sb	121	2	115	0.051	ppb	0.051	94.09	53	1000	
Ba	137	2	115	12.251	ppb	12.251	16.04	1593	5000	
W	182	2	165	0.095	ppb	0.095	27.92	397	100	
Tl	205	2	165	-0.113	ppb	-0.113	-3.87	113	2000	
Pb	208	2	165	0.375	ppb	0.375	7.82	2654	5000	
Th	232	2	193	0.124	ppb	0.124	29.48	4434	2000	
U	238	2	193	0.678	ppb	0.678	10.82	5418	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	188332	1.13	252517	74.58	60	120	
Sc(IS)	45	1	HMI H2	7978971	1.35	9196623	86.76	60	120	
Sc (IS)	45	2	HMI He	464628	1.16	531422	87.43	60	120	
Sc (IS)	45	3	No Gas	15386108	0.80	18746179	82.08	60	120	
Ge Internal standard	72	1	HMI H2	3328859	1.44	3833850	86.83	60	120	
Ge Internal standard	72	2	HMI He	476830	0.30	524481	90.91	60	120	
In Internal standard	115	2	HMI He	1272889	0.30	1492548	85.28	60	120	
Ho-165	165	2	HMI He	6104460	0.57	6759932	90.30	60	120	
Ir (IS)	193	2	HMI He	4898648	0.29	5766680	84.95	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-18-a
Data File Name	098SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T19:54:51-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	57.779	ppb	57.779	4.68	1628577	50000	
Be	9	1	6	-0.099	ppb	-0.099	0.00	0	2000	
B	11	1	6	1087.783	ppb	1087.783	0.21	177120	2000	
Na	23	2	45	49513.561	ppb	49513.561	0.55	8044795	400000	
Mg	24	2	45	185997.934	ppb	185997.934	0.22	13781734	400000	
Al	27	2	45	7.259	ppb	7.259	69.84	183	400000	
Si	28	1	45	4852.821	ppb	4852.821	1.45	2328392	10000	
P	31	2	45	15.831	ppb	15.831	93.89	84	10000	
K	39	2	45	9130.726	ppb	9130.726	0.62	363731	400000	
Ca	40	1	45	416694.047	ppb	416694.047	0.83	679984977	400000	
Ti	47	2	45	1.107	ppb	1.107	91.79	17	4000	
V	51	2	72	0.888	ppb	0.888	48.65	2050	2000	
Cr	52	2	72	-0.016	ppb	-0.016	-293.78	1403	5000	
Mn	55	2	72	1877.031	ppb	1877.031	0.29	613229	10000	
Fe	56	1	72	251.525	ppb	251.525	1.05	653923	10000	
(Fe)	57	2	72	251.858	ppb	251.858	7.89	3977	400000	
Co	59	2	72	4.828	ppb	4.828	1.60	6515	2000	
Ni	60	2	72	8.563	ppb	8.563	8.77	3444	5000	
Cu	63	2	72	0.145	ppb	0.145	75.76	467	5000	
Zn	66	2	72	0.503	ppb	0.503	24.49	300	5000	
As	75	2	72	0.436	ppb	0.436	42.93	105	2000	
Se	78	1	72	0.171	ppb	0.171	72.72	23	2000	
Sr	88	2	72	2804.951	ppb	2804.951	0.86	771814	4000	
Zr	90	2	72	10.478	ppb	10.478	170.52	340	1000	
Mo	95	2	115	0.969	ppb	0.969	6.14	487	2000	
Ag	107	2	115	-0.018	ppb	-0.018	-23.72	3	100	
Cd	111	2	115	0.035	ppb	0.035	86.61	7	2000	
Sn	120	2	115	0.322	ppb	0.322	35.45	340	2000	
Sb	121	2	115	0.014	ppb	0.014	301.38	40	1000	
Ba	137	2	115	13.489	ppb	13.489	5.16	1870	5000	
W	182	2	165	0.073	ppb	0.073	68.89	373	100	
Tl	205	2	165	-0.105	ppb	-0.105	-11.21	150	2000	
Pb	208	2	165	0.018	ppb	0.018	104.30	1010	5000	
Th	232	2	193	0.113	ppb	0.113	63.50	4564	2000	
U	238	2	193	2.807	ppb	2.807	2.88	18532	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	192993	1.18	252517	76.43	60	120	
Sc(IS)	45	1	HMI H2	8126542	0.68	9196623	88.36	60	120	
Sc (IS)	45	2	HMI He	484306	0.67	531422	91.13	60	120	
Sc (IS)	45	3	No Gas	15542424	1.51	18746179	82.91	60	120	
Ge Internal standard	72	1	HMI H2	3368340	1.10	3833850	87.86	60	120	
Ge Internal standard	72	2	HMI He	493023	0.62	524481	94.00	60	120	
In Internal standard	115	2	HMI He	1358735	1.98	1492548	91.03	60	120	
Ho-165	165	2	HMI He	6380388	1.57	6759932	94.39	60	120	
Ir (IS)	193	2	HMI He	5109591	0.54	5766680	88.61	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-19-a
Data File Name	099SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T19:58:25-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	165.217	ppb	165.217	0.38	2724604	50000	
Be	9	1	6	-0.070	ppb	-0.070	-71.04	7	2000	
B	11	1	6	3685.204	ppb	3685.204	1.53	594062	2000	
Na	23	2	45	218006.799	ppb	218006.799	0.15	35868308	400000	
Mg	24	2	45	194902.956	ppb	194902.956	0.33	14658639	400000	
Al	27	2	45	5.616	ppb	5.616	44.57	157	400000	
Si	28	1	45	7892.535	ppb	7892.535	0.54	3856741	10000	
P	31	2	45	15.519	ppb	15.519	35.24	85	10000	
K	39	2	45	14161.657	ppb	14161.657	0.77	558886	400000	
Ca	40	1	45	313091.848	ppb	313091.848	0.79	522185072	400000	
Ti	47	2	45	0.438	ppb	0.438	173.21	7	4000	
V	51	2	72	1.641	ppb	1.641	0.98	2574	2000	
Cr	52	2	72	-0.102	ppb	-0.102	-212.45	1357	5000	
Mn	55	2	72	1786.939	ppb	1786.939	0.58	595262	10000	
Fe	56	1	72	939.785	ppb	939.785	0.94	2437491	10000	
(Fe)	57	2	72	866.817	ppb	866.817	4.02	13413	400000	
Co	59	2	72	2.120	ppb	2.120	6.37	2947	2000	
Ni	60	2	72	2.964	ppb	2.964	16.30	1313	5000	
Cu	63	2	72	0.171	ppb	0.171	27.51	503	5000	
Zn	66	2	72	2.755	ppb	2.755	23.88	660	5000	
As	75	2	72	0.587	ppb	0.587	19.13	124	2000	
Se	78	1	72	0.066	ppb	0.066	151.69	13	2000	
Sr	88	2	72	4391.563	ppb	4391.563	0.51	1232101	4000	
Zr	90	2	72	12.186	ppb	12.186	102.67	357	1000	
Mo	95	2	115	0.267	ppb	0.267	28.68	197	2000	
Ag	107	2	115	-0.018	ppb	-0.018	-23.16	3	100	
Cd	111	2	115	0.018	ppb	0.018	173.21	3	2000	
Sn	120	2	115	0.340	ppb	0.340	39.17	350	2000	
Sb	121	2	115	0.172	ppb	0.172	45.96	113	1000	
Ba	137	2	115	12.433	ppb	12.433	7.77	1730	5000	
W	182	2	165	0.070	ppb	0.070	41.01	370	100	
Tl	205	2	165	-0.115	ppb	-0.115	-3.57	113	2000	
Pb	208	2	165	0.006	ppb	0.006	127.95	957	5000	
Th	232	2	193	0.109	ppb	0.109	51.92	4498	2000	
U	238	2	193	0.550	ppb	0.550	7.66	4831	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	191760	0.91	252517	75.94	60	120	
Sc(IS)	45	1	HMI H2	8305336	0.16	9196623	90.31	60	120	
Sc (IS)	45	2	HMI He	491586	0.14	531422	92.50	60	120	
Sc (IS)	45	3	No Gas	16079322	0.16	18746179	85.77	60	120	
Ge Internal standard	72	1	HMI H2	3461778	0.35	3833850	90.30	60	120	
Ge Internal standard	72	2	HMI He	502706	0.34	524481	95.85	60	120	
In Internal standard	115	2	HMI He	1362630	1.83	1492548	91.30	60	120	
Ho-165	165	2	HMI He	6415569	0.08	6759932	94.91	60	120	
Ir (IS)	193	2	HMI He	5058896	0.39	5766680	87.73	60	120	

Sample Report

Sample Table

Sample Name	280-191166-d-20-a
Data File Name	100SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T20:01:59-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652623 6020
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	70.716	ppb	70.716	1.18	1838900	50000	
Be	9	1	6	-0.099	ppb	-0.099	0.00	0	2000	
B	11	1	6	1156.633	ppb	1156.633	0.74	192129	2000	
Na	23	2	45	47879.039	ppb	47879.039	0.57	7892891	400000	
Mg	24	2	45	268906.882	ppb	268906.882	0.60	20214268	400000	
Al	27	2	45	5.066	ppb	5.066	22.85	147	400000	
Si	28	1	45	8075.669	ppb	8075.669	0.40	4034166	10000	
P	31	2	45	22.516	ppb	22.516	75.81	96	10000	
K	39	2	45	10647.252	ppb	10647.252	0.31	426158	400000	
Ca	40	1	45	351270.639	ppb	351270.639	0.50	598990138	400000	
Ti	47	2	45	0.220	ppb	0.220	173.21	3	4000	
V	51	2	72	1.387	ppb	1.387	17.92	2434	2000	
Cr	52	2	72	0.002	ppb	0.002	3806.37	1460	5000	
Mn	55	2	72	2265.402	ppb	2265.402	0.82	762022	10000	
Fe	56	1	72	3732.965	ppb	3732.965	0.71	9813694	10000	
(Fe)	57	2	72	3449.246	ppb	3449.246	2.33	53229	400000	
Co	59	2	72	2.687	ppb	2.687	3.99	3757	2000	
Ni	60	2	72	4.898	ppb	4.898	13.07	2094	5000	
Cu	63	2	72	0.068	ppb	0.068	79.37	400	5000	
Zn	66	2	72	1.475	ppb	1.475	10.95	463	5000	
As	75	2	72	3.512	ppb	3.512	0.91	457	2000	
Se	78	1	72	0.020	ppb	0.020	314.86	9	2000	
Sr	88	2	72	2477.174	ppb	2477.174	0.90	701808	4000	
Zr	90	2	72	36.073	ppb	36.073	10.22	503	1000	
Mo	95	2	115	1.240	ppb	1.240	6.13	600	2000	
Ag	107	2	115	-0.016	ppb	-0.016	-27.34	7	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.183	ppb	0.183	13.59	277	2000	
Sb	121	2	115	0.049	ppb	0.049	126.60	57	1000	
Ba	137	2	115	15.627	ppb	15.627	6.53	2167	5000	
W	182	2	165	0.071	ppb	0.071	67.14	373	100	
Tl	205	2	165	-0.110	ppb	-0.110	-6.89	133	2000	
Pb	208	2	165	0.008	ppb	0.008	104.09	970	5000	
Th	232	2	193	0.136	ppb	0.136	59.41	4731	2000	
U	238	2	193	5.256	ppb	5.256	1.21	33643	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	196943	0.72	252517	77.99	60	120	
Sc(IS)	45	1	HMI H2	8491475	0.29	9196623	92.33	60	120	
Sc (IS)	45	2	HMI He	491343	0.46	531422	92.46	60	120	
Sc (IS)	45	3	No Gas	16334161	1.07	18746179	87.13	60	120	
Ge Internal standard	72	1	HMI H2	3538220	0.93	3833850	92.29	60	120	
Ge Internal standard	72	2	HMI He	507641	0.41	524481	96.79	60	120	
In Internal standard	115	2	HMI He	1359973	2.55	1492548	91.12	60	120	
Ho-165	165	2	HMI He	6446973	0.93	6759932	95.37	60	120	
Ir (IS)	193	2	HMI He	5154921	0.53	5766680	89.39	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-8327972
Data File Name	101_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T20:05:32-06:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	6	53.741	ppb	4.941	12802	50	107.5	90	110	
Na	23	2	45	47173.349	ppb	0.959	7918868	51000	92.5	90	110	
Mg	24	2	45	10008.298	ppb	1.161	766205	11000	91.0	90	110	
Al	27	2	45	1062.384	ppb	1.180	19605	1000	106.2	90	110	
Si	28	1	45	2755.416	ppb	1.925	1404162	2500	110.2	90	110	>+\-10%
K	39	2	45	10480.362	ppb	0.839	427516	11000	95.3	90	110	
Ca	40	1	45	11017.209	ppb	0.233	19003702	11000	100.2	90	110	
Ti	47	2	45	55.859	ppb	10.801	867	50	111.7	90	110	>+\-10%
V	51	2	72	49.539	ppb	3.796	34386	50	99.1	90	110	
Cr	52	2	72	45.436	ppb	2.901	41830	50	90.9	90	110	
Mn	55	2	72	48.920	ppb	1.873	16913	50	97.8	90	110	
Fe	56	1	72	1057.548	ppb	0.305	2834380	1000	105.8	90	110	
Co	59	2	72	46.362	ppb	0.876	65222	50	92.7	90	110	
Ni	60	2	72	44.378	ppb	4.390	18097	50	88.8	90	110	>+\-10%
Cu	63	2	72	45.446	ppb	2.319	48819	50	90.9	90	110	
Zn	66	2	72	44.478	ppb	1.956	7442	50	89.0	90	110	>+\-10%
As	75	2	72	49.069	ppb	1.507	5732	50	98.1	90	110	
Se	78	1	72	49.084	ppb	1.779	4750	50	98.2	90	110	
Sr	88	2	72	106.296	ppb	1.975	30716	100	106.3	90	110	
Zr	90	2	72	132.529	ppb	10.692	1103	50	265.1	90	110	>+\-10%
Mo	95	2	115	46.708	ppb	1.934	21675	50	93.4	90	110	
Ag	107	2	115	45.164	ppb	0.399	67840	50	90.3	90	110	
Cd	111	2	115	43.997	ppb	3.383	9140	50	88.0	90	110	>+\-10%
Sn	120	2	115	50.741	ppb	1.861	26380	50	101.5	90	110	
Sb	121	2	115	51.610	ppb	0.739	26757	50	103.2	90	110	
Ba	137	2	115	50.559	ppb	2.597	7776	50	101.1	90	110	
W	182	2	165	50.090	ppb	2.860	94989	50	100.2	90	110	
Tl	205	2	165	49.742	ppb	1.216	190415	50	99.5	90	110	
Pb	208	2	165	49.648	ppb	0.729	252816	50	99.3	90	110	
Th	232	2	193	52.229	ppb	1.735	297220	50	104.5	90	110	
U	238	2	193	51.126	ppb	1.016	320261	50	102.3	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	198388	0.11	252517	78.56	60	120	
Sc(IS)	45	1	HMI H2	8571665	0.99	9196623	93.20	60	120	
Sc (IS)	45	2	HMI He	500307	1.02	531422	94.14	60	120	
Sc (IS)	45	3	No Gas	15768446	1.53	18746179	84.12	60	120	
Ge Internal standard	72	1	HMI H2	3581693	0.48	3833850	93.42	60	120	
Ge Internal standard	72	2	HMI He	517760	0.75	524481	98.72	60	120	
In Internal standard	115	2	HMI He	1513077	1.11	1492548	101.38	60	120	
Ho-165	165	2	HMI He	6546280	0.73	6759932	96.84	60	120	
Ir (IS)	193	2	HMI He	5265463	0.38	5766680	91.31	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-8327938
Data File Name	102_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T20:09:06-06:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-11.761	ppb	-4.0	998862	10	
Be	9	1	6	-0.043	ppb	-55.5	13	0.5	
B	11	1	6	68.278	ppb	3.4	12455	0.5	>RL
Na	23	2	45	24.050	ppb	16.7	29142	25	
Mg	24	2	45	28.330	ppb	7.1	2360	25	>RL
Al	27	2	45	3.847	ppb	29.4	127	15	
Si	28	1	45	47.681	ppb	5.5	45365	1	>RL
K	39	2	45	2.961	ppb	398.0	25406	50	
Ca	40	1	45	26.727	ppb	2.2	85257	200	
(Ca)	44	1	45	20.992	ppb	17.1	2077	200	
Ti	47	2	45	0.867	ppb	86.6	13	0.5	>RL
V	51	2	72	-0.364	ppb	-92.5	1307	1	
Cr	52	2	72	-0.138	ppb	-131.7	1350	1	
Mn	55	2	72	0.332	ppb	34.2	243	0.5	
Fe	56	1	72	3.682	ppb	5.7	36771	50	
(Fe)	57	2	72	-1.825	ppb	-182.1	200	25	
Co	59	2	72	0.032	ppb	59.7	100	0.5	
Ni	60	2	72	-0.174	ppb	-32.4	83	1	
Cu	63	2	72	0.011	ppb	41.5	343	1	
Zn	66	2	72	0.036	ppb	873.0	237	5	
As	75	2	72	0.075	ppb	325.8	68	1	
Se	78	1	72	0.148	ppb	59.1	21	1	
Sr	88	2	72	0.397	ppb	48.4	117	0.5	
Zr	90	2	72	-2.676	ppb	-320.4	273	1	
Mo	95	2	115	0.003	ppb	2766.9	97	0.5	
Ag	107	2	115	0.008	ppb	201.6	43	1	
Cd	111	2	115	0.032	ppb	173.2	7	0.5	
Sn	120	2	115	0.011	ppb	1078.4	220	1	
Sb	121	2	115	0.222	ppb	33.8	153	0.6	
Ba	137	2	115	-0.045	ppb	-167.5	7	0.5	
W	182	2	165	0.350	ppb	12.8	907	1	
Tl	205	2	165	-0.035	ppb	-38.9	420	0.1	
Pb	208	2	165	-0.006	ppb	-250.8	913	0.5	
Th	232	2	193	0.658	ppb	3.7	7876	1	
U	238	2	193	0.030	ppb	170.2	1814	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	200783	0.36	252517	79.51	60	120	
Sc(IS)	45	1	HMI H2	8376537	1.23	9196623	91.08	60	120	
Sc (IS)	45	2	HMI He	499205	1.19	531422	93.94	60	120	
Sc (IS)	45	3	No Gas	15866659	1.17	18746179	84.64	60	120	
Ge Internal standard	72	1	HMI H2	3499753	1.13	3833850	91.29	60	120	
Ge Internal standard	72	2	HMI He	512237	0.85	524481	97.67	60	120	
In Internal standard	115	2	HMI He	1521675	1.39	1492548	101.95	60	120	
Ho-165	165	2	HMI He	6541951	0.37	6759932	96.78	60	120	
Ir (IS)	193	2	HMI He	5343531	0.16	5766680	92.66	60	120	

Blank Report

Sample Table

Sample Name	mb 280-652666/1-a
Data File Name	103_BLK.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T20:12:42-06:00
Sample Type	Blank
Dilution	1
Comment	652666 SOIL 6020B
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	3	45	-10.816	ppb	-2.07407497	1022382	10
Be	9	1	6	-0.085	ppb	-27.39543144	3	0.5
B	11	1	6	40.830	ppb	1.308027517	7902	0.5
Na	23	2	45	58.020	ppb	3.319818263	34529	25
Mg	24	2	45	31.444	ppb	4.294156574	2577	25
Al	27	2	45	13.784	ppb	19.50852836	307	15
K	39	2	45	16.799	ppb	91.6178069	25717	50
Ti	47	2	45	0.653	ppb	99.93584906	10	0.5
V	51	2	72	0.190	ppb	201.4178136	1653	1
Cr	52	2	72	1.109	ppb	7.735868567	2420	1
Mn	55	2	72	0.697	ppb	55.42651984	363	0.5
(Fe)	57	2	72	24.602	ppb	11.85430039	603	25
Co	59	2	72	0.018	ppb	197.14312	80	0.5
Ni	60	2	72	0.603	ppb	11.92877587	390	1
Cu	63	2	72	0.953	ppb	5.23606165	1323	1
Zn	66	2	72	1.543	ppb	23.95645377	473	5
As	75	2	72	0.088	ppb	81.81528809	69	1
Se	78	1	72	0.065	ppb	79.49147775	13	1
Sr	88	2	72	0.824	ppb	31.86880157	237	0.5
Zr	90	2	72	1.183	ppb	1294.858595	293	1
Mo	95	2	115	0.270	ppb	65.82238567	213	0.5
Ag	107	2	115	-0.016	ppb	-52.50214655	7	1
Cd	111	2	115	0.016	ppb	173.2050808	3	0.5
Sn	120	2	115	18.630	ppb	5.565044813	9567	1
Sb	121	2	115	0.113	ppb	8.152307664	93	0.6
Ba	137	2	115	0.335	ppb	9.404023002	63	0.5
W	182	2	165	0.160	ppb	43.59879776	543	1
Tl	205	2	165	-0.108	ppb	-8.508925009	140	0.1
Pb	208	2	165	0.063	ppb	56.42498444	1250	0.5
Th	232	2	193	0.530	ppb	15.25153254	7075	1
U	238	2	193	0.041	ppb	41.42659789	1864	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	202657	1.39	252517	80.25	60	120	
Sc(IS)	45	1	HMI H2	8407258	1.30	9196623	91.42	60	120	
Sc (IS)	45	2	HMI He	495033	0.44	531422	93.15	60	120	
Sc (IS)	45	3	No Gas	16094534	0.65	18746179	85.86	60	120	
Ge Internal standard	72	1	HMI H2	3501868	2.14	3833850	91.34	60	120	
Ge Internal standard	72	2	HMI He	506849	0.94	524481	96.64	60	120	
In Internal standard	115	2	HMI He	1475237	3.81	1492548	98.84	60	120	
Ho-165	165	2	HMI He	6485362	0.42	6759932	95.94	60	120	
Ir (IS)	193	2	HMI He	5290268	0.52	5766680	91.74	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	lcs 280-652666/14-a
Data File Name	104_LCS.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T20:16:17-06:00
Sample Type	LCS
Dilution	1
Analyst	Denver Metals
Comment	652666 SOIL 6020B
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	169.144	169.144	ppb	0.682	2546254	400	42.3	80	120	>+/-20%
Be	9	1	6	188.902	188.902	ppb	1.244	43866	40	472.3	80	120	>+/-20%
Na	23	2	45	4590.148	4590.148	ppb	0.579	733839	1000	459.0	80	120	>+/-20%
Mg	24	2	45	4629.850	4629.850	ppb	0.355	328023	1000	463.0	80	120	>+/-20%
Al	27	2	45	3986.649	3986.649	ppb	2.135	67915	40	9966.6	80	120	>+/-20%
K	39	2	45	4640.825	4640.825	ppb	0.447	188200	1000	464.1	80	120	>+/-20%
Ca	40	1	45	5186.600	5186.600	ppb	0.804	8391862	1000	518.7	80	120	>+/-20%
V	51	2	72	180.636	180.636	ppb	1.481	114185	40	451.6	80	120	>+/-20%
Cr	52	2	72	175.423	175.423	ppb	1.128	148103	40	438.6	80	120	>+/-20%
Mn	55	2	72	181.332	181.332	ppb	0.571	58704	40	453.3	80	120	>+/-20%
(Fe)	57	2	72	3618.375	3618.375	ppb	1.762	53624	40	9045.9	80	120	>+/-20%
Co	59	2	72	176.171	176.171	ppb	1.416	233245	40	440.4	80	120	>+/-20%
Ni	60	2	72	169.327	169.327	ppb	0.534	64615	40	423.3	80	120	>+/-20%
Cu	63	2	72	174.737	174.737	ppb	1.444	175861	40	436.8	80	120	>+/-20%
Zn	66	2	72	176.033	176.033	ppb	2.157	27090	40	440.1	80	120	>+/-20%
As	75	2	72	179.631	179.631	ppb	1.126	19611	40	449.1	80	120	>+/-20%
Se	78	1	72	180.621	180.621	ppb	1.436	16311	40	451.6	80	120	>+/-20%
Mo	95	2	115	180.872	180.872	ppb	3.973	74511	40	452.2	80	120	>+/-20%
Ag	107	2	115	190.180	190.180	ppb	4.211	254295	40	475.4	80	120	>+/-20%
Cd	111	2	115	185.554	185.554	ppb	3.386	34338	40	463.9	80	120	>+/-20%
Sn	120	2	115	215.302	215.302	ppb	5.259	99040	40	538.3	80	120	>+/-20%
Sb	121	2	115	209.172	209.172	ppb	4.898	96441	40	522.9	80	120	>+/-20%
Ba	137	2	115	204.004	204.004	ppb	4.617	27899	40	510.0	80	120	>+/-20%
W	182	2	165	0.130	0.130	ppb	15.278	470	40	0.3	80	120	>+/-20%
Tl	205	2	165	188.661	188.661	ppb	0.913	688845	40	471.7	80	120	>+/-20%
Pb	208	2	165	191.215	191.215	ppb	1.003	928103	40	478.0	80	120	>+/-20%
Th	232	2	193	193.188	193.188	ppb	1.460	1064687	40	483.0	80	120	>+/-20%
U	238	2	193	191.843	191.843	ppb	1.317	1171322	40	479.6	80	120	>+/-20%

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	193641	0.23	252517	76.68	60	120	
Sc(IS)	45	1	HMI H2	8020918	0.60	9196623	87.22	60	120	
Sc (IS)	45	2	HMI He	462840	0.75	531422	87.09	60	120	
Sc (IS)	45	3	No Gas	14820063	0.36	18746179	79.06	60	120	
Ge Internal standard	72	1	HMI H2	3346004	0.47	3833850	87.28	60	120	
Ge Internal standard	72	2	HMI He	487612	0.25	524481	92.97	60	120	
In Internal standard	115	2	HMI He	1348929	4.18	1492548	90.38	60	120	
Ho-165	165	2	HMI He	6257208	0.86	6759932	92.56	60	120	
Ir (IS)	193	2	HMI He	5151281	0.61	5766680	89.33	60	120	

Sample Report

Sample Table

Sample Name	280-191179-a-1-a
Data File Name	105SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T20:19:53-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652666 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	137.268	ppb	137.268	0.57	2183461	50000	
Be	9	1	6	5.552	ppb	5.552	9.05	1217	2000	
B	11	1	6	92.942	ppb	92.942	3.54	14854	2000	
Na	23	2	45	2661.469	ppb	2661.469	4.69	419748	400000	
Mg	24	2	45	10071.402	ppb	10071.402	0.82	687982	400000	
Al	27	2	45	33094.119	ppb	33094.119	0.73	543396	400000	
Si	28	1	45	2741.833	ppb	2741.833	1.95	1256228	10000	
P	31	2	45	1337.486	ppb	1337.486	2.72	2031	10000	
K	39	2	45	11460.947	ppb	11460.947	0.97	415011	400000	
Ca	40	1	45	37863.582	ppb	37863.582	0.86	58619459	400000	
Ti	47	2	45	3773.697	ppb	3773.697	0.81	52215	4000	
V	51	2	72	63.132	ppb	63.132	1.58	38428	2000	
Cr	52	2	72	29.863	ppb	29.863	2.32	24802	5000	
Mn	55	2	72	3189.902	ppb	3189.902	1.03	969163	10000	
Fe	56	1	72	95581.654	ppb	95581.654	0.52	224345337	10000	>LDR
(Fe)	57	2	72	92802.065	ppb	92802.065	3.44	1288272	400000	
Co	59	2	72	10.218	ppb	10.218	1.13	12769	2000	
Ni	60	2	72	30.901	ppb	30.901	2.62	11201	5000	
Cu	63	2	72	62.066	ppb	62.066	0.55	58932	5000	
Zn	66	2	72	452.062	ppb	452.062	1.67	65098	5000	
As	75	2	72	14.562	ppb	14.562	1.68	1544	2000	
Se	78	1	72	0.860	ppb	0.860	29.83	80	2000	
Sr	88	2	72	157.303	ppb	157.303	2.25	40257	4000	
Zr	90	2	72	13448.314	ppb	13448.314	2.54	73058	1000	>LDR
Mo	95	2	115	33.061	ppb	33.061	3.24	13006	2000	
Ag	107	2	115	11.391	ppb	11.391	2.94	14497	100	
Cd	111	2	115	1.442	ppb	1.442	6.94	253	2000	
Sn	120	2	115	40.580	ppb	40.580	2.74	17891	2000	
Sb	121	2	115	7.281	ppb	7.281	15.74	3220	1000	
Ba	137	2	115	303.513	ppb	303.513	2.89	39424	5000	
W	182	2	165	17.097	ppb	17.097	2.67	30675	100	
Tl	205	2	165	0.592	ppb	0.592	10.61	2647	2000	
Pb	208	2	165	127.249	ppb	127.249	0.44	608577	5000	
Th	232	2	193	60.889	ppb	60.889	0.03	334754	2000	
U	238	2	193	12.882	ppb	12.882	2.77	79264	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	179493	1.46	252517	71.08	60	120	
Sc(IS)	45	1	HMI H2	7705274	0.23	9196623	83.78	60	120	
Sc (IS)	45	2	HMI He	446369	0.48	531422	84.00	60	120	
Sc (IS)	45	3	No Gas	14305859	1.21	18746179	76.31	60	120	
Ge Internal standard	72	1	HMI H2	3167545	1.05	3833850	82.62	60	120	
Ge Internal standard	72	2	HMI He	458534	0.15	524481	87.43	60	120	
In Internal standard	115	2	HMI He	1280180	1.00	1492548	85.77	60	120	
Ho-165	165	2	HMI He	6162138	0.07	6759932	91.16	60	120	
Ir (IS)	193	2	HMI He	5097077	0.82	5766680	88.39	60	120	

Sample Report

Sample Table

Sample Name	280-191179-a-1-aSD@5
Data File Name	106SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T20:23:28-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652666 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	20.734	ppb	20.734	5.70	1187436	50000	
Be	9	1	6	0.921	ppb	0.921	1.89	233	2000	
B	11	1	6	37.068	ppb	37.068	3.26	6838	2000	
Na	23	2	45	498.551	ppb	498.551	1.06	97665	400000	
Mg	24	2	45	2029.295	ppb	2029.295	0.78	139848	400000	
Al	27	2	45	6563.733	ppb	6563.733	1.46	108667	400000	
Si	28	1	45	649.251	ppb	649.251	8.49	315097	10000	
P	31	2	45	280.330	ppb	280.330	6.78	472	10000	
K	39	2	45	2238.285	ppb	2238.285	0.60	100028	400000	
Ca	40	1	45	7604.128	ppb	7604.128	0.63	11888704	400000	
Ti	47	2	45	745.847	ppb	745.847	3.84	10400	4000	
V	51	2	72	11.472	ppb	11.472	6.61	8246	2000	
Cr	52	2	72	5.722	ppb	5.722	8.85	5911	5000	
Mn	55	2	72	631.959	ppb	631.959	0.66	195196	10000	
Fe	56	1	72	18998.015	ppb	18998.015	1.28	45552534	10000	
(Fe)	57	2	72	17867.809	ppb	17867.809	1.63	252180	400000	
Co	59	2	72	2.140	ppb	2.140	8.83	2757	2000	
Ni	60	2	72	5.758	ppb	5.758	6.32	2234	5000	
Cu	63	2	72	12.448	ppb	12.448	5.35	12252	5000	
Zn	66	2	72	93.235	ppb	93.235	1.49	13810	5000	
As	75	2	72	3.043	ppb	3.043	4.69	371	2000	
Se	78	1	72	0.259	ppb	0.259	83.44	29	2000	
Sr	88	2	72	31.341	ppb	31.341	0.83	8152	4000	
Zr	90	2	72	2770.135	ppb	2770.135	2.07	15501	1000	
Mo	95	2	115	6.631	ppb	6.631	5.30	2704	2000	
Ag	107	2	115	2.296	ppb	2.296	1.77	2977	100	
Cd	111	2	115	0.225	ppb	0.225	43.51	40	2000	
Sn	120	2	115	8.163	ppb	8.163	7.49	3787	2000	
Sb	121	2	115	1.366	ppb	1.366	12.74	637	1000	
Ba	137	2	115	61.468	ppb	61.468	7.19	8086	5000	
W	182	2	165	3.508	ppb	3.508	1.96	6495	100	
Tl	205	2	165	0.028	ppb	0.028	76.91	623	2000	
Pb	208	2	165	25.398	ppb	25.398	1.29	122496	5000	
Th	232	2	193	12.107	ppb	12.107	2.01	70275	2000	
U	238	2	193	2.480	ppb	2.480	1.88	16650	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	190810	1.20	252517	75.56	60	120	
Sc(IS)	45	1	HMI H2	7761626	0.55	9196623	84.40	60	120	
Sc (IS)	45	2	HMI He	449878	0.41	531422	84.66	60	120	
Sc (IS)	45	3	No Gas	14391132	0.71	18746179	76.77	60	120	
Ge Internal standard	72	1	HMI H2	3234605	1.21	3833850	84.37	60	120	
Ge Internal standard	72	2	HMI He	465918	0.60	524481	88.83	60	120	
In Internal standard	115	2	HMI He	1295132	0.60	1492548	86.77	60	120	
Ho-165	165	2	HMI He	6178314	0.39	6759932	91.40	60	120	
Ir (IS)	193	2	HMI He	5138372	0.53	5766680	89.10	60	120	

Sample Report

Sample Table

Sample Name	280-191179-a-1-b ms
Data File Name	107SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T20:27:04-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652666 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	276.767	ppb	276.767	0.90	3408225	50000	
Be	9	1	6	193.847	ppb	193.847	3.19	41464	2000	
B	11	1	6	79.680	ppb	79.680	2.40	12772	2000	
Na	23	2	45	6379.814	ppb	6379.814	0.29	979873	400000	
Mg	24	2	45	12203.208	ppb	12203.208	0.43	837772	400000	
Al	27	2	45	30755.690	ppb	30755.690	0.73	507580	400000	
Si	28	1	45	3877.821	ppb	3877.821	19.76	1740637	10000	
P	31	2	45	1122.349	ppb	1122.349	5.10	1721	10000	
K	39	2	45	13549.573	ppb	13549.573	0.55	488996	400000	
Ca	40	1	45	37042.698	ppb	37042.698	0.64	56416056	400000	
Ti	47	2	45	3320.180	ppb	3320.180	0.52	46174	4000	
V	51	2	72	230.844	ppb	230.844	1.05	135673	2000	
Cr	52	2	72	196.558	ppb	196.558	0.14	154571	5000	
Mn	55	2	72	2738.130	ppb	2738.130	0.85	824859	10000	
Fe	56	1	72	80196.556	ppb	80196.556	0.37	183955297	10000	>LDR
(Fe)	57	2	72	75510.604	ppb	75510.604	0.71	1039353	400000	
Co	59	2	72	183.826	ppb	183.826	1.88	226947	2000	
Ni	60	2	72	192.969	ppb	192.969	0.71	68639	5000	
Cu	63	2	72	250.164	ppb	250.164	0.25	234628	5000	
Zn	66	2	72	507.837	ppb	507.837	0.62	72482	5000	
As	75	2	72	186.786	ppb	186.786	2.77	19012	2000	
Se	78	1	72	181.327	ppb	181.327	0.36	15148	2000	
Sr	88	2	72	533.108	ppb	533.108	0.94	135272	4000	
Zr	90	2	72	15754.820	ppb	15754.820	1.20	84825	1000	>LDR
Mo	95	2	115	208.208	ppb	208.208	0.47	81327	2000	
Ag	107	2	115	198.351	ppb	198.351	1.24	251541	100	
Cd	111	2	115	185.967	ppb	185.967	0.94	32621	2000	
Sn	120	2	115	243.263	ppb	243.263	2.28	106125	2000	
Sb	121	2	115	210.888	ppb	210.888	1.36	92233	1000	
Ba	137	2	115	436.526	ppb	436.526	1.29	56596	5000	
W	182	2	165	16.654	ppb	16.654	1.63	30004	100	
Tl	205	2	165	185.208	ppb	185.208	1.72	668588	2000	
Pb	208	2	165	375.626	ppb	375.626	0.99	1801703	5000	
Th	232	2	193	240.800	ppb	240.800	0.98	1310379	2000	
U	238	2	193	203.169	ppb	203.169	0.56	1225681	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	178369	0.59	252517	70.64	60	120	
Sc(IS)	45	1	HMI H2	7579940	0.53	9196623	82.42	60	120	
Sc (IS)	45	2	HMI He	448635	0.46	531422	84.42	60	120	
Sc (IS)	45	3	No Gas	14406528	0.66	18746179	76.85	60	120	
Ge Internal standard	72	1	HMI H2	3095375	0.60	3833850	80.74	60	120	
Ge Internal standard	72	2	HMI He	454650	0.79	524481	86.69	60	120	
In Internal standard	115	2	HMI He	1277864	1.07	1492548	85.62	60	120	
Ho-165	165	2	HMI He	6186255	0.37	6759932	91.51	60	120	
Ir (IS)	193	2	HMI He	5090006	0.21	5766680	88.27	60	120	

Sample Report

Sample Table

Sample Name	280-191179-a-1-c msd
Data File Name	108SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T20:30:39-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652666 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	315.315	ppb	315.315	1.62	3796323	50000	
Be	9	1	6	206.018	ppb	206.018	0.82	44665	2000	
B	11	1	6	88.478	ppb	88.478	2.15	14280	2000	
Na	23	2	45	7495.445	ppb	7495.445	1.75	1161278	400000	
Mg	24	2	45	14193.210	ppb	14193.210	0.63	986274	400000	
Al	27	2	45	36451.580	ppb	36451.580	0.22	608925	400000	
Si	28	1	45	4918.427	ppb	4918.427	21.56	2235824	10000	
P	31	2	45	1287.899	ppb	1287.899	3.48	1991	10000	
K	39	2	45	15813.184	ppb	15813.184	0.36	573821	400000	
Ca	40	1	45	45808.104	ppb	45808.104	1.28	70874924	400000	
Ti	47	2	45	4407.733	ppb	4407.733	0.27	62048	4000	
V	51	2	72	252.526	ppb	252.526	0.90	151791	2000	
Cr	52	2	72	214.296	ppb	214.296	0.39	172378	5000	
Mn	55	2	72	3425.509	ppb	3425.509	0.14	1056290	10000	
Fe	56	1	72	102631.444	ppb	102631.444	0.73	241118743	10000	>LDR
(Fe)	57	2	72	103777.954	ppb	103777.954	0.94	1462113	400000	
Co	59	2	72	190.308	ppb	190.308	0.87	240473	2000	
Ni	60	2	72	204.147	ppb	204.147	0.87	74322	5000	
Cu	63	2	72	240.105	ppb	240.105	0.52	230526	5000	
Zn	66	2	72	625.406	ppb	625.406	1.08	91324	5000	
As	75	2	72	195.959	ppb	195.959	0.18	20414	2000	
Se	78	1	72	182.677	ppb	182.677	1.44	15633	2000	
Sr	88	2	72	568.779	ppb	568.779	2.07	147739	4000	
Zr	90	2	72	19037.219	ppb	19037.219	7.68	104831	1000	>LDR
Mo	95	2	115	228.846	ppb	228.846	1.00	90120	2000	
Ag	107	2	115	210.726	ppb	210.726	1.20	269444	100	
Cd	111	2	115	192.228	ppb	192.228	0.61	34000	2000	
Sn	120	2	115	250.253	ppb	250.253	0.80	110084	2000	
Sb	121	2	115	217.154	ppb	217.154	0.81	95757	1000	
Ba	137	2	115	502.403	ppb	502.403	0.93	65678	5000	
W	182	2	165	22.156	ppb	22.156	1.89	40281	100	
Tl	205	2	165	190.706	ppb	190.706	1.24	696065	2000	
Pb	208	2	165	325.629	ppb	325.629	0.79	1579342	5000	
Th	232	2	193	283.441	ppb	283.441	2.18	1550626	2000	
U	238	2	193	211.984	ppb	211.984	0.32	1286227	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	180797	0.16	252517	71.60	60	120	
Sc(IS)	45	1	HMI H2	7701976	1.12	9196623	83.75	60	120	
Sc (IS)	45	2	HMI He	454120	0.22	531422	85.45	60	120	
Sc (IS)	45	3	No Gas	14613664	0.78	18746179	77.96	60	120	
Ge Internal standard	72	1	HMI H2	3170577	0.79	3833850	82.70	60	120	
Ge Internal standard	72	2	HMI He	465383	0.48	524481	88.73	60	120	
In Internal standard	115	2	HMI He	1288429	0.45	1492548	86.32	60	120	
Ho-165	165	2	HMI He	6254797	0.20	6759932	92.53	60	120	
Ir (IS)	193	2	HMI He	5119601	0.69	5766680	88.78	60	120	

Sample Report

Sample Table

Sample Name	280-191179-a-1-a PDS
Data File Name	109SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T20:34:13-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652666 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	321.877	ppb	321.877	0.58	3832386	50000	
Be	9	1	6	205.691	ppb	205.691	2.98	45023	2000	
B	11	1	6	81.756	ppb	81.756	0.63	13389	2000	
Na	23	2	45	7999.779	ppb	7999.779	0.77	1237190	400000	
Mg	24	2	45	11775.230	ppb	11775.230	0.28	817817	400000	
Al	27	2	45	34696.705	ppb	34696.705	0.79	579273	400000	
Si	28	1	45	5001.388	ppb	5001.388	14.12	2289425	10000	
P	31	2	45	3217.178	ppb	3217.178	3.45	4890	10000	
K	39	2	45	13217.157	ppb	13217.157	1.42	483117	400000	
Ca	40	1	45	39398.316	ppb	39398.316	0.51	61391114	400000	
Ti	47	2	45	3939.315	ppb	3939.315	1.89	55422	4000	
V	51	2	72	254.351	ppb	254.351	0.31	152819	2000	
Cr	52	2	72	215.004	ppb	215.004	1.25	172882	5000	
Mn	55	2	72	3321.067	ppb	3321.067	0.79	1023682	10000	
Fe	56	1	72	96129.026	ppb	96129.026	1.16	227996463	10000	>LDR
(Fe)	57	2	72	97608.011	ppb	97608.011	0.55	1374669	400000	
Co	59	2	72	199.059	ppb	199.059	0.14	251438	2000	
Ni	60	2	72	209.531	ppb	209.531	0.57	76251	5000	
Cu	63	2	72	244.314	ppb	244.314	0.56	234468	5000	
Zn	66	2	72	634.058	ppb	634.058	1.59	92550	5000	
As	75	2	72	203.810	ppb	203.810	1.51	21222	2000	
Se	78	1	72	195.489	ppb	195.489	1.37	16887	2000	
Sr	88	2	72	370.871	ppb	370.871	1.37	96289	4000	
Zr	90	2	72	15222.116	ppb	15222.116	1.84	83863	1000	>LDR
Mo	95	2	115	232.918	ppb	232.918	1.23	92040	2000	
Ag	107	2	115	62.875	ppb	62.875	2.06	80695	100	
Cd	111	2	115	201.383	ppb	201.383	2.47	35744	2000	
Sn	120	2	115	261.027	ppb	261.027	0.72	115217	2000	
Sb	121	2	115	233.283	ppb	233.283	0.93	103230	1000	
Ba	137	2	115	521.523	ppb	521.523	1.61	68419	5000	
W	182	2	165	89.531	ppb	89.531	1.46	162382	100	
Tl	205	2	165	198.069	ppb	198.069	0.69	724359	2000	
Pb	208	2	165	325.916	ppb	325.916	0.77	1583868	5000	
Th	232	2	193	130.709	ppb	130.709	3.42	720929	2000	
U	238	2	193	223.452	ppb	223.452	1.15	1362608	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	182563	0.91	252517	72.30	60	120	
Sc(IS)	45	1	HMI H2	7755414	0.44	9196623	84.33	60	120	
Sc (IS)	45	2	HMI He	453863	0.49	531422	85.41	60	120	
Sc (IS)	45	3	No Gas	14532188	0.45	18746179	77.52	60	120	
Ge Internal standard	72	1	HMI H2	3200892	1.10	3833850	83.49	60	120	
Ge Internal standard	72	2	HMI He	465207	0.48	524481	88.70	60	120	
In Internal standard	115	2	HMI He	1292913	0.38	1492548	86.62	60	120	
Ho-165	165	2	HMI He	6267282	0.50	6759932	92.71	60	120	
Ir (IS)	193	2	HMI He	5145638	0.38	5766680	89.23	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-8327972
Data File Name	110_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T20:37:47-06:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	6	51.500	ppb	4.294	11544	50	103.0	90	110	
Na	23	2	45	48317.925	ppb	1.329	7302903	51000	94.7	90	110	
Mg	24	2	45	10296.648	ppb	0.454	709875	11000	93.6	90	110	
Al	27	2	45	1069.237	ppb	1.230	17770	1000	106.9	90	110	
Si	28	1	45	2589.375	ppb	1.599	1190415	2500	103.6	90	110	
K	39	2	45	10672.236	ppb	0.573	391620	11000	97.0	90	110	
Ca	40	1	45	10950.379	ppb	0.485	17022050	11000	99.5	90	110	
Ti	47	2	45	58.716	ppb	7.423	820	50	117.4	90	110	>+\-10%
V	51	2	72	48.520	ppb	0.693	30759	50	97.0	90	110	
Cr	52	2	72	48.340	ppb	1.056	40523	50	96.7	90	110	
Mn	55	2	72	48.766	ppb	3.633	15384	50	97.5	90	110	
Fe	56	1	72	1077.062	ppb	0.371	2600270	1000	107.7	90	110	
Co	59	2	72	47.689	ppb	1.455	61210	50	95.4	90	110	
Ni	60	2	72	45.716	ppb	2.989	17006	50	91.4	90	110	
Cu	63	2	72	46.282	ppb	1.591	45356	50	92.6	90	110	
Zn	66	2	72	47.777	ppb	4.055	7279	50	95.6	90	110	
As	75	2	72	46.536	ppb	1.864	4963	50	93.1	90	110	
Se	78	1	72	51.305	ppb	3.700	4473	50	102.6	90	110	
Sr	88	2	72	108.358	ppb	1.226	28572	100	108.4	90	110	
Zr	90	2	72	529.488	ppb	2.892	3220	50	1059.0	90	110	>+\-10%
Mo	95	2	115	50.220	ppb	0.812	20290	50	100.4	90	110	
Ag	107	2	115	49.314	ppb	1.573	64500	50	98.6	90	110	
Cd	111	2	115	50.554	ppb	2.773	9143	50	101.1	90	110	
Sn	120	2	115	54.794	ppb	2.164	24793	50	109.6	90	110	
Sb	121	2	115	54.297	ppb	4.327	24506	50	108.6	90	110	
Ba	137	2	115	57.336	ppb	1.480	7676	50	114.7	90	110	>+\-10%
W	182	2	165	50.990	ppb	0.328	91658	50	102.0	90	110	
Tl	205	2	165	50.588	ppb	1.819	183542	50	101.2	90	110	
Pb	208	2	165	50.911	ppb	0.825	245698	50	101.8	90	110	
Th	232	2	193	53.387	ppb	0.760	290521	50	106.8	90	110	
U	238	2	193	52.032	ppb	1.115	311756	50	104.1	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	186692	1.11	252517	73.93	60	120	
Sc(IS)	45	1	HMI H2	7724481	0.26	9196623	83.99	60	120	
Sc (IS)	45	2	HMI He	450520	0.52	531422	84.78	60	120	
Sc (IS)	45	3	No Gas	14607665	0.96	18746179	77.92	60	120	
Ge Internal standard	72	1	HMI H2	3226838	0.41	3833850	84.17	60	120	
Ge Internal standard	72	2	HMI He	472429	0.22	524481	90.08	60	120	
In Internal standard	115	2	HMI He	1317623	0.78	1492548	88.28	60	120	
Ho-165	165	2	HMI He	6204636	0.47	6759932	91.79	60	120	
Ir (IS)	193	2	HMI He	5036942	0.60	5766680	87.35	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-8327938
Data File Name	111_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T20:41:21-06:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-13.725	ppb	-24.1	906282	10	
Be	9	1	6	0.197	ppb	91.2	67	0.5	
B	11	1	6	35.526	ppb	5.3	6498	0.5	>RL
Na	23	2	45	-15.547	ppb	-52.4	20233	25	
Mg	24	2	45	14.920	ppb	9.9	1200	25	
Al	27	2	45	0.787	ppb	246.5	63	15	
Si	28	1	45	54.925	ppb	33.8	44398	1	>RL
K	39	2	45	1.586	ppb	639.6	22763	50	
Ca	40	1	45	23.844	ppb	2.6	73034	200	
(Ca)	44	1	45	18.693	ppb	11.7	1780	200	
Ti	47	2	45	0.239	ppb	173.2	3	0.5	
V	51	2	72	-1.404	ppb	-11.5	563	1	
Cr	52	2	72	-0.148	ppb	-32.4	1207	1	
Mn	55	2	72	0.643	ppb	21.1	313	0.5	>RL
Fe	56	1	72	11.837	ppb	5.9	52364	50	
(Fe)	57	2	72	2.523	ppb	177.8	240	25	
Co	59	2	72	0.112	ppb	42.8	190	0.5	
Ni	60	2	72	-0.012	ppb	-887.4	133	1	
Cu	63	2	72	0.047	ppb	158.5	343	1	
Zn	66	2	72	-0.054	ppb	-328.4	200	5	
As	75	2	72	-0.265	ppb	-43.8	26	1	
Se	78	1	72	0.127	ppb	120.6	17	1	
Sr	88	2	72	0.352	ppb	39.4	93	0.5	
Zr	90	2	72	-5.016	ppb	-26.6	233	1	
Mo	95	2	115	0.074	ppb	88.3	110	0.5	
Ag	107	2	115	0.013	ppb	88.0	43	1	
Cd	111	2	115	0.038	ppb	86.6	7	0.5	
Sn	120	2	115	0.267	ppb	21.2	300	1	
Sb	121	2	115	0.592	ppb	5.1	293	0.6	
Ba	137	2	115	0.064	ppb	235.6	20	0.5	
W	182	2	165	0.355	ppb	10.8	867	1	
Tl	205	2	165	0.003	ppb	844.7	533	0.1	
Pb	208	2	165	0.063	ppb	46.2	1197	0.5	
Th	232	2	193	0.671	ppb	6.1	7629	1	
U	238	2	193	0.061	ppb	46.0	1927	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	188100	1.10	252517	74.49	60	120	
Sc(IS)	45	1	HMI H2	7609775	1.55	9196623	82.75	60	120	
Sc (IS)	45	2	HMI He	448258	0.50	531422	84.35	60	120	
Sc (IS)	45	3	No Gas	14673361	0.72	18746179	78.27	60	120	
Ge Internal standard	72	1	HMI H2	3164690	1.13	3833850	82.55	60	120	
Ge Internal standard	72	2	HMI He	460692	0.63	524481	87.84	60	120	
In Internal standard	115	2	HMI He	1292098	0.69	1492548	86.57	60	120	
Ho-165	165	2	HMI He	6186123	1.23	6759932	91.51	60	120	
Ir (IS)	193	2	HMI He	5127866	0.78	5766680	88.92	60	120	

Sample Report

Sample Table

Sample Name	280-191179-a-2-a
Data File Name	112SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T20:44:58-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652666 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	71.838	ppb	71.838	1.65	1645499	50000	
Be	9	1	6	3.929	ppb	3.929	14.59	893	2000	
B	11	1	6	46.475	ppb	46.475	5.08	8092	2000	
Na	23	2	45	2096.942	ppb	2096.942	0.51	335469	400000	
Mg	24	2	45	6660.833	ppb	6660.833	0.50	454955	400000	
Al	27	2	45	33419.269	ppb	33419.269	1.00	548620	400000	
Si	28	1	45	3509.730	ppb	3509.730	7.00	1586691	10000	
P	31	2	45	627.939	ppb	627.939	4.95	982	10000	
K	39	2	45	7054.368	ppb	7054.368	0.35	264092	400000	
Ca	40	1	45	12742.061	ppb	12742.061	0.73	19558909	400000	
Ti	47	2	45	3557.098	ppb	3557.098	2.34	49206	4000	
V	51	2	72	71.790	ppb	71.790	2.80	43063	2000	
Cr	52	2	72	38.912	ppb	38.912	2.39	31591	5000	
Mn	55	2	72	2304.503	ppb	2304.503	0.59	693060	10000	
Fe	56	1	72	82106.654	ppb	82106.654	0.54	192327937	10000	>LDR
(Fe)	57	2	72	78060.996	ppb	78060.996	0.33	1072621	400000	
Co	59	2	72	12.184	ppb	12.184	0.97	15061	2000	
Ni	60	2	72	34.831	ppb	34.831	4.95	12482	5000	
Cu	63	2	72	42.006	ppb	42.006	1.71	39578	5000	
Zn	66	2	72	293.956	ppb	293.956	1.09	41971	5000	
As	75	2	72	11.820	ppb	11.820	1.37	1250	2000	
Se	78	1	72	0.907	ppb	0.907	18.13	84	2000	
Sr	88	2	72	62.550	ppb	62.550	1.68	15848	4000	
Zr	90	2	72	14249.211	ppb	14249.211	0.29	76607	1000	>LDR
Mo	95	2	115	25.479	ppb	25.479	3.20	9960	2000	
Ag	107	2	115	5.930	ppb	5.930	2.43	7499	100	
Cd	111	2	115	0.688	ppb	0.688	14.14	120	2000	
Sn	120	2	115	37.426	ppb	37.426	4.56	16379	2000	
Sb	121	2	115	2.085	ppb	2.085	15.19	937	1000	
Ba	137	2	115	263.579	ppb	263.579	3.55	33971	5000	
W	182	2	165	14.156	ppb	14.156	3.88	25576	100	
Tl	205	2	165	0.312	ppb	0.312	13.97	1650	2000	
Pb	208	2	165	58.834	ppb	58.834	0.90	283401	5000	
Th	232	2	193	49.552	ppb	49.552	0.96	277809	2000	
U	238	2	193	9.614	ppb	9.614	3.09	60569	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	185091	0.83	252517	73.30	60	120	
Sc(IS)	45	1	HMI H2	7630152	0.32	9196623	82.97	60	120	
Sc (IS)	45	2	HMI He	446281	0.76	531422	83.98	60	120	
Sc (IS)	45	3	No Gas	14528454	0.29	18746179	77.50	60	120	
Ge Internal standard	72	1	HMI H2	3161055	0.55	3833850	82.45	60	120	
Ge Internal standard	72	2	HMI He	453876	0.82	524481	86.54	60	120	
In Internal standard	115	2	HMI He	1270019	0.34	1492548	85.09	60	120	
Ho-165	165	2	HMI He	6195894	0.32	6759932	91.66	60	120	
Ir (IS)	193	2	HMI He	5183946	0.47	5766680	89.89	60	120	

Sample Report

Sample Table

Sample Name	280-191179-a-3-a
Data File Name	113SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T20:48:33-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652666 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	76.358	ppb	76.358	4.78	1684404	50000	
Be	9	1	6	3.546	ppb	3.546	24.06	830	2000	
B	11	1	6	22.704	ppb	22.704	3.48	4514	2000	
Na	23	2	45	3685.540	ppb	3685.540	1.54	575436	400000	
Mg	24	2	45	3140.066	ppb	3140.066	1.44	215624	400000	
Al	27	2	45	11435.446	ppb	11435.446	0.99	188690	400000	
Si	28	1	45	3979.419	ppb	3979.419	10.14	1824315	10000	
P	31	2	45	586.588	ppb	586.588	10.70	925	10000	
K	39	2	45	6734.274	ppb	6734.274	0.62	254388	400000	
Ca	40	1	45	5127.126	ppb	5127.126	0.97	8013855	400000	
Ti	47	2	45	4449.847	ppb	4449.847	1.87	61861	4000	
V	51	2	72	25.146	ppb	25.146	4.67	16148	2000	
Cr	52	2	72	19.696	ppb	19.696	1.79	16813	5000	
Mn	55	2	72	2846.841	ppb	2846.841	0.44	865340	10000	
Fe	56	1	72	71635.104	ppb	71635.104	0.83	168527271	10000	>LDR
(Fe)	57	2	72	68496.148	ppb	68496.148	0.35	951310	400000	
Co	59	2	72	10.203	ppb	10.203	2.74	12755	2000	
Ni	60	2	72	18.316	ppb	18.316	2.47	6698	5000	
Cu	63	2	72	16.337	ppb	16.337	1.67	15738	5000	
Zn	66	2	72	362.713	ppb	362.713	0.75	52297	5000	
As	75	2	72	5.920	ppb	5.920	2.97	659	2000	
Se	78	1	72	0.435	ppb	0.435	73.48	44	2000	
Sr	88	2	72	27.973	ppb	27.973	3.65	7165	4000	
Zr	90	2	72	19873.416	ppb	19873.416	1.96	107890	1000	>LDR
Mo	95	2	115	28.466	ppb	28.466	6.31	11251	2000	
Ag	107	2	115	0.583	ppb	0.583	14.89	770	100	
Cd	111	2	115	0.189	ppb	0.189	17.11	33	2000	
Sn	120	2	115	39.786	ppb	39.786	2.22	17607	2000	
Sb	121	2	115	0.808	ppb	0.808	12.96	387	1000	
Ba	137	2	115	243.520	ppb	243.520	1.68	31756	5000	
W	182	2	165	26.877	ppb	26.877	2.57	48802	100	
Tl	205	2	165	0.218	ppb	0.218	21.04	1323	2000	
Pb	208	2	165	31.855	ppb	31.855	1.60	155283	5000	
Th	232	2	193	54.468	ppb	54.468	0.40	307882	2000	
U	238	2	193	9.401	ppb	9.401	0.52	59833	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	189852	0.69	252517	75.18	60	120	
Sc(IS)	45	1	HMI H2	7747910	0.17	9196623	84.25	60	120	
Sc (IS)	45	2	HMI He	448489	0.53	531422	84.39	60	120	
Sc (IS)	45	3	No Gas	14524517	0.77	18746179	77.48	60	120	
Ge Internal standard	72	1	HMI H2	3174717	0.56	3833850	82.81	60	120	
Ge Internal standard	72	2	HMI He	458742	0.61	524481	87.47	60	120	
In Internal standard	115	2	HMI He	1285069	0.71	1492548	86.10	60	120	
Ho-165	165	2	HMI He	6254050	1.02	6759932	92.52	60	120	
Ir (IS)	193	2	HMI He	5233325	1.00	5766680	90.75	60	120	

Sample Report

Sample Table

Sample Name	280-191179-a-4-a
Data File Name	114SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T20:52:09-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652666 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	97.452	ppb	97.452	2.41	1892529	50000	
Be	9	1	6	4.684	ppb	4.684	3.60	1087	2000	
B	11	1	6	70.632	ppb	70.632	4.47	12135	2000	
Na	23	2	45	2195.210	ppb	2195.210	1.94	353926	400000	
Mg	24	2	45	7863.374	ppb	7863.374	0.18	542905	400000	
Al	27	2	45	28386.255	ppb	28386.255	0.34	471090	400000	
Si	28	1	45	5286.675	ppb	5286.675	30.78	2421755	10000	
P	31	2	45	1391.058	ppb	1391.058	7.38	2132	10000	
K	39	2	45	9464.860	ppb	9464.860	0.34	350370	400000	
Ca	40	1	45	30694.795	ppb	30694.795	0.45	47948358	400000	
Ti	47	2	45	3975.023	ppb	3975.023	2.64	55586	4000	
V	51	2	72	56.893	ppb	56.893	0.84	35051	2000	
Cr	52	2	72	26.620	ppb	26.620	2.99	22429	5000	
Mn	55	2	72	3069.617	ppb	3069.617	0.56	940160	10000	
Fe	56	1	72	95200.011	ppb	95200.011	0.93	225768550	10000	>LDR
(Fe)	57	2	72	95396.317	ppb	95396.317	4.47	1334738	400000	
Co	59	2	72	9.811	ppb	9.811	1.31	12362	2000	
Ni	60	2	72	27.572	ppb	27.572	1.86	10090	5000	
Cu	63	2	72	38.995	ppb	38.995	1.41	37440	5000	
Zn	66	2	72	358.959	ppb	358.959	1.14	52156	5000	
As	75	2	72	12.034	ppb	12.034	4.63	1295	2000	
Se	78	1	72	1.128	ppb	1.128	21.10	104	2000	
Sr	88	2	72	145.429	ppb	145.429	2.48	37521	4000	
Zr	90	2	72	15976.122	ppb	15976.122	2.02	87438	1000	>LDR
Mo	95	2	115	30.332	ppb	30.332	0.88	11868	2000	
Ag	107	2	115	2.697	ppb	2.697	5.80	3431	100	
Cd	111	2	115	0.973	ppb	0.973	6.64	170	2000	
Sn	120	2	115	38.955	ppb	38.955	1.80	17080	2000	
Sb	121	2	115	10.427	ppb	10.427	3.34	4571	1000	
Ba	137	2	115	280.455	ppb	280.455	2.45	36223	5000	
W	182	2	165	19.137	ppb	19.137	3.40	34817	100	
Tl	205	2	165	0.372	ppb	0.372	13.71	1887	2000	
Pb	208	2	165	75.324	ppb	75.324	1.38	365989	5000	
Th	232	2	193	60.945	ppb	60.945	1.32	344025	2000	
U	238	2	193	13.653	ppb	13.653	1.01	86180	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	189581	0.69	252517	75.08	60	120	
Sc(IS)	45	1	HMI H2	7773234	0.72	9196623	84.52	60	120	
Sc (IS)	45	2	HMI He	451132	0.37	531422	84.89	60	120	
Sc (IS)	45	3	No Gas	14708074	0.22	18746179	78.46	60	120	
Ge Internal standard	72	1	HMI H2	3200442	1.14	3833850	83.48	60	120	
Ge Internal standard	72	2	HMI He	462252	0.99	524481	88.14	60	120	
In Internal standard	115	2	HMI He	1272724	0.78	1492548	85.27	60	120	
Ho-165	165	2	HMI He	6254607	0.86	6759932	92.52	60	120	
Ir (IS)	193	2	HMI He	5233578	0.55	5766680	90.76	60	120	

Sample Report

Sample Table

Sample Name	280-191179-a-5-a
Data File Name	115SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T20:55:43-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652666 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	119.343	ppb	119.343	0.60	2164357	50000	
Be	9	1	6	6.846	ppb	6.846	7.07	1587	2000	
B	11	1	6	75.569	ppb	75.569	3.15	12985	2000	
Na	23	2	45	5557.917	ppb	5557.917	0.63	879580	400000	
Mg	24	2	45	17199.177	ppb	17199.177	1.55	1212380	400000	
Al	27	2	45	104215.629	ppb	104215.629	0.44	1765971	400000	
Si	28	1	45	4564.405	ppb	4564.405	11.65	2126472	10000	
P	31	2	45	1076.133	ppb	1076.133	4.73	1697	10000	
K	39	2	45	18100.948	ppb	18100.948	0.18	662960	400000	
Ca	40	1	45	39235.616	ppb	39235.616	0.98	62191774	400000	
Ti	47	2	45	10296.238	ppb	10296.238	1.35	147046	4000	
V	51	2	72	306.339	ppb	306.339	0.43	184408	2000	
Cr	52	2	72	118.941	ppb	118.941	1.10	96567	5000	
Mn	55	2	72	3892.974	ppb	3892.974	0.73	1204112	10000	
Fe	56	1	72	202335.579	ppb	202335.579	0.58	485429739	10000	>LDR
(Fe)	57	2	72	205753.479	ppb	205753.479	1.32	2907386	400000	
Co	59	2	72	39.647	ppb	39.647	1.34	50290	2000	
Ni	60	2	72	69.706	ppb	69.706	0.74	25547	5000	
Cu	63	2	72	44.378	ppb	44.378	0.20	42987	5000	
Zn	66	2	72	489.830	ppb	489.830	2.02	71799	5000	
As	75	2	72	17.643	ppb	17.643	5.80	1892	2000	
Se	78	1	72	1.205	ppb	1.205	39.92	112	2000	
Sr	88	2	72	234.369	ppb	234.369	0.80	61062	4000	
Zr	90	2	72	25642.647	ppb	25642.647	0.41	141583	1000	>LDR
Mo	95	2	115	38.707	ppb	38.707	1.38	15301	2000	
Ag	107	2	115	0.551	ppb	0.551	11.76	730	100	
Cd	111	2	115	0.565	ppb	0.565	26.34	100	2000	
Sn	120	2	115	52.805	ppb	52.805	4.34	23355	2000	
Sb	121	2	115	3.977	ppb	3.977	3.74	1784	1000	
Ba	137	2	115	867.799	ppb	867.799	0.47	113382	5000	
W	182	2	165	20.466	ppb	20.466	0.74	37647	100	
Tl	205	2	165	0.929	ppb	0.929	3.14	3961	2000	
Pb	208	2	165	79.388	ppb	79.388	0.27	390069	5000	
Th	232	2	193	74.037	ppb	74.037	0.45	414740	2000	
U	238	2	193	10.636	ppb	10.636	3.31	67114	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	190530	1.20	252517	75.45	60	120	
Sc(IS)	45	1	HMI H2	7889474	0.86	9196623	85.79	60	120	
Sc (IS)	45	2	HMI He	460686	0.82	531422	86.69	60	120	
Sc (IS)	45	3	No Gas	15258618	0.37	18746179	81.40	60	120	
Ge Internal standard	72	1	HMI H2	3237898	0.94	3833850	84.46	60	120	
Ge Internal standard	72	2	HMI He	466831	1.11	524481	89.01	60	120	
In Internal standard	115	2	HMI He	1287811	1.14	1492548	86.28	60	120	
Ho-165	165	2	HMI He	6325214	0.52	6759932	93.57	60	120	
Ir (IS)	193	2	HMI He	5204486	0.28	5766680	90.25	60	120	

Sample Report

Sample Table

Sample Name	280-191179-a-6-a
Data File Name	116SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T20:59:18-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652666 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	84.889	ppb	84.889	1.16	1812341	50000	
Be	9	1	6	4.420	ppb	4.420	11.11	1047	2000	
B	11	1	6	29.996	ppb	29.996	8.39	5778	2000	
Na	23	2	45	3571.911	ppb	3571.911	1.07	567181	400000	
Mg	24	2	45	4379.942	ppb	4379.942	0.96	305458	400000	
Al	27	2	45	18152.148	ppb	18152.148	0.47	304251	400000	
Si	28	1	45	4465.640	ppb	4465.640	17.68	2091331	10000	
P	31	2	45	758.764	ppb	758.764	4.68	1200	10000	
K	39	2	45	7444.768	ppb	7444.768	1.95	283201	400000	
Ca	40	1	45	11469.831	ppb	11469.831	0.99	18281116	400000	
Ti	47	2	45	4730.803	ppb	4730.803	2.26	66806	4000	
V	51	2	72	40.728	ppb	40.728	2.45	26027	2000	
Cr	52	2	72	35.320	ppb	35.320	0.78	29951	5000	
Mn	55	2	72	2432.293	ppb	2432.293	0.42	760809	10000	
Fe	56	1	72	87052.916	ppb	87052.916	0.69	210809797	10000	>LDR
(Fe)	57	2	72	82547.129	ppb	82547.129	0.42	1179721	400000	
Co	59	2	72	7.924	ppb	7.924	3.61	10207	2000	
Ni	60	2	72	30.407	ppb	30.407	5.29	11351	5000	
Cu	63	2	72	18.417	ppb	18.417	2.16	18217	5000	
Zn	66	2	72	352.320	ppb	352.320	2.03	52277	5000	
As	75	2	72	9.342	ppb	9.342	1.50	1039	2000	
Se	78	1	72	0.497	ppb	0.497	37.90	51	2000	
Sr	88	2	72	57.841	ppb	57.841	1.39	15241	4000	
Zr	90	2	72	24798.993	ppb	24798.993	5.19	138493	1000	>LDR
Mo	95	2	115	31.517	ppb	31.517	4.43	12762	2000	
Ag	107	2	115	0.666	ppb	0.666	8.83	897	100	
Cd	111	2	115	0.369	ppb	0.369	23.29	67	2000	
Sn	120	2	115	50.050	ppb	50.050	2.38	22660	2000	
Sb	121	2	115	3.116	ppb	3.116	7.80	1437	1000	
Ba	137	2	115	252.085	ppb	252.085	2.28	33700	5000	
W	182	2	165	31.065	ppb	31.065	1.14	57221	100	
Tl	205	2	165	0.243	ppb	0.243	32.98	1437	2000	
Pb	208	2	165	34.338	ppb	34.338	1.16	169841	5000	
Th	232	2	193	57.596	ppb	57.596	0.99	327214	2000	
U	238	2	193	11.080	ppb	11.080	2.71	70634	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	193286	0.48	252517	76.54	60	120	
Sc(IS)	45	1	HMI H2	7921196	0.49	9196623	86.13	60	120	
Sc (IS)	45	2	HMI He	455593	1.20	531422	85.73	60	120	
Sc (IS)	45	3	No Gas	14964189	1.38	18746179	79.83	60	120	
Ge Internal standard	72	1	HMI H2	3268002	0.61	3833850	85.24	60	120	
Ge Internal standard	72	2	HMI He	472059	0.48	524481	90.00	60	120	
In Internal standard	115	2	HMI He	1317312	0.44	1492548	88.26	60	120	
Ho-165	165	2	HMI He	6347783	0.42	6759932	93.90	60	120	
Ir (IS)	193	2	HMI He	5263826	0.73	5766680	91.28	60	120	

Sample Report

Sample Table

Sample Name	280-191179-a-7-a
Data File Name	117SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T21:02:53-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652666 SOIL 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	77.461	ppb	77.461	0.60	1772252	50000	
Be	9	1	6	4.082	ppb	4.082	8.24	980	2000	
B	11	1	6	30.812	ppb	30.812	5.94	5981	2000	
Na	23	2	45	3982.565	ppb	3982.565	1.25	634716	400000	
Mg	24	2	45	4884.149	ppb	4884.149	0.09	343281	400000	
Al	27	2	45	20683.327	ppb	20683.327	1.79	349349	400000	
Si	28	1	45	7001.112	ppb	7001.112	19.45	3296448	10000	
P	31	2	45	731.721	ppb	731.721	2.87	1168	10000	
K	39	2	45	8400.862	ppb	8400.862	1.07	319126	400000	
Ca	40	1	45	14311.872	ppb	14311.872	0.41	23002297	400000	
Ti	47	2	45	5614.869	ppb	5614.869	2.74	79927	4000	
V	51	2	72	53.358	ppb	53.358	1.17	33979	2000	
Cr	52	2	72	60.242	ppb	60.242	2.01	50614	5000	
Mn	55	2	72	2681.665	ppb	2681.665	0.57	846852	10000	
Fe	56	1	72	98885.706	ppb	98885.706	0.67	241052883	10000	>LDR
(Fe)	57	2	72	101169.548	ppb	101169.548	1.52	1459601	400000	
Co	59	2	72	9.891	ppb	9.891	4.48	12845	2000	
Ni	60	2	72	38.799	ppb	38.799	2.66	14580	5000	
Cu	63	2	72	18.650	ppb	18.650	1.16	18621	5000	
Zn	66	2	72	358.220	ppb	358.220	2.39	53668	5000	
As	75	2	72	10.193	ppb	10.193	2.51	1140	2000	
Se	78	1	72	1.078	ppb	1.078	18.82	103	2000	
Sr	88	2	72	67.967	ppb	67.967	1.58	18081	4000	
Zr	90	2	72	26379.681	ppb	26379.681	1.16	148691	1000	>LDR
Mo	95	2	115	34.777	ppb	34.777	2.38	14003	2000	
Ag	107	2	115	0.761	ppb	0.761	7.01	1017	100	
Cd	111	2	115	0.519	ppb	0.519	34.39	93	2000	
Sn	120	2	115	51.254	ppb	51.254	1.38	23087	2000	
Sb	121	2	115	3.487	ppb	3.487	17.61	1597	1000	
Ba	137	2	115	285.030	ppb	285.030	2.91	37917	5000	
W	182	2	165	34.147	ppb	34.147	1.04	62994	100	
Tl	205	2	165	0.303	ppb	0.303	7.60	1660	2000	
Pb	208	2	165	39.722	ppb	39.722	1.55	196693	5000	
Th	232	2	193	66.921	ppb	66.921	0.67	381712	2000	
U	238	2	193	12.930	ppb	12.930	1.62	82639	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	195612	0.81	252517	77.46	60	120	
Sc(IS)	45	1	HMI H2	7990827	0.59	9196623	86.89	60	120	
Sc (IS)	45	2	HMI He	459157	0.69	531422	86.40	60	120	
Sc (IS)	45	3	No Gas	15193911	0.16	18746179	81.05	60	120	
Ge Internal standard	72	1	HMI H2	3289747	0.98	3833850	85.81	60	120	
Ge Internal standard	72	2	HMI He	476603	0.83	524481	90.87	60	120	
In Internal standard	115	2	HMI He	1310958	0.44	1492548	87.83	60	120	
Ho-165	165	2	HMI He	6359698	0.24	6759932	94.08	60	120	
Ir (IS)	193	2	HMI He	5293816	0.12	5766680	91.80	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-8327972
Data File Name	118_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T21:06:28-06:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	6	50.440	ppb	3.082	11804	50	100.9	90	110	
Na	23	2	45	48249.978	ppb	0.950	7477301	51000	94.6	90	110	
Mg	24	2	45	10280.979	ppb	0.933	726711	11000	93.5	90	110	
Al	27	2	45	1062.710	ppb	2.988	18107	1000	106.3	90	110	
Si	28	1	45	2674.499	ppb	3.238	1270665	2500	107.0	90	110	
K	39	2	45	10671.599	ppb	0.745	401488	11000	97.0	90	110	
Ca	40	1	45	10883.296	ppb	0.661	17492183	11000	98.9	90	110	
Ti	47	2	45	67.981	ppb	9.189	973	50	136.0	90	110	>+\-10%
V	51	2	72	47.605	ppb	2.311	30759	50	95.2	90	110	
Cr	52	2	72	47.573	ppb	2.096	40633	50	95.1	90	110	
Mn	55	2	72	48.228	ppb	1.017	15494	50	96.5	90	110	
Fe	56	1	72	1092.644	ppb	1.596	2710634	1000	109.3	90	110	
Co	59	2	72	47.425	ppb	3.512	61992	50	94.9	90	110	
Ni	60	2	72	44.036	ppb	2.390	16686	50	88.1	90	110	>+\-10%
Cu	63	2	72	46.819	ppb	1.503	46720	50	93.6	90	110	
Zn	66	2	72	46.290	ppb	3.891	7189	50	92.6	90	110	
As	75	2	72	47.210	ppb	2.640	5126	50	94.4	90	110	
Se	78	1	72	48.602	ppb	2.481	4355	50	97.2	90	110	
Sr	88	2	72	108.122	ppb	0.889	29033	100	108.1	90	110	
Zr	90	2	72	2000.984	ppb	7.161	11638	50	4002.0	90	110	>+\-10%
Mo	95	2	115	50.429	ppb	5.356	20681	50	100.9	90	110	
Ag	107	2	115	49.946	ppb	1.796	66321	50	99.9	90	110	
Cd	111	2	115	50.155	ppb	1.816	9210	50	100.3	90	110	
Sn	120	2	115	55.214	ppb	2.581	25364	50	110.4	90	110	>+\-10%
Sb	121	2	115	54.387	ppb	0.785	24924	50	108.8	90	110	
Ba	137	2	115	55.218	ppb	5.688	7505	50	110.4	90	110	>+\-10%
W	182	2	165	51.405	ppb	0.960	94257	50	102.8	90	110	
Tl	205	2	165	50.127	ppb	1.117	185526	50	100.3	90	110	
Pb	208	2	165	50.993	ppb	1.258	251023	50	102.0	90	110	
Th	232	2	193	52.173	ppb	0.957	292794	50	104.3	90	110	
U	238	2	193	51.458	ppb	0.905	317881	50	102.9	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	194863	0.51	252517	77.17	60	120	
Sc(IS)	45	1	HMI H2	7986723	0.15	9196623	86.84	60	120	
Sc (IS)	45	2	HMI He	461921	0.95	531422	86.92	60	120	
Sc (IS)	45	3	No Gas	14972008	0.77	18746179	79.87	60	120	
Ge Internal standard	72	1	HMI H2	3316468	0.44	3833850	86.50	60	120	
Ge Internal standard	72	2	HMI He	481090	0.30	524481	91.73	60	120	
In Internal standard	115	2	HMI He	1337651	0.37	1492548	89.62	60	120	
Ho-165	165	2	HMI He	6329309	0.77	6759932	93.63	60	120	
Ir (IS)	193	2	HMI He	5192795	0.26	5766680	90.05	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-8327938
Data File Name	119_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T21:10:02-06:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-13.085	ppb	-35.0	938772	10	
Be	9	1	6	0.099	ppb	162.2	47	0.5	
B	11	1	6	30.369	ppb	13.0	5945	0.5	>RL
Na	23	2	45	-21.329	ppb	-14.7	19802	25	
Mg	24	2	45	13.061	ppb	22.3	1097	25	
Al	27	2	45	2.880	ppb	54.2	100	15	
Si	28	1	45	50.461	ppb	73.2	44211	1	>RL
K	39	2	45	-27.257	ppb	-75.8	22259	50	
Ca	40	1	45	24.614	ppb	1.2	77374	200	
(Ca)	44	1	45	22.548	ppb	9.8	2044	200	
Ti	47	2	45	1.408	ppb	0.1	20	0.5	>RL
V	51	2	72	-1.254	ppb	-4.2	670	1	
Cr	52	2	72	-0.282	ppb	-91.1	1133	1	
Mn	55	2	72	0.697	ppb	51.8	340	0.5	>RL
Fe	56	1	72	15.663	ppb	1.0	63428	50	
(Fe)	57	2	72	7.822	ppb	38.3	323	25	
Co	59	2	72	0.092	ppb	24.3	170	0.5	
Ni	60	2	72	0.228	ppb	115.9	227	1	
Cu	63	2	72	-0.093	ppb	-54.4	217	1	
Zn	66	2	72	0.086	ppb	306.7	227	5	
As	75	2	72	-0.248	ppb	-76.2	29	1	
Se	78	1	72	0.074	ppb	95.6	13	1	
Sr	88	2	72	0.204	ppb	55.0	57	0.5	
Zr	90	2	72	18.240	ppb	28.1	370	1	>RL
Mo	95	2	115	0.080	ppb	132.5	117	0.5	
Ag	107	2	115	0.029	ppb	55.3	67	1	
Cd	111	2	115	0.090	ppb	70.5	17	0.5	
Sn	120	2	115	0.139	ppb	97.8	253	1	
Sb	121	2	115	0.195	ppb	50.4	123	0.6	
Ba	137	2	115	0.203	ppb	57.8	40	0.5	
W	182	2	165	0.352	ppb	20.8	883	1	
Tl	205	2	165	-0.034	ppb	-40.7	413	0.1	
Pb	208	2	165	0.015	ppb	129.9	993	0.5	
Th	232	2	193	0.556	ppb	10.2	7299	1	
U	238	2	193	0.032	ppb	84.6	1830	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	196832	1.18	252517	77.95	60	120	
Sc(IS)	45	1	HMI H2	7933159	0.91	9196623	86.26	60	120	
Sc (IS)	45	2	HMI He	458285	0.13	531422	86.24	60	120	
Sc (IS)	45	3	No Gas	15103879	0.57	18746179	80.57	60	120	
Ge Internal standard	72	1	HMI H2	3272142	0.93	3833850	85.35	60	120	
Ge Internal standard	72	2	HMI He	473871	1.06	524481	90.35	60	120	
In Internal standard	115	2	HMI He	1349651	2.64	1492548	90.43	60	120	
Ho-165	165	2	HMI He	6355573	1.17	6759932	94.02	60	120	
Ir (IS)	193	2	HMI He	5345256	0.13	5766680	92.69	60	120	

Blank Report

Sample Table

Sample Name	lb 280-652311/1-b
Data File Name	120_BLK.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T21:13:38-06:00
Sample Type	Blank
Dilution	1
Comment	652705 6020B
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	3	45	-18.963	ppb	-1.922397599	858497	10
Be	9	1	6	-0.022	ppb	-315.5335941	17	0.5
B	11	1	6	28.205	ppb	4.258652018	5181	0.5
Na	23	2	45	1695358.757	ppb	1.217918232	254840643	25
Mg	24	2	45	11.720	ppb	6.786561377	983	25
Al	27	2	45	5.418	ppb	29.56837001	140	15
K	39	2	45	387.822	ppb	6.564683211	36133	50
Ti	47	2	45	0.960	ppb	44.40534477	13	0.5
V	51	2	72	-1.316	ppb	-5.688879351	620	1
Cr	52	2	72	2.699	ppb	10.88612372	3484	1
Mn	55	2	72	0.971	ppb	31.25923218	417	0.5
(Fe)	57	2	72	44.819	ppb	9.258289275	837	25
Co	59	2	72	0.077	ppb	26.29496421	147	0.5
Ni	60	2	72	0.629	ppb	15.17130713	367	1
Cu	63	2	72	1.138	ppb	8.027109604	1390	1
Zn	66	2	72	1.975	ppb	43.26441167	497	5
As	75	2	72	0.004	ppb	3397.422215	54	1
Se	78	1	72	0.061	ppb	329.7652264	12	1
Sr	88	2	72	0.966	ppb	37.78377606	253	0.5
Zr	90	2	72	152.760	ppb	9.569357263	1100	1
Mo	95	2	115	0.154	ppb	103.1164387	137	0.5
Ag	107	2	115	0.001	ppb	1212.329336	27	1
Cd	111	2	115	0.039	ppb	86.6049465	7	0.5
Sn	120	2	115	0.409	ppb	55.77996312	350	1
Sb	121	2	115	0.171	ppb	78.84253969	103	0.6
Ba	137	2	115	11.221	ppb	8.737222785	1430	0.5
W	182	2	165	0.088	ppb	47.92921162	377	1
Tl	205	2	165	-0.103	ppb	-11.20222242	147	0.1
Pb	208	2	165	13.086	ppb	3.658565826	61589	0.5
Th	232	2	193	0.276	ppb	11.68277285	5341	1
U	238	2	193	0.070	ppb	41.73454943	1940	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	182525	1.00	252517	72.28	60	120	
Sc(IS)	45	1	HMI H2	7747332	0.22	9196623	84.24	60	120	
Sc (IS)	45	2	HMI He	449438	1.23	531422	84.57	60	120	
Sc (IS)	45	3	No Gas	14644923	0.42	18746179	78.12	60	120	
Ge Internal standard	72	1	HMI H2	3224068	0.65	3833850	84.09	60	120	
Ge Internal standard	72	2	HMI He	464371	0.20	524481	88.54	60	120	
In Internal standard	115	2	HMI He	1247115	0.85	1492548	83.56	60	120	
Ho-165	165	2	HMI He	5988041	0.26	6759932	88.58	60	120	
Ir (IS)	193	2	HMI He	5005681	0.35	5766680	86.80	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	lcs 280-652311/2-b
Data File Name	121_LCS.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T21:17:14-06:00
Sample Type	LCS
Dilution	1
Analyst	Denver Metals
Comment	652705 6020B
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	27.599	27.599	ppb	2.016	1253191	400	6.9	80	120	>+/-20%
Be	9	1	6	41.946	41.946	ppb	3.317	9116	40	104.9	80	120	
Na	23	2	45	1660739.296	1660739.296	ppb	0.832	245163230	1000	166073.9	80	120	>+/-20%
Mg	24	2	45	976.765	976.765	ppb	1.444	66128	1000	97.7	80	120	
Al	27	2	45	848.765	848.765	ppb	6.083	13826	40	2121.9	80	120	>+/-20%
K	39	2	45	1411.667	1411.667	ppb	0.970	70152	1000	141.2	80	120	>+/-20%
Ca	40	1	45	1194.465	1194.465	ppb	1.111	1890283	1000	119.4	80	120	
V	51	2	72	38.505	38.505	ppb	1.804	23955	40	96.3	80	120	
Cr	52	2	72	977.627	977.627	ppb	0.519	769406	40	2444.1	80	120	>+/-20%
Mn	55	2	72	38.480	38.480	ppb	2.285	11795	40	96.2	80	120	
(Fe)	57	2	72	854.709	854.709	ppb	3.071	12055	40	2136.8	80	120	>+/-20%
Co	59	2	72	36.393	36.393	ppb	1.719	45306	40	91.0	80	120	
Ni	60	2	72	35.479	35.479	ppb	2.348	12829	40	88.7	80	120	
Cu	63	2	72	405.820	405.820	ppb	0.343	383327	40	1014.5	80	120	>+/-20%
Zn	66	2	72	39.147	39.147	ppb	5.691	5821	40	97.9	80	120	
As	75	2	72	629.177	629.177	ppb	0.611	64403	40	1572.9	80	120	>+/-20%
Se	78	1	72	246.697	246.697	ppb	1.627	21486	40	616.7	80	120	>+/-20%
Mo	95	2	115	41.800	41.800	ppb	1.514	15661	40	104.5	80	120	
Ag	107	2	115	233.202	233.202	ppb	1.091	282540	40	583.0	80	120	>+/-20%
Cd	111	2	115	243.997	243.997	ppb	1.775	40900	40	610.0	80	120	>+/-20%
Sn	120	2	115	46.016	46.016	ppb	2.479	19319	40	115.0	80	120	
Sb	121	2	115	46.218	46.218	ppb	3.373	19332	40	115.5	80	120	
Ba	137	2	115	2313.893	2313.893	ppb	1.182	286591	40	5784.7	80	120	>+/-20%
W	182	2	165	0.126	0.126	ppb	39.456	437	40	0.3	80	120	>+/-20%
Tl	205	2	165	38.951	38.951	ppb	1.409	134916	40	97.4	80	120	
Pb	208	2	165	1053.724	1053.724	ppb	0.639	4833771	40	2634.3	80	120	>+/-20%
Th	232	2	193	39.327	39.327	ppb	1.127	209779	40	98.3	80	120	
U	238	2	193	39.893	39.893	ppb	0.538	233548	40	99.7	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	180905	0.62	252517	71.64	60	120	
Sc(IS)	45	1	HMI H2	7726454	0.77	9196623	84.01	60	120	
Sc (IS)	45	2	HMI He	441363	1.05	531422	83.05	60	120	
Sc (IS)	45	3	No Gas	14464685	0.55	18746179	77.16	60	120	
Ge Internal standard	72	1	HMI H2	3227510	1.27	3833850	84.18	60	120	
Ge Internal standard	72	2	HMI He	458109	0.43	524481	87.35	60	120	
In Internal standard	115	2	HMI He	1220941	1.09	1492548	81.80	60	120	
Ho-165	165	2	HMI He	5918205	0.55	6759932	87.55	60	120	
Ir (IS)	193	2	HMI He	4913969	0.53	5766680	85.21	60	120	

Sample Report

Sample Table

Sample Name	280-186971-m-1-b
Data File Name	122SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T21:20:49-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652705 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	-19.290	ppb	-19.290	-5.10	847362	50000	
Be	9	1	6	0.056	ppb	0.056	206.37	33	2000	
B	11	1	6	41.618	ppb	41.618	7.71	7085	2000	
Na	23	2	45	1620816.619	ppb	1620816.619	0.40	240594783	400000	
Mg	24	2	45	750.343	ppb	750.343	1.65	51120	400000	
Al	27	2	45	48.624	ppb	48.624	14.10	843	400000	
Si	28	1	45	26932.049	ppb	26932.049	1.38	12160453	10000	
P	31	2	45	162.299	ppb	162.299	12.00	292	10000	
K	39	2	45	6685.596	ppb	6685.596	0.61	250059	400000	
Ca	40	1	45	500884.184	ppb	500884.184	0.60	774915748	400000	
Ti	47	2	45	5.803	ppb	5.803	75.57	80	4000	
V	51	2	72	102.412	ppb	102.412	0.50	60326	2000	
Cr	52	2	72	173.343	ppb	173.343	0.76	135058	5000	
Mn	55	2	72	285.866	ppb	285.866	1.01	85331	10000	
Fe	56	1	72	473.821	ppb	473.821	1.55	1134166	10000	
(Fe)	57	2	72	489.593	ppb	489.593	1.86	6868	400000	
Co	59	2	72	10.323	ppb	10.323	2.29	12659	2000	
Ni	60	2	72	39.729	ppb	39.729	2.57	14093	5000	
Cu	63	2	72	82.249	ppb	82.249	1.63	76540	5000	
Zn	66	2	72	1.115	ppb	1.115	44.75	360	5000	
As	75	2	72	14.603	ppb	14.603	0.63	1519	2000	
Se	78	1	72	0.548	ppb	0.548	17.42	53	2000	
Sr	88	2	72	820.621	ppb	820.621	1.75	206073	4000	
Zr	90	2	72	89.502	ppb	89.502	15.05	730	1000	
Mo	95	2	115	7.045	ppb	7.045	13.81	2650	2000	
Ag	107	2	115	0.030	ppb	0.030	194.23	60	100	
Cd	111	2	115	0.081	ppb	0.081	86.60	13	2000	
Sn	120	2	115	0.599	ppb	0.599	8.92	413	2000	
Sb	121	2	115	1.231	ppb	1.231	5.65	533	1000	
Ba	137	2	115	432.911	ppb	432.911	0.65	52579	5000	
W	182	2	165	13.038	ppb	13.038	2.49	22728	100	
Tl	205	2	165	-0.075	ppb	-0.075	-9.46	243	2000	
Pb	208	2	165	16.327	ppb	16.327	0.45	76439	5000	
Th	232	2	193	0.994	ppb	0.994	9.53	8860	2000	
U	238	2	193	0.173	ppb	0.173	16.55	2460	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	178762	0.94	252517	70.79	60	120	
Sc(IS)	45	1	HMI H2	7704522	0.76	9196623	83.78	60	120	
Sc (IS)	45	2	HMI He	443788	0.54	531422	83.51	60	120	
Sc (IS)	45	3	No Gas	14503886	0.39	18746179	77.37	60	120	
Ge Internal standard	72	1	HMI H2	3160581	0.52	3833850	82.44	60	120	
Ge Internal standard	72	2	HMI He	449954	0.15	524481	85.79	60	120	
In Internal standard	115	2	HMI He	1196973	0.28	1492548	80.20	60	120	
Ho-165	165	2	HMI He	5972852	0.30	6759932	88.36	60	120	
Ir (IS)	193	2	HMI He	4835077	0.38	5766680	83.85	60	120	

Sample Report

Sample Table

Sample Name	280-187010-m-1-d
Data File Name	123SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T21:24:24-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652705 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	-18.943	ppb	-18.943	-3.27	826256	50000	
Be	9	1	6	0.074	ppb	0.074	130.52	37	2000	
B	11	1	6	61.259	ppb	61.259	2.50	9887	2000	
Na	23	2	45	1505906.927	ppb	1505906.927	0.25	220099683	400000	
Mg	24	2	45	3526.879	ppb	3526.879	0.76	235946	400000	
Al	27	2	45	98.793	ppb	98.793	4.84	1637	400000	
Si	28	1	45	20231.584	ppb	20231.584	0.66	8977146	10000	
P	31	2	45	240.469	ppb	240.469	9.72	401	10000	
K	39	2	45	8893.627	ppb	8893.627	0.75	320215	400000	
Ca	40	1	45	439135.848	ppb	439135.848	0.50	667342683	400000	
Ti	47	2	45	22.387	ppb	22.387	26.23	303	4000	
V	51	2	72	39.861	ppb	39.861	1.40	23771	2000	
Cr	52	2	72	198.130	ppb	198.130	0.99	150766	5000	
Mn	55	2	72	406.230	ppb	406.230	0.85	118530	10000	
Fe	56	1	72	1806.051	ppb	1806.051	0.40	4173484	10000	
(Fe)	57	2	72	1716.999	ppb	1716.999	1.97	23063	400000	
Co	59	2	72	7.659	ppb	7.659	3.33	9196	2000	
Ni	60	2	72	24.608	ppb	24.608	8.11	8586	5000	
Cu	63	2	72	82.153	ppb	82.153	1.77	74761	5000	
Zn	66	2	72	0.547	ppb	0.547	201.06	273	5000	
As	75	2	72	18.451	ppb	18.451	2.90	1864	2000	
Se	78	1	72	0.544	ppb	0.544	31.40	52	2000	
Sr	88	2	72	672.433	ppb	672.433	0.69	165120	4000	
Zr	90	2	72	129.268	ppb	129.268	19.95	920	1000	
Mo	95	2	115	3.630	ppb	3.630	4.65	1380	2000	
Ag	107	2	115	0.011	ppb	0.011	297.74	37	100	
Cd	111	2	115	0.021	ppb	0.021	173.21	3	2000	
Sn	120	2	115	0.283	ppb	0.283	57.97	280	2000	
Sb	121	2	115	5.773	ppb	5.773	6.86	2357	1000	
Ba	137	2	115	318.541	ppb	318.541	0.83	38097	5000	
W	182	2	165	0.761	ppb	0.761	1.02	1500	100	
Tl	205	2	165	-0.096	ppb	-0.096	-6.30	167	2000	
Pb	208	2	165	21.350	ppb	21.350	2.30	97305	5000	
Th	232	2	193	0.420	ppb	0.420	4.90	5808	2000	
U	238	2	193	0.318	ppb	0.318	15.45	3237	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	176097	0.78	252517	69.74	60	120	
Sc(IS)	45	1	HMI H2	7567668	0.35	9196623	82.29	60	120	
Sc (IS)	45	2	HMI He	436955	0.23	531422	82.22	60	120	
Sc (IS)	45	3	No Gas	14092048	0.22	18746179	75.17	60	120	
Ge Internal standard	72	1	HMI H2	3100752	0.58	3833850	80.88	60	120	
Ge Internal standard	72	2	HMI He	439985	0.47	524481	83.89	60	120	
In Internal standard	115	2	HMI He	1178598	0.23	1492548	78.97	60	120	
Ho-165	165	2	HMI He	5830061	0.26	6759932	86.24	60	120	
Ir (IS)	193	2	HMI He	4759690	0.91	5766680	82.54	60	120	

Sample Report

Sample Table

Sample Name	280-187010-m-2-d
Data File Name	124SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T21:27:58-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652705 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	-20.489	ppb	-20.489	-3.67	788514	50000	
Be	9	1	6	0.081	ppb	0.081	126.81	37	2000	
B	11	1	6	48.085	ppb	48.085	5.49	7659	2000	
Na	23	2	45	1707140.810	ppb	1707140.810	1.04	241165803	400000	
Mg	24	2	45	3881.856	ppb	3881.856	0.19	251008	400000	
Al	27	2	45	248.694	ppb	248.694	3.70	3911	400000	
Si	28	1	45	20775.943	ppb	20775.943	1.00	8992298	10000	
P	31	2	45	831.503	ppb	831.503	7.12	1213	10000	
K	39	2	45	5186.893	ppb	5186.893	1.46	189425	400000	
Ca	40	1	45	495603.419	ppb	495603.419	0.91	734689882	400000	
Ti	47	2	45	85.052	ppb	85.052	12.88	1113	4000	
V	51	2	72	339.933	ppb	339.933	0.85	187515	2000	
Cr	52	2	72	256.518	ppb	256.518	0.71	189570	5000	
Mn	55	2	72	700.952	ppb	700.952	1.84	198908	10000	
Fe	56	1	72	5712.053	ppb	5712.053	0.96	12863979	10000	
(Fe)	57	2	72	5483.415	ppb	5483.415	0.37	71249	400000	
Co	59	2	72	7.281	ppb	7.281	3.05	8509	2000	
Ni	60	2	72	42.536	ppb	42.536	0.63	14347	5000	
Cu	63	2	72	159.265	ppb	159.265	1.52	140754	5000	
Zn	66	2	72	1.318	ppb	1.318	48.21	370	5000	
As	75	2	72	17.249	ppb	17.249	5.60	1698	2000	
Se	78	1	72	0.771	ppb	0.771	29.98	69	2000	
Sr	88	2	72	739.003	ppb	739.003	1.07	176567	4000	
Zr	90	2	72	181.543	ppb	181.543	11.55	1160	1000	
Mo	95	2	115	5.527	ppb	5.527	22.70	2000	2000	
Ag	107	2	115	-0.006	ppb	-0.006	-434.28	17	100	
Cd	111	2	115	0.043	ppb	0.043	173.21	7	2000	
Sn	120	2	115	0.288	ppb	0.288	89.50	273	2000	
Sb	121	2	115	1.778	ppb	1.778	16.35	723	1000	
Ba	137	2	115	431.340	ppb	431.340	0.37	50027	5000	
W	182	2	165	0.387	ppb	0.387	26.55	860	100	
Tl	205	2	165	-0.104	ppb	-0.104	-16.74	137	2000	
Pb	208	2	165	0.395	ppb	0.395	6.88	2594	5000	
Th	232	2	193	0.243	ppb	0.243	11.48	4851	2000	
U	238	2	193	1.174	ppb	1.174	6.50	7969	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	169886	0.62	252517	67.28	60	120	
Sc(IS)	45	1	HMI H2	7382493	0.67	9196623	80.27	60	120	
Sc (IS)	45	2	HMI He	422366	0.90	531422	79.48	60	120	
Sc (IS)	45	3	No Gas	13664570	0.58	18746179	72.89	60	120	
Ge Internal standard	72	1	HMI H2	3034049	0.76	3833850	79.14	60	120	
Ge Internal standard	72	2	HMI He	428119	0.72	524481	81.63	60	120	
In Internal standard	115	2	HMI He	1143014	0.41	1492548	76.58	60	120	
Ho-165	165	2	HMI He	5754461	0.27	6759932	85.13	60	120	
Ir (IS)	193	2	HMI He	4703420	1.37	5766680	81.56	60	120	

Sample Report

Sample Table

Sample Name	280-187010-m-2-dSD@5
Data File Name	125SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T21:31:33-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652705 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	-17.509	ppb	-17.509	-5.23	824483	50000	
Be	9	1	6	0.054	ppb	0.054	176.44	33	2000	
B	11	1	6	16.718	ppb	16.718	11.46	3397	2000	
Na	23	2	45	349847.618	ppb	349847.618	1.67	49373268	400000	
Mg	24	2	45	789.112	ppb	789.112	1.64	51087	400000	
Al	27	2	45	47.198	ppb	47.198	15.93	780	400000	
Si	28	1	45	4577.656	ppb	4577.656	2.11	1996891	10000	
P	31	2	45	178.811	ppb	178.811	3.02	301	10000	
K	39	2	45	1073.183	ppb	1073.183	0.71	56094	400000	
Ca	40	1	45	101636.316	ppb	101636.316	0.37	150725744	400000	
Ti	47	2	45	18.594	ppb	18.594	17.83	243	4000	
V	51	2	72	66.140	ppb	66.140	1.12	38221	2000	
Cr	52	2	72	51.013	ppb	51.013	3.70	39404	5000	
Mn	55	2	72	139.084	ppb	139.084	2.18	40290	10000	
Fe	56	1	72	1206.720	ppb	1206.720	1.05	2791742	10000	
(Fe)	57	2	72	1113.990	ppb	1113.990	4.70	14897	400000	
Co	59	2	72	1.588	ppb	1.588	7.01	1927	2000	
Ni	60	2	72	9.643	ppb	9.643	7.19	3414	5000	
Cu	63	2	72	33.157	ppb	33.157	3.25	30071	5000	
Zn	66	2	72	2.661	ppb	2.661	29.52	560	5000	
As	75	2	72	3.496	ppb	3.496	8.19	391	2000	
Se	78	1	72	0.146	ppb	0.146	36.90	19	2000	
Sr	88	2	72	148.361	ppb	148.361	1.45	36108	4000	
Zr	90	2	72	24.603	ppb	24.603	58.27	373	1000	
Mo	95	2	115	1.103	ppb	1.103	40.63	467	2000	
Ag	107	2	115	0.008	ppb	0.008	159.96	33	100	
Cd	111	2	115	0.021	ppb	0.021	173.21	3	2000	
Sn	120	2	115	0.439	ppb	0.439	31.60	340	2000	
Sb	121	2	115	0.545	ppb	0.545	14.31	247	1000	
Ba	137	2	115	90.630	ppb	90.630	4.64	10757	5000	
W	182	2	165	0.160	ppb	0.160	36.67	490	100	
Tl	205	2	165	-0.109	ppb	-0.109	-10.15	123	2000	
Pb	208	2	165	0.129	ppb	0.129	36.00	1427	5000	
Th	232	2	193	0.166	ppb	0.166	14.98	4664	2000	
U	238	2	193	0.260	ppb	0.260	15.31	3007	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	181267	1.07	252517	71.78	60	120	
Sc(IS)	45	1	HMI H2	7383677	0.34	9196623	80.29	60	120	
Sc (IS)	45	2	HMI He	421822	0.99	531422	79.38	60	120	
Sc (IS)	45	3	No Gas	13858580	1.08	18746179	73.93	60	120	
Ge Internal standard	72	1	HMI H2	3095493	0.57	3833850	80.74	60	120	
Ge Internal standard	72	2	HMI He	436044	0.19	524481	83.14	60	120	
In Internal standard	115	2	HMI He	1168981	0.25	1492548	78.32	60	120	
Ho-165	165	2	HMI He	5850351	0.19	6759932	86.54	60	120	
Ir (IS)	193	2	HMI He	4913340	0.77	5766680	85.20	60	120	

Sample Report

Sample Table

Sample Name	280-187010-m-2-e ms
Data File Name	126SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T21:35:08-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652705 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	25.676	ppb	25.676	2.72	1162476	50000	
Be	9	1	6	40.367	ppb	40.367	4.44	8182	2000	
B	11	1	6	44.015	ppb	44.015	5.67	7028	2000	
Na	23	2	45	1608084.416	ppb	1608084.416	1.39	220875743	400000	
Mg	24	2	45	4591.693	ppb	4591.693	0.80	288647	400000	
Al	27	2	45	1090.276	ppb	1090.276	0.71	16515	400000	
Si	28	1	45	17601.444	ppb	17601.444	0.71	7411777	10000	
P	31	2	45	777.373	ppb	777.373	5.78	1107	10000	
K	39	2	45	5831.159	ppb	5831.159	0.92	204479	400000	
Ca	40	1	45	465941.395	ppb	465941.395	0.55	671735630	400000	
Ti	47	2	45	124.399	ppb	124.399	5.32	1583	4000	
V	51	2	72	358.149	ppb	358.149	1.17	191557	2000	
Cr	52	2	72	1239.907	ppb	1239.907	0.54	884236	5000	
Mn	55	2	72	694.524	ppb	694.524	0.77	191175	10000	
Fe	56	1	72	6203.366	ppb	6203.366	0.33	13561366	10000	
(Fe)	57	2	72	5904.787	ppb	5904.787	0.73	74406	400000	
Co	59	2	72	45.446	ppb	45.446	0.60	51276	2000	
Ni	60	2	72	74.798	ppb	74.798	2.06	24379	5000	
Cu	63	2	72	554.654	ppb	554.654	0.63	474795	5000	
Zn	66	2	72	36.827	ppb	36.827	1.79	4974	5000	
As	75	2	72	644.459	ppb	644.459	0.63	59793	2000	
Se	78	1	72	244.031	ppb	244.031	2.34	19398	2000	
Sr	88	2	72	783.710	ppb	783.710	0.20	181631	4000	
Zr	90	2	72	212.556	ppb	212.556	27.09	1277	1000	
Mo	95	2	115	47.646	ppb	47.646	4.32	16319	2000	
Ag	107	2	115	234.800	ppb	234.800	0.65	260173	100	
Cd	111	2	115	246.758	ppb	246.758	3.87	37815	2000	
Sn	120	2	115	46.671	ppb	46.671	2.84	17917	2000	
Sb	121	2	115	48.450	ppb	48.450	5.15	18535	1000	
Ba	137	2	115	2723.733	ppb	2723.733	0.60	308548	5000	
W	182	2	165	0.428	ppb	0.428	25.52	910	100	
Tl	205	2	165	38.691	ppb	38.691	2.37	127818	2000	
Pb	208	2	165	1042.903	ppb	1042.903	0.80	4562877	5000	
Th	232	2	193	40.384	ppb	40.384	0.56	204188	2000	
U	238	2	193	42.085	ppb	42.085	1.27	233562	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	168707	0.48	252517	66.81	60	120	
Sc(IS)	45	1	HMI H2	7179409	0.41	9196623	78.07	60	120	
Sc (IS)	45	2	HMI He	410685	1.31	531422	77.28	60	120	
Sc (IS)	45	3	No Gas	13599120	0.57	18746179	72.54	60	120	
Ge Internal standard	72	1	HMI H2	2945492	0.19	3833850	76.83	60	120	
Ge Internal standard	72	2	HMI He	415255	0.66	524481	79.17	60	120	
In Internal standard	115	2	HMI He	1116607	1.17	1492548	74.81	60	120	
Ho-165	165	2	HMI He	5644567	0.40	6759932	83.50	60	120	
Ir (IS)	193	2	HMI He	4659839	0.14	5766680	80.81	60	120	

Sample Report

Sample Table

Sample Name	280-187010-m-2-f msd
Data File Name	127SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T21:38:42-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652705 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	24.579	ppb	24.579	4.96	1146936	50000	
Be	9	1	6	41.862	ppb	41.862	1.65	8412	2000	
B	11	1	6	39.083	ppb	39.083	3.83	6275	2000	
Na	23	2	45	1608647.309	ppb	1608647.309	1.04	218228850	400000	
Mg	24	2	45	4585.946	ppb	4585.946	1.48	284710	400000	
Al	27	2	45	1019.166	ppb	1019.166	0.58	15251	400000	
Si	28	1	45	18076.979	ppb	18076.979	0.81	7584234	10000	
P	31	2	45	819.824	ppb	819.824	2.07	1150	10000	
K	39	2	45	5865.750	ppb	5865.750	1.51	203021	400000	
Ca	40	1	45	465429.580	ppb	465429.580	0.19	668590150	400000	
Ti	47	2	45	125.417	ppb	125.417	4.92	1577	4000	
V	51	2	72	357.587	ppb	357.587	0.44	189828	2000	
Cr	52	2	72	1224.100	ppb	1224.100	0.45	866386	5000	
Mn	55	2	72	696.753	ppb	696.753	1.29	190352	10000	
Fe	56	1	72	6172.783	ppb	6172.783	0.65	13424284	10000	
(Fe)	57	2	72	5938.453	ppb	5938.453	2.03	74266	400000	
Co	59	2	72	44.346	ppb	44.346	1.34	49658	2000	
Ni	60	2	72	76.321	ppb	76.321	2.27	24682	5000	
Cu	63	2	72	554.250	ppb	554.250	0.71	470885	5000	
Zn	66	2	72	40.269	ppb	40.269	2.21	5381	5000	
As	75	2	72	640.417	ppb	640.417	0.95	58971	2000	
Se	78	1	72	244.084	ppb	244.084	1.18	19301	2000	
Sr	88	2	72	782.274	ppb	782.274	0.90	179935	4000	
Zr	90	2	72	109.017	ppb	109.017	19.30	763	1000	
Mo	95	2	115	48.412	ppb	48.412	2.65	16442	2000	
Ag	107	2	115	234.752	ppb	234.752	0.75	258019	100	
Cd	111	2	115	239.348	ppb	239.348	0.86	36392	2000	
Sn	120	2	115	44.878	ppb	44.878	2.26	17100	2000	
Sb	121	2	115	47.143	ppb	47.143	1.23	17891	1000	
Ba	137	2	115	2673.335	ppb	2673.335	0.97	300390	5000	
W	182	2	165	0.532	ppb	0.532	22.53	1063	100	
Tl	205	2	165	39.006	ppb	39.006	0.23	126947	2000	
Pb	208	2	165	1042.908	ppb	1042.908	0.33	4495169	5000	
Th	232	2	193	40.609	ppb	40.609	0.97	203726	2000	
U	238	2	193	41.252	ppb	41.252	0.56	227204	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	167270	1.31	252517	66.24	60	120	
Sc(IS)	45	1	HMI H2	7153547	0.24	9196623	77.78	60	120	
Sc (IS)	45	2	HMI He	405595	0.81	531422	76.32	60	120	
Sc (IS)	45	3	No Gas	13522419	1.45	18746179	72.13	60	120	
Ge Internal standard	72	1	HMI H2	2930183	0.42	3833850	76.43	60	120	
Ge Internal standard	72	2	HMI He	412127	0.29	524481	78.58	60	120	
In Internal standard	115	2	HMI He	1107534	0.65	1492548	74.20	60	120	
Ho-165	165	2	HMI He	5560728	0.44	6759932	82.26	60	120	
Ir (IS)	193	2	HMI He	4624051	0.48	5766680	80.19	60	120	

Sample Report

Sample Table

Sample Name	280-187010-m-2-d PDS
Data File Name	128SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T21:42:16-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652705 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	163.811	ppb	163.811	2.35	2282385	50000	
Be	9	1	6	201.394	ppb	201.394	2.84	39339	2000	
B	11	1	6	45.273	ppb	45.273	3.49	6958	2000	
Na	23	2	45	1706934.321	ppb	1706934.321	0.56	229448677	400000	
Mg	24	2	45	5754.296	ppb	5754.296	1.43	353944	400000	
Al	27	2	45	2355.167	ppb	2355.167	2.07	34860	400000	
Si	28	1	45	21885.382	ppb	21885.382	0.99	9081078	10000	
P	31	2	45	2889.689	ppb	2889.689	5.10	3894	10000	
K	39	2	45	7101.076	ppb	7101.076	0.91	239246	400000	
Ca	40	1	45	487644.452	ppb	487644.452	0.52	693117750	400000	
Ti	47	2	45	293.343	ppb	293.343	7.27	3654	4000	
V	51	2	72	531.433	ppb	531.433	0.17	280824	2000	
Cr	52	2	72	444.551	ppb	444.551	0.33	314629	5000	
Mn	55	2	72	872.554	ppb	872.554	0.26	237770	10000	
Fe	56	1	72	7622.410	ppb	7622.410	0.78	16394391	10000	
(Fe)	57	2	72	7349.687	ppb	7349.687	1.50	91640	400000	
Co	59	2	72	190.612	ppb	190.612	0.56	212776	2000	
Ni	60	2	72	207.725	ppb	207.725	1.56	66808	5000	
Cu	63	2	72	336.415	ppb	336.415	0.62	285222	5000	
Zn	66	2	72	184.151	ppb	184.151	1.72	23885	5000	
As	75	2	72	211.421	ppb	211.421	0.50	19453	2000	
Se	78	1	72	201.966	ppb	201.966	1.17	15801	2000	
Sr	88	2	72	933.025	ppb	933.025	0.68	214080	4000	
Zr	90	2	72	185.685	ppb	185.685	11.83	1133	1000	
Mo	95	2	115	210.928	ppb	210.928	1.00	71153	2000	
Ag	107	2	115	49.808	ppb	49.808	1.63	54567	100	
Cd	111	2	115	200.532	ppb	200.532	2.80	30383	2000	
Sn	120	2	115	221.523	ppb	221.523	2.32	83482	2000	
Sb	121	2	115	228.850	ppb	228.850	1.72	86438	1000	
Ba	137	2	115	650.090	ppb	650.090	1.46	72796	5000	
W	182	2	165	77.575	ppb	77.575	0.99	124304	100	
Tl	205	2	165	193.036	ppb	193.036	1.09	623559	2000	
Pb	208	2	165	195.479	ppb	195.479	0.77	839409	5000	
Th	232	2	193	77.848	ppb	77.848	13.03	387951	2000	
U	238	2	193	211.697	ppb	211.697	1.15	1162672	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	162880	0.53	252517	64.50	60	120	
Sc(IS)	45	1	HMI H2	7078242	0.54	9196623	76.97	60	120	
Sc (IS)	45	2	HMI He	401872	0.29	531422	75.62	60	120	
Sc (IS)	45	3	No Gas	13536867	0.83	18746179	72.21	60	120	
Ge Internal standard	72	1	HMI H2	2898888	0.74	3833850	75.61	60	120	
Ge Internal standard	72	2	HMI He	411124	0.59	524481	78.39	60	120	
In Internal standard	115	2	HMI He	1103610	0.33	1492548	73.94	60	120	
Ho-165	165	2	HMI He	5535621	0.15	6759932	81.89	60	120	
Ir (IS)	193	2	HMI He	4634187	0.61	5766680	80.36	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-8327972
Data File Name	129_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T21:45:50-06:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	6	49.970	ppb	4.139	10914	50	99.9	90	110	
Na	23	2	45	50760.096	ppb	0.308	7014836	51000	99.5	90	110	
Mg	24	2	45	10399.848	ppb	0.250	655651	11000	94.5	90	110	
Al	27	2	45	1050.687	ppb	3.630	15968	1000	105.1	90	110	
Si	28	1	45	2867.723	ppb	2.135	1236889	2500	114.7	90	110	>+\-10%
K	39	2	45	10436.493	ppb	0.594	350658	11000	94.9	90	110	
Ca	40	1	45	10949.165	ppb	0.588	15994340	11000	99.5	90	110	
Ti	47	2	45	55.861	ppb	7.694	713	50	111.7	90	110	>+\-10%
V	51	2	72	49.266	ppb	1.522	27964	50	98.5	90	110	
Cr	52	2	72	48.431	ppb	3.304	36374	50	96.9	90	110	
Mn	55	2	72	49.955	ppb	4.090	14116	50	99.9	90	110	
Fe	56	1	72	1063.615	ppb	1.787	2421212	1000	106.4	90	110	
Co	59	2	72	48.456	ppb	1.786	55730	50	96.9	90	110	
Ni	60	2	72	48.514	ppb	3.423	16162	50	97.0	90	110	
Cu	63	2	72	47.580	ppb	1.736	41770	50	95.2	90	110	
Zn	66	2	72	45.838	ppb	4.160	6265	50	91.7	90	110	
As	75	2	72	51.257	ppb	2.051	4893	50	102.5	90	110	
Se	78	1	72	51.365	ppb	6.603	4222	50	102.7	90	110	
Sr	88	2	72	107.456	ppb	4.255	25387	100	107.5	90	110	
Zr	90	2	72	74.815	ppb	37.456	613	50	149.6	90	110	>+\-10%
Mo	95	2	115	49.063	ppb	2.536	17897	50	98.1	90	110	
Ag	107	2	115	51.044	ppb	1.169	60277	50	102.1	90	110	
Cd	111	2	115	53.062	ppb	0.648	8666	50	106.1	90	110	
Sn	120	2	115	53.936	ppb	2.691	22036	50	107.9	90	110	
Sb	121	2	115	54.749	ppb	1.682	22313	50	109.5	90	110	
Ba	137	2	115	55.729	ppb	4.348	6735	50	111.5	90	110	>+\-10%
W	182	2	165	51.424	ppb	0.274	87206	50	102.8	90	110	
Tl	205	2	165	50.954	ppb	0.638	174411	50	101.9	90	110	
Pb	208	2	165	51.306	ppb	0.478	233590	50	102.6	90	110	
Th	232	2	193	52.305	ppb	1.269	277281	50	104.6	90	110	
U	238	2	193	51.379	ppb	0.498	299841	50	102.8	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	181977	2.51	252517	72.07	60	120	
Sc(IS)	45	1	HMI H2	7258980	0.13	9196623	78.93	60	120	
Sc (IS)	45	2	HMI He	411972	0.08	531422	77.52	60	120	
Sc (IS)	45	3	No Gas	13712842	0.99	18746179	73.15	60	120	
Ge Internal standard	72	1	HMI H2	3042303	0.16	3833850	79.35	60	120	
Ge Internal standard	72	2	HMI He	423308	0.35	524481	80.71	60	120	
In Internal standard	115	2	HMI He	1189641	0.70	1492548	79.71	60	120	
Ho-165	165	2	HMI He	5853548	0.54	6759932	86.59	60	120	
Ir (IS)	193	2	HMI He	4905538	0.44	5766680	85.07	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-8327938
Data File Name	130_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T21:49:23-06:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-15.865	ppb	-3.8	824304	10	
Be	9	1	6	0.037	ppb	126.4	30	0.5	
B	11	1	6	25.294	ppb	3.6	4791	0.5	>RL
Na	23	2	45	1119.424	ppb	1.0	175027	25	>RL
Mg	24	2	45	17.670	ppb	11.4	1277	25	
Al	27	2	45	3.760	ppb	72.2	103	15	
Si	28	1	45	132.305	ppb	2.7	74224	1	>RL
K	39	2	45	-3.789	ppb	-179.7	20757	50	
Ca	40	1	45	39.471	ppb	3.3	91201	200	
(Ca)	44	1	45	33.746	ppb	12.8	2337	200	
Ti	47	2	45	0.260	ppb	173.2	3	0.5	
V	51	2	72	-1.615	ppb	-4.9	400	1	
Cr	52	2	72	0.079	ppb	335.3	1263	1	
Mn	55	2	72	1.426	ppb	14.9	503	0.5	>RL
Fe	56	1	72	11.679	ppb	4.7	49066	50	
(Fe)	57	2	72	8.110	ppb	67.9	290	25	
Co	59	2	72	0.142	ppb	19.1	207	0.5	
Ni	60	2	72	0.390	ppb	39.6	253	1	
Cu	63	2	72	0.244	ppb	3.1	483	1	
Zn	66	2	72	-0.275	ppb	-111.8	153	5	
As	75	2	72	-0.178	ppb	-88.7	32	1	
Se	78	1	72	0.254	ppb	60.8	27	1	
Sr	88	2	72	0.415	ppb	17.7	100	0.5	
Zr	90	2	72	-8.254	ppb	-60.7	197	1	
Mo	95	2	115	0.181	ppb	45.4	140	0.5	
Ag	107	2	115	0.064	ppb	26.1	100	1	
Cd	111	2	115	0.041	ppb	86.6	7	0.5	
Sn	120	2	115	0.071	ppb	89.4	197	1	
Sb	121	2	115	0.198	ppb	32.8	110	0.6	
Ba	137	2	115	0.575	ppb	24.8	80	0.5	>RL
W	182	2	165	0.392	ppb	14.3	887	1	
Tl	205	2	165	-0.040	ppb	-27.2	360	0.1	
Pb	208	2	165	0.046	ppb	4.5	1057	0.5	
Th	232	2	193	0.714	ppb	8.9	7706	1	
U	238	2	193	0.057	ppb	18.6	1867	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	184620	1.12	252517	73.11	60	120	
Sc(IS)	45	1	HMI H2	7161430	0.87	9196623	77.87	60	120	
Sc (IS)	45	2	HMI He	412085	0.39	531422	77.54	60	120	
Sc (IS)	45	3	No Gas	13628349	0.56	18746179	72.70	60	120	
Ge Internal standard	72	1	HMI H2	2986408	0.85	3833850	77.90	60	120	
Ge Internal standard	72	2	HMI He	419880	0.19	524481	80.06	60	120	
In Internal standard	115	2	HMI He	1190581	0.31	1492548	79.77	60	120	
Ho-165	165	2	HMI He	5880222	0.68	6759932	86.99	60	120	
Ir (IS)	193	2	HMI He	5024233	0.97	5766680	87.13	60	120	

Sample Report

Sample Table

Sample Name	280-187010-m-3-e
Data File Name	131SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T21:53:00-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652705 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	-7.979	ppb	-7.979	-10.29	878100	50000	
Be	9	1	6	0.189	ppb	0.189	30.77	57	2000	
B	11	1	6	49.683	ppb	49.683	4.17	7632	2000	
Na	23	2	45	1709971.392	ppb	1709971.392	1.29	230001043	400000	
Mg	24	2	45	1772.428	ppb	1772.428	0.59	109205	400000	
Al	27	2	45	4752.349	ppb	4752.349	0.07	70341	400000	
Si	28	1	45	23843.112	ppb	23843.112	1.30	9808817	10000	
P	31	2	45	110.271	ppb	110.271	15.72	195	10000	
K	39	2	45	4611.846	ppb	4611.846	1.75	162620	400000	
Ca	40	1	45	471746.513	ppb	471746.513	0.64	664902630	400000	
Ti	47	2	45	184.805	ppb	184.805	4.02	2304	4000	
V	51	2	72	44.642	ppb	44.642	5.07	24258	2000	
Cr	52	2	72	86.014	ppb	86.014	1.96	60647	5000	
Mn	55	2	72	79.201	ppb	79.201	1.74	21264	10000	
Fe	56	1	72	2585.966	ppb	2585.966	0.34	5509870	10000	
(Fe)	57	2	72	2451.243	ppb	2451.243	4.37	30098	400000	
Co	59	2	72	6.748	ppb	6.748	2.80	7432	2000	
Ni	60	2	72	13.911	ppb	13.911	1.44	4501	5000	
Cu	63	2	72	45.723	ppb	45.723	4.19	38245	5000	
Zn	66	2	72	9.650	ppb	9.650	0.30	1400	5000	
As	75	2	72	2.030	ppb	2.030	5.08	229	2000	
Se	78	1	72	0.526	ppb	0.526	31.36	47	2000	
Sr	88	2	72	234.409	ppb	234.409	0.79	52759	4000	
Zr	90	2	72	620.180	ppb	620.180	5.37	3180	1000	
Mo	95	2	115	3.136	ppb	3.136	19.31	1110	2000	
Ag	107	2	115	0.066	ppb	0.066	48.90	93	100	
Cd	111	2	115	0.044	ppb	0.044	86.60	7	2000	
Sn	120	2	115	0.630	ppb	0.630	41.55	387	2000	
Sb	121	2	115	0.404	ppb	0.404	41.01	177	1000	
Ba	137	2	115	104.212	ppb	104.212	7.20	11501	5000	
W	182	2	165	0.512	ppb	0.512	21.55	1033	100	
Tl	205	2	165	-0.097	ppb	-0.097	-17.82	157	2000	
Pb	208	2	165	105.362	ppb	105.362	0.54	455851	5000	
Th	232	2	193	0.927	ppb	0.927	11.18	8199	2000	
U	238	2	193	2.299	ppb	2.299	5.80	14091	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	164398	0.40	252517	65.10	60	120	
Sc(IS)	45	1	HMI H2	7018731	0.55	9196623	76.32	60	120	
Sc (IS)	45	2	HMI He	402144	0.58	531422	75.67	60	120	
Sc (IS)	45	3	No Gas	13462432	1.41	18746179	71.81	60	120	
Ge Internal standard	72	1	HMI H2	2864017	0.45	3833850	74.70	60	120	
Ge Internal standard	72	2	HMI He	403267	0.67	524481	76.89	60	120	
In Internal standard	115	2	HMI He	1087346	0.71	1492548	72.85	60	120	
Ho-165	165	2	HMI He	5572945	0.73	6759932	82.44	60	120	
Ir (IS)	193	2	HMI He	4656798	0.53	5766680	80.75	60	120	

Sample Report

Sample Table

Sample Name	280-187010-m-4-c
Data File Name	132SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T21:56:35-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652705 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	-18.925	ppb	-18.925	-1.92	785740	50000	
Be	9	1	6	0.321	ppb	0.321	70.62	83	2000	
B	11	1	6	55.496	ppb	55.496	5.03	8489	2000	
Na	23	2	45	1569112.299	ppb	1569112.299	1.04	211680677	400000	
Mg	24	2	45	8637.606	ppb	8637.606	0.79	533149	400000	
Al	27	2	45	452.792	ppb	452.792	4.41	6762	400000	
Si	28	1	45	9418.779	ppb	9418.779	0.96	3904934	10000	
P	31	2	45	519.292	ppb	519.292	9.28	742	10000	
K	39	2	45	9443.554	ppb	9443.554	0.16	312585	400000	
Ca	40	1	45	480398.917	ppb	480398.917	0.56	680390843	400000	
Ti	47	2	45	70.631	ppb	70.631	14.75	883	4000	
V	51	2	72	42.093	ppb	42.093	1.71	22963	2000	
Cr	52	2	72	102.819	ppb	102.819	1.84	72343	5000	
Mn	55	2	72	753.256	ppb	753.256	0.64	201566	10000	
Fe	56	1	72	16216.144	ppb	16216.144	1.39	34786794	10000	
(Fe)	57	2	72	15686.559	ppb	15686.559	0.31	191862	400000	
Co	59	2	72	10.629	ppb	10.629	3.83	11691	2000	
Ni	60	2	72	42.158	ppb	42.158	1.13	13409	5000	
Cu	63	2	72	72.175	ppb	72.175	0.46	60293	5000	
Zn	66	2	72	1.011	ppb	1.011	88.62	310	5000	
As	75	2	72	21.425	ppb	21.425	4.79	1978	2000	
Se	78	1	72	0.470	ppb	0.470	35.39	43	2000	
Sr	88	2	72	894.683	ppb	894.683	1.18	201574	4000	
Zr	90	2	72	136.612	ppb	136.612	27.00	880	1000	
Mo	95	2	115	5.122	ppb	5.122	11.43	1764	2000	
Ag	107	2	115	-0.002	ppb	-0.002	-480.40	20	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.191	ppb	0.191	103.46	223	2000	
Sb	121	2	115	4.630	ppb	4.630	7.04	1744	1000	
Ba	137	2	115	476.643	ppb	476.643	0.48	52432	5000	
W	182	2	165	0.854	ppb	0.854	14.19	1590	100	
Tl	205	2	165	-0.112	ppb	-0.112	-10.16	107	2000	
Pb	208	2	165	11.155	ppb	11.155	2.04	49127	5000	
Th	232	2	193	3.185	ppb	3.185	3.27	19403	2000	
U	238	2	193	2.207	ppb	2.207	1.92	13580	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	165484	0.49	252517	65.53	60	120	
Sc(IS)	45	1	HMI H2	7052975	0.01	9196623	76.69	60	120	
Sc (IS)	45	2	HMI He	403331	0.62	531422	75.90	60	120	
Sc (IS)	45	3	No Gas	13398309	0.22	18746179	71.47	60	120	
Ge Internal standard	72	1	HMI H2	2893624	1.02	3833850	75.48	60	120	
Ge Internal standard	72	2	HMI He	403701	0.52	524481	76.97	60	120	
In Internal standard	115	2	HMI He	1084133	0.50	1492548	72.64	60	120	
Ho-165	165	2	HMI He	5590145	1.19	6759932	82.70	60	120	
Ir (IS)	193	2	HMI He	4656053	0.75	5766680	80.74	60	120	

Sample Report

Sample Table

Sample Name	280-187079-b-5-e
Data File Name	133SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T22:00:10-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652705 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	-22.537	ppb	-22.537	-0.49	762093	50000	
Be	9	1	6	0.091	ppb	0.091	119.20	37	2000	
B	11	1	6	49.206	ppb	49.206	4.43	7419	2000	
Na	23	2	45	1628908.603	ppb	1628908.603	0.10	214762950	400000	
Mg	24	2	45	929.909	ppb	929.909	1.13	56233	400000	
Al	27	2	45	64.318	ppb	64.318	8.12	977	400000	
Si	28	1	45	27162.594	ppb	27162.594	0.12	11026344	10000	
P	31	2	45	118.283	ppb	118.283	1.40	202	10000	
K	39	2	45	7523.156	ppb	7523.156	1.31	247424	400000	
Ca	40	1	45	533545.464	ppb	533545.464	0.87	742138869	400000	
Ti	47	2	45	8.183	ppb	8.183	65.58	100	4000	
V	51	2	72	40.920	ppb	40.920	1.57	21972	2000	
Cr	52	2	72	85.746	ppb	85.746	1.05	59483	5000	
Mn	55	2	72	203.629	ppb	203.629	1.20	53623	10000	
Fe	56	1	72	499.343	ppb	499.343	0.42	1069438	10000	
(Fe)	57	2	72	510.619	ppb	510.619	5.73	6308	400000	
Co	59	2	72	6.390	ppb	6.390	2.12	6925	2000	
Ni	60	2	72	28.421	ppb	28.421	1.55	8923	5000	
Cu	63	2	72	71.207	ppb	71.207	1.51	58460	5000	
Zn	66	2	72	1.189	ppb	1.189	47.93	327	5000	
As	75	2	72	15.311	ppb	15.311	3.28	1402	2000	
Se	78	1	72	0.534	ppb	0.534	31.95	47	2000	
Sr	88	2	72	1108.382	ppb	1108.382	0.42	245415	4000	
Zr	90	2	72	43.208	ppb	43.208	54.57	427	1000	
Mo	95	2	115	4.309	ppb	4.309	12.68	1470	2000	
Ag	107	2	115	0.011	ppb	0.011	130.07	33	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.228	ppb	0.228	65.83	233	2000	
Sb	121	2	115	4.274	ppb	4.274	15.90	1587	1000	
Ba	137	2	115	392.043	ppb	392.043	0.62	42428	5000	
W	182	2	165	0.706	ppb	0.706	5.97	1323	100	
Tl	205	2	165	-0.105	ppb	-0.105	-16.28	127	2000	
Pb	208	2	165	7.086	ppb	7.086	3.06	30900	5000	
Th	232	2	193	0.416	ppb	0.416	7.32	5565	2000	
U	238	2	193	0.150	ppb	0.150	46.46	2200	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	161191	0.62	252517	63.83	60	120	
Sc(IS)	45	1	HMI H2	6927197	1.04	9196623	75.32	60	120	
Sc (IS)	45	2	HMI He	394167	0.12	531422	74.17	60	120	
Sc (IS)	45	3	No Gas	13495387	0.35	18746179	71.99	60	120	
Ge Internal standard	72	1	HMI H2	2831017	0.46	3833850	73.84	60	120	
Ge Internal standard	72	2	HMI He	396729	0.20	524481	75.64	60	120	
In Internal standard	115	2	HMI He	1066519	0.67	1492548	71.46	60	120	
Ho-165	165	2	HMI He	5482638	0.18	6759932	81.10	60	120	
Ir (IS)	193	2	HMI He	4573979	0.58	5766680	79.32	60	120	

Sample Report

Sample Table

Sample Name	280-187079-b-6-e
Data File Name	134SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T22:03:45-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652705 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	-22.507	ppb	-22.507	-0.79	743375	50000	
Be	9	1	6	0.182	ppb	0.182	16.40	53	2000	
B	11	1	6	52.939	ppb	52.939	0.47	7775	2000	
Na	23	2	45	1740882.095	ppb	1740882.095	0.28	224161083	400000	
Mg	24	2	45	2791.996	ppb	2791.996	0.78	164587	400000	
Al	27	2	45	98.446	ppb	98.446	13.41	1437	400000	
Si	28	1	45	25188.385	ppb	25188.385	1.20	10155095	10000	
P	31	2	45	192.039	ppb	192.039	8.62	291	10000	
K	39	2	45	8260.517	ppb	8260.517	1.19	263408	400000	
Ca	40	1	45	512019.768	ppb	512019.768	0.60	707305403	400000	
Ti	47	2	45	17.886	ppb	17.886	30.27	213	4000	
V	51	2	72	48.085	ppb	48.085	3.53	25130	2000	
Cr	52	2	72	87.032	ppb	87.032	0.91	59235	5000	
Mn	55	2	72	397.458	ppb	397.458	1.60	102620	10000	
Fe	56	1	72	1186.434	ppb	1186.434	1.32	2476990	10000	
(Fe)	57	2	72	1131.098	ppb	1131.098	3.08	13503	400000	
Co	59	2	72	7.222	ppb	7.222	10.43	7675	2000	
Ni	60	2	72	33.306	ppb	33.306	1.58	10243	5000	
Cu	63	2	72	78.237	ppb	78.237	1.34	63013	5000	
Zn	66	2	72	0.525	ppb	0.525	154.78	240	5000	
As	75	2	72	22.220	ppb	22.220	1.38	1977	2000	
Se	78	1	72	0.401	ppb	0.401	61.26	36	2000	
Sr	88	2	72	925.853	ppb	925.853	1.13	201186	4000	
Zr	90	2	72	37.661	ppb	37.661	27.08	393	1000	
Mo	95	2	115	5.326	ppb	5.326	5.76	1757	2000	
Ag	107	2	115	0.012	ppb	0.012	127.49	33	100	
Cd	111	2	115	0.070	ppb	0.070	100.43	10	2000	
Sn	120	2	115	0.583	ppb	0.583	12.20	353	2000	
Sb	121	2	115	6.339	ppb	6.339	2.27	2280	1000	
Ba	137	2	115	442.513	ppb	442.513	3.15	46683	5000	
W	182	2	165	0.857	ppb	0.857	6.82	1547	100	
Tl	205	2	165	-0.110	ppb	-0.110	-3.00	110	2000	
Pb	208	2	165	7.345	ppb	7.345	2.94	31658	5000	
Th	232	2	193	0.266	ppb	0.266	23.13	4758	2000	
U	238	2	193	5.018	ppb	5.018	2.24	28121	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	158191	0.47	252517	62.65	60	120	
Sc(IS)	45	1	HMI H2	6879217	0.39	9196623	74.80	60	120	
Sc (IS)	45	2	HMI He	384959	0.44	531422	72.44	60	120	
Sc (IS)	45	3	No Gas	13159528	0.90	18746179	70.20	60	120	
Ge Internal standard	72	1	HMI H2	2793033	0.52	3833850	72.85	60	120	
Ge Internal standard	72	2	HMI He	389367	0.95	524481	74.24	60	120	
In Internal standard	115	2	HMI He	1039764	1.29	1492548	69.66	60	120	
Ho-165	165	2	HMI He	5423872	0.41	6759932	80.24	60	120	
Ir (IS)	193	2	HMI He	4503300	0.13	5766680	78.09	60	120	

Sample Report

Sample Table

Sample Name	280-187079-b-7-g
Data File Name	135SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T22:07:20-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	652705 6020B
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	-22.496	ppb	-22.496	-1.88	720909	50000	
Be	9	1	6	0.151	ppb	0.151	42.42	47	2000	
B	11	1	6	53.359	ppb	53.359	8.77	7739	2000	
Na	23	2	45	1743417.593	ppb	1743417.593	0.99	222180797	400000	
Mg	24	2	45	4224.602	ppb	4224.602	0.48	246416	400000	
Al	27	2	45	206.502	ppb	206.502	1.63	2937	400000	
Si	28	1	45	21821.629	ppb	21821.629	1.07	8588266	10000	
P	31	2	45	331.278	ppb	331.278	8.51	464	10000	
K	39	2	45	9886.146	ppb	9886.146	0.33	308224	400000	
Ca	40	1	45	518663.383	ppb	518663.383	1.01	699218763	400000	
Ti	47	2	45	30.190	ppb	30.190	10.87	357	4000	
V	51	2	72	50.581	ppb	50.581	0.02	25948	2000	
Cr	52	2	72	80.826	ppb	80.826	0.80	54195	5000	
Mn	55	2	72	545.469	ppb	545.469	0.70	138515	10000	
Fe	56	1	72	2661.635	ppb	2661.635	0.78	5448921	10000	
(Fe)	57	2	72	2577.683	ppb	2577.683	0.82	30055	400000	
Co	59	2	72	7.625	ppb	7.625	2.37	7969	2000	
Ni	60	2	72	32.907	ppb	32.907	4.45	9957	5000	
Cu	63	2	72	67.525	ppb	67.525	1.98	53533	5000	
Zn	66	2	72	0.867	ppb	0.867	43.97	277	5000	
As	75	2	72	22.842	ppb	22.842	4.43	1998	2000	
Se	78	1	72	0.300	ppb	0.300	31.26	28	2000	
Sr	88	2	72	887.463	ppb	887.463	0.35	189708	4000	
Zr	90	2	72	77.400	ppb	77.400	54.03	567	1000	
Mo	95	2	115	5.032	ppb	5.032	7.28	1640	2000	
Ag	107	2	115	0.002	ppb	0.002	458.72	23	100	
Cd	111	2	115	0.024	ppb	0.024	173.21	3	2000	
Sn	120	2	115	0.274	ppb	0.274	74.78	240	2000	
Sb	121	2	115	4.713	ppb	4.713	14.29	1680	1000	
Ba	137	2	115	401.616	ppb	401.616	1.67	41813	5000	
W	182	2	165	0.795	ppb	0.795	16.92	1423	100	
Tl	205	2	165	-0.116	ppb	-0.116	-4.87	90	2000	
Pb	208	2	165	15.335	ppb	15.335	1.14	64089	5000	
Th	232	2	193	0.323	ppb	0.323	13.11	4931	2000	
U	238	2	193	0.167	ppb	0.167	32.58	2214	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	156296	1.51	252517	61.90	60	120	
Sc(IS)	45	1	HMI H2	6713875	1.19	9196623	73.00	60	120	
Sc (IS)	45	2	HMI He	381018	0.69	531422	71.70	60	120	
Sc (IS)	45	3	No Gas	12760729	0.91	18746179	68.07	60	120	
Ge Internal standard	72	1	HMI H2	2752117	0.16	3833850	71.78	60	120	
Ge Internal standard	72	2	HMI He	383017	0.37	524481	73.03	60	120	
In Internal standard	115	2	HMI He	1025974	0.76	1492548	68.74	60	120	
Ho-165	165	2	HMI He	5327982	0.32	6759932	78.82	60	120	
Ir (IS)	193	2	HMI He	4416284	0.66	5766680	76.58	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-8327972
Data File Name	136_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T22:10:56-06:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	6	46.747	ppb	0.929	9390	50	93.5	90	110	
Na	23	2	45	52186.596	ppb	1.146	6628564	51000	102.3	90	110	
Mg	24	2	45	10485.028	ppb	1.279	607588	11000	95.3	90	110	
Al	27	2	45	1090.688	ppb	2.253	15237	1000	109.1	90	110	
Si	28	1	45	3011.612	ppb	1.977	1211190	2500	120.5	90	110	>+\-10%
K	39	2	45	10596.506	ppb	1.242	326965	11000	96.3	90	110	
Ca	40	1	45	11021.783	ppb	0.976	15022511	11000	100.2	90	110	
Ti	47	2	45	64.166	ppb	12.314	753	50	128.3	90	110	>+\-10%
V	51	2	72	49.087	ppb	5.042	25707	50	98.2	90	110	
Cr	52	2	72	48.798	ppb	3.075	33801	50	97.6	90	110	
Mn	55	2	72	51.780	ppb	1.565	13496	50	103.6	90	110	
Fe	56	1	72	1080.412	ppb	0.267	2272976	1000	108.0	90	110	
Co	59	2	72	49.610	ppb	1.112	52634	50	99.2	90	110	
Ni	60	2	72	46.454	ppb	6.771	14280	50	92.9	90	110	
Cu	63	2	72	47.182	ppb	1.270	38215	50	94.4	90	110	
Zn	66	2	72	48.955	ppb	5.386	6161	50	97.9	90	110	
As	75	2	72	49.627	ppb	0.682	4372	50	99.3	90	110	
Se	78	1	72	47.188	ppb	0.956	3586	50	94.4	90	110	
Sr	88	2	72	103.392	ppb	2.473	22536	100	103.4	90	110	
Zr	90	2	72	114.082	ppb	19.034	747	50	228.2	90	110	>+\-10%
Mo	95	2	115	50.509	ppb	1.791	16966	50	101.0	90	110	
Ag	107	2	115	51.146	ppb	1.133	55624	50	102.3	90	110	
Cd	111	2	115	51.830	ppb	2.470	7796	50	103.7	90	110	
Sn	120	2	115	55.293	ppb	1.969	20801	50	110.6	90	110	>+\-10%
Sb	121	2	115	53.490	ppb	2.028	20077	50	107.0	90	110	
Ba	137	2	115	57.118	ppb	2.202	6358	50	114.2	90	110	>+\-10%
W	182	2	165	52.266	ppb	1.803	82775	50	104.5	90	110	
Tl	205	2	165	51.137	ppb	2.009	163471	50	102.3	90	110	
Pb	208	2	165	52.064	ppb	0.893	221367	50	104.1	90	110	
Th	232	2	193	51.753	ppb	0.163	259508	50	103.5	90	110	
U	238	2	193	51.205	ppb	0.337	282618	50	102.4	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	167235	0.74	252517	66.23	60	120	
Sc(IS)	45	1	HMI H2	6773199	0.52	9196623	73.65	60	120	
Sc (IS)	45	2	HMI He	378701	0.97	531422	71.26	60	120	
Sc (IS)	45	3	No Gas	12606456	1.55	18746179	67.25	60	120	
Ge Internal standard	72	1	HMI H2	2812050	0.79	3833850	73.35	60	120	
Ge Internal standard	72	2	HMI He	390508	0.29	524481	74.46	60	120	
In Internal standard	115	2	HMI He	1095544	0.45	1492548	73.40	60	120	
Ho-165	165	2	HMI He	5466858	0.27	6759932	80.87	60	120	
Ir (IS)	193	2	HMI He	4639348	0.48	5766680	80.45	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-8327938
Data File Name	137_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-09T22:14:30-06:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	012CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-17.820	ppb	-2.1	759959	10	
Be	9	1	6	0.063	ppb	159.2	33	0.5	
B	11	1	6	23.384	ppb	6.7	4161	0.5	>RL
Na	23	2	45	1342.215	ppb	0.2	189874	25	>RL
Mg	24	2	45	22.739	ppb	10.7	1473	25	
Al	27	2	45	0.980	ppb	396.8	57	15	
Si	28	1	45	198.420	ppb	4.1	95874	1	>RL
K	39	2	45	14.510	ppb	141.9	19689	50	
Ca	40	1	45	65.222	ppb	1.9	120636	200	
(Ca)	44	1	45	54.144	ppb	7.2	3040	200	
Ti	47	2	45	0.567	ppb	173.2	7	0.5	>RL
V	51	2	72	-1.650	ppb	-5.9	353	1	
Cr	52	2	72	-0.143	ppb	-152.5	1023	1	
Mn	55	2	72	0.934	ppb	28.5	340	0.5	>RL
Fe	56	1	72	10.995	ppb	3.4	44450	50	
(Fe)	57	2	72	8.213	ppb	42.0	270	25	
Co	59	2	72	0.131	ppb	51.2	180	0.5	
Ni	60	2	72	0.648	ppb	47.9	313	1	
Cu	63	2	72	0.238	ppb	37.8	443	1	
Zn	66	2	72	-0.566	ppb	-67.0	107	5	
As	75	2	72	-0.339	ppb	-24.0	16	1	
Se	78	1	72	0.029	ppb	369.6	8	1	
Sr	88	2	72	0.465	ppb	35.1	103	0.5	
Zr	90	2	72	-2.943	ppb	-381.8	207	1	
Mo	95	2	115	0.125	ppb	88.3	110	0.5	
Ag	107	2	115	0.050	ppb	58.4	77	1	
Cd	111	2	115	0.067	ppb	100.5	10	0.5	
Sn	120	2	115	0.209	ppb	177.0	233	1	
Sb	121	2	115	0.158	ppb	106.8	87	0.6	
Ba	137	2	115	0.722	ppb	33.1	90	0.5	>RL
W	182	2	165	0.374	ppb	28.0	797	1	
Tl	205	2	165	-0.048	ppb	-59.5	310	0.1	
Pb	208	2	165	0.053	ppb	65.6	1017	0.5	
Th	232	2	193	0.670	ppb	0.9	7059	1	
U	238	2	193	0.056	ppb	24.6	1757	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	170853	0.92	252517	67.66	60	120	
Sc(IS)	45	1	HMI H2	6736770	0.92	9196623	73.25	60	120	
Sc (IS)	45	2	HMI He	380317	0.83	531422	71.57	60	120	
Sc (IS)	45	3	No Gas	12813830	1.08	18746179	68.35	60	120	
Ge Internal standard	72	1	HMI H2	2791071	0.46	3833850	72.80	60	120	
Ge Internal standard	72	2	HMI He	389266	0.39	524481	74.22	60	120	
In Internal standard	115	2	HMI He	1096741	0.81	1492548	73.48	60	120	
Ho-165	165	2	HMI He	5484303	1.14	6759932	81.13	60	120	
Ir (IS)	193	2	HMI He	4747015	0.72	5766680	82.32	60	120	

Sample Report

Sample Table

Sample Name	rinse-8291567
Data File Name	138SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-10T07:22:17-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	-8.312	ppb	-8.312	-10.93	1228738	50000	
Be	9	1	6	-0.066	ppb	-0.066	-87.56	10	2000	
B	11	1	6	-2.901	ppb	-2.901	-3.45	563	2000	
Na	23	2	45	-26.680	ppb	-26.680	-15.47	21190	400000	
Mg	24	2	45	4.030	ppb	4.030	12.58	517	400000	
Al	27	2	45	4.407	ppb	4.407	74.17	140	400000	
Si	28	1	45	40.424	ppb	40.424	20.92	45376	10000	
P	31	2	45	21.167	ppb	21.167	76.14	97	10000	
K	39	2	45	36.557	ppb	36.557	20.05	27350	400000	
Ca	40	1	45	3.150	ppb	3.150	16.05	49510	400000	
Ti	47	2	45	0.215	ppb	0.215	173.21	3	4000	
V	51	2	72	-1.947	ppb	-1.947	-7.28	273	2000	
Cr	52	2	72	-0.580	ppb	-0.580	-22.37	970	5000	
Mn	55	2	72	0.131	ppb	0.131	95.95	177	10000	
Fe	56	1	72	8.179	ppb	8.179	1.83	52670	10000	
(Fe)	57	2	72	7.859	ppb	7.859	60.49	353	400000	
Co	59	2	72	0.010	ppb	0.010	187.33	70	2000	
Ni	60	2	72	0.047	ppb	0.047	123.17	173	5000	
Cu	63	2	72	-0.117	ppb	-0.117	-14.07	210	5000	
Zn	66	2	72	-0.163	ppb	-0.163	-109.37	207	5000	
As	75	2	72	-0.315	ppb	-0.315	-19.28	24	2000	
Se	78	1	72	-0.012	ppb	-0.012	-485.85	7	2000	
Sr	88	2	72	0.347	ppb	0.347	34.78	103	4000	
Zr	90	2	72	-2.607	ppb	-2.607	-248.86	277	1000	
Mo	95	2	115	0.103	ppb	0.103	69.84	150	2000	
Ag	107	2	115	-0.016	ppb	-0.016	-43.88	7	100	
Cd	111	2	115	0.015	ppb	0.015	173.21	3	2000	
Sn	120	2	115	0.167	ppb	0.167	89.42	317	2000	
Sb	121	2	115	0.068	ppb	0.068	60.11	77	1000	
Ba	137	2	115	0.119	ppb	0.119	61.91	33	5000	
W	182	2	165	0.172	ppb	0.172	11.22	603	100	
Tl	205	2	165	-0.126	ppb	-0.126	-9.45	77	2000	
Pb	208	2	165	-0.030	ppb	-0.030	-48.72	837	5000	
Th	232	2	193	0.051	ppb	0.051	18.49	4814	2000	
U	238	2	193	0.004	ppb	0.004	491.38	1797	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	246773	2.05	252517	97.73	60	120	
Sc(IS)	45	1	HMI H2	9097271	1.41	9196623	98.92	60	120	
Sc (IS)	45	2	HMI He	511481	1.79	531422	96.25	60	120	
Sc (IS)	45	3	No Gas	18894756	0.86	18746179	100.79	60	120	
Ge Internal standard	72	1	HMI H2	3806128	0.57	3833850	99.28	60	120	
Ge Internal standard	72	2	HMI He	516740	1.18	524481	98.52	60	120	
In Internal standard	115	2	HMI He	1597332	1.48	1492548	107.02	60	120	
Ho-165	165	2	HMI He	6920733	1.00	6759932	102.38	60	120	
Ir (IS)	193	2	HMI He	5818584	0.73	5766680	100.90	60	120	

Sample Report

Sample Table

Sample Name	rinse-8291567
Data File Name	139SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-10T07:25:50-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	-5.266	ppb	-5.266	-15.06	1215945	50000	
Be	9	1	6	-0.088	ppb	-0.088	-21.92	3	2000	
B	11	1	6	-2.853	ppb	-2.853	-13.93	587	2000	
Na	23	2	45	-9.014	ppb	-9.014	-89.98	23130	400000	
Mg	24	2	45	2.460	ppb	2.460	32.50	377	400000	
Al	27	2	45	0.470	ppb	0.470	271.39	63	400000	
Si	28	1	45	38.589	ppb	38.589	15.65	42985	10000	
P	31	2	45	4.677	ppb	4.677	119.37	67	10000	
K	39	2	45	29.161	ppb	29.161	150.00	25847	400000	
Ca	40	1	45	8.207	ppb	8.207	8.09	56883	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-1.650	ppb	-1.650	-3.21	453	2000	
Cr	52	2	72	-0.142	ppb	-0.142	-56.41	1313	5000	
Mn	55	2	72	-0.062	ppb	-0.062	-52.36	107	10000	
Fe	56	1	72	1.447	ppb	1.447	12.48	32803	10000	
(Fe)	57	2	72	-1.064	ppb	-1.064	-387.09	207	400000	
Co	59	2	72	0.005	ppb	0.005	491.97	60	2000	
Ni	60	2	72	0.291	ppb	0.291	60.06	263	5000	
Cu	63	2	72	-0.149	ppb	-0.149	-7.58	170	5000	
Zn	66	2	72	-0.015	ppb	-0.015	-2076.76	223	5000	
As	75	2	72	-0.291	ppb	-0.291	-6.25	25	2000	
Se	78	1	72	-0.009	ppb	-0.009	-901.08	7	2000	
Sr	88	2	72	0.573	ppb	0.573	28.53	163	4000	
Zr	90	2	72	-4.348	ppb	-4.348	-398.57	257	1000	
Mo	95	2	115	-0.081	ppb	-0.081	-77.72	57	2000	
Ag	107	2	115	-0.007	ppb	-0.007	-93.39	20	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.104	ppb	0.104	19.44	267	2000	
Sb	121	2	115	0.038	ppb	0.038	60.06	57	1000	
Ba	137	2	115	0.043	ppb	0.043	151.02	20	5000	
W	182	2	165	0.084	ppb	0.084	18.35	413	100	
Tl	205	2	165	-0.121	ppb	-0.121	-1.27	93	2000	
Pb	208	2	165	-0.004	ppb	-0.004	-678.71	947	5000	
Th	232	2	193	0.178	ppb	0.178	19.34	5478	2000	
U	238	2	193	-0.003	ppb	-0.003	-356.68	1707	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	252335	0.94	252517	99.93	60	120	
Sc(IS)	45	1	HMI H2	8809640	2.04	9196623	95.79	60	120	
Sc (IS)	45	2	HMI He	488760	0.67	531422	91.97	60	120	
Sc (IS)	45	3	No Gas	18185796	0.77	18746179	97.01	60	120	
Ge Internal standard	72	1	HMI H2	3706953	2.13	3833850	96.69	60	120	
Ge Internal standard	72	2	HMI He	499574	1.18	524481	95.25	60	120	
In Internal standard	115	2	HMI He	1509854	0.45	1492548	101.16	60	120	
Ho-165	165	2	HMI He	6699741	0.34	6759932	99.11	60	120	
Ir (IS)	193	2	HMI He	5688276	0.80	5766680	98.64	60	120	

Sample Report

Sample Table

Sample Name	rinse-8291567
Data File Name	140SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\all050924.b
Acq Date Time	2024-05-10T07:29:24-06:00
Analyst	Denver Metals
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	012CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	3	45	-5.799	ppb	-5.799	-10.94	1203135	50000	
Be	9	1	6	-0.099	ppb	-0.099	0.00	0	2000	
B	11	1	6	-3.035	ppb	-3.035	-13.31	540	2000	
Na	23	2	45	-8.406	ppb	-8.406	-30.99	23120	400000	
Mg	24	2	45	3.152	ppb	3.152	17.33	427	400000	
Al	27	2	45	1.980	ppb	1.980	74.93	90	400000	
Si	28	1	45	27.401	ppb	27.401	8.46	36537	10000	
P	31	2	45	13.214	ppb	13.214	67.36	80	10000	
K	39	2	45	37.760	ppb	37.760	16.25	26047	400000	
Ca	40	1	45	9.253	ppb	9.253	4.65	57622	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-1.637	ppb	-1.637	-9.46	460	2000	
Cr	52	2	72	-0.162	ppb	-0.162	-86.02	1287	5000	
Mn	55	2	72	-0.039	ppb	-0.039	-518.66	113	10000	
Fe	56	1	72	1.506	ppb	1.506	21.20	32629	10000	
(Fe)	57	2	72	-0.707	ppb	-0.707	-535.84	210	400000	
Co	59	2	72	0.024	ppb	0.024	136.45	87	2000	
Ni	60	2	72	0.089	ppb	0.089	197.52	183	5000	
Cu	63	2	72	-0.132	ppb	-0.132	-31.44	187	5000	
Zn	66	2	72	0.086	ppb	0.086	408.57	237	5000	
As	75	2	72	-0.302	ppb	-0.302	-31.75	24	2000	
Se	78	1	72	-0.023	ppb	-0.023	-199.10	5	2000	
Sr	88	2	72	0.494	ppb	0.494	13.68	140	4000	
Zr	90	2	72	4.381	ppb	4.381	204.10	307	1000	
Mo	95	2	115	-0.123	ppb	-0.123	-44.60	37	2000	
Ag	107	2	115	-0.020	ppb	-0.020	0.00	0	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.032	ppb	0.032	208.22	223	2000	
Sb	121	2	115	0.014	ppb	0.014	162.28	43	1000	
Ba	137	2	115	0.024	ppb	0.024	161.68	17	5000	
W	182	2	165	0.048	ppb	0.048	66.50	343	100	
Tl	205	2	165	-0.121	ppb	-0.121	-3.28	93	2000	
Pb	208	2	165	-0.010	ppb	-0.010	-239.02	917	5000	
Th	232	2	193	0.132	ppb	0.132	40.55	5218	2000	
U	238	2	193	-0.015	ppb	-0.015	-97.45	1637	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal standard	6	1	HMI H2	248552	0.92	252517	98.43	60	120	
Sc(IS)	45	1	HMI H2	8640523	0.56	9196623	93.95	60	120	
Sc (IS)	45	2	HMI He	486334	1.10	531422	91.52	60	120	
Sc (IS)	45	3	No Gas	18080921	0.36	18746179	96.45	60	120	
Ge Internal standard	72	1	HMI H2	3668680	0.09	3833850	95.69	60	120	
Ge Internal standard	72	2	HMI He	496234	1.55	524481	94.61	60	120	
In Internal standard	115	2	HMI He	1472460	2.31	1492548	98.65	60	120	
Ho-165	165	2	HMI He	6694103	0.38	6759932	99.03	60	120	
Ir (IS)	193	2	HMI He	5716185	1.37	5766680	99.12	60	120	

Report Generated By Teledyne Leeman QuickTrace

Analyst: denmet,U6CX/A6EQ/WFP2

Worksheet file: C:\Users\Public\Documents\Teledyne CETAC\QuickTrace\Worksheets\052124_36C.wszf

Creation Date: 5/21/2024 10:20:58 PM

Comment:

Results

Sample Name					Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
STD0					STD	05/21/24 11:04:13 pm	0.0000	467	1.61			1.0000	N/A
	Replicates	456.5	474.0	468.5	470.0								
STD1					STD	05/21/24 11:06:45 pm	0.0600	1931	1.96	-30.38%		1.0000	N/A
	Replicates	1897.5	1900.5	1957.5	1970.3								
STD2					STD	05/21/24 11:09:17 pm	0.1200	3474	1.63	-12.51%		1.0000	N/A
	Replicates	3402.6	3456.8	3507.3	3529.5								
STD3					STD	05/21/24 11:11:50 pm	0.3000	7906	1.35	-4.45%		1.0000	N/A
	Replicates	7776.1	7873.9	7951.2	8024.6								
STD4					STD	05/21/24 11:14:22 pm	0.6000	15473	1.40	-0.55%		1.0000	N/A
	Replicates	15188.9	15439.8	15561.8	15700.8								
STD5					STD	05/21/24 11:16:56 pm	1.2000	30977	1.18	2.68%		1.0000	N/A
	Replicates	30512.3	30882.2	31152.9	31360.4								
STD6					STD	05/21/24 11:19:29 pm	3.0000	76114	1.34	2.73%		1.0000	N/A
	Replicates	74745.9	75995.5	76626.0	77090.0								
STD7					STD	05/21/24 11:22:03 pm	6.0000	146199	1.52	-0.77%		1.0000	N/A
	Replicates	143325.8	145716.0	147253.6	148499.1								

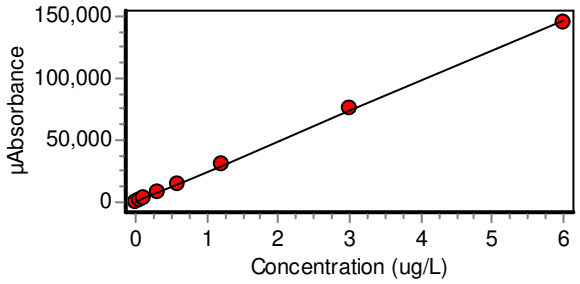
Calibration

Equation: Abs = 24401.078x + 912.232

R2: 0.99965 RSE: 14.93%

SEE: 1041.3560

Flags:



ICV 280-654294/9-A					ICV	05/21/24 11:27:17 pm	2.4263	60116	1.69			1.0000	101.09
	Replicates	58826.7	59897.1	60582.8	61156.3								
ICB 280-654294/10-A					ICB	05/21/24 11:29:48 pm	-0.0189	451	3.07			1.0000	N/A
	Replicates	444.6	441.4	471.9	445.4								
CRA 280-654294/11-A					CRDL	05/21/24 11:32:21 pm	0.1064	3508	2.11			1.0000	88.64
	Replicates	3441.2	3485.7	3542.7	3561.0								
CCV 280-654294/12-A					CCV	05/21/24 11:34:54 pm	3.0590	75556	1.72			1.0000	101.97
	Replicates	73931.8	75210.7	76190.5	76890.8								
CCB 280-654294/13-A					CCB	05/21/24 11:37:26 pm	-0.0175	485	5.14			1.0000	N/A
	Replicates	469.3	515.0	468.2	489.0								

Sample Name				Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
MB 280-654111/1-A				UNK	05/21/24 11:39:57 pm	-0.0123	613	5.66			1.0000	N/A
Replicates	588.7	618.4	616.4	628.1								
LCS 280-654111/2-A				UNK	05/21/24 11:42:29 pm	3.2015	79033	0.89			1.0000	N/A
Replicates	78071.1	78991.2	79421.0	79650.2								
280-191254-A-1-C				UNK	05/21/24 11:45:00 pm	-0.0113	637	5.85			1.0000	N/A
Replicates	624.6	630.3	660.8	633.5								
280-191321-A-1-B				UNK	05/21/24 11:47:32 pm	-0.0077	724	16.11			1.0000	N/A
Replicates	690.9	727.6	714.6	763.5								
280-191321-A-2-B				UNK	05/21/24 11:50:04 pm	-0.0090	692	9.67			1.0000	N/A
Replicates	684.8	665.7	711.7	707.1								
280-191321-A-3-B				UNK	05/21/24 11:52:36 pm	-0.0054	781	11.90			1.0000	N/A
Replicates	764.4	770.3	792.0	796.0								
280-191321-A-4-D				UNK	05/21/24 11:55:08 pm	0.3010	8256	1.67			1.0000	N/A
Replicates	8098.5	8232.3	8309.3	8385.3								
280-191321-A-4-E MS				UNK	05/21/24 11:57:40 pm	3.4725	85645	1.59			1.0000	N/A
Replicates	83940.7	85295.9	86285.4	87059.9								
280-191321-A-4-F MSD				UNK	05/22/24 12:00:13 am	3.3772	83321	1.66			1.0000	N/A
Replicates	81578.7	82987.0	83967.2	84749.4								
280-191321-A-5-B				UNK	05/22/24 12:02:46 am	-0.0095	681	2.70			1.0000	N/A
Replicates	684.1	687.2	672.7	680.4								
CCV 280-654294/12-A				CCV	05/22/24 12:05:19 am	3.0504	75345	1.47			1.0000	101.68
Replicates	73947.7	75076.1	75886.1	76468.9								
CCB 280-654294/13-A				CCB	05/22/24 12:07:51 am	-0.0180	472	4.79			1.0000	N/A
Replicates	442.1	472.5	485.0	488.5								
280-191321-A-6-B				UNK	05/22/24 12:10:24 am	-0.0076	726	15.95			1.0000	N/A
Replicates	681.3	745.8	737.6	737.6								
280-191321-A-7-B				UNK	05/22/24 12:12:57 am	-0.0111	642	7.54			1.0000	N/A
Replicates	612.5	655.2	655.7	645.8								
280-191321-A-8-B				UNK	05/22/24 12:15:28 am	-0.0079	720	7.34			1.0000	N/A
Replicates	699.0	725.5	724.5	730.3								
280-191321-A-9-B				UNK	05/22/24 12:17:59 am	-0.0062	761	6.78			1.0000	N/A
Replicates	752.8	753.4	774.7	762.6								
280-191321-A-10-B				UNK	05/22/24 12:20:31 am	0.0039	1007	27.10			1.0000	N/A
Replicates	972.1	1006.2	1014.7	1033.1								
280-191382-E-1-B				UNK	05/22/24 12:23:03 am	0.0137	1246	10.01			1.0000	N/A
Replicates	1198.3	1246.3	1266.8	1271.3								
280-191382-E-2-B				UNK	05/22/24 12:25:35 am	0.0110	1181	7.02			1.0000	N/A
Replicates	1169.4	1166.3	1180.6	1207.8								

Sample Name				Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
280-191382-E-3-B				UNK	05/22/24 12:28:07 am	-0.0032	835	22.31			1.0000	N/A
Replicates	820.0	854.0	845.7	821.3								
280-191382-E-4-B				UNK	05/22/24 12:30:39 am	-0.0002	906	500.62			1.0000	N/A
Replicates	870.4	897.4	916.2	941.1								
280-191382-E-5-B				UNK	05/22/24 12:33:11 am	0.0210	1425	7.49			1.0000	N/A
Replicates	1384.6	1408.9	1433.4	1474.7								
CCV 280-654294/12-A				CCV	05/22/24 12:35:45 am	3.0486	75302	1.48			1.0000	101.62
Replicates	73865.7	75080.9	75846.4	76413.2								
CCB 280-654294/13-A				CCB	05/22/24 12:38:16 am	-0.0181	470	3.57			1.0000	N/A
Replicates	480.4	452.2	461.0	485.5								
280-191382-E-6-B				UNK	05/22/24 12:40:49 am	-0.0028	845	39.98			1.0000	N/A
Replicates	807.0	851.5	870.1	851.8								
280-191382-E-7-B				UNK	05/22/24 12:43:22 am	-0.0032	835	47.85			1.0000	N/A
Replicates	802.6	808.8	845.0	882.8								
280-191382-E-8-B				UNK	05/22/24 12:45:54 am	0.0488	2102	3.65			1.0000	N/A
Replicates	2041.1	2104.6	2121.4	2141.6								
MB 280-654118/1-A				UNK	05/22/24 12:48:27 am	-0.0127	602	5.43			1.0000	N/A
Replicates	579.3	602.0	608.1	619.3								
LCS 280-654118/2-A				UNK	05/22/24 12:50:59 am	3.0147	74475	1.60			1.0000	N/A
Replicates	72965.6	74200.8	75033.8	75698.5								
280-191607-C-1-B				UNK	05/22/24 12:53:30 am	-0.0104	659	10.64			1.0000	N/A
Replicates	627.4	679.8	683.1	646.1								
280-191607-C-1-B SD@5				UNK	05/22/24 12:56:02 am	-0.0124	609	8.94			1.0000	N/A
Replicates	608.9	576.9	608.4	643.2								
280-191607-C-1-C MS				UNK	05/22/24 12:58:34 am	3.1044	76663	1.59			1.0000	N/A
Replicates	75088.4	76429.6	77269.1	77863.6								
280-191607-C-1-D MSD				UNK	05/22/24 01:01:05 am	3.0222	74657	1.63			1.0000	N/A
Replicates	73089.4	74422.2	75259.0	75856.8								
280-191607-C-1-B PDS				UNK	05/22/24 01:03:38 am	2.9341	72507	1.72			1.0000	N/A
Replicates	70956.6	72171.6	73078.6	73820.8								
CCV 280-654294/12-A				CCV	05/22/24 01:06:11 am	3.0477	75280	1.54			1.0000	101.59
Replicates	73812.1	75015.5	75831.7	76461.2								
CCB 280-654294/13-A				CCB	05/22/24 01:08:43 am	-0.0177	480	4.22			1.0000	N/A
Replicates	485.0	458.3	502.0	475.6								
280-191607-C-2-B				UNK	05/22/24 01:11:15 am	-0.0142	566	4.94			1.0000	N/A
Replicates	544.4	576.4	582.1	559.3								
280-191607-C-3-B				UNK	05/22/24 01:13:47 am	-0.0079	719	1.86			1.0000	N/A
Replicates	721.1	719.4	713.7	721.5								

Sample Name				Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
280-191607-C-4-B				UNK	05/22/24 01:16:20 am	0.0000	913	325.96			1.0000	N/A
Replicates	898.1	908.5	916.5	930.0								
280-191607-C-5-B				UNK	05/22/24 01:18:52 am	0.0427	1954	3.06			1.0000	N/A
Replicates	1919.2	1937.7	1964.9	1992.2								
280-191607-C-6-B				UNK	05/22/24 01:21:25 am	-0.0122	614	7.67			1.0000	N/A
Replicates	582.9	610.5	627.4	634.4								
280-191607-C-7-B				UNK	05/22/24 01:23:58 am	-0.0112	639	4.08			1.0000	N/A
Replicates	629.2	628.8	648.9	647.6								
280-191607-C-8-B				UNK	05/22/24 01:26:29 am	-0.0146	557	3.59			1.0000	N/A
Replicates	566.0	537.9	561.6	561.8								
280-191607-C-9-B				UNK	05/22/24 01:29:01 am	-0.0098	673	1.54			1.0000	N/A
Replicates	676.1	676.4	670.2	669.6								
280-191607-C-10-B				UNK	05/22/24 01:31:33 am	0.0184	1361	7.59			1.0000	N/A
Replicates	1312.4	1389.5	1365.9	1377.9								
280-191454-E-1-G				UNK	05/22/24 01:34:05 am	-0.0126	604	2.59			1.0000	N/A
Replicates	601.4	594.7	613.8	605.0								
CCV 280-654294/12-A				CCV	05/22/24 01:36:38 am	3.0548	75453	1.53			1.0000	101.83
Replicates	73989.7	75203.6	75988.1	76631.5								
CCB 280-654294/13-A				CCB	05/22/24 01:39:10 am	-0.0170	497	2.37			1.0000	N/A
Replicates	501.6	482.8	501.5	504.0								
280-191454-E-2-B				UNK	05/22/24 01:41:42 am	-0.0105	657	9.90			1.0000	N/A
Replicates	638.0	643.7	650.9	693.7								
280-191454-E-3-B				UNK	05/22/24 01:44:14 am	-0.0106	655	10.47			1.0000	N/A
Replicates	625.8	659.8	689.3	643.4								
280-191454-E-4-B				UNK	05/22/24 01:46:46 am	-0.0128	599	2.65			1.0000	N/A
Replicates	586.9	603.4	603.0	604.0								
280-191454-E-5-B				UNK	05/22/24 01:49:18 am	-0.0126	604	2.16			1.0000	N/A
Replicates	595.8	607.4	600.8	610.6								
280-191454-E-6-B				UNK	05/22/24 01:51:51 am	-0.0123	613	2.34			1.0000	N/A
Replicates	606.5	610.8	622.9	612.4								
280-191454-E-7-B				UNK	05/22/24 01:54:23 am	-0.0111	642	0.70			1.0000	N/A
Replicates	640.0	642.9	642.1	644.6								
MB 280-654098/1-B				UNK	05/22/24 01:56:56 am	-0.0302	176	1.83			1.0000	N/A
Replicates	170.6	162.5	194.3	175.8								
LCS 280-654098/2-B				UNK	05/22/24 01:59:29 am	3.0667	75742	1.66			1.0000	N/A
Replicates	74147.7	75454.7	76352.0	77014.7								
LCSD 280-654098/3-B				UNK	05/22/24 02:02:01 am	3.0730	75897	1.53			1.0000	N/A
Replicates	74435.7	75627.3	76424.7	77101.2								

Sample Name				Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
280-191454-F-1-H				UNK	05/22/24 02:04:33 am	-0.0297	187	2.15			1.0000	N/A
Replicates	169.6	206.6	189.4	180.6								
CCV 280-654294/12-A				CCV	05/22/24 02:07:06 am	3.1044	76662	1.51			1.0000	103.48
Replicates	75166.3	76436.4	77227.2	77819.7								
CCB 280-654294/13-A				CCB	05/22/24 02:09:38 am	-0.0171	494	2.18			1.0000	N/A
Replicates	493.0	507.0	489.7	486.2								
280-191454-F-2-H				UNK	05/22/24 02:12:10 am	-0.0285	216	2.44			1.0000	N/A
Replicates	211.3	196.7	237.7	217.1								
280-191454-F-3-D				UNK	05/22/24 02:14:42 am	-0.0272	248	0.37			1.0000	N/A
Replicates	250.0	245.6	245.8	249.8								
280-191454-F-4-D				UNK	05/22/24 02:17:14 am	-0.0287	211	1.62			1.0000	N/A
Replicates	223.0	200.6	217.8	201.6								
280-191454-F-5-D				UNK	05/22/24 02:19:46 am	-0.0259	281	0.73			1.0000	N/A
Replicates	275.4	283.6	280.2	285.9								
280-191454-F-6-D				UNK	05/22/24 02:22:18 am	-0.0284	219	1.47			1.0000	N/A
Replicates	219.6	204.5	225.2	226.8								
280-191454-F-7-D				UNK	05/22/24 02:24:51 am	-0.0285	216	1.25			1.0000	N/A
Replicates	213.6	222.0	204.5	223.3								
280-191741-D-2-F				UNK	05/22/24 02:27:23 am	-0.0262	272	2.30			1.0000	N/A
Replicates	282.6	277.5	250.0	277.0								
280-191741-D-2-G MS				UNK	05/22/24 02:29:56 am	2.6597	65812	1.60			1.0000	N/A
Replicates	64484.5	65564.3	66317.5	66881.8								
280-191741-D-2-H MSD				UNK	05/22/24 02:32:29 am	2.8642	70802	1.29			1.0000	N/A
Replicates	69465.8	71183.0	71447.0	71110.7								
280-191741-D-3-D				UNK	05/22/24 02:35:01 am	-0.0309	158	1.28			1.0000	N/A
Replicates	145.9	168.2	162.7	155.2								
CCV 280-654294/12-A				CCV	05/22/24 02:37:35 am	3.1054	76688	1.49			1.0000	103.51
Replicates	75238.4	76418.5	77273.9	77821.9								
CCB 280-654294/13-A				CCB	05/22/24 02:40:07 am	-0.0161	520	4.86			1.0000	N/A
Replicates	505.5	516.2	511.9	548.2								
280-191742-E-13-D				UNK	05/22/24 02:42:39 am	-0.0121	616	8.25			1.0000	N/A
Replicates	593.3	612.3	607.1	650.5								
280-191742-E-17-D				UNK	05/22/24 02:45:11 am	-0.0028	844	59.89			1.0000	N/A
Replicates	798.4	819.9	881.2	875.6								
280-191742-E-18-D				UNK	05/22/24 02:47:43 am	-0.0211	398	4.22			1.0000	N/A
Replicates	374.1	395.3	426.8	396.5								
280-191742-E-19-D				UNK	05/22/24 02:50:16 am	-0.0261	275	3.05			1.0000	N/A
Replicates	276.8	264.6	257.1	301.4								

Sample Name			Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
280-191758-F-1-C			UNK	05/22/24 02:52:48 am	-0.0165	509	4.72			1.0000	N/A
Replicates	488.9	496.9	520.4	529.2							
280-191758-F-2-C			UNK	05/22/24 02:55:20 am	-0.0247	308	1.86			1.0000	N/A
Replicates	293.8	310.4	308.4	321.1							
280-191758-F-3-C			UNK	05/22/24 02:57:52 am	-0.0265	265	1.90			1.0000	N/A
Replicates	249.7	262.0	278.0	271.4							
280-191758-F-4-C			UNK	05/22/24 03:00:25 am	-0.0265	266	1.24			1.0000	N/A
Replicates	258.7	260.8	276.3	268.3							
280-191758-F-5-C			UNK	05/22/24 03:02:57 am	-0.0256	287	0.64			1.0000	N/A
Replicates	288.7	289.2	289.9	281.4							
MB 280-654117/1-A			UNK	05/22/24 03:05:30 am	-0.0238	331	2.15			1.0000	N/A
Replicates	313.3	330.9	338.9	340.7							
CCV 280-654294/12-A			CCV	05/22/24 03:08:03 am	3.1050	76677	1.47			1.0000	103.50
Replicates	75212.4	76455.8	77282.9	77754.9							
CCB 280-654294/13-A			CCB	05/22/24 03:10:35 am	-0.0176	482	2.80			1.0000	N/A
Replicates	476.6	483.3	498.5	470.5							
LCS 280-654117/2-A			UNK	05/22/24 03:13:08 am	3.0698	75818	1.58			1.0000	N/A
Replicates	74300.7	75531.9	76395.8	77041.8							
280-191560-C-1-B			UNK	05/22/24 03:15:41 am	-0.0189	450	2.63			1.0000	N/A
Replicates	437.4	466.4	451.7	446.2							
280-191560-C-2-D			UNK	05/22/24 03:18:13 am	-0.0249	304	1.38			1.0000	N/A
Replicates	295.5	306.0	314.3	298.6							
280-191560-C-2-D SD@5			UNK	05/22/24 03:20:45 am	-0.0230	352	1.56			1.0000	N/A
Replicates	339.5	353.4	356.7	359.1							
280-191560-C-2-E MS			UNK	05/22/24 03:23:17 am	3.0229	74675	1.59			1.0000	N/A
Replicates	73165.2	74411.5	75253.0	75870.5							
280-191560-C-2-F MSD			UNK	05/22/24 03:25:50 am	3.0286	74812	1.62			1.0000	N/A
Replicates	73263.8	74568.3	75372.1	76044.8							
280-191560-C-2-D PDS			UNK	05/22/24 03:28:22 am	2.9756	73520	1.49			1.0000	N/A
Replicates	72106.1	73300.8	74073.8	74600.3							
280-191560-C-3-B			UNK	05/22/24 03:30:54 am	0.0648	2493	2.32			1.0000	N/A
Replicates	2439.6	2503.3	2506.5	2522.8							
280-191560-C-4-B			UNK	05/22/24 03:33:26 am	0.1033	3434	2.06			1.0000	N/A
Replicates	3369.2	3414.4	3479.7	3471.2							
280-191560-C-5-B			UNK	05/22/24 03:35:59 am	0.0608	2395	2.02			1.0000	N/A
Replicates	2355.7	2416.4	2388.9	2420.7							
CCV 280-654294/12-A			CCV	05/22/24 03:38:32 am	3.0938	76404	1.53			1.0000	103.13
Replicates	74911.8	76159.1	76955.8	77588.1							

Sample Name			Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
CCB 280-654294/13-A			CCB	05/22/24 03:41:04 am	-0.0176	482	4.17			1.0000	N/A
Replicates	495.5	456.1	492.0	485.8							
280-191560-C-6-B			UNK	05/22/24 03:43:36 am	0.0418	1932	3.90			1.0000	N/A
Replicates	1887.8	1908.8	1964.1	1967.1							
280-191560-C-7-B			UNK	05/22/24 03:46:09 am	0.0353	1773	3.28			1.0000	N/A
Replicates	1732.7	1774.5	1795.0	1789.9							
280-191098-C-1-H			UNK	05/22/24 03:48:42 am	-0.0248	307	2.38			1.0000	N/A
Replicates	316.8	295.6	322.1	294.1							
280-191098-C-1-I MS			UNK	05/22/24 03:51:15 am	3.0840	76166	1.57			1.0000	N/A
Replicates	74641.2	75894.0	76752.3	77376.0							
280-191098-C-1-J MSD			UNK	05/22/24 03:53:47 am	3.0422	75146	1.71			1.0000	N/A
Replicates	73515.2	74842.8	75778.5	76447.0							
280-191098-A-2-B			UNK	05/22/24 03:56:20 am	-0.0234	342	1.92			1.0000	N/A
Replicates	331.8	334.1	352.1	351.6							
280-191098-C-5-B			UNK	05/22/24 03:58:52 am	-0.0229	354	2.46			1.0000	N/A
Replicates	342.5	355.0	346.8	373.5							
280-191107-B-1-B			UNK	05/22/24 04:01:25 am	-0.0106	653	4.57			1.0000	N/A
Replicates	647.8	652.2	642.0	669.5							
280-191107-B-2-B			UNK	05/22/24 04:03:57 am	-0.0204	413	3.88			1.0000	N/A
Replicates	391.7	402.6	425.4	433.3							
280-191107-B-3-B			UNK	05/22/24 04:06:30 am	-0.0207	408	3.33			1.0000	N/A
Replicates	385.3	405.7	416.2	424.0							
CCV 280-654294/12-A			CCV	05/22/24 04:09:03 am	3.0896	76301	1.62			1.0000	102.99
Replicates	74736.6	76006.4	76912.0	77550.0							
CCB 280-654294/13-A			CCB	05/22/24 04:11:35 am	-0.0175	485	2.87			1.0000	N/A
Replicates	470.7	490.6	479.1	498.4							
280-191107-B-4-B			UNK	05/22/24 04:14:07 am	-0.0070	742	13.22			1.0000	N/A
Replicates	726.9	720.9	751.6	769.4							
280-191107-B-5-B			UNK	05/22/24 04:16:40 am	-0.0198	430	3.43			1.0000	N/A
Replicates	408.7	438.5	424.6	446.3							
280-191107-B-6-B			UNK	05/22/24 04:19:12 am	-0.0207	407	1.96			1.0000	N/A
Replicates	400.4	401.1	421.5	404.1							
280-191562-A-1-B			UNK	05/22/24 04:21:45 am	-0.0174	487	1.97			1.0000	N/A
Replicates	476.2	495.9	486.5	491.0							
280-191562-B-2-B			UNK	05/22/24 04:24:18 am	-0.0232	346	3.31			1.0000	N/A
Replicates	330.9	369.8	331.0	351.8							
280-191562-A-3-B			UNK	05/22/24 04:26:51 am	-0.0198	429	1.55			1.0000	N/A
Replicates	422.9	422.8	437.6	433.4							

Sample Name			Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
280-191746-D-1-B			UNK	05/22/24 04:29:23 am	-0.0192	443	0.78			1.0000	N/A
Replicates	443.7	441.1	447.1	438.6							
CCV 280-654294/12-A			CCV	05/22/24 04:31:56 am	3.1025	76616	1.67			1.0000	103.42
Replicates	74963.3	76362.3	77252.0	77885.8							
CCB 280-654294/13-A			CCB	05/22/24 04:34:28 am	-0.0173	491	7.78			1.0000	N/A
Replicates	448.1	526.3	502.2	487.7							

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG No.:

Project: RVAAP FWGW

Client Sample ID	Lab Sample ID
DET-003-240401-GW	280-191098-1
DET-003-240402-GW	280-191098-2
DET-004-240401-GW	280-191098-5
LL12mw-246-240401-GW	280-191098-6

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: DET-003-240401-GW
Lab Sample ID: 280-191098-1
Lab Name: Eurofins Denver
Job No.: 280-191098-1
SDG ID.:
Matrix: Water
Date Sampled: 05/06/2024 10:16
Reporting Basis: WET
Date Received: 05/07/2024 09:15

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Cyanide, Total	0.0090	0.010	0.0090	0.0050	mg/L	U	J1	1	9012B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: DET-003-240402-GW
Lab Sample ID: 280-191098-2
Lab Name: Eurofins Denver
Job No.: 280-191098-1
SDG ID.:
Matrix: Water
Date Sampled: 05/06/2024 10:16
Reporting Basis: WET
Date Received: 05/07/2024 09:15

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Cyanide, Total	0.0090	0.010	0.0090	0.0050	mg/L	U		1	9012B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: DET-004-240401-GW
Lab Sample ID: 280-191098-5
Lab Name: Eurofins Denver
Job No.: 280-191098-1
SDG ID.:
Matrix: Water
Date Sampled: 05/06/2024 10:35
Reporting Basis: WET
Date Received: 05/07/2024 09:15

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Cyanide, Total	0.0090	0.010	0.0090	0.0050	mg/L	U		1	9012B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LL12mw-246-240401-GW
Lab Sample ID: 280-191098-6
Lab Name: Eurofins Denver
Job No.: 280-191098-1
SDG ID.:
Matrix: Water
Date Sampled: 05/06/2024 14:33
Reporting Basis: WET
Date Received: 05/07/2024 09:15

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia as N	0.099	0.10	0.050	0.029	mg/L	J		1	350.1
Nitrate as N	0.20	0.50	0.20	0.090	mg/L	U		1	9056

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Analyst: LBR Batch Start Date: 05/14/2024

Reporting Units: mg/L Analytical Batch No.: 653394

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
16	ICV	11:14	Ammonia as N	2.53	2.51	101	90-110		350.1 ICV_00609
17	ICVL	11:17	Ammonia as N	0.507	0.501	101	90-110		350.1 ICV_00609
18	ICB	11:19	Ammonia as N	0.050				U	
92	CCV	13:59	Ammonia as N	2.50	2.50	100	90-110		350.1 cal_00630
95	CCB	14:06	Ammonia as N	0.050				U	
115	CCV	14:49	Ammonia as N	2.56	2.50	102	90-110		350.1 cal_00630
117	CCVL	14:53	Ammonia as N	0.524	0.500	105	90-110		350.1 cal_00630
118	CCB	14:56	Ammonia as N	0.050				U	
132	CCV	15:26	Ammonia as N	2.55	2.50	102	90-110		350.1 cal_00630
134	CCVL	15:30	Ammonia as N	0.513	0.500	103	90-110		350.1 cal_00630
135	CCB	15:32	Ammonia as N	0.050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Analyst: LBR Batch Start Date: 05/08/2024

Reporting Units: mg/L Analytical Batch No.: 652637

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
16	ICV	11:00	Cyanide, Total	0.110	0.0999	110	90-110		CN ICV Int_00894
17	ICB	11:02	Cyanide, Total	0.0090				U	
66	CCV	13:13	Cyanide, Total	0.191	0.200	95	90-110		CN CAL 1 ppm_02315
83	CCV	13:58	Cyanide, Total	0.197	0.200	99	90-110		CN CAL 1 ppm_02315
84	CCB	14:01	Cyanide, Total	0.0090				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Analyst: LBR Batch Start Date: 05/10/2024

Reporting Units: mg/L Analytical Batch No.: 653035

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
27	ICV	11:26	Cyanide, Total	0.0981	0.0999	98	90-110		CN ICV Int_00894
28	ICB	11:28	Cyanide, Total	0.0090				U	
49	CCV	12:25	Cyanide, Total	0.211	0.200	106	90-110		CN CAL 1 ppm_02316
50	CCB	12:27	Cyanide, Total	0.0090				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Analyst: EJS Batch Start Date: 02/21/2024

Reporting Units: mg/L Analytical Batch No.: 643627

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICB	15:13	Nitrate as N	0.20				U	
9	ICV	17:46	Nitrate as N	4.05	4.00	101	90-110		IC ICV 5_00428

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Analyst: IRC Batch Start Date: 05/07/2024

Reporting Units: mg/L Analytical Batch No.: 652350

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	10:02	Nitrate as N	4.95	5.00	99	90-110		IC LCS_02035
2	CCB	10:19	Nitrate as N	0.20				U	
20	CCV	00:27	Nitrate as N	4.82	5.00	96	90-110		IC LCS_02035
21	CCB	00:44	Nitrate as N	0.20				U	
35	CCV	04:43	Nitrate as N	4.87	5.00	97	90-110		IC LCS_02035
36	CCB	05:00	Nitrate as N	0.20				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 653394 Date: 05/14/2024 14:13							
350.1	MB 280-653394/98	Ammonia as N	0.050	U	mg/L	0.10	1
Batch ID: 652637 Date: 05/08/2024 13:18							
9012B	MB 280-652637/68	Cyanide, Total	0.0090	U	mg/L	0.010	1
Batch ID: 653035 Date: 05/10/2024 11:31							
9012B	MB 280-653035/29	Cyanide, Total	0.0090	U	mg/L	0.010	1
Batch ID: 652350 Date: 05/07/2024 11:27							
9056	MB 280-652350/6	Nitrate as N	0.20	U	mg/L	0.50	1

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 653035 Date: 05/10/2024 11:47											
9012B	280-191098-1	Cyanide, Total	0.0090	U	mg/L						J1
9012B	280-191098-1 MS	Cyanide, Total	0.128		mg/L	0.0999	128	83-116			J1

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 653035 Date: 05/10/2024 11:50											
9012B	280-191098-1 MSD	Cyanide, Total	0.130		mg/L	0.0999	130	83-116	1	20	J1

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 653394	Date: 05/14/2024 14:14										
						LCS Source: 350.1 cal_00630					
350.1	LCS 280-653394/99	Ammonia as N	2.50		mg/L	2.50	100	90-110	1	10	
Batch ID: 652637	Date: 05/08/2024 13:21										
						LCS Source: CN ICV Int_00894					
9012B	LCS 280-652637/69	Cyanide, Total	0.0976		mg/L	0.0999	98	83-116			
Batch ID: 653035	Date: 05/10/2024 11:34										
						LCS Source: CN ICV Int_00894					
9012B	LCS 280-653035/30	Cyanide, Total	0.106		mg/L	0.0999	106	83-116	4	20	
Batch ID: 652350	Date: 05/07/2024 10:53										
						LCS Source: IC LCS_02035					
9056	LCS 280-652350/4	Nitrate as N	4.96		mg/L	5.00	99	88-111	0	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 653394	Date: 05/14/2024 14:16										
						LCSD Source: 350.1 cal_00630					
350.1	LCSD 280-653394/100	Ammonia as N	2.52		mg/L	2.50	101	90-110	1	10	
Batch ID: 653035	Date: 05/10/2024 11:37										
						LCSD Source: CN ICV Int_00894					
9012B	LCSD 280-653035/31	Cyanide, Total	0.110		mg/L	0.0999	110	83-116	4	20	
Batch ID: 652350	Date: 05/07/2024 11:10										
						LCSD Source: IC LCS_02035					
9056	LCSD 280-652350/5	Nitrate as N	4.97		mg/L	5.00	99	88-111	0	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
METHOD REPORTING LIMIT CHECK
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 652350	Date: 05/07/2024 10:36										
						LCS Source: IC Cal low_00772					
9056	MRL 280-652350/3	Nitrate as N	0.472	J	mg/L	0.500	94	50-150			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

16A-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Eurofins Denver Job No: 280-191098-1

SDG No.: Analysis Batch No.: 643627

Instrument ID: WC_IonChrom14 Calibration ID: 90565

Start Date: 02/21/2024 12:57 End Date: 02/21/2024 14:22

Analytical Method: 9056

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Nitrate as N	1.0000	45100000	-3460000	WLR	Inverse Conc

16B-IN
INITIAL CALIBRATION

Lab Name: Eurofins Denver Job No: 280-191098-1

SDG No.: Analysis Batch No.: 643627

Instrument ID: WC_IonChrom14 Calibration ID: 90565

Start Date: 02/21/2024 12:57 End Date: 02/21/2024 14:22

Analytical Method: 9056 Concentration Units: ug/mL

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Nitrate as N	0.20	0.22	8	0.50	0.48	-5	1.0	0.96	-4

16B-IN
INITIAL CALIBRATION

Lab Name: Eurofins Denver Job No: 280-191098-1

SDG No.: Analysis Batch No.: 643627

Instrument ID: WC_IonChrom14 Calibration ID: 90565

Start Date: 02/21/2024 12:57 End Date: 02/21/2024 14:22

Analytical Method: 9056 Concentration Units: ug/mL

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Nitrate as N	4.0	4.0	1	8.0	7.9	-2	10.0	10.2	2

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG Number:

Matrix: Water Instrument ID: WC_SKALAR_01

Method: 350.1 DL Date: 04/29/2022 13:46

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Ammonia as N		0.1	0.029

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG Number:

Matrix: Water Instrument ID: WC_SKALAR_01

Method: 350.1 XMDL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia as N		0.1	0.0225

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG Number:

Matrix: Water Instrument ID: WC_SKALAR_01

Method: 9012B DL Date: 04/11/2022 14:05

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Cyanide, Total		0.01	0.005

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG Number:

Matrix: Water Instrument ID: WC_SKALAR_01

Method: 9012B XMDL Date: 04/11/2022 14:06

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Cyanide, Total		0.01	0.005

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom14

Method: 9056 DL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrate as N		0.5	0.0901

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-191098-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom14

Method: 9056 XMDL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrate as N		0.5	0.0901

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: WC_SKALAR_01 Analysis Method: 350.1

Start Date: 05/14/2024 10:41 End Date: 05/14/2024 17:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			10:41																									
ZZZZZZ			10:43																									
ZZZZZZ			10:46																									
ZZZZZZ			10:48																									
ZZZZZZ			10:51																									
ZZZZZZ			10:54																									
ZZZZZZ			10:55																									
ZZZZZZ			10:57																									
ZZZZZZ			10:59																									
ZZZZZZ			11:01																									
ZZZZZZ			11:04																									
ZZZZZZ			11:06																									
ZZZZZZ			11:08																									
ZZZZZZ			11:10																									
ZZZZZZ			11:12																									
ICV 280-653394/16	1		11:14	X																								
ICVL 280-653394/17	1		11:17	X																								
ICB 280-653394/18	1		11:19	X																								
ZZZZZZ			11:21																									
ZZZZZZ			11:23																									
ZZZZZZ			11:25																									
ZZZZZZ			11:27																									
ZZZZZZ			11:30																									
ZZZZZZ			11:32																									
ZZZZZZ			11:34																									
ZZZZZZ			11:36																									
ZZZZZZ			11:38																									
ZZZZZZ			11:40																									
ZZZZZZ			11:43																									
ZZZZZZ			11:45																									
ZZZZZZ			11:47																									
ZZZZZZ			11:49																									
ZZZZZZ			11:51																									
ZZZZZZ			11:53																									
CCV 280-653394/35			11:55																									
ZZZZZZ			11:58																									
CCVL 280-653394/37			12:00																									
CCB 280-653394/38			12:02																									
ZZZZZZ			12:04																									
ZZZZZZ			12:06																									
ZZZZZZ			12:09																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: WC_SKALAR_01 Analysis Method: 350.1

Start Date: 05/14/2024 10:41 End Date: 05/14/2024 17:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			12:11																									
ZZZZZZ			12:13																									
ZZZZZZ			12:15																									
ZZZZZZ			12:17																									
ZZZZZZ			12:19																									
ZZZZZZ			12:22																									
ZZZZZZ			12:24																									
ZZZZZZ			12:26																									
ZZZZZZ			12:28																									
ZZZZZZ			12:30																									
CCV 280-653394/52			12:32																									
ZZZZZZ			12:35																									
CCVL 280-653394/54			12:37																									
CCB 280-653394/55			12:39																									
ZZZZZZ			12:41																									
ZZZZZZ			12:43																									
ZZZZZZ			12:45																									
ZZZZZZ			12:47																									
ZZZZZZ			12:50																									
ZZZZZZ			12:52																									
ZZZZZZ			12:54																									
ZZZZZZ			12:56																									
ZZZZZZ			12:58																									
ZZZZZZ			13:01																									
ZZZZZZ			13:03																									
ZZZZZZ			13:05																									
ZZZZZZ			13:07																									
ZZZZZZ			13:09																									
ZZZZZZ			13:11																									
ZZZZZZ			13:14																									
ZZZZZZ			13:16																									
ZZZZZZ			13:18																									
ZZZZZZ			13:20																									
CCV 280-653394/75			13:22																									
ZZZZZZ			13:24																									
CCVL 280-653394/77			13:27																									
CCB 280-653394/78			13:29																									
ZZZZZZ			13:31																									
ZZZZZZ			13:33																									
ZZZZZZ			13:35																									
ZZZZZZ			13:37																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: WC_SKALAR_01 Analysis Method: 350.1

Start Date: 05/14/2024 10:41 End Date: 05/14/2024 17:38

Lab Sample Id	D/F	Type	Time	Analytes																							
				NH3																							
ZZZZZZ			13:40																								
ZZZZZZ			13:42																								
ZZZZZZ			13:44																								
ZZZZZZ			13:46																								
ZZZZZZ			13:48																								
ZZZZZZ			13:50																								
ZZZZZZ			13:53																								
ZZZZZZ			13:55																								
ZZZZZZ			13:57																								
CCV 280-653394/92	1		13:59	X																							
ZZZZZZ			14:01																								
CCVL 280-653394/94			14:03																								
CCB 280-653394/95	1		14:06	X																							
ZZZZZZ			14:08																								
ZZZZZZ			14:10																								
MB 280-653394/98	1	T	14:13	X																							
LCS 280-653394/99	1	T	14:14	X																							
LCSD 280-653394/100	1	T	14:16	X																							
ZZZZZZ			14:19																								
ZZZZZZ			14:21																								
ZZZZZZ			14:23																								
ZZZZZZ			14:25																								
ZZZZZZ			14:27																								
ZZZZZZ			14:29																								
ZZZZZZ			14:32																								
ZZZZZZ			14:34																								
ZZZZZZ			14:36																								
ZZZZZZ			14:38																								
ZZZZZZ			14:40																								
ZZZZZZ			14:43																								
ZZZZZZ			14:45																								
ZZZZZZ			14:47																								
CCV 280-653394/115	1		14:49	X																							
ZZZZZZ			14:51																								
CCVL 280-653394/117	1		14:53	X																							
CCB 280-653394/118	1		14:56	X																							
ZZZZZZ			14:58																								
ZZZZZZ			15:00																								
ZZZZZZ			15:02																								
ZZZZZZ			15:04																								
ZZZZZZ			15:06																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: WC_SKALAR_01 Analysis Method: 350.1

Start Date: 05/14/2024 10:41 End Date: 05/14/2024 17:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
280-191098-6	1	T	15:08	X																								
ZZZZZZ			15:11																									
ZZZZZZ			15:13																									
ZZZZZZ			15:15																									
ZZZZZZ			15:17																									
ZZZZZZ			15:19																									
ZZZZZZ			15:22																									
ZZZZZZ			15:24																									
CCV 280-653394/132	1		15:26	X																								
ZZZZZZ			15:28																									
CCVL 280-653394/134	1		15:30	X																								
CCB 280-653394/135	1		15:32	X																								
ZZZZZZ			15:35																									
ZZZZZZ			15:37																									
ZZZZZZ			15:39																									
ZZZZZZ			15:41																									
ZZZZZZ			15:43																									
ZZZZZZ			15:45																									
ZZZZZZ			15:47																									
ZZZZZZ			15:50																									
ZZZZZZ			15:52																									
ZZZZZZ			15:54																									
ZZZZZZ			15:56																									
ZZZZZZ			15:58																									
ZZZZZZ			16:01																									
ZZZZZZ			16:03																									
ZZZZZZ			16:05																									
ZZZZZZ			16:07																									
ZZZZZZ			16:10																									
ZZZZZZ			16:12																									
ZZZZZZ			16:15																									
CCV 280-653394/155			16:17																									
ZZZZZZ			16:19																									
CCVL 280-653394/157			16:21																									
CCB 280-653394/158			16:23																									
ZZZZZZ			16:25																									
ZZZZZZ			16:27																									
ZZZZZZ			16:29																									
ZZZZZZ			16:32																									
ZZZZZZ			16:34																									
ZZZZZZ			16:36																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: WC_SKALAR_01 Analysis Method: 350.1

Start Date: 05/14/2024 10:41 End Date: 05/14/2024 17:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			16:38																									
ZZZZZZ			16:41																									
ZZZZZZ			16:43																									
ZZZZZZ			16:46																									
ZZZZZZ			16:48																									
ZZZZZZ			16:50																									
ZZZZZZ			16:52																									
CCV 280-653394/172			16:54																									
ZZZZZZ			16:57																									
CCVL 280-653394/174			16:59																									
CCB 280-653394/175			17:01																									
ZZZZZZ			17:03																									
ZZZZZZ			17:05																									
ZZZZZZ			17:07																									
ZZZZZZ			17:10																									
ZZZZZZ			17:12																									
ZZZZZZ			17:14																									
ZZZZZZ			17:16																									
ZZZZZZ			17:18																									
CCV 280-653394/184			17:21																									
ZZZZZZ			17:23																									
CCV 280-653394/186			17:25																									
ZZZZZZ			17:27																									
CCVL 280-653394/188			17:29																									
CCB 280-653394/189			17:31																									
ZZZZZZ			17:33																									
ZZZZZZ			17:35																									
ZZZZZZ			17:38																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: WC_SKALAR_01 Analysis Method: 9012B

Start Date: 05/08/2024 10:16 End Date: 05/08/2024 14:17

Lab Sample Id	D/F	Type	Time	Analytes
				CN
ZZZZZZ			10:16	
ZZZZZZ			10:21	
ZZZZZZ			10:25	
ZZZZZZ			10:27	
ZZZZZZ			10:30	
ZZZZZZ			10:32	
ZZZZZZ			10:35	
ZZZZZZ			10:38	
ZZZZZZ			10:41	
ZZZZZZ			10:43	
ZZZZZZ			10:46	
ZZZZZZ			10:49	
ZZZZZZ			10:51	
ZZZZZZ			10:54	
ZZZZZZ			10:56	
ICV 280-652637/16	1		11:00	X
ICB 280-652637/17	1		11:02	X
ZZZZZZ			11:05	
ZZZZZZ			11:07	
ZZZZZZ			11:10	
ZZZZZZ			11:13	
ZZZZZZ			11:15	
ZZZZZZ			11:18	
ZZZZZZ			11:21	
ZZZZZZ			11:23	
ZZZZZZ			11:26	
ZZZZZZ			11:29	
ZZZZZZ			11:31	
ZZZZZZ			11:34	
ZZZZZZ			11:37	
ZZZZZZ			11:39	
ZZZZZZ			11:42	
ZZZZZZ			11:45	
ZZZZZZ			11:48	
CCV 280-652637/35			11:50	
CCB 280-652637/36			11:53	
ZZZZZZ			11:55	
ZZZZZZ			11:58	
ZZZZZZ			12:01	
ZZZZZZ			12:03	
ZZZZZZ			12:06	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: WC_SKALAR_01 Analysis Method: 9012B

Start Date: 05/08/2024 10:16 End Date: 05/08/2024 14:17

Lab Sample Id	D/F	Type	Time	Analytes																								
				CN																								
ZZZZZZ			12:09																									
ZZZZZZ			12:11																									
ZZZZZZ			12:14																									
ZZZZZZ			12:17																									
ZZZZZZ			12:20																									
ZZZZZZ			12:22																									
ZZZZZZ			12:25																									
ZZZZZZ			12:27																									
ZZZZZZ			12:30																									
CCV 280-652637/51			12:33																									
CCB 280-652637/52			12:35																									
ZZZZZZ			12:38																									
ZZZZZZ			12:41																									
ZZZZZZ			12:44																									
ZZZZZZ			12:46																									
ZZZZZZ			12:49																									
ZZZZZZ			12:51																									
ZZZZZZ			12:54																									
ZZZZZZ			12:57																									
ZZZZZZ			12:59																									
ZZZZZZ			13:02																									
ZZZZZZ			13:05																									
ZZZZZZ			13:07																									
ZZZZZZ			13:10																									
CCV 280-652637/66	1		13:13	X																								
280-191098-5	1	T	13:15	X																								
MB 280-652637/68	1	T	13:18	X																								
LCS 280-652637/69	1	T	13:21	X																								
ZZZZZZ			13:23																									
ZZZZZZ			13:26																									
ZZZZZZ			13:29																									
ZZZZZZ			13:31																									
ZZZZZZ			13:34																									
ZZZZZZ			13:37																									
ZZZZZZ			13:39																									
280-191098-2	1	T	13:42	X																								
ZZZZZZ			13:44																									
ZZZZZZ			13:47																									
ZZZZZZ			13:50																									
ZZZZZZ			13:53																									
ZZZZZZ			13:55																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: WC_SKALAR_01 Analysis Method: 9012B

Start Date: 05/08/2024 10:16 End Date: 05/08/2024 14:17

Lab Sample Id	D/F	Type	Time	Analytes																								
				CN																								
CCV 280-652637/83	1		13:58	X																								
CCB 280-652637/84	1		14:01	X																								
ZZZZZZ			14:03																									
ZZZZZZ			14:06																									
ZZZZZZ			14:09																									
ZZZZZZ			14:12																									
ZZZZZZ			14:14																									
ZZZZZZ			14:17																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: WC_SKALAR_01 Analysis Method: 9012B

Start Date: 05/10/2024 10:13 End Date: 05/10/2024 16:55

Lab Sample Id	D/F	Type	Time	Analytes
				CN
ZZZZZZ			10:13	
ZZZZZZ			10:18	
ZZZZZZ			10:21	
ZZZZZZ			10:24	
ZZZZZZ			10:27	
ZZZZZZ			10:29	
ZZZZZZ			10:32	
ZZZZZZ			10:35	
ZZZZZZ			10:38	
ZZZZZZ			10:40	
ZZZZZZ			10:43	
ZZZZZZ			10:46	
ZZZZZZ			10:48	
ZZZZZZ			10:51	
ZZZZZZ			10:53	
ICV 280-653035/16			10:56	
ICB 280-653035/17			10:59	
ZZZZZZ			11:02	
ZZZZZZ			11:04	
ZZZZZZ			11:07	
ZZZZZZ			11:10	
ZZZZZZ			11:12	
ZZZZZZ			11:15	
ZZZZZZ			11:18	
ZZZZZZ			11:20	
ZZZZZZ			11:23	
ICV 280-653035/27	1		11:26	X
ICB 280-653035/28	1		11:28	X
MB 280-653035/29	1	T	11:31	X
LCS 280-653035/30	1	T	11:34	X
LCSD 280-653035/31	1	T	11:37	X
ZZZZZZ			11:39	
ZZZZZZ			11:42	
280-191098-1	1	T	11:45	X
280-191098-1 MS	1	T	11:47	X
280-191098-1 MSD	1	T	11:50	X
ZZZZZZ			11:52	
ZZZZZZ			11:55	
ZZZZZZ			11:58	
ZZZZZZ			12:01	
ZZZZZZ			12:03	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: WC_SKALAR_01 Analysis Method: 9012B

Start Date: 05/10/2024 10:13 End Date: 05/10/2024 16:55

Lab Sample Id	D/F	Type	Time	Analytes
				CN
ZZZZZZ			12:06	
ZZZZZZ			12:09	
ZZZZZZ			12:11	
ZZZZZZ			12:14	
ZZZZZZ			12:17	
ZZZZZZ			12:19	
ZZZZZZ			12:22	
CCV 280-653035/49	1		12:25	X
CCB 280-653035/50	1		12:27	X
ZZZZZZ			12:30	
ZZZZZZ			12:32	
ZZZZZZ			12:35	
ZZZZZZ			12:38	
ZZZZZZ			12:40	
ZZZZZZ			12:43	
ZZZZZZ			12:46	
ZZZZZZ			12:48	
ZZZZZZ			12:51	
ZZZZZZ			12:54	
ZZZZZZ			12:56	
ZZZZZZ			12:59	
ZZZZZZ			13:02	
CCV 280-653035/64			13:04	
CCB 280-653035/65			13:07	
ZZZZZZ			13:10	
ZZZZZZ			13:12	
ZZZZZZ			13:15	
ZZZZZZ			13:18	
ZZZZZZ			13:20	
ZZZZZZ			13:23	
ZZZZZZ			13:26	
ZZZZZZ			13:29	
ZZZZZZ			13:31	
ZZZZZZ			13:34	
ZZZZZZ			13:37	
ZZZZZZ			13:39	
ZZZZZZ			13:42	
ZZZZZZ			13:44	
ZZZZZZ			13:47	
ZZZZZZ			13:50	
ZZZZZZ			13:53	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Instrument ID: WC_SKALAR_01 | Analysis Method: 9012B

Start Date: 05/10/2024 10:13 | End Date: 05/10/2024 16:55

Lab Sample Id	D/F	Type	Time	Analytes
				CN
ZZZZZZ			13:55	
CCV 280-653035/84			13:58	
CCB 280-653035/85			14:01	
ZZZZZZ			14:03	
ZZZZZZ			14:06	
ZZZZZZ			14:09	
ZZZZZZ			14:11	
ZZZZZZ			14:14	
ZZZZZZ			14:17	
ZZZZZZ			14:19	
ZZZZZZ			14:22	
ZZZZZZ			14:24	
ZZZZZZ			14:27	
ZZZZZZ			14:30	
ZZZZZZ			14:32	
ZZZZZZ			14:35	
CCV 280-653035/99			14:38	
CCB 280-653035/100			14:41	
ZZZZZZ			14:43	
ZZZZZZ			14:46	
ZZZZZZ			14:49	
ZZZZZZ			14:51	
ZZZZZZ			14:54	
ZZZZZZ			14:57	
ZZZZZZ			14:59	
ZZZZZZ			15:02	
ZZZZZZ			15:05	
ZZZZZZ			15:07	
ZZZZZZ			15:10	
ZZZZZZ			15:13	
ZZZZZZ			15:15	
ZZZZZZ			15:18	
ZZZZZZ			15:21	
ZZZZZZ			15:23	
ZZZZZZ			15:26	
ZZZZZZ			15:29	
CCV 280-653035/119			15:31	
CCB 280-653035/120			15:34	
ZZZZZZ			15:37	
ZZZZZZ			15:39	
ZZZZZZ			15:42	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: WC_SKALAR_01 Analysis Method: 9012B

Start Date: 05/10/2024 10:13 End Date: 05/10/2024 16:55

Lab Sample Id	D/F	Type	Time	Analytes
				CN
ZZZZZZ			15:45	
ZZZZZZ			15:47	
ZZZZZZ			15:50	
ZZZZZZ			15:53	
ZZZZZZ			15:55	
ZZZZZZ			15:58	
ZZZZZZ			16:01	
ZZZZZZ			16:03	
ZZZZZZ			16:06	
ZZZZZZ			16:09	
CCV 280-653035/134			16:11	
CCB 280-653035/135			16:14	
ZZZZZZ			16:17	
ZZZZZZ			16:19	
ZZZZZZ			16:22	
ZZZZZZ			16:25	
ZZZZZZ			16:27	
ZZZZZZ			16:30	
ZZZZZZ			16:33	
ZZZZZZ			16:35	
ZZZZZZ			16:38	
ZZZZZZ			16:40	
CCV 280-653035/146			16:43	
CCB 280-653035/147			16:46	
ZZZZZZ			16:49	
ZZZZZZ			16:51	
ZZZZZZ			16:55	

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver | Job No.: 280-191098-1

SDG No.:

Instrument ID: WC_IonChrom14 | Analysis Method: 9056

Start Date: 02/21/2024 12:57 | End Date: 02/21/2024 20:53

Lab Sample Id	D/F	Type	Time	Analytes																								
				NO3																								
STD 280-643627/2 IC	1		12:57	X																								
STD 280-643627/3 IC	1		13:14	X																								
STD 280-643627/4 IC	1		13:31	X																								
STD 280-643627/5 IC	1		13:48	X																								
STD 280-643627/6 IC	1		14:05	X																								
STD 280-643627/7 IC	1		14:22	X																								
RTC 280-643627/8			14:39																									
ICB 280-643627/10	1		15:13	X																								
ZZZZZZ			15:30																									
ZZZZZZ			15:47																									
ZZZZZZ			16:04																									
ZZZZZZ			16:21																									
ZZZZZZ			16:38																									
ZZZZZZ			16:55																									
ICV 280-643627/9	1		17:46	X																								
ZZZZZZ			18:03																									
ZZZZZZ			18:20																									
ZZZZZZ			18:37																									
ZZZZZZ			18:54																									
ZZZZZZ			19:11																									
ZZZZZZ			19:28																									
CCV 280-643627/23			19:45																									
CCB 280-643627/24			20:02																									
ZZZZZZ			20:19																									
ZZZZZZ			20:36																									
ZZZZZZ			20:53																									

Prep Types:
=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: WC_IonChrom14 Analysis Method: 9056

Start Date: 05/07/2024 10:02 End Date: 05/08/2024 08:07

Lab Sample Id	D/F	Type	Time	Analytes
				NO3
CCV 280-652350/1	1		10:02	X
CCB 280-652350/2	1		10:19	X
MRL 280-652350/3	1	T	10:36	X
LCS 280-652350/4	1	T	10:53	X
LCSD 280-652350/5	1	T	11:10	X
MB 280-652350/6	1	T	11:27	X
ZZZZZZ			20:35	
ZZZZZZ			21:03	
ZZZZZZ			21:20	
ZZZZZZ			21:37	
ZZZZZZ			21:54	
ZZZZZZ			22:11	
ZZZZZZ			22:28	
ZZZZZZ			22:45	
ZZZZZZ			23:02	
ZZZZZZ			23:19	
ZZZZZZ			23:36	
ZZZZZZ			23:53	
ZZZZZZ			00:10	
CCV 280-652350/20	1		00:27	X
CCB 280-652350/21	1		00:44	X
ZZZZZZ			01:01	
ZZZZZZ			01:19	
ZZZZZZ			01:36	
ZZZZZZ			01:53	
ZZZZZZ			02:10	
ZZZZZZ			02:27	
ZZZZZZ			02:44	
ZZZZZZ			03:01	
280-191098-6	1	T	03:18	X
ZZZZZZ			03:35	
ZZZZZZ			03:52	
ZZZZZZ			04:09	
ZZZZZZ			04:26	
CCV 280-652350/35	1		04:43	X
CCB 280-652350/36	1		05:00	X
ZZZZZZ			05:17	
ZZZZZZ			05:34	
ZZZZZZ			05:51	
ZZZZZZ			06:08	
ZZZZZZ			06:25	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Instrument ID: WC_IonChrom14 Analysis Method: 9056

Start Date: 05/07/2024 10:02 End Date: 05/08/2024 08:07

Lab Sample Id	D/F	Type	Time	Analytes																								
				NO3																								
ZZZZZZ			06:42																									
ZZZZZZ			06:59																									
ZZZZZZ			07:16																									
ZZZZZZ			07:33																									
CCV 280-652350/43			07:50																									
CCB 280-652350/44			08:07																									

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 653394 Batch Start Date: 05/14/24 10:41 Batch Analyst: Rutherford, Lindsay B

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00630	350.1 ICV 00609
ICV 280-653394/16		350.1			no	100 mL	100 mL	<2 SU		2.5 mL
ICVL 280-653394/17		350.1			no	100 mL	100 mL	<2 SU		0.5 mL
ICB 280-653394/18		350.1			no	30 mL	30 mL	<2 SU		
CCV 280-653394/92		350.1			no	100 mL	100 mL	<2 SU	2.5 mL	
CCB 280-653394/95		350.1			no	30 mL	30 mL	<2 SU		
MB 280-653394/98		350.1			no	30 mL	30 mL	<2 SU		
LCS 280-653394/99		350.1			no	100 mL	100 mL	<2 SU	2.5 mL	
LCSD 280-653394/100		350.1			no	100 mL	100 mL	<2 SU	2.5 mL	
CCV 280-653394/115		350.1			no	100 mL	100 mL	<2 SU	2.5 mL	
CCVL 280-653394/117		350.1			no	100 mL	100 mL	<2 SU	0.5 mL	
CCB 280-653394/118		350.1			no	30 mL	30 mL	<2 SU		
280-191098-B-6	LL12mw-246-240401-GW	350.1	Water	T	no	10 mL	10 mL	<2 SU		
CCV 280-653394/132		350.1			no	100 mL	100 mL	<2 SU	2.5 mL	
CCVL 280-653394/134		350.1			no	100 mL	100 mL	<2 SU	0.5 mL	
CCB 280-653394/135		350.1			no	30 mL	30 mL	<2 SU		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 653394 Batch Start Date: 05/14/24 10:41 Batch Analyst: Rutherford, Lindsay B

Batch Method: 350.1 Batch End Date:

Batch Notes	
Residual Chlorine Indicator ID	14-860
pH Indicator ID	hc325179
Acid used for pH adjustment	sulfuricacid_00294
Sodium Nitroprusside ID	Na Nitro_00090 Na Salicylate_00107
Hypochlorite ID	Na Hypo_00098
EDTA Buffer ID	Buffer A_00068
Potassium Sodium Tartrate ID	Buffer B_00104
Carrier Identification	Ammonia Rinse_00101
Sodium Salicylate ID	Sodium Sal_00030
Pipette/Syringe/Dispenser ID	mmp 5000, 1000 skalar, bwh 200
Pipette Tip Lot ID	k1952701, m211714k, l201656h
Dichloroisocyanurate ID	Na Dichloro_00001

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 652637 Batch Start Date: 05/08/24 10:16 Batch Analyst: Rutherford, Lindsay B

Batch Method: 9012B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	Initial pH	ChlorineCheck	SulfideCheck	CN CAL 1 ppm 02315
ICV 280-652637/16		9012B			100 mL	100 mL	>12 SU	no	no	
ICB 280-652637/17		9012B			30 mL	30 mL	>12 SU	no	no	
CCV 280-652637/66		9012B			50 mL	50 mL	>12 SU	no	no	10 mL
280-191098-J-5	DET-004-240401-GW	9012B	Water	T	10 mL	10 mL	>12 SU	no	no	
MB 280-652637/68		9012B			30 mL	30 mL	>12 SU	no	no	
LCS 280-652637/69		9012B			25 mL	25 mL	>12 SU	no	no	
280-191098-H-2	DET-003-240402-GW	9012B	Water	T	10 mL	10 mL	>12 SU	no	no	
CCV 280-652637/83		9012B			50 mL	50 mL	>12 SU	no	no	10 mL
CCB 280-652637/84		9012B			30 mL	30 mL	>12 SU	no	no	

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	CN ICV Int 00894					
ICV 280-652637/16		9012B			1 mL					
ICB 280-652637/17		9012B								
CCV 280-652637/66		9012B								
280-191098-J-5	DET-004-240401-GW	9012B	Water	T						
MB 280-652637/68		9012B								
LCS 280-652637/69		9012B			0.25 mL					
280-191098-H-2	DET-003-240402-GW	9012B	Water	T						
CCV 280-652637/83		9012B								
CCB 280-652637/84		9012B								

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 652637 Batch Start Date: 05/08/24 10:16 Batch Analyst: Rutherford, Lindsay B

Batch Method: 9012B Batch End Date:

Batch Notes	
Pipette/Syringe/Dispenser ID	mmp 5000, skalar 1000, bwh 200
Sodium Hydroxide ID	NaOH 0.02M_00087 NaOH 1M_00081
Buffer Reagent ID	CN Buffer_00240
Chloramine-T ID	Chloramine-T_00083
Pyridine-Barbituric Acid ID	Color Reagent_00036
Batch Comment	CN Diluent_00065, Dist. Reagent_00090, Dig. Reagent_00038

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 653035 Batch Start Date: 05/10/24 10:13 Batch Analyst: Rutherford, Lindsay B

Batch Method: 9012B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	Initial pH	ChlorineCheck	SulfideCheck	CN CAL 1 ppm 02316
ICV 280-653035/27		9012B			100 mL	100 mL	>12 SU	no	no	
ICB 280-653035/28		9012B			30 mL	30 mL	>12 SU	no	no	
MB 280-653035/29		9012B			30 mL	30 mL	>12 SU	no	no	
LCS 280-653035/30		9012B			25 mL	25 mL	>12 SU	no	no	
LCSD 280-653035/31		9012B			25 mL	25 mL	>12 SU	no	no	
280-191098-J-1	DET-003-240401-GW	9012B	Water	T	10 mL	10 mL	>12 SU	no	no	
280-191098-J-1 MS	DET-003-240401-GW	9012B	Water	T	10 mL	10 mL	>12 SU	no	no	
280-191098-J-1 MSD	DET-003-240401-GW	9012B	Water	T	10 mL	10 mL	>12 SU	no	no	
CCV 280-653035/49		9012B			50 mL	50 mL	>12 SU	no	no	10 mL
CCB 280-653035/50		9012B			30 mL	30 mL	>12 SU	no	no	

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	CN ICV Int 00894					
ICV 280-653035/27		9012B			1 mL					
ICB 280-653035/28		9012B								
MB 280-653035/29		9012B								
LCS 280-653035/30		9012B			0.25 mL					
LCSD 280-653035/31		9012B			0.25 mL					
280-191098-J-1	DET-003-240401-GW	9012B	Water	T						
280-191098-J-1 MS	DET-003-240401-GW	9012B	Water	T	0.1 mL					
280-191098-J-1 MSD	DET-003-240401-GW	9012B	Water	T	0.1 mL					
CCV 280-653035/49		9012B								

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 653035 Batch Start Date: 05/10/24 10:13 Batch Analyst: Rutherford, Lindsay B

Batch Method: 9012B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	CN ICV Int 00894					
CCB 280-653035/50		9012B								

Batch Notes	
Pipette/Syringe/Dispenser ID	mmp 5000, 1000 skalar, bwh 200
Sodium Hydroxide ID	NaOH0.02M_00088 NaOH1M_00081
Buffer Reagent ID	CN Buffer_00242
Chloramine-T ID	Chloramine-T_00084
Pyridine-Barbituric Acid ID	Color Reagent_00036
Batch Comment	CN Diluent_00066, Dist. Reagent_00090, Dig. Reagent_00038

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 643627 Batch Start Date: 02/21/24 12:57 Batch Analyst: Sherman, Erik J

Batch Method: 9056 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	Cl ICV Std 00007	IC CAL cl/so4 00524	IC Cal low 00758	IC ICV 5 00428
STD 280-643627/2 IC		9056			10 mL	10 mL		0.04 mL	0.04 mL	
STD 280-643627/3 IC		9056			10 mL	10 mL		0.1 mL	0.1 mL	
STD 280-643627/4 IC		9056			10 mL	10 mL		0.2 mL	0.2 mL	
STD 280-643627/5 IC		9056			10 mL	10 mL		2.4 mL	0.8 mL	
STD 280-643627/6 IC		9056			10 mL	10 mL		4.8 mL	1.6 mL	
STD 280-643627/7 IC		9056			10 mL	10 mL		8 mL	2 mL	
ICV 280-643627/9		9056			10 mL	10 mL	0.8 mL			0.8 mL
ICB 280-643627/10		9056			10 mL	10 mL				

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	IC SO4 ICV 00025					
STD 280-643627/2 IC		9056								
STD 280-643627/3 IC		9056								
STD 280-643627/4 IC		9056								
STD 280-643627/5 IC		9056								
STD 280-643627/6 IC		9056								
STD 280-643627/7 IC		9056								
ICV 280-643627/9		9056			0.8 mL					
ICB 280-643627/10		9056								

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 643627 Batch Start Date: 02/21/24 12:57 Batch Analyst: Sherman, Erik J

Batch Method: 9056 Batch End Date:

Batch Notes	
Filter ID	SF020E
Pipette/Syringe/Dispenser ID	1000HEX, 200CJ, IC100, BMF1000, AB8A100, ICM5000, PAIN\
Sufficient Volume for Batch QC	Y
Eluent 1 ID	IC10 ELUENT_00010
Batch Comment	EJS

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191098-1

SDG No.:

Batch Number: 652350 Batch Start Date: 05/07/24 10:02 Batch Analyst: Castro, Isiah R

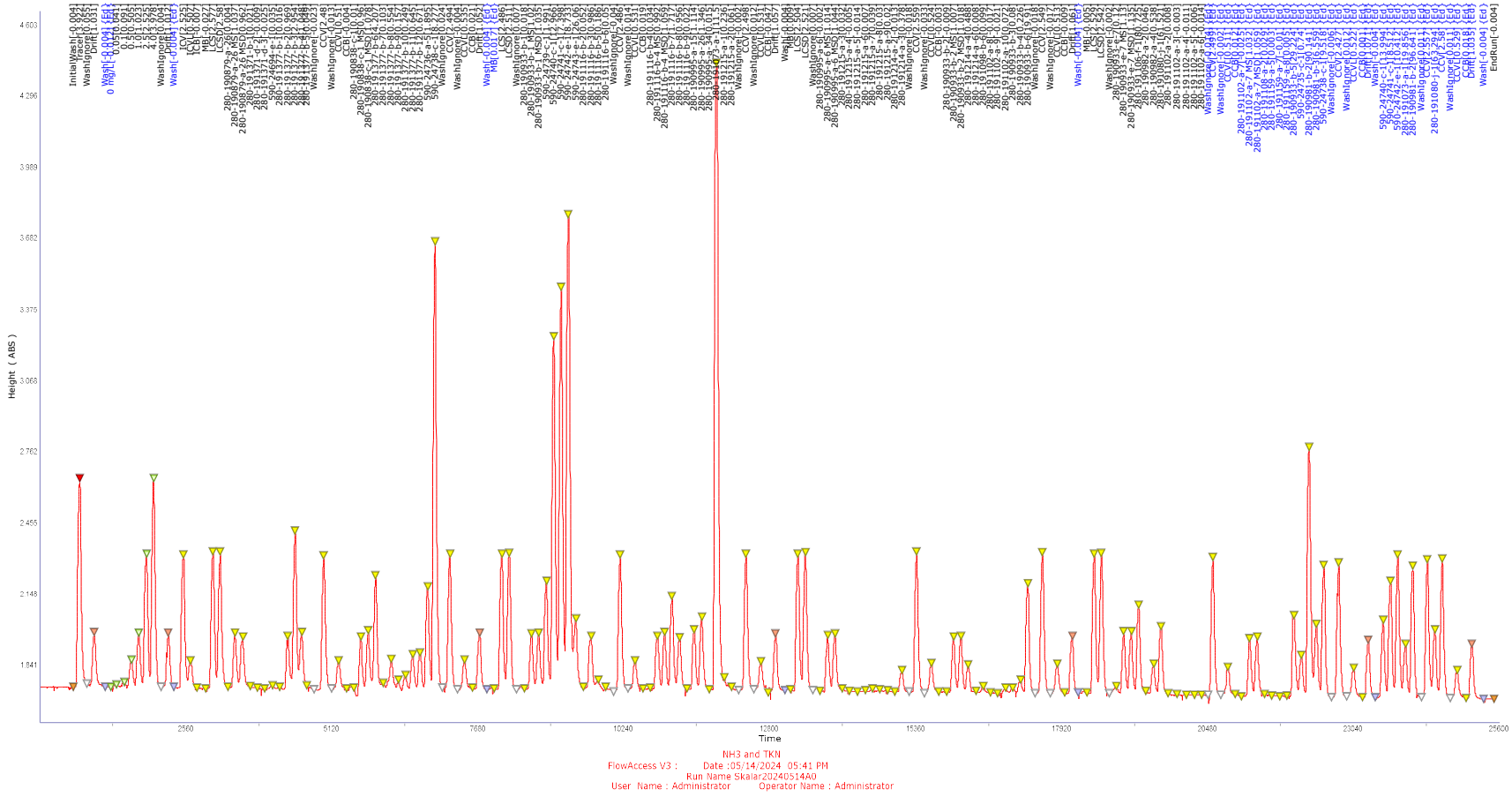
Batch Method: 9056 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00534	IC Cal low 00772	IC LCS 02035	
CCV 280-652350/1		9056			10 mL	10 mL			10 mL	
CCB 280-652350/2		9056			10 mL	10 mL				
MRL 280-652350/3		9056			10 mL	10 mL	0.2 mL	0.1 mL		
LCS 280-652350/4		9056			10 mL	10 mL			10 mL	
LCSD 280-652350/5		9056			10 mL	10 mL			10 mL	
MB 280-652350/6		9056			10 mL	10 mL				
CCV 280-652350/20		9056			10 mL	10 mL			10 mL	
CCB 280-652350/21		9056			10 mL	10 mL				
280-191098-B-6	LL12mw-246-2440 1-GW	9056	Water	T	10 mL	10 mL				
CCV 280-652350/35		9056			10 mL	10 mL			10 mL	
CCB 280-652350/36		9056			10 mL	10 mL				

Batch Notes	
Filter ID	SF020E
Pipette/Syringe/Dispenser ID	1000HEX, 200CJ, IC100, BMF1000, AB8A100, ICM5000, PAIN
Sufficient Volume for Batch QC	Y
Eluent 1 ID	IC10 Eluent_00010
Batch Comment	IRC

Basis	Basis Description
T	Total/NA

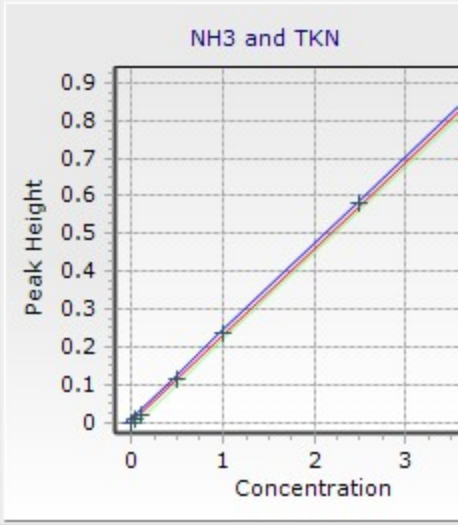
The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.



5/23/2024
4:40:30 AM

Select/deselect Standards

	SerialNumber	Cup position	Sample Type	Identity	Concentration	Corrected Height	Result	Use this	Y Residuals	Relative Error(%)
1	5	ST1	S1	0 mg/L	0.000	-0.002	-0.012	☑		
2	6	ST2	S2	0.05	0.050	0.010	0.041	☑	-21.26%	-18.97%
3	7	ST3	S3	0.1	0.100	0.022	0.091	☑	-9.93%	-9.41%
4	8	ST4	S4	0.5	0.500	0.117	0.505	☑	0.91%	0.92%
5	9	ST5	S5	1	1.000	0.236	1.023	☑	2.23%	2.29%
6	10	ST6	S6	2.5	2.500	0.581	2.525	☑	1.01%	1.02%
7	11	ST7	S7	4	4.000	0.915	3.978	☑	-0.55%	-0.55%



Method Name	Ammonia	a	0.00094269	R Squared	0.99985776
Module Name	NH3 and TKN	b	0.22966840	Constant Sx0	0.01997496
Calibration Order	I Order ISO 8466	c		Constant Vx0	1.71564055
Residual Std. Dev. (Sy)	0.00458761653982	d			
		Correlation Coefficient	0.99992888		

Calibration Order I Order ISO 8466

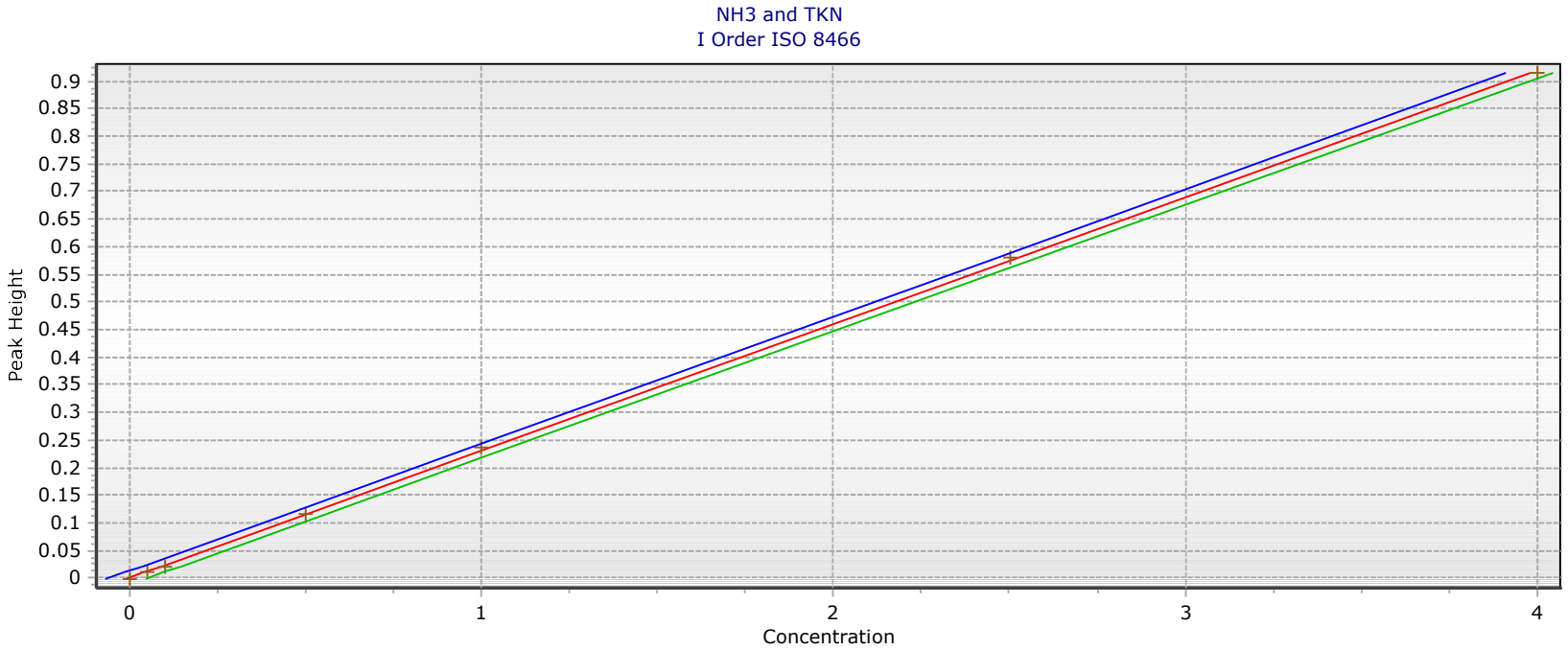
Save Close

5/23/2024
4:40:30 AM

4

FlowAccessV3

Date:May 14 2024 5:41:07PM



a = 0.00094269079948 b = 0.22966839646776 RSD = 0.00458761653982

r = 0.99992887753717 R2 = 0.99985776013274

Run Name : Skalar20240514A0

User Name : Administrator Operator Name : Administrator

FlowAccessV3 Results Report

Run Name : Skalar20240514A0
DateTime :May 14 2024 10:31:37AM
User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	NH3 and TKN- Results
1	IW	IW	InitialWash		1.0000	-0.004
2	ST7	T	Tracer		1.0000	3.922
3	WT	WI	WashIgnore		1.0000	0.055
4	ST5	D	Drift		1.0000	1.031
5	WT	W	Wash		1.0000	-0.004
6	ST1	S1	0 mg/L		1.0000	-0.012
7	ST2	S2	0.05		1.0000	0.041
8	ST3	S3	0.1		1.0000	0.091
9	ST4	S4	0.5		1.0000	0.505
10	ST5	S5	1.0		1.0000	1.023
11	ST6	S6	2.5		1.0000	2.525
12	ST7	S7	4.0		1.0000	3.978
13	WT	WI	WashIgnore		1.0000	0.004
14	ST5	D	Drift		1.0000	1.012
15	WT	W	Wash		1.0000	-0.004
16	ST8	U	ICV		1.0000	2.525
17	ST9	U	ICVL		1.0000	0.507
18	ST1	U	ICB		1.0000	-0.007
19	ST1	U	MB		1.0000	-0.027
20	D29	U	LCS		1.0000	2.577
21	D30	U	LCSD		1.0000	2.580
22	A1	U	280-190879-a-26		1.0000	0.004
23	A2	U	280-190879-a-26 MS		1.0000	1.037
24	A3	U	280-190879-a-26 MSD		1.0000	0.962
25	A4	U	280-191371-b-1		1.0000	0.021
26	A5	U	280-191371-d-2		1.0000	-0.009
27	A6	U	280-191371-d-3		1.0000	-0.025
28	A7	U	590-24694-e-1		1.0000	0.035
29	A8	U	280-191377-b-1		1.0000	0.016
30	A9	U	280-191377-b-2		1.0000	0.969
31	A10	U	280-191377-b-3		1.0000	2.954
32	A11	U	280-191377-b-4		1.0000	1.048
33	A12	U	280-191377-b-5		1.0000	0.049
34	WT	WI	WashIgnore		1.0000	-0.023
35	ST6	U	CCV		1.0000	2.480
36	WT	WI	WashIgnore		1.0000	-0.013
37	ST4	U	CCVL		1.0000	0.510
38	ST1	U	CCB		1.0000	-0.004
39	A13	U	280-190838-c-1		1.0000	0.010
40	A14	U	280-190838-c-1 MS		1.0000	0.960

Run Name : Skalar20240514A0
DateTime :May 14 2024 10:31:37AM
User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	NH3 and TKN- Results
41	A15	U	280-190838-c-1 MSD		1.0000	1.078
42	A16	U	280-191377-b-6		2.0000	4.207
43	A17	U	280-191377-b-7		1.0000	0.103
44	A18	U	280-191377-b-8		1.0000	0.554
45	A19	U	280-191377-b-9		1.0000	0.157
46	A20	U	280-191377-b-10		1.0000	0.249
47	A21	U	280-191377-b-11		1.0000	0.645
48	A22	U	280-191377-b-12		1.0000	0.671
49	A23	U	590-24736-a-5		1.0000	1.895
50	A24	U	590-24738-c-1		1.0000	8.277
51	WT	WI	WashIgnore		1.0000	0.024
52	ST6	U	CCV		1.0000	2.494
53	WT	WI	WashIgnore		1.0000	-0.004
54	ST4	U	CCVL		1.0000	0.535
55	ST1	U	CCB		1.0000	0.021
56	ST5	D	Drift		1.0000	1.052
57	WT	W	Wash		1.0000	-0.004
58	ST1	U	MB		1.0000	0.017
59	D29	U	LCS		1.0000	2.486
60	D30	U	LCSD		1.0000	2.511
61	WT	WI	WashIgnore		1.0000	0.007
62	A25	U	280-190933-b-1		1.0000	0.018
63	A26	U	280-190933-b-1 MS		1.0000	1.020
64	A27	U	280-190933-b-1 MSD		1.0000	1.035
65	A28	U	590-24739-c-1		1.0000	1.991
66	A29	U	590-24740-c-1		2.0000	12.966
67	A30	U	590-24741-c-1		1.0000	7.398
68	A31	U	590-24742-e-1		1.0000	8.733
69	A32	U	590-24743-e-1		20.0000	26.060
70	A33	U	280-191116-b-2		1.0000	0.052
71	A34	U	280-191116-b-3		1.0000	0.986
72	A35	U	280-191116-b-5		1.0000	0.186
73	B1	U	280-191116-b-6		1.0000	0.050
74	WT	WI	WashIgnore		1.0000	-0.040
75	ST6	U	CCV		1.0000	2.486
76	WT	WI	WashIgnore		1.0000	0.014
77	ST4	U	CCVL		1.0000	0.531
78	ST1	U	CCB		1.0000	0.019
79	B2	U	280-191116-b-4		1.0000	0.034
80	B3	U	280-191116-b-4 MS		1.0000	0.992

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	Position	SampleType	SampleIdentity	Comments	ExternalDilution	NH3 and TKN- Results
81	B4	U	280-191116-b-4 MSD		1.0000	1.059
82	B5	U	280-191116-b-7		1.0000	1.717
83	B6	U	280-191116-b-8		1.0000	0.956
84	B7	U	280-191116-b-9		1.0000	0.022
85	B8	U	280-190995-a-15		1.0000	1.114
86	B9	U	280-190995-a-26		1.0000	1.346
87	B10	U	280-190995-a-34		1.0000	0.015
88	B11	U	280-191073-a-1		1.0000	11.500
89	B12	U	280-191215-a-1		1.0000	0.236
90	B13	U	280-191215-a-2		1.0000	0.061
91	WT	WI	WashIgnore		1.0000	-0.002
92	ST6	U	CCV		1.0000	2.498
93	WT	WI	WashIgnore		1.0000	0.012
94	ST4	U	CCVL		1.0000	0.531
95	ST1	U	CCB		1.0000	-0.047
96	ST5	D	Drift		1.0000	1.057
97	WT	W	Wash		1.0000	-0.004
98	ST1	U	MB		1.0000	0.009
99	D29	U	LCS		1.0000	2.504
100	D30	U	LCSD		1.0000	2.521
101	WT	WI	WashIgnore		1.0000	0.007
102	B14	U	280-190995-a-6		1.0000	-0.002
103	B15	U	280-190995-a-6 MS		1.0000	1.014
104	B16	U	280-190995-a-6 MSD		1.0000	1.044
105	B17	U	280-191215-a-3		1.0000	0.032
106	B18	U	280-191215-a-4		1.0000	-0.005
107	B19	U	280-191215-a-5		1.0000	-0.014
108	B20	U	280-191215-a-6		1.0000	0.007
109	B21	U	280-191215-a-7		1.0000	0.039
110	B22	U	280-191215-a-8		1.0000	0.030
111	B23	U	280-191215-a-9		1.0000	0.020
112	B24	U	280-191214-a-2		1.0000	-0.013
113	B25	U	280-191214-a-3		1.0000	0.378
114	WT	WI	WashIgnore		1.0000	-0.018
115	ST6	U	CCV		1.0000	2.559
116	WT	WI	WashIgnore		1.0000	-0.033
117	ST4	U	CCVL		1.0000	0.524
118	ST1	U	CCB		1.0000	-0.003
119	B26	U	280-190933-b-2		1.0000	-0.009
120	B27	U	280-190933-b-2 MS		1.0000	1.007

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	Position	SampleType	SampleIdentity	Comments	ExternalDilution	NH3 and TKN- Results
121	B28	U	280-190933-b-2 MSD		1.0000	1.018
122	B29	U	280-191214-a-4		1.0000	0.488
123	B30	U	280-191214-a-6		1.0000	0.008
124	B31	U	280-191098-b-6		1.0000	0.099
125	B32	U	280-191102-a-8		1.0000	-0.017
126	B33	U	280-191102-a-9		1.0000	-0.021
127	B34	U	280-191102-a-10		1.0000	0.072
128	B35	U	280-190933-b-3		1.0000	0.080
129	C1	U	280-190933-b-4		1.0000	0.226
130	C2	U	280-190933-b-6		10.0000	19.910
131	WT	WI	WashIgnore		1.0000	-0.018
132	ST6	U	CCV		1.0000	2.549
133	WT	WI	WashIgnore		1.0000	-0.017
134	ST4	U	CCVL		1.0000	0.513
135	ST1	U	CCB		1.0000	-0.009
136	ST5	D	Drift		1.0000	1.061
137	WT	W	Wash		1.0000	-0.004
138	ST1	U	MB		1.0000	-0.005
139	D29	U	LCS		1.0000	2.529
140	D30	U	LCSD		1.0000	2.542
141	WT	WI	WashIgnore		1.0000	-0.002
142	C3	U	280-190933-e-7		1.0000	0.120
143	C4	U	280-190933-e-7 MS		1.0000	1.130
144	C5	U	280-190933-e-7 MSD		1.0000	1.135
145	C6	U	280-191106-f-1		50.0000	80.725
146	C7	U	280-190982-a-2		1.0000	0.046
147	C8	U	280-190982-a-4		1.0000	0.538
148	C9	U	280-191080-j-1		50.0000	61.521
149	C10	U	280-191102-a-2		1.0000	0.008
150	C11	U	280-191102-a-3		1.0000	-0.003
151	C12	U	280-191102-a-4		1.0000	-0.011
152	C13	U	280-191102-a-5		1.0000	-0.006
153	C14	U	280-191102-a-6		1.0000	-0.014
154	WT	WI	WashIgnore		1.0000	-0.014
155	ST6	U	CCV		1.0000	2.499
156	WT	WI	WashIgnore		1.0000	-0.002
157	ST4	U	CCVL		1.0000	0.511
158	ST1	U	CCB		1.0000	0.012
159	C15	U	280-191102-a-7		1.0000	-0.025
160	C16	U	280-191102-a-7 MS		1.0000	1.032

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	Position	SampleType	SampleIdentity	Comments	ExternalDilution	NH3 and TKN- Results
161	C17	U	280-191102-a-7 MSD		1.0000	1.059
162	C18	U	280-191108-a-2		1.0000	0.029
163	C19	U	280-191159-a-5		1.0000	0.003
164	C20	U	280-191159-a-7		1.0000	-0.010
165	C21	U	280-191159-a-8		1.0000	0.005
166	C22	U	280-190933-b-5		20.0000	29.224
167	C23	U	590-24735-c-1		1.0000	0.740
168	C24	U	280-190981-b-2		20.0000	90.141
169	C25	U	280-190981-b-3		5.0000	6.559
170	A24	U	590-24738-c-1		4.0000	9.518
171	WT	WI	WashIgnore		1.0000	-0.006
172	ST6	U	CCV		1.0000	2.427
173	WT	WI	WashIgnore		1.0000	0.012
174	ST4	U	CCVL		1.0000	0.522
175	ST1	U	CCB		1.0000	0.001
176	ST5	D	Drift		1.0000	1.071
177	WT	W	Wash		1.0000	-0.004
178	A29	U	590-24740-c-1		10.0000	13.994
179	A30	U	590-24741-c-1		4.0000	8.512
180	A31	U	590-24742-e-1		4.0000	10.412
181	B11	U	280-191073-a-1		20.0000	19.856
182	C24	U	280-190981-b-2		40.0000	96.641
183	WT	WI	WashIgnore		1.0000	0.011
184	ST6	U	CCV		1.0000	2.557
185	C9	U	280-191080-j-1		50.0000	63.294
186	ST6	U	CCV		1.0000	2.580
187	WT	WI	WashIgnore		1.0000	0.011
188	ST4	U	CCVL		1.0000	0.529
189	ST1	U	CCB		1.0000	0.018
190	ST5	D	Drift		1.0000	1.035
191	WT	W	Wash		1.0000	-0.004
192	E	E	EndRun		1.0000	-0.004

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	NH3 and TKN-	NH3 and TKN-	NH3 and TKN-
1	0.0000	May 14 2024 10:41:00AM	-0.004
2	0.9016	May 14 2024 10:43:00AM	3.922
3	0.0136	May 14 2024 10:46:00AM	0.055
4	0.2377	May 14 2024 10:48:00AM	1.031
5	0.0000	May 14 2024 10:51:00AM	-0.004
6	-0.0019	May 14 2024 10:54:00AM	-0.012
7	0.0102	May 14 2024 10:55:00AM	0.041
8	0.0217	May 14 2024 10:57:00AM	0.091
9	0.1168	May 14 2024 10:59:00AM	0.505
10	0.2359	May 14 2024 11:01:00AM	1.023
11	0.5810	May 14 2024 11:04:00AM	2.525
12	0.9146	May 14 2024 11:06:00AM	3.978
13	0.0019	May 14 2024 11:08:00AM	0.004
14	0.2333	May 14 2024 11:10:00AM	1.012
15	0.0000	May 14 2024 11:12:00AM	-0.004
16	0.5808	May 14 2024 11:14:00AM	2.525
17	0.1173	May 14 2024 11:17:00AM	0.507
18	-0.0008	May 14 2024 11:19:00AM	-0.007
19	-0.0052	May 14 2024 11:21:00AM	-0.027
20	0.5929	May 14 2024 11:23:00AM	2.577
21	0.5935	May 14 2024 11:25:00AM	2.580
22	0.0019	May 14 2024 11:27:00AM	0.004
23	0.2392	May 14 2024 11:30:00AM	1.037
24	0.2220	May 14 2024 11:32:00AM	0.962
25	0.0058	May 14 2024 11:34:00AM	0.021
26	-0.0011	May 14 2024 11:36:00AM	-0.009
27	-0.0047	May 14 2024 11:38:00AM	-0.025
28	0.0089	May 14 2024 11:40:00AM	0.035
29	0.0046	May 14 2024 11:43:00AM	0.016
30	0.2235	May 14 2024 11:45:00AM	0.969
31	0.6793	May 14 2024 11:47:00AM	2.954
32	0.2416	May 14 2024 11:49:00AM	1.048
33	0.0121	May 14 2024 11:51:00AM	0.049
34	-0.0043	May 14 2024 11:53:00AM	-0.023
35	0.5705	May 14 2024 11:55:00AM	2.480
36	-0.0021	May 14 2024 11:58:00AM	-0.013
37	0.1181	May 14 2024 12:00:00PM	0.510
38	0.0000	May 14 2024 12:02:00PM	-0.004
39	0.0032	May 14 2024 12:04:00PM	0.010
40	0.2215	May 14 2024 12:06:00PM	0.960

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	NH3 and TKN-	NH3 and TKN-	NH3 and TKN-
41	0.2486	May 14 2024 12:09:00PM	1.078
42	0.4841	May 14 2024 12:11:00PM	2.104
43	0.0245	May 14 2024 12:13:00PM	0.103
44	0.1282	May 14 2024 12:15:00PM	0.554
45	0.0370	May 14 2024 12:17:00PM	0.157
46	0.0580	May 14 2024 12:19:00PM	0.249
47	0.1490	May 14 2024 12:22:00PM	0.645
48	0.1551	May 14 2024 12:24:00PM	0.671
49	0.4361	May 14 2024 12:26:00PM	1.895
50	1.9020	May 14 2024 12:28:00PM	8.277
51	0.0064	May 14 2024 12:30:00PM	0.024
52	0.5737	May 14 2024 12:32:00PM	2.494
53	-0.0001	May 14 2024 12:35:00PM	-0.004
54	0.1239	May 14 2024 12:37:00PM	0.535
55	0.0057	May 14 2024 12:39:00PM	0.021
56	0.2426	May 14 2024 12:41:00PM	1.052
57	0.0000	May 14 2024 12:43:00PM	-0.004
58	0.0049	May 14 2024 12:45:00PM	0.017
59	0.5719	May 14 2024 12:47:00PM	2.486
60	0.5776	May 14 2024 12:50:00PM	2.511
61	0.0026	May 14 2024 12:52:00PM	0.007
62	0.0050	May 14 2024 12:54:00PM	0.018
63	0.2352	May 14 2024 12:56:00PM	1.020
64	0.2387	May 14 2024 12:58:00PM	1.035
65	0.4583	May 14 2024 1:01:00PM	1.991
66	1.4899	May 14 2024 1:03:00PM	6.483
67	1.6999	May 14 2024 1:05:00PM	7.398
68	2.0067	May 14 2024 1:07:00PM	8.733
69	0.3002	May 14 2024 1:09:00PM	1.303
70	0.0129	May 14 2024 1:11:00PM	0.052
71	0.2273	May 14 2024 1:14:00PM	0.986
72	0.0436	May 14 2024 1:16:00PM	0.186
73	0.0124	May 14 2024 1:18:00PM	0.050
74	-0.0083	May 14 2024 1:20:00PM	-0.040
75	0.5718	May 14 2024 1:22:00PM	2.486
76	0.0042	May 14 2024 1:24:00PM	0.014
77	0.1229	May 14 2024 1:27:00PM	0.531
78	0.0054	May 14 2024 1:29:00PM	0.019
79	0.0088	May 14 2024 1:31:00PM	0.034
80	0.2287	May 14 2024 1:33:00PM	0.992

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	NH3 and TKN-	NH3 and TKN-	NH3 and TKN-
81	0.2441	May 14 2024 1:35:00PM	1.059
82	0.3953	May 14 2024 1:37:00PM	1.717
83	0.2205	May 14 2024 1:40:00PM	0.956
84	0.0059	May 14 2024 1:42:00PM	0.022
85	0.2567	May 14 2024 1:44:00PM	1.114
86	0.3102	May 14 2024 1:46:00PM	1.346
87	0.0044	May 14 2024 1:48:00PM	0.015
88	2.6422	May 14 2024 1:50:00PM	11.500
89	0.0552	May 14 2024 1:53:00PM	0.236
90	0.0150	May 14 2024 1:55:00PM	0.061
91	0.0005	May 14 2024 1:57:00PM	-0.002
92	0.5746	May 14 2024 1:59:00PM	2.498
93	0.0038	May 14 2024 2:01:00PM	0.012
94	0.1230	May 14 2024 2:03:00PM	0.531
95	-0.0098	May 14 2024 2:06:00PM	-0.047
96	0.2436	May 14 2024 2:08:00PM	1.057
97	0.0000	May 14 2024 2:10:00PM	-0.004
98	0.0031	May 14 2024 2:13:00PM	0.009
99	0.5761	May 14 2024 2:14:00PM	2.504
100	0.5800	May 14 2024 2:16:00PM	2.521
101	0.0025	May 14 2024 2:19:00PM	0.007
102	0.0006	May 14 2024 2:21:00PM	-0.002
103	0.2337	May 14 2024 2:23:00PM	1.014
104	0.2407	May 14 2024 2:25:00PM	1.044
105	0.0082	May 14 2024 2:27:00PM	0.032
106	-0.0001	May 14 2024 2:29:00PM	-0.005
107	-0.0022	May 14 2024 2:32:00PM	-0.014
108	0.0026	May 14 2024 2:34:00PM	0.007
109	0.0099	May 14 2024 2:36:00PM	0.039
110	0.0079	May 14 2024 2:38:00PM	0.030
111	0.0055	May 14 2024 2:40:00PM	0.020
112	-0.0019	May 14 2024 2:43:00PM	-0.013
113	0.0877	May 14 2024 2:45:00PM	0.378
114	-0.0031	May 14 2024 2:47:00PM	-0.018
115	0.5888	May 14 2024 2:49:00PM	2.559
116	-0.0066	May 14 2024 2:51:00PM	-0.033
117	0.1213	May 14 2024 2:53:00PM	0.524
118	0.0003	May 14 2024 2:56:00PM	-0.003
119	-0.0011	May 14 2024 2:58:00PM	-0.009
120	0.2321	May 14 2024 3:00:00PM	1.007

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	NH3 and TKN-	NH3 and TKN-	NH3 and TKN-
121	0.2348	May 14 2024 3:02:00PM	1.018
122	0.1129	May 14 2024 3:04:00PM	0.488
123	0.0028	May 14 2024 3:06:00PM	0.008
124	0.0237	May 14 2024 3:08:00PM	0.099
125	-0.0030	May 14 2024 3:11:00PM	-0.017
126	-0.0039	May 14 2024 3:13:00PM	-0.021
127	0.0174	May 14 2024 3:15:00PM	0.072
128	0.0193	May 14 2024 3:17:00PM	0.080
129	0.0529	May 14 2024 3:19:00PM	0.226
130	0.4582	May 14 2024 3:22:00PM	1.991
131	-0.0031	May 14 2024 3:24:00PM	-0.018
132	0.5865	May 14 2024 3:26:00PM	2.549
133	-0.0030	May 14 2024 3:28:00PM	-0.017
134	0.1187	May 14 2024 3:30:00PM	0.513
135	-0.0010	May 14 2024 3:32:00PM	-0.009
136	0.2447	May 14 2024 3:35:00PM	1.061
137	0.0000	May 14 2024 3:37:00PM	-0.004
138	-0.0003	May 14 2024 3:39:00PM	-0.005
139	0.5818	May 14 2024 3:41:00PM	2.529
140	0.5848	May 14 2024 3:43:00PM	2.542
141	0.0006	May 14 2024 3:45:00PM	-0.002
142	0.0285	May 14 2024 3:47:00PM	0.120
143	0.2604	May 14 2024 3:50:00PM	1.130
144	0.2616	May 14 2024 3:52:00PM	1.135
145	0.3717	May 14 2024 3:54:00PM	1.614
146	0.0115	May 14 2024 3:56:00PM	0.046
147	0.1245	May 14 2024 3:58:00PM	0.538
148	0.2835	May 14 2024 4:01:00PM	1.230
149	0.0027	May 14 2024 4:03:00PM	0.008
150	0.0004	May 14 2024 4:05:00PM	-0.003
151	-0.0015	May 14 2024 4:07:00PM	-0.011
152	-0.0003	May 14 2024 4:10:00PM	-0.006
153	-0.0023	May 14 2024 4:12:00PM	-0.014
154	-0.0023	May 14 2024 4:15:00PM	-0.014
155	0.5749	May 14 2024 4:17:00PM	2.499
156	0.0004	May 14 2024 4:19:00PM	-0.002
157	0.1184	May 14 2024 4:21:00PM	0.511
158	0.0036	May 14 2024 4:23:00PM	0.012
159	-0.0048	May 14 2024 4:25:00PM	-0.025
160	0.2379	May 14 2024 4:27:00PM	1.032

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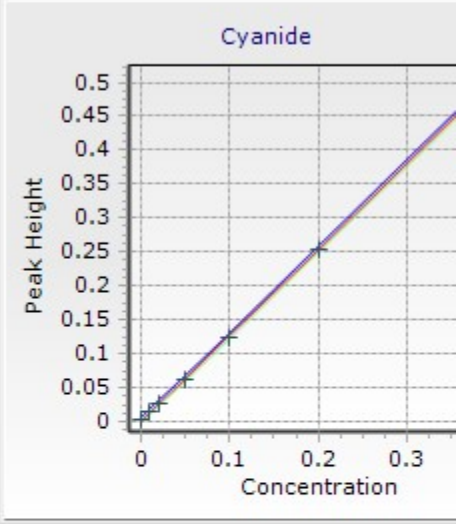
	NH3 and TKN-	NH3 and TKN-	NH3 and TKN-
161	0.2441	May 14 2024 4:29:00PM	1.059
162	0.0077	May 14 2024 4:32:00PM	0.029
163	0.0017	May 14 2024 4:34:00PM	0.003
164	-0.0013	May 14 2024 4:36:00PM	-0.010
165	0.0020	May 14 2024 4:38:00PM	0.005
166	0.3365	May 14 2024 4:41:00PM	1.461
167	0.1708	May 14 2024 4:43:00PM	0.740
168	1.0361	May 14 2024 4:46:00PM	4.507
169	0.3022	May 14 2024 4:48:00PM	1.312
170	0.5475	May 14 2024 4:50:00PM	2.380
171	-0.0004	May 14 2024 4:52:00PM	-0.006
172	0.5583	May 14 2024 4:54:00PM	2.427
173	0.0037	May 14 2024 4:57:00PM	0.012
174	0.1208	May 14 2024 4:59:00PM	0.522
175	0.0013	May 14 2024 5:01:00PM	0.001
176	0.2468	May 14 2024 5:03:00PM	1.071
177	0.0000	May 14 2024 5:05:00PM	-0.004
178	0.3223	May 14 2024 5:07:00PM	1.399
179	0.4897	May 14 2024 5:10:00PM	2.128
180	0.5988	May 14 2024 5:12:00PM	2.603
181	0.2290	May 14 2024 5:14:00PM	0.993
182	0.5558	May 14 2024 5:16:00PM	2.416
183	0.0035	May 14 2024 5:18:00PM	0.011
184	0.5883	May 14 2024 5:21:00PM	2.557
185	0.2917	May 14 2024 5:23:00PM	1.266
186	0.5936	May 14 2024 5:25:00PM	2.580
187	0.0035	May 14 2024 5:27:00PM	0.011
188	0.1224	May 14 2024 5:29:00PM	0.529
189	0.0050	May 14 2024 5:31:00PM	0.018
190	0.2387	May 14 2024 5:33:00PM	1.035
191	0.0000	May 14 2024 5:35:00PM	-0.004
192	0.0000	May 14 2024 5:38:00PM	-0.004

Select/deselect Standards

	SerialNumber	Cup position	Sample Type	Identity	Concentration	Corrected Height	Result	Use this	Y Residuals	Relative Error(%)
1	5	ST1	S1	0 mg/L	0.0000	0.0015	0.0019	☑		
2	6	ST2	S2	0.01	0.0100	0.0125	0.0105	☑	5%	4.9%
3	7	ST3	S3	0.02	0.0200	0.0248	0.0201	☑	0.71%	0.69%
4	8	ST4	S4	0.05	0.0500	0.0616	0.0489	☑	-2.19%	-2.12%
5	9	ST5	S5	0.1	0.1000	0.1244	0.0982	☑	-1.87%	-1.82%
6	10	ST6	S6	0.2	0.2000	0.2538	0.1996	☑	-0.19%	-0.19%
7	11	ST7	S7	0.4	0.4000	0.5104	0.4008	☑	0.19%	0.19%



Method Name	CN	a	-0.00088784	R Squared	0.99992924
Module Name	Cyanide	b	1.27578958	Constant Sx0	0.00133584
Calibration Order	I Order ISO 8466	c		Constant Vx0	1.19882667
Residual Std. Dev. (Sy)	0.00170424492360	d			
		Correlation Coefficient	0.99996462		

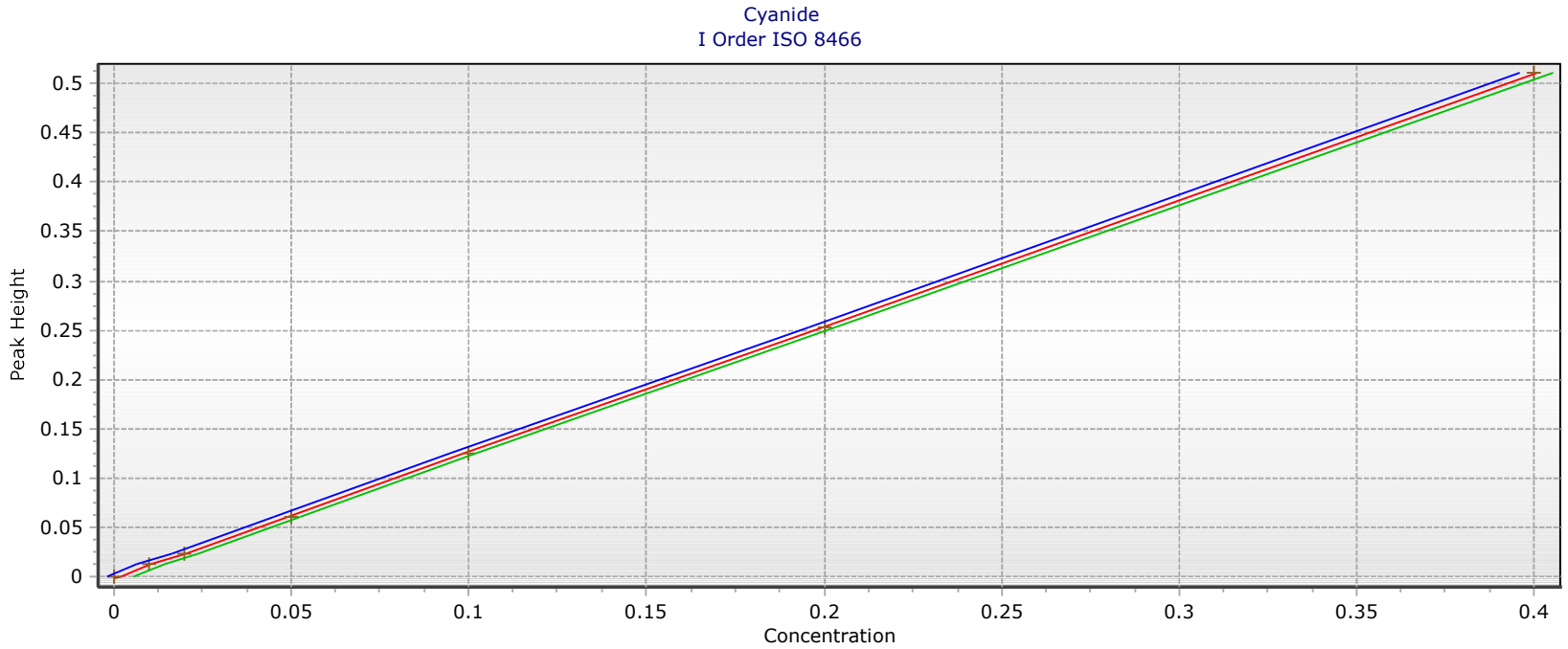
Calibration Order I Order ISO 8466 ⌄

Save Close

0.4

FlowAccessV3

Date:May 8 2024 2:23:11PM

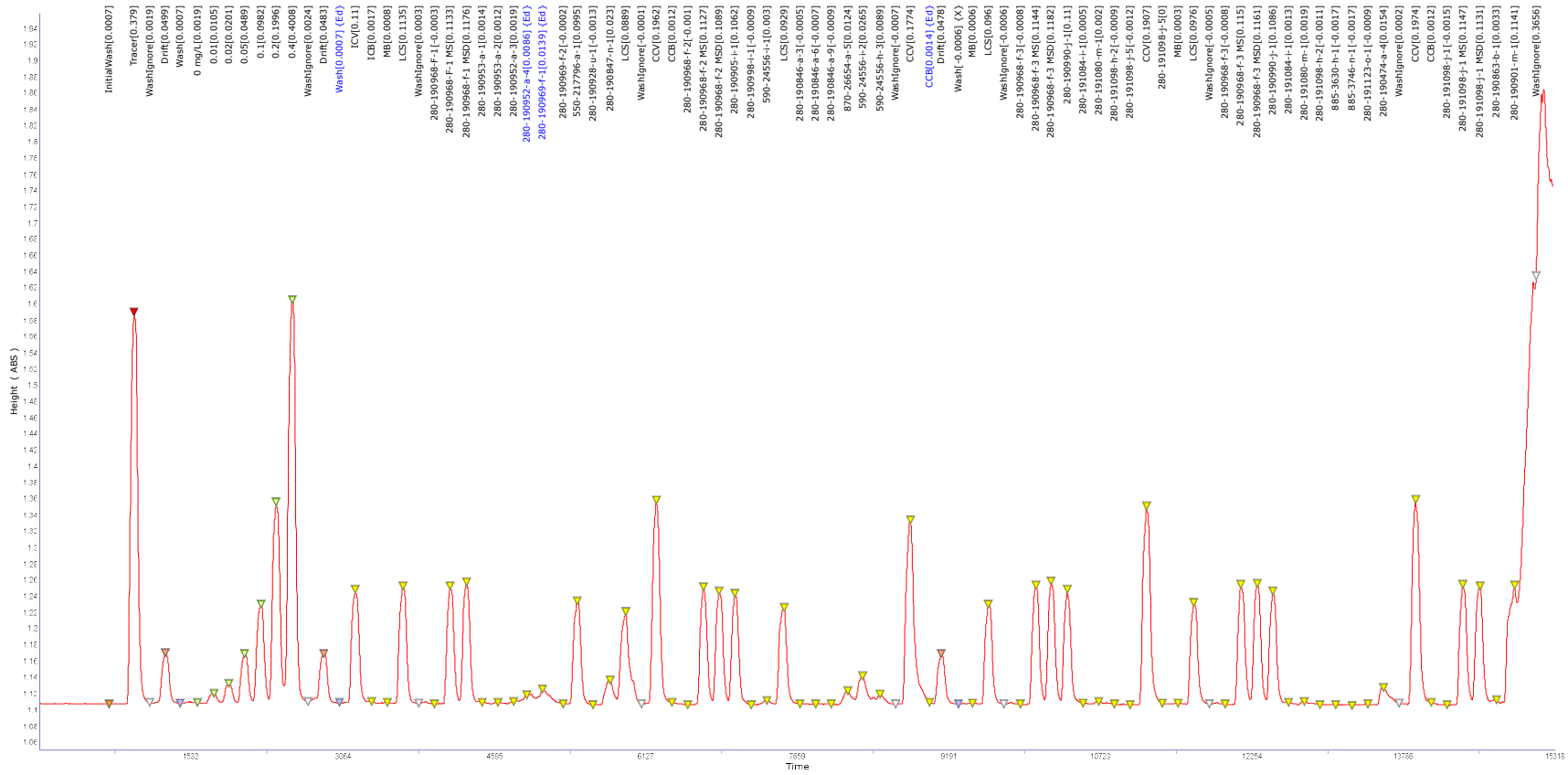


a = -0.00088783683452 b = 1.27578958367701 RSD = 0.00170424492360

r = 0.99996462006821 R2 = 0.99992924138816

Run Name : 05082024, Run Database Ref : Skalar20240508A0

User Name : Administrator Operator Name : Administrator


InitialWash[0.0007]
Tracer[0.379]
WashIgnore[0.0019]
Drift[0.0499]
Wash[0.0007]
0 mg/L[0.0019]
0.01[0.0105]
0.02[0.0201]
0.05[0.0489]
0.1[0.0982]
0.2[0.1996]
0.4[0.4008]
WashIgnore[0.0024]
Drift[0.0483]
Wash[0.00072] {Ed}
ICV[0.11]
ICB[0.0017]
MB[0.0008]
LCS[0.1135]
WashIgnore[0.0003]
280-190968-F-1-[-0.0003]
280-190968-F-1 MS[0.1133]
280-190968-F-1 MSD[0.1176]
280-190953-a-1[0.0014]
280-190953-a-2[0.0012]
280-190952-a-3[0.0019]
280-190952-a-4[0.0086] {Ed}
280-190969-f-1[0.0139] {Ed}
280-190969-f-2[-0.0002]
550-217796-a-1[0.0995]
280-190928-u-1[-0.0013]
280-190847-n-1[0.023]
LCS[0.0889]
WashIgnore[-0.0001]
CCV[0.1962]
CCB[0.0012]
280-190968-f-2[-0.001]
280-190968-f-2 MS[0.1127]
280-190968-f-2 MSD[0.1089]
280-190905-i-1[0.1062]
280-190998-i-1[-0.0009]
590-24556-i-1[0.003]
LCS[0.0929]
280-190846-a-3[-0.0005]
280-190846-a-6[-0.0007]
280-190846-a-9[-0.0009]
870-26654-a-5[0.0124]
590-24556-i-2[0.0265]
590-24556-h-3[0.0089]
WashIgnore[-0.0007]
CCV[0.1774]
CCB[0.00141] {Ed}
Drift[0.0478]
Wash[-0.0006] {X}
MB[0.0006]
LCS[0.096]
WashIgnore[-0.0006]
280-190968-f-3[-0.0008]
280-190968-F-3 MS[0.1144]
280-190968-F-3 MSD[0.1182]
280-190990-j-1[0.11]
280-191084-i-1[0.0005]
280-191080-m-1[0.002]
280-191098-h-2[-0.0009]
280-191098-j-5[-0.0012]
CCV[0.1907]
280-191098-j-5[0]
MB[0.0003]
LCS[0.0976]
WashIgnore[-0.0005]
280-190968-f-3[-0.0008]
280-190968-F-3 MS[0.115]
280-190968-F-3 MSD[0.1161]
280-190990-j-1[0.1086]
280-191084-i-1[0.0013]
280-191080-m-1[0.0019]
280-191098-h-2[-0.0011]
885-3630-h-1[-0.0017]
885-3746-n-1[-0.0017]
280-191123-o-1[-0.0009]
280-190474-a-4[0.0154]
WashIgnore[0.0002]
CCV[0.1974]
CCB[0.0012]
280-191098-j-1[-0.0015]
280-191098-j-1 MS[0.1147]
280-191098-j-1 MSD[0.1131]
280-190863-b-1[0.0033]
280-190901-m-1[0.1141]
WashIgnore[0.3656]
Height (ABS)
Time
1532
3064
4595
6127
7659
9191
10723
12254
13786
15318
Cyanide
FlowAccess V3 : Date :05/08/2024 02:24 PM
Run Name : 05082024, Run Database Reference Name : Skalar20240508A0
User Name : Administrator Operator Name : Administrator

FlowAccessV3 Results Report

Run Name : 05082024, Run Database Ref : Skalar20240508A0
DateTime :May 8 2024 10:05:00AM
User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	Cyanide- Results[mg
1	IW	IW	InitialWash		1.0000	0.0007
2	ST7	T	Tracer		1.0000	0.3790
3	WT	WI	WashIgnore		1.0000	0.0019
4	ST4	D	Drift		1.0000	0.0499
5	WT	W	Wash		1.0000	0.0007
6	ST1	S1	0 mg/L		1.0000	0.0019
7	ST2	S2	0.01		1.0000	0.0105
8	ST3	S3	0.02		1.0000	0.0201
9	ST4	S4	0.05		1.0000	0.0489
10	ST5	S5	0.1		1.0000	0.0982
11	ST6	S6	0.2		1.0000	0.1996
12	ST7	S7	0.4		1.0000	0.4008
13	WT	WI	WashIgnore		1.0000	0.0024
14	ST4	D	Drift		1.0000	0.0483
15	WT	W	Wash		1.0000	0.0007
16	ST8	U	ICV		1.0000	0.1100
17	ST1	U	ICB		1.0000	0.0017
18	ST1	U	MB		1.0000	0.0008
19	D29	U	LCS		1.0000	0.1135
20	WT	WI	WashIgnore		1.0000	0.0003
21	A1	U	280-190968-F-1		1.0000	-0.0003
22	A2	U	280-190968-F-1 MS		1.0000	0.1133
23	A3	U	280-190968-f-1 MSD		1.0000	0.1176
24	A4	U	280-190953-a-1		1.0000	0.0014
25	A5	U	280-190953-a-2		1.0000	0.0012
26	A6	U	280-190952-a-3		1.0000	0.0019
27	A7	U	280-190952-a-4		1.0000	0.0086
28	A8	U	280-190969-f-1		1.0000	0.0139
29	A9	U	280-190969-f-2		1.0000	-0.0002
30	A10	U	550-217796-a-1		1.0000	0.0995
31	A11	U	280-190928-u-1		1.0000	-0.0013
32	A12	U	280-190847-n-1		1.0000	0.0230
33	D29	U	LCS		1.0000	0.0889
34	WT	WI	WashIgnore		1.0000	-0.0001
35	ST6	U	CCV		1.0000	0.1962
36	ST1	U	CCB		1.0000	0.0012
37	A13	U	280-190968-f-2		1.0000	-0.0010
38	A14	U	280-190968-f-2 MS		1.0000	0.1127
39	A15	U	280-190968-f-2 MSD		1.0000	0.1089
40	A16	U	280-190905-i-1		1.0000	0.1062

Run Name : 05082024, Run Database Ref : Skalar20240508A0
DateTime :May 8 2024 10:05:00AM
User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	Cyanide- Results[mg
41	A17	U	280-190998-i-1		1.0000	-0.0009
42	A18	U	590-24556-i-1		1.0000	0.0030
43	D29	U	LCS		1.0000	0.0929
44	A19	U	280-190846-a-3		1.0000	-0.0005
45	A20	U	280-190846-a-6		1.0000	-0.0007
46	A21	U	280-190846-a-9		1.0000	-0.0009
47	A22	U	870-26654-a-5		1.0000	0.0124
48	A23	U	590-24556-i-2		1.0000	0.0265
49	A24	U	590-24556-h-3		1.0000	0.0089
50	WT	WI	WashIgnore		1.0000	-0.0007
51	ST6	U	CCV		1.0000	0.1774
52	ST1	U	CCB		1.0000	0.0014
53	ST4	D	Drift		1.0000	0.0478
54	WT	W	Wash		1.0000	-0.0006
55	ST1	U	MB		1.0000	0.0006
56	D29	U	LCS		1.0000	0.0960
57	WT	WI	WashIgnore		1.0000	-0.0006
58	A25	U	280-190968-f-3		1.0000	-0.0008
59	A26	U	280-190968-f-3 MS		1.0000	0.1144
60	A27	U	280-190968-f-3 MSD		1.0000	0.1182
61	A28	U	280-190990-j-1		1.0000	0.1100
62	A29	U	280-191084-i-1		1.0000	0.0005
63	A30	U	280-191080-m-1		1.0000	0.0020
64	A31	U	280-191098-h-2		1.0000	-0.0009
65	A32	U	280-191098-j-5		1.0000	-0.0012
66	ST6	U	CCV		1.0000	0.1907
67	A32	U	280-191098-j-5		1.0000	0.0000
68	ST1	U	MB		1.0000	0.0003
69	D29	U	LCS		1.0000	0.0976
70	WT	WI	WashIgnore		1.0000	-0.0005
71	A25	U	280-190968-f-3		1.0000	-0.0008
72	A26	U	280-190968-f-3 MS		1.0000	0.1150
73	A27	U	280-190968-f-3 MSD		1.0000	0.1161
74	A28	U	280-190990-j-1		1.0000	0.1086
75	A29	U	280-191084-i-1		1.0000	0.0013
76	A30	U	280-191080-m-1		1.0000	0.0019
77	A31	U	280-191098-h-2		1.0000	-0.0011
78	A33	U	885-3630-h-1		1.0000	-0.0017
79	A34	U	885-3746-n-1		1.0000	-0.0017
80	A35	U	280-191123-o-1		1.0000	-0.0009

Run Name : 05082024, Run Database Ref : Skalar20240508A0
DateTime :May 8 2024 10:05:00AM
User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	Cyanide- Results[mg
81	B1	U	280-190474-a-4		1.0000	0.0154
82	WT	WI	WashIgnore		1.0000	0.0002
83	ST6	U	CCV		1.0000	0.1974
84	ST1	U	CCB		1.0000	0.0012
85	B2	U	280-191098-j-1		1.0000	-0.0015
86	B3	U	280-191098-j-1 MS		1.0000	0.1147
87	B4	U	280-191098-j-1 MSD		1.0000	0.1131
88	B5	U	280-190863-b-1		1.0000	0.0033
89	B6	U	280-190901-m-1		1.0000	0.1141
90	WT	WI	WashIgnore		1.0000	0.3656

Run Name : 05082024, Run Database Ref : Skalar20240508A0
DateTime :May 8 2024 10:05:00AM
User Name : Administrator Operator Name : Administrator

	Cyanide-	Cyanide-	Cyanide- RawResults
1	0.0000	May 8 2024 10:16:00AM	0.0007
2	0.4826	May 8 2024 10:21:00AM	0.3790
3	0.0016	May 8 2024 10:25:00AM	0.0019
4	0.0627	May 8 2024 10:27:00AM	0.0499
5	0.0000	May 8 2024 10:30:00AM	0.0007
6	0.0015	May 8 2024 10:32:00AM	0.0019
7	0.0125	May 8 2024 10:35:00AM	0.0105
8	0.0248	May 8 2024 10:38:00AM	0.0201
9	0.0616	May 8 2024 10:41:00AM	0.0489
10	0.1244	May 8 2024 10:43:00AM	0.0982
11	0.2538	May 8 2024 10:46:00AM	0.1996
12	0.5104	May 8 2024 10:49:00AM	0.4008
13	0.0022	May 8 2024 10:51:00AM	0.0024
14	0.0607	May 8 2024 10:54:00AM	0.0483
15	0.0000	May 8 2024 10:56:00AM	0.0007
16	0.1395	May 8 2024 11:00:00AM	0.1100
17	0.0012	May 8 2024 11:02:00AM	0.0017
18	0.0001	May 8 2024 11:05:00AM	0.0008
19	0.1439	May 8 2024 11:07:00AM	0.1135
20	-0.0005	May 8 2024 11:10:00AM	0.0003
21	-0.0013	May 8 2024 11:13:00AM	-0.0003
22	0.1437	May 8 2024 11:15:00AM	0.1133
23	0.1491	May 8 2024 11:18:00AM	0.1176
24	0.0009	May 8 2024 11:21:00AM	0.0014
25	0.0007	May 8 2024 11:23:00AM	0.0012
26	0.0015	May 8 2024 11:26:00AM	0.0019
27	0.0101	May 8 2024 11:29:00AM	0.0086
28	0.0168	May 8 2024 11:31:00AM	0.0139
29	-0.0011	May 8 2024 11:34:00AM	-0.0002
30	0.1260	May 8 2024 11:37:00AM	0.0995
31	-0.0025	May 8 2024 11:39:00AM	-0.0013
32	0.0284	May 8 2024 11:42:00AM	0.0230
33	0.1126	May 8 2024 11:45:00AM	0.0889
34	-0.0011	May 8 2024 11:48:00AM	-0.0001
35	0.2495	May 8 2024 11:50:00AM	0.1962
36	0.0006	May 8 2024 11:53:00AM	0.0012
37	-0.0022	May 8 2024 11:55:00AM	-0.0010
38	0.1429	May 8 2024 11:58:00AM	0.1127
39	0.1380	May 8 2024 12:01:00PM	0.1089
40	0.1346	May 8 2024 12:03:00PM	0.1062

Run Name : 05082024, Run Database Ref : Skalar20240508A0
DateTime :May 8 2024 10:05:00AM
User Name : Administrator Operator Name : Administrator

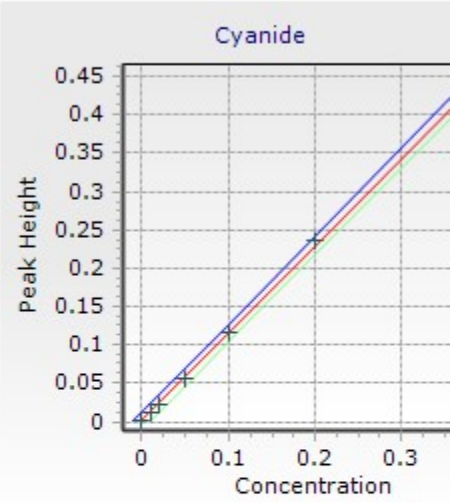
	Cyanide-	Cyanide-	Cyanide- RawResults
41	-0.0021	May 8 2024 12:06:00PM	-0.0009
42	0.0030	May 8 2024 12:09:00PM	0.0030
43	0.1176	May 8 2024 12:11:00PM	0.0929
44	-0.0015	May 8 2024 12:14:00PM	-0.0005
45	-0.0018	May 8 2024 12:17:00PM	-0.0007
46	-0.0020	May 8 2024 12:20:00PM	-0.0009
47	0.0150	May 8 2024 12:22:00PM	0.0124
48	0.0330	May 8 2024 12:25:00PM	0.0265
49	0.0105	May 8 2024 12:27:00PM	0.0089
50	-0.0018	May 8 2024 12:30:00PM	-0.0007
51	0.2255	May 8 2024 12:33:00PM	0.1774
52	0.0010	May 8 2024 12:35:00PM	0.0014
53	0.0601	May 8 2024 12:38:00PM	0.0478
54	-0.0016	May 8 2024 12:41:00PM	-0.0006
55	-0.0001	May 8 2024 12:44:00PM	0.0006
56	0.1216	May 8 2024 12:46:00PM	0.0960
57	-0.0016	May 8 2024 12:49:00PM	-0.0006
58	-0.0019	May 8 2024 12:51:00PM	-0.0008
59	0.1450	May 8 2024 12:54:00PM	0.1144
60	0.1499	May 8 2024 12:57:00PM	0.1182
61	0.1394	May 8 2024 12:59:00PM	0.1100
62	-0.0002	May 8 2024 1:02:00PM	0.0005
63	0.0017	May 8 2024 1:05:00PM	0.0020
64	-0.0020	May 8 2024 1:07:00PM	-0.0009
65	-0.0025	May 8 2024 1:10:00PM	-0.0012
66	0.2424	May 8 2024 1:13:00PM	0.1907
67	-0.0009	May 8 2024 1:15:00PM	0.0000
68	-0.0005	May 8 2024 1:18:00PM	0.0003
69	0.1236	May 8 2024 1:21:00PM	0.0976
70	-0.0015	May 8 2024 1:23:00PM	-0.0005
71	-0.0019	May 8 2024 1:26:00PM	-0.0008
72	0.1458	May 8 2024 1:29:00PM	0.1150
73	0.1473	May 8 2024 1:31:00PM	0.1161
74	0.1377	May 8 2024 1:34:00PM	0.1086
75	0.0007	May 8 2024 1:37:00PM	0.0013
76	0.0015	May 8 2024 1:39:00PM	0.0019
77	-0.0022	May 8 2024 1:42:00PM	-0.0011
78	-0.0030	May 8 2024 1:44:00PM	-0.0017
79	-0.0031	May 8 2024 1:47:00PM	-0.0017
80	-0.0020	May 8 2024 1:50:00PM	-0.0009

Run Name : 05082024, Run Database Ref : Skalar20240508A0
DateTime :May 8 2024 10:05:00AM
User Name : Administrator Operator Name : Administrator

	Cyanide-	Cyanide-	Cyanide- RawResults
81	0.0188	May 8 2024 1:53:00PM	0.0154
82	-0.0006	May 8 2024 1:55:00PM	0.0002
83	0.2509	May 8 2024 1:58:00PM	0.1974
84	0.0006	May 8 2024 2:01:00PM	0.0012
85	-0.0028	May 8 2024 2:03:00PM	-0.0015
86	0.1455	May 8 2024 2:06:00PM	0.1147
87	0.1435	May 8 2024 2:09:00PM	0.1131
88	0.0033	May 8 2024 2:12:00PM	0.0033
89	0.1447	May 8 2024 2:14:00PM	0.1141
90	0.4655	May 8 2024 2:17:00PM	0.3656

Select/deselect Standards

	SerialNumber	Cup position	Sample Type	Identity	Concentration	Corrected Height	Result	Use this	Y Residuals	Relative Error(%)
1	5	ST1	S1	0 mg/L	0.0000	0.0013	-0.0001	☑		
2	6	ST2	S2	0.01	0.0100	0.0119	0.0092	☑	-7.62%	-7.95%
3	7	ST3	S3	0.02	0.0200	0.0219	0.0180	☑	-10.3%	-9.91%
4	8	ST4	S4	0.05	0.0500	0.0562	0.0482	☑	-3.64%	-3.59%
5	9	ST5	S5	0.1	0.1000	0.1167	0.1013	☑	1.31%	1.34%
6	10	ST6	S6	0.2	0.2000	0.2365	0.2066	☑	3.17%	3.3%
7	11	ST7	S7	0.4	0.4000	0.5014	0.4394	☐		
8	25	ST2	S2	0.01	0.0100	0.0101	0.0077	☐		
9	31	ST7	S7	0.4	0.4000	0.4528	0.3967	☑	-0.83%	-0.82%



Method Name	CN	a	0.00139251	R Squared	0.99949384
Module Name	Cyanide	b	1.13793424	Constant Sx0	0.00357356
Calibration Order	I Order ISO 8466	c		Constant Vx0	3.20703847
Residual Std. Dev. (Sy)	0.00406647305034	d			
		Correlation Coefficient	0.99974689		

Calibration Order I Order ISO 8466

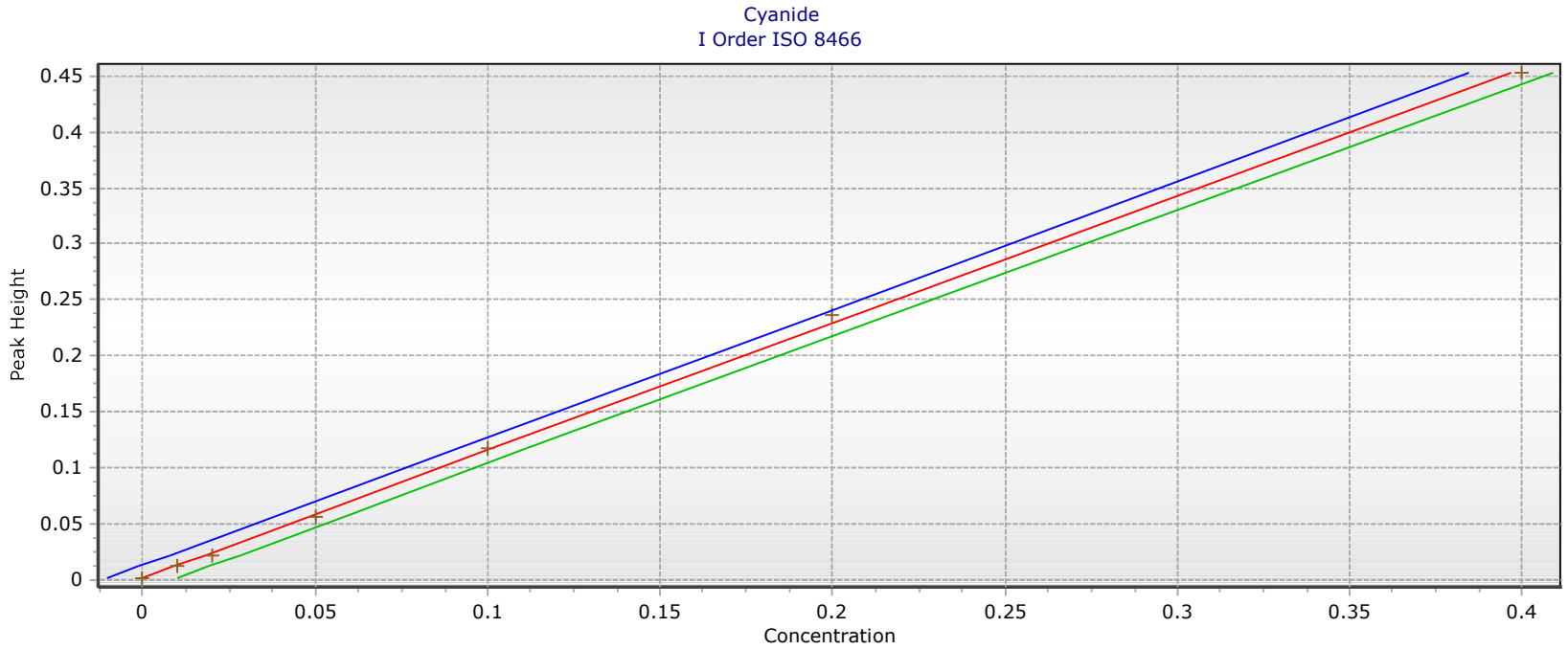
Save Close

5/23/2024
4:40:30 AM

0.4

FlowAccessV3

Date:May 10 2024 4:57:11PM

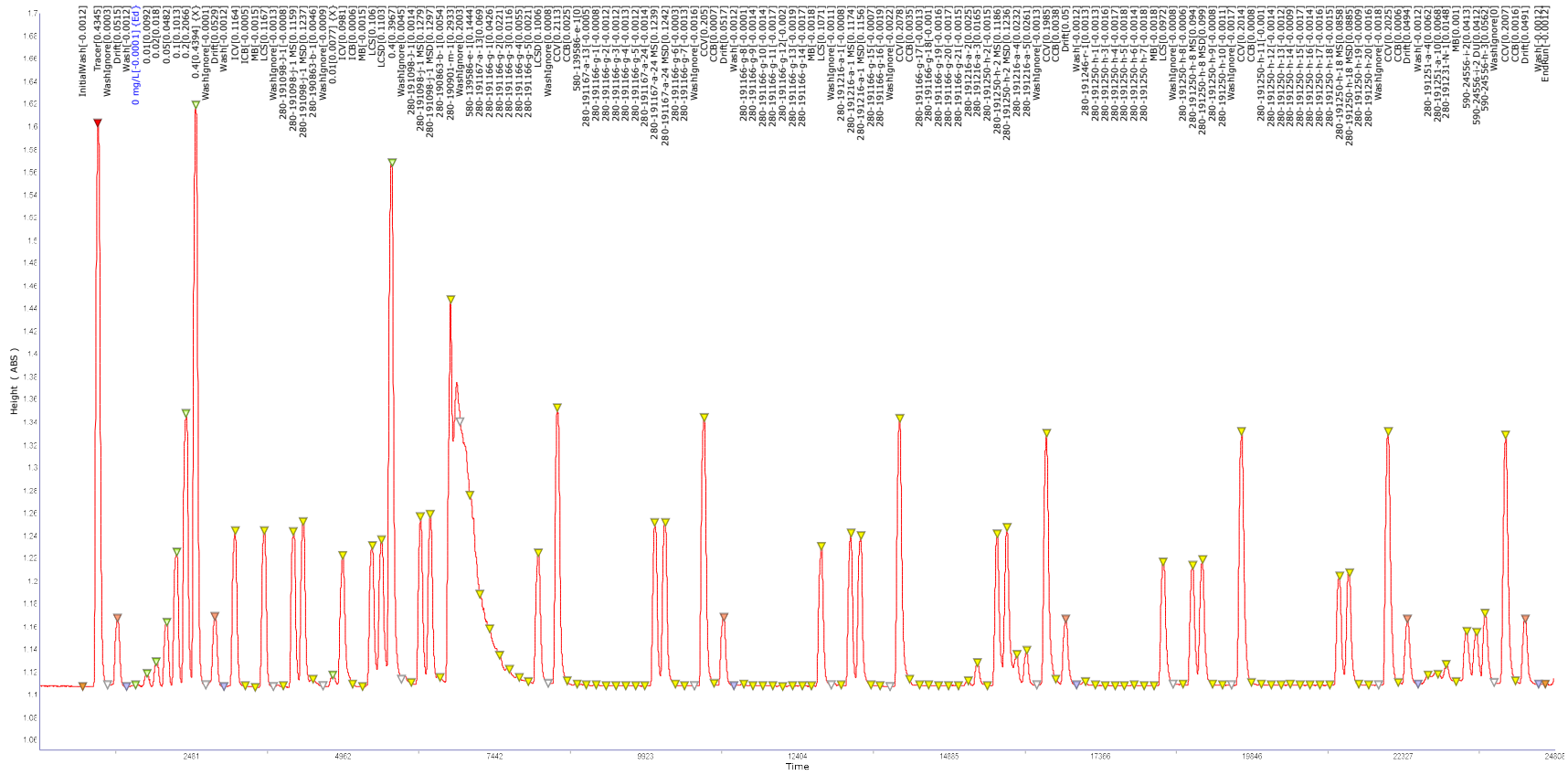


a = 0.00139251376014 b = 1.13793424065294 RSD = 0.00406647305034

r = 0.99974688919798 R2 = 0.99949384246104

Run Name : Cyanide051012024, Run Database Ref : Skalar20240510A0

User Name : Administrator Operator Name : Administrator


InitialWash[-0.0012]
Tracer[0.4345]
WashIgnore[0.0003]
Drift[0.0515]
Wash[-0.0011]
0 mg/L[-0.0001] (Cal)
0.01[0.0092]
0.02[0.018]
0.05[0.0482]
0.1[0.1063]
0.2[0.2066]
0.4[0.4394] (X)
WashIgnore[-0.0001]
Drift[0.0012]
Wash[-0.0029]
ICV[0.1164]
ICB[-0.0005]
MB[-0.0015]
LCS[0.1157]
WashIgnore[-0.0013]
280-191098-J-1[-0.0008]
280-191098-J-1 MS[0.1159]
280-191098-J-1 MSD[0.1127]
280-190863-b-1[0.0046]
WashIgnore[-0.0009]
0.01[0.0077] (X)
ICV[0.0986]
ICB[-0.0006]
MB[-0.0015]
LCS[0.106]
LCSD[0.1103]
0.4[0.4067]
WashIgnore[0.0045]
280-191098-J-1[0.0014]
280-191098-J-1 MS[0.1297]
280-191098-J-1 MSD[0.0954]
280-190863-b-1[0.0054]
280-190901-m-1[0.2933]
WashIgnore[0.2003]
580-139586-e-1[0.0454]
280-191167-e-1[0.069]
280-191166-g-1[0.0426]
280-191166-g-2[0.0221]
280-191166-g-3[0.0116]
280-191166-g-4[0.0115]
280-191166-g-5[0.0021]
LCSD[0.1006]
WashIgnore[0.0008]
CCV[0.1123]
CCB[0.0025]
580-139586-e-1[0]
280-191167-a-1[-0.0005]
280-191166-g-1[-0.0008]
280-191166-g-2[-0.0012]
280-191166-g-3[-0.0012]
280-191166-g-4[-0.0013]
280-191166-g-5[-0.0012]
280-191167-a-2[-0.0014]
280-191167-a-24 MS[0.1242]
280-191167-a-24 MSD[0.1239]
280-191166-g-6[-0.0013]
280-191166-g-7[-0.0013]
WashIgnore[-0.0016]
CCV[0.205]
CCB[0.0037]
Drift[0.0077]
Wash[-0.0012]
280-191166-g-8[-0.0001]
280-191166-g-9[-0.0014]
280-191166-g-10[-0.0014]
280-191166-g-11[-0.0017]
280-191166-g-12[-0.002]
280-191166-g-13[-0.0019]
280-191166-g-14[-0.0018]
MB[-0.0018]
LCS[0.1071]
WashIgnore[-0.0011]
280-191216-a-1[0.1198]
280-191216-a-1 MS[0.1174]
280-191216-a-1 MSD[0.1156]
280-191166-g-15[-0.0007]
280-191166-g-16[-0.0022]
WashIgnore[-0.0022]
CCV[0.2078]
CCB[0.0035]
280-191166-g-17[-0.0013]
280-191166-g-18[-0.0011]
280-191166-g-19[-0.0016]
280-191166-g-20[-0.0017]
280-191166-g-21[-0.0015]
280-191216-a-2[-0.0015]
280-191216-a-3[0.0165]
280-191250-h-2[-0.0015]
280-191250-h-2 MS[0.1186]
280-191250-h-2 MSD[0.1232]
280-191216-a-4[0.0232]
280-191216-a-5[0.0261]
WashIgnore[-0.0013]
CCV[0.1038]
CCB[0.0038]
Drift[0.05]
Wash[-0.0012]
280-191246-r-1[-0.0013]
280-191250-h-1[-0.0016]
280-191250-h-3[-0.0016]
280-191250-h-4[-0.0017]
280-191250-h-5[-0.0018]
280-191250-h-6[-0.0014]
280-191250-h-7[-0.0018]
MB[-0.0018]
LCS[0.0972]
WashIgnore[-0.0008]
280-191250-h-8[-0.0006]
280-191250-h-8 MS[0.094]
280-191250-h-8 MSD[0.0999]
280-191250-h-9[-0.0008]
280-191250-h-10[-0.0017]
WashIgnore[-0.0017]
CCV[0.2014]
CCB[0.0008]
280-191250-h-11[-0.0011]
280-191250-h-12[-0.0014]
280-191250-h-13[-0.0012]
280-191250-h-14[-0.0009]
280-191250-h-15[-0.0017]
280-191250-h-16[-0.0014]
280-191250-h-17[-0.0016]
280-191250-h-18[-0.0015]
280-191250-h-18 MS[0.0958]
280-191250-h-18 MSD[0.0885]
280-191250-h-19[-0.0009]
280-191250-h-20[-0.0016]
WashIgnore[-0.0015]
CCV[0.2025]
CCB[0.0006]
Drift[0.0494]
Wash[-0.0012]
280-191231-N-1[0.0132]
280-191251-a-10[0.0068]
280-191231-N-1[0.0148]
MB[0.0001]
590-24556-i-2 DU[0.0412]
590-24556-i-2 DU[0.0413]
590-24556-h-3[0.0562]
WashIgnore[0]
CCV[0.2007]
CCB[0.0016]
Drift[0.0491]
Wash[-0.0012]
EndRun[-0.0012]
Height (ABS)
Time
2481
4962
7442
9923
12404
14885
17366
19846
22327
24808
Cyanide
FlowAccess V3 : Date :05/10/2024 04:57 PM
Run Name : Cyanide05102024, Run Database Reference Name : Skalar20240510A0
User Name : Administrator Operator Name : Administrator

FlowAccessV3 Results Report

Run Name : Cyanide051012024, Run Database Ref : Skalar20240510A0
DateTime :May 10 2024 10:01:57AM
User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	Cyanide- Results[mg
1	IW	IW	InitialWash		1.0000	-0.0012
2	ST7	T	Tracer		1.0000	0.4345
3	WT	WI	WashIgnore		1.0000	0.0003
4	ST4	D	Drift		1.0000	0.0515
5	WT	W	Wash		1.0000	-0.0012
6	ST1	S1	0 mg/L		1.0000	-0.0001
7	ST2	S2	0.01		1.0000	0.0092
8	ST3	S3	0.02		1.0000	0.0180
9	ST4	S4	0.05		1.0000	0.0482
10	ST5	S5	0.1		1.0000	0.1013
11	ST6	S6	0.2		1.0000	0.2066
12	ST7	S7	0.4		1.0000	0.4394
13	WT	WI	WashIgnore		1.0000	-0.0001
14	ST4	D	Drift		1.0000	0.0529
15	WT	W	Wash		1.0000	-0.0012
16	ST8	U	ICV		1.0000	0.1164
17	ST1	U	ICB		1.0000	-0.0005
18	ST1	U	MB		1.0000	-0.0015
19	D29	U	LCS		1.0000	0.1167
20	WT	WI	WashIgnore		1.0000	-0.0013
21	A1	U	280-191098-J-1		1.0000	-0.0008
22	A2	U	280-191098-j-1 MS		1.0000	0.1159
23	A3	U	280-191098-j-1 MSD		1.0000	0.1237
24	A4	U	280-190863-b-1		1.0000	0.0046
25	WT	WI	WashIgnore		1.0000	-0.0009
26	ST2	S2	0.01		1.0000	0.0077
27	ST8	U	ICV		1.0000	0.0981
28	ST1	U	ICB		1.0000	0.0006
29	ST1	U	MB		1.0000	-0.0015
30	D29	U	LCS		1.0000	0.1060
31	D30	U	LCSD		1.0000	0.1103
32	ST7	S7	0.4		1.0000	0.3967
33	WT	WI	WashIgnore		1.0000	0.0045
34	A1	U	280-191098-J-1		1.0000	0.0014
35	A2	U	280-191098-j-1 MS		1.0000	0.1279
36	A3	U	280-191098-j-1 MSD		1.0000	0.1297
37	A4	U	280-190863-b-1		1.0000	0.0054
38	A5	U	280-190901-m-1		1.0000	0.2933
39	WT	WI	WashIgnore		1.0000	0.2003
40	A6	U	580-139586-e-1		1.0000	0.1444

Run Name : Cyanide051012024, Run Database Ref : Skalar20240510A0
DateTime :May 10 2024 10:01:57AM
User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	Cyanide- Results[mg
41	A7	U	280-191167-a-13		1.0000	0.0690
42	A8	U	280-191166-g-1		1.0000	0.0426
43	A9	U	280-191166-g-2		1.0000	0.0221
44	A10	U	280-191166-g-3		1.0000	0.0116
45	A11	U	280-191166-g-4		1.0000	0.0055
46	A12	U	280-191166-g-5		1.0000	0.0021
47	D30	U	LCSD		1.0000	0.1006
48	WT	WI	WashIgnore		1.0000	0.0008
49	ST6	U	CCV		1.0000	0.2113
50	ST1	U	CCB		1.0000	0.0025
51	A6	U	580-139586-e-1		1.0000	0.0000
52	A7	U	280-191167-a-13		1.0000	-0.0005
53	A8	U	280-191166-g-1		1.0000	-0.0008
54	A9	U	280-191166-g-2		1.0000	-0.0012
55	A10	U	280-191166-g-3		1.0000	-0.0012
56	A11	U	280-191166-g-4		1.0000	-0.0013
57	A12	U	280-191166-g-5		1.0000	-0.0012
58	A13	U	280-191167-a-24		1.0000	-0.0014
59	A14	U	280-191167-a-24 MS		1.0000	0.1239
60	A15	U	280-191167-a-24 MSD		1.0000	0.1242
61	A16	U	280-191166-g-6		1.0000	-0.0003
62	A17	U	280-191166-g-7		1.0000	-0.0013
63	WT	WI	WashIgnore		1.0000	-0.0016
64	ST6	U	CCV		1.0000	0.2050
65	ST1	U	CCB		1.0000	0.0007
66	ST4	D	Drift		1.0000	0.0517
67	WT	W	Wash		1.0000	-0.0012
68	A18	U	280-191166-g-8		1.0000	-0.0001
69	A19	U	280-191166-g-9		1.0000	-0.0014
70	A20	U	280-191166-g-10		1.0000	-0.0014
71	A21	U	280-191166-g-11		1.0000	-0.0017
72	A22	U	280-191166-g-12		1.0000	-0.0020
73	A23	U	280-191166-g-13		1.0000	-0.0019
74	A24	U	280-191166-g-14		1.0000	-0.0017
75	ST1	U	MB		1.0000	-0.0018
76	D29	U	LCS		1.0000	0.1071
77	WT	WI	WashIgnore		1.0000	-0.0011
78	A25	U	280-191216-a-1		1.0000	-0.0008
79	A26	U	280-191216-a-1 MS		1.0000	0.1174
80	A27	U	280-191216-a-1 MSD		1.0000	0.1156

Run Name : Cyanide051012024, Run Database Ref : Skalar20240510A0
DateTime :May 10 2024 10:01:57AM
User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	Cyanide- Results[mg
81	A28	U	280-191166-g-15		1.0000	-0.0007
82	A29	U	280-191166-g-16		1.0000	-0.0019
83	WT	WI	WashIgnore		1.0000	-0.0022
84	ST6	U	CCV		1.0000	0.2078
85	ST1	U	CCB		1.0000	0.0035
86	A30	U	280-191166-g-17		1.0000	-0.0013
87	A31	U	280-191166-g-18		1.0000	-0.0010
88	A32	U	280-191166-g-19		1.0000	-0.0016
89	A33	U	280-191166-g-20		1.0000	-0.0017
90	A34	U	280-191166-g-21		1.0000	-0.0015
91	A35	U	280-191216-a-2		1.0000	0.0025
92	B1	U	280-191216-a-3		1.0000	0.0165
93	B2	U	280-191250-h-2		1.0000	-0.0015
94	B3	U	280-191250-h-2 MS		1.0000	0.1186
95	B4	U	280-191250-h-2 MSD		1.0000	0.1236
96	B5	U	280-191216-a-4		1.0000	0.0232
97	B6	U	280-191216-a-5		1.0000	0.0261
98	WT	WI	WashIgnore		1.0000	-0.0013
99	ST6	U	CCV		1.0000	0.1985
100	ST1	U	CCB		1.0000	0.0038
101	ST4	D	Drift		1.0000	0.0500
102	WT	W	Wash		1.0000	-0.0012
103	B7	U	280-191246-r-1		1.0000	0.0013
104	B8	U	280-191250-h-1		1.0000	-0.0013
105	B9	U	280-191250-h-3		1.0000	-0.0016
106	B10	U	280-191250-h-4		1.0000	-0.0017
107	B11	U	280-191250-h-5		1.0000	-0.0018
108	B12	U	280-191250-h-6		1.0000	-0.0014
109	B13	U	280-191250-h-7		1.0000	-0.0018
110	ST1	U	MB		1.0000	-0.0018
111	D29	U	LCS		1.0000	0.0972
112	WT	WI	WashIgnore		1.0000	-0.0008
113	B14	U	280-191250-h-8		1.0000	-0.0006
114	B15	U	280-191250-h-8 MS		1.0000	0.0940
115	B16	U	280-191250-h-8 MSD		1.0000	0.0990
116	B17	U	280-191250-h-9		1.0000	-0.0008
117	B18	U	280-191250-h-10		1.0000	-0.0011
118	WT	WI	WashIgnore		1.0000	-0.0017
119	ST6	U	CCV		1.0000	0.2014
120	ST1	U	CCB		1.0000	0.0008

Run Name : Cyanide051012024, Run Database Ref : Skalar20240510A0
DateTime :May 10 2024 10:01:57AM
User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	Cyanide- Results[mg
121	B19	U	280-191250-h-11		1.0000	-0.0010
122	B20	U	280-191250-h-12		1.0000	-0.0014
123	B21	U	280-191250-h-13		1.0000	-0.0012
124	B22	U	280-191250-h-14		1.0000	-0.0009
125	B23	U	280-191250-h-15		1.0000	-0.0017
126	B24	U	280-191250-h-16		1.0000	-0.0014
127	B25	U	280-191250-h-17		1.0000	-0.0016
128	B26	U	280-191250-h-18		1.0000	-0.0015
129	B27	U	280-191250-h-18 MS		1.0000	0.0858
130	B28	U	280-191250-h-18 MSD		1.0000	0.0885
131	B29	U	280-191250-h-19		1.0000	-0.0009
132	B30	U	280-191250-h-20		1.0000	-0.0016
133	WT	WI	WashIgnore		1.0000	-0.0018
134	ST6	U	CCV		1.0000	0.2025
135	ST1	U	CCB		1.0000	0.0006
136	ST4	D	Drift		1.0000	0.0494
137	WT	W	Wash		1.0000	-0.0012
138	B31	U	280-191251-a-4		1.0000	0.0062
139	B32	U	280-191251-a-10		1.0000	0.0068
140	B33	U	280-191231-N-1		1.0000	0.0148
141	B34	U	MB	Start non-amen	1.0000	0.0010
142	B35	U	590-24556-i-2		1.0000	0.0413
143	C1	U	590-24556-i-2 DU		1.0000	0.0412
144	C2	U	590-24556-h-3		1.0000	0.0562
145	WT	WI	WashIgnore		1.0000	0.0000
146	ST6	U	CCV		1.0000	0.2007
147	ST1	U	CCB		1.0000	0.0016
148	ST4	D	Drift		1.0000	0.0491
149	WT	W	Wash		1.0000	-0.0012
150	E	E	EndRun		1.0000	-0.0012

Run Name : Cyanide051012024, Run Database Ref : Skalar20240510A0
DateTime :May 10 2024 10:01:57AM
User Name : Administrator Operator Name : Administrator

	Cyanide-	Cyanide-	Cyanide- RawResults
1	0.0000	May 10 2024 10:13:00AM	-0.0012
2	0.4958	May 10 2024 10:18:00AM	0.4345
3	0.0017	May 10 2024 10:21:00AM	0.0003
4	0.0600	May 10 2024 10:24:00AM	0.0515
5	0.0000	May 10 2024 10:27:00AM	-0.0012
6	0.0013	May 10 2024 10:29:00AM	-0.0001
7	0.0119	May 10 2024 10:32:00AM	0.0092
8	0.0219	May 10 2024 10:35:00AM	0.0180
9	0.0562	May 10 2024 10:38:00AM	0.0482
10	0.1167	May 10 2024 10:40:00AM	0.1013
11	0.2365	May 10 2024 10:43:00AM	0.2066
12	0.5014	May 10 2024 10:46:00AM	0.4394
13	0.0013	May 10 2024 10:48:00AM	-0.0001
14	0.0616	May 10 2024 10:51:00AM	0.0529
15	0.0000	May 10 2024 10:53:00AM	-0.0012
16	0.1338	May 10 2024 10:56:00AM	0.1164
17	0.0009	May 10 2024 10:59:00AM	-0.0005
18	-0.0003	May 10 2024 11:02:00AM	-0.0015
19	0.1342	May 10 2024 11:04:00AM	0.1167
20	0.0000	May 10 2024 11:07:00AM	-0.0013
21	0.0005	May 10 2024 11:10:00AM	-0.0008
22	0.1333	May 10 2024 11:12:00AM	0.1159
23	0.1421	May 10 2024 11:15:00AM	0.1237
24	0.0066	May 10 2024 11:18:00AM	0.0046
25	0.0004	May 10 2024 11:20:00AM	-0.0009
26	0.0101	May 10 2024 11:23:00AM	0.0077
27	0.1131	May 10 2024 11:26:00AM	0.0981
28	0.0021	May 10 2024 11:28:00AM	0.0006
29	-0.0004	May 10 2024 11:31:00AM	-0.0015
30	0.1220	May 10 2024 11:34:00AM	0.1060
31	0.1269	May 10 2024 11:37:00AM	0.1103
32	0.4528	May 10 2024 11:39:00AM	0.3967
33	0.0065	May 10 2024 11:42:00AM	0.0045
34	0.0030	May 10 2024 11:45:00AM	0.0014
35	0.1469	May 10 2024 11:47:00AM	0.1279
36	0.1490	May 10 2024 11:50:00AM	0.1297
37	0.0075	May 10 2024 11:52:00AM	0.0054
38	0.3351	May 10 2024 11:55:00AM	0.2933
39	0.2293	May 10 2024 11:58:00AM	0.2003
40	0.1657	May 10 2024 12:01:00PM	0.1444

Run Name : Cyanide051012024, Run Database Ref : Skalar20240510A0
DateTime :May 10 2024 10:01:57AM
User Name : Administrator Operator Name : Administrator

	Cyanide-	Cyanide-	Cyanide- RawResults
41	0.0799	May 10 2024 12:03:00PM	0.0690
42	0.0499	May 10 2024 12:06:00PM	0.0426
43	0.0266	May 10 2024 12:09:00PM	0.0221
44	0.0145	May 10 2024 12:11:00PM	0.0116
45	0.0076	May 10 2024 12:14:00PM	0.0055
46	0.0038	May 10 2024 12:17:00PM	0.0021
47	0.1159	May 10 2024 12:19:00PM	0.1006
48	0.0023	May 10 2024 12:22:00PM	0.0008
49	0.2418	May 10 2024 12:25:00PM	0.2113
50	0.0042	May 10 2024 12:27:00PM	0.0025
51	0.0013	May 10 2024 12:30:00PM	0.0000
52	0.0008	May 10 2024 12:32:00PM	-0.0005
53	0.0005	May 10 2024 12:35:00PM	-0.0008
54	0.0000	May 10 2024 12:38:00PM	-0.0012
55	0.0000	May 10 2024 12:40:00PM	-0.0012
56	0.0000	May 10 2024 12:43:00PM	-0.0013
57	0.0000	May 10 2024 12:46:00PM	-0.0012
58	-0.0002	May 10 2024 12:48:00PM	-0.0014
59	0.1424	May 10 2024 12:51:00PM	0.1239
60	0.1427	May 10 2024 12:54:00PM	0.1242
61	0.0010	May 10 2024 12:56:00PM	-0.0003
62	-0.0001	May 10 2024 12:59:00PM	-0.0013
63	-0.0004	May 10 2024 1:02:00PM	-0.0016
64	0.2347	May 10 2024 1:04:00PM	0.2050
65	0.0021	May 10 2024 1:07:00PM	0.0007
66	0.0602	May 10 2024 1:10:00PM	0.0517
67	0.0000	May 10 2024 1:12:00PM	-0.0012
68	0.0013	May 10 2024 1:15:00PM	-0.0001
69	-0.0002	May 10 2024 1:18:00PM	-0.0014
70	-0.0003	May 10 2024 1:20:00PM	-0.0014
71	-0.0006	May 10 2024 1:23:00PM	-0.0017
72	-0.0008	May 10 2024 1:26:00PM	-0.0020
73	-0.0008	May 10 2024 1:29:00PM	-0.0019
74	-0.0006	May 10 2024 1:31:00PM	-0.0017
75	-0.0006	May 10 2024 1:34:00PM	-0.0018
76	0.1232	May 10 2024 1:37:00PM	0.1071
77	0.0001	May 10 2024 1:39:00PM	-0.0011
78	0.0005	May 10 2024 1:42:00PM	-0.0008
79	0.1350	May 10 2024 1:44:00PM	0.1174
80	0.1330	May 10 2024 1:47:00PM	0.1156

Run Name : Cyanide051012024, Run Database Ref : Skalar20240510A0
DateTime :May 10 2024 10:01:57AM
User Name : Administrator Operator Name : Administrator

	Cyanide-	Cyanide-	Cyanide- RawResults
81	0.0006	May 10 2024 1:50:00PM	-0.0007
82	-0.0008	May 10 2024 1:53:00PM	-0.0019
83	-0.0011	May 10 2024 1:55:00PM	-0.0022
84	0.2379	May 10 2024 1:58:00PM	0.2078
85	0.0054	May 10 2024 2:01:00PM	0.0035
86	-0.0001	May 10 2024 2:03:00PM	-0.0013
87	0.0002	May 10 2024 2:06:00PM	-0.0010
88	-0.0005	May 10 2024 2:09:00PM	-0.0016
89	-0.0005	May 10 2024 2:11:00PM	-0.0017
90	-0.0003	May 10 2024 2:14:00PM	-0.0015
91	0.0042	May 10 2024 2:17:00PM	0.0025
92	0.0201	May 10 2024 2:19:00PM	0.0165
93	-0.0003	May 10 2024 2:22:00PM	-0.0015
94	0.1363	May 10 2024 2:24:00PM	0.1186
95	0.1421	May 10 2024 2:27:00PM	0.1236
96	0.0278	May 10 2024 2:30:00PM	0.0232
97	0.0311	May 10 2024 2:32:00PM	0.0261
98	-0.0001	May 10 2024 2:35:00PM	-0.0013
99	0.2273	May 10 2024 2:38:00PM	0.1985
100	0.0057	May 10 2024 2:41:00PM	0.0038
101	0.0583	May 10 2024 2:43:00PM	0.0500
102	0.0000	May 10 2024 2:46:00PM	-0.0012
103	0.0029	May 10 2024 2:49:00PM	0.0013
104	-0.0001	May 10 2024 2:51:00PM	-0.0013
105	-0.0004	May 10 2024 2:54:00PM	-0.0016
106	-0.0005	May 10 2024 2:57:00PM	-0.0017
107	-0.0007	May 10 2024 2:59:00PM	-0.0018
108	-0.0002	May 10 2024 3:02:00PM	-0.0014
109	-0.0007	May 10 2024 3:05:00PM	-0.0018
110	-0.0007	May 10 2024 3:07:00PM	-0.0018
111	0.1120	May 10 2024 3:10:00PM	0.0972
112	0.0005	May 10 2024 3:13:00PM	-0.0008
113	0.0007	May 10 2024 3:15:00PM	-0.0006
114	0.1084	May 10 2024 3:18:00PM	0.0940
115	0.1141	May 10 2024 3:21:00PM	0.0990
116	0.0005	May 10 2024 3:23:00PM	-0.0008
117	0.0001	May 10 2024 3:26:00PM	-0.0011
118	-0.0006	May 10 2024 3:29:00PM	-0.0017
119	0.2306	May 10 2024 3:31:00PM	0.2014
120	0.0023	May 10 2024 3:34:00PM	0.0008

Run Name : Cyanide051012024, Run Database Ref : Skalar20240510A0
DateTime :May 10 2024 10:01:57AM
User Name : Administrator Operator Name : Administrator

	Cyanide-	Cyanide-	Cyanide- RawResults
121	0.0002	May 10 2024 3:37:00PM	-0.0010
122	-0.0002	May 10 2024 3:39:00PM	-0.0014
123	0.0000	May 10 2024 3:42:00PM	-0.0012
124	0.0004	May 10 2024 3:45:00PM	-0.0009
125	-0.0006	May 10 2024 3:47:00PM	-0.0017
126	-0.0002	May 10 2024 3:50:00PM	-0.0014
127	-0.0005	May 10 2024 3:53:00PM	-0.0016
128	-0.0004	May 10 2024 3:55:00PM	-0.0015
129	0.0990	May 10 2024 3:58:00PM	0.0858
130	0.1021	May 10 2024 4:01:00PM	0.0885
131	0.0004	May 10 2024 4:03:00PM	-0.0009
132	-0.0004	May 10 2024 4:06:00PM	-0.0016
133	-0.0007	May 10 2024 4:09:00PM	-0.0018
134	0.2319	May 10 2024 4:11:00PM	0.2025
135	0.0020	May 10 2024 4:14:00PM	0.0006
136	0.0576	May 10 2024 4:17:00PM	0.0494
137	0.0000	May 10 2024 4:19:00PM	-0.0012
138	0.0084	May 10 2024 4:22:00PM	0.0062
139	0.0091	May 10 2024 4:25:00PM	0.0068
140	0.0182	May 10 2024 4:27:00PM	0.0148
141	0.0026	May 10 2024 4:30:00PM	0.0010
142	0.0484	May 10 2024 4:33:00PM	0.0413
143	0.0482	May 10 2024 4:35:00PM	0.0412
144	0.0653	May 10 2024 4:38:00PM	0.0562
145	0.0014	May 10 2024 4:40:00PM	0.0000
146	0.2298	May 10 2024 4:43:00PM	0.2007
147	0.0032	May 10 2024 4:46:00PM	0.0016
148	0.0573	May 10 2024 4:49:00PM	0.0491
149	0.0000	May 10 2024 4:51:00PM	-0.0012
150	0.0000	May 10 2024 4:55:00PM	-0.0012

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144
Lims ID: STD L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 21-Feb-2024 12:57:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: STD L2
Misc. Info.: STD L2
Operator ID: wetchemd Instrument ID: WC_IonChrom14
Sublist: chrom-Anions_IC14*sub8

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 22-Feb-2024 12:31:59 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1668

First Level Reviewer: XAY4 Date: 21-Feb-2024 15:00:32

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.018	3.018	0.000	5237537	NC	NC	M
2 Chloride	4.180	4.213	-0.033	14520853	NC	NC	
3 Nitrite as N	4.880	4.862	0.018	5833830	0.2000	0.1790	
4 Bromide	6.042	6.002	0.040	1035853	NC	NC	
5 Nitrate as N	6.835	6.747	0.088	6258398	0.2000	0.2155	
7 Orthophosphate as P		8.227			ND	ND	
6 Sulfate	10.283	10.218	0.065	10709134	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

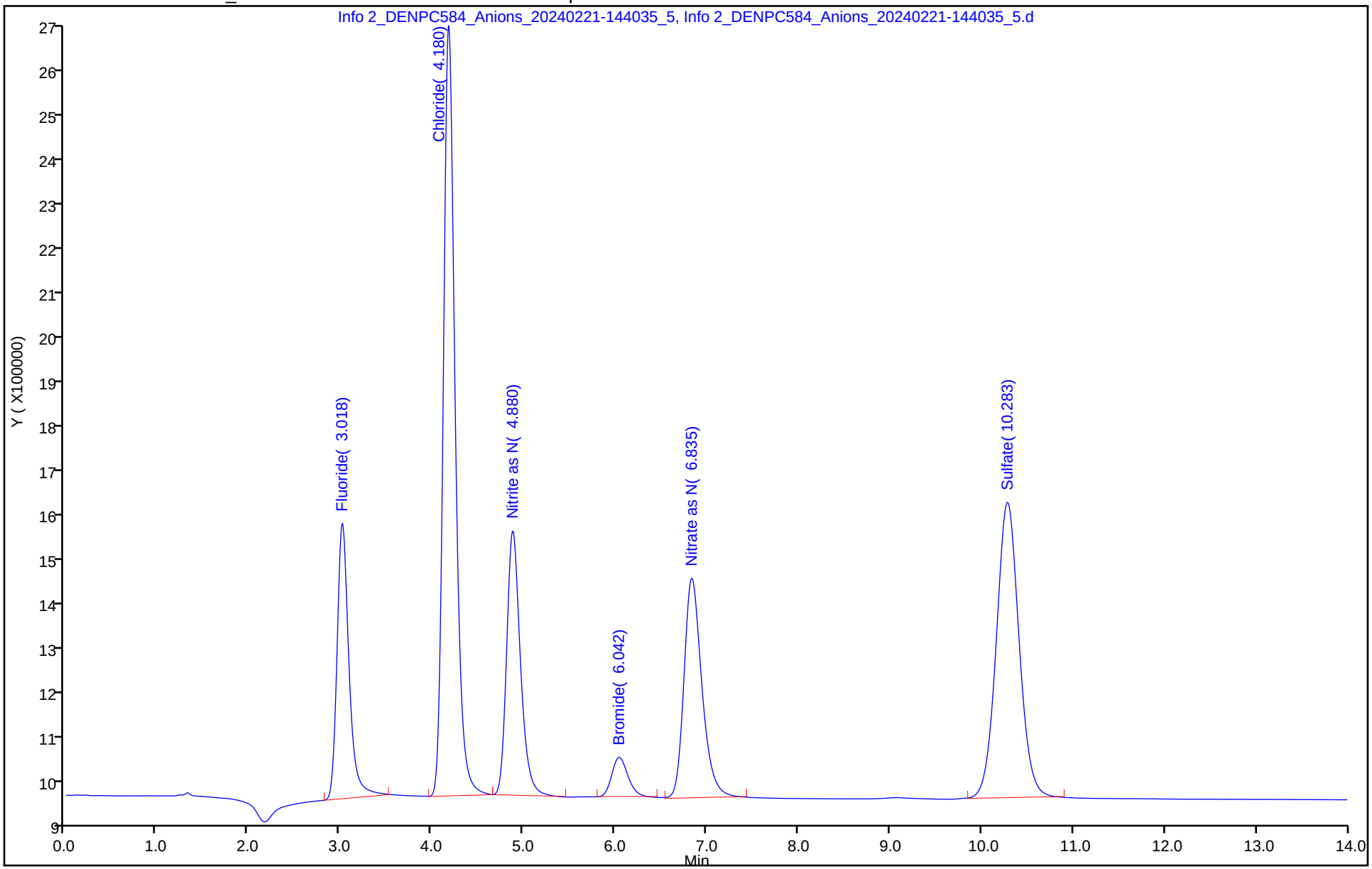
Reagents:

IC Cal low_00758 Amount Added: 0.04 Units: mL
IC CAL cl/so4_00524 Amount Added: 0.04 Units: mL

Report Date: 22-Feb-2024 12:32:00 Chrom Revision: 2.3 14-Feb-2024 16:13:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144035_5.d				
Injection Date:	21-Feb-2024 12:57:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	STD L2			Worklist Smp#:	2
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144
Lims ID: STD L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 21-Feb-2024 13:14:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: STD L3
Misc. Info.: STD L3
Operator ID: wetchemd Instrument ID: WC_IonChrom14
Sublist: chrom-Anions_IC14*sub8

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 22-Feb-2024 12:32:01 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1668

First Level Reviewer: XAY4 Date: 21-Feb-2024 15:00:42

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.020	3.018	0.002	15413092	NC	NC	M
2 Chloride	4.177	4.213	-0.036	40126138	NC	NC	
3 Nitrite as N	4.875	4.862	0.013	17646586	0.5000	0.5093	
4 Bromide	6.035	6.002	0.033	2771497	NC	NC	
5 Nitrate as N	6.817	6.747	0.070	18074403	0.5000	0.4774	
7 Orthophosphate as P		8.227			ND	ND	
6 Sulfate	10.282	10.218	0.064	29142948	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

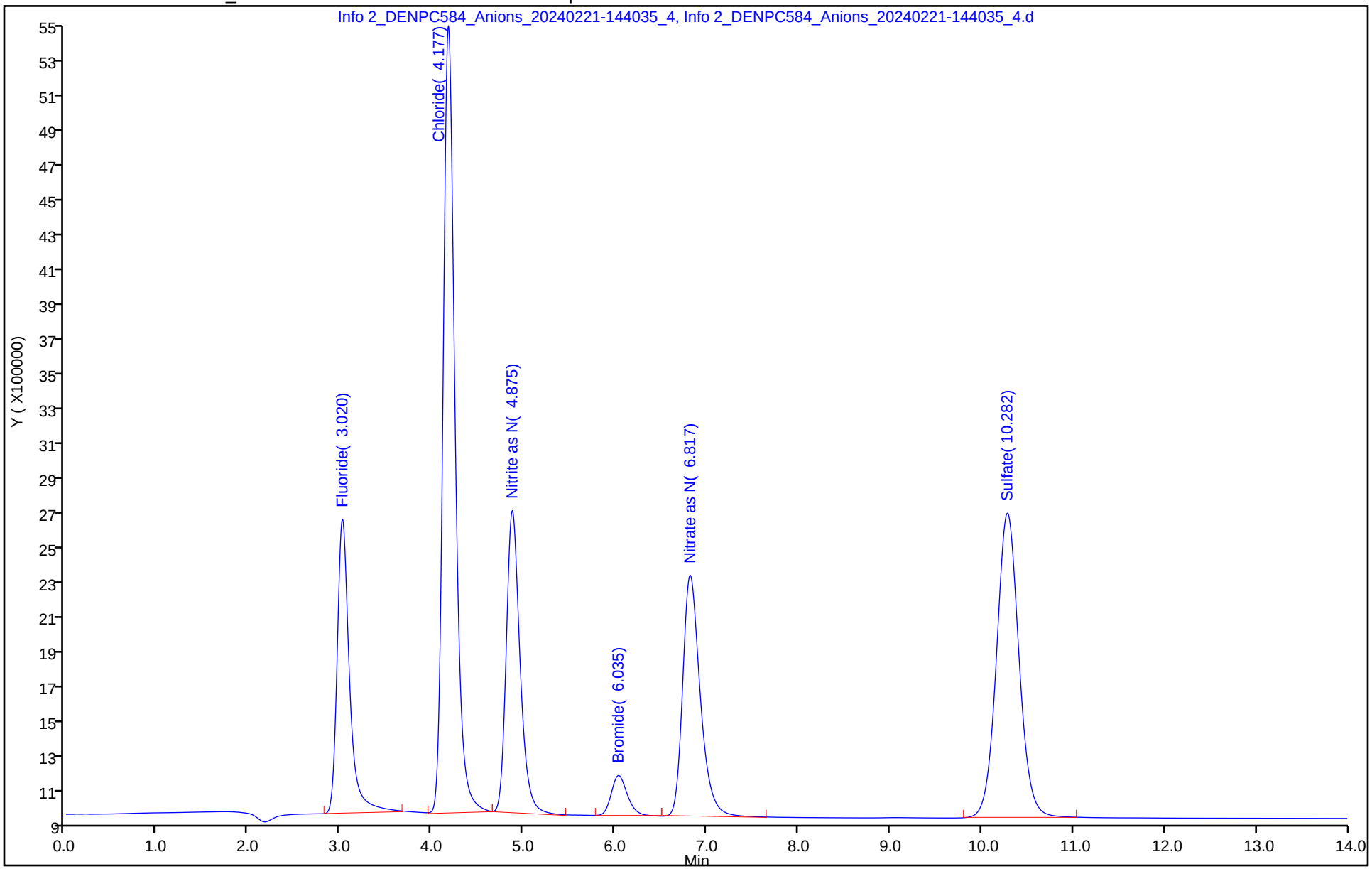
Reagents:

IC Cal low_00758 Amount Added: 0.10 Units: mL
IC CAL cl/so4_00524 Amount Added: 0.10 Units: mL

Report Date: 22-Feb-2024 12:32:01 Chrom Revision: 2.3 14-Feb-2024 16:13:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144035_4.d				
Injection Date:	21-Feb-2024 13:14:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	STD L3			Worklist Smp#:	3
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



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4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144
Lims ID: STD L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 21-Feb-2024 13:31:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: STD L4
Misc. Info.: STD L4
Operator ID: wetchemd Instrument ID: WC_IonChrom14
Sublist: chrom-Anions_IC14*sub8

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 22-Feb-2024 12:48:16 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1668

First Level Reviewer: XAY4 Date: 22-Feb-2024 12:31:40

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.017	3.017	0.000	34935012	NC	NC	M
2 Chloride	4.173	4.173	0.000	83754994	NC	NC	
3 Nitrite as N	4.868	4.868	0.000	36538516	1.00	1.04	
4 Bromide	6.027	6.027	0.000	5841929	NC	NC	
5 Nitrate as N	6.798	6.798	0.000	39995593	1.00	0.9633	
7 Orthophosphate as P		8.227			ND	ND	
6 Sulfate	10.278	10.278	0.000	61704301	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

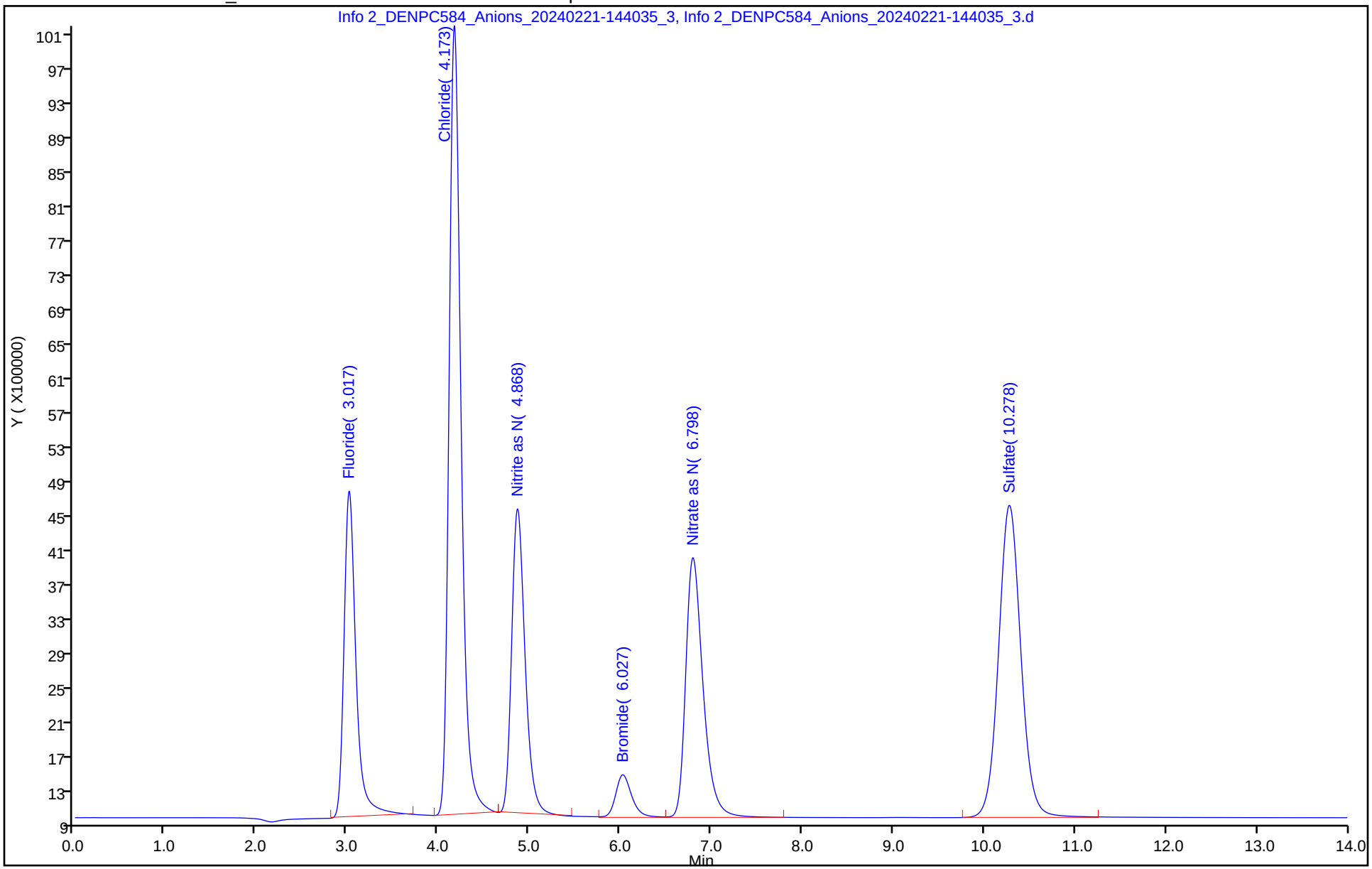
Reagents:

IC Cal low_00758 Amount Added: 0.20 Units: mL
IC CAL cl/so4_00524 Amount Added: 0.20 Units: mL

Report Date: 22-Feb-2024 12:48:17 Chrom Revision: 2.3 14-Feb-2024 16:13:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144035_3.d				
Injection Date:	21-Feb-2024 13:31:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	STD L4			Worklist Smp#:	4
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



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4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144
Lims ID: STD L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 21-Feb-2024 13:48:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: STD L5
Misc. Info.: STD L5
Operator ID: wetchemd Instrument ID: WC_IonChrom14
Sublist: chrom-Anions_IC14*sub8

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 22-Feb-2024 12:48:18 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1668

First Level Reviewer: XAY4 Date: 21-Feb-2024 15:01:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.020	3.017	0.003	137467785	NC	NC	M
2 Chloride	4.192	4.173	0.019	994337975	NC	NC	
3 Nitrite as N	4.863	4.868	-0.005	155055342	4.00	4.35	
4 Bromide	6.015	6.027	-0.012	26570208	NC	NC	
5 Nitrate as N	6.762	6.798	-0.036	178186092	4.00	4.03	
7 Orthophosphate as P		8.227			ND	ND	
6 Sulfate	10.250	10.278	-0.028	733780348	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

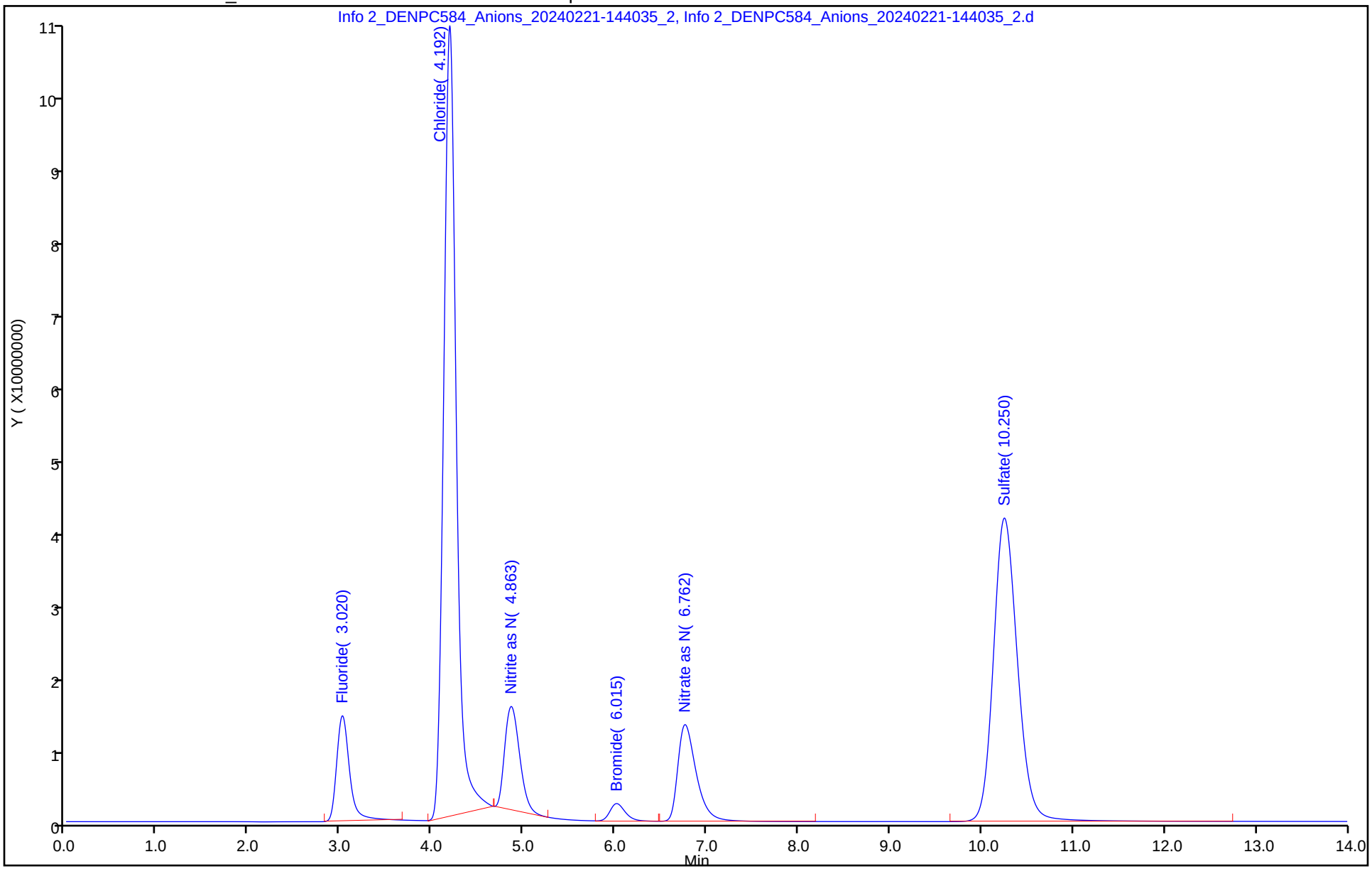
Reagents:

IC Cal low_00758 Amount Added: 0.80 Units: mL
IC CAL cl/so4_00524 Amount Added: 2.40 Units: mL

Report Date: 22-Feb-2024 12:48:18 Chrom Revision: 2.3 14-Feb-2024 16:13:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144035_2.d				
Injection Date:	21-Feb-2024 13:48:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	STD L5			Worklist Smp#:	5
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



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4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144
Lims ID: STD L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 21-Feb-2024 14:05:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: STD L6
Misc. Info.: STD L6
Operator ID: wetchemd Instrument ID: WC_IonChrom14
Sublist: chrom-Anions_IC14*sub8

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 22-Feb-2024 12:48:20 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1668

First Level Reviewer: XAY4 Date: 21-Feb-2024 15:01:55

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.023	3.017	0.006	246550909	NC	NC	
2 Chloride	4.222	4.173	0.049	1861598829	NC	NC	
3 Nitrite as N	4.857	4.868	-0.011	283914915	8.00	7.95	
4 Bromide	5.988	6.027	-0.039	53917669	NC	NC	
5 Nitrate as N	6.725	6.798	-0.073	350810640	8.00	7.85	
7 Orthophosphate as P		8.227			ND	ND	
6 Sulfate	10.205	10.278	-0.073	1361001675	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

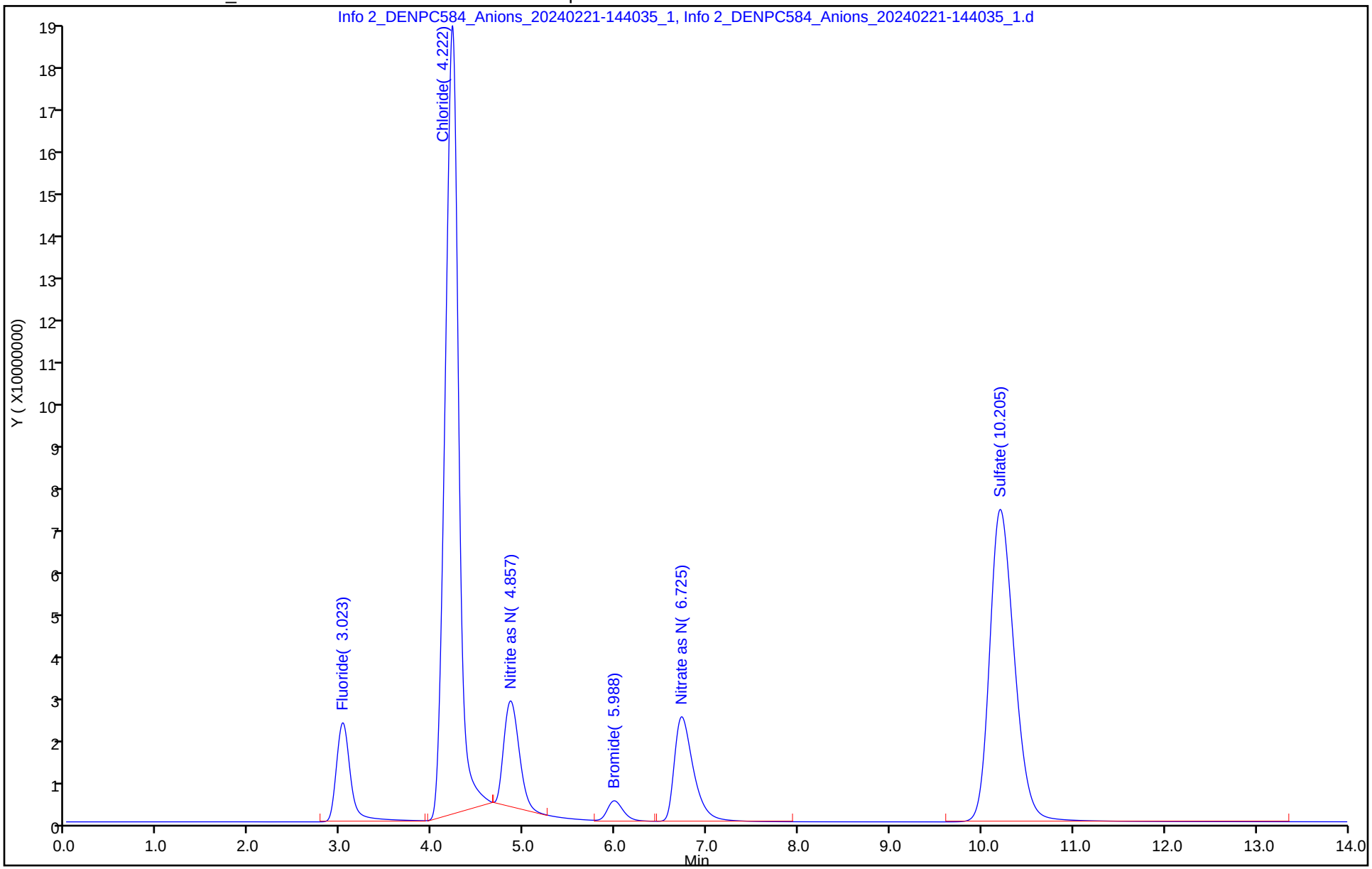
Reagents:

IC Cal low_00758 Amount Added: 1.60 Units: mL
IC CAL cl/so4_00524 Amount Added: 4.80 Units: mL

Report Date: 22-Feb-2024 12:48:20 Chrom Revision: 2.3 14-Feb-2024 16:13:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144035_1.d				
Injection Date:	21-Feb-2024 14:05:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	STD L6			Worklist Smp#:	6
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144
Lims ID: STD L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 21-Feb-2024 14:22:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: STD L7
Misc. Info.: STD L7
Operator ID: wetchemd Instrument ID: WC_IonChrom14
Sublist: chrom-Anions_IC14*sub8

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 22-Feb-2024 12:43:54 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1668

First Level Reviewer: XAY4 Date: 21-Feb-2024 17:10:01

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.018	3.017	0.001	307374017	NC	NC	
2 Chloride	4.258	4.173	0.085	3168043917	NC	NC	
3 Nitrite as N	4.853	4.868	-0.015	345182165	10.0	9.67	
4 Bromide	5.983	6.027	-0.044	70115464	NC	NC	
5 Nitrate as N	6.718	6.798	-0.080	455155431	10.0	10.2	
7 Orthophosphate as P		8.227			ND	ND	
6 Sulfate	10.158	10.278	-0.120	2272897824	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

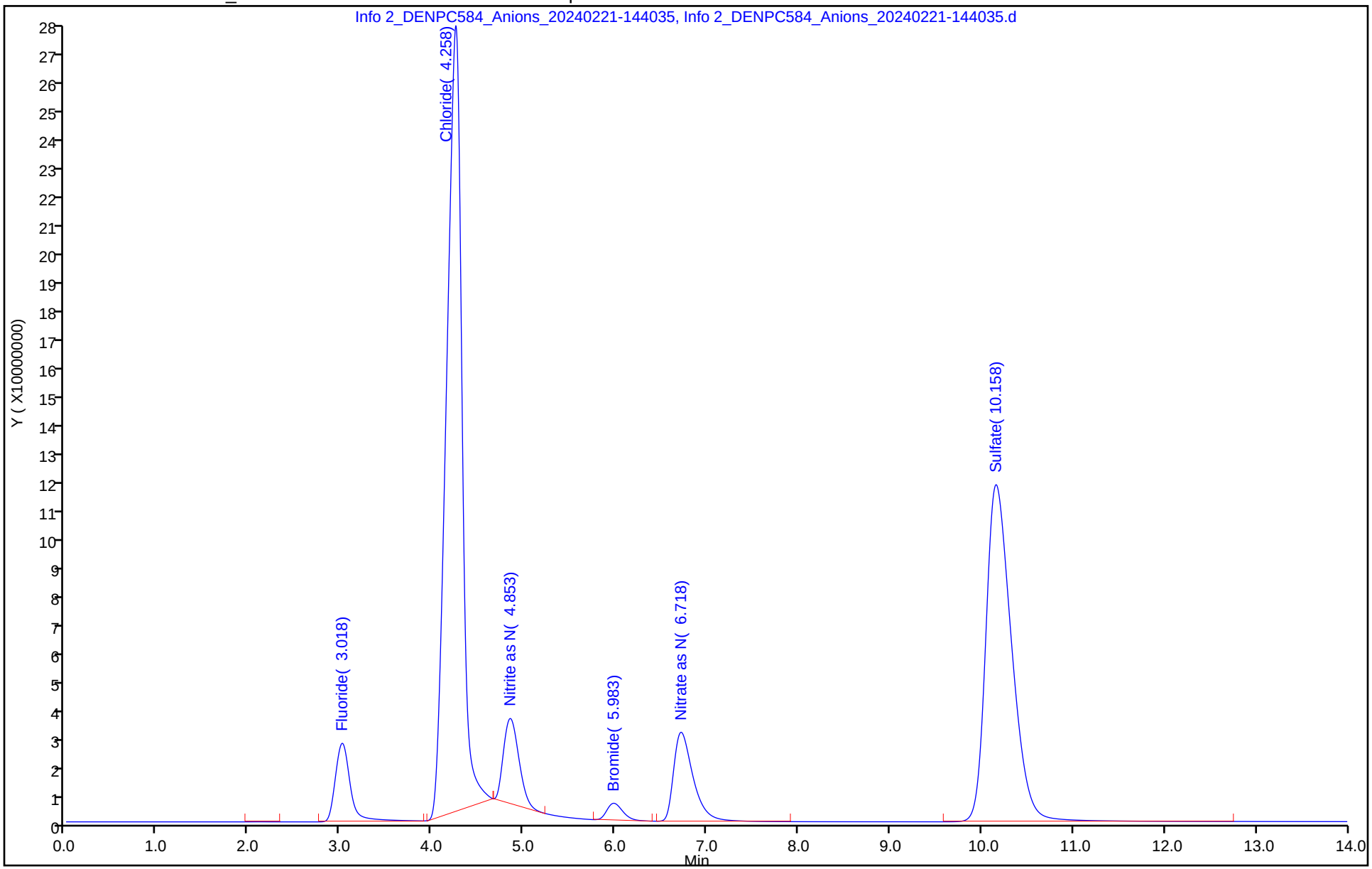
Reagents:

IC Cal low_00758 Amount Added: 2.00 Units: mL
IC CAL cl/so4_00524 Amount Added: 8.00 Units: mL

Report Date: 22-Feb-2024 12:43:54 Chrom Revision: 2.3 14-Feb-2024 16:13:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144035.d				
Injection Date:	21-Feb-2024 14:22:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	STD L7			Worklist Smp#:	7
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



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Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-154
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 21-Feb-2024 15:13:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: ICB
Misc. Info.: ICB
Operator ID: wetchemd Instrument ID: WC_IonChrom14

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 22-Feb-2024 12:34:00 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1668

First Level Reviewer: XAY4 Date: 21-Feb-2024 17:09:24

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.793	3.020	-0.227	384535		NC	
2 Chloride		4.205				ND	
3 Nitrite as N		4.860				ND	
4 Bromide		6.005				ND	
5 Nitrate as N		6.753				ND	
7 Orthophosphate as P		8.227				ND	
6 Sulfate	10.340	10.228	0.112	265504		NC	

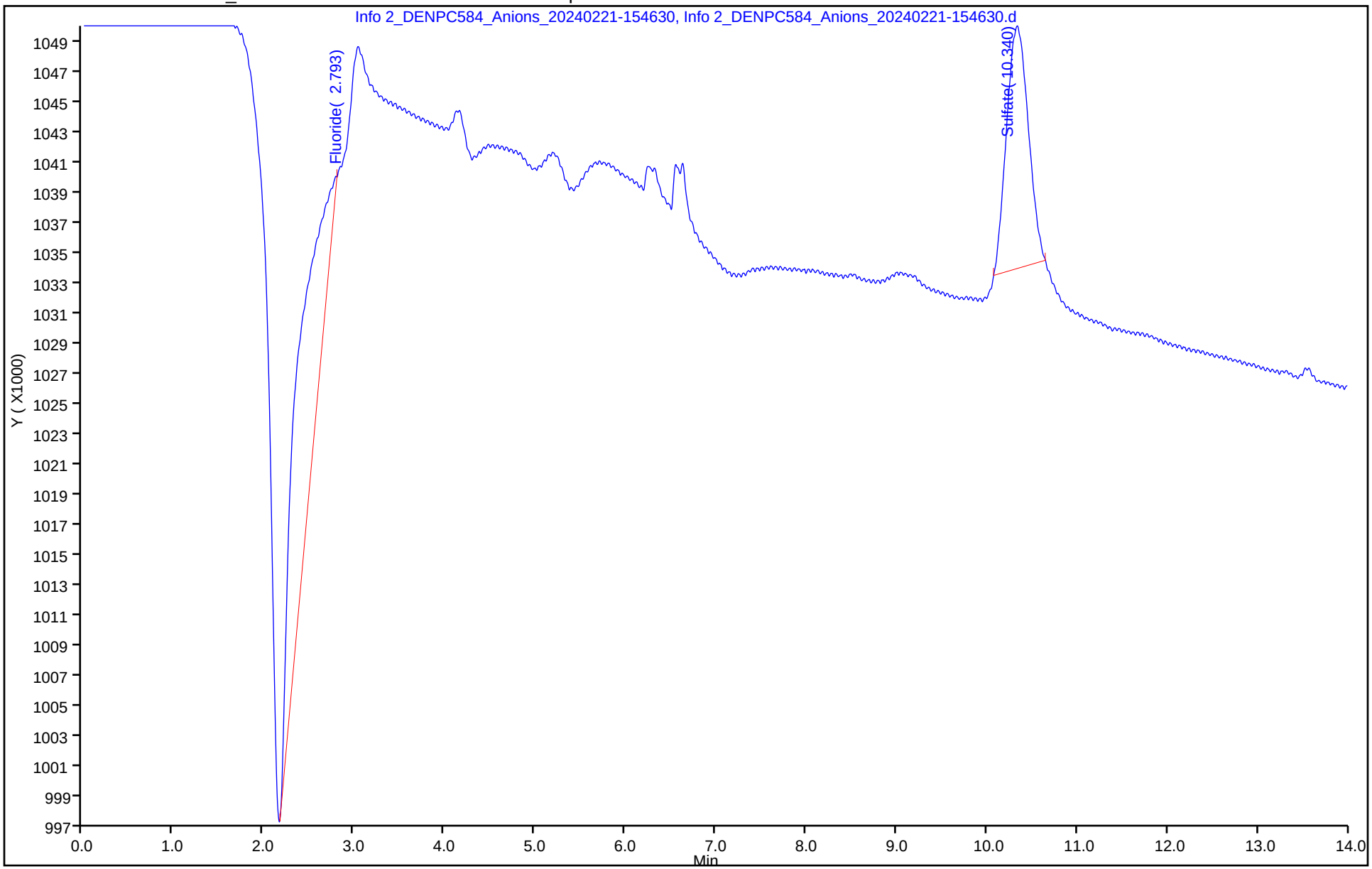
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 22-Feb-2024 12:34:03 Chrom Revision: 2.3 14-Feb-2024 16:13:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-154630.d				
Injection Date:	21-Feb-2024 15:13:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	ICB			Worklist Smp#:	10
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/23/2024
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Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-180
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 21-Feb-2024 17:46:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: ICV
Misc. Info.: ICV
Operator ID: wetchemd Instrument ID: WC_IonChrom14
Sublist:

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 22-Feb-2024 12:34:00 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1668

First Level Reviewer: XAY4 Date: 21-Feb-2024 19:06:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.020	3.020	0.000	137045861	NC	NC	M
2 Chloride	4.205	4.205	0.000	1385885380	NC	NC	
3 Nitrite as N	4.860	4.860	0.000	147314245	4.00	4.14	
4 Bromide	6.005	6.005	0.000	26554602	NC	NC	
5 Nitrate as N	6.753	6.753	0.000	179296847	4.00	4.05	
7 Orthophosphate as P		8.227			ND	ND	
6 Sulfate	10.228	10.228	0.000	1009981194	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

Reagents:

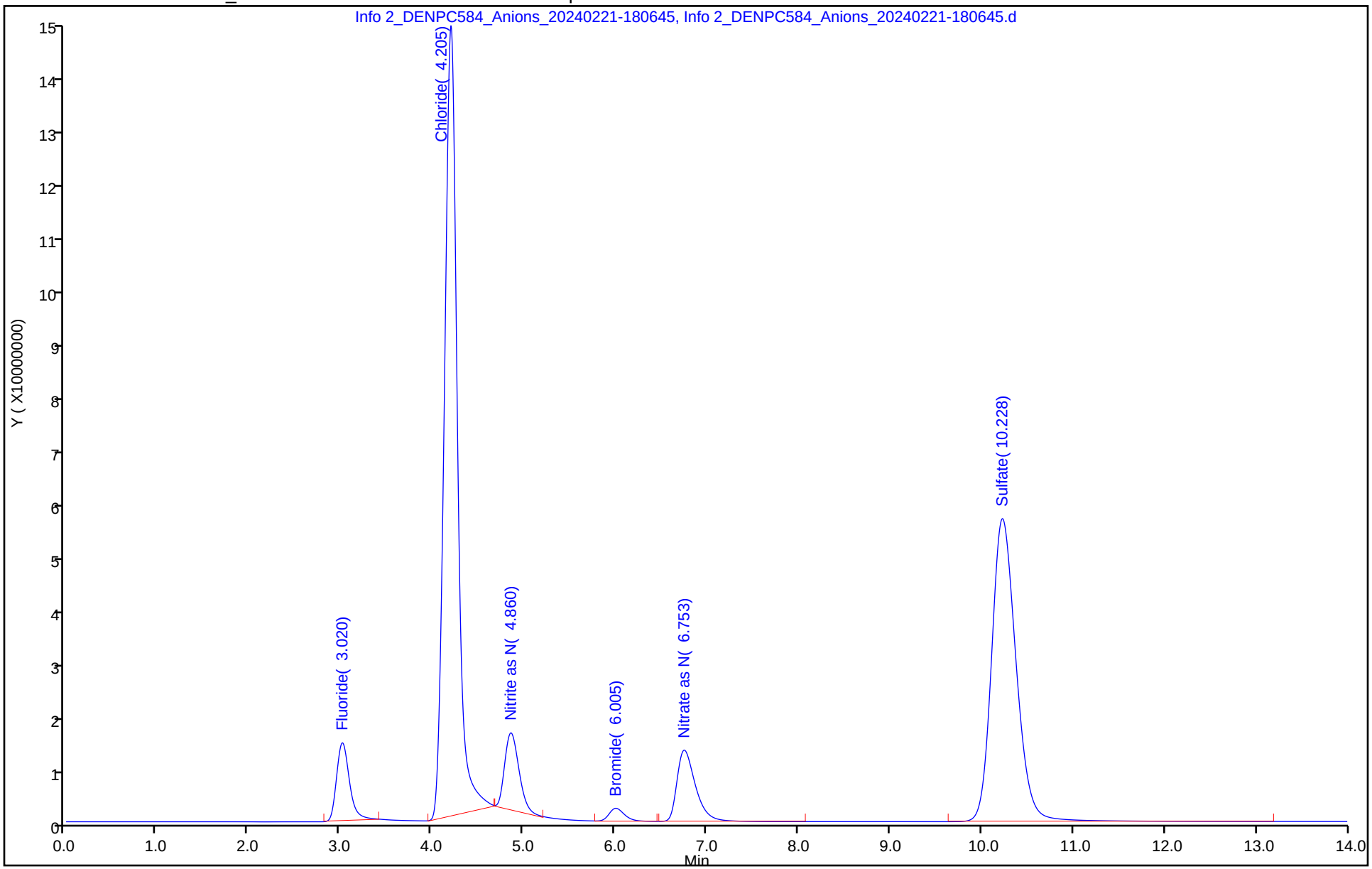
IC ICV 5_00428	Amount Added:	0.80	Units: mL
IC SO4 ICV_00025	Amount Added:	0.80	Units: mL
Cl ICV Std_00007	Amount Added:	0.80	Units: mL

Report Date: 22-Feb-2024 12:34:01 Chrom Revision: 2.3 14-Feb-2024 16:13:40

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-180645.d

Injection Date:	21-Feb-2024 17:46:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	ICV			Worklist Smp#:	9
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/23/2024
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Eurofins Environment Testing
Worklist Report

Worklist Name: 05 07 2024
Worklist Number: 133089
Instrument Name: WC_IonChrom14
Chrom Method: Anions_IC14
Injection Volume: 5.000
Units: ul
Analysis Type: Semi VOA
Batch Directory: \\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b
Upload Directory: \\corptalsapp16\280-DN-RawData\WetChem\IonChrom14

Smp #	Lims ID	Smp Type	Dil Fact	Fract	Initial Vol/Wt	Vol/Wt Units	Sample Reagents	pH	Comment
1	# 1 ccv	CCV	1.000	irectInjection	10.00	mL	IC LCS_02035		F
2	# 2 ccb	CCB	1.000	irectInjection	10.00	mL			
3	# 3 MRL	MRL	1.000	irectInjection	10.00	mL	IC Cal low_00772 IC CAL cl/so4_00534		
4	# 4 LCS	LCS	1.000	irectInjection	10.00	mL	IC LCS_02035		
5	# 5 LCSD	LCSD	1.000	irectInjection	10.00	mL	IC LCS_02035		
6	# 6 mb	MB	1.000	irectInjection	10.00	mL			
7	# 7 280-191087-B-5	Client	1.000	irectInjection	10.00	mL			
8	# 8 280-191087-B-3	Client	1.000	irectInjection	10.00	mL			
9	# 9 280-191087-B-2	Client	1.000	irectInjection	10.00	mL			
10	#10 280-191087-B-4	Client	1.000	irectInjection	10.00	mL			
11	#11 280-191087-B-6	Client	1.000	irectInjection	10.00	mL			
12	#12 280-191087-B-7	Client	1.000	irectInjection	10.00	mL			
13	#13 280-191087-E-9	Client	1.000	irectInjection	10.00	mL			
14	#14 280-191128-A-2	Client	1.000	irectInjection	10.00	mL			
15	#15 280-191093-A-4	Client	1.000	irectInjection	10.00	mL			F
16	#16 280-191128-A-1	Client	1.000	irectInjection	10.00	mL			
17	#17 280-191128-A-1 DU	DU	1.000	irectInjection	10.00	mL			
18	#18 280-191128-A-1 MS	MS	1.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00876		
19	#19 280-191128-A-1 MSD	MSD	1.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00876		
20	#20 ccv	CCV	1.000	irectInjection	10.00	mL	IC LCS_02035		F
21	#21 ccb	CCB	1.000	irectInjection	10.00	mL			F
22	#22 280-191107-A-6	Client	1.000	irectInjection	10.00	mL			R655517
23	#23 280-191107-A-4	Client	1.000	irectInjection	10.00	mL			
24	#24 280-191107-A-3	Client	1.000	irectInjection	10.00	mL			
25	#25 280-191093-A-1	Client	1.000	irectInjection	10.00	mL			
26	#26 280-191093-A-1 DU	DU	1.000	irectInjection	10.00	mL			
27	#27 280-191093-A-1 MS	MS	1.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00876		
28	#28 280-191093-A-1 MSD	MSD	1.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00876		
29	#29 280-191107-A-1	Client	1.000	irectInjection	10.00	mL			
30	#30 280-191098-B-6	Client	1.000	irectInjection	10.00	mL			
31	#31 280-191107-A-2	Client	5.000	irectInjection	10.00	mL			
32	#32 280-191084-G-1	Client	1.000	irectInjection	10.00	mL			
33	#33 280-191107-A-5	Client	1.000	irectInjection	10.00	mL			
34	#34 280-191093-A-2	Client	1.000	irectInjection	10.00	mL			F
35	#35 ccv	CCV	1.000	irectInjection	10.00	mL	IC LCS_02035		F
36	#36 ccb	CCB	1.000	irectInjection	10.00	mL			
48	#48 lcs	LCS	1.000	irectInjection	10.00	mL	IC LCS_02035		
47	#47 lcsd	LCSD	1.000	irectInjection	10.00	mL	IC LCS_02035		
46	#46 mb	MB	1.000	irectInjection	10.00	mL			
37	#37 280-191093-A-3	Client	1.000	irectInjection	10.00	mL			F
38	#38 280-191091-H-3	Client	1.000	irectInjection	10.00	mL			
39	#39 280-191130-B-6	Client	1.000	irectInjection	10.00	mL			
40	#40 280-191130-B-6 DU	DU	1.000	irectInjection	10.00	mL			
41	#41 280-191130-B-6 MS	MS	1.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00876		
42	#42 280-191130-B-6 MSD	MSD	1.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00876		
43	#43 ccv	CCV	1.000	irectInjection	10.00	mL	IC LCS_02035		F
44	#44 ccb	CCB	1.000	irectInjection	10.00	mL			F

WC Anions @ 5/7/2024 2:24:29 PM

VIP	Record Status	HT Expires	Job Due Date	2nd Level Due	Assigned To	Received	Job Number	Rush	Login	Date Sampled
Chrom Worklist #		Lab Sample ID	Sample Matrix	Container Matrix	Login Sample Type	Method	Status	Batch	A-Method	
A-Status		ASub List		Client		Project			PM	
Refrigerator			Prep Chain	Client ID		Result History				
Dilution History			PM							
	Active	05/08/24 08:20	05/29/2024	05/23/2024		05/07/24 09:15	280-J191087-1	No	191087	05/06/24 08:20
		280-191087-5	Water	Water		9056A_48HR	Ready	No	9056A_48HR	
		(MOD) Local Method		CDM Smith Inc Kellogg, Idaho		Bannock Ft. Hall Mine LF, Idaho			DTB	
207				RW-10-20240506						
			Bieniulis, D							
	Active	05/08/24 08:30	05/29/2024	05/23/2024		05/07/24 09:15	280-J191087-1	No	191087	05/06/24 08:30
		280-191087-3	Water	Water		9056A_48HR	Ready	No	9056A_48HR	
		(MOD) Local Method		CDM Smith Inc Kellogg, Idaho		Bannock Ft. Hall Mine LF, Idaho			DTB	
207				RW-5-20240506						
			Bieniulis, D							
	Active	05/08/24 08:37	05/29/2024	05/23/2024		05/07/24 09:15	280-J191087-1	No	191087	05/06/24 08:37
		280-191087-2	Water	Water		9056A_48HR	Ready	No	9056A_48HR	
		(MOD) Local Method		CDM Smith Inc Kellogg, Idaho		Bannock Ft. Hall Mine LF, Idaho			DTB	
207				RW-4-20240506						
			Bieniulis, D							
	Active	05/08/24 08:43	05/29/2024	05/23/2024		05/07/24 09:15	280-J191087-1	No	191087	05/06/24 08:43
		280-191087-4	Water	Water		9056A_48HR	Ready	No	9056A_48HR	
		(MOD) Local Method		CDM Smith Inc Kellogg, Idaho		Bannock Ft. Hall Mine LF, Idaho			DTB	
207				RW-9R-20240506						
			Bieniulis, D							
	Active	05/08/24 08:49	05/29/2024	05/23/2024		05/07/24 09:15	280-J191087-1	No	191087	05/06/24 08:49
		280-191087-6	Water	Water		9056A_48HR	Ready	No	9056A_48HR	
		(MOD) Local Method		CDM Smith Inc Kellogg, Idaho		Bannock Ft. Hall Mine LF, Idaho			DTB	
207				RW-15-20240506						
			Bieniulis, D							
	Active	05/08/24 08:55	05/29/2024	05/23/2024		05/07/24 09:15	280-J191087-1	No	191087	05/06/24 08:55
		280-191087-7	Water	Water		9056A_48HR	Ready	No	9056A_48HR	
		(MOD) Local Method		CDM Smith Inc Kellogg, Idaho		Bannock Ft. Hall Mine LF, Idaho			DTB	
207				RW-17-20240506						
			Bieniulis, D							
	Active	05/08/24 10:30	05/29/2024	05/23/2024		05/07/24 09:15	280-J191087-1	No	191087	05/06/24 10:30
		280-191087-9	Water	Water		9056A_48HR	Ready	No	9056A_48HR	
		(MOD) Local Method		CDM Smith Inc Kellogg, Idaho		Bannock Ft. Hall Mine LF, Idaho			DTB	
207 & Mtls-Strge & VS-15				MW-125-20240506						
			Bieniulis, D							

WC Anions @ 5/7/2024 2:24:29 PM

VIP	Record Status	HT Expires	Job Due Date	2nd Level Due	Assigned To	Received	Job Number	Rush	Login	Date Sampled
Chrom Worklist #		Lab Sample ID	Sample Matrix	Container Matrix	Login Sample Type	Method	Status	Batch	A-Method	
A-Status		ASub List		Client		Project			PM	
Refrigerator			Prep Chain	Client ID		Result History				
Dilution History			PM							
Local	Active	05/08/24 11:22	05/29/2024	05/23/2024		05/07/24 09:15	280-J191093-1	No	191093	05/06/24 11:22
		280-191093-4	Water	Water		9056A_48H_DOD5	Ready	No	9056A_48H_DOD5	
		(MOD) Nitrate as N Nitrite as N		TLI Solutions Inc Lakewood, CO		Pueblo Chemical Depot 2023-2024			MOG	
216 & AA-2 & VS-15				CP1MW1						
			Gardner, M							
						DOD_DIL3				
	Active	05/08/24 11:40	05/29/2024	05/23/2024		05/07/24 10:40	280-J191107-1	No	191107	05/06/24 11:40
		280-191107-6	Water	Water		300_48HR	Ready	No	300_48HR	
		Anions (Nitrate/Nitrite)		GEI Consultants, Inc. Denver, CO		CC&V			DTB	
216 & Mtls-Strge				100% Eff Shipment 1						
			Bieniulis, D							
	Active	05/08/24 11:55	05/29/2024	05/23/2024		05/07/24 10:40	280-J191107-1	No	191107	05/06/24 11:55
		280-191107-4	Water	Water		300_48HR	Ready	No	300_48HR	
		Anions (Nitrate/Nitrite)		GEI Consultants, Inc. Denver, CO		CC&V			DTB	
216 & Mtls-Strge				FM DS Outfall						
			Bieniulis, D							
	Active	05/08/24 12:05	05/29/2024	05/23/2024		05/07/24 10:40	280-J191107-1	No	191107	05/06/24 12:05
		280-191107-3	Water	Water		300_48HR	Ready	No	300_48HR	
		Anions (Nitrate/Nitrite)		GEI Consultants, Inc. Denver, CO		CC&V			DTB	
216 & Mtls-Strge				FM US Outfall						
			Bieniulis, D							
Local	Active	05/08/24 12:15	05/29/2024	05/23/2024		05/07/24 09:15	280-J191093-1	No	191093	05/06/24 12:15
		280-191093-1	Water	Water		9056A_48H_DOD5	Ready	No	9056A_48H_DOD5	
		(MOD) Nitrate as N Nitrite as N		TLI Solutions Inc Lakewood, CO		Pueblo Chemical Depot 2023-2024			MOG	
216 & AA-2 & VS-15				CM1						
			Gardner, M							
						DOD_DIL3				
Local	Active	05/08/24 12:15	05/29/2024	05/23/2024		05/07/24 09:15	280-J191093-1	No	191093	05/06/24 12:15
		280-191093-1MS	Water	Water		9056A_48H_DOD5	Ready	No	9056A_48H_DOD5	
		(MOD) Nitrate as N Nitrite as N		TLI Solutions Inc Lakewood, CO		Pueblo Chemical Depot 2023-2024			MOG	
216 & AA-2 & VS-15				CM1						
			Gardner, M							
						DOD_DIL3				

WC Anions @ 5/7/2024 2:24:29 PM

VIP	Record Status	HT Expires	Job Due Date	2nd Level Due	Assigned To	Received	Job Number	Rush	Login	Date Sampled
Chrom Worklist #		Lab Sample ID	Sample Matrix	Container Matrix	Login Sample Type	Method	Status	Batch	A-Method	
A-Status		ASub List		Client		Project			PM	
Refrigerator			Prep Chain	Client ID		Result History				
Dilution History			PM							
Local	Active	05/08/24 12:15	05/29/2024	05/23/2024		05/07/24 09:15	280-J191093-1	No	191093	05/06/24 12:15
		280-191093-1MS	Water	Water		9056A_48H_DOD5	Ready	No	9056A_48H_DOD5	
		(MOD) Nitrate as N Nitrite as N		TLI Solutions Inc Lakewood, CO		Pueblo Chemical Depot 2023-2024			MOG	
216 & AA-2 & VS-15			Gardner, M	CM1						
						DOD_DIL3				
	Active	05/08/24 12:20	05/29/2024	05/23/2024		05/07/24 10:40	280-J191107-1	No	191107	05/06/24 12:20
		280-191107-1	Water	Water		300_48HR	Ready	No	300_48HR	
		Anions (Nitrate/Nitrite)		GEI Consultants, Inc. Denver, CO		CC&V			DTB	
216 & Mtls-Strge			Bieniulis, D	Roosevelt						
	Active	05/08/24 12:33	05/29/2024	05/23/2024		05/07/24 09:15	280-J191098-1	No	191098	05/06/24 12:33
		280-191098-6	Water	Water		9056_48H_DOD5	Ready	No	9056_48H_DOD5	
		(MOD) Nitrate only		Leidos, Inc. Picatinny Arsenal Dover- N		RVAAP FWGW			PJM	
207			McEntee, P	LL12mw-246-24401-GW						
						Q5.0				
	Active	05/08/24 12:35	05/29/2024	05/23/2024		05/07/24 10:40	280-J191107-1	No	191107	05/06/24 12:35
		280-191107-2	Water	Water		300_48HR	Ready	No	300_48HR	
		Anions (Nitrate/Nitrite)		GEI Consultants, Inc. Denver, CO		CC&V			DTB	
216 & Mtls-Strge			Bieniulis, D	DS CCWWTP						
Client	Active	05/08/24 13:00	05/29/2024	05/23/2024		05/07/24 09:15	280-J191084-1	Yes	191084	05/06/24 13:00
		280-191084-1	Water	Water		300_48HR	Ready	No	300_48HR	
		IC-NO3		Waste Management Kettleman City, CA		565|Kettleman Hills Leachate			JSC	
198 & AA-2 & Mtls-Strge				B193S		20,30,46,53,41,0				
10,5,1,5,1,5			Collins, J							
	Active	05/08/24 13:05	05/29/2024	05/23/2024		05/07/24 10:40	280-J191107-1	No	191107	05/06/24 13:05
		280-191107-5	Water	Water		300_48HR	Ready	No	300_48HR	
		Anions (Nitrate/Nitrite)		GEI Consultants, Inc. Denver, CO		CC&V			DTB	
216 & Mtls-Strge			Bieniulis, D	Beaver Creek						

WC Anions @ 5/7/2024 2:24:29 PM

VIP	Record Status	HT Expires	Job Due Date	2nd Level Due	Assigned To	Received	Job Number	Rush	Login	Date Sampled
Chrom Worklist #		Lab Sample ID	Sample Matrix	Container Matrix	Login Sample Type	Method	Status	Batch	A-Method	
A-Status		ASub List		Client		Project			PM	
Refrigerator			Prep Chain	Client ID		Result History				
Dilution History			PM							
Local	Active	05/08/24 13:10	05/29/2024	05/23/2024		05/07/24 09:15	280-J191093-1	No	191093	05/06/24 13:10
		280-191093-2	Water	Water		9056A_48H_DOD5	Ready	No	9056A_48H_DOD5	
		(MOD) Nitrate as N Nitrite as N		TLI Solutions Inc Lakewood, CO		Pueblo Chemical Depot 2023-2024			MOG	
216 & AA-2 & VS-15				CM1MW1						
			Gardner, M							
						DOD_DIL3				
Local	Active	05/08/24 13:50	05/29/2024	05/23/2024		05/07/24 09:15	280-J191093-1	No	191093	05/06/24 13:50
		280-191093-3	Water	Water		9056A_48H_DOD5	Ready	No	9056A_48H_DOD5	
		(MOD) Nitrate as N Nitrite as N		TLI Solutions Inc Lakewood, CO		Pueblo Chemical Depot 2023-2024			MOG	
216 & AA-2 & VS-15				CM1MW2						
			Gardner, M							
						DOD_DIL3				
	Active	05/08/24 14:00	05/29/2024	05/23/2024		05/07/24 09:15	280-J191091-1	No	191091	05/06/24 14:00
		280-191091-3	Water	Water		9056A_48HR	Ready	No	9056A_48HR	
		(MOD) Local Method		CDM Smith Inc Kellogg, Idaho		Bannock Ft. Hall Mine LF, Idaho			DTB	
207 & Mtls-Strge & VS-15				MW-124-20240506						
			Bieniulis, D							

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240507-101				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	07-May-2024 10:02:00	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV				
Misc. Info.:	CCV				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Sublist:	chrom-Anions_IC14*sub10				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	08-May-2024 10:38:25	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1680				
First Level Reviewer: R4BB		Date:	08-May-2024 10:23:00		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.952	2.952	0.000	135321937	NC	NC	
2 Chloride	4.088	4.088	0.000	1604902808	NC	NC	
3 Nitrite as N	4.707	4.707	0.000	171785806	5.00	4.82	
4 Bromide	5.780	5.780	0.000	29549083	NC	NC	
5 Nitrate as N	6.497	6.497	0.000	220062532	5.00	4.95	
6 Sulfate	9.485	9.485	0.000	1177089146	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

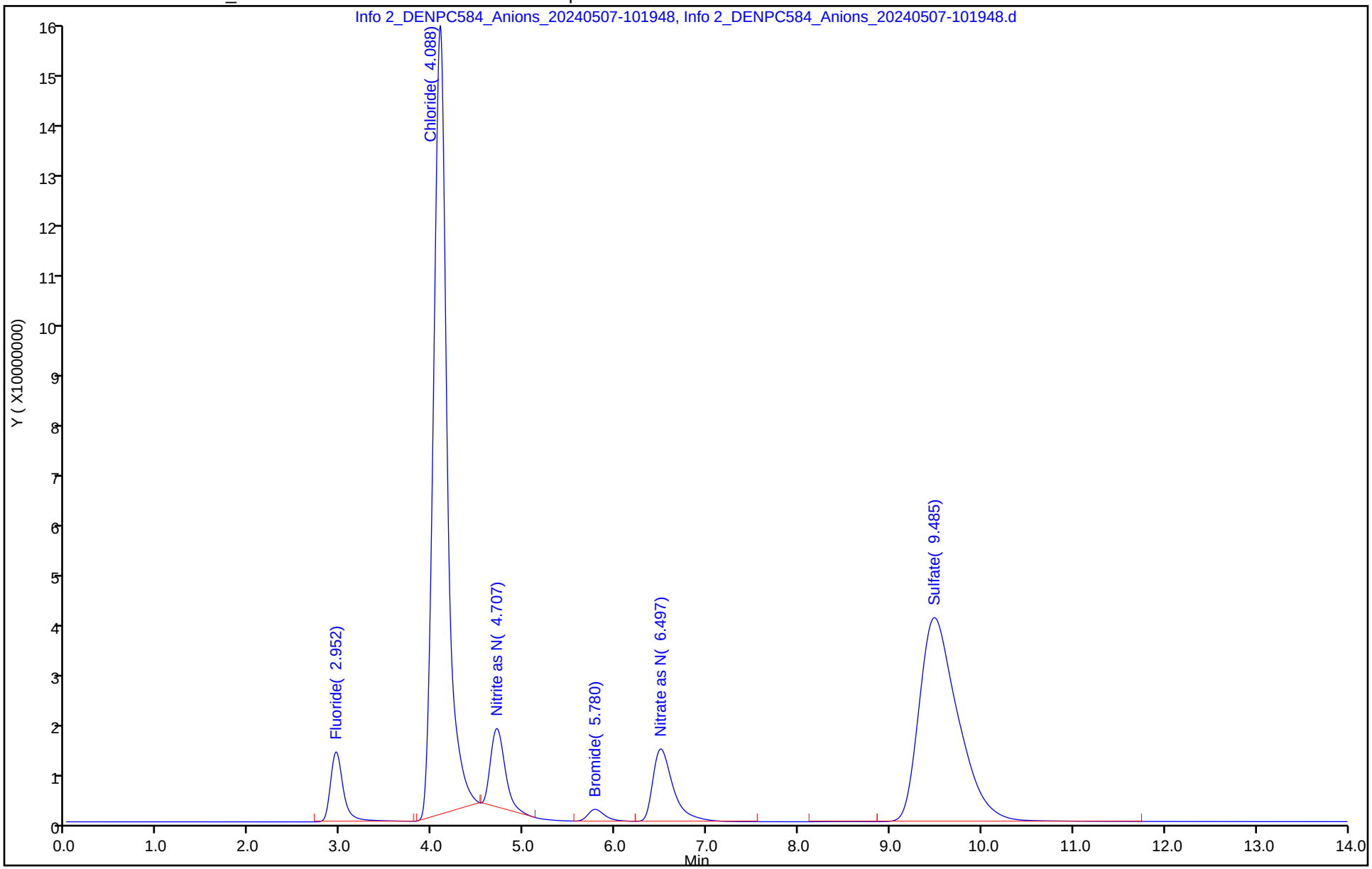
Reagents:

IC LCS_02035 Amount Added: 10.00 Units: mL

Report Date: 08-May-2024 10:38:25 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240507-101948.d				
Injection Date:	07-May-2024 10:02:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240507-103				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	07-May-2024 10:19:00	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCB				
Misc. Info.:	CCB				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	08-May-2024 10:38:25	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1680				
First Level Reviewer: R4BB		Date:	07-May-2024 18:01:59		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.952				ND	U
2 Chloride	4.053	4.088	-0.035	116527		NC	
3 Nitrite as N		4.707				ND	
4 Bromide		5.780				ND	
5 Nitrate as N		6.497				ND	
7 Orthophosphate as P		8.227				ND	
6 Sulfate		9.485				ND	

QC Flag Legend

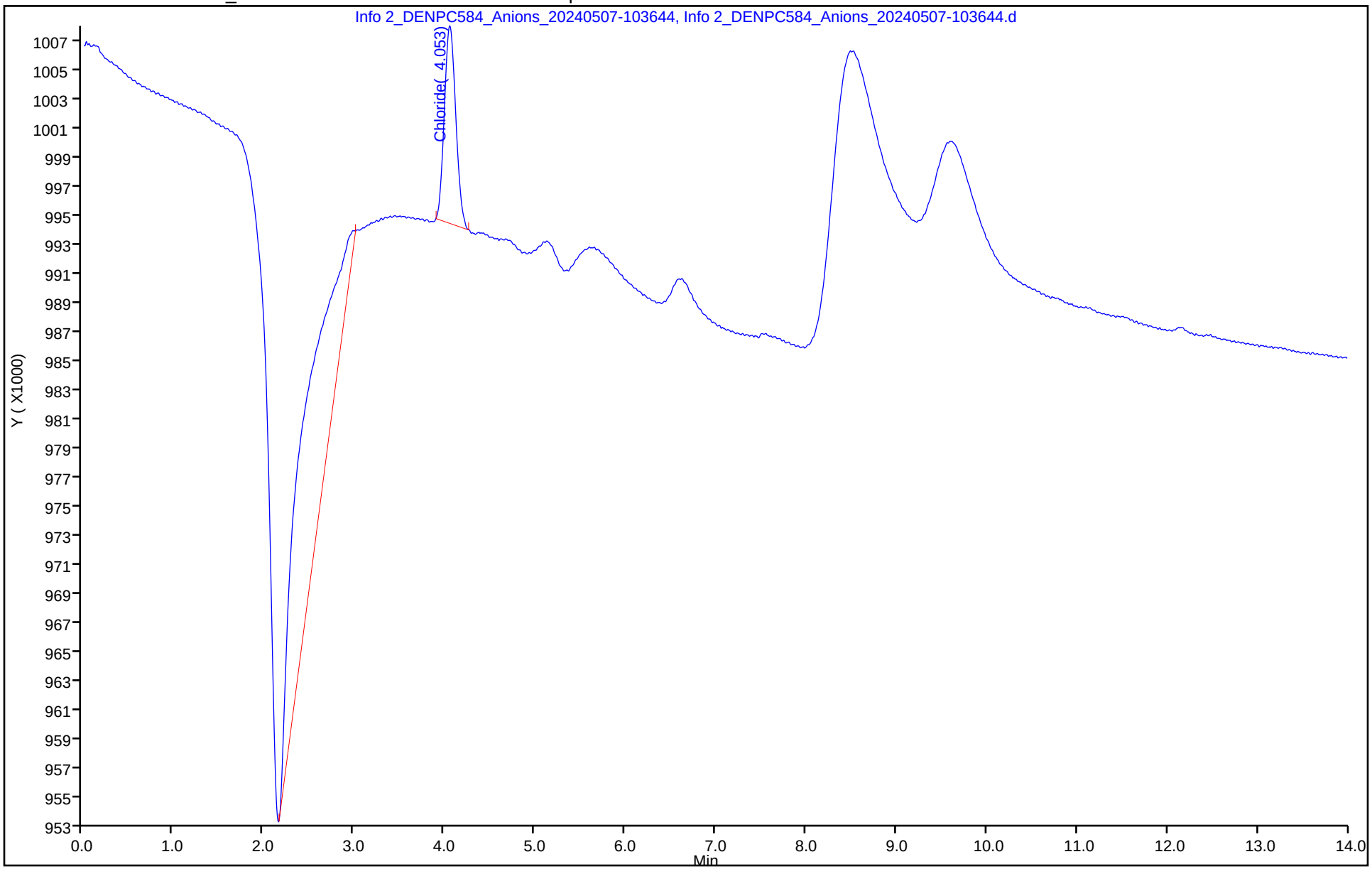
Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 08-May-2024 10:38:26 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240507-103644.d

Injection Date:	07-May-2024 10:19:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	2
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240507-105				
Lims ID:	MRL				
Client ID:					
Sample Type:	MRL				
Inject. Date:	07-May-2024 10:36:00	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	MRL				
Misc. Info.:	MRL				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	08-May-2024 10:38:25	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1680				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.957	2.952	0.005	13438750	NC	NC	
2 Chloride	4.060	4.088	-0.028	81397692	NC	NC	
3 Nitrite as N	4.725	4.707	0.018	16366599	0.5000	0.4735	
4 Bromide	5.825	5.780	0.045	2489968	NC	NC	
5 Nitrate as N	6.570	6.497	0.073	17824905	0.5000	0.4718	
6 Sulfate	9.542	9.485	0.057	53043814	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

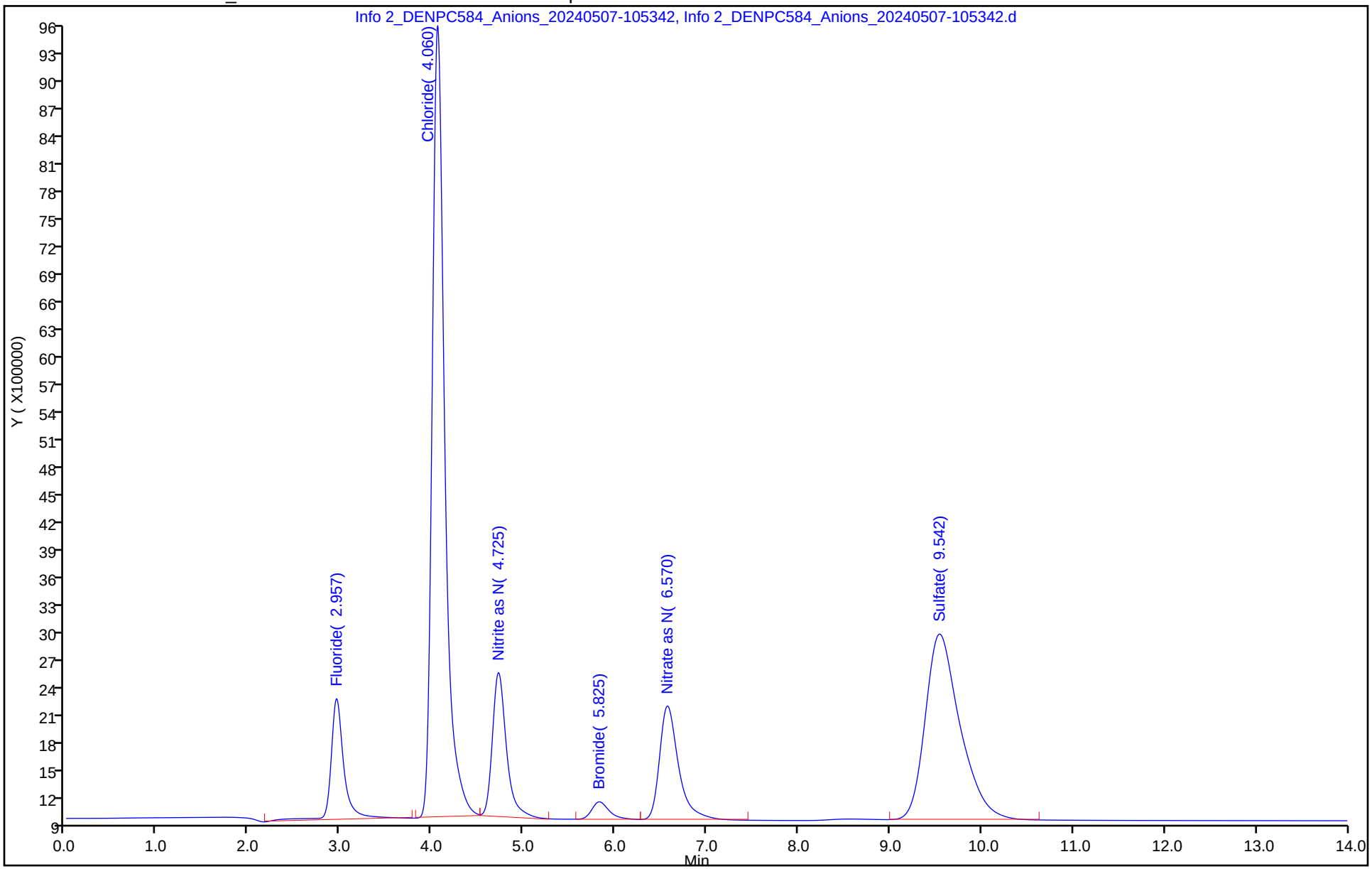
Reagents:

IC Cal low_00772	Amount Added:	0.10	Units: mL
IC CAL cl/so4_00534	Amount Added:	0.20	Units: mL

Report Date: 08-May-2024 10:38:27 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240507-105342.d				
Injection Date:	07-May-2024 10:36:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240507-111				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	07-May-2024 10:53:00	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS				
Misc. Info.:	LCS				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	08-May-2024 10:38:25	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1680				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.962	2.952	0.010	138255693	NC	NC	
2 Chloride	4.097	4.088	0.009	1606210759	NC	NC	
3 Nitrite as N	4.715	4.707	0.008	172802652	5.00	4.85	
4 Bromide	5.790	5.780	0.010	29618566	NC	NC	
5 Nitrate as N	6.505	6.497	0.008	220383764	5.00	4.96	
6 Sulfate	9.500	9.485	0.015	1183398761	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

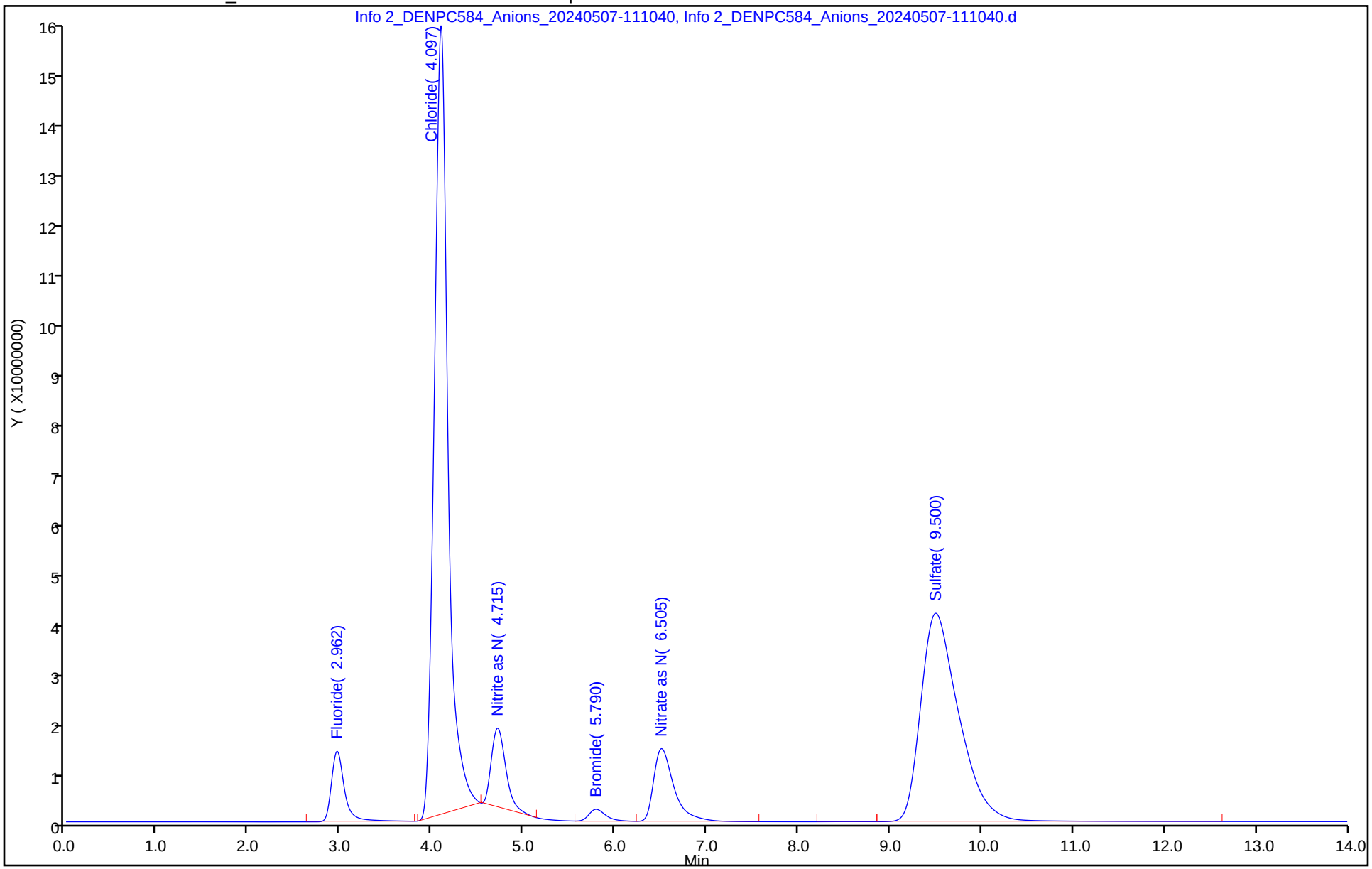
Reagents:

IC LCS_02035 Amount Added: 10.00 Units: mL

Report Date: 08-May-2024 10:38:29 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240507-111040.d				
Injection Date:	07-May-2024 10:53:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240507-112
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 07-May-2024 11:10:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: LCSD
Misc. Info.: LCSD
Operator ID: wetchemd Instrument ID: WC_IonChrom14

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 08-May-2024 10:38:25 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1680

First Level Reviewer: R4BB Date: 08-May-2024 10:22:49

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.950	2.952	-0.002	137503657	NC	NC	
2 Chloride	4.087	4.088	-0.001	1613319928	NC	NC	
3 Nitrite as N	4.705	4.707	-0.002	171279795	5.00	4.81	
4 Bromide	5.782	5.780	0.002	29749980	NC	NC	
5 Nitrate as N	6.497	6.497	0.000	220573058	5.00	4.97	
6 Sulfate	9.495	9.485	0.010	1187997914	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

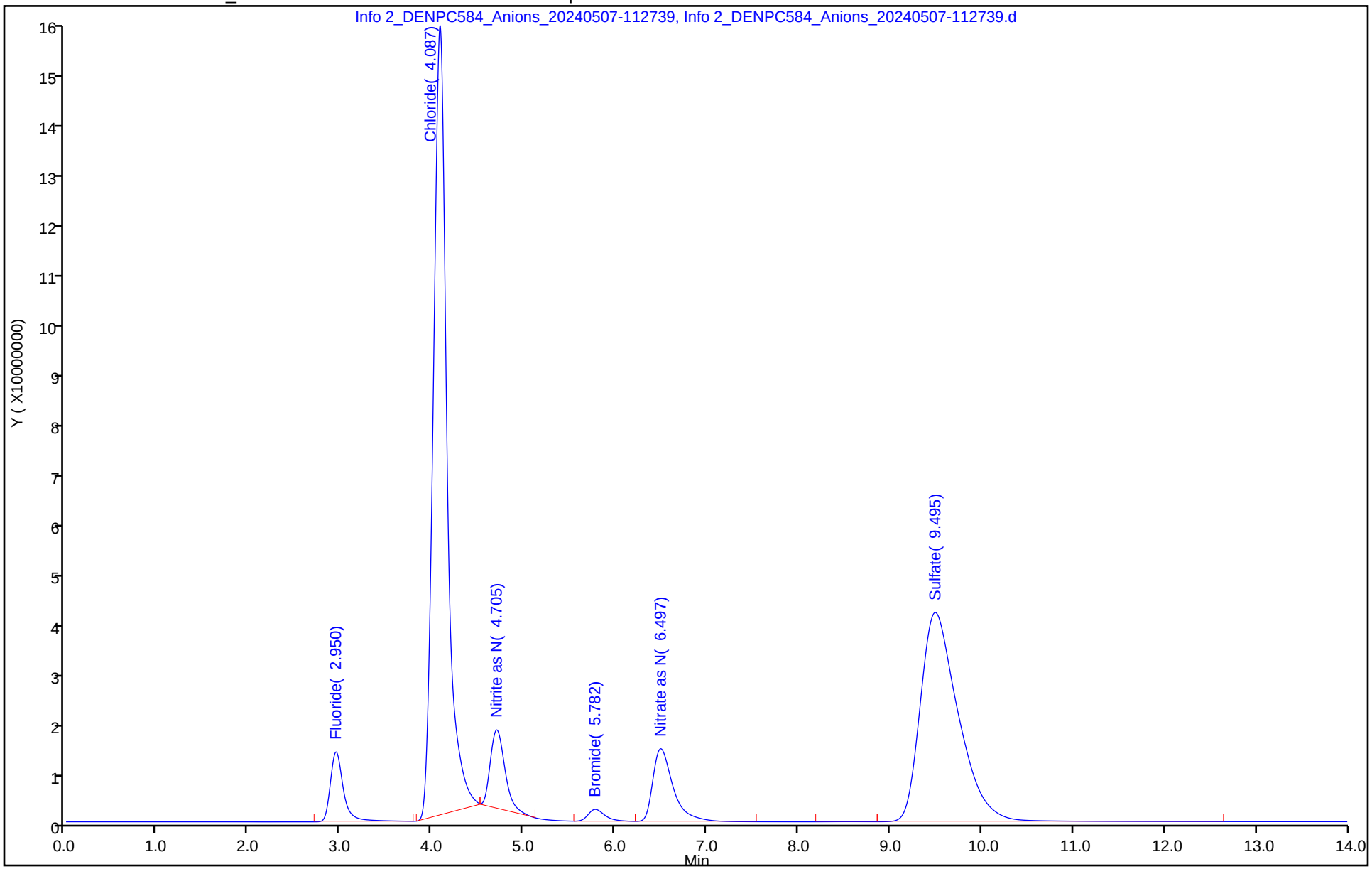
IC LCS_02035 Amount Added: 10.00 Units: mL

Report Date: 08-May-2024 10:38:29 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240507-112739.d

Injection Date:	07-May-2024 11:10:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240507-114				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	07-May-2024 11:27:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB				
Misc. Info.:	MB				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	08-May-2024 10:38:25	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1680				
First Level Reviewer: R4BB		Date:	07-May-2024 18:02:28		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.952				ND	U
2 Chloride	4.057	4.088	-0.031	119417		NC	
3 Nitrite as N		4.707				ND	
4 Bromide		5.780				ND	
5 Nitrate as N		6.497				ND	
7 Orthophosphate as P		8.227				ND	
6 Sulfate		9.485				ND	

QC Flag Legend

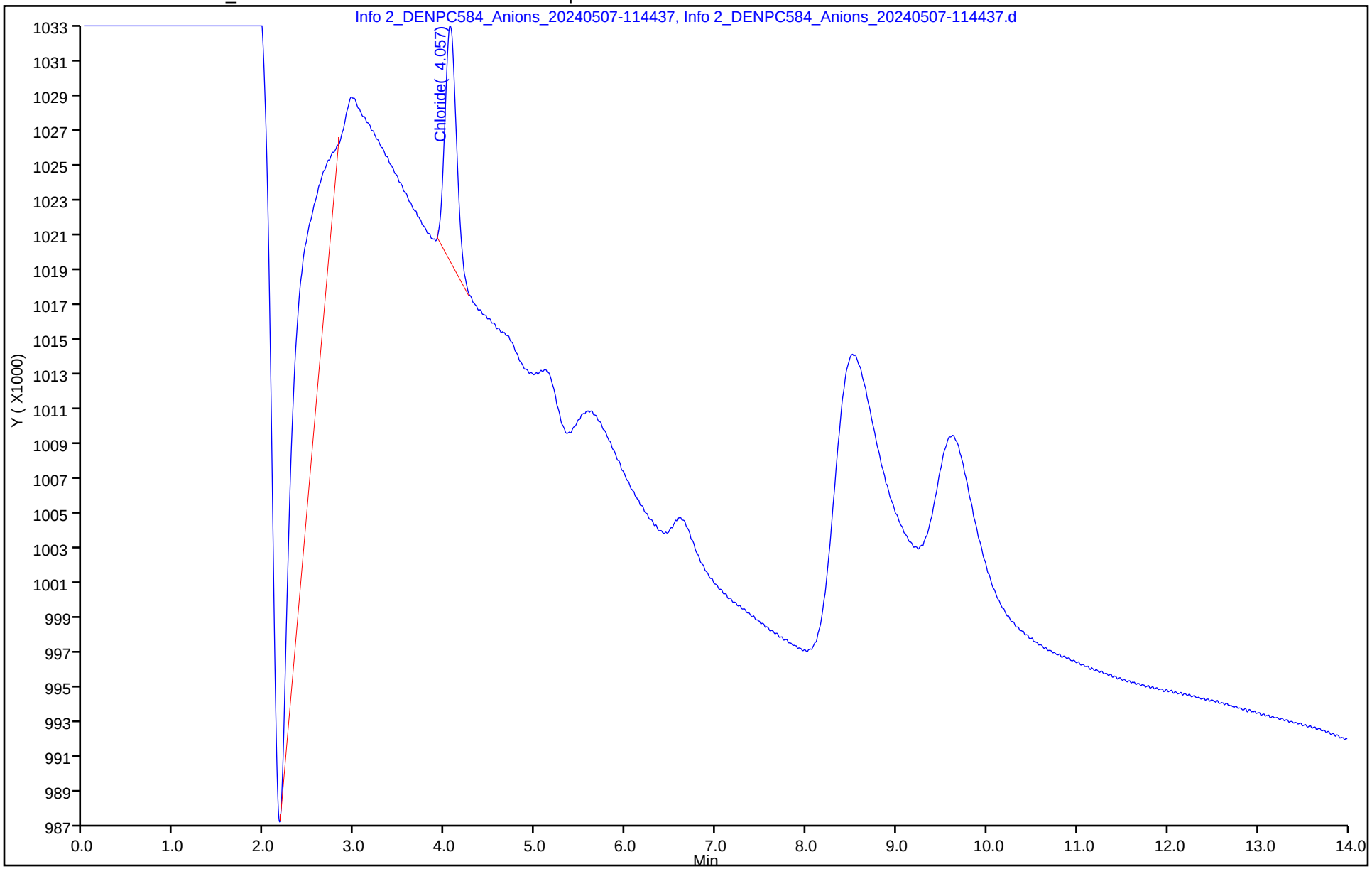
Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 08-May-2024 10:38:30 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240507-114437.d

Injection Date:	07-May-2024 11:27:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240508-004
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 08-May-2024 00:27:00 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: CCV
Operator ID: wetchemd Instrument ID: WC_IonChrom14
Sublist: chrom-Anions_IC14*sub10

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 08-May-2024 10:38:40 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1680

First Level Reviewer: R4BB Date: 08-May-2024 10:27:52

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.955	2.952	0.003	135153991	NC	NC	
2 Chloride	4.093	4.088	0.005	1686735387	NC	NC	
3 Nitrite as N	4.723	4.707	0.016	182311465	5.00	5.11	
4 Bromide		5.780			ND	ND	U
5 Nitrate as N	6.517	6.497	0.020	214221098	5.00	4.82	
6 Sulfate	9.548	9.485	0.063	1234384259	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND
Review Flags
U - Marked Undetected

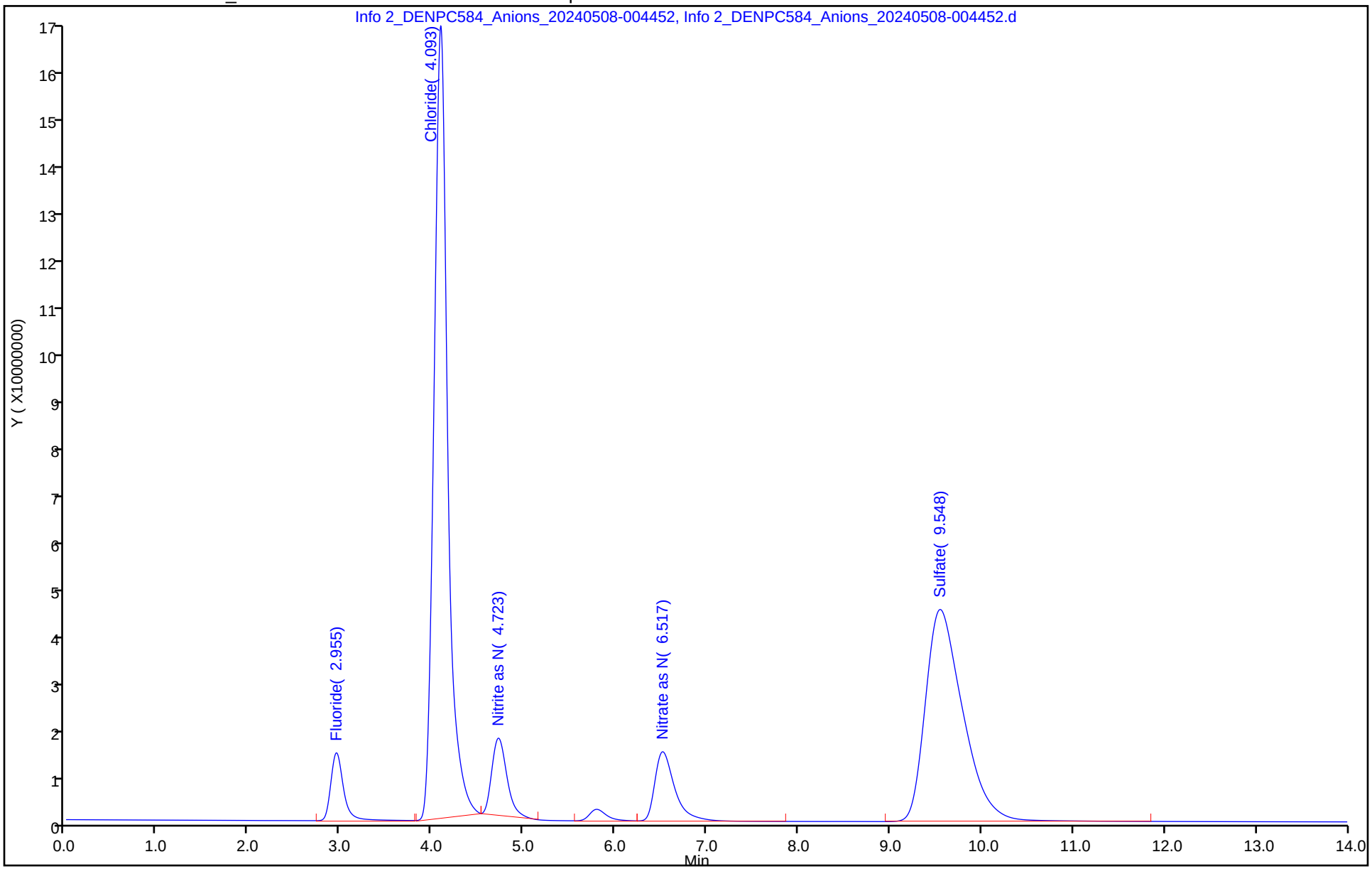
Reagents:

IC LCS_02035 Amount Added: 10.00 Units: mL

Report Date: 08-May-2024 10:38:40 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240508-004452.d				
Injection Date:	08-May-2024 00:27:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	20
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240508-010				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	08-May-2024 00:44:00	ALS Bottle#:	0	Worklist Smp#:	21
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCB				
Misc. Info.:	CCB				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	08-May-2024 10:38:40	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1680				

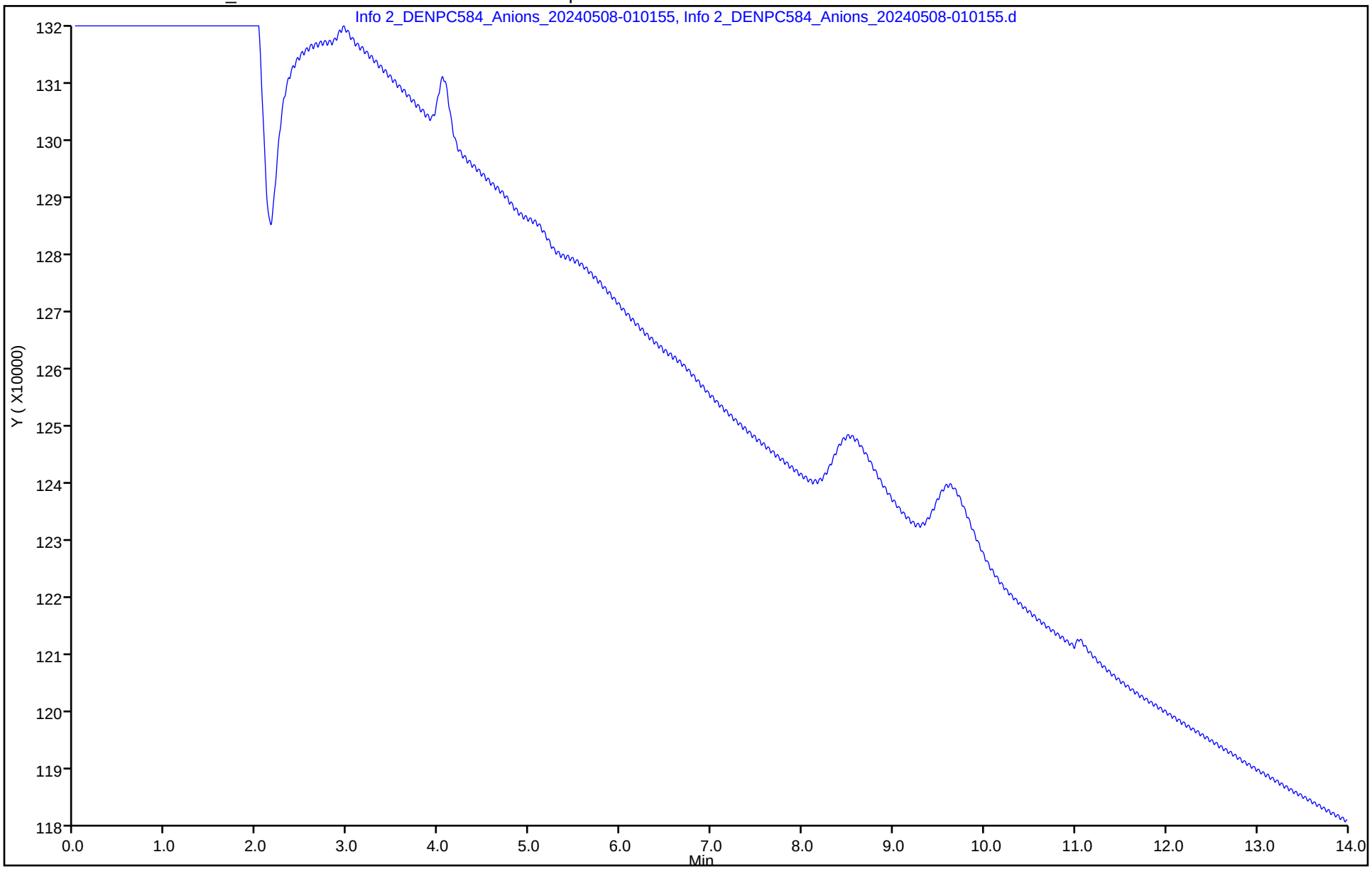
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.952				ND	
2 Chloride		4.088				ND	
3 Nitrite as N		4.707				ND	
4 Bromide		5.780				ND	
5 Nitrate as N		6.497				ND	
7 Orthophosphate as P		8.227				ND	
6 Sulfate		9.485				ND	

Report Date: 08-May-2024 10:38:41 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240508-010155.d

Injection Date:	08-May-2024 00:44:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	21
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240508-033				
Lims ID:	280-191098-B-6				
Client ID:	LL12mw-246-24401-GW				
Sample Type:	Client				
Inject. Date:	08-May-2024 03:18:00	ALS Bottle#:	0	Worklist Smp#:	30
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191098-B-6				
Misc. Info.:	280-191098-B-6				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	08-May-2024 10:38:40	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1680				
First Level Reviewer: R4BB		Date:	08-May-2024 10:29:11		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.953	2.952	0.001	4295898	NC	
2 Chloride	4.080	4.088	-0.008	426533634	NC	
3 Nitrite as N		4.707			ND	
4 Bromide		5.780			ND	U
5 Nitrate as N	6.757	6.497	0.260	278450	0.0829	
7 Orthophosphate as P		8.227			ND	
6 Sulfate	9.693	9.485	0.208	1254501795	NC	

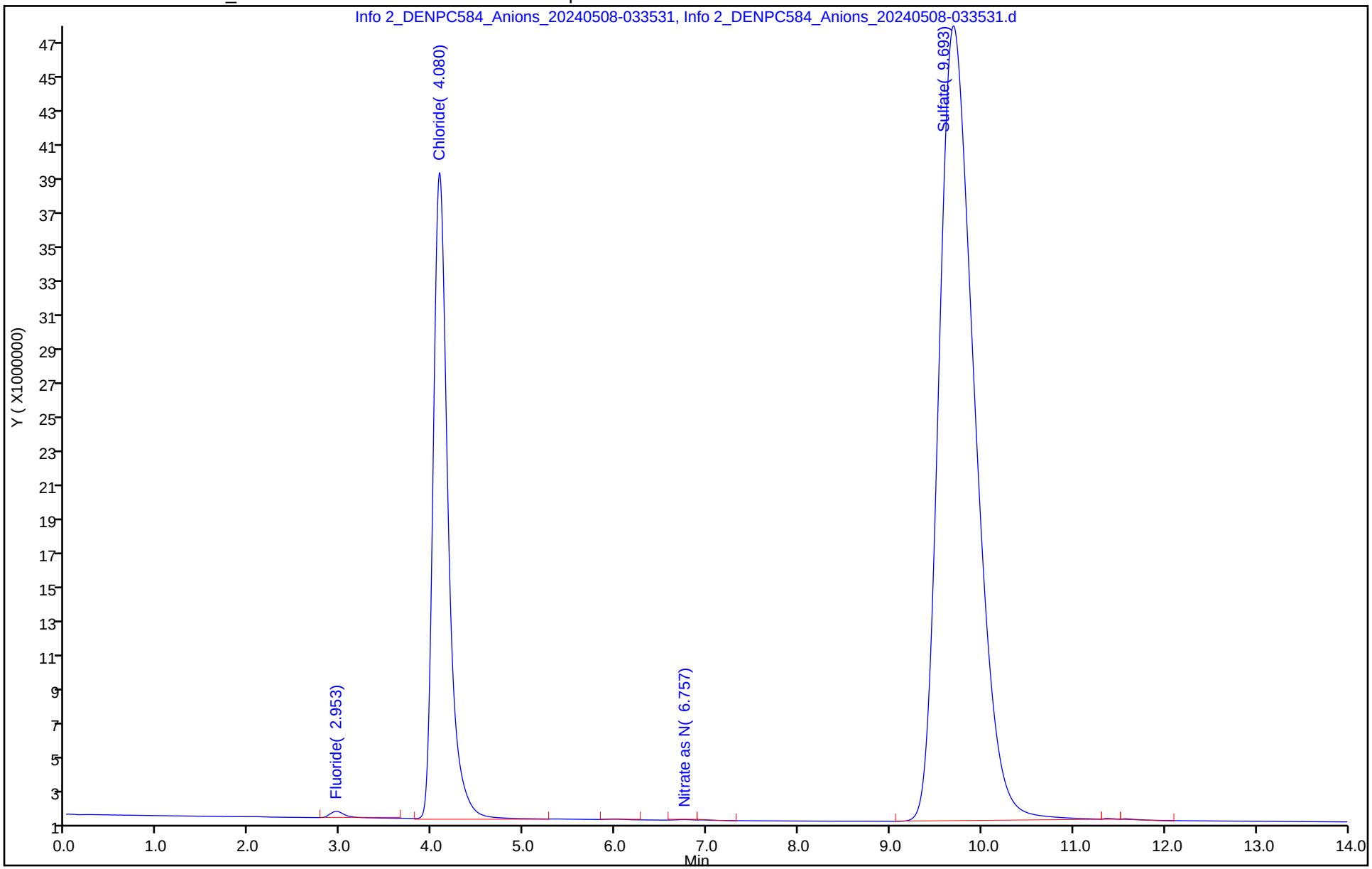
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 08-May-2024 10:38:47 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240508-033531.d				
Injection Date:	08-May-2024 03:18:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	280-191098-B-6	Lab Sample ID:	280-191098-6	Worklist Smp#:	30
Client ID:	LL12mw-246-24401-GW				
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240508-050				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	08-May-2024 04:43:00	ALS Bottle#:	0	Worklist Smp#:	35
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV				
Misc. Info.:	CCV				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Sublist:	chrom-Anions_IC14*sub10				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	08-May-2024 10:38:50	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1680				
First Level Reviewer: R4BB		Date:	08-May-2024 10:30:15		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.965	2.952	0.013	134150018	NC	NC	
2 Chloride	4.105	4.088	0.017	1689371103	NC	NC	
3 Nitrite as N	4.725	4.707	0.018	175434357	5.00	4.92	
4 Bromide		5.780			ND	ND	U
5 Nitrate as N	6.515	6.497	0.018	216070366	5.00	4.87	
6 Sulfate	9.562	9.485	0.077	1228538776	NC	NC	

QC Flag Legend

Processing Flags
- NC - Not Calibrated
- ND - Not Detected or Marked ND

Review Flags
- U - Marked Undetected

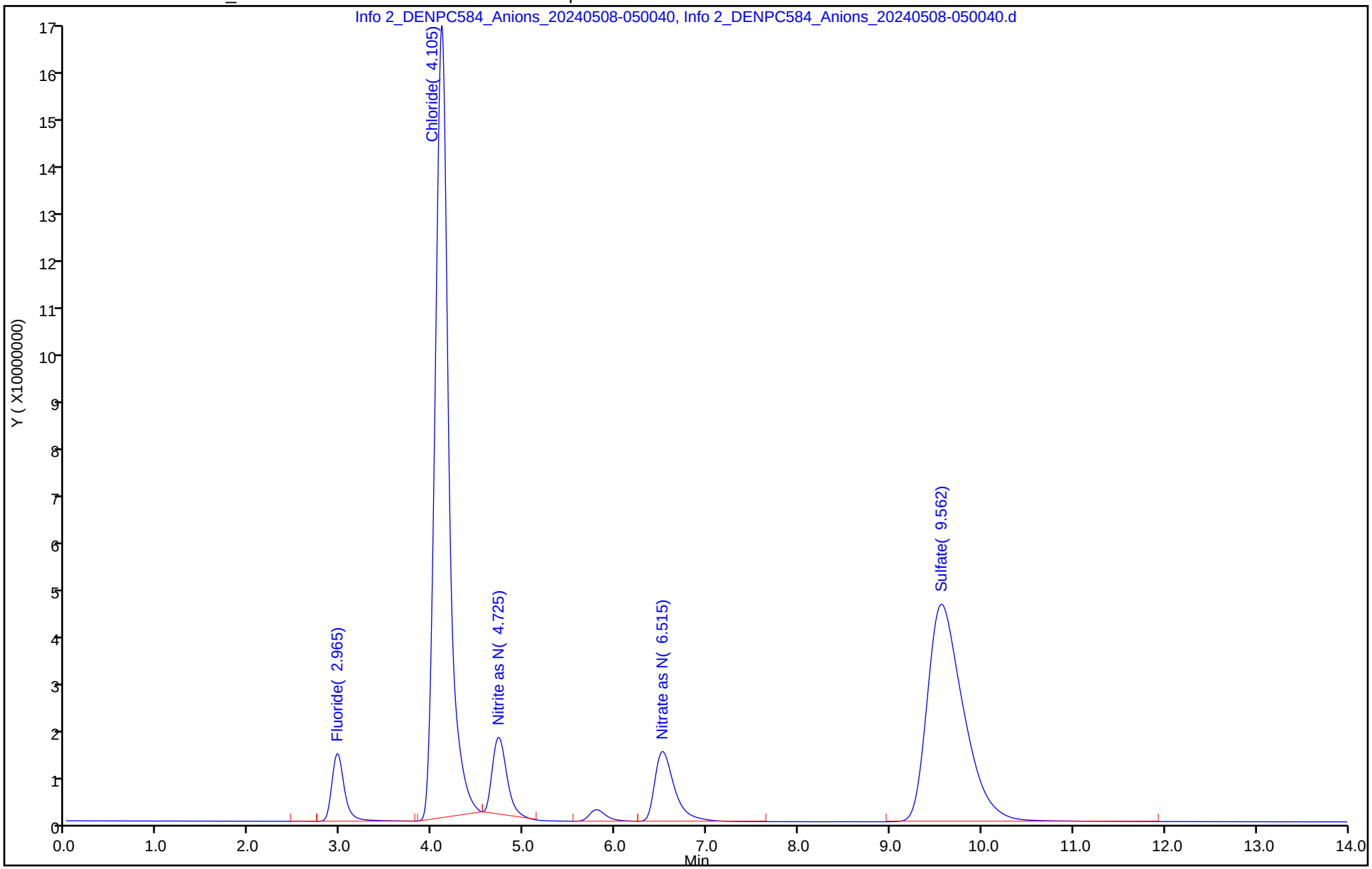
Reagents:

IC LCS_02035 Amount Added: 10.00 Units: mL

Report Date: 08-May-2024 10:38:50 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240508-050040.d				
Injection Date:	08-May-2024 04:43:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	35
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/23/2024
4:40:30 AM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240508-051				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	08-May-2024 05:00:00	ALS Bottle#:	0	Worklist Smp#:	36
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCB				
Misc. Info.:	CCB				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	08-May-2024 10:38:50	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1680				

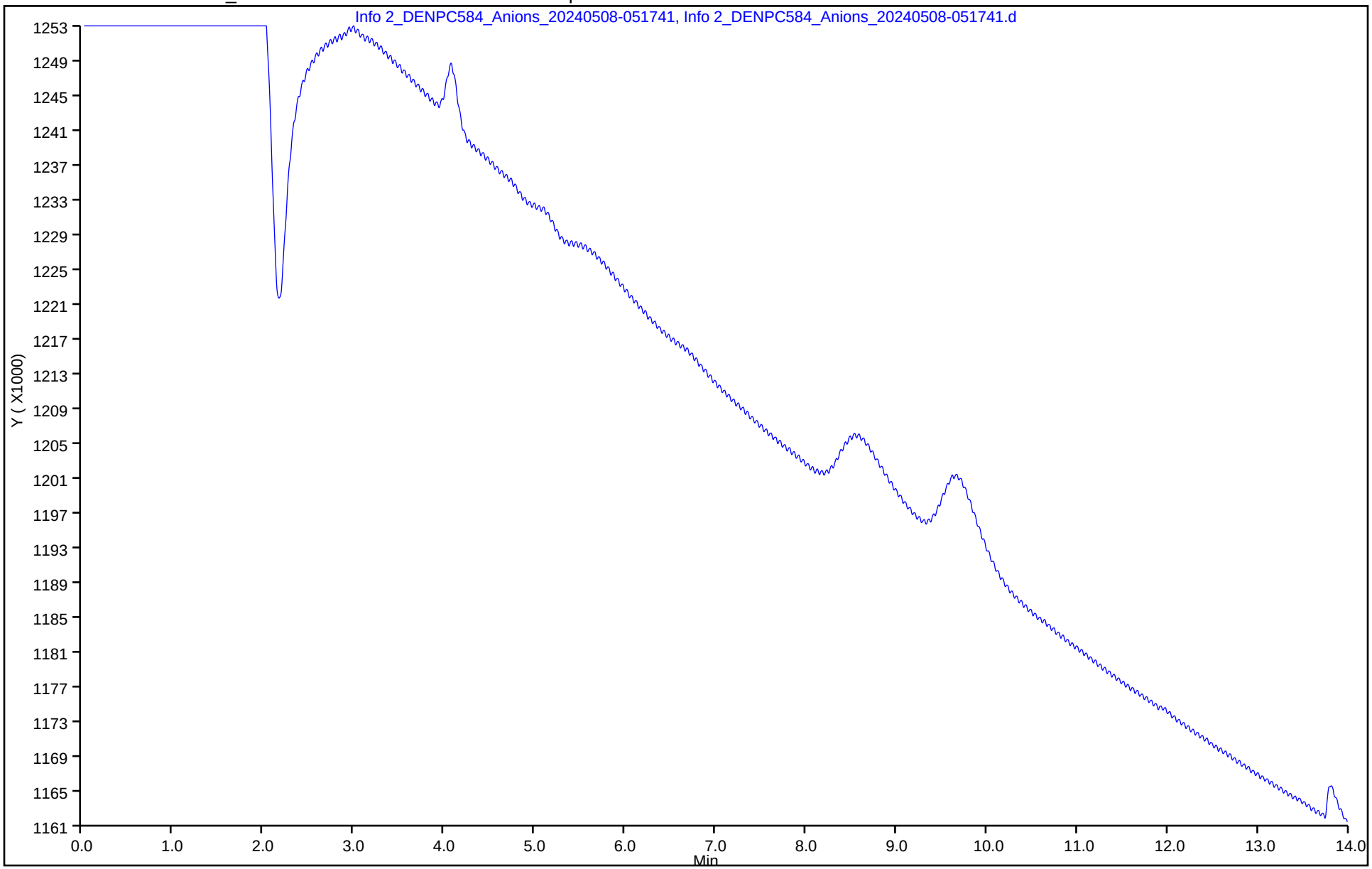
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.952				ND	
2 Chloride		4.088				ND	
3 Nitrite as N		4.707				ND	
4 Bromide		5.780				ND	
5 Nitrate as N		6.497				ND	
7 Orthophosphate as P		8.227				ND	
6 Sulfate		9.485				ND	

Report Date: 08-May-2024 10:38:51 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240507-133089.b\Info 2_DENPC584_Anions_20240508-051741.d

Injection Date:	08-May-2024 05:00:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	36
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/23/2024
4:40:30 AM

Shipping and Receiving Documents

Chain of Custody Record

leidos

COC No.: RVAAP-440-TA

Date: 5/6/24

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Spring 2024
Job/P.O. No.: P010216426
Sampler (Signature) (Printed Name)

KATIE LEE

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	VOCs (1)(B)	Phthalates/Nitroaromatics/ Phenols (2)(A)	LL PAHs (3)(A)	PCBs (4)(A)	Pesticides (5)(A)	Explosives (6)(A)	Cyanide (8)(D)	TAL Metals (7)(C)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	DET-003-240401-GW			5/6/24	1016	W	3	2	2	2		2	1	1		13	
	DET-003-240401-GWMSD			5/6/24	1016	W	4	4	4	4	6		2	2		26	Extra Volume for MS/MSD see note
	DET-003-240402-GW			5/6/24	1016	W	3	2	2	2			1	1		11	
	FWGTB-240401-TB001			5/6/24	1015	W	2									2	
											8						NOTE: If Vol an issue min 8 1-L for SVOC/pest/PCB
											5/6/24						

280-191098 Chain of Custody

Relinquished by	Date	Received by	Date	Notes: Total Number of Containers: 53	Shipment Method: Courier
Signature	5/6/24	Signature	5/7/24	A. Cool, 4C B. HCl, pH<2, Cool, 4C C. HNO3, pH<2, Cool, 4C D. NaOH, pH>12, Cool 4C	8108 8165 1532 8108 8165 1543 8108 8165 1554
Charles Spurr	Time 1800	Jarod Siegle	Time 9:15	1. SW 8260B Notes: 2. SW 8270D 3. SW 8270D SIM 4. SW 8082A 5. SW 8081B 6. SW 8330 7. SW 6010/6020/7470 8. SW 9012B 9. SW 9034 10. SW 9056/9056A 11. SW 6860 12. EPA 353.2 13. SW 7196 14. SM2320B	
Printed Name		Printed Name			
Leidos		EET DEN			
Company		Company			
Relinquished by	Date	Received by	Date		Temperature Blank
Signature		Signature			Lab:
	Time		Time		Leidos
Printed Name		Printed Name			8866 Commons Drive
					Twinsburg, OH 44087
Company		Company			(330) 405-5802

Leidos

White: Laboratory Pink: Project Manager Yellow: Project QAO Goldenrod: Field Project Manager

-0.2, -0.1, 1.1 JR Naga Of 0.2

5/23/2024 4:40:30 AM

leidos

Chain of Custody Record

Page 2 of 6

COC No.: RVAAP-448TA

Date: 5/6/24

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Spring 2024
Job/P.O. No.: P010216426
Sampler (Signature) Melissa Rego (Printed Name) Melissa Rego

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Requested Parameters

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Explosives (6)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	LL1mw-081-240401-GW			5/6/24	1021	W	2		2	

MR 5/6/24

Relinquished by	Date	Received by	Date	Notes: Total Number of Containers: 2
Signature:	5/6/24	Signature:	5/7/24	A. Cool, 4C
Charles Spurr	Time: 1800	Printed Name: Jarod Sugla	Time: 9:15	B. HCl, pH<2, Cool, 4C
Printed Name: Leidos		Company: GSH AEM		C. HNO3, pH<2, Cool, 4C
Company:				D. NaOH, pH>12, Cool 4C
Relinquished by	Date	Received by	Date	1. SW 8260B Notes:
Signature:		Signature:		2. SW 8270D
	Time		Time	3. SW 8270D SIM
Printed Name:		Printed Name:		4. SW 8082A
Company:		Company:		5. SW 8081B
				6. SW 8330
				7. SW 6010/6020/7470
				8. SW 9012B
				9. SW 9034
				10. SW 9056/9056A
				11. SW 6860
				12. EPA 353.2
				13. SW 7196
				14. SM2320B

Shipment Method: ~~Courier~~

Temperature Blank

Lab:
Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

Leidos

White Laboratory Pink Project Manager Yellow Project QAO Goldenrod Field Project Manager

5/23/2024 4:40:30 AM

Chain of Custody Record

leidos

Page 3 of 6

COC No.: RVAAP-440-TA

Date: 5/6/24

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Spring 2024
Job/P.O. No.: P010216426
Sampler (Signature) [signature] (Printed Name) Trey Anderson

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	VOCs (1)(B)	Phthalates/Nitroaromatics/ Phenols (2)(A)	LL PAHs (3)(A)	PCBs (4)(A)	Pesticides (5)(A)	Explosives (6)(A)	Cyanide (8)(D)							TAL Metals (7)(C)		Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
							Requested Parameters																	
	DET-004-240401-GW	—	—	5/6/24	1035	W	3	2	2	2		2	1							1			13	
	~~FWGTB-240401-TB002~~					W	3																~~3~~	~~trip blank~~ reference FWGTB-240401-TB001

CS 5/6/24

CS 5/6/24

Relinquished by	Date	Received by	Date	Notes: Total Number of Containers: 16	Shipment Method: ~~Courier~~
Signature: [signature]	5/6/24	Signature: [signature]	5/7/24	A. Cool, 4C B. HCl, pH<2, Cool, 4C C. HNO3, pH<2, Cool, 4C D. NaOH, pH>12, Cool 4C	
Printed Name: Charles Spurr	Time: 1800	Printed Name: Jarod Swigle	Time: 945	1. SW 8260B Notes: 2. SW 8270D 3. SW 8270D SIM 4. SW 8082A 5. SW 8081B	
Company: Leidos		Company: GST CEN		6. SW 8330 7. SW 6010/6020/7470 8. SW 9012B 9. SW 9034 10. SW 9056/9056A 11. SW 6860 12. EPA 353.2 13. SW 7196 14. SM2320B	**Temperature Blank** Lab: **Leidos** 8866 Commons Drive Twinsburg, OH 44087 (330) 405-5802
Relinquished by	Date	Received by	Date		
Signature		Signature			
Printed Name	Time	Printed Name	Time		
Company		Company			

White: Laboratory Pink: Project Manager Yellow: Project QAO Goldenrod: Field Project Manager

5/23/2024 4:40:30 AM

leidos

Chain of Custody Record

COC No.: RVAAP-442-TA

Date: 5/6/24

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Spring 2024
Job/P.O. No.: P010216426
Sampler (Signature) Melissa Rogg (Printed Name) Melissa Rogg

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Nitrate (10)(A)	AMMONIA 15 (E)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	LL12mw-246-240401-GW			5/6/24	1433	W	1	1		2	

MR 5/6/24

Relinquished by	Date	Received by	Date	Notes: Total Number of Containers: 2	Shipment Method: ~~Courier~~
Signature: Charles Spurr	5/6/24	Signature: Jared Swigle	5/7/24	A. Cool, 4C E. H2SO4 B. HCl, pH<2, Cool, 4C C. HNO3, pH<2, Cool, 4C D. NaOH, pH>12, Cool 4C	
Printed Name: Charles Spurr	Time: 1800	Printed Name: Jared Swigle	Time: 9:15	1. SW 8260B 2. SW 8270D 3. SW 8270D SIM 4. SW 8082A 5. SW 8081B	
Company: Leidos		Company: ~~GET~~ MEN			
Relinquished by	Date	Received by	Date	6. SW 8330 7. SW 6010/6020/7470 8. SW 9012B 9. SW 9034 10. SW 9056/9056A	**Temperature Blank**
Signature		Signature			Lab:
Printed Name	Time	Printed Name	Time	11. SW 6860 12. EPA 353.2 13. SW 7196 14. SM2320B 15. E350.1	**Leidos** 8866 Commons Drive Twinsburg, OH 44087 (330) 405-5802
Company		Company			

Leidos

White Laboratory Pink Project Manager Yellow Project QAO Goldenrod Field Project Manager

5/23/2024 4:40:30 AM

leidos

Chain of Custody Record

COC No.: RVAAP-442TA

Date: 5/6/24

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Spring 2024
Job/P.O. No.: P010216426
Sampler (Signature) (Printed Name)

KATIE LEE

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Explosives (6)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	LL3mw-247-240401-GW	—	—	5/6/24	1527	W	2		2	

Requested Parameters

5/6/24

Relinquished by	Date	Received by	Date	Notes: Total Number of Containers: 2	Shipment Method: ~~Courier~~
Signature	5/6/24	Signature	5/7/24	A. Cool, 4C B. HCl, pH<2, Cool, 4C C. HNO3, pH<2, Cool, 4C D. NaOH, pH>12, Cool 4C	
Charles Spurr	Time 1800	Sarad Singh	Time 945	1. SW 8260B Notes: 2. SW 8270D 3. SW 8270D SIM 4. SW 8082A 5. SW 8081B	
Printed Name		Printed Name		6. SW 8330 7. SW 6010/6020/7470 8. SW 9012B 9. SW 9034 10. SW 9056/9056A 11. SW 6860 12. EPA 353.2 13. SW 7196 14. SM2320B	
Leidos		EET DEN			
Company		Company			
Relinquished by	Date	Received by	Date		
Signature		Signature			
Printed Name	Time	Printed Name	Time		
Company		Company			

Temperature Blank

Lab:
Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

Leidos

White Laboratory Pink Project Manager Yellow Project QAO Goldenrod Field Project Manager

5/23/2024 4:40:30 AM

Chain of Custody Record

leidos

Page 6 of 6

COC No.: RVAAP-440TA

Date: 5/6/24

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Spring 2024
Job/P.O. No.: P010216426
Sampler (Signature) [signature] (Printed Name) Trey Anderson

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Requested Parameters: Explosives (6)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	LL3mw-248-240401-GW	—	-	5/6/24	1607	W	2		2	

TS 5/6/24

Relinquished by	Date	Received by	Date
Signature [signature]	5/6/24	Signature [signature]	5/7/24
Printed Name Charles	Time 1800	Printed Name Jacob Swope	Time 9:15
Company Leidos		Company GET GEN	
Relinquished by	Date	Received by	Date
Signature		Signature	
Printed Name	Time	Printed Name	Time
Company		Company	

Notes:
A. Cool, 4C
B. HCl, pH<2, Cool, 4C
C. HNO3, pH<2, Cool, 4C
D. NaOH, pH>12, Cool 4C

Total Number of Containers: 2

1. SW 8260B
2. SW 8270D
3. SW 8270D SIM
4. SW 8082A
5. SW 8081B
6. SW 8330
7. SW 6010/6020/7470
8. SW 9012B
9. SW 9034
10. SW 9056/9056A
11. SW 6860
12. EPA 353.2
13. SW 7196
14. SM2320B

Notes:

Shipment Method: ~~Courier~~

Temperature Blank

Lab:
Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

Leidos

White Laboratory Pink Project Manager Yellow Project QAO Goldenrod Field Project Manager

5/23/2024 4:40:30 AM

Login Sample Receipt Checklist

Client: Leidos, Inc.

Job Number: 280-191098-1

Login Number: 191098
List Number: 1
Creator: Little, Matthew L

List Source: Eurofins Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	False	Headspace larger than 1/4".
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	